



3850 N. Causeway Boulevard  
Suite 1625  
Metairie, LA 70002  
T: 504.962.9212

August 24, 2023

Jefferson Parish  
Via email [www.jeffparishbids.net](http://www.jeffparishbids.net)

**Re: Routine Engineering Services for Street Projects, Jefferson Parish Resolution No. 142010**

To achieve the engineering goals of Jefferson Parish and meet your pending schedules, Hardesty & Hanover (H&H) has assembled a large qualified, experienced, and available team of engineers and support personnel, knowledgeable of Louisiana rules and regulations governing rehabilitation and reconstruction projects. We are proud of our long history working in Louisiana, dating back to 1896 with the historic Waddell A-Truss Bridge over Cross Bayou in Shreveport, and of our continued presence on a variety of challenging projects. As a leader in bridge engineering, our firm brings a legacy of providing engineering excellence for over 135 years. **Ranked as one of ENR's top 7 bridge firms in the country**, the H&H team is fully prepared and qualified to provide any engineering related services on this on-call contract and offers Jefferson Parish:

- ✓ **Seasoned and Proven Management Team:** The H&H project team will be led by **Babak Naghavi, PE, PhD, PH**, a Project Manager with a strong presence in Louisiana in the field of transportation, ***including a 25-year career with LADOTD and over 17 years of working experience in Jefferson Parish.*** Over the course of his career, he has managed and/or participated in the design of numerous road and bridge projects in Jefferson Parish and has implemented many innovative solutions to the scientific challenges in these areas, including the development of Hydraulic Design Manual and hydraulics computer programs for LADOTD that are being used today. He is a hands-on manager who focuses on communication within his project teams and with the client, project controls, issue resolution, and quality of deliverables.
- ✓ **Pro-active, Hands-On Project Approach:** H&H identifies data collection and field verification as a critical early-action task in establishing design constraints and developing solutions to resolve issues before design development and construction in order to provide the client with accurate pricing of the project and expedite construction without delays. Upon receiving the notice to proceed, we will meet with the Jefferson Parish design staff and begin the process of identifying the specific stakeholders as well as the community's vision for the areas within the project limits. We will utilize our team's extensive experience in working in and around the State of Louisiana to identify key decisions that will need to be made early in the process in order to assist in the development of that vision.



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- ✓ **Rapid Response to all As-Needed Requests:** H&H has performed design services through on-call contracts for many clients across the U.S. Through these contracts, we have developed a proven management approach to plan and execute a variety of tasks, including initial assessments to the final design as well as construction administration services. Our staff is dedicated to meeting Jefferson Parish's need for standard as-needed assignments or emergency response situations. Therefore, our experience and depth of resources will allow us to take on any type of task regardless of workload.
- ✓ **Relevant Project Experience:** With offices in key locations, including Louisiana and across the country, H&H is a premier engineering firm ideally placed to meet the needs of all clients. Over the last 135 years, H&H has provided multi-discipline engineering services on projects of similar size and scope to this on-call contract on recent projects. Additionally, we have worked on several road and bridge projects for LADOTD and other clients in Louisiana. Because of our wide diversity of project experience and innovative ideas, we are routinely the firm called upon for projects presenting special engineering challenges that require all the skills and expertise of a superior consulting team.
- ✓ **Louisiana Presence:** H&H's office is located in the heart of Jefferson Parish in Metairie. H&H has been providing services to various Louisiana clients, such as Jefferson Parish, City of New Orleans, LADOTD, and BNSF Railway Company for many years. ***With our staff of Louisiana Licensed Professional Engineers and support staff,*** H&H is well-equipped to provide Jefferson Parish with any design, cost analysis, and construction support service associated with this roadway and bridge improvement project while delivering it on time and on budget.

Thank you for this opportunity to serve as your on-call consultant for this contract. Should you have any questions or require additional information, please do not hesitate to contact me at 504.962.9212.

Sincerely,  
**Hardesty & Hanover**

A handwritten signature in black ink, appearing to read 'Paul Skelton', written over a white rectangular background.

Paul Skelton, PE  
Principal

A handwritten signature in black ink, appearing to read 'Babak Naghavi', written over a white rectangular background.

Babak Naghavi, PE, PhD, PH  
Project Manager

RESOLUTION 142010

# Routine Engineering Services for Streets Projects

*Jefferson Parish*

AUGUST 2023

## STATEMENT OF QUALIFICATIONS



3850 N. Causeway Blvd. Suite 1625  
Metairie, LA 70002



## TEC Professional Services Questionnaire

**A. Project Name and Advertisement Resolution Number:**

**Resolution No. 142010**    Routine Engineering Services for Streets Projects  
Jefferson Parish

**B. Firm Name & Address:**

**Hardesty & Hanover, LLC**

3850 N. Causeway Blvd., Suite 1625  
Metairie, LA 70002



**C. Name, title and contact information of Principal, as defined in Section 2-926 of the Jefferson Parish Code of Ordinances, who is a registered, licensed architect, professional engineer, or surveyor in the State of Louisiana:**

**Paul Skelton, PE, Principal**

[pskelton@hardestyhanover.com](mailto:pskelton@hardestyhanover.com)

**direct:** 504.962.9212

**cell:** 917.324.4277

**D. Name and contact information of employee who is a registered and licensed architect, professional engineer, or surveyor in the State of Louisiana in the applicable discipline. A subcontractor may be substituted here only if the advertised Project requires more than one discipline.**

**Babak Naghavi, Ph.D., PE, Regional Manager**

[bnaghavi@hardestyhanover.com](mailto:bnaghavi@hardestyhanover.com)

**direct:** 504.962.9212

**cell:** 504.605.7940

**E. Please provide the number of employees whose primary function corresponds with each category:**

<u>35</u>	Administrative	<u>2</u>	Estimators	<u>10</u>	CADD Technician
<u>4</u>	Architects (Licensed)	<u>      </u>	Geologists	<u>      </u>	Specifications Writers
<u>30</u>	Bridge Inspectors	<u>15</u>	Geotechnical Engineers	<u>140</u>	Structural Engineers
<u>      </u>	Chemical Engineers	<u>      </u>	Interior Designers	<u>      </u>	Graduate Engineers
<u>70</u>	Civil Engineers	<u>      </u>	Landscape Architects	<u>      </u>	Project Managers
<u>65</u>	Construction Inspectors	<u>      </u>	Land Surveyor	<u>25</u>	Clerical
<u>      </u>	Ecologists	<u>25</u>	Mechanical Engineers	<u>      </u>	Grant/Funding Specialist
<u>25</u>	Electrical Engineers	<u>3</u>	Environmental Engineers	<u>      </u>	Sanitary Engineers
<u>50</u>	Engineer Intern	<u>10</u>	Hydraulic Engineers	<u>30</u>	Transportation Engineers
<u>      </u>	Professional Land Surveyors	<u>      </u>		<u>1</u>	Other
				<b>540</b>	<b>TOTAL</b>

**F. Is this submittal by a JOINT-VENTURE? Please check: YES ☐ NO ☒**

**If marked "No" skip to Section I. If marked "yes" complete Section G-H.**



## TEC Professional Services Questionnaire

G. If submittal is by JOINT-VENTURE, list the firms participating and outline specific areas of responsibility (including administrative, technical, and financial) for each firm. Please attach additional pages if necessary.

1.

2.

H. Has this JOINT-VENTURE previously worked together? Please check:

YES ☐ NO ☐

I. List all subcontractors anticipated for this Project. Please note that all subcontractors must submit a fully completed copy of this questionnaire, applicable licenses, and any other information required by the advertisement. See Jefferson Parish Code of Ordinances, Sec. 2-928(a)(3). Please attach additional pages if necessary.

Name & Address:	Specialty:	Worked with Firm Before (Yes or No):
1. N/A		
2.		
3.		

J. Please specify the total number of support personnel that may assist in the completion of this Project:

25 The total number of H&H employees anticipated to be involved in this project is 25 which are identified in Section K. This includes key personnel and support personnel required for various engineering tasks. However, any of our 455 personnel will be available to assist with the project when needed.

## TEC Professional Services Questionnaire

**K. List the professional in charge, key persons, specialists, and individual consultants anticipated for this Project and provide their relevant information below. If necessary, please attach additional documentation (i.e. resume) that demonstrates the employment history and experience of the Firm's key persons that may assist in the completion of this Project. Please attach additional pages if necessary.**

### **PROFESSIONAL IN CHARGE OF PROJECT:**

**Name & Title:**

**Paul Skelton, PE**  
Principal

**Project Assignment:**

Principal-in-Charge of Project

**Name of Firm with which associated:**

Hardesty & Hanover, LLC

**Years' experience with this Firm:**

38 (Since 1985); **38 Years Total**

**Education: Degree(s)/Year/Specialization:**

B.E. / 1985 / Mechanical Engineering

**Active registration: Year first registered/discipline:**

1997 / Civil Engineer– **Professional Engineer Louisiana No. 27039**

**Other experience and qualifications relevant to the proposed Project:****Summary Biography**

Paul Skelton, PE is a Professional Engineer registered in the State of Louisiana, with 38 years of experience in charge of managing bridge construction projects. His entire engineering career has been with H&H and includes inspection, design and rehabilitation of major highway and rail bridges across the United States. He has been responsible for the inspection, design, and management for hundreds of major steel and concrete bridge structures. Paul's expertise also includes movable spans (vertical lift, swing, and bascule spans), which includes his recent experience overseeing the pre-design inspection/rehabilitation of the Lapalco Boulevard Bridge over Harvey Canal for the Jefferson Parish. As Principal, his expertise and experience are a reliable source for clients as well as the engineering staff at H&H.

## TEC Professional Services Questionnaire

*Paul Skelton, PE (Continued)*

### **Relevant Experience**

#### **LAPALCO BOULEVARD MOVABLE 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 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.

#### **ALMONASTER AVE RR BRIDGE OVER THE INDUSTRIAL CANAL REHABILITATION, NEW ORLEANS, LA – PORT NOLA**

**Principal-in-Charge** for the bridge assessment, complete rehabilitative engineering design, and construction inspection services required for the partial replacement of the Almonaster Avenue Bridge, a movable Strauss-heel trunnion bridge. 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 counterweight were required to return this bridge to its full operating capability. H&H developed necessary design plans to replace the span drive and span lock machinery, operating strut, guide assembly, live load bearings, counterweight trunnion pin, and bushing. The main trunnion bearings were rehabilitated and repositioned.

#### **IDIQ MOVABLE BRIDGE CONTRACT, STATEWIDE, MS – MISSISSIPPI DOT**

**Principal-in-Charge** responsible for the routine/fracture critical inspection of I-110 Bridge over Biloxi Back Bay, and the full rehabilitation of SR 609 and SR 605 bascule bridges as a task-order to the IDIQ Master Bridge Contract which included developing standard and special bridge services, statewide for MDOT. Scope of work included 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 were in accordance with AASHTO, FHWA and MDOT guidelines and specifications.

#### **BAYOU TECHE 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.

#### **JUDGE SEEGER (CLAIBORNE AVE) BRIDGE OVER INDUSTRIAL CANAL REHAB, NEW ORLEANS, LA – LADOTD**

**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.

#### **DES ALLEMANDS SWING BRIDGE REHABILITATION | ALLEMANDS, LA - BNSF RAILWAY COMPANY**

**Principal-in-Charge** for the rehabilitation of the Des Allemands swing railroad bridge. The project included the replacement of spans all associated mechanical and electrical components as well as evaluation and rating of swing span substructure. The swing bridge is a deck plate girder bridge over Bayou Des Allemands in BNSF Lafayette Subdivision.



## TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
<b>Name &amp; Title:</b>
<b>Babak Naghavi, PE, Ph.D., PH</b> Regional Manager
<b>Project Assignment:</b>
Project Manager
<b>Name of Firm with which associated:</b>
Hardesty & Hanover, LLC
<b>Years' experience with this Firm:</b>
6 (Since 2017); <b>42 Years Total</b>
<b>Education: Degree(s)/Year/Specialization:</b>
Ph.D. / 1993 / Civil Engineering M.S. / 1982 / Civil Engineering B.S. / 1979 / Civil Engineering
<b>Active registration: Year first registered/discipline:</b>
1983 / Civil Engineer – <b>Professional Engineer Louisiana No. 20745</b> 1993 / Environmental Engineer – <b>Professional Engineer Louisiana No. 20745</b>
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p><b>Summary Biography</b></p> <p>Dr. Naghavi over 42 years of experience with the evaluation, planning, and design of roadways, bridges, surface drainage, subsurface drainage, flood control, pump stations, and other environmental and transportation projects of complex nature for government and private sectors, including 25 years with LADOTD. Over the course of his career, he has managed numerous projects and has implemented many innovative solutions to the scientific challenges in these areas including development of Hydraulic Design Manual and all the hydraulics and hydrologic computer programs that are currently being used by LADOTD, other government agencies, and the consultant community for design of various drainage projects.</p> <p>Over the past seventeen years, Dr. Naghavi has managed numerous design, inspection and construction management projects for Jefferson Parish, US Army Corps of Engineers Mobile, and New Orleans Districts including several multi-million-dollar IDIQs that included project management for storm-proofing for Jefferson Parish Pump Stations. Dr. Naghavi has instructed Hydraulic Design of Drainage Systems at Louisiana State University, Baton Rouge. He has also published over 30 papers in the areas of transportation and water resources in various national and international technical journals and is a registered Professional Hydrologist.</p>

## TEC Professional Services Questionnaire

*Babak Naghavi, PE, PhD, PH (Continued)*

### **Relevant Experience**

#### **LAPALCO BOULEVARD MOVABLE BRIDGE OVER HARVEY CANAL, WESTWEGO, LA – JEFFERSON PARISH DPW**

**Project Manager** 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.

#### **ALMONASTER AVE RR BRIDGE OVER THE INDUSTRIAL CANAL REHAB, NEW ORLEANS, LA – PORT NOLA**

**Project Manager** for the bridge assessment, complete rehabilitative engineering design, and construction inspection services required for the partial replacement of a movable Strauss-heel trunnion bridge. H&H's assessment of the bridge revealed that improvements to the electrical and mechanical systems, superstructure, and counterweight were required to return this bridge to its full operating capability. H&H developed necessary design plans to replace the span drive and span lock machinery, operating strut, guide assembly, live load bearings, counterweight trunnion pin, and bushing.

#### **CAUSEWAY BLVD OVERPASS COMPLEX, USACE-NOD, JEFFERSON PARISH, LA - USACE, NEW ORLEANS DISTRICT**

**Project Manager** for this project that involved design of north and south roadway approaches for the overpass structures at Causeway Boulevard. The scope of work included precast concrete piles; cast-in-place pile bent caps and concrete decks; approach slabs; and a stormwater drainage pumping station.

#### **IDIQ CONTRACT FOR ADA DESIGN PROJECTS STATEWIDE, LA 1091 US190 COUNTRY CLUB BLVD. SIDEWALKS, SLIDELL, LA -LADOTD**

**Project Manager** responsible for developing plans and specifications for improvement to the 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.

#### **LA 24 AND LA 16 COMPANY CANAL VERTICAL LIFT BRIDGE, BOURG, LA – LADOTD**

**Project Manager** 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.

#### **I-10 & I-12 COLLEGE DRIVE FLYOVER RAMP DESIGN- BUILD, BATON ROUGE, LA - LADOTD**

**Quality Manager** 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-Builders 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.

#### **JEFFERSON PARISH STREETS CANAL SAFETY STUDY, JEFFERSON PARISH, LA - JEFFERSON PARISH DPW**

**Project Manager** for analysis of safety concerns of canals at Veterans Memorial Blvd. and West Napoleon Ave. 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 development of a cost estimate for the proposed solutions.

## TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
<b>Name &amp; Title:</b>
<b>Fred Wetekamm, PE</b> Senior Structural Engineer
<b>Project Assignment:</b>
QA/QC Manager
<b>Name of Firm with which associated:</b>
Hardesty & Hanover, LLC
<b>Years' experience with this Firm:</b>
5 (Since 2018); <b>35 Years Total</b>
<b>Education: Degree(s)/Year/Specialization:</b>
M.E. / 2018 / Construction Engineering Management B.S. / 1984 / Civil Engineering
<b>Active registration: Year first registered/discipline:</b>
1993 / Civil Engineer – <b>Professional Engineer Louisiana No. 25369</b>
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p><b>Summary Biography</b></p> <p>Frederick Wetekamm is a Senior Bridge Engineer and a Louisiana licensed professional engineer with over 30 years of engineering experience, which includes 25 years working at LADOTD where he oversaw inspection, design, and construction engineering and inspection projects and provided engineering and maintenance management for the Louisiana bridge and roadway improvement projects. Working at H&amp;H's Metairie office, Fred provides and oversees engineering services for various types of inspections, analysis, and infrastructure design projects for new, rehabilitation, or repair of fixed and movable bridges and roadways.</p> <p><b>Relevant Experience</b></p> <p><b>LAPALCO BOULEVARD MOVABLE BRIDGE OVER HARVEY CANAL, WESTWEGO, LA – JEFFERSON PARISH DPW</b></p> <p><b>Senior Bridge Engineer</b> 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.</p>



## TEC Professional Services Questionnaire

*Frederick Wetekamm, PE (Continued)*

### **LAKE PONTCHARTRAIN CAUSEWAY SAFETY BAY IMPROVEMENTS (CE&I) – GNOEC**

**Project Engineer** providing construction engineering and inspection services required for the fast-paced \$60M Safety Bay Improvement Project being designed to LADOTD standards and specifications. The project used the CMAR method. Improvements added emergency stopping areas on both causeway bridges and provided six new shoulders in each direction. Responsibilities included attendance at progress meetings, final inspections, and construction close-out, etc.

### **ANNUAL INSPECTION OF ALMONASTER RR BRIDGE OVER INDUSTRIAL CANAL, NEW ORLEANS, LA – PORT NOLA**

**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.

### **SR 609 MOVABLE BASCULE BRIDGE REHABILITATION, OCEAN SPRINGS, MS – MISSISSIPPI DOT**

**Senior Bridge Structural Engineer / Structural Inspector** responsible for full rehabilitation of SR 609 bascule bridge, a task-order to the IDIQ Master Bridge Contract which included developing standard and special bridge services, statewide for MDOT. Scope included 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 were in accordance with AASHTO, FHWA and MDOT guidelines and specs.

### **ALMONASTER AVENUE RR BRIDGE OVER THE INDUSTRIAL CANAL REHAB, NEW ORLEANS, LA – PORT NOLA**

**Senior Bridge Engineer** for the bridge assessment, complete rehabilitative engineering design, and construction inspection services required for the partial replacement of a movable Strauss-heel trunnion bridge. H&H's 2019 assessment of the bridge revealed that improvements to the electrical and mechanical systems, superstructure, and counterweight were required to return this bridge to its full operating capability. Although the existing substructure could remain, modifications were deemed necessary to accommodate the rehabilitated superstructure. H&H developed necessary design plans to replace the span drive and span lock machinery, operating strut, guide assembly, live load bearings, counterweight trunnion pin, and bushing. The main trunnion bearings were rehabilitated and repositioned.

### **LA 24 AND LA 16 COMPANY CANAL VERTICAL LIFT BRIDGE, BOURG, LA – LADOTD**

**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.

### **LADOTD BRIDGE MAINTENANCE ENGINEER, LADOTD DISTRICT 2, LA – LADOTD**

**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.

### **I-10 & I-12 COLLEGE DRIVE FLYOVER RAMP DESIGN- BUILD, BATON ROUGE, LA - LADOTD**

**Construction Quality Control Manager** 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.

## TEC Professional Services Questionnaire

### .KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

**Name & Title:**

**Matthew Witkowski, PE, PTOE**  
Senior Civil/Highway Engineer

**Project Assignment:**

Sr. Roadway / Traffic Engineer

**Name of Firm with which associated:**

Hardesty & Hanover, LLC

**Years' experience with this Firm:**

6 (Since 2017); **19 Years Total**

**Education: Degree(s)/Year/Specialization:**

BS / 1999 / Civil Engineering  
MBA / 2001 / Business Administration

**Active registration: Year first registered/discipline:**

2017 / Civil Engineer – **Professional Engineer Louisiana No. 41787**  
2008 / Professional Traffic Operations Engineer – Transportation Professional Certification Board

**Other experience and qualifications relevant to the proposed Project:****Summary Biography**

Matthew Witkowski, PE has nearly 20 years of roadway and traffic engineering experience and has focused on the layout, design and operation of traffic signal and ITS equipment, as well as designing adaptive signal systems. He has performed and administered traffic data collection endeavors, conducted crash and capacity analyses and signal design layouts. Mr. Witkowski also has experience in developing and reviewing traffic impact studies, site plans and lighting plans for residential, commercial, and industrial facilities. He has knowledge of intersection and roadway lighting design for a vast array of transportation projects. Mr. Witkowski has designed road user cost models and created township roadway master plans.

**Relevant Experience****ROADWAY IMPROVEMENTS TO COUNTY ROUTE 537 CORRIDOR, FREEHOLD, NJ - MONMOUTH COUNTY**

**Roadway/Traffic Engineer** for the preliminary engineering phase for the improvements of County Route 537 corridor between Sentinel Road and US Route 9. The project included widening of the corridor and traffic signal upgrades in order to improve overall operation and safety.

## TEC Professional Services Questionnaire

*Matthew Witkowski, PE, PTOE (continued)*

### **BRIDGE 532 ON CR520 (RUMSON RD) RECONSTRUCTION, RUMSON & SEA BRIGHT, NJ - COUNTY OF MONMOUTH**

**Roadway/Traffic Engineer** for the preliminary engineering phase for the reconstruction of the S-32 Bridge over the Shrewsbury River. Project objective was to construct a parallel structure and redesign the traffic signal with Route 36. Responsible for the analysis for future condition alternatives for the intersection of Route 36 and C.R. 520 using Synchro and SimTraffic software. Performed layout of preliminary striping design including pedestrian and bicycle facilities. Designs and analyses were performed using the standards of Roadway Design Manual and MUTCD 2009.

### **ROUTE 30/130 COLLINGSWOOD CIRCLE, PHASE B, COLLINGSWOOD, NJ - NEW JERSEY DOT**

**Roadway/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.

### **MEMORIAL DRIVE EXTENSION, TRENTON, MERCER COUNTY, NJ - NEW JERSEY DOT**

**Roadway/Traffic Engineer** responsible for traffic signal and lighting design for the Final Design phase for the Memorial Drive Extension. An Initial Preferred Alignment (IPA) was developed to replace the Route 29 freeway section with an urban boulevard supporting a network of downtown streets, which provided open space along the Delaware River to increase pedestrian and bicycle access to the river. A southern extension of Barrack Street to Memorial Drive helped improve traffic flow through the area by improving access to Route 29 from Barrack Street. Project included the extension of Barrack Street from the West Lafayette Street intersection to Memorial Drive. Traffic signals at the two intersections were modified to accommodate the additional proposed extension and the revised crosswalk configuration.

### **I-295/I-76/ROUTE 42 DIRECT CONNECTION, CAMDEN COUNTY, NJ - NEW JERSEY DOT**

**Roadway/Traffic Engineer** for the 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 traffic signal plans for the installation of an adaptive traffic signal system along State Routes 168 and 130. Worked closely with NJDOT Bureau of Traffic Engineering and Resident Engineer to maintain design and construction schedules.

### **MORAVIA ROAD INVESTIGATION FOR TASK ORDER REPAIRS, BALTIMORE CITY, MD - MARYLAND DOT**

**Roadway/Traffic Engineer** responsible for traffic signal and lighting capabilities for an investigation/evaluation of the stretch of Moravia Road, including freeway ramps between I-95 and I-895. Responsible for evaluating an existing traffic signal based on MUTCD design standards and existing lighting provided on the highway and on and off ramps. Existing lighting levels were analyzed, and a deficiencies report was prepared.

### **ROUTE 179 BRIDGE OVER BACK BROOK - EAST AMWELL TOWNSHIP, HUNTERDON COUNTY, NJ - NEW JERSEY DOT**

**Traffic Engineer** for the Concept Development phase to replace a structurally deficient single span concrete slab bridge constructed in 1929. Due to the poor conditions of the superstructure and substructure, the Department has approved the project to be advanced for replacement. As part of the CD phase, the effort of work will include data collection and analysis, development of the project purpose and need, evaluation of a full range of replacement alternatives, coordination with stakeholders, and selection of a Preliminary Preferred Alternative (PPA). All work tasks shall be documented in the CD Report. Responsible for existing, no build, and detour traffic conditions analyses. Analyzed a two-way, one-lane temporary signal traffic staging concept and assisting in the creation of preliminary staging plans.



## TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
<b>Name &amp; Title:</b>
<b>J. Webb Jones III, PE</b> Senior Civil/Highway Engineer
<b>Project Assignment:</b>
Sr. Roadway Design Engineer
<b>Name of Firm with which associated:</b>
Hardesty & Hanover, LLC
<b>Years' experience with this Firm:</b>
11 (Since 2012); <b>27 Years Total</b>
<b>Education: Degree(s)/Year/Specialization:</b>
B.S. / 1996 / Civil Engineering
<b>Active registration: Year first registered/discipline:</b>
2001 / Civil Engineer – Professional Engineer Florida No. 56950
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p><b>Summary Biography</b></p> <p>J. Webb Jones, PE has over 27 years of engineering and design experience in the transportation industry. As a senior roadway engineer, Webb has held key project roles including Project Engineer, Team Leader, Engineer of Record, Design Group Manager and Project Manager. Certified in Advanced Traffic Control, his extensive transportation design experience includes roadway, signing and pavement marking, and traffic control design for minor roadways, arterial highways, and controlled access facilities.</p> <p><b>Relevant Experience</b></p> <p><b>HEFT (SR 821) FROM KILLIAN PKWY TO SUNSET DR, MIAMI-DADE COUNTY, FL - FLORIDA'S TURNPIKE ENTERPRISE</b>  <b>Senior Roadway Engineer</b> responsible for design oversight of surface streets, project traffic control, and site design for ramp and express lane toll sites. This project included the widening of the mainline HEFT from south of Killian Parkway to just north of Sunset Drive to include express lanes, relocation of ramp tolling, and operational improvements to the Kendall Drive interchange, and resurfacing and minor improvements to surface streets.</p>

## TEC Professional Services Questionnaire

*J. Webb Jones III, PE (Continued)*

### **GANDY BLVD (SR 694) FROM I-275 TO EAST OF SR 687 DESIGN-BUILD, PINELLAS COUNTY, FL - FDOT**

**Senior Roadway Engineer** responsible for QA/QC for the traffic control plans for the construction of new grade separated lanes to improve capacity on this major east-west arterial, connecting to a bridge across Tampa Bay. The 2.5-mile-long project included three grade separations and was delivered substantially under budget.

### **HEFT (SR 821)/NW 57TH AVENUE INTERCHANGE IMPROVEMENTS, BROWARD COUNTY, FL - FLORIDA'S TURNPIKE ENTERPRISE**

**Project Manager** responsible for project design, coordination and oversight for this operational improvement project to accommodate planned capacity improvements on the HEFT, without the need for reconstruction. This project included coordination with multiple agencies including Florida's Turnpike Enterprise, FDOT District 4, FDOT District 6, Broward County and Miami-Dade County.

### **VETERANS EXPRESSWAY (SR 589) WIDENING FROM MEMORIAL HIGHWAY TO GUNN HIGHWAY, HILLSBOROUGH COUNTY, FLORIDA - FLORIDA'S TURNPIKE ENTERPRISE**

**Project Engineer** responsible for roadway and toll plaza design and coordination with multiple stakeholders and multiple disciplines. This project included the widening of 6.7-miles of a tolled principal urban arterial in northwest Hillsborough County from four lanes 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 2 full interchanges and 4 partial interchanges. The project also included the milling and resurfacing of the existing roadway, as well as widening and reconstruction.

### **CR296 CONNECTOR, PHASE, 4 FROM CR 296 TO NORTH OF ULMERTON RD, PINELLAS COUNTY, FLORIDA - FDOT**

**Project Engineer** responsible for design of alternative interchange concepts to ensure constructability, efficient traffic operations and stage construction. Additionally, responsible for coordination of project interfaces with adjoining segments and coordination of multiple design disciplines and subconsultants. The project included a one-mile-long segment of new urban expressway with a directional interchange at 118th Avenue, a single-point urban interchange and the widening and realignment of one-mile segment at Ulmerton Road.

### **CENTRAL POLK PARKWAY (POLK PARKWAY/SR 540 TO SR 35/US 17), POLK COUNTY, FLORIDA - FDOT**

**Senior Roadway Engineer** responsible for roadway design and plans production. This project required use of the Corridor Modeler software to aid in the design of a new 6-lane expressway facility. The project included the design of a 1-mile new alignment, over two miles of widening, and a new interchange at SR 540 which includes over two miles of new ramp alignments. This segment was among several designed to complete the northeasterly connection of Central Polk Parkway to I-4.

### **DISTRICTWIDE INTERSTATE PROGRAM MANAGER (IPM) - FDOT**

**Senior Engineer** responsible for concept development and review of plans. This multi-discipline, indefinite quantity contract provided as-needed services to support the FDOT 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.

### **DISTRICTWIDE ALL ELECTRONIC TOLLING (AET) DESIGN SERVICES - FLORIDA'S TURNPIKE ENTERPRISE**

**Senior Engineer** assisted with concept development and providing a range of services, including toll siting alternative analysis and preparation of final design plans for AET conversion of Florida's Turnpike facilities. This project provided for a range of services including concept development, alternatives analysis, and final design for AET conversion of FTE facilities statewide. Tasks included studies for the conversion of 148 miles of the ticket system and the portion of the northern coin system through the Orlando area, both included segments of tolled express lanes. Other tasks included studies of SR 429, SR 417, and SR 528, as well as the final design for the conversion of the Northern Coin System.

## TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
<b>Name &amp; Title:</b>
<b>Robert Hideck, PE</b> Senior Civil/Highway Engineer
<b>Project Assignment:</b>
Sr. Roadway Design Engineer
<b>Name of Firm with which associated:</b>
Hardesty & Hanover, LLC
<b>Years' experience with this Firm:</b>
7 (Since 2016); <b>20 Years Total</b>
<b>Education: Degree(s)/Year/Specialization:</b>
B.S. / 2002 / Civil Engineering
<b>Active registration: Year first registered/discipline:</b>
2017 / Civil Engineer – <b>Professional Engineer Louisiana No. 41953</b>
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p><b>Summary Biography</b>            Robert Hideck has 20 years of engineering and design experience in the transportation industry. His roadway engineering experience includes conceptual, preliminary, and final design of limited-access highways, interchange design, and widening realignments for urban and rural roads. He has expertise in the preparation of construction plans including horizontal and vertical design, cross sections, typical sections, temporary traffic control plans and signing and pavement marking plans.</p> <p><b>Relevant Experience</b>  <b>ALMONASTER AVE RR BRIDGE OVER THE INDUSTRIAL CANAL REHAB, NEW ORLEANS, LA – PORT NOLA</b>  <b>Roadway Design Quality Control Engineer</b> for the bridge assessment, complete rehabilitative engineering design, and construction inspection services required for the partial replacement of a movable Strauss-heel trunnion bridge. H&amp;H's 2019 assessment of the circa-1920 bridge revealed that improvements to the electrical and mechanical systems, superstructure, and counterweight were required to return this bridge to its full operating capability. H&amp;H developed necessary design plans to replace the span drive and span lock machinery, operating strut, guide assembly, live load bearings, counterweight trunnion pin, and bushing. The main trunnion bearings were rehabilitated and repositioned.</p>



## TEC Professional Services Questionnaire

*Robert Hideck, PE (Continued)*

**HEFT (SR 821) D/B from Killian Parkway to Sunset Drive, Miami-Dade County, FL - Florida's Turnpike Enterprise Senior Roadway Engineer** responsible for design oversight of surface streets, project traffic control, and site design for ramp and express lane toll sites. This project included the widening of the mainline HEFT from south of Killian Parkway to just north of Sunset Drive to include express lanes, relocation of ramp tolling, and operational improvements to the Kendall Drive interchange, and resurfacing and minor improvements to surface streets.

**GANDY BOULEVARD (SR 694) FROM I-275 TO EAST OF SR 687 DESIGN-BUILD, PINELLAS COUNTY, FL - FDOT Project Engineer** responsible for the design and preparation of traffic control plans, quality control of roadway plans, and post design services of a 2.5-mile-long design-build project that includes 3 grade separations. The construction of new grade separated lanes improves capacity on this major east-west arterial, connecting to a bridge across Tampa Bay. This project also included the replacement of an existing 3-barrel box culvert at Tinney Creek.

**HEFT (SR 821) DESIGN-BUILD FROM KILLIAN PARKWAY TO SUNSET DRIVE, MIAMI-DADE COUNTY, FL - FLORIDA'S TURNPIKE ENTERPRISE**

**Project Engineer** responsible for civil site work for the replacement of the AET gantries at the Kendall Drive interchange and mainline express toll gantries, roadway, and traffic control design for Kendall Drive and Sunset Drive, and the traffic control design for mainline HEFT. This project included the widening of the mainline HEFT from south of Killian Parkway to just north of Sunset Drive to include express lanes, relocation of ramp tolling, and operational improvements to the Kendall Drive interchange, and resurfacing and minor improvements to surface streets.

**HEFT (SR 821)/NW 57TH AVENUE INTERCHANGE IMPROVEMENTS, BROWARD COUNTY, FL - FLORIDA'S TURNPIKE ENTERPRISE**

**Project Engineer** responsible for design and preparation of traffic control and roadway plans. This project included operational improvements to accommodate planned capacity improvements on the HEFT, without the need for reconstruction. This project included coordination with multiple agencies including Florida's Turnpike Enterprise, FDOT District 4, FDOT District 6, Broward County and Miami-Dade County.

**I-75 SR 50 INTERCHANGE DESIGN-BUILD, HERNANDO COUNTY, FL - FLORIDA'S TURNPIKE ENTERPRISE**

**Senior Roadway Engineer** responsible for the traffic control design and plans preparation. This project widened I-75 from a four-lane to six-lane facility and involved complete interchange reconstruction at SR 50. Also included is the widening and reconstruction of SR 50 to a six-lane urban typical section constructed using concrete pavement. The project area is located South of US 98 (SR 50)/Cortez Blvd to North of US 98 (SR 50) and North of SR 50 to Sumter County Line.

**I-75 FROM BRUCE B. DOWNS BOULEVARD TO SR 56, HILLSBOROUGH AND PASCO COUNTIES, FL - FLORIDA'S TURNPIKE ENTERPRISE**

**Project Engineer** responsible for design calculations, plans preparation, cross sections and maintenance of traffic concepts. This project included the design of this five-mile rural widening and resurfacing project located in a rapidly developing area of northern Tampa. The project widened the divided rural interstate highway from four to six lanes and added ramps between the I-75/I-275 interchange and the I-75/SR 56 interchange.

**VETERANS EXPRESSWAY (SR 589) WIDENING FROM GUNN HIGHWAY TO VAN DYKE ROAD, HILLSBOROUGH COUNTY, FL - FLORIDA'S TURNPIKE ENTERPRISE**

**Project Engineer** responsible for preliminary roadway design, preparation of plans and the initial maintenance of traffic concept for the design-build criteria package, as well as owner's representative services during the procurement period. This effort included the preliminary design for the widening of a 5.2-mile tolled expressway in northwest Hillsborough County from four lanes to eight lanes, including the addition of express lanes. This project included three full interchanges, milling and resurfacing of the existing roadway, widening and reconstruction and had an estimated construction cost of \$90 million.

## TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
<b>Name &amp; Title:</b>
<b>Zineb Bennouna, PE</b> Civil/Highway Engineer
<b>Project Assignment:</b>
Roadway Design Engineer
<b>Name of Firm with which associated:</b>
Hardesty & Hanover, LLC
<b>Years' experience with this Firm:</b>
7 (Since 2016); <b>7 Years Total</b>
<b>Education: Degree(s)/Year/Specialization:</b>
B.S. / 2015 / Civil Engineering
<b>Active registration: Year first registered/discipline:</b>
2021 / Civil Engineer – Professional Engineer Florida No. 90952
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p><b>Summary Biography</b>            Zineb Bennouna is a professional engineer specializing in roadway design. Her roadway design experience includes preliminary and final plans preparation of limited-access highways, interchange design and widening realignments for urban and rural roads.</p> <p><b>Relevant Experience</b>  <b>SR 789 (RINGLING BRIDGE) BIRD KEY DR. TO SARASOTA HARBOR WEST, SARASOTA COUNTY, FL – FDOT</b>  <b>Roadway Design Engineer</b> responsible for assisting with roadway design and plans preparation. H&amp;H is providing concurrent PD&amp;E and final design services for the Little Ringling Bridge Replacement Project for FDOT D1. The project involves a PD&amp;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, with the 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. Each existing bridge has two twelve-foot travel lanes and a five-foot wide sidewalk on both sides. There are currently no shoulders or designated bicycle facilities across the bridge.</p>

## TEC Professional Services Questionnaire

Zineb Bennouna, PE (Continued)

### **HOMESTEAD EXTENSION OF FLORIDA'S TURNPIKE (HEFT) (SR 821) FROM S OF KILLIAN PARKWAY TO N OF SUNSET DRIVE DESIGN-BUILD, MIAMI-DADE COUNTY, FL - FLORIDA'S TURNPIKE ENTERPRISE**

**Roadway Design Engineer** 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.

### **GATEWAY EXPRESS DESIGN-BUILD IMPROVEMENTS, PINELLAS COUNTY, FL - FDOT**

**Roadway Design Engineer** responsible for assisting in the TTC design and plans preparation for the Gateway Express improvement project, which 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 included contributing to FDOT's Alternative Technical Concepts (ATC) process; developing Traffic Control Plans (TCP) 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.

### **I-75 AT SR 50 INTERCHANGE BRIDGE REPLACEMENT AND WIDENING, HERNANDO COUNTY, FL - FDOT**

**Roadway Design Engineer** 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.

### **44TH AVENUE E. FROM 45TH STREET E. TO 44TH AVENUE PLAZA E. BRADEN RIVER SEGMENT, MANATEE COUNTY, FL - MANATEE COUNTY GOVERNMENT**

**Roadway Design Engineer** 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.

### **I-75 (SR 93A) SB OFF-RAMP FROM S OF BYPASS CANAL TO EB/WB I-4, HILLSBOROUGH COUNTY, FL - FDOT**

**Roadway Design Engineer** 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.

### **SR 968/SW 1ST STREET BRIDGE AT MIAMI RIVER, MIAMI, FL - FDOT**

**Roadway Design Engineer** responsible for assisting with roadway approaches and temporary traffic control (TTC) design. SR 968 is an Urban Minor Arterial. 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.

## TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
<b>Name &amp; Title:</b>
<b>Benjamin Bower, PE</b> Civil/Highway Engineer
<b>Project Assignment:</b>
Roadway Design Engineer
<b>Name of Firm with which associated:</b>
Hardesty & Hanover, LLC
<b>Years' experience with this Firm:</b>
6 (Since 2017); <b>6 Years Total</b>
<b>Education: Degree(s)/Year/Specialization:</b>
B.S. / 2017 / Civil Engineering
<b>Active registration: Year first registered/discipline:</b>
2023/ Civil Engineer – Professional Engineer Florida No. 92137
<b>Other experience and qualifications relevant to the proposed Project:</b>
<b>Summary Biography</b> Benjamin Bower has six years of transportation engineering experience. His experience includes roadway, signing and pavement marking, and drainage design; plans development; technical specifications; and cost estimates for new and rehabilitation projects. He is proficient with AutoCAD Civil 3D, MicroStation, and GEOPAK as part of roadway design and plans preparation assignments. Other related tasks include the development of temporary traffic control (TTC) plans, drainage, and erosion control plans.
<b>Relevant Experience</b> <b>27TH STREET EAST. MANATEE COUNTY, FL - MANATEE COUNTY</b> <b>Roadway Design Engineer</b> 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.



## TEC Professional Services Questionnaire

Benjamin Bower, PE (Continued)

### **46TH AVENUE N SIDEWALK DESIGN, PINELLAS COUNTY, FL - PINELLAS COUNTY**

**Roadway Design Engineer** 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.

### **NORTHERN COIN ALL ELECTRONIC TOLLING (AET) CONVERSION, SUMTER, LAKE, ORANGE, AND OSCEOLA COUNTIES, FL - FLORIDA'S TURNPIKE ENTERPRISE**

**Roadway Design Engineer** responsible for creating and updating the 3D model that corresponds to the roadway design, as well as creating the master KMZ file that was used in the final project submittal. The project included signing and infrastructure modifications at ramp sites (AET Lite) and replacement of the Leesburg Toll Plaza with a mainline Open Road Tolling gantry. The project also required signing modifications at interchanges without direct tolling, coordination with seven projects under construction and development of the Leesburg site to accommodate a pending eight-lane widening.

### **DISTRICTWIDE ALL ELECTRONIC TOLLING (AET) DESIGN SERVICES - FLORIDA'S TURNPIKE ENTERPRISE**

**Roadway Design Engineer** assisting with concept development and providing a range of services, including toll siting alternative analysis and preparation of final design plans for AET conversion of Florida's Turnpike facilities throughout Florida. This project provided for a range of services including concept development, alternatives analysis, and final design for AET conversion of FTE facilities statewide. Tasks included studies for the conversion of 148 miles of the ticket system and the portion of the Northern Coin System through the Orlando area, both included segments of tolled express lanes. Other tasks included studies of SR 429, SR 417, and SR 528, as well as the final design for the conversion of the Northern Coin System.

### **GATEWAY EXPRESSWAY IMPROVEMENTS DESIGN-BUILD, PINELLAS COUNTY, FL - FDOT**

**Roadway Design Engineer** responsible for assisting in the development of the preliminary design to this improvement project. For this design-build project H&H developed 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.

### **SR 580 (BUSCH BLVD) PD&E RESURFACING, RESTORATION AND REHABILITATION, HILLSBOROUGH, FL - FDOT**

**Roadway Design Engineer** assisted in the design and coordination of the pedestrian detours and sidewalk closures that are required during multiple phases of this project. H&H provided RRR design to repave Busch Boulevard (SR 580) from east of Armenia Avenue to west of Florida Avenue in Hillsborough County.

### **PALMETTO PARK SHARED PATH POST DESIGN, PALM BEACH COUNTY, FL - FDOT**

**Roadway Design Engineer** responsible for assisting in implementation of plan revisions and design changes. H&H was the lead designer for this seven-mile ADA compliant shared use path project involving the replacement of a substandard path along the south side of Palmetto Park Road in Boca Raton. The new shared use path is 10 feet wide and complies with standards for a two-way shared use path. The new path also improved connectivity to other pedestrian, bicycle, and transit-oriented facilities. There are numerous crossroads connecting with the shared use path; ADA compliant curb ramp designs were provided at these intersections. Additionally, signalized intersections were designed to be compliant with ADA, including pedestrian signals and push buttons.

## TEC Professional Services Questionnaire

### KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

**Name & Title:**

**Lee Adams, PE**

Senior Civil / Hydraulic Engineer

**Project Assignment:**

Sr. Roadway Drainage Design Engineer

**Name of Firm with which associated:**

Hardesty & Hanover, LLC

**Years' experience with this Firm:**

15 (Since 2008); **28 Years Total**

**Education: Degree(s)/Year/Specialization:**

B.S. / 1995 / Civil Engineering

**Active registration: Year first registered/discipline:**

2017 / Civil Engineer – **Professional Engineer Louisiana No. 41739**

**Other experience and qualifications relevant to the proposed Project:****Summary Biography**

Joseph Lee Adams, PE is a civil engineer with a strong background leading the highway and hydraulic engineering tasks for transportation projects for private and public clients. He has performed as Project Engineer for various highway projects involving structures and surface and subsurface stormwater management improvements. These project engineering tasks included design, specification preparation, drainage design, engineering estimates and environmental permits. He is also currently certified with FHWA-NHI-135095 Two-Dimensional Hydraulic Modeling of Rivers at Highway Encroachments.

**Relevant Experience****LAPALCO BOULEVARD MOVABLE BRIDGE OVER HARVEY CANAL, WESTWEGO, LA – JEFFERSON PARISH DPW**

**Senior Hydraulic 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. 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.

## TEC Professional Services Questionnaire

Lee Adams, PE (Continued)

### **CR 537 CORRIDOR IMPROVEMENT, FREEHOLD, NJ - COUNTY OF MONMOUTH**

**Sr. Hydraulic Engineer** responsible for drainage analysis/design during the preliminary engineering phase for improvements to 1.6-mile corridor of County Route 537 between Sentinel Road and US Route 9. The project included significant widening of County Road 537, installation of upgraded traffic signals to improve overall operation and safety, and improvements and modifications to the six existing storm sewer pipe networks in order to mitigate increases in storm water runoff volume, flowrate, to maintain storm water runoff quality, and to maintain existing levels of groundwater recharge.

### **RUMSON – SEABRIGHT BRIDGE OVER SHREWSBURY RIVER, MONMOUTH COUNTY, NJ – NORTH JERSEY TPA**

**Hydraulic Engineer** responsible for evaluating scour vulnerability for the existing Rumson Road Bridge S-32 and several replacement alternatives. Prepared cost estimates for scour countermeasure alternatives and performed field condition inspection of the bridge and culverts. Performed hydraulic vulnerability analysis per NJDOT guidance and developed hydraulic modeling per FHWA's HEC-25 guidance. Assisted the Project Manager with development of the Conceptual Development Reports. During PE, was lead stormwater management engineer. Performed preliminary engineering for stormwater collection systems in Rumson and in Sea Bright. During final design, performed final bridge hydraulics analysis and scour analysis in accordance with HEC-18 and HEC-25. Built in 1950, the County Route 520 (Rumson Road) Bridge (is a nine-riveted steel deck girder-floor beam approach span structure with one double-leaf steel girder trunnion bascule main span. The bridge is 661 feet long, 52.4 feet wide (out to out), with a curb-to-curb width of 40 feet and carries a 20-foot-wide roadway of Rumson Road in each direction over the Shrewsbury River and a 5-foot-wide sidewalk on each side. The bridge serves as one of two emergency evacuation routes in times of flooding and coastal storms. Furthermore, the bridge was scour critical, did not meet current seismic design standards, and was deemed fracture critical due to its two-girder, non-redundant construction.

### **DELAWARE STREET (CR640) OVER MATTHEW'S BRANCH, WEST DEPTFORD, NJ - GLOUCESTER COUNTY**

**Hydraulic / Highway Engineer** for the analysis and design of a new precast, prestressed box-beam bridge on steel sheet pile abutments to replacing concrete arch bridge over tidal waterway. Project involved raising roadway grade 3-feet to clear spring-high tides and increasing bridge clear opening to improve tidal hydraulics and decrease scour potential. Designed highway horizontal and vertical alignment to minimize rights-of-way impacts and environmental disturbances. Guide rail improvements were designed to comply with NJDOT clear zone requirements. Additionally, performed scour analysis per HEC-18 guidance and designed countermeasures per HEC-23 and designed roadway storm water management system to meet the States newly adopted storm water quality and quantity regulations.

### **ALMONASTER AVENUE BRIDGE REHABILITATION AND NEW CONNECTOR ROAD, PORT OF NEW ORLEANS, LA –**

**Sr. Hydraulic Engineer** for 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 bridge scour analyses for the bridge.

### **VARIOUS HIGHWAY DRAINAGE PROJECT EXPERIENCE - GLOUCESTER COUNTY**

**Hydraulic / Highway Engineer** responsible for performing numerous drainage studies and signal designs for various County roadways. Responsible for the design of several miles of County roadway and intersection improvements including drainage in conjunction with land development projects in southern New Jersey Counties. Also, designed road reconstruction projects for State Municipal Aid Programs. Projects included: Auburn High Hill Road (CR551), Woolwich Township, Gloucester County, NJ; River Drive, Borough of Westville, Gloucester County, NJ; and Lincoln Avenue (CR612), Cape May Point, NJ.

## TEC Professional Services Questionnaire

### KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

#### Name & Title:

**John Witthohn, PE**  
Senior Civil/Hydraulic Engineer

#### Project Assignment:

Roadway Drainage Design Engineer

#### Name of Firm with which associated:

Hardesty & Hanover, LLC

#### Years' experience with this Firm:

8 (Since 2015); **20 Years Total**

#### Education: Degree(s)/Year/Specialization:

B.S. / 2003 / Civil Engineering

#### Active registration: Year first registered/discipline:

2017 / Civil Engineer – **Professional Engineer Louisiana No. 41575**

#### Other experience and qualifications relevant to the proposed Project:

##### Summary Biography

John F. Witthohn is a civil engineer with a strong background leading hydrologic and hydraulic design projects, including bridges, culverts, dams and other large hydraulic structures, as well as flood plain analysis and permitting. Mr. Witthohn has over 10 years of experience serving as Project Manager and Lead Hydraulics Engineer for various public and private projects requiring state, county, and local approvals, including dam inspection, dam rehabilitation, inundation analysis, and preparation of Operation & Maintenance and Emergency Action Plans. He has over 15 years of experience designing stormwater management basins, drainage systems, pipe networks, stability and erosion control applications, and the preparation of construction plans, specifications, and estimates. Since joining Hardesty and Hanover at the end of 2015, Mr. Witthohn continues to lead hydraulic and drainage design tasks for bridges and roadways for State Departments of Transportation in NJ, NY, NH, CT, MD, DE, and MA.

##### Relevant Experience

##### **NJ 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.



## **TEC Professional Services Questionnaire**

*John Witthohn, PE (Continued)*

### **NH ROUTE 25A OVER BRACKETT BROOK, OXFORD, 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. Mr. Witthohn prepared the hydraulic sections of the Rehabilitation Study Report (RSR) and the Type Size & Location (TSL) Study Report.

### **ROUTE 38 & CHURCH STREET INTERSECTION, MOORESTOWN, NJ - NEW JERSEY DOT**

**Hydraulic Engineer** responsible for the drainage analysis of the existing and proposed stormwater drainage systems associated with the preliminary engineering phase for the Route 38 Intersection Improvements at South Church Street (CR 607) and Fellowship Road (CR 6723), representing 1.25 miles of roadway improvements. The proposed improvements include increasing the number of lanes around the entire intersection network and modifying the phasing to include protected lead lefts at the Route 38 and South Church Street intersection, as well as the lead left on the northbound South Church Street and Fellowship Road intersection. The PPA also requires the widening and replacement of the single span bridge on South Church Street (Hootens Bridges, Structure No. 03B4028) over the North Branch Pennsauken Creek. Mr. Witthohn is responsible for the design of drainage improvements and new stormwater management basins to accommodate increased stormwater runoff and provide the groundwater recharge and water quality benefits of NJDOT and NJDEP stormwater regulations.

### **CR 537 CORRIDOR IMPROVEMENT, FREEHOLD, NJ - COUNTY OF MONMOUTH**

**Hydraulic Engineer** responsible for drainage analysis/design during the preliminary engineering phase for improvements to 1.6-mile corridor of County Route 537 between Sentinel Road and US Route 9. The project included significant widening of County Road 537, installation of upgraded traffic signals to improve overall operation and safety, and improvements and modifications to the six existing storm sewer pipe networks in order to mitigate increases in stormwater runoff volume, flowrate, to maintain stormwater runoff quality, and to maintain existing levels of groundwater recharge. Mr. Witthohn was responsible for data collection and analysis of existing resources, such as construction as-built drawings, surveys and topographic maps, aerial photos, and other hydraulic related background data to understand the limits and sizes of the existing watersheds, storm sewer networks, drainage features within the project area and develop a hydraulic model of existing and proposed conditions.

### **NJ ROUTE 42 BRIDGES OVER BLACKWOOD RAILROAD TRAIL, CAMDEN COUNTY, NJ - NEW JERSEY DOT**

**Hydraulic Engineer** responsible for drainage analysis of existing and proposed drainage conditions of this bridge replacement and highway widening project, and the proposed stormwater management design. The project involved replacing a pair of three-span, fixed bridges conveying the northbound and southbound freeways over the former railroad ROW, with a single tunnel structure. This project involved extensive modifications to the highway embankment, existing storm drainage system, roadway widening, and the construction of new retaining walls to limit ROW acquisition. Project tasks include the evaluation of all existing stormwater drainage systems which may be affected by this project and the design of new stormwater management measures to mitigate any negative impacts to the receiving waters or existing drainage systems. The proposed stormwater improvements were designed to maintain existing groundwater recharge rates, improve water quality leaving the site, and mitigate any increase in stormwater runoff rates and volumes, in accordance with NJDOT and NJDEP stormwater requirements. Responsibilities also included side grading, and soil erosion and sediment control measures.

### **NYS RTE 110 OVER SUNRISE HIGHWAY (RTE 27) BRIDGE REPLACEMENT, SUFFOLK COUNTY, NY - NYSDOT**

**Hydraulic Engineer** responsible for drainage analysis of existing and proposed drainage conditions of the design-built bridge replacement project. The project involves the replacement the existing Route 110 Bridge over Sunrise Highway with a wider structure providing greater shoulder widths, and other improvements to the clover-leaf interchange.

## TEC Professional Services Questionnaire

### KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

**Name & Title:**

**Dalton Hunt, EI**  
Civil Designer

**Project Assignment:**

Bridge Inspection/Designer

**Name of Firm with which associated:**

Hardesty & Hanover, LLC

**Years' experience with this Firm:**

1 (Since 2022); **1 Year Total**

**Education: Degree(s)/Year/Specialization:**

B.S. / 2021 / Civil Engineering

**Active registration: Year first registered/discipline:**

2022 / Civil Engineer Intern – **Professional Engineer Intern Louisiana No. 0035118**

**Other experience and qualifications relevant to the proposed Project:****Summary Biography**

Mr. Dalton Hunt is a civil engineer intern with H&H's Metairie office since January 2022. Dalton is currently assisting in many of the Metairie office's structural projects including the ones for LADOTD, Jefferson Parish, Mississippi DOT, and Port of New Orleans.

**Relevant Experience****I-10 & I-12 COLLEGE DRIVE FLYOVER RAMP DESIGN- BUILD, BATON ROUGE, LA - 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.

## TEC Professional Services Questionnaire

*Dalton Hunt, EI (Continued)*

### **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.

### **IDIQ CONTRACT FOR ADA DESIGN PROJECTS STATEWIDE, LA 1091 US190 COUNTRY CLUB BLVD. SIDEWALKS, SLIDELL, LA -LADOTD**

**Engineer Intern** responsible for developing plans and specifications for improvement to the 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.

### **SR-605 BASCULE BRIDGE OVER INDUSTRIAL WATERWAY, HARRISON COUNTY, MS - MISSISSIPPI DOT**

**Engineer Intern** for the comprehensive rehabilitation of this bascule bridge over the Industrial Waterway. Work on this project included design and detailing of a new PPC pile-supported reinforced concrete generator platform. Design and detailing of steel access improvements. (2022)

### **SR 609 MOVABLE BASCULE BRIDGE REHABILITATION, OCEAN SPRINGS, MS - MISSISSIPPI DOT**

**Engineer Intern** 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. The scope of work included inspection and rehabilitation of structural, mechanical, and electrical bridge components, roadway approaches, and development of maintenance and repair plans. All designs are in accordance with AASHTO, FHWA, and MDOT guidelines and specifications. (2022-present)

### **LAPALCO BOULEVARD MOVABLE BRIDGE OVER HARVEY CANAL, JEFFERSON PARISH, LA - JEFFERSON PARISH DPW**

**Structural Designer** for the pre-design inspection and design of a new three-lane double bascule movable bridge crossing of Harvey Canal including fixed bridge approaches. The project will widen 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. 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. (2022-present)

### **IN-DEPTH BRIDGE INSPECTION OF COMPLEX STRUCTURES, STATEWIDE, LA – LADOTD**

**Structural Inspector** for 3 bridges – Red River Miller's Bluff, Red River Jimmie Davis, and Calcasieu River West Fork bridges. Project included hands on inspection of the superstructures including the floor system members, bearings, the underside of all decks and concrete piers below the deck. The report was uploaded using LADOTD's software program.

## TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
<b>Name &amp; Title:</b>
<b>James Newberry, PE, SE</b> Senior Bridge Engineer
<b>Project Assignment:</b>
Sr. Bridge Design Engineer
<b>Name of Firm with which associated:</b>
Hardesty & Hanover, LLC
<b>Years' experience with this Firm:</b>
7 (Since 2016); <b>16 Years Total</b>
<b>Education: Degree(s)/Year/Specialization:</b>
M.S. / 2006 / Civil Engineering B.S. / 2006 / Civil Engineering
<b>Active registration: Year first registered/discipline:</b>
2021 / Civil Engineer – <b>Professional Engineer Louisiana No. 45742</b>
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p><b>Summary Biography</b></p> <p>James Newberry is responsible for engineering analysis and design, drafting and plans production, design reviews for third party projects, quality control, and quality assurance, and post-design review and coordination of technical submittals including shop drawings and requests for information (RFIs).</p> <p><b>Relevant Experience</b></p> <p><b>HILLSBOROUGH RIVER VERTICAL LIFT BRIDGE REPAIR, TAMPA, FL – FDOT</b></p> <p><b>Bridge Engineer</b> responsible for design of the post-design services for vertical lift bridge, including coordination of shop drawing reviews, plans revisions, and responding to RFIs from the contractor. The project included preparation of mechanical and electrical plans to repair/rehabilitate this historical span-driven vertical lift bridge. The rehabilitation included sheave replacement, wire rope replacement, span lock repairs, and electrical system upgrades.</p> <p><b>ANNA MARIA ISLAND (SR 64) OVER GULF IWW BRIDGE REHABILITATION, BRADENTON, FL – FDOT</b></p> <p><b>Bridge Engineer</b> participated in plan preparations and quantity calculations. The project involved the in-depth inspection, evaluation, and rehabilitation design of a 50-year-old, 3,120-foot-long bridge with a double-leaf trunnion bascule main span. The project included bascule leaf structural steel repairs and modifications; and concrete repairs.</p>



## **TEC Professional Services Questionnaire**

*James Newberry, PE, SE (Continued)*

### **SARGENT BARGE (PLATOON) BRIDGE REHABILITATION, MATAGORDA COUNTY, TX – TXDOT**

**Bridge Engineer** responsible for design and preparation of repair plans for miscellaneous structural elements including cable anchorages for the barge span, abutments (foundations, backwall, and cap), bulkheads, and temporary work platforms. Also responsible for design of repairs to the timber approach span stringers. Project scope included replacement of the timber leveling spans with steel framed open grid decks and the operating machinery, replacement of the bridge winch machinery and controls, structural repairs, and replacement of the traffic gates and miscellaneous roadway modifications.

### **TAMIAMI SWING BRIDGE EMERGENCY REPAIRS, MIAMI, FL – FDOT**

**Bridge Engineer** responsible for design of the new grid deck, stringers, and sub-stringers to replace the existing members on the swing span. Drafted all sheets in the structure plan sets. The movable bridge specialty engineering services were performed using a design-build approach as a subconsultant to a contractor. Performed in-depth field review, inspection, and measurements of the bridge to assess the conditions requiring emergency repair, clarify scope of work, and verifying the configuration, member sizes, and dimensions with limited or non-existent existing plans of the bridge. Repairs to the steel framing included replacement of deteriorated floor system and bracing members over the operating machinery including a portion of the steel roadway flooring. Repairs to the machinery included replacement of the pivot bearing bronze disk, balance wheel lower track, rack, main drive pinion, shaft and bearings, selected gear sets, speed reducer, machinery brake, machinery support frame, end wedges and end wedge electric linear actuators. Prepared shop drawings used to fabricate the steel and machinery to reduce project costs and time. The design, procurement, fabrication, installation, alignment, and testing were performed in a compressed schedule of 120 days. This bridge is eligible for the National Register of Historic Places.

### **WILSON PIGOTT (SR 31) OVER OKEECHOBEE WATERWAY BRIDGE REHAB, FORT MYERS, FL – FDOT**

**Bridge Engineer** performed the span balance calculations, assisted with design calculations of other structural components, reviewed, and analyzed load test data to assist in the assessment of priority repairs. Services called for the in-depth inspection, evaluation, load rating per LRFR methodology, and rehabilitation design of this 50-year-old, 3,120-foot-long bridge with a double-leaf trunnion bascule main span. Responsibilities included performing independent peer review of the machinery repairs and steel grid deck replacement – plus performing peer review of the capacity evaluation of the unique precast, post tensioned concrete beams of the approach spans, which were among the first widespread use of prestressed concrete in the United States.

### **LABELLE DRAWBRIDGE (SR 29) REPAIRS & REHABILITATION, LABELLE, FL – FDOT**

**Bridge Engineer** produced various designs of structural components for repairs to the approach and bascule spans, including the bascule leaf cantilever bracket, stringers, approach span bearing pads, and mast arms on the approaches. Checked the adequacy of the existing approach span diaphragms for jacking the spans. Provided quality control check of the bascule span balance calculations. Load rated the 40-foot approach span prestressed concrete beams, bascule span stringers and stringers over machinery, main girder, grid deck, and floorbeams. Load rated the flanking span stringers and floorbeams.

### **BECKETT BRIDGE REPLACEMENT, TARPON SPRINGS, FL – PINELLAS COUNTY**

**Bridge Engineer** on the bridge replacement project which entails replacing an existing historic bridge with a new 360-foot single-leaf, rolling-lift, bascule bridge. The structure carries Riverside Drive over Whitcomb Bayou and features two traffic lanes, and a sidewalk. Design responsibilities included quality control for approach span substructure and foundations, and retaining walls, and the final design of bascule span structural steel elements including main girders, floorbeams, counterweight, and span balance.

## TEC Professional Services Questionnaire

### KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

**Name & Title:**

**Christopher Aubert, EI**  
Electrical Designer

**Project Assignment:**

Electrical Designer

**Name of Firm with which associated:**

Hardesty & Hanover, LLC

**Years' experience with this Firm:**

1 (Since 2022); **1 Year Total**

**Education: Degree(s)/Year/Specialization:**

B.S. / 2022 / Electrical Engineering

**Active registration: Year first registered/discipline:**

2023 / Civil Engineer Intern – **Professional Engineer Intern Louisiana No. 0035397**

**Other experience and qualifications relevant to the proposed Project:****Summary Biography**

Christopher Aubert is an Electrical Designer with H&H's Metairie office since August 2022. He graduated from Louisiana Tech University in 2022 with a BS in Electrical Engineering with a concentration in controls and communication systems. Christopher is assisting in many of the Metairie office's electrical projects including the ones for LADOTD, Mississippi DOT, Texas DOT, and the Port of New Orleans.

**Relevant Experience****ALMONASTER AVE RAILROAD BRIDGE OVER INDUSTRIAL CANAL, NEW ORLEANS, LA - PORT OF NEW ORLEANS**

**Electrical Designer** for the rehabilitation and partial replacement of the Almonaster Avenue Bridge, a movable Strauss-heel trunnion bridge. H&H's 2019 assessment of the circa-1920 bridge revealed that improvements to the electrical and mechanical systems, superstructure, and counterweight were required to return this bridge to its full operating capability. Although the existing substructure could remain, modifications were deemed necessary to accommodate the rehabilitated superstructure. H&H developed necessary design plans to replace the span drive and span lock machinery, operating strut, guide assembly, live load bearings, counterweight trunnion pin, and bushing. The main trunnion bearings were rehabilitated and repositioned.

## **TEC Professional Services Questionnaire**

**Christopher Aubert, EI (Continued)**

### **SR 609 MOVABLE BASCULE BRIDGE REHABILITATION, OCEAN SPRINGS, MS - MISSISSIPPI DOT**

**Electrical Designer** contributing to the electrical design for the 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 includes inspection and rehabilitation of structural, mechanical, and electrical bridge components, roadway approaches, and development of maintenance and repair plans. All designs are in accordance with AASHTO, FHWA, and MDOT guidelines and specifications.

### **SR-605 MOVABLE BASCULE BRIDGE OVER INDUSTRIAL WATERWAY, HARRISON COUNTY, MS - MISSISSIPPI DOT**

**Electrical Designer** contributing to the electrical design for the full rehabilitation of SR-605 bascule bridge as a task-order to the IDIQ Master Bridge Contract which includes engineering assessment, mechanical, electrical, and structural design in addition to the preparation of Traffic Control Plans. All designs will be completed in accordance with AASHTO, FHWA, and MDOT guidelines and specifications.

### **H.002798.6; BAYOU TECHE MOVABLE BRIDGE AT OAKLAWN, FRANKLIN, LA - LADOTD**

**Electrical Designer** responsible for the 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. The new through girder swing-span rotates with hydraulically actuated slewing (push-pull) cylinders. The project is in the design phase.

### **IN-DEPTH BRIDGE INSPECTION OF COMPLEX STRUCTURES, STATEWIDE, LA – LADOTD**

**Electrical Inspector** for 3 bridges – Red River Miller's Bluff, Red River Jimmie Davis, and Calcasieu River West Fork bridges. Project included hands on inspection of the superstructures including the floor system members, bearings, the underside of all decks and concrete piers below the deck. The electrical system routine inspection includes inspecting accessible components of the main bridge power distribution, bridge grounding system, motor controls, control systems (panel and consoles), electrical systems for the traffic control lighting system, traffic gate assemblies, traffic resistance barriers, span lock motors, span drive braking system, span drive motors, limit switches and related conduit and wiring. The report was uploaded using LADOTD's software program.

### **LAPALCO BOULEVARD MOVABLE BRIDGE OVER HARVEY CANAL, WESTWEGO, LA - JEFFERSON PARISH DPW**

**Electrical Designer** contributing to the pre-design electrical inspection and resulting Bridge Design Report (BDR) for the rehabilitation and widening of the existing four-lane Lapalco Boulevard project includes rehabilitation to the existing four-lane bridge with three lanes of traffic and a new pedestrian/bike lanes as well as the design of a new three-lane double bascule movable bridge crossing of Harvey Canal 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 and development of a Traffic Control Plan was also included.

### **LA 24 AND LA 16 COMPANY CANAL VERTICAL LIFT BRIDGE, BOURG, LA – LADOTD**

**Electrical Inspector** delivering electrical inspection services for a new vertical lift bridge and operator's house. H&H 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.

## TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
<b>Name &amp; Title:</b>
<b>Erik Diaz. PE</b> Senior Bridge Engineer
<b>Project Assignment:</b>
Bridge Design Engineer / Bridge Rating Engineer
<b>Name of Firm with which associated:</b>
Hardesty & Hanover, LLC
<b>Years' experience with this Firm:</b>
4 (Since 2019); <b>15 Years Total</b>
<b>Education: Degree(s)/Year/Specialization:</b>
B.S. / 2008 / Civil Engineering
<b>Active registration: Year first registered/discipline:</b>
2013 / Civil Engineer – <b>Professional Engineer Louisiana No. 37712</b>
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p><b>Summary Biography</b></p> <p>Erik Diaz, a Senior Structural Engineer with H&amp;H, has practiced in the engineering industry since 2008. His responsibilities have included biennial and in-depth inspection of in-service bridges, structural engineering design, load rating analysis and construction management services.</p> <p><b>Relevant Experience</b></p> <p><b>LAPALCO BOULEVARD BRIDGE OVER HARVEY CANAL, JEFFERSON PARISH, LA – JEFFERSON PARISH DPW</b>  <b>Bridge Engineer</b> 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.</p> <p><b>TWO US-11 BASCULE BRIDGES OVER LAKE PONTCHARTRAIN REHABILITATION – LADOTD</b>  <b>Bridge Engineer</b> for the comprehensive rehabilitation design 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 bascule span.</p>



## TEC Professional Services Questionnaire

Erik Diaz, PE (Continued)

### **TENNESSEE RIVER BRIDGE INSPECTION AND LOAD RATING – NORFOLK SOUTHERN CORP.**

**Structural Engineer** provided engineering design services under the Systemwide Engineering and Design Services contract. The Steel repairs at Gulf Division MP 362.60-A Decatur, AL task was awarded to Hardesty & Hanover through this contract. The task involved the performance of an on-site inspection, the preparation of load rating calculations and the development of repair plans for the structure in accordance with the scope of work. The structure consists of three superstructure types: vertical lift span, deck plate girder span and seven through truss spans.

### **ALMONASTER AVE RR BRIDGE OF THE INDUSTRIAL CANAL REHABILITATION, NEW ORLEANS, LA – PORT NOLA**

**Bridge Engineer** for the bridge assessment, rehabilitative engineering design, and construction inspection services required for the partial replacement of a movable Strauss-heel trunnion bridge. H&H's 2019 assessment of the bridge revealed that improvements to the electrical and mechanical systems, superstructure, and counterweight were required to return this bridge to its full operating capability. Although the existing substructure could remain, modifications to other bridge elements were deemed necessary to accommodate the rehabilitated superstructure.

### **SR-605 BASCULE BRIDGE OVER INDUSTRIAL WATERWAY, HARRISON COUNTY, MS – MISSISSIPPI DOT**

**Bridge Engineer** performed the bridge load rating for movable bridge and fixed bridge approaches. Contributed to structural design for the comprehensive rehabilitation of this bascule bridge over the Industrial Waterway. Work on this project included design and detailing of a new PPC pile-supported reinforced concrete generator platform as well as the design and detailing of steel access improvements. All designs are in accordance with AASHTO, FHWA and MDOT guidelines and specifications.

### **BRIDGE RATINGS FOR 110 BRIDGES, STATEWIDE – LADOTD**

**Bridge Engineer** responsible for developing spreadsheets and processes for rating bridge substructures. Also, performed ratings for bridge superstructures and substructures using AASHTOWare. Wrote bridge rating reports.

### **SR 609 MOVABLE BASCULE BRIDGE REHABILITATION, OCEAN SPRINGS, MS – MISSISSIPPI DOT**

**Bridge Engineer** for full rehabilitation of SR 609 bascule bridge, as a task-order to the IDIQ Master Bridge Contract which included developing standard and special bridge services. Scope of work included 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 were in accordance with AASHTO, FHWA and MDOT guidelines.

### **SEABROOK BASCULE BRIDGE BEARING REPAIRS, NEW ORLEANS, LA – PORT NOLA**

**Bridge Engineer** for the construction of repairs to the concrete bent cap at the toe of the span. Work on this project included design of bent cap strengthening due to cracking at bridge bearing, tracking contractor progress and construction compliance with design plans. Preparation of final acceptance report upon completion of construction.

### **COMITE RIVER DIVERSION EAST, BATON ROUGE PARISH, LA – UPRR & USACE**

**Bridge 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.

### **VERMILLION RIVER VERTICAL LIFT BRIDGES REHABILITATION, VERMILLION PARISH, LA – LADOTD**

**Bridge 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.

## TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
<b>Name &amp; Title:</b>
<b>Linh Kim, PE</b> Bridge Engineer
<b>Project Assignment:</b>
Bridge Design Engineer / Bridge Rating
<b>Name of Firm with which associated:</b>
Hardesty & Hanover, LLC
<b>Years' experience with this Firm:</b>
3 (Since 2020); <b>5 Years Total</b>
<b>Education: Degree(s)/Year/Specialization:</b>
B.S. / 2017 / Civil Engineering
<b>Active registration: Year first registered/discipline:</b>
2023 / Civil Engineer – Professional Engineer <b>Louisiana No. 47527</b>
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p><b>Summary Biography</b></p> <p>Linh-Thien Kim is a civil engineer with five years of engineering experience. Prior to joining Hardesty &amp; Hanover's Metairie, Louisiana office, Linh served as a Louisiana DOTD task manager where he designed detailed reinforced and prestressed concrete bridges, performed as-design ratings, and prepared bridge rating reports in accordance with applicable policies and standards.</p> <p><b>Relevant Experience</b></p> <p><b>ALMONASTER AVE RR BRIDGE OVER THE INDUSTRIAL CANAL REHAB, NEW ORLEANS, LA – PORT NOLA</b></p> <p><b>Bridge Engineer</b> contributing to the bridge assessment, complete rehabilitative engineering design, and construction inspection services required for the partial replacement of the Almonaster Avenue Bridge, a movable Strauss-heel trunnion bridge. H&amp;H's 2019 assessment of the circa-1920, National Register of Historic Places eligible bridge revealed that improvements to the electrical and mechanical systems, superstructure, and counterweight were required to return this bridge to its full operating capability. Although the existing substructure could remain, modifications were deemed necessary to accommodate the rehabilitated superstructure. H&amp;H developed necessary design plans to replace the span drive and span lock machinery, operating strut, guide assembly, live load bearings, counterweight trunnion pin, and bushing. The main trunnion bearings were rehabilitated and repositioned.</p>

## TEC Professional Services Questionnaire

Linh Kim, PE (Continued)

### **LAPALCO BOULEVARD MOVABLE BRIDGE OVER HARVEY CANAL, WESTWEGO, LA – JEFFERSON PARISH DPW**

**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. 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.

### **SR 605 MOVABLE BASCULE BRIDGE REHABILITATION, OCEAN SPRINGS, MS – MISSISSIPPI DOT**

**Bridge Engineer** performed the bridge load rating for movable bridge and fixed bridge approaches. Contributing to the civil design for full rehabilitation of SR 605 double-leaf 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.

### **ANNUAL INSPECTION OF ALMONASTER RR BRIDGE OVER THE INDUSTRIAL CANAL, NEW ORLEANS, LA – PONO**

**Bridge Engineer** for the 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.

### **ANNUAL INSPECTION OF SEABROOK RAILROAD BASCULE BRIDGE, NEW ORLEANS, LA – PORT NOLA**

**Bridge Engineer** for the annual inspection of the Seabrook Trunnion Bascule Bridge. This inspection included a structural inspection of the fracture critical steel and primary and secondary steel members, an electrical inspection of the electrical systems and controls, and an inspection of the mechanical systems and machinery.

### **LAKE PONTCHARTRAIN CAUSEWAY SAFETY BAY IMPROVEMENTS CE&I – GNOEC**

**Engineer Intern** providing construction engineering and inspection services required for the fast-paced \$60M Safety Bay Improvement Project being designed to LADOTD standards and specifications. The project used the CMAR method. Improvements added emergency stopping areas on both causeway bridges and provided six new shoulders in each direction. Responsibilities included attendance at progress meetings, final inspections, and construction close-out, etc.

### **VARIOUS REPAIRS OF THE ALMONASTER AVENUE RR BRIDGE, NEW ORLEANS, LA – PORT NOLA**

**Bridge Engineer** performing a variety of structural repairs on this steel Strauss Trunnion Bascule Bridge. Major work included replacement of components of the railroad floor system stringers and floorbeams that rated lower than E-60 and replacement of deteriorated lateral connection plates. The cracked concrete on the rest pier in the area near the bearings was removed and replaced with higher strength concrete. The replacement and tightening of loose or missing fasteners throughout the entire structure was also included in the repair scope. Scope of work included necessary bridge design and repair plans, contract specifications, construction inspection, construction support services.

### **H.009498.5: LA 121: CALCASIEU RIVER BRIDGE, LAKE CHARLES, LA – LADOTD**

**Civil Engineer Intern.** Designed and detailed an LG-36 (I-Beam) Concrete Prestressed Girder Bridge using continuous deck spans on a horizontal curve with a 5% slope. The continuous deck spans were 240-foot- long using four 60-foot-long deck spans with a bridge width of 42.5' wide. The superstructure and girders were designed using Bentley's Conspan software and DOTD's Bridge Design Evaluation Manual. The substructure consists of pile bents that were designed using STAAD Modeling software.

## TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
<b>Name &amp; Title:</b>
<b>Travis Kimmins, PE</b> Senior Mechanical Engineer
<b>Project Assignment:</b>
Mechanical Design Engineer
<b>Name of Firm with which associated:</b>
Hardesty & Hanover, LLC
<b>Years' experience with this Firm:</b>
5 (Since 2018); <b>20 Years Total</b>
<b>Education: Degree(s)/Year/Specialization:</b>
B.E. / 2001 / Mechanical Engineering M.S. / 2003 / Mechanical Engineering
<b>Active registration: Year first registered/discipline:</b>
2019 / Mechanical Engineer – <b>Professional Engineer Louisiana No. 43676</b>
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p><b>Summary Biography</b></p> <p>Travis Kimmins has 20 years of mechanical engineering experience. He is responsible for the design, inspection, and construction support of various heavy movable structures. Projects are located both domestically and internationally. He has experience with design and inspection standards by AASHTO, AREMA, CSA, and client-specific inspection procedures.</p> <p><b>Relevant Experience</b></p> <p><b>MISSISSIPPI OSARC NBIS INSPECTION OF THREE MOVABLE BRIDGES</b></p> <p><b>Lead Mechanical Engineer</b> performed mechanical inspections of the Bayou Portage, Popp's Ferry Bridge, and Cedar Lake Road Bridges. H&amp;H delivered inspection detailed inspection reports outlining the condition of the bridge and made recommendations for rehabilitation or replacement of deficient bridge machinery components of these movable bridges.</p> <p><b>DISTRICTWIDE LOCAL GOVERNMENT BRIDGE INSPECTIONS, DISTRICTWIDE, FL – FDOT</b></p> <p><b>Mechanical Engineer</b> responsible for inspection and report preparation for state-owned movable bridges in District 6. Services include the routine and interim inspections of mechanical and electrical systems on nine assigned movable bridges in accordance with federal and state regulations. Inspection reports, outlining detailed inspection findings and prioritized repair recommendations, were provided to the prime consultant.</p>



## TEC Professional Services Questionnaire

Travis Kimmins, PE (Continued)

### **SR 605 BASCULE BRIDGE OVER INDUSTRIAL WATERWAY REHABILITATION, HARRISON COUNTY, MS – MISSISSIPPI DOT**

**Mechanical Engineer** leading the design of the mechanical rehabilitation and providing construction services during construction of these twin double-leaf rolling bascules. The full rehabilitation of SR-605 bascule bridge, issued as a task-order to the IDIQ Master Bridge Contract, included engineering assessment, mechanical, electrical, and structural design in addition to the preparation of Traffic Control Plans. All designs will be completed in accordance with AASHTO, FHWA, and MDOT guidelines and specifications. H&H is currently performing construction phase services for the project.

### **SR 609 BASCULE BRIDGE REHABILITATION, OCEAN SPRINGS, MS – MISSISSIPPI DOT**

**Lead Mechanical Engineer** responsible for conducting plans review of mechanical rehabilitation plans involving a full mechanical rehabilitation of the operating machinery as well as the HVAC and plumbing systems for the control house. Also provided construction support services as part of the full rehabilitation of the SR 609 bascule bridge. Issued as a task-order to the IDIQ Master Bridge Contract, the scope of this task order included 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. H&H is currently performing construction phase services for the project.

### **LAPALCO BOULEVARD MOVABLE BRIDGE OVER HARVEY CANAL, WESTWEGO, LA – JEFFERSON PARISH DPW**

**Lead Mechanical Engineer** for 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.

### **JUPITER FEDERAL BRIDGE REPLACEMENT, JUPITER, FL – FDOT**

**Lead Mechanical Engineer** responsible for mechanical systems design for this bascule bridge replacement project. H&H will serve as Engineer of Record for the project, which addresses the structural and functional deficiencies of the existing US-1/ SR-5 Jupiter Federal Bridge from CR-A1A (Ocean Boulevard) to Beach Road. Scope includes the development of vertical and horizontal alignment for bridge replacement alternatives and study of the resulting impacts. The design incorporates intersection improvements and improves traffic functions at both ends of the approximately 2,960-foot long (0.56 mile) project corridor into the bridge replacement design. The project will include ADA access ramps to the eight-foot sidewalks and a new seven-foot buffered bike lane for additional safety. Performed the quality control reviews on the machinery, HVAC and plumbing systems.

### **MOVABLE BRIDGE INSPECTION AND DESIGN ON-CALL, CHESAPEAKE, VA – CITY OF CHESAPEAKE**

**Mechanical Engineer** for this on-call contract. Provided emergency response after a barge collided with Centerville Turnpike bridge. For this emergency response, Mr. Kimmins inspected damage to the structure and machinery and provided recommendations for safely opening the bridge to marine traffic after extensive damage. For Great Bridge Bascule Bridge, performed troubleshooting of the hydraulic system to identify the source of intermittent pressure spikes.



## TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
<b>Name &amp; Title:</b>
<b>Sean Brock, EI</b> Mechanical Designer
<b>Project Assignment:</b>
Mechanical Designer
<b>Name of Firm with which associated:</b>
Hardesty & Hanover, LLC
<b>Years' experience with this Firm:</b>
1 (Since 2023); <b>1 Year Total</b>
<b>Education: Degree(s)/Year/Specialization:</b>
B.S. / 2023 / Mechanical Engineering
<b>Active registration: Year first registered/discipline:</b>
2023 / Mechanical Engineer Intern – <b>Engineer Intern Louisiana No. 35473</b>
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p><b>Summary Biography</b></p> <p>Mr. Sean Brock is a mechanical engineer intern with H&amp;H's Metairie office. Sean is currently assisting in the Metairie office's mechanical projects including the ones from LADOTD and Mississippi DOT.</p> <p><b>Relevant Experience</b></p> <p><b>SR-605 MOVABLE BASCULE BRIDGE OVER INDUSTRIAL WATERWAY, HARRISON, MS - MISSISSIPPI DOT</b>  <b>Mechanical Designer</b> contributing to the mechanical design for the full rehabilitation of SR-605 bascule bridge as a task-order to the IDIQ Master Bridge Contract which includes engineering assessment, mechanical, electrical, and structural design in addition to the preparation of Traffic Control Plans. All designs will be completed in accordance with AASHTO, FHWA, and MDOT guidelines and specifications.</p> <p><b>LA 24 AND LA 16 COMPANY CANAL VERTICAL LIFT BRIDGE, BOURG, LA – LADOTD</b>  <b>Mechanical Inspector</b> delivering mechanical inspection services for a new vertical lift bridge and operator's house. H&amp;H 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.</p>

## TEC Professional Services Questionnaire

Sean Brock, EI (Continued)

### **LAPALCO BOULEVARD MOVABLE BRIDGE OVER HARVEY CANAL, WESTWEGO, LA – JEFFERSON PARISH DPW**

**Mechanical Designer** for 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.

### **IN-DEPTH BRIDGE INSPECTION OF COMPLEX STRUCTURES, STATEWIDE, LA – LADOTD**

**Mechanical Inspector** for 3 bridges – Red River Miller's Bluff, Red River Jimmie Davis, and Calcasieu River West Fork bridges. Project included hands on inspection of the superstructures including the floor system members, bearings, the underside of all decks and concrete piers below the deck. The mechanical system routine inspection includes inspecting accessible components of the machinery for the span drive, span support, span guides, span locks, and traffic barriers and gates. The report was uploaded using LADOTD's software program.

### **SR 609 MOVABLE BASCULE BRIDGE REHABILITATION, OCEAN SPRINGS, MS – MISSISSIPPI DOT**

**Mechanical Designer** for the development of the inspection manual for the SR 609 bascule bridge, as a task-order to the IDIQ Master Bridge Contract which includes developing standard and special bridge services. Scope of work for this Task Order involves creating an inspection manual including structural, mechanical, and electrical components of the bridge, as well as the roadway approaches for maintenance and repair plans.

## TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
<b>Name &amp; Title:</b>  <b>Lance Resendez, EI</b> Civil Designer
<b>Project Assignment:</b>  Construction Administration Designer
<b>Name of Firm with which associated:</b>  Hardesty & Hanover, LLC
<b>Years' experience with this Firm:</b>  1 (Since 2022); <b>2 Years Total</b>
<b>Education: Degree(s)/Year/Specialization:</b>  B.S. / 2021 / Civil Engineering
<b>Active registration: Year first registered/discipline:</b>  2021 / Civil Engineer Intern – <b>Professional Engineer Intern Louisiana No. 34896</b>
<b>Other experience and qualifications relevant to the proposed Project:</b> <b>Summary Biography</b> Lance Resendez is a civil engineer Intern with H&H's Metairie office with two years of engineering experience. Lance is currently assisting in many of the Metairie's office's structural projects including ones from LADOTD, Mississippi DOT, and Port of New Orleans. Prior to joining Hardesty & Hanover's Metairie, Louisiana office, Lance provided construction engineering and inspection services where he ensured compliance of codes and job specifics in accordance with applicable policies and standards.  <b>Relevant Experience</b> <b>IDIQ FOR ADA DESIGN PROJECTS STATEWIDE, LA 1091 US190 COUNTRY CLUB BLVD. SIDEWALKS , SLIDELL, LA - LADOTD</b> <b>Engineer Intern</b> responsible for developing plans and specifications for improvement to the 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.

## TEC Professional Services Questionnaire

Lance Resendez, EI (Continued)

### **LA 24 AND LA 16 COMPANY CANAL VERTICAL LIFT BRIDGE, BOURG, LA – LADOTD**

**Structural Inspector** 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.

### **LAKEVIEW NORTH GROUP C (RR085), NEW ORLEANS, LA – SEWERAGE AND WATER BOARD OF 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).

### **OCTAVIA STREET PROJECT, NEW ORLEANS, LA – 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.

### **LAFITTE GREENWAY PROJECT, NEW ORLEANS, LA – 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.

### **SR 609 MOVABLE BASCULE BRIDGE REHABILITATION, OCEAN SPRINGS, MS – MISSISSIPPI DOT**

**Bridge Design Intern** for full rehabilitation of SR 609 bascule bridge, as a task-order to the IDIQ Master Bridge Contract which included developing standard and special bridge services. Scope of work included 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 were in accordance with AASHTO, FHWA and MDOT guidelines.

### **I-10 & I-12 COLLEGE DRIVE FLYOVER RAMP DESIGN- BUILD, BATON ROUGE, LA - 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.

### **ANNUAL INSPECTION OF ALMONASTER BRIDGE OVER INDUSTRIAL CANAL, NEW ORLEANS, LA – PORT NOLA**

**Engineer Intern** 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.

## TEC Professional Services Questionnaire

### KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

**Name & Title:**

**Marco Lara, PE**  
Senior Electrical Engineer

**Project Assignment:**

Electrical Design Engineer

**Name of Firm with which associated:**

Hardesty & Hanover, LLC

**Years' experience with this Firm:**

5 (Since 2018); **21 Years Total**

**Education: Degree(s)/Year/Specialization:**

B.S. / 2003 / Electrical Engineering

**Active registration: Year first registered/discipline:**

2008 / Electrical Engineer – **Professional Engineer Louisiana No. 34062**

**Other experience and qualifications relevant to the proposed Project:****Summary Biography**

Marco Lara is responsible for directing the preparation of roadway lighting plans; electrical power and control system plans; and technical specifications of bridges, toll facilities, highways, and other infrastructure projects. He is also responsible for technical supervision and management of engineering personnel. Other responsibilities include design and specification of electrical control systems, power systems, major drive systems, lightning protection, roadway/interior lighting design, and backup power generation systems for movable bridge projects. He has provided specialty engineering design and specification of cathodic protection systems that include impressed current, sacrificial anode, impressed-current cathodic protection (ICCP) pile jackets, and galvanic pile jacket systems for movable and fixed bridges.

**Relevant Experience****LAPALCO BOULEVARD MOVABLE BRIDGE OVER HARVEY CANAL, WESTWEGO, LA - JEFFERSON PARISH DPW**

**Electrical Engineer** contributing to the pre-design electrical inspection and resulting Bridge Design Report (BDR) for the rehabilitation and widening of the existing four-lane Lapalco Boulevard project includes rehabilitation to the existing four-lane bridge with three lanes of traffic and a new pedestrian/bike lanes as well as the design of a new three-lane double bascule movable bridge crossing of Harvey Canal 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 and development of a Traffic Control Plan was also included.



## TEC Professional Services Questionnaire

Marco Lara, PE (Continued)

### **MISSISSISSIPPI OSARC NBIS INSPECTION OF THREE MOVABLE BRIDGES**

**Lead Electrical Engineer** performed electrical inspections of the Bayou Portage, Popp's Ferry Bridge, and Cedar Lake Road Bridges. H&H delivered inspection detailed inspection reports outlining the condition of the bridge and made recommendations for rehabilitation or replacement of deficient electrical components of the three movable bridges.

### **MARINE PARKWAY VERTICAL LIFT BRIDGE INSPECTION - NEW YORK, NY - MTA BRIDGES AND TUNNELS**

**Electrical Engineer** responsible for in-depth electrical inspection of the existing span drive and synchro-tie motors, auxiliary drive motors, warning gates, limit switches, motor control center, termination cabinets, and control console. Also witnessed and oversaw voltage, current, and RPM chart recording of all the main motors in the North and South Towers to provide analysis and recommendations to the TBTA. Other responsibilities included insulation resistance (megger) testing and inspection of the main span drive motors. Inspection was performed in accordance with the requirements of FHWA IP 77-10 (Bridge Inspection Manual for Movable Bridges), NYSDOT TA 87-007, and the AASHTO Movable Bridge, Inspection, Evaluation, and Maintenance Manual.

### **TOWER VERTICAL LIFT BRIDGE INSPECTION - SACRAMENTO, CA - CALTRANS**

**Electrical Engineer** responsible for electrical inspection of the existing span drive, warning gates, limit switches, motor control center, termination cabinets, and control console. Observed bridge operations and visually evaluated droop cables. Witnessed and oversaw insulation resistance testing of main motors. Reviewed previous Caltrans bridge inspection reports and prepared a checklist for field evaluation of corrected and uncorrected deficiencies.

### **CENTER STREET SWING BRIDGE, CLEVELAND, OH – OHIO DOT**

**Electrical Inspector** responsible for engineering support and construction inspection of the electrical rehabilitation of a bob-tail swing bridge. A partial electrical system replacement was performed, which included new solid-state drives and motors while retaining and upgrading existing motor controls and wiring for traffic gates, locks, and wedges.

### **CASS STREET BASCULE BRIDGE OVER HILLSBOROUGH RIVER, TAMPA, FL - HILLSBOROUGH COUNTY GOV.**

**Electrical Engineer** responsibilities included producing and developing calculations and design plans for the rehabilitation of this historic double-leaf bascule bridge. The major rehabilitation involved replacing obsolete and aging electrical equipment such as the programmable Logic Controller (PLC), motor control panels and cabinets; conduit and wiring associated with a generator, automatic transfer switch, safety interlock, etc.; auxiliary drive bevel gear bushing, span drive motor, span lock & pinion, span lock brake & bushings; and emergency Drive bevel gear, shaft bushing, bearing & couplings, live load shoe, and lighting. H&H is providing design plans for structural rehabilitation and controller system replacement. Services included inspections of the structural, electrical, and mechanical components; a bridge development report; structural, electrical, and mechanical construction plans; temporary traffic control plans (TTC); specifications; engineer's estimate of probable construction cost; and post-design services.

### **BROREIN STREET BRIDGE OVER HILLSBOROUGH RIVER, TAMPA, FL - HILLSBOROUGH COUNTY GOVERNMENT**

**Electrical Engineer** responsibilities included producing and developing calculations and design plans for this double-leaf bascule bridge rehabilitation. This rehabilitation involved replacing aging electrical equipment, such as the main drive motors, brakes, motor control panels, span drive system and lock motor, limit switches, lighting, and upgrading the electrical service. H&H provided designs for the National Register of Historic Places eligible bridge including a structural rehabilitation and controller system replacement. Services included inspections of the structural, electrical, and mechanical components; a bridge development report; structural, electrical, and mechanical construction plans; TCP; specifications; engineer's estimate of probable construction cost.

## TEC Professional Services Questionnaire

### KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

**Name & Title:**

**Ken Pecquet, PE**  
Electrical Engineer

**Project Assignment:**

Electrical Design Engineer

**Name of Firm with which associated:**

Hardesty & Hanover, LLC

**Years' experience with this Firm:**

4 (Since 2019); **11 Years Total**

**Education: Degree(s)/Year/Specialization:**

B.S. / 2012 / Electrical Engineering

**Active registration: Year first registered/discipline:**

2023 / Electrical Engineering – **Professional Electrical Engineer Louisiana No. 47471**

**Other experience and qualifications relevant to the proposed Project:****Summary Biography**

Kenneth Pecquet is an electrical engineer with H&H's Metairie office. During over a decade of professional electrical engineering experience, Ken has developed a technical proficiency at troubleshooting and repair of electronics, electrical, and mechanical systems. He has a working knowledge of the current National Electrical Code (NEC), Institute of Electrical and Electronics Engineers (IEEE), and Oil and Gas Industry Standards. Kenneth also has spent two years in a supervisor role and six years serving as a biomedical technician in clinical and hospital environments. He has gained leadership experience as a US Army non-commissioned officer.

**Relevant Experience****LAPALCO BOULEVARD MOVABLE BRIDGE OVER HARVEY CANAL, WESTWEGO, LA - JEFFERSON PARISH DPW**

**Electrical Engineer** contributing to the pre-design electrical inspection and resulting Bridge Design Report (BDR) for the rehabilitation and widening of the existing four-lane Lapalco Boulevard project includes rehabilitation to the existing four-lane bridge with three lanes of traffic and a new pedestrian/bike lanes as well as the design of a new three-lane double bascule movable bridge crossing of Harvey Canal 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 and development of a Traffic Control Plan was also included.

## TEC Professional Services Questionnaire

*Ken Pecquet, PE (Continued)*

### **MISSISSIPPI OSARC NBIS INSPECTION OF THREE MOVABLE BRIDGES**

**Electrical Engineer** performed electrical inspections of the Bayou Portage, Popp's Ferry Bridge, and Cedar Lake Road Bridges. H&H delivered inspection detailed inspection reports outlining the condition of the bridge and made recommendations for rehabilitation or replacement of deficient electrical components of the three movable bridges.

### **BAYOU TECHE SWING BRIDGE AT OAKLAWN (H.002798.6), ST. MARY PARISH, LOUISIANA - LADOTD**

**Electrical Engineer** responsible for providing post-design electrical design calculations and plan revisions for the bridge power distribution and relay-based control system for this movable bridge. Built in 1941, the original historically significant bridge was replaced with a new hydraulically-operated swing bridge. H&H provided the electrical design for the bridge in line with LADOTD's design requirements and standard design details and coordinated closely with the other design disciplines to assure success. All design deliverables adhered to the schedule. Due to permitting issues, design was placed on hold for several years extending the schedule.

### **SR 609 BASCULE BRIDGE OVER OLD FORT BAYOU REHABILITATION, OCEAN SPRINGS, MS - MISSISSIPPI DOT**

**Electrical Engineer** contributed to the electrical design services for the full rehabilitation of SR 609 bascule bridge, as a task-order to the IDIQ Master Bridge Contract which included developing standard and special bridge services. Scope of work included 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.

### **ALMONASTER AVENUE RR BRIDGE OVER THE INDUSTRIAL CANAL REHAB, NEW ORLEANS, LA – PORT NOLA**

**Electrical Engineer** for the bridge assessment, rehabilitative engineering design, and construction inspection services required for the partial replacement of the Almonaster Avenue Bridge, a movable Strauss-heel trunnion bridge's electrical systems. 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 counterweight were required to return this bridge to its full operating capability. Although the existing substructure could remain, modifications were deemed necessary to accommodate the rehabilitated superstructure. H&H developed necessary design plans to replace the span drive/span lock machinery, operating strut, guide assembly, live load bearings, counterweight trunnion pin, and bushing. The main trunnion bearings were rehabilitated and repositioned.

### **SR 605 MOVABLE BASCULE BRIDGE REHABILITATION, HARRISON COUNTY, MS - MISSISSIPPI DOT**

**Electrical Engineer** contributed to the electrical design for the full rehabilitation of SR-605 bascule bridge as a task-order to the IDIQ Master Bridge Contract which included engineering assessment, mechanical, electrical, and structural design in addition to the Traffic Control Plans. All designs were completed in accordance with AASHTO, FHWA, and MDOT guidelines and specifications.

### **ANNUAL INSPECTION OF ALMONASTER BRIDGE OVER INDUSTRIAL CANAL, NEW ORLEANS, LA – PORT NOLA**

**Electrical Engineer** 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.

### **ANNUAL INSPECTION OF SEABROOK RAILROAD BASCULE BRIDGE, NEW ORLEANS, LA - PORT NOLA**

**Electrical Engineer** for the annual inspection of the Seabrook Trunnion Bascule Bridge. This inspection included a structural inspection of the fracture critical steel and primary and secondary steel members, an electrical inspection of the electrical systems and controls, and an inspection of the mechanical systems and machinery.

### **DISTRICTWIDE STATE IN-DEPTH BRIDGE INSPECTIONS CONTRACT, DISTRICT 2 (JACKSONVILLE AREA, FL) – FDOT**

**Electrical Engineer Intern** for the on-call inspection of movable bridge structures located throughout District 2 under the Master Work Order Agreement. Services included the mechanical and electrical system routine and interim inspections of nine assigned movable bridges in accordance with federal and state regulations.

## TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
<b>Name &amp; Title:</b>
<b>James Burkes</b> Field Inspector
<b>Project Assignment:</b>
DOTD Certified Construction Inspector
<b>Name of Firm with which associated:</b>
Hardesty & Hanover, LLC
<b>Years' experience with this Firm:</b>
1 (Since 2023); <b>11 Years Total</b>
<b>Education: Degree(s)/Year/Specialization:</b>
A.S. / 2007 / Architectural Drafting Design
<b>Active registration: Year first registered/discipline:</b>
N/A
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p><b>Summary Biography</b>            Mr. James Burkes is a construction inspector in H&amp;H's Metairie office. Prior to H&amp;H, James worked for LADOTD as an Engineering Technician 4.</p> <p><b>Relevant Experience</b>  <b>LA 24 AND LA 16 COMPANY CANAL VERTICAL LIFT BRIDGE, BOURG, LA – LOUISIANA DOTD</b>  <b>Construction Inspector</b> delivering 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; performing field testing; maintaining records of contractual operations; attending construction progress meetings; construction close-out, etc.</p> <p><b>I-10 &amp; I-12 COLLEGE DRIVE FLYOVER RAMP DESIGN- BUILD - LADOTD</b>  <b>Construction Inspector</b> 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 &amp; I-12 West merge. H&amp;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.</p> <p><b>ENGINEERING TECHNICIAN 4, LADOTD</b>            He oversaw construction from post design to completion of construction. He inspected numerous projects while acting as quality control and quality assurance. He was often used as an internal traffic expert in his unit. He managed pay items and daily diaries to maintain fiscal accountability. He also managed relationships with external vendors and contractors as a liaison for the state of Louisiana. He onboarded new inspectors and coordinated activities between departments such as material lab, maintenance, and onsite teams.</p>

## TEC Professional Services Questionnaire

### KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

#### Name & Title:

**Amy Robards, PE**  
Senior Structural Engineer

#### Project Assignment:

Construction Administration / Bridge Inspection Team Leader

#### Name of Firm with which associated:

Hardesty & Hanover, LLC

#### Years' experience with this Firm:

5 (Since 2018); **12 Years Total**

#### Education: Degree(s)/Year/Specialization:

B.S. / 2012 / Civil Engineering

#### Active registration: Year first registered/discipline:

2017 / Civil Engineer – **Professional Engineer Louisiana No. 41718**

#### Other experience and qualifications relevant to the proposed Project:

##### Summary Biography

Amy Robards is a professional engineer with 12 years of design and inspection of fixed and movable bridges experience. Her responsibilities have included conducting structural and annual inspections, bridge load rating and analysis, preliminary structural analysis, preparing standard bridge components designs and details using general analysis and CAD software, reviewing and checking standard structural design calculations and take-offs, and providing information for design and inspection reports.

##### Relevant Experience

##### **LAKE PONTCHARTRAIN CAUSEWAY SAFETY BAY IMPROVEMENTS CE&I – GNOEC**

**Structural Inspector** providing construction engineering and inspection services required for the fast-paced \$60M Safety Bay Improvement Project being designed to LADOTD standards and specifications. The project used the CMAR method. Improvements added emergency stopping areas on both causeway bridges and provided six new shoulders in each direction. Responsibilities included attendance at progress meetings, final inspections, and construction close-out.

##### **LAPALCO BOULEVARD BRIDGE REPAIRS CONSTRUCTION SUPPLEMENT, LAPALCO, LA - JEFFERSON PARISH**

**Structural Engineer/Inspector** responsible for providing annual inspection services and contributed to subsequent inspection report. A yearly valuation was requested by Jefferson Parish to determine the value of the bridge.



## TEC Professional Services Questionnaire

Amy Robards, PE (Continued)

### **ANNUAL INSPECTION OF ALMONASTER RR BRIDGE OVER INDUSTRIAL CANAL, NEW ORLEANS, LA – PORT NOLA**

**Structural Engineer/Inspector** for an annual inspection of the Almonaster Avenue Railroad Bascule, an eligible for the National Register of Historic Places bridge, 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.

### **LA 24 AND LA 16 COMPANY CANAL VERTICAL LIFT BRIDGE, BOURG, LA – LOUISIANA DOTD**

**Structural Inspector** 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.

### **US 190 MISSISSIPPI RIVER BRIDGE CE&I, BATON ROUGE, LA – LOUISIANA 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.

### **SEABROOK RR BRIDGE ANNUAL / IN-DEPTH BRIDGE INSPECTION, PORT NOLA, LA – PORT NOLA**

**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.

### **FRANCIS SCOTT KEY BAY BRIDGE INSPECTION, BALTIMORE, MD – MARYLAND TRANSPORTATION AUTHORITY**

**Structural Inspector** aided in the biannual inspection of the Francis Scott Key Bridge which included performing a hands-on inspection of fracture critical members and all parts of the deck, superstructure, and substructure. This 37-span structure carries four lanes of the Baltimore Beltway (I-695) over the Potapscow River. The main span is crossed by way of a three-span truss with a cable suspended deck. The structure was accessed using bucket trucks, under-bridge inspection vehicles, manlifts, and rigging. Findings and recommendations were input into the owner's asset management system.

### **WILLIAM P. LANE BRIDGE INSPECTION, CHESAPEAKE BAY, MD – MARYLAND TRANSPORTATION AUTHORITY**

**Structural Inspector** aided in 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.

### **IN-DEPTH BRIDGE INSPECTION OF COMPLEX STRUCTURES, STATEWIDE, LA – LADOTD**

**Structural Lead Inspector** for 3 bridges – Red River Miller's Bluff, Red River Jimmie Davis, and Calcasieu River West Fork bridges. Project included hands on inspection of the superstructures including the floor system members, bearings, the underside of all decks and concrete piers below the deck. The report was uploaded using LADOTD's software program.

## TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
<b>Name &amp; Title:</b>
<b>Robert Vicedo, PE</b> Structural Engineer
<b>Project Assignment:</b>
Sr. Bridge Engineer / Bridge Rating Engineer
<b>Name of Firm with which associated:</b>
Hardesty & Hanover, LLC
<b>Years' experience with this Firm:</b>
26 (Since 1997); <b>27 Years Total</b>
<b>Education: Degree(s)/Year/Specialization:</b>
B.S. / 1995 / Civil Engineering
<b>Active registration: Year first registered/discipline:</b>
2011 / Civil Engineer – <b>Professional Engineer Louisiana No. 36533</b>
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p><b>Summary Biography</b></p> <p>Roberto Vicedo has 27 years of structural experience. His responsibilities include design, inspection, load rating, preparation of plans, specifications, estimates, and construction support services for rehabilitation, repair, and construction of new fixed and bascule bridges.</p> <p><b>Relevant Experience</b></p> <p><b>SR 609 BASCULE BRIDGE OVER OLD FORT BAYOU REHABILITATION, OCEAN SPRINGS, MS – MISSISSIPPI DOT</b>  <b>Structural Engineer</b> for developed structural rehabilitation design and provided construction phase services for SR 609 bascule bridge as a task-order to the IDIQ Master Bridge Contract which included 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.</p> <p><b>CAMINO REAL BRIDGE OVER ICWW, BOCA RATON, FL – PALM BEACH COUNTY</b>  <b>Structural Engineer</b> responsible for the load rating analysis of the main girders and developing bascule span rehabilitation plans. The rehabilitation of this historic double-leaf rolling lift span, included designs for rehabilitated machinery, new tender house HVAC units, plumbing systems, and span locks, plus the development of technical special provisions. Structural rehabilitation designs involved new roadway grating, floorbeam brackets for wider sidewalks, stringers, and bridge railing. Aluminum structural components were utilized to minimize weight to counter balance.</p>

## TEC Professional Services Questionnaire

*Robert Vicedo, PE (Continued)*

### **HILLSBOROUGH AVE VERTICAL LIFT BRIDGE OVER HILLSBOROUGH RIVER REHABILITATION, TAMPA, FL – FDOT**

**Structural Engineer** responsible for design and detailing of the new lock bar supporting brackets on the bascule leaves. The project included the preparation of structural, mechanical, and electrical plans to repair/rehabilitate this historical simple trunnion twin double-leaf bascule span bridge. The rehabilitation included hydraulic machinery repairs, electrical system upgrades, the addition of barrier-housed span locks, and increases in the stiffness of the structural system to reduce vibrations.

### **US 92 HILLSBOROUGH AVENUE LIFT BRIDGE REHABILITATION, TAMPA, FL – FDOT**

**Structural Engineer** responsible for inspection and design for repair of an historic 1939 vintage vertical lift movable bridge over the Hillsborough River. The bridge features a 94-foot lift span. Inspected specific bridge systems and devised repairs to correct binding of the lift span guide assemblies. Performed quality control reviews of the plans and technical special provisions for replacement of the counterweight wire ropes, sheaves and sheave bearings as well as miscellaneous structural repairs to the lift span towers.

### **SFRTA RAILROAD BRIDGE OVER NEW RIVER REHABILITATION, FORT LAUDERDALE, FL – FDOT**

**Task Leader** responsible for the design of rolling-lift bascule span superstructure and also served as project manager of construction support services. Overall scope included preliminary PD&E study and final design for the off-line replacement of a single-leaf heavy rail bridge owned and operated by SFRTA and used by CSX Freight and Tri-Rail as an alternate route. The project included inspection of the structural, mechanical, and electrical systems and the development of rehabilitation and replacement options (swing and bascule span) with conceptual drawings, alignments, and cost estimates. The preferred alternative consisted of three 41-foot prestressed concrete approach spans and a 103-foot rolling-lift-span designed using the AREMA code.

### **BAY HARBOR CAUSEWAY BASCULE SPAN REHABILITATION, BAY HARBOR ISLAND, FL – FDOT**

**Structural Engineer** responsible for the design of the movable span sidewalk replacement for the Bay Harbor Bridge rehabilitation which included structural steel superstructure painting, concrete spall and crack repairs to the substructure, cathodic protection, bridge railing repair, structural steel repair, as well as machinery and electrical repairs to span operating systems.

### **SR 84 BRIDGE OVER SOUTH FORK NEW RIVER, DAVIE, FL – FDOT**

**Structural Engineer** responsible for the design, detail of repairs, and preparation of cost estimates for a \$4-million Hopkins trunnion single-leaf bascule span bridge rehabilitation. The project included in-depth structural, mechanical, and electrical inspection; reports; load ratings on bascule and approach spans; and rehabilitation plans for the structural, mechanical, and electrical systems.

### **SR-5 / US-1 PARKER BASCULE BRIDGE REHABILITATION, PALM BEACH, FL – FDOT**

**Project Engineer** responsible for general project coordination for the \$8 million, twin double-leaf Hopkins trunnion bascule span bridge rehabilitation project. Scope included in-depth inspection, condition report with load ratings, and rehabilitation recommendations as well as the preparation of structural, architectural, mechanical, and electrical plans for the hydraulic machinery retrofit, electrical system improvements, control house modifications, bridge widening, roadway, and embankment improvements

### **SR-814 / ATLANTIC BOULEVARD BASCULE BRIDGE REHABILITATION, POMPANO BEACH, FL – FDOT**

**Project Engineer** responsible for general project coordination for this \$5 million construction management at risk project to rehabilitate a Hopkins trunnion double-leaf bascule span bridge. The project included hydraulic machinery retrofit; electrical system improvements, control house modifications, and bascule span structural steel rehabilitation and bridge railing replacement.

## TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
<b>Name &amp; Title:</b>
<b>Raymond Mankbadi, PE</b> Director of Geotechnical Engineering
<b>Project Assignment:</b>
Sr. Geotechnical Engineer
<b>Name of Firm with which associated:</b>
Hardesty & Hanover, LLC
<b>Years' experience with this Firm:</b>
17 (Since 2006); <b>44 Years Total</b>
<b>Education: Degree(s)/Year/Specialization:</b>
M.S. / 1985 / Civil Engineering B.S. / 1978 / Civil Engineering
<b>Active registration: Year first registered/discipline:</b>
1989 / Civil Engineer – <b>Professional Engineer Louisiana No. 41609</b>
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p><b>Summary Biography</b></p> <p>Raymond Mankbadi is H&amp;H's Director of Geotechnical Engineering. His 40+ year career has been focused primarily in the transportation industry. Ray is experienced in all phases of project development – from studies to design and through construction of fixed and movable railroad and highway bridges. While Ray is considered an industry expert in soil improvement technologies, mechanically stabilized earth walls and deep foundations, his experience includes developing subsurface investigation programs, foundation analyses and design, pavement condition evaluations and rehabilitation design, embankment settlement, cofferdam, vibration monitoring, and retaining walls. He is currently managing the geotechnical activities for more than \$1 billion in construction projects from New England to Florida.</p> <p><b>Relevant Experience</b></p> <p><b>LAPALCO BOULEVARD MOVABLE BRIDGE OVER HARVEY CANAL, WESTWEGO, LA - JEFFERSON PARISH DPW</b></p> <p><b>Lead Geotechnical Engineer</b> for 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.</p>



## TEC Professional Services Questionnaire

*Raymond Mankbadi, PE (Continued)*

### **DES ALLEMANDS BRIDGE REHABILITATION (BNSF BRIDGE 32.06), DES ALLEMANDS, LA – BNSF RAILWAY CO**

**Lead Geotechnical Engineer** involved in the design, construction support, testing of micropiles for the rehabilitation of a 90-foot single-track swing span bridge which included two jump spans and ten approach spans of prestressed concrete box beam. Crossing the Des Allemands Bayou in Des Allemands, Louisiana, the 90-foot swing span was replaced on the existing substructures which were reinforced by adding micropiles. Two jump spans were rehabilitated as well. Hardesty & Hanover provided professional engineering services for the development of final bridge and track designs, permitting, construction contract documents, construction management and construction support for the rehabilitation of the bridge.

### **US-17 SWING BRIDGE OVER THE PERQUIMANS RIVER DESIGN-BUILD, PERQUIMANS COUNTY, NC – NCDOT**

**Lead Geotechnical Engineer** provided geotechnical and foundation design to replace the existing swing bridge with a new off-line bridge as well as technical special provisions for the control house. H&H's responsibilities included the complete design of the new swing span, including structural, mechanical, electrical, and geotechnical engineering. The swing span structure consists of a center-pivot Warren through truss supporting the concrete deck. The swing bridge foundations consist of 24-inch prestressed concrete piles. All work was performed in accordance with AASHTO LRFD Bridge Specifications & FHWA Geotechnical Manuals.

### **SR-605 BASCULE BRIDGE REHABILITATION, IDIQ MASTER BRIDGE DESIGN CONTRACT, OCEAN SPRINGS, MS – MISSISSIPPI DOT**

**Lead Geotechnical Engineer** responsible for generator foundation design of SR-605 bascule bridge as a task-order to the IDIQ Master Bridge Contract for bridge services statewide. The scope of work includes inspection and rehabilitation of structural, mechanical, and electrical bridge components, roadway approaches, and development of maintenance and repair plans.

### **SARAH MILDRED LONG BRIDGE REPLACEMENT, PORTSMOUTH, NH TO KITTERY, ME – MAINE DOT**

**Lead Geotechnical Engineer** for the \$159 million replacement design of the movable span of the Sarah Mildred Long Bridge, which carries vehicular traffic between New Hampshire and Maine and serves as a railway link to the Portsmouth Naval Shipyard. The movable bridge foundation design required deep drilled shaft foundations for the movable span. The new bridge will be a single level 300-foot-long lift span, framed with box girders, has separate seating locations for the double-level highway/rail approaches.

### **FLAGLER MEMORIAL BASCULE BRIDGE REPLACEMENT DESIGN/BUILD, WEST PALM BEACH, FL – FDOT**

**Geotechnical Engineer of Record** responsible for all geotechnical aspects of the design and construction including subsurface investigation program development, foundation design, cofferdam, geotechnical analysis, and report preparation. This project consisted of complete replacement of the existing, National Register of Historic Places eligible bridge with a new four-lane divided bridge. 60-inch diameter drilled shaft embedded in overburden soils with post grouted tip are utilized to support new bridge structure and the approach roadway embankment are supported on 36-inch diameter drilled caissons.

### **BRUCKNER EXPRESSWAY OVER WESTCHESTER CREEK (UNIONPORT BRIDGE) REPLACEMENT, NEW YORK, NY – NEW YORK CITY DOT**

**Lead Bridge Geotechnical Engineer** for the replacement of Unionport Bridge which provides a critical traffic connection between the Bruckner and Cross Bronx Expressway and the Hutchinson River Parkway. Responsible for all geotechnical aspects including subsurface exploration, drilled shaft foundation design, soil improvement, sign structures, cofferdam, retaining walls, reinforcement embankment on soft soils and instrumentation. Bridge support includes 5-foot-wide drilled shafts socketed on bedrock. Micro piles and controlled modulus columns were used to support the embankment to minimize impact on adjacent state bridges.



## TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
<b>Name &amp; Title:</b>
<b>Arsanious Guirguis, PE</b> Geotechnical Engineer
<b>Project Assignment:</b>
Geotechnical Engineer
<b>Name of Firm with which associated:</b>
Hardesty & Hanover, LLC
<b>Years' experience with this Firm:</b>
12 (Since 2011); <b>12 Years Total</b>
<b>Education: Degree(s)/Year/Specialization:</b>
M.S. / 2014 / Civil Engineering B.S. / 2011 / Civil Engineering
<b>Active registration: Year first registered/discipline:</b>
2017 / Civil Engineer – <b>Professional Engineer Louisiana No. 41969</b>
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p><b>Summary Biography</b></p> <p>Arsanious Guirguis is a geotechnical engineer with a concentration in bridges. His work is primarily involved in foundation design, subsurface exploration programs, and construction support services. His construction support work includes the supervision of instrumentation systems, instrumentation monitoring, submittal reviews, and testing reports.</p> <p><b>Relevant Experience</b></p> <p><b>FLAGLER MEMORIAL BASCULE BRIDGE REPLACEMENT DESIGN/BUILD, WEST PALM BEACH, FL – FDOT</b></p> <p>Geotechnical Engineer responsible for evaluating subsurface data for development of subsurface parameters to be used in design, performing geotechnical engineering analyses and developing foundation design. Scope included the complete replacement of the existing bridge, with a new four-lane divided bridge. 60-inch diameter drilled shaft embedded in overburden soils with post grouted tip are utilized to support new bridge structure and the approach roadway embankment are supported on 36-inch diameter drilled caissons.</p>

## TEC Professional Services Questionnaire

*Arsanious Guirguis, PE (Continued)*

### **HARLEM RIVER DRIVE VIADUCT OVER EAST 127TH STREET, NEW YORK, NY – NEW YORK CITY DOT**

**Geotechnical Engineer** responsible for providing field inspection of borings as well as rock corings and overseeing crosshole seismic testing. Assisted in preparing subsurface (boring) investigation, created final bore logs and subsurface profile, and developed geotechnical report. Geotechnical Engineer in charge of preliminary design and final design of pier foundations (drilled shafts). Also, responsible on all responses related to geotechnical Request for Information and submittals. Engineer in charge of reviewing and inspecting all drilled shaft load tests (O-Cell's), video inspection of rock socket and drilled shaft remediation. Provided field engineering support as required to resolve technical and construction issues. The Harlem River Drive project included the full replacement of the ten-span Harlem River Drive Viaduct over the entrance ramp at East 127th Street in the Borough of Manhattan.

### **PROMENADE OVER FDR DRIVE FROM EAST 81ST STREET TO EAST 90TH STREET, NEW YORK, NY – NYCDOT**

**Lead Bridge Geotechnical Engineer** for a project involving the rehabilitation or replacement of superstructure and substructure elements. The scope also included protection or replacement/relocation of all utilities on the structure as well as protection or replacement/relocation of all electrical and mechanical systems within the project limits; landscape design; ADA compliance; and new pedestrian. Reconstruction and repair of structural elements required work from the top of the promenade deck within the park and from the southbound FDR Drive roadway level located beneath the promenade. Maintenance of vehicular, pedestrian, and bicycle traffic throughout construction was a critical concern. Constructability and staging guided the overall approach to the project.

### **SHORE ROAD BRIDGE, BRONX, NY – NEW YORK CITY DOT**

**Geotechnical Engineer** involved in the preliminary design and alternative study for the replacement of a rolling lift bridge over the Hutchinson River. Led the foundation design, embankment evaluation and subsurface exploration program. Responsible for all geotechnical aspects of the design including subsurface exploration, drilled shaft foundation design, soil improvement, retaining walls, reinforcement embankment on soft soils and instrumentation. The project includes studies, alternate assessment, FHWA/NYS DOT design approval, preliminary & final design services. The bridge will be replaced with a new \$260 million mid-level double-leaf bascule on a southernly alignment. The 108-year-old historical bridge had been rehabilitated and repaired several times in recent decades, the main steel members and the concrete approach spans continued to deteriorate. The 900-foot-long bridge accommodates two lanes of traffic in each direction, a sidewalk, and carries 125,000 vehicles each day. The 108-year-old bridge is eligible for inclusion on both the New York State and National Registers of Historic Places. The unique architectural towers, or pylons, on the bridge were described in contemporary documents from 1910 as a means of emphasizing the gateway to vessels.

### **CRO-530B DESIGN SERVICES FOR THE RECONSTRUCTION OF TWO BRIDGES, LEWISVILLE AND YORKTOWN, NY – NEW YORK CITY DEP**

**Geotechnical Engineer** involved in the reconstruction and/or replacement of two bridges. The first bridge, the Cross River Inlet Bridge located in the Town of Lewisboro, required repairs to its deteriorated concrete components. These components included parapet walls, roadway slab, and wing wall caps. In addition, H&H replaced the approach pavement and installed waterproof membrane, guide rails, and curbs. The second bridge, the Baptist Church Road Bridge located in the Town of Yorktown, required a complete replacement. The replacement featured new roadway alignments to eliminate substandard geometrical features and included stone capstones.

### **COLUMBIA AND DUTCHESS COUNTY BUNDLED BRIDGES, UPSTATE NY – NEW YORK STATE DOT, REGION 8**

**Geotechnical Engineer** for the replacement of eight existing bridges with new, widened structures, reconstruction of the bridge approach roadways, and installation of new safety appurtenances. Responsible for geotechnical reports for all six bridges. Bridge abutments were supported on either H-piles or spread footings. Answered all requests for geotechnical information. Reviewed and inspected all pile load tests and provided field engineering support as required to resolve technical and construction problems.

## TEC Professional Services Questionnaire

**L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this Project.**  
Please include any and all work performed for Jefferson Parish. Please attach additional pages if necessary.

### PROJECT NO. 1

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<b>Lake Pontchartrain Causeway Safety Bay Improvement Project CE&amp;I – CMAR Construction Project</b>  <b>Owner:</b> Greater New Orleans Expressway Commission <b>Contact:</b> Carlton Dufrechou   504.835.3118   cdufrechou@gnoec.org	H&H provided CE&I Services for this <b>multiple award-winning project</b> which was constructed along the Lake Pontchartrain Causeway Bridge. The purpose of this fast-paced, CMAR construction project was to improve safety by providing emergency stopping areas for NB and SB bridges with new shoulders in six locations on each bridge.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
10/2020	\$3,800,000	\$2,800,00

H&H deployed several construction engineering and inspection teams to oversee the fabrication and construction of structural and electrical operations. These teams worked concurrently inspecting construction activities over an approximately 18-month construction and the project closeout period. Precast components were utilized for the project with material fabrication performed off-site at two locations and the contractor's yard for the construction of prefabricated decks. Scope of works also included inspection of power, lighting, communication, CCTV, and traffic signal systems. All work on this contract was performed in conformance with LADOTD requirements and the latest specifications.

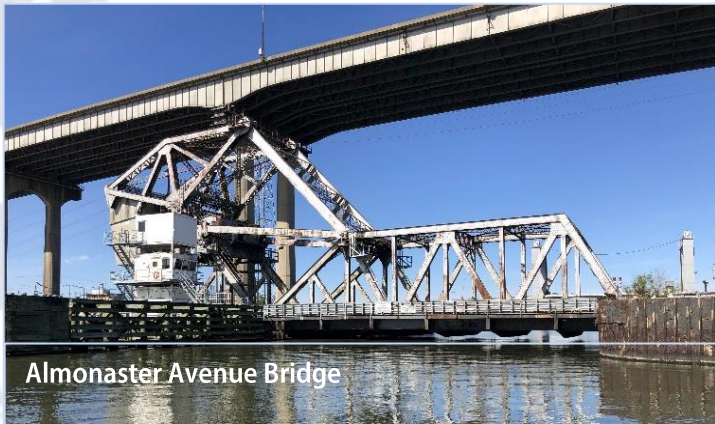

Specific responsibilities included maintaining all construction field records; documenting personnel present and equipment being utilized on the job site; coordinating relocations and adjustments of utility facilities for the construction of worksite; submitting all sampled materials to be tested by a qualified testing laboratory in accordance with the stipulated sampling manual; inspecting and ensuring that all work was performed in general compliance with the specified plans and specifications; keeping concise records of the contractual operations; preparing monthly pay estimates and monthly progress reports; preparing final estimate packages and submitting as-built plans with the final estimate; monitoring and documenting all construction claims and providing recommendations on disposition of claims; coordinating and/or performing the inspection of the fabrication of pre-cast materials at the two pre-cast plants and the contractor's yard; reviewing the construction signage for compliance with the MUTCD and traffic control standards; developing a sampling plan; and preparation of final estimate packages, as-built plans and all construction records.

*Key Members: Babak Naghavi, PE; Fred Wetekamm, PE; Amy Robards, PE; Linh Kim, EI; and Ken Picquet, EI*






## TEC Professional Services Questionnaire


PROJECT NO. 2		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>2019 IDIQ Movable Bridge Annual Inspection for the Almonaster and Seabrook Avenue Railroad Bridges,</b> New Orleans, Louisiana</p> <p><b>Owner:</b> Port Nola  <b>Contact:</b> Randy Songy, PE   504.528.3308    randy.songy@portnola.com</p>	<p>Under the 2019 IDIQ Movable Bridge Inspection and Load Rating for the Port of New Orleans, H&amp;H has been performing Annual NBIS bridge assessment services for two movable bridges: the Almonaster Avenue and Seabrook Avenue Bridges. The Annual Inspections included the comprehensive examination of the structural, mechanical, and electrical systems for each complex movable bridge.</p>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
06/2023	\$505,000	\$500,000
<div style="display: flex;"> <div style="flex: 1;"> <p>H&amp;H engineers and NBIS-certified inspection staff have performed routine and fracture critical inspection of the bascule, counterweight, and tower span for the Seabrook Trunnion Bascule Bridge annually from 2020 to 2023. The bridges cross the Inner Harbor Navigation Canal (IHNC) in New Orleans, LA.</p> <p>NBIS and element structural inspection consisted of a visual and hands-on examination of the bascule spans, tower span, counterweight truss, counterweight, and the fender system.</p> <p>The underside inspection consisted of hands-on examination of the bascule span stringers and floor beams, as well as a cursory inspection of the east and west approaches. This included both a walk-through visual examination and audible observations of the pins, trunnions, span locks and operating machinery. Also observed were the lighting and warning systems of the approach roadways, navigation channel and pier buildings. Nondestructive testing of eight pins were performed.</p> <p><b>Key Members:</b> Babak Naghavi, PE; Fred Wetekamm, PE; Amy Robards, PE; Erik Diaz, PE; Linh Kim, PE; Ken Picquet, PE; Dalton Hunt, EI; Lance Resendez, EI; Chris Aubert, EI; Travis Kimmins, PE</p> </div> <div style="flex: 1;">  <p style="text-align: center; margin-top: 5px;">Almonaster Avenue Bridge</p>    <p style="text-align: center; margin-top: 5px;">Seabrook Avenue Bridge</p> </div> </div>		

## TEC Professional Services Questionnaire


PROJECT NO. 3		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility	
<b>Lapalco Bridge Over Harvey Canal,</b> Jefferson Parish, Louisiana  <b>Owner:</b> Jefferson Parish  <b>Contact:</b> Mark Drewes   504.736.6500   mdrewes@jeffparish.net	H&H is designing this new bascule bridge, parallel to the existing bridge, which upgrades its capacity to six lanes of vehicular traffic. The existing bridge will also be fully rehabilitated to function with the new bridge.	
Completion Date (Actual or estimated)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
12/2024	\$7,000,000	\$4,000,000
<p>The proposed improvement is to reconfigure the existing four-lane (two in each direction) Lapalco Boulevard crossing at Harvey Canal to provide three travel lanes in each direction and one bidirectional bike/pedestrian lane. This increase from the existing four lanes eases traffic congestion and enhances the area's hurricane evacuation route network. The new bridge will provide a 150-foot-wide navigation channel, a 45-foot vertical navigation clearance, and is designed to match the existing bridge.</p> <p>Lapalco Boulevard in the vicinity of the bridge is classified as an urban arterial roadway and serves as a significant transportation and evacuation route. In addition to design of the new bridge all roadway approaches and intersections in the vicinity of the bridge will be redesigned to accommodate the new structure. The existing bridge will be modified to carry a pedestrian and bicycle path.</p> <p>The project is being designed to LADOTD Standards and Specifications and will be reviewed by LADOTD. Scope of work includes thorough inspection of the existing bridge, survey and geotechnical engineering as well as updating the existing Environmental Assessment. Design services include roadway design and lighting; utility coordination; load rating; structural design of foundation and approach spans; the structural, mechanical and electrical design of the bascule portion; as well as permitting.</p> <div style="display: flex; align-items: flex-start;">  <div style="width: 50%; padding-left: 10px;"> <p><b>Key Members:</b> Babak Naghavi, PE; Paul Skelton, PE; Erik Diaz, PE; Marco Lara, PE; Amy Robards, PE; Ken Picquet, PE; Frederick Wetekamm, PE; Ray Mankbadi, PE; and Dalton Hunt, El; Linh Kim, PE; Travis Kimmins, PE</p> </div> </div>		



## TEC Professional Services Questionnaire

PROJECT NO. 4		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<b>Almonaster Avenue Bridge Railroad Bridge over the Industrial Canal Rehabilitation</b> , New Orleans, Louisiana  <b>Owner:</b> Port of New Orleans  <b>Contact:</b> Anthony Everett, PE   504.528.3309   anthony.evett@portnola.com	H&H performed bridge assessment, complete rehabilitative engineering design, and construction inspection services required for the rehabilitation and partial replacement of the Almonaster Avenue Bridge, a movable Strauss-heel trunnion bridge, for the Port of New Orleans.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
11/2022	\$2,500,000	\$2,162,000
<p>H&amp;H's 2019 assessment of the circa-1920 bascule bridge revealed that improvements to the electrical and mechanical systems, superstructure, and counterweight were required to return this bridge to its full operating capability. Although, the existing substructure could remain, modifications were deemed necessary to accommodate the rehabilitated superstructure.</p> <p>H&amp;H developed the necessary bridge remedial design plans and specifications and provided inspection services during construction.</p> <p>The bridge's span drive and span lock machinery, operating strut, guide assembly, live load bearings, and counterweight trunnion pin and bushing will be replaced. The main trunnion bearings will be rehabilitated and repositioned. Additional remedial efforts along Almonaster Avenue also included the improvement or replacement of the original fixed roadway approach spans. The sharp curve that existed on westbound Almonaster Avenue was demolished and a new road was constructed on an improved alignment. The Almonaster Bridge crosses over the Industrial Canal and provides two vehicular lanes and a single railroad track crossing down the center of the span. Hurricane Katrina's notorious wrath had destroyed roadways leading up to the bridge in 2005 and for the next 13 years, the bridge had only served rail traffic.</p> <div style="display: flex; align-items: flex-start; margin-top: 20px;"> <div style="flex: 1;"> <p><b>Key Members:</b> Babak Naghavi, PE; Paul Skelton, PE; Erik Diaz, PE; Frederick Wetekamm, PE; and Linh Kim, PE; Ray Mankbadi, PE; and Dalton Hunt, EI; Travis Kimmins, PE; Ken Picquet, PE</p> </div> <div style="flex: 1; text-align: center;">  </div> </div>		

## TEC Professional Services Questionnaire

PROJECT NO. 5		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>2018-2020 MDOT IDIQ Comprehensive Bridge Engineering Services</b>, Harrison County, Mississippi</p> <p><b>Owner:</b> Mississippi DOT</p> <p><b>Contact:</b> Richard Withers, PE   601.359.7200   rwithers@MDOT.ms.gov</p>	<p>H&amp;H was selected to provide movable bridge engineering services under the MDOT IDIQ Master Contract to provide standard and special bridge services, statewide. The projects included in this contract were the SR-609 Bascule Bridge, SR-609 Bascule Bridge and the I-110 Biloxi Back Bay Bascule Bridge.</p>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
03/2020	\$3,500,000	\$3,400,000
	<p><b>SR-609 Bascule Bridge:</b> H&amp;H is providing inspection, rehabilitation design, and construction support services (CSS) for the structural, mechanical, and electrical components of this bridge. Structural work included removal of the existing paint system (lead abatement) and repainting all structural steel, replacing the existing grid deck, structural strengthening of the bascule leaves, replacing all high strength connection bolts exhibiting corrosion with mechanically-galvanized high strength bolts, repairing cracks in structural steel, and repairing deck joints. Mechanical work included removing and replacing machinery with AASHTO compliant machinery. Electrical work included replacing the emergency generator, motor control center, motor drives, span motors, and brakes. Also, replacing all conduits and wiring, submarine cable and cabinets, and bascule pier navigation lighting.</p> <p><b>SR-605 Bascule Bridge over Industrial Seaway Canal:</b> H&amp;H performed a site assessment and developed rehabilitation design plans for the structural, mechanical, and electrical components of this bridge involving roadway approaches, operator house, development of maintenance and repair plans, preparation of traffic control plans, and CSS. Structural work included removal of the existing paint system (lead abatement) and repainting all structural steel, replacing the existing grid deck, structural strengthening, replacing all high strength connection bolts exhibiting corrosion with mechanically-galvanized high strength bolts (A325), repairing cracks in structural steel, and repairing deck joints. Mechanical work included removing and replacing machinery with AASHTO compliant machinery. Electrical work included replacing the emergency generator, motor control center, motor drives, span motors, and brakes. Also replaced all conduits and wiring, submarine cable and cabinets, and bascule pier navigation lighting.</p> <p><b>I-110 Biloxi Back Bay Bascule Bridge:</b> H&amp;H performed a Routine and Fracture Critical, Routine, and NBIS Element Level Inspection for all structural, mechanical, and electrical components of the complex movable bridge comprising a twin double-leaf rolling bascule bridge, with a cast-in-place concrete deck that carries four lanes of interstate traffic and a pedestrian walkway. Structural inspection consisted of a visual and hands-on examination of the approach spans, bascule spans and anchor spans, and the fender system. A Final Report was prepared with a summary of the findings and proposed recommendations for maintenance and repair of the bridge.</p> <p><b>Key Members:</b> Babak Naghavi, PE; Paul Skelton, PE; Fred Wetekamm, PE; Erik Diaz, PE; Rob Vicedo, PE; Linh Kim, PE; Amy Robards, PE; Travis Kimmins, PE; and Ray Mankbadi, PE; Ken Picquet, PE</p>	

## TEC Professional Services Questionnaire

PROJECT NO. 6		
<b>Project Name, Location and Owner's contact information:</b>  <b>HEFT (SR 821) from Killian Parkway to Sunset Drive, Miami-Dade County, FL</b>  <b>Owner:</b> Florida Turnpike Enterprise <b>Contact:</b> (Prime PM) Daniel Benitez   954.928.1826   dbenitez@bcceng.com	<b>Nature of Firm's Responsibility:</b>  H&H provided engineering design services the SR 821 – Homestead Extension of Florida's Turnpike (HEFT) improvement project which encompassed the roadway segment located just south of Killian's Parkway (SW 104th Street) to just north of Sunset Drive (SW 72nd Street).	
<b>Completion Date (Actual or estimated):</b>  05/2019	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>  \$85,000,000 (Total Construction)	<b>Work for which Firm was Responsible:</b>  \$796,000
<p>The overall design involved widening, milling and resurfacing, and reconstruction of the roadway. H&amp;H's responsibilities included traffic control, roadway, TCP, and drainage design from Killian Parkway and Sunset Drive.</p> <p>The main objective of the project is to improve traffic flow on the HEFT and provide operational improvements along Kendall Drive, while maintaining toll collections.</p> <p>The project was also designed to accommodate a future modified typical section for future improvements.</p> <p>The project illustrates:</p> <ul style="list-style-type: none"> <li>Comprehensive range of disciplines</li> <li>Design capabilities</li> <li>Coordination with multiple external design disciplines to develop comprehensive TCP plan.</li> </ul> <p><b>Key Members:</b> J. Webb Jones, PE; Robert Hideck, PE; Benjamin Bower, PE; and Zineb Bennouna, PE;</p>		






## TEC Professional Services Questionnaire

PROJECT NO. 7		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>I-75 Express Lanes Bridge Ramps, Segment A-B, Design Build, Broward County, Florida</b></p> <p><b>Owner:</b> Florida DOT, District 4</p> <p><b>Contact:</b> Robert Bostian, PE   954.777.4427   Robert.Bostian@dot.state.fl.us</p>	<p>H&amp;H provided civil engineering design services for the superstructure design and plan development of two express lane bridge ramps (H-4/H-12 and H-5) and MSE walls, as a subconsultant on the Community Asphalt design-build team, for the I-75 Express Lanes Project.</p>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
05/2018	\$80,000,000 (Total Construction)	\$950,000
<p>Ramp H-4/H-12, a simple-span flat slab bridge, rests on fill and has a three-span continuous curved flyover ramp. The 632.5-foot bridge consists of two steel twin box girders, 8.5-inch structural concrete deck, and a 115-foot-long straddle box girder bent. Span 1, the flat slab on fill, was developed as part of a cost-savings initiative, is enclosed within MSE walls. The curved flyover ramp superstructure consists of twin steel tub girders with a span configuration of 183, 229, and 183 feet. Superstructure Spans 2, 3 and 4 provide an out-to-out width of 30 feet. The superstructure is supported by a wall foundation at Pier 2, a hammerhead at Pier 4, and an integral steel box cap bent at Pier 3. Begin and end bridge is supported on typical concrete end bents; all foundations are supported on prestressed concrete piling.</p> <p>Ramp H-5, a 184-foot-long single span, skewed bridge, is comprised of 78-inch FIBs supported on concrete end bents; all foundations are supported on prestressed concrete piling.</p> <p>The I-75 Express Lane Design-Build program consisted of five separate contracts from south of SR 836 in Miami-Dade County to I-595 in Broward County, approximately 27 miles. The Segment A&amp;B project was the largest and most complex, extending 3.1 miles from NW 170th St to south of Miramar Parkway. Segment A&amp;B includes constructing express lanes in the existing I-75 median as well as 2.6 miles of reconstruction, widening, and other interchange ramp connections and improvements.</p> <p><b>Key Members:</b> Rob Vicedo, PE and Ray Mankbadi, PE</p>		



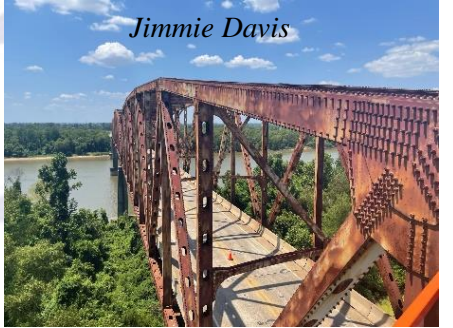


## TEC Professional Services Questionnaire


PROJECT NO. 8		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<b>Sidewalk Improvements to conform to ADA Guidelines – 1091: US 190 to Country Club Blvd., St. Tammany Parish, LA</b>  <b>Owner:</b> Louisiana DOTD  <b>Contact:</b> Brett Brabham, PE   985.375.0165   <a href="mailto:Brett.Brabham@dtd.louisiana.gov">Brett.Brabham@dtd.louisiana.gov</a>	H&H is responsible for 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.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
06/2023	\$162,705	\$92,782
<p>As a part of this IDIQ, Hardesty &amp; 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.</p> <p>H&amp;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.</p> <div style="display: flex; align-items: flex-start;"> <div style="flex: 1;"> <p><b>Key Members:</b> Babak Naghavi, PE;              Frederick Wetekamm, PE; Erik Diaz, PE;              Linh Kim, PE; and Dalton Hunt, EI</p> </div> <div style="flex: 2; text-align: center;">  </div> </div>		



## TEC Professional Services Questionnaire

PROJECT NO. 9		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>In-Depth Bridge Inspection of Complex Structures Statewide, Statewide, LA</b></p> <p><b>Owner:</b> Louisiana DOTD</p> <p><b>Contact:</b> Stephani Doolittle, PE   225.379.1329   stephanie.doolittle.la.gov</p>	<p>H&amp;H performed routine, element level, and fracture critical inspections on 3 bridges (Red River (Miller's Bluff), Red River (Jimmie Davis), and Calcasieu River (West Fork). An inspection report was submitted to LADOTD using LADOTD's software program.</p>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
10/2023	\$1,282,485.00	\$1,212,871.00
 <p><i>Miller's Bluff</i></p>	 <p><i>West Fork</i></p>	 <p><i>Jimmie Davis</i></p>
<p>The three bridges included in the in-depth bridge inspection of complex structures statewide scheduled were Red River (Miller's Bluff), Red River (Jimmie Davis), and Calcasieu River (West Fork).</p> <p>The Red River (Miller's Bluff) structural inspection was a two-day inspection that included traffic control, two UBI's, one man lift, rescue boat, and general inspection tools. A six person H&amp;H structural inspection team completed the required deliverables in 40-days after the inspection. The inspection was in Shreveport, Louisiana.</p> <p>The Red River (Jimmie Davis) structural inspection was a two-day inspection that included traffic control, two UBI's, one man lift, rescue boat, and general inspection tools. A six person H&amp;H structural inspection team completed the required deliverables in 40-days after the inspection. The inspection was in Shreveport, Louisiana.</p> <p>The Calcasieu River (West Fork) structural inspection was a three-day inspection that included traffic control, one UBI, one man lift, rescue boat, and general inspection tools. A four-person H&amp;H mechanical and electrical inspection team spent a total of four days in Lake Charles, Louisiana. The Calcasieu River bridge was built as a movable bridge, although it is not in operation. DOTD requested H&amp;H to inspect the mechanical and electrical components in lieu of reopening. The teams completed the required deliverables in 40-days after the inspection.</p> <p><b>Key Members:</b> Babak Naghavi, PE; Fred Wetekamm, PE; Amy Robards, PE; Erik Diaz, PE; Linh Kim, PE; Ken Pecquet, PE; Travis Kimmins, PE; Dalton Hunt, EI; Chris Aubert, EI; and Sean Brock, EI</p>		

## TEC Professional Services Questionnaire

PROJECT NO. 10		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<b>I-10 &amp; I-12 College Dr. Flyover Ramp,</b> Baton Rouge, LA  <b>Owner:</b> Louisiana DOTD  <b>Contact:</b> Catherine Mastin, PE   225.379.1652   <a href="mailto:Catherine.Mastin@la.gov">Catherine.Mastin@la.gov</a>	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.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
8/2024	\$52,300,000	\$2,500,000
<div style="display: flex;"> <div style="flex: 1;"> <p>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.</p> <p>H&amp;H serves as Design-Builders 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.</p> <p>H&amp;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&amp;H manages all document control to include daily diaries, collection of material certifications, NCRs, and weekly and monthly project reports.</p> <p><b>Key Members:</b> Babak Naghavi, PE; Frederick Wetekamm, PE; Amy Robards, PE; Linh Kim, PE; Lance Resendez, EI; and Dalton Hunt, EI;</p> </div> <div style="flex: 1; text-align: center;">  </div> </div>		

## TEC Professional Services Questionnaire

**M. List all prior and/or on-going litigation between Firm and Jefferson Parish. Please attach additional pages if necessary.**

Parties:		Status/Result of Case:
Plaintiff:	Defendant:	
1. NONE		
2.		
3.		
4.		

**N. Use this space to provide any additional information or description of resources supporting Firm's qualifications for the proposed project.**

### **FIRM PROFILE**

Hardesty & Hanover (H&H), founded in 1887 by noted designer, lecturer, and author Dr. J.A.L. Waddell - known throughout the country as a pioneer in design engineering - is one of the nation's most respected, privately owned consulting engineering firms. **We are proud of our long history working in Louisiana, dating back to 1896 with the historic Waddell A-Truss Bridge over Cross Bayou in Shreveport,** and of our continued presence on a variety of challenging projects. As leader in bridge engineering, our firm brings a legacy of providing engineering excellence for over 135 years. **Ranked on the ENR's top 7 bridge firms in the country,** H&H offers a host of engineering services for roadway structures, movable and fixed bridges, expressways, spillways, drainage structures, tunnels, railways, transit, cranes, waterfront structures, retractable stadium roofs, power engineering, and engineering management.

In the last few years, the firm has completed studies and preliminary and final designs for roadway improvements with construction costs over a billion dollars. With our in-house multi-disciplinary team of civil, structural, geotechnical, hydraulic, roadway, traffic, mechanical and electrical engineers, H&H is equipped to ensure harmony with existing land-use patterns, safety and convenience of facilities, and minimum interference with community life, traffic and the environment.

Our staff's professional qualifications, integrity, reliability, and commitment to provide quality professional services has earned our firm an excellent reputation. We are dedicated to providing cost-saving and effective designs, innovative alternative construction techniques, construction support, and construction administration services for repair and rehabilitation of major infrastructure throughout the country.

*H&H's local Metairie team will be supported by other H&H seasoned engineers who also have significant roadway, bridge, and drainage design experience. Together our team maintains technical expertise to meet the project goals of Jefferson Parish.*



# TEC Professional Services Questionnaire

## EVALUATION CRITERIA

By addressing each of the evaluation criteria on the next few pages, the following information will demonstrate H&H's ability to provide excellent service to Jefferson Parish, relevant to the work required for engineering services on this contract:

1. Professional Training and Experience
2. Capacity for Timely Completion
3. Location of the principal office
4. Adversarial Legal Proceedings
5. Prior Successful Completion of Projects
6. Size of Firm
7. Past Performance



## 1. Professional Training and Experience

### FIRM EXPERIENCE

H&H has successfully executed numerous roadway and bridge design contracts with many state DOTs and municipalities throughout the U.S. Additionally, our skilled and experienced engineers have provided rehabilitation and repair concepts and contract documents for hundreds of public works structures. Our engineering experts remain at the forefront of innovations and have extended the service life of transportation structures.

H&H approaches all projects with an emphasis on each client's individual strengths and preferences. Each design is based on the client's requests and each design specifically provides features desired by the client. Our strength is our diversity and knowledge which prevents us from being locked into any one system. Our projects are designed to be durable, reliable, with the minimum possible maintenance relying on our experiences of the past but incorporating proven newer features of roadway design and construction.

***We have the capabilities to understand any type of transportation structure including the design, cost analysis, and construction administration associated with this on-call roadway and bridge engineering contract.***

We are routinely the firm called upon for projects presenting special engineering challenges. The firm's name is usually associated with having built or designed several of the country's landmark structures, such as the preliminary and final design for the recently completed New York State DOT Kew Gardens Interchange. This reconstruction and rehabilitation project requires a wide range of engineering tasks, including retaining structures, roadway widening, arterial maintenance facilities, environmental compliance, extensive coordination, drainage structures, utility relocation, condition assessment, control systems, ITS, geotechnical and seismic analysis from our team of expert engineers across all disciplines. However, H&H's projects are as different as the needs of our clients. In addition to our numerous new large-scale projects, we have also completed countless highway and bridge renovation and inspection projects that, while not classified as "mega-projects," require all the skills and expertise of a superior consulting team.

Utilizing a multidisciplinary design approach, H&H draws upon its unparalleled experience and proven track record of success to ensure that our clients' projects are technically correct, as well as functional. To achieve this, highly qualified, trained and available staff is capable of delivering any project on-time and under budget, while upholding the highest level of quality.

*H&H has developed and implemented design concepts for roadway structures. Project tasks have included:*

- Construction Plans
- Drainage Design
- Grading Plans
- Stripping and Signing Layout
- Maintenance and Protection of Traffic
- Constructability Review
- Construction Scheduling
- Value Engineering
- Environmental Permitting and Studies
- Wetland Mitigation Plans
- Utility Plans
- Access Plans
- Right of Way Plans

## TEC Professional Services Questionnaire

### PERSONNEL EXPERIENCE

Our team of professional engineers were selected for their history of excellence performing engineering services statewide for clients including Louisiana Department of Transportation and Development (LADOTD), BNSF Railway Company, CN Railway, City of New Orleans, and United States Army Corps of Engineers (USACE). Our proposed project team consists of senior level management staff with strong technical and management capabilities. Leading the H&H Team who also meet the minimum personnel requirements for the project will be:

**Paul Skelton, PE | Principal-in-Charge** is a Professional Engineer registered in the State of Louisiana, with 38 years' experience in charge of managing bridge construction projects. His entire engineering career has been with H&H and includes inspection, design and rehabilitation of major highway and rail bridges across the United States. He has been responsible for the inspection, design, and management for hundreds of major steel and concrete bridge structures. Paul's expertise also includes movable spans (vertical lift, swing, and bascule spans), which includes his recent experience overseeing the pre-design inspection/ rehabilitation of the Lapalco Boulevard Bridge over Harvey Canal for the Jefferson Parish. As Principal, his expertise and experience are a reliable source for clients as well as the engineering staff at H&H.

**Babak Naghavi, P.E., Ph.D., P.H. | Project Manager** with over 42 years of experience with the evaluation, planning, and design of roadways, bridges, surface drainage, subsurface drainage, flood control, pump stations, and other environmental and transportation projects of complex nature for government and private sectors, including 25 years with LADOTD. Over the course of his career, he has managed numerous projects and has implemented many innovative solutions to the scientific challenges in these areas including development of Hydraulic Design Manual and all the hydraulics and hydrologic computer programs that are currently being used by LADOTD, other government agencies, and the consultant community to design various drainage structures.

**Frederick Wetekamm, PE | QA/QC Manager** is a Senior Bridge Engineer and a Louisiana licensed professional engineer with over 27 years of engineering experience, which includes 25 years working at LADOTD where he oversaw inspection, design, and construction engineering and inspection projects and provided engineering and maintenance management for the Louisiana bridge and roadway improvement projects. Working at H&H's Metairie office, Mr. Wetekamm provides and oversees engineering services for various types of inspections, analysis, and infrastructure design projects for new, rehabilitation, or repair of fixed and movable bridges and roadways.

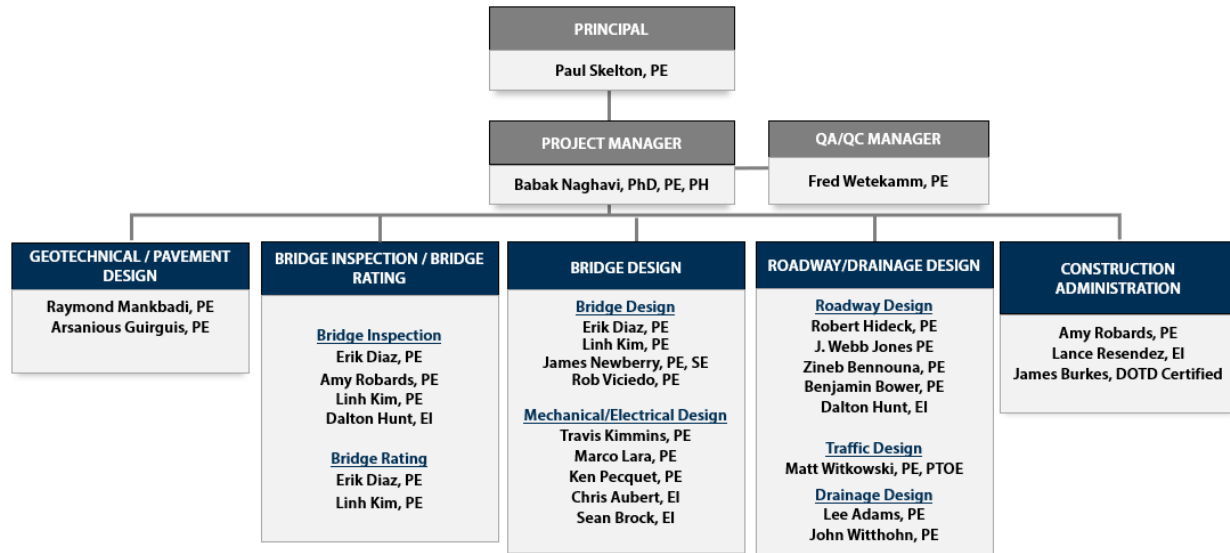
**Robert Hideck, PE | Sr. Roadway Engineer** has 20 years of engineering and design experience in the transportation industry. His roadway engineering experience includes conceptual, preliminary, and final design of limited-access highways, interchange design, and widening realignments for urban and rural roads. He has expertise in the preparation of construction plans including horizontal and vertical design, cross sections, typical sections, temporary traffic control plans and signing and pavement marking plans.

Roadway and Bridge Personnel Experience Matrix	Total Years of Experience	Louisiana Registration	Roadway Design	Roadway & Bridge Drainage Design	Geotechnical and Pavement Design	Bridge Design	Bridge Inspection	Bridge Load Rating	Construction Administration
Paul Skelton, PE	38	X				X	X		
Babak Naghavi, PE	42	X	X	X		X	X		X
Frederick Wetekamm, PE	35	X	X	X		X	X		X
Amy Robards, PE	12	X					X		X
Lance Resendez, EI	2	X	X	X		X	X		X
Matthew Witkowski, PE, PTOE	19	X	X						
J. Webb Jones, PE	27		X	X					
Robert Hideck, PE	20	X	X	X					
Zineb Bennouna, PE	7		X	X					
Benjamin Bower, PE	6		X	X					
Lee Adams, PE	28	X	X	X					
John Witthohn, PE	20	X	X	X					
James Newberry, PE, SE	16	X				X		X	
Erik Diaz, PE	15	X	X	X		X	X	X	X
Linh Kim, PE	5	X	X	X		X	X	X	X
Dalton Hunt, EI	1	X	X	X		X	X	X	X
Travis Kimmins, PE	20	X				X	X		X
Marco Lara, PE	21	X				X	X		X
Ken Pecquet, PE	11	X				X	X		X
Christopher Aubert, EI	1	X				X	X		X
Sean Brock, EI	1	X				X	X		X
Raymond Mankbadi, PE	44	X			X	X			
Arsanious Guirguis, PE	12	X			X	X			
Roberto Viciado, PE	27	X				X	X	X	



## TEC Professional Services Questionnaire

**Erik Diaz, PE | Senior Structural Engineer** with H&H, has practiced in the engineering industry since 2008. His responsibilities have included biennial and in-depth inspection of in-service bridges, structural engineering design, load rating analysis and construction management services.



## 2. Capacity for Timely Completion

H&H currently has no workload with the Jefferson Parish and our staff is available for immediate assignment. We believe that our performance record on previous projects has shown consistently superior results within budgetary constraints that have also met schedule requirements. The best measure of our firm's capabilities to meet all of these requirements is our record of past performance, our award-winning designs and our references.

Our record for completing contracts within the agreed time frames has been excellent and can be attributed to the following factors:

- Clearly defining and understanding the Scope of Work
- Matching the H&H technical resources to the defined Scope of Work
- Experienced Principals and Project Managers who are responsible for delivering projects that meet the Client's standards and expectations
- Qualified project personnel who have defined responsibilities from the onset as well as the authority to act when necessary
- An in-house process of QC/QA
- Weekly staff meetings to review and address project needs, priorities, coordination, and completion
- Company-wide utilization of our custom Project Management Plan

As always, we will respond immediately to your project concerns during all phases of the contract. H&H has made a commitment to provide the Jefferson Parish with engineers that are attuned to any project needs, which are specifically trained for these needs, and that possess experience in completing similar projects. We are dedicated to doing quality work, on time and within budget, and also to giving the Jefferson Parish the best value for its money by putting our expertise in Engineering to work for you.

## **TEC Professional Services Questionnaire**

### **3. Location**

Work will primarily be performed from the H&H office located at 3850 N. Causeway Blvd, Suite 1625, Metairie, LA 70002. With our office located in the Jefferson Parish community, we are dedicated to delivering project requirements on time and under budget, without compromising quality.

### **4. Adversarial Legal Proceedings**

Hardesty & Hanover, LLC is not and has never been involved in any litigation with Jefferson Parish, as noted in Item M of this form.

### **5. Prior Successful Completion on Projects**

H&H is led by a team of core professionals of all major disciplines comprising partners and associate engineers who have the demonstrated leadership abilities and commitment necessary to undertake almost any project regardless of its size, location, or complexity.

We are recognized by all clients as having a proven record of successful completion of projects, completing contracts within the agreed time frame and on budget.

### **6. Size of Firm**

H&H has 540 professional and support staff with expertise in numerous disciplines including: Civil, Structural, Mechanical, Electrical, Geotechnical, Seismic, Hydraulic, Construction Management and Inspection. Any one of our highly trained staff is available on an as-needed basis.

### **7. Past Performance**

Our proposed project team consists of senior level management and support staff who have done work with the Jefferson Parish in the past and have demonstrated leadership abilities and commitment necessary to undertake any project regardless of size and complexity. With our firm's vast experience in roadway and bridge repair and rehabilitation, we are uniquely qualified to meet the project goals of Jefferson Parish.

Our clients include numerous municipal and state DOTs as well as private sector clients that desire excellence and quality from their consultants. H&H has provided similar engineering services for many clients across the U.S. including:



- Jefferson Parish
- Louisiana DOTD
- BNSF Railway
- City of New Orleans
- Virginia DOT
- Florida DOT /Turnpike Authority
- Maryland State Highway Administration
- New Jersey DOT /Turnpike Authority
- New York State DOT / Thruway Authority
- U.S. Army Corps of Engineers

In addition, we have also performed many on-call type contracts which needed immediate service for inspection, evaluation, design and construction support services. Some of our most recent on-call agreements have included the

## TEC Professional Services Questionnaire

following:

**New York City DOT**, providing engineering services for survey, street/highway design, traffic engineering analysis and simulation, bridge design, and inspection.

**District of Columbia DOT**, providing bridge and roadway design services for separate 3-year agreements including condition inspection, construction management, mechanical and electrical systems, drainage structures, toll plazas, and other ancillary highway structures.

**City of Baltimore**, providing bridge and roadway engineering services for geotechnical design, ROW, permitting, roadway/pavement design, ADA pedestrian facilities, storm drainage, street lighting, electric duct banks, traffic control, erosion and sediment control, and cost estimates.

Over the last 135 years, H&H has provided multi-disciplined engineering services on projects of similar size and scope to this on-call contract on recent projects including, FDOT Districtwide Miscellaneous Structural Repairs; Route 38 Church Street Intersection Improvements; 44th Avenue East Widening; and Widening of the Van Wyck Expressway. Additionally, we have worked on several bridge projects for LADOTD and other clients in Louisiana. Because of our wide diversity of project experience and innovative ideas, we are routinely the firm called upon for projects presenting special engineering challenges that require all the skills and expertise of a superior consulting team.

***H&H collectively represents a vast reservoir of talent and expertise that will focus on the needs of Jefferson Parish and its project goals.***

**O. To the best of my knowledge, the foregoing is an accurate statement of facts.**

**Signature:**  **Print Name:** Paul Skelton, PE,

**Title:** Principal **Date:** 8/24/2023