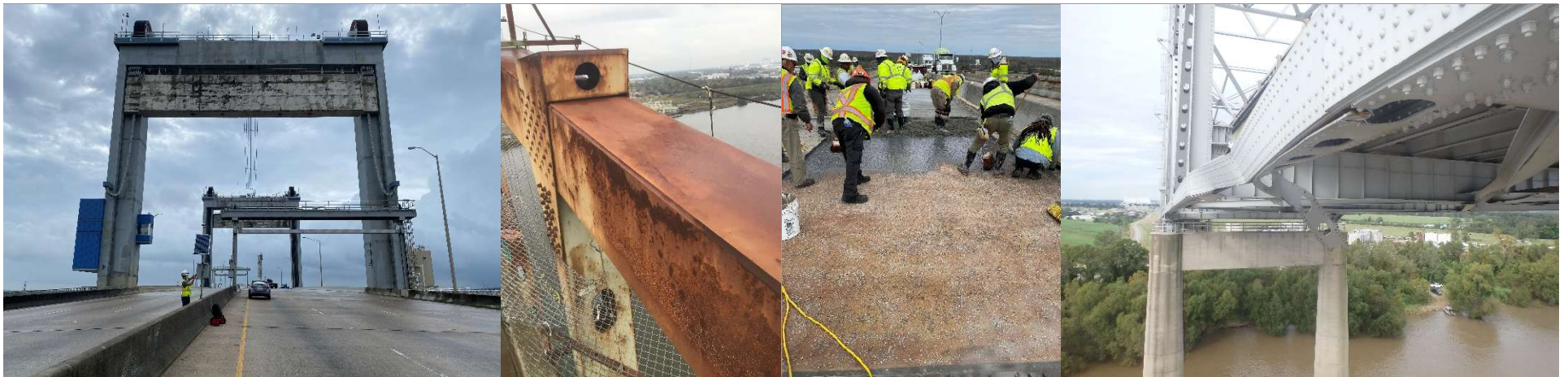




Louisiana Department of Transportation and Development

Proposal for Contract No. 4400035210

IDIQ Contract for Bridge Maintenance Preservation and Repair Statewide



May 21, 2026

PREPARED BY:

Wiss, Janney, Elstner Associates, Inc.

330 Pfingsten Road

Northbrook, Illinois 60062

847.272.7400 tel

DOTD FORM: 24-102

(Revised August 11, 2025)

PROPOSAL TO PROVIDE CONSULTANT SERVICES

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

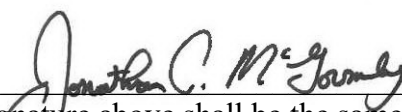
ANY CONSULTANT FAILING TO SUBMIT ANY OF THE INFORMATION REQUIRED ON THE DOTD FORM 24-102, OR PROVIDING INACCURATE INFORMATION ON THE DOTD FORM 24-102, MAY BE CONSIDERED NON-RESPONSIVE.

1. Contract Name as shown in the advertisement	IDIQ Contract for Bridge Maintenance Preservation and Repair Statewide
2. Contract Number(s) as shown in the advertisement	4400035210
3. State Project Number(s), if shown in the advertisement	N/A
4. Prime consultant name (name must match <u>exactly</u> as registered with the Louisiana Secretary of State (SOS) where such registration is required by law; including punctuation; <u>include screenshot from SOS at the end of Section 20</u>)	Wiss, Janney, Elstner Associates, Inc.
5. Prime consultant license number (as registered with the Louisiana Professional Engineering and Land Surveying Board (LAPELS) if registration is required under Louisiana law)	EF.0002573
6. Prime consultant mailing address	330 Pfingsten Road Northbrook, IL 60062
7. Prime consultant physical address (existing or to be established, if location is used as an evaluation criteria)	N/A
8. Name, title, phone number, and email address of prime consultant's contract point of contact	Jonathan C. McGormley Senior Principal (847) 753-7234 jmcgormley@wje.com
9. Name, title, phone number, and email address of the official with signing authority for this proposal	Jonathan C. McGormley Senior Principal (847) 753-7234 jmcgormley@wje.com

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

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

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


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

May 21, 2026

Date:

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

Firm(s):
N/A

Firm(s)' %:

12. Discipline Table:

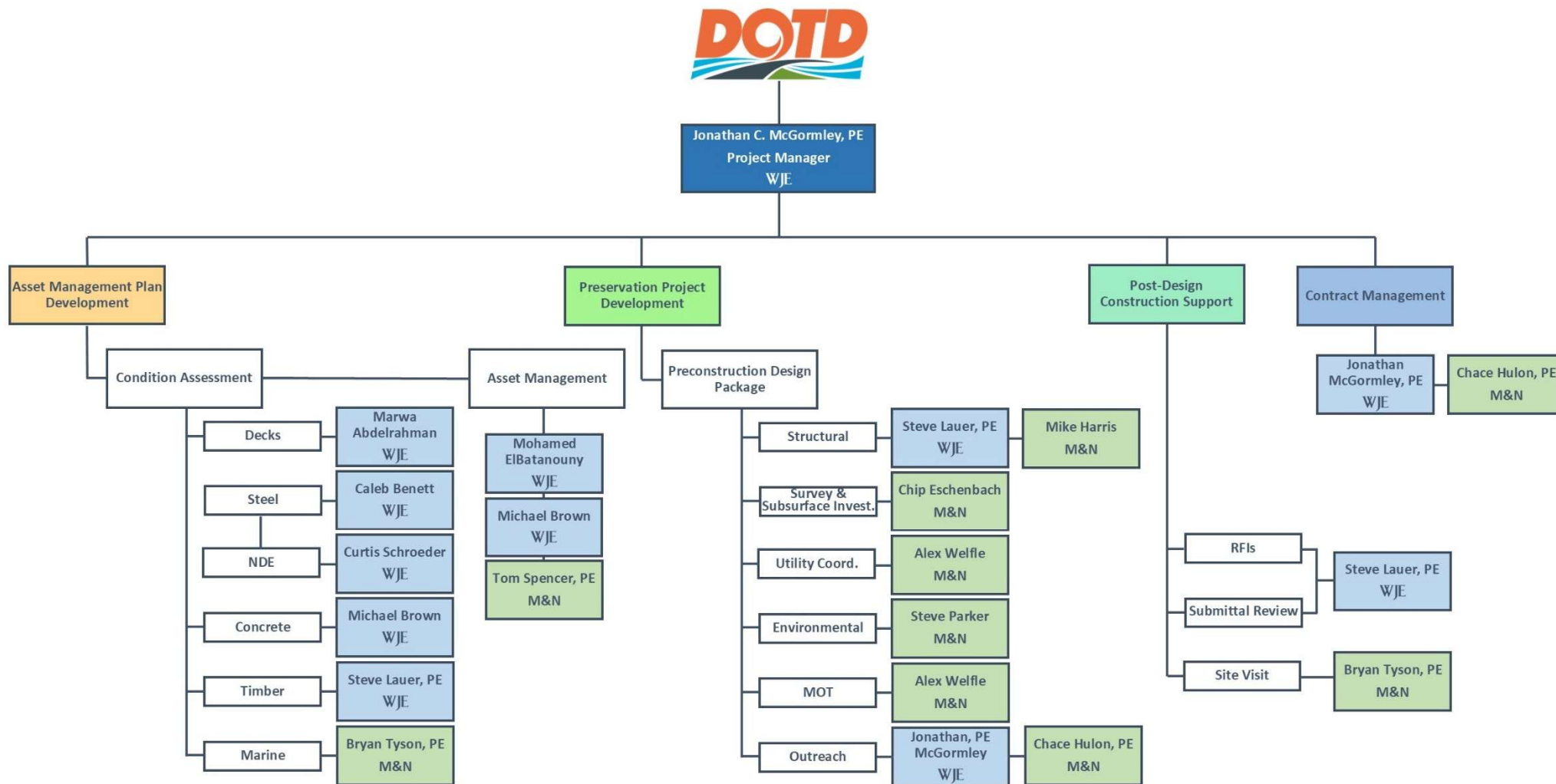
Discipline(s)	% of Overall Contract	Prime Wiss, Janney, Elstner Associates, Inc.	Firm B Moffatt & Nichol Inc.	Firm C	Firm D	Firm E	Each Discipline must total to 100%
Bridge	100	70	30				100%
Identify the percentage of work for the <u>overall contract</u> to be performed by the prime consultant and each sub-consultant.							
Percent of Contract	100%	70	30				

13. Team Size:

Firm name	DOTD Job Classification	Number of personnel <u>committed to this contract</u>	Total number of personnel available in this DOTD Job Classification (if needed)
Wiss, Janney, Elstner Associates, Inc.	CADD Technician	2	7
Wiss, Janney, Elstner Associates, Inc.	Clerical	2	5
Wiss, Janney, Elstner Associates, Inc.	Engineer Intern	4	11
Wiss, Janney, Elstner Associates, Inc.	Engineer	2	3
Wiss, Janney, Elstner Associates, Inc.	Engineer - Other	10	41
Wiss, Janney, Elstner Associates, Inc.	Geologist	0	2
Wiss, Janney, Elstner Associates, Inc.	Principal	3	71
Wiss, Janney, Elstner Associates, Inc.	Professional	12	145
Wiss, Janney, Elstner Associates, Inc.	Senior Technician	2	24
Wiss, Janney, Elstner Associates, Inc.	Supervisor - Arch	0	1
Wiss, Janney, Elstner Associates, Inc.	Supervisor - Eng	4	18
Wiss, Janney, Elstner Associates, Inc.	Supervisor - Other	10	189
Wiss, Janney, Elstner Associates, Inc.	Technician	4	9
Wiss, Janney, Elstner Associates, Inc.	Inspector - Bridge	0	1
Moffatt & Nichol Inc.	Principal	1	10
Moffatt & Nichol Inc.	Administrative	1	5
Moffatt & Nichol Inc.	CADD Operator	3	10
Moffatt & Nichol Inc.	Senior Technician	0	5
Moffatt & Nichol Inc.	Engineer Intern	2	8

Moffatt & Nichol Inc.	Engineer	3	12
Moffatt & Nichol Inc.	Supervisor - Eng	1	10
Moffatt & Nichol Inc.	Inspector - Bridge	2	10
Moffatt & Nichol Inc.	Inspector - Lead	2	15
Moffatt & Nichol Inc.	Supervisor - Other	1	5

14. Organizational Chart:



15. Minimum Personnel Requirements:

MPR No. Do not insert wording from ad	Personnel being used to meet the MPR (Individual(s) may not satisfy more than one MPR unless specifically allowed by Attachment B of the advertisement)	Firm employed by	Type of license and discipline meeting MPR/ certification & number (Ex: PE # - Civil)	State of license	License / certification expiration date
1	Jonathan C. McGormley	Wiss, Janney, Elstner Associates, Inc.	PE.0043912, Civil Engineer	LA	03/31/2028
2	Steven L. Lauer	Wiss, Janney, Elstner Associates, Inc.	PE.0050059, Civil Engineer, Structural Engineer	LA	09/30/2027
3	Steven L. Lauer	Wiss, Janney, Elstner Associates, Inc.	PE.0050059, Civil Engineer, Structural Engineer	LA	09/30/2027
4	Jonathan C. McGormley	Wiss, Janney, Elstner Associates, Inc.	PE.0043912, Civil Engineer	LA	03/31/2028

16. Staff Experience:

Firm employed by Wiss, Janney, Elstner Associates, Inc.					
Name	Jonathan C. McGormley		Years of relevant experience with this employer		32
Title	Principal		Years of relevant experience with other employer(s)		1
Degree(s) / Years / Specialization		BS, 1992, Civil Engineering, University of Cincinnati MS, 1994, Civil Engineering, Purdue University			
Active registration number / state / expiration date		In addition to Louisiana, Mr. McGormley is a licensed Professional Engineer in 7 other states and is a licensed Structural Engineer in IL.			
Year registered	2019	Discipline	PE LA , License No. 43912 / expires 3/31/2028, Structural		
			NBIS Certified Team Leader and Program Manager		
			NHI 130078 - Fracture Critical Inspection Techniques of Steel Bridges		
			NHI 130055 - Safety Inspection of In-Service Bridges (& Refresher 130053)		
Contract role(s) / brief description of responsibilities		Mr. McGormley will fulfill MPR1 and MPR4 and will serve as the Project Manager.			
Experience dates					
11/24-ongoing	UT of Bridge Pins and Hangers, Nine Structures, LA: Project Manager for visual and ultrasonic inspection of bridge pins and hangers, characterizing and documenting conditions of section loss, cracking, or other forms of distress.				
05/25-ongoing	Service Life Estimates of Two Marine Structures, Rigolets Pass and Caminada Bay, LA: Evaluate effects of saltwater exposure on the substructures of two bridges for the purpose of estimating remaining service life. NDE, materials testing, and probabilistic service life modeling will be used in the comparisons of the different substructures. Contract Manager overseeing execution of project.				
01/26-ongoing	District 02 Bridge Deck NDE for Asset Management, Statewide, LA: Contract Manager for the rapid assessment of bridge decks totaling approximately 14.9M square feet for the purpose of collecting high resolution imagery, ground penetrating radar, acoustic sounding, and infrared thermography data to be prepared in a condition assessment report for each bridge to assist with future asset plan development.				
12/21-ongoing	Jefferson St. Bascule Bridge Rehabilitation, Joliet, IL: Project Manager and Structural Engineer of Record overseeing the rehabilitation of structural, mechanical, and electrical components of this rolling Scherzer lift bridge over the Des Plaines River.				
07/19-ongoing	Danziger Lift Span Bridge, US 90, over the Industrial Canal, New Orleans, LA: Project Manager and Structural Engineer of Record overseeing the resolution of operational issues with the lift span. This work included an in-depth inspection of the lift span structural elements, lift bridge machinery, and electrical systems; and development of repairs to restore the bridge's functionality and reliability. Oversaw the development of a monitoring plan and installation of sensors that included the four trunnion bearings, and the creation of a web-accessible reporting platform. Assisted with development of plans and specifications to address emergency repairs including the installation of a polyester polymer concrete overlay on the orthotropic deck lift span, replacement of failed pinion bearings, elimination of lift span-to-approach span contact issues, and the improvement of the lift span seating by counterweight movements and air buffer repairs. Developed cost estimates for a full rehabilitation project with work to develop construction documents for that rehabilitation ongoing.				
12/22-08/25	T-1 Steel Weld Assessment, LA: Project Manager for the inspection and assessment of T-1 steel butt welds. Work included identifying inspection locations, developing access plans for each structure, and preparing a work plan. Subsequent tasks involved coating removal; UT inspections of welds; QC/QA by a qualified ASNT Level III or Level II inspector; and removal of rejectable indications by grinding or coring. Structures included LA 47, IWGO (New Orleans); I-20 at Mississippi River (Vicksburg); and US 90 at Atchafalaya River (Morgan City).				

01/21–05/25	Rehabilitation of I-80/94, Indiana Toll Road, Structure 1A-1, Hammond, IN: Project Manager for the investigation, field and laboratory testing, service life modeling, and rehabilitation of the steel, multi-girder superstructure comprised of 21 spans. The bridge rehabilitation included the removal of 17 bridge deck expansion joints and installation of link slabs to eliminate future maintenance issues below leaking bridge deck joints. To accommodate the new bridge deck continuity, disc bearings were installed at the base of 18 bent columns. Other repairs were designed to address structural steel deterioration with the structure to receive a new multi-coat paint system.
05/19–08/19; 08/20–9/24	I-255 Jefferson Barracks Bridge over the Mississippi River, Mehlville, MO: Project Manager responsible for emergency repairs and subsequent rehabilitation repair design. Following the discovery of a six-foot-long crack in the steel tie girder during a fracture critical inspection, performed an in-depth inspection of similar details, obtained material samples for laboratory testing, coordinated emergency repairs, oversaw repair installation, and prepared investigation report. Following the emergency repairs, WJE completed conceptual, preliminary, and final rehabilitation designs. This work included development of a detailed finite element model to evaluate fatigue on the hanger connections. The rehabilitation included installation of a polyester polymer concrete bridge deck overlay, a novel application of zinc metallizing on the suspender cables within the splash zone, construction of new finger joints incorporating a more robust design that utilized ultra-high performance concrete and the capability to replace key components, and application of a new, multi-coat paint system.
03/21–12/23	Luling Bridge Deck Overlay Repair Consultation, St. Charles Parish, LA: Project Manager responsible for revising the project specifications and providing quality control assistance for the repair of an orthotropic deck overlay system comprising an epoxy underlayment with a SFRC overlay on the cable-stayed spans. Installed a long-term monitoring system to evaluate deck performance.
09/21–02/22	I-10/310 Bonnet Carré Fire Damage Repair, St. Charles Parish, LA: Project Manager overseeing emergency inspection and load rating of the PPC girders, substructures, and bridge deck damaged by fire. Developed repair scope and estimated probable construction costs.
02/19–2/22	US 90 over Bayou Ramos, St. Mary Parish, LA: Project Manager leading the investigation of delayed end cracking of precast, prestressed concrete (PPC) girders. The project includes the evaluation of previously collected monitoring data, development of a detailed finite element model to examine crack initiation and repair options, inspection of existing retrofits, laboratory fatigue testing of CFRP repairs, and recommendations to address the documented cracking.
02/19–07/19	Lake Shore Drive Bridge over the Chicago River, Girder Fracture Investigation, Chicago, IL: Project Manager leading the investigation, stabilization, and repair installation after the bridge experienced two girder fractures related to corrosion.
10/18–01/19	Sunshine Bridge over the Mississippi River, St. James Parish, LA: Project Manager responsible for the development and implementation of a monitoring plan to provide information regarding redistribution of loads during the installation of repairs to the truss bottom compression chord damaged by impact. Structural Engineer of Record responsible for the design of the jacking system, review of member repair design, site observations, preparation of shop and jacking procedure drawings, and field technical assistance.
10/17–12/17	Materials Testing for LADOTD Bridges, Metairie, Port Allen, and Baton Rouge, LA: Project Manager for materials testing projects including the removal of steel samples to determine material strength properties and chemical composition from the Causeway Boulevard Bridge over Earhart Expressway in Metairie and the removal of forty-five concrete cores from various bridge substructures from I-10 in Baton Rouge for testing and petrographic evaluation.
09/13–09/13	Grand Avenue Bascule Bridge, Chicago, IL: Project Engineer for gusset plate condition assessment, load ratings, and preliminary retrofit development for members of this double leaf bascule bridge with inadequate live load capacity due to section loss.
02/11–06/11	Lift-Span Railway Bridge over the Mississippi River, Midwest, U.S.: Project Manager and Structural Engineer of Record assisting railroad client in determining the extent of damage and needed repairs to the lift span truss, track, and machinery after the structure was subjected to blast forces from adjacent construction. Requested to evaluate how the damage affected the structure's short- and long-term performance. The structural, mechanical and electrical site investigation included hand-on, arms-length, and visual inspections. Structural, mechanical, and electrical recommendations were then made to restore the lift span to its pre-blast condition.

Firm employed by Wiss, Janney, Elstner Associates, Inc.					
Name	Steven L. Lauer		Years of relevant experience with this employer		15
Title	Supervisor-Eng		Years of relevant experience with other employer(s)		
Degree(s) / Years / Specialization		BS, 2009, Civil Engineering, Purdue University MS, 2010, Civil Engineering, Purdue University			
Active registration number / state / expiration date		In addition to Louisiana, Mr. Lauer is a licensed Professional Engineer in 5 other states and a licensed Structural Engineer in Illinois.			
Year registered	2025	Discipline	PE LA , License No. PE.0050059 / expires 9/30/2027, Structural NBIS Certified Team Leader/Program Manager NHI 130078 - Fracture Critical Inspection Techniques of Steel Bridges NHI 130055 - Safety Inspection of In-Service Bridges (& Refresher 130053) Society of Professional Rope Technicians/ Level I Transportation Worker Identification Credential (TWIC) Indiana Bridge Load Rating Engineer, IN000551-2025-ATL-F-LRE(2026)		
Contract role(s) / brief description of responsibilities		Mr. Lauer will fulfill MPR2 and MPR3 and will lead the steel and timber structure assessments and overall repair designs.			
Experience dates					
08/16–ongoing	Michigan Avenue Bascule Bridge over the Chicago River, Chicago, IL: Project Manager for construction project balance calculations and dynamic strain gage balance testing of this double deck, quadruple-leaf, bascule truss bridge with single-unit, side-by-side leaf pairs. Additionally, performed dynamic strain gage balance testing for more than a dozen similar bridges in Illinois since this time.				
11/24–01/26	I-90 Chicago Skyway Bridge over the Calumet River, Chicago, IL: Project Manager responsible for leading special inspections to document gusset plates and selected members with advanced section loss for multiple structures having a total length greater than one mile. Led the load rating of these bridge and viaduct structures, incorporating the measured section loss where necessary. Provided the owner members requiring near-term and long-term maintenance and designed immediate-term strengthening repairs.				
09/24-01/26	US 60/62 over the Mississippi River, Cairo, IL: Routine inspection, load rating, and bridge condition report preparation for development of end-of-life plan and possible removal of the complex mile-long steel truss and multi-beam bridge. Served as the Project Manager, Inspection Team Leader, and Load Rating Engineer.				
10/25-12/25 01/17–2/18	US 20 Julien Dubuque Bridge over the Mississippi River, Dubuque, IA: Project Manager and Inspection Team Leader for the 2025 routine, NSTM, and element-level inspections of the 5,635-foot long, steel tied arch river crossing. Coordination of multiple railroads and completed in accordance with the SNBI by using structure climbing, barge-mounted access equipment, and aerial lifts from grade for access. Load Rating Engineer of the bridge that received a major rehabilitation to increase design load from H20 to HS20 and exhibits deterioration.				
02/24–09/25 08/21–10/21	IA 9 Black Hawk Bridge over the Mississippi River, Lansing, IA: Project Manager and Inspection Team Leader for the 2021 NSTM, in-depth, element level, and pin inspection of the complex three-span through truss river crossing unit, a five-span deck truss unit, and single span multi-girder approach span. Required structure climbing techniques and included removal of fatigue cracks identified during the inspection with a final report detailing further recommendations. In 2024 and 2025, served as the Inspection Team Leader for special, in-depth, and				

	damage inspections following bridge movements caused by nearby construction and also performed load rating analysis of the distorted spans, reviewed the monitoring data, and installed new instrumentation systems while serving as the on-site field engineer for WJE.
01/21-09/25	Washington Ave Bridge over the Mississippi River, Minneapolis, MN: Project Engineer responsible for three-dimensional finite element modeling, load rating, and instrumentation capable of recording strain, displacement, rotation, and temperature. The double-deck bridge has a pedestrian level, and, since retrofitting the vehicular level to include light rail transit, has shown distress that was the catalyst for this study to determine the cause, implications, and maintenance needs.
08/23-08/24	Blatnik Bridge Carrying I-535 over the Saint Louis River, Duluth, MN: Project Manager for the focused load rating to review load ratings performed by others and improve the controlling rating factors at two panel points. Led discussions, investigation, and performed refined calculations developed by WJE to prevent closure of the bridge and improve the accuracy of the load ratings by others by indicating necessary corrections. Developed an Inspector's Guide for the most concerning gusset plates for future inspections.
03/23-07/23	IA 12 Gordon Drive Viaduct over the Floyd River, Sioux City, IA: Project Manager and Inspection Team Leader for routine and element level inspections of the bridge and hands-on arms-length fracture critical inspection of the non-redundant steel Pier 18 cross girder and connections. Oversaw NDE UT of the 70 superstructure pins located near ten piers. Prepared an in-depth final report documenting the findings and providing recommendations.
07/19-07/22	Danziger Lift Span Bridge, US 90, New Orleans, LA: Project Engineer assisting in the development of a monitoring and sensor installation plan, installation of instrumentation and monitoring equipment, and creation of a web-accessible reporting platform to evaluate the bridge's operations over time. The monitoring was designed to assess bridge span lift operations and included laser distance devices, linear potentiometers, strain gages, temperature measurements, ultrasonic distance measurements, and Wi-Fi cameras.
10/21-12/21	IN 46 over the East Fork White River, Columbus, IN: Team Leader for the routine and fracture critical inspection of the cable stayed bridge with center steel pylon and post-tensioned deck that required traditional and rope-access techniques.
10/19-11/21	I-64 Sherman Minton Bridge over the Ohio River, New Albany, IN: Project Engineer for instrumentation and monitoring, crack arrest hole retrofit installation, and Team Leader for the fracture critical and routine Inspections of truss members of the double-decker bridge, using rope-access and structure climbing techniques.
05/21-07/21	Hernando de Soto Bridge Carrying I-40 over the Mississippi River, Memphis, TN: Project Engineer for the instrumentation installation using rope-access techniques following the fracture of the tie-girder in the two-span continuous tied arch.
02/21-06/21	I-580 Richmond-San Rafael Bridge over the San Francisco Bay, San Francisco, CA: Project Engineer for limited review of load rating by others in an attempt to improve rating factors for the controlling panel point through hand-calculations that were then compared to a nonlinear finite element model of the subject gusset plates.
08/18-12/20 09/17-09/18	Timber and Complex Bridges, Various Counties, MS: Routine and load rating Inspections of a variety of bridge structures including railroad flatcar bridges, timber bridges, and bridges supported on timber piles. Utilized traditional access methods and structure climbing techniques to complete the inspections. Load Rating Engineer, including bridge design, for more than two hundred bridges. Engineer responsible for the development of a load rating tool to account for deteriorated condition of timber piles based on simple determination of decay levels or advanced determination obtain through selective drilling into the piles for categorization of decay, with strength characteristics determined through lab testing of timber piles to failure.
09/19-10/19	Various Off-System Trusses, OK: Team Leader performing fracture critical inspections of ten off-system trusses; rope access techniques.
10/18-01/19	LA 70 Sunshine Bridge over Mississippi River, St. James Parish, LA: Project Engineer for monitoring of load redistribution during repairs to truss bottom compression chord damaged by vessel impact. Assisted with jacking system design, review of member repair design, site observations, preparation of shop and jacking procedure drawings, field technical assistance, and chord jacking operations oversight.

Firm employed by Wiss, Janney, Elstner Associates, Inc.					
Name	Marwa Abdelrahman		Years of relevant experience with this employer		9
Title	Supervisor-Other		Years of relevant experience with other employer(s)		3
Degree(s) / Years / Specialization		BS, 2010, Civil Engineering, Helwan University MS, 2013, Civil Engineering, University of South Carolina PhD, 2016, Civil Engineering, University of South Carolina			
Active registration number / state / expiration date		-			
Year registered	-	Discipline	NACE Certified Cathodic Protection Technician, 201713, expires 07/13/28		
Contract role(s) / brief description of responsibilities		Dr. Abdelrahman will serve as the lead in the condition assessment of bridge decks, service life modeling and durability evaluation efforts, and development of durability-based repair and preservation recommendations for reinforced concrete bridges.			
Experience dates					
05/25-ongoing	Rigolets Bridge (US-90 over Rigolets Pass) and Caminada Bay Bridge (LA-1 over Caminada Bay), Orleans and Jefferson Parishes, LA: Dr. Abdelrahman is leading service life modeling and durability evaluation efforts for the two marine bridge substructures exposed to marine and brackish-water chlorides. The work includes interpretation of field and laboratory investigation data, development of probabilistic service life models using WJE CASLE™, and evaluation of chloride ingress and corrosion-related deterioration mechanisms to support long-term preservation and corrosion mitigation planning for LADOTD.				
09/24-ongoing	CTA Red Line Extension (RLE) Mainline Design-Build Project, Chicago, IL: Served as WJE's Project Manager and led the durability design and service life evaluation of transit and vehicular bridges, stations, and associated infrastructure for the CTA Red Line Extension project. Led exposure condition assessments, degradation mechanism evaluations, probabilistic service life modeling for reinforced concrete and service life design of structural steel elements. The work included development of protective strategies and performance requirements for the different structural components of these structures to achieve the 100-year service life requirements for the project.				
01/22 - ongoing	Bridge Deck Preservation Tool [Pooled-fund study TPF-5(474)]: Contributed to the development of a web-based bridge deck preservation framework and assisted in development and coding of the preliminary MATLAB-based analytical tool that formed the basis for the eventual web platform. The work included support for development of service life extension algorithms, deterioration modeling, life-cycle cost analysis, and optimization methodologies for bridge deck preservation decision-making. Also provided support during subsequent project phases related to bridge superstructure and substructure preservation framework development.				
07/23 – 04/26	Port of Houston – Barbour's Cut Terminal Wharves 4 and 5, Houston, TX: Led the scope and execution of an in-depth condition investigation of reinforced concrete structural elements, including selection of representative study areas, NDE, material sampling and laboratory testing programs, assessment of exposure conditions, and service life modeling. The evaluation characterized deterioration mechanisms, assessed remaining service life, and informed repair and rehabilitation strategies required to achieve a 50-year service life extension.				
08/24-12/25	Chicago Skyway Commercial Avenue Viaduct and 100th Street Viaduct Substructure Assessment, Chicago, IL: Served as Project Manager for a condition assessment and durability evaluation of reinforced concrete bridge piers. Led the field investigation, including visual inspections, corrosion-related nondestructive evaluation, reinforcement cover assessment, and concrete sampling and laboratory testing programs. Performed service life modeling and durability analyses to evaluate chloride-induced corrosion risks and predict long-term performance of				

	reinforced concrete substructures subjected to deicing salt exposure. The evaluation informed development of repair, corrosion mitigation, maintenance, and long-term preservation recommendations for the bridge piers.
03/23-05/23	Danziger Lift Bridge Approach Spans, New Orleans, LA: led the field investigation, NDE, laboratory data interpretation and durability evaluation for the project to assess the condition of the reinforced concrete bridge deck and accessible superstructure and substructure elements in advance of planned rehabilitation work. The assessment incorporated findings from visual inspections, sounding surveys, crack mapping, and GPR reinforcement cover surveys to support recommendations for preservation measures and rehabilitation planning intended to extend the service life of the bridge components over the next twenty-five years.
11/21-03/23	US 95 Bridge over White Bird Creek, White Bird, ID: Performed probabilistic service life modeling of the reinforced concrete bridge deck to predict chloride-induced corrosion-related deterioration. The analysis incorporated modeling of both silica fume concrete and epoxy polymer overlay systems, including time-dependent overlay delamination, to evaluate future deck performance and support rehabilitation and preservation planning for a targeted 100-year service life.
12/20-10/22	Guide to Remediate Bridge Deck Cracking, Iowa DOT / Iowa Highway Research Board: Led the service life modeling effort for a research project focused on development of a comprehensive guide for remediation of early-age bridge deck cracking. The work included evaluation of chloride ingress and corrosion-related deterioration associated with varying crack densities and remediation strategies, development of analytical inputs and assumptions for multiple repair and preservation treatments, life-cycle cost analysis, and synthesis of the results into data-driven decision trees for bridge deck preservation decision-making. The project evaluated the effects of crack remediation treatments on bridge deck service life and developed guidance for selecting cost-effective repair strategies for Iowa bridge decks.
12/20-01/22	Rehabilitation of I-90 Indiana Toll Road Bridges (Structures 01A-1 and 01A-3), Hammond, IN: Participated in field investigations and performed service life modeling for evaluations of reinforced concrete bridge decks affected by chloride-induced deterioration. Dr. Abdelrahman's work included interpretation of corrosion-related nondestructive evaluation, chloride concentration testing and petrographic examination of core samples, reinforcement cover assessment, and evaluation of exposure conditions to assess remaining service life and support development of repair and rehabilitation strategies, including deck repairs, overlays, joint replacement, and long-term maintenance planning for multiple bridge structures along the corridor.
08/17-02/19	Third Avenue Bridge Rehabilitation, Minneapolis, MN: Contributed to the rehabilitation design of the historic reinforced concrete arch bridge for Minnesota DOT. Dr. Abdelrahman's work included processing and interpretation of field investigation findings to characterize deterioration mechanisms and support repair quantity development. Assisted with development of corrosion mitigation strategies, including targeted galvanic cathodic protection (CP) systems at arch corners and other chloride-contaminated areas vulnerable to future corrosion-related deterioration.
07/18-11/18	I-480 Overpass, Omaha, NE: Participated in the in-depth field investigation, corrosion-related nondestructive evaluation, and service life modeling of reinforced concrete bridge piers approximately nineteen years after electrochemical chloride extraction (ECE) treatment was applied to address chloride-related deterioration caused by leaking joints and drainage systems. The work included evaluation of the long-term effectiveness of the ECE treatment and development of service life projections to support future maintenance and rehabilitation planning for the structure.

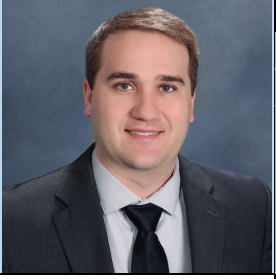
Firm employed by Wiss, Janney, Elstner Associates, Inc.					
Name	Mohamed K. ElBatanouny		Years of relevant experience with this employer		11
Title	Supervisor-Other		Years of relevant experience with other employer(s)		5
Degree(s) / Years / Specialization		BS, 2008, Civil Engineering, Helwan University MS, 2010, Civil Engineering, University of South Carolina PhD, 2012, Civil Engineering, University of South Carolina			
Active registration number / state / expiration date					
Year registered	2018	Discipline	SE IL, License No.: 081.008166/expires 11/30/2026, Structural		
Year registered	2018	Discipline	PE IA, License No. P24910/expires 12/31/2027, Structural		
Year registered	2020	Discipline	PE UT, License No. 11805073-2202/expires 3/31/2027, Structural		
Year registered	2021	Discipline	PE WI, License No. 48217/expires 7/31/2026, Structural		
Contract role(s) / brief description of responsibilities		Dr. ElBatanouny will lead asset management efforts. He also will assist with evaluation and selection of bridge preservation and maintenance activities.			
Experience dates					
01/22-ongoing		Bridge Deck Preservation Tool [Pooled-fund study TPF-5(474)]: Project manager responsible for development and implementation of a bridge deck preservation decision-support tool for optimal selection of preservation strategies. Responsibilities include coordination with project stakeholders, development of the framework for the web-based tool, development of the software code used to perform all the tools analyses, and development of recommendations and assumptions embedded in the tool to optimize maintenance timing, repair selection, and service life extension of bridge decks. The project also included developing a framework for developing a tool to aid maintenance engineers in selecting preservation and maintenance strategies for bridge superstructures and substructures.			
02/23-ongoing		Performance Monitoring of Two-Course Bridge Deck Utilizing Ultra-High-Performance Concrete, Iowa DOT, Cass County, Iowa: Project manager responsible for evaluation and performance monitoring of an innovative two-course bridge deck system consisting of conventional fiber-reinforced concrete with an ultra-high-performance concrete (UHPC) overlay. Responsibilities included construction observation and documentation, laboratory testing and sample evaluation, long-term field monitoring, live-load testing, service life prediction modeling, and life-cycle cost analysis. The project focused on assessing constructability, bond performance, durability, chloride resistance, and long-term behavior of UHPC overlays as a strategy to extend bridge deck service life, reduce corrosion-related deterioration, and minimize future maintenance costs.			
01/21-ongoing		Condition Assessment of Approach Slabs, South Dakota DOT, various location: Project Manager responsible for inspection and condition documentation of 15 bridge approach slabs using visual inspection, GPR, and elevation surveys. Also included is an assessment of differential settlement at the approach slabs.			
03/21-ongoing		Luling Bridge Deck Overlay Repair Consultation, St. Charles Parish, LA: Project Engineer responsible for providing quality control assistance for the repair of an orthotropic deck overlay system comprising and epoxy underlayment with a FRC overlay on the cable-stayed spans. Developed and installed a long-term monitoring system, including strain and temperature measurements, to evaluate the performance of the overlay repairs.			
04/19-11/25		Performance Evaluation of Polyester Polymer Concrete Overlays, Iowa DOT, Various Locations: Project Manager responsible for inspection and condition documentation of bridge decks to detect deficiency location/size (delamination and voids), rebar cover, and			

	corrosion potential. Applied NDE technologies such as visual inspection, GPR, half-cell potential, impact echo, sounding, and material testing. The project included construction support, construction documentation, and acceptance testing (rebound hammer and pull-off testing) during installation of the first polyester polymer overlays on Iowa bridges. Follow-up inspections, every 2 years, and service life analysis were also completed.
04/22-04/25	Tilt Monitoring of Scour Critical Bridge Piers Montana DOT, Hamilton, MT: Project Supervisor/Engineer responsible for design and installation of wireless tilt monitoring system for scour critical bridge piers.
01/20-02/25	Bridges Designed for Minimum Maintenance, Iowa DOT: Project Manager responsible for development of durability-based bridge design recommendations to minimize maintenance needs and extend service life of bridge components. Responsibilities included analysis of Iowa DOT bridge maintenance records and survey data, evaluation of deterioration mechanisms affecting reinforced concrete and steel bridge elements, service life modeling using WJE CASLE™, and development of design guidance for bridge decks, superstructures, joints, bearings, foundations, and approach systems. The project included assessment of corrosion protection strategies, chloride exposure characterization through field sampling and laboratory testing, and preparation of recommendations for target service lives of 75, 100, and 125 years to improve long-term bridge performance and reduce lifecycle costs.
07/19-07/22	Danziger Lift Span Bridge, US 90, over the Industrial Canal, New Orleans, LA: Project Engineer assisting in the development of a unique monitoring and sensor installation plan, the installation of instrumentation and monitoring equipment, and the creation of a web-accessible reporting platform to evaluate the bridge's operations over time. The monitoring was designed to assess bridge span lift operations and included laser distance devices, linear potentiometers, temperature measurements, ultrasonic distance measurements, WiFi cameras, tilt, wind speed, acceleration/vibration, and GPS-based displacement measurements. Assisted with the development of specifications for the installation of polyester polymer concrete lift span orthotropic deck overlay repairs.
10/18-01/19	Sunshine Bridge, St. James Parish, LA: Project Engineer assisted in the development and implementation of a monitoring plan to provide information regarding redistribution of loads during the installation of repairs to the truss bottom compression chord damaged by impact. Assisted with field technical assistance and chord jacking operations oversight.
03/15-06/17	IH-345 Inspection, Analysis, and Retrofit Design, Dallas, TX: Project Engineer for instrumentation, field load testing (for finite element model calibration), and trial retrofit installations of a 1.6-mile-long steel structure connecting I-35, I-45, and US 75 with local city streets. Instrumented bridge units using wireless instrumentation, reusable strain transducers, and string pots. Oversaw rolling load tests to collect in-plane live load and fatigue response stringer and girder cross section.
05/11-12/15	Transport of Long Prestressed Concrete Girders, LA: Project Engineer for the dynamic monitoring of two long prestressed girders during transport from the precast yard to their final installation at the bridge site. Worked on data evaluation of collected dynamic strain and inertial motion data. Evaluated data using dynamic 3D model with sensor mapping and interactive geolocation to correlate significant strain events with position and transport activity.

Firm employed by Wiss, Janney, Elstner Associates, Inc.					
Name	Michael C. Brown		Years of relevant experience with this employer		4
Title	Supervisor-Other		Years of relevant experience with other employer(s)		25
Degree(s) / Years / Specialization		BS, 1991, Civil Engineering, Virginia Tech MS, 1999, Civil Engineering, Virginia Tech PhD, 2002, Civil Engineering, Virginia Tech			
Active registration number / state / expiration date		Dr. Brown is a licensed PE in nine other states in addition to VA..			
Year registered	1998	Discipline	PE VA, License No.: 0402029153 / expires 1/30/2028, Structural		
			NHI 130078 - Fracture Critical Inspection Techniques of Steel Bridges		
			NHI 130055 - Safety Inspection of In-Service Bridges (& Refresher 130053)		
Contract role(s) / brief description of responsibilities		Dr. Brown also will lead asset management tasks and perform concrete condition assessments, service life modeling, and bridge preservation planning.			
Experience dates					
7/23–ongoing	Long-Term Bridge Performance Program, Nationwide: Principal Investigator; technical services support contract to develop data collection protocols and perform data analyses. Topics cover characterization of nationwide deicing practices and exposures; bridge deck preservation and rehabilitation treatments, and steel protective coating (paint) system materials, practices, and performance.				
9/24–ongoing	I-81 NBL over New River, Radford, VA: Project Manager and Technical Lead to investigate cause of irregular surface profile of a 2-stage lightweight reinforced concrete deck on 7-span, 7-girder line continuous haunched steel girder bridge. Develop corrective plan including hydromill and rigid overlay to restore positive drainage from crown while maintaining load rating and durability criteria.				
1/26–4/26	Fourth Street Bridge, Wilmington, NC: Project Manager and Technical Lead for field evaluation, sampling and laboratory testing of three-span multi-girder bridge to support analysis of remaining service life and rehabilitation planning.				
9/25–1/26	Colonial National Historical Parkway – Three Bridges Study, Williamsburg, VA: PM and Technical Lead for field inspection and testing and laboratory testing to characterize condition and perform remaining service life analyses for three circa 1930–1940 bridges comprising multi-span multi-girder prestressed concrete, multi-span multi-girder steel, and buried concrete/masonry arch.				
11/22–5/26	Cypress Avenue Bridge, Murrells Inlet, SC: Project Manager and Technical Lead for condition evaluation and service life analysis of prestressed pile bents with cast-in-place concrete caps for three-span reinforced concrete slab bridge; recommend strategy for preservation to support superstructure replacement. Develop technical requirements for cathodic protection retrofit and provide construction phase engineering services.				
12/24–8/25	Hughes Bridge SB (US 19 over Summersville Lake), Summersville, WV: Project Manager and Technical Lead to design, deploy, and monitor structural instrumentation to investigate vertical displacement of tooth-joints between main spans and approach spans. Findings informed rehabilitation, including replacement of heavily corroded rocker bearing assemblies.				
11/24–7/25	Battlefield Parkway over Tuscarora Creek Bridge – Bearings Investigation, Leesburg, VA: PM and Technical Lead for investigation and structural instrumentation to evaluate cause of “walking” of reinforced neoprene elastomeric bearing pads from continuous multi-span steel girders.				
10/24–1/25	Dallas-Fort Worth International Airport – Abutments and Retaining Walls Analysis, Dallas, TX: Condition evaluation and service life assessment of three abutments to support substructure replacement.				

11/23–11/24	San Luis Pass Bridge, Galveston, TX: Corrosion Technical Lead for condition evaluation of monolithic prestressed concrete four-girder/deck system on prestressed concrete pile bents; evaluation of existing arc-spray zinc cathodic protection system.
3/24–6/24	Park Road 22 (JFK Causeway) Three Bridges substructure assessment, Corpus Christi, TX: Corrosion Technical Lead for corrosion testing and condition assessment of prestressed concrete piles for three bridges ranging in age from 1973 to 2006 era; provide cathodic protection recommendations.
12/23–5/24	I-195 Washington Bridge North, Providence, RI: Project Manager for forensic audit of events preceding and investigation of cause of full fracture of post-tensioned (PT) beam tie-down rods that caused emergency closure of bridge. Reviewed records and history, assessed the events and conditions that led to the failure of the rods and whether the agency's decision to close the bridge to traffic was reasonable; whether conditions leading to the failure should have been foreseen; whether serious deterioration of the post-tensioned cantilever beams discovered after the failure should have been foreseen; and recommended actions to prevent similar future events..
5/23–9/24	I-235 NB Bridges, Oklahoma City, OK: Corrosion Lead for specialized post-tensioning tendon inspection of 28-span mainline and 7-span ramp cast-in-place box girder bridges; identification of voids and in situ corrosion testing and testing grouts.
11/23–5/24	Tie Line Bridge, Radford, VA: Project Manager and Technical Lead for condition evaluation of steel-framed suspension utility bridge; condition assessment of cables, spelter sockets, and cause of irregular deck alignment..
1/23–10/25	Arthur Ravenel, Jr. (Cooper River) Bridge, Charleston, SC: Project Manager and Technical Lead for investigation of pattern cracking in 18-year-old reinforced concrete stay-cable towers; evaluation of chloride exposure conditions.
6/23–8/23	I-20 & I-26 Crossroads Bridges, Columbia, SC: Condition assessment of three 35- to 40-year-old bridge decks for interstate overpasses to support corridor rehabilitation project.
12/22–6/23	I-95 Bridge Over Lake Marion, Santee, SC: Project Manager and Technical Lead for condition evaluation and service life analysis of prestressed and cast-in-place reinforced concrete bents of a two-lane, multispans, interstate bridge for superstructure replacement and repurposing as pedestrian multiuse facility.
9/21–11/24	Nondestructive Evaluation (NDE) for Bridge Deck Preservation, Nationwide: Co-Principal Investigator to study state DOTs' use of NDE and develop framework and recommendations for applying NDE to inform decision-making to guide preservation action selection through life stages of bridge decks (new construction to rehabilitation). Published as research report.
1/21–6/22	Pathways Major Bridge Initiative Progressive P3 program, Pennsylvania¹: Bridge Preservation Subject Matter Expert to develop technical requirement provisions, preservation strategies, and operations and maintenance requirements and cost estimates for 9 complex bridges and dozens of smaller corridor bridges to be constructed or rehabilitated, then maintained and operated for 30 years by a development entity under a P3 toll concession agreement.
9/20–6/22	I-80 36 Bridges Asset Management Plan, Salt Lake City, UT¹: Technical & Testing Lead for corridor asset management study of 36 bridges near SLC airport. Performed literature review and desk review of structural data, directed field investigation and developed detailed testing plan to support coordinated long-term management planning for the corridor, defining bundled maintenance and rehabilitation projects over a 20-year planning horizon.
5/19–12/20	Elizabeth River Crossings, 26 corridor bridges AMP, Hampton, VA¹: Asset Management Lead to develop management plan for 24 highway and 2 pedestrian bridges managed by ERC under concession agreement with Virginia DOT. Develop annual maintenance and preservation plan for 50-year planning horizon.
1/19–6/20	Richmond-San Rafael Bridge, Asset Management Plan, Oakland, CA¹: Special Studies Task Lead to review history of bridge, conduct risk assessment workshop, define information gaps and preservation needs, develop long-term management plan with rehabilitation and replacement alternatives using LCCA.

¹ Work performed with previous employer.

Firm employed by Wiss, Janney, Elstner Associates, Inc.					
Name	Curtis J. Schroeder		Years of relevant experience with this employer		7
Title	Supervisor-Other		Years of relevant experience with other employer(s)		8
Degree(s) / Years / Specialization		BS, 2009, Civil Engineering, Michigan Technological University MS, 2011, Civil Engineering, Purdue University PhD, 2018, Civil Engineering, Purdue University			
Active registration number / state / expiration date		Dr. Schroeder also is a licensed PE in four other states.			
Year registered	2021	Discipline	SE IL, License No.: 081.008638 / expires 11/2026, Structural		
	2015	Discipline	PE WI, License No.: 44013 / expires 7/2026, Structural		
			NHI 130078 - Fracture Critical Inspection Techniques of Steel Bridges		
			NHI 130055 - Safety Inspection of In-Service Bridges (& Refresher 130053)		
			AWS Certified Welding Inspector		
			ASNT NDT Ultrasonic Technician - Level III		
			NDT Magnetic Particle Testing - Level II		
Contract role(s) / brief description of responsibilities		Dr. Schroeder will lead NDE services, focused on ultrasonic testing (UT), phased array UT (PAUT), and magnetic particle testing (MT); sampling; load rating; and welding procedure evaluations.			
Experience dates					
11/24-ongoing	UT of Bridge Pins and Hangers, Nine Structures, LA: Project Engineer for visual and ultrasonic inspection of bridge pins and hangers, characterizing and documenting conditions of section loss, cracking, or other forms of distress.				
11/21-ongoing	Susquehanna River Railroad Bridge, Havre de Grace, MD: Project Engineer assisted with UT and PAUT inspection of 45 pinned connections of deck truss railroad bridge with known defect indications. In 2024, assisted with limited, in-depth UT surveys on 70 transfer pins. In 2025, another 63 pin connectors were examined and analyzed.				
10/24-ongoing	Chicago Skyway, Stony Island Anchor Bolt Inspection and Analysis, Chicago, IL: Project Manager and Team Leader for the project, which included a load rating inspection, anchor bolt inspection, load rating of the steel superstructures and steel substructures, and structural analysis of the anchor bolts at the Stony Island Avenue Ramp structures. Repair work resulting from the findings also was performed. The structures consist of multiple units to carry two ramps over various local streets, the Norfolk Southern Railroad, and, for one of the ramps, the mainline of the Chicago Skyway. Led the visual inspection of all steel members and components and performed ultrasonic testing and field hardness testing on the anchor bolts. Section loss documentation was performed using physical measurement and/or UT. Change order ongoing.				
04/21-11/25	Hawthorne Bridge, Portland, OR: Project Engineer assisting with UT and wet fluorescent MT inspection of vertical lift bridge trunnions, including through-bore examinations. In 2024, performed follow-up MT on observed cracking, which WJE repaired in 2025.				
03/23 - 11/25	T-1 Steel Weld Inspections on Four Bridges, MO: Training, testing, and Quality Assurance (QA) for UT of T-1 steel welds on four bridges. Calibration of paint effects on UT scans; repairs of rejectable welds.				
12/22-08/25	T-1 Steel Weld Assessment, LA: Training, testing, and QA for UT of T-1 steel welds on three bridges; reviewed phased array ultrasonic testing (PAUT) scan results for characterization of rejectable welds; calibration of paint effects on UT scans; repairs of rejectable welds.				

01/23–06/24	I-57 over Mississippi River, Cairo, IL: Project Manager for UT inspection of weld splices in nonredundant steel tension truss members fabricated with ASTM A517 (T-1) steel; located welds by eddy current testing; developed alternative UT procedures to inspect welds within the bolted gusset plate connections; and performed UT inspection.
10/23–01/24	Fall 2023 Pin Inspections, IN: Project Manager for UT project to evaluate the fitness for service of the steel pins and associated hanger components or pinned connections on six bridges.
06/19–09/22	Cole-Parker Pedestrian Bridge, Fort Wayne, IN: Project Engineer assisted with UT and PAUT inspection of complete joint penetration welds, review of repair design calculations, load rating, and visual, MT, and UT inspection of repairs for cable stay bridge.
05/21–01/22	SR 66 over I-64, Carefree, IN: Team leader for Special Inspection of bridge containing 18 pinned hinge connections, including visual inspection, UT, and magnetic particle testing. Assisted with development and implementation of repairs for cracked pin plate fillet welds.
09/21–12/21	Water Street Bridge, Pittston, PA: Project Engineer for the UT of ten transfer pins in steel through-truss bridge.
08/21–10/21	Black Hawk Bridge, Lansing, IA: Project Engineer responsible for UT and PAUT of 21 pinned connections in a steel through-truss and suspended spans. Assisted with fracture critical inspection of steel through-truss spans.
07/21–08/21	Hernando de Soto Bridge, Memphis, TN: Project Engineer for the fracture investigation of a tie girder fabricated using T-1 steel in one of two tied arches. Performed UT, PAUT, and wet fluorescent magnetic particle testing (MT) of removed fracture specimen and steel cores. Performed QA verification of PAUT inspection procedure.
05/21–08/21 09/19–11/19	Burlington-Bristol Bridge Sheave Inspections, Burlington, NJ: Project Engineer performing PAUT of surface indications on thrust face of vertical lift bridge cast sheave and wet fluorescent MT inspection of cast sheaves. Assisted with development of repair recommendations.
03/21–08/21 05/19–09/19	Jefferson Barracks Bridge, St. Louis, MO: Project Engineer for the fracture critical inspection of the twin tied-arch bridges over the Mississippi River. Performed PAUT and MT inspection of tie girder welds during emergency repair work to estimate extent and size of cracking. Performed inspection of welded repairs as a certified welding inspector (CWI), assisted with follow-up MT inspection of tie girder welds, and reviewed weld repair design for rehabilitation project.
01/21–05/21	US 136 over Wabash River, Covington, IN: Team Leader for Special Inspection of a post-tensioned, concrete trapezoidal box girder bridge that included visual inspection of epoxy-injected cracks in the web wall, ground penetrating radar (GPR) inspection to locate vertical shear reinforcement, and concrete core removal for testing of concrete strength.
01/21–04/21	Franklin Street Bridge, Michigan City, IN: Project Engineer assisting with the development of tread casting crack repairs and performing visual and MT inspection of field-welded repairs.
09/20–01/21	North Dakota DOT Pin and Link Inspections, ND: Project Manager for PAUT of 344 bridge pins on 17 bridges with both pin and hanger and pinned hinge connections.
10/20–11/20	Eagle's Nest Bridge, Hebron, ND: Project Manager for repair of cracked pin plates at bridge pinned hinges. Developed weld repair solution and performed MT and CWI inspection of welded repairs.
08/20–11/20	Charles Berry Bridge, Lorain, OH: Project Engineer assisting with UT inspection of bascule bridge trunnions, including through-bore examinations.
04/20–06/20	US 6 over SR 331, Bremen, IN: Team Leader for special inspection of bridge containing 14 pinned hinge connections, including visual inspection, UT, and MT. Assisted with development of repair recommendations for cracked pin plate fillet welds.
05/19–08/19 01/17–03/17	Delaware River Bridge, Bristol, PA: Project Engineer to develop PAUT inspection plan to locate weld-filled holes in truss members within a gusset plate connection. Assisted with PAUT technician performance testing. In 2017, Project Engineer to develop UT inspection plan to locate weld-filled holes in truss members. Assisted with investigation of bridge member fracture.

Firm employed by Wiss, Janney, Elstner Associates, Inc.					
Name	Caleb W. Bennett		Years of relevant experience with this employer		5
Title	Engineer-Other		Years of relevant experience with other employer(s)		
Degree(s) / Years / Specialization		BS, 2019, Civil Engineering, Oklahoma State University MS, 2021, Civil Engineering, Oklahoma State University			
Active registration number / state / expiration date					
Year registered	2025	Discipline	PE OK, License No.: 35581 / expires 8/31/2027, Structural		
			NHI 130078 - Fracture Critical Inspection Techniques of Steel Bridges		
			NHI 130055 - Safety Inspection of In-Service Bridges		
			AWS Certified Welding Inspector		
			NDT Magnetic Particle Testing - Level II		
			Society of Professional Rope Access Technicians, Level I		
Contract role(s) / brief description of responsibilities		Mr. Bennett will lead steel condition assessments and will assist with nondestructive testing, focused on ultrasonic testing and magnetic particle testing; sampling; load rating; and welding procedure evaluations.			
Experience dates					
11/24-ongoing	Inspection of Bridge Pin and Hanger Assemblies, Nine Structures, LA: Project Engineer for visual and ultrasonic inspection of bridge pins and hangers, coordinating with the project team and traffic control during inspections and characterizing/documenting section loss, cracking, and other distress in the pin and hanger assemblies. Develop detailed inspection reports summarizing the findings on the inspection and any recommendations for future work.				
11/24-12/25	Chicago Skyway, Stony Island Anchor Bolt Inspection and Analysis, Chicago, IL: Project Engineer for the project, including a load rating inspection, anchor bolt inspection, load rating of the steel superstructures and steel substructures, and structural analysis of the anchor bolts at the Chicago Skyway Stony Island Avenue Ramp structures. Repair work resulting from the findings also was performed. Performed ultrasonic testing and field hardness testing on the anchor bolts. Section loss documentation was performed using physical measurement and/or ultrasonic testing.				
07/23 – 11/25	T-1 Steel Weld Inspections on Four Bridges, MO: Project Engineer for weld assessments on four bridges containing ASTM A514 (T-1) steel. Located welds through coating using eddy current methods, assisted ultrasonic technicians during weld inspections, developed repair design for member locations with rejectable welds, provided field support and construction observation services during weld repair installation.				
9/25-11/25	Ashland-Coal Grove Bridge Pin Inspection, Ashland, KY: Project Engineer for ultrasonic examination of transfer pin connections of the 15-span, 2,498 foot-long structure with a 3-span continuous steel cantilevered truss over the Ohio River.				
11/23-08/25	T-1 Steel Weld Assessment, LA: Project Engineer for weld assessments on three bridges containing ASTM A514 (T-1) steel tension members. Coordinated access and inspection sequencing and used eddy current methods to locate welds through coatings to establish UT scan limits. Served as the on-site engineer during detailed ultrasonic examinations of welds. Developed load rating calculations for each rejectable weld to determine the necessary repair scope. Provided field support during repair execution to confirm conformance with the engineered repair approach.				

5/25-7/25	Main Street Bridge Trunnion Examination, Jacksonville, FL: Project Engineer for nondestructive examinations of the 365-foot-long moveable lift-span sheave trunnions, including wet fluorescent magnetic particle testing and ultrasonic examinations of eight transitional fillet regions.
7/24-5/25	US 60/62 over the Mississippi River, Cairo, IL: Project Engineer for Bridge Condition Report and bridge end-of-life plan and removal due to the bridge's advanced age, deteriorated condition, deficient roadway width, closures, and anticipated increased future maintenance costs. Structural steel members were visually inspected for section loss. Where necessary, corrosion product was removed, and section loss measurements were mechanically measured for remaining thickness determined using ultrasonic thickness gauge. The evaluation also included seismic and posting considerations. Primary load carrying members in the superstructures of the truss main spans and girder approach spans were evaluated to determine their load carrying capacity in the existing, deteriorated state and to develop recommendations for repairs.
1/25-2/25	East 1250th Street over I-70, Clark County, IL: Project Manager for Fire Damage Assessment. Following a truck crash and subsequent fire that occurred underneath SN 012-0044 in the eastbound lanes of I-70, WJE performed an assessment, which included a comprehensive inspection of all fire-damaged areas, supplemented by field hardness testing, a survey of beam distortion, and extraction of concrete cores for laboratory evaluation. The structural steel evaluation involved inspecting beam webs adjacent to the diaphragms above the fire to identify cracking caused by connection restraint.
5/22-4/24	Grant Marsh Bridge, Bismarck, ND: Project Engineer for fracture critical inspection, load rating, emergency repair design and installation, retrofit design, and construction support services for the twin two-girder steel superstructures.
10/23-1/24	Fall 2023 Pin Inspections, IN: Project Engineer for ultrasonic testing (UT) project to evaluate the fitness for service of the steel pins and associated hanger components or pinned connections on six bridges.
7/23-9/23	Bob Cummings Lincoln Trail Bridge T1 Weld Inspection, Cannelton, IN: Project Engineer for the ultrasonic inspection of complete-joint-penetration welded butt splices in nonredundant ASTM A514 (T-1) steel truss members, including visual and magnetic particle inspection methods on built-up box-shaped members and ultrasonic inspection in accordance with AASHTO/AWS D1.5:2020.
5/23-6/23	Gordon Drive Viaduct - Iowa 12, Sioux City, IA: Project Engineer for Routine, Nonredundant Steel Tension Member (NSTM), In-Depth, Element Level, and Pin Inspection of the 57-span, 3,970 foot-long, structure comprised of steel multi-girder units with 70 total bridge pins that was widened in 1967 to carry four lanes of traffic through the city.
8/22-11/22	I-74 Mississippi River Bridge, Bettendorf, IA: Project Engineer for the Nonredundant Steel Tension Member (NSTM) and In-Depth inspection of the 15-span, 3,396 foot-long, structure comprised of steel multi-girder approach spans and an 795 foot-long basket handle arch superstructure.
3/22-4/22	SR 49 over SR 2 Pin Inspection, Valparaiso, IN: Project engineer for the ultrasonic testing (UT) of steel pins aided by visual and magnetic particle (MT) testing of welds between the pinned hinge and girders. Recommendations based on inspection findings were reported to guide the project team prior to an upcoming repair of the structure.

Firm employed by Moffatt & Nichol Inc.					
Name	Chace Hulon, PE		Years of relevant experience with this employer		11
Title	Program Manager - Structure Condition Assessments; Asset Management		Years of relevant experience with other employer(s)		10
Degree(s) / Years / Specialization		BS, 2005, Civil Engineering			
Active registration number / state / expiration date					
Year registered	2015	Discipline	PE LA, License No.: 39701 / expires 9/30/2026, Civil		
Contract role(s) / brief description of responsibilities		Chase Hulon will serve as a contract manager and will provide outreach for preservation project development.			
Experience dates					
06/22- 08/24		City of Los Angeles Citywide Bridge Strategic Plan (BSP) – Bridge Maintenance, Preservation, and Repair Program Development. Los Angeles, CA: Served as Subject Matter Expert supporting the development and delivery of a comprehensive Citywide Bridge Strategic Plan for the City of Los Angeles Bureau of Engineering, Bridge Improvement Division. The BSP created a long-term, self-sustaining framework for maintenance, preservation, and repair of the City's 500+ bridges (including 322 National Bridge Inventory structures and 94 culverts). Key contributions included: - Led the development of the City's Bridge Preventive Maintenance Program (BPMP), establishing clear policies and procedures for cyclical and condition-based preservation activities on bridges in good and fair condition, directly aligned with FHWA Bridge Preservation Guide recommendations. - Identified and prioritized maintenance, preservation, and repair needs, including high-risk bridges requiring immediate attention and long-range capital improvement projects. - Defined eligible preservation treatments such as deck joint repair/replacement, bearing cleaning/restoration/replacement, localized deck repairs, spot/zone painting, deck sealing, concrete spall repair, approach slab repairs, bridge deck drainage improvements, superstructure and substructure protective coatings, and channel cleaning/scour countermeasures. - Developed recommendations for bridge inspection protocols, life-cycle cost planning, environmental process guidance, and task-order-style contract mechanisms for efficient delivery of routine and preventive maintenance services. Supported the alignment of prioritized needs with federal, state, and local funding guidelines, including preparation of Caltrans Highway Bridge Program submissions, grant applications, and leveraging of IJA funding. The team successfully supported the City in securing \$3.5 million in additional fiscal-year budget specifically dedicated to bridge repair and preservation work. The team delivered a strategic, implementation-ready program that will improve program level bridge condition, extend service life, and optimize funding. We established an indefinite-delivery/task-order framework for prioritized bridge maintenance, preservation, and repair projects.			
03/18 - 01/25		LADOTD Indefinite Delivery/Indefinite Quantity (IDIQ) for Complex Bridge Inspection, Statewide, LA: Project Manager and Chief Editor for major revisions of the 2020 bridge maintenance policies and procedures (BIM) to incorporate the 2022 NBIS Final Rule. The new policies and procedures included LADOTD On-System BIM, LADOTD Off-System BIM, and LADOTD Coding & Field Guide. While the above documents have been completed, the LADOTD Bridge Load Rating Manual development is currently in progress. M&N collaborated with the LADOTD			

	staff throughout the development to meet expectations and maintain their direction. In-person progress meetings occurred monthly, including facilitating various District Bridge Engineers throughout the state. The BIM policies and procedures were completed and published in December of 2024 to fully implement in January 2025 and be fully compliant for the FHWA audit in 2028. Compliance with the National Bridge Inspection Program (NBIP) and the associated Specifications for the National Bridge Inventory (SNBI) data tape is in alignment with the anticipated timeline published by FHWA. The tables of contents of the Off-System and On-System manuals were purposefully ordered primarily for the bridge inspector. The vital forms and checklists for the Bridge Inspection Program were narrowed down to eight and stored in the appendix section. The Coding and Field Guide is uniquely designed for a seamless user experience allowing efficient navigation through significant amounts of technical data. Performed in-depth bridge inspections on complex movable and long-span bridges. Performed structural, mechanical, and electrical inspections of six movable bridges utilizing detailed, nondestructive, and laboratory testing methods with hand sketches. Installed a wireless SHM (system health monitoring) system on the Greater New Orleans bridge to monitor significant deficiencies in Nonredundant Steel Tension Members (NSTM) members due to poor design details and advised of repair alternatives. Utilized nondestructive examination (NDE) methods (laser and acoustic) to analyze the rotational movement of an unstable pivot pier. Performed the inspections of two cable-stayed bridges with rope access techniques to inspect 208 cables between the two bridges, their Gensui Dampers, and anchorage systems. Performed two inspections of the I-10 Horace Wilkinson Bridge and two inspections of the Greater New Orleans Bridges, which are cantilever truss bridges utilizing rope access techniques and rolling lane closures to minimize traffic impacts. Performed a fracture critical inspection of the Green Bridge, a steel tied arch in New Orleans, utilizing rope access and Unmanned Aircraft Systems (UAS) access techniques. Performed the inspection of the I-10 Bridge over the Calcasieu River in Lake Charles utilizing rope access on NSTM and UAS access techniques on columns. Hands-on management and implementation of the QC review plan are vital to the continued success of this project.
02/22– 04/22	City of Somerville Comprehensive Asset Management Program, Somerville, MA: Project Manager and Subject Matter Expert leading the development of a formal, enterprise-wide asset management program for the City of Somerville. Directed asset inventory analysis, Level of Service (LOS) definition workshops, and risk-based prioritization and assessment for five major infrastructure asset classes: Bridges, Roadways, Sidewalks, Building Systems, Electric Lights and Lines, and Parks and Playgrounds. A teaming partner managed the other two major asset classes: Collection and Conveyance System and the Water Distribution System. Conducted a comprehensive gap analysis of existing asset registries in accordance with ISO 55000 standards for accuracy, completeness, consistency, uniqueness, validity, and timeliness. Identified critical data gaps and delivered actionable recommendations for data collection, standardization, governance, and integration into enterprise systems (GIS and CMMS) to support condition assessment, life-cycle planning, and capital prioritization. Developed prioritization methodologies and risk assessments to inform maintenance, preservation, rehabilitation, and renewal strategies.

Firm employed by Moffatt & Nichol Inc.					
Name	Mike Harris, PE		Years of relevant experience with this employer		26
Title	Supervisory Structural Engineer		Years of relevant experience with other employer(s)		11
Degree(s) / Years / Specialization		BS, 1998, Civil Engineering			
Active registration number / state / expiration date					
Year registered	1993	Discipline	PE VA, License No.: 0402023868 / expires 1/31/2027, Civil		
Contract role(s) / brief description of responsibilities		Mike Harris will lead M&N's structural preconstruction design work.			
Experience dates					
01/23-ongoing	Route 646 over Left Fork Bridge Replacement, Buchanan County, VA: Project Principal responsible for providing project and technical oversight, quality assurance, supervising design meetings, and attending client milestone review meetings. M&N and a team of sub-consultants provided preliminary design, final design, and construction support for the replacement of the existing 19-foot-long simple-span reinforced concrete slab span with an asphalt wearing surface. A flood event in 2021 revealed the existing abutments on spread footings to be scour critical when undermining and settlement of an abutment occurred. The 34-foot-long simple-span replacement bridge utilized full integral abutments with the steel H-piles socketed into rock. Bridge design was provided by a sub-consultant.				
06/19-12/23	Hampton Roads District for Design-Build I-64 Southside Widening / High-Rise Bridge, Chesapeake, VA: Project Manager and Technical Advisor to provide assistance, recommendations, and briefings to the District Structure & Bridge Office, which included review of Contractor submissions of plan and design changes, requests for information, reports of non-conforming work, and repair procedures. Provided monthly activity reports to the District Structure & Bridge (S&B) Office summarizing the construction and design issues that were reviewed and discussed amongst the various reviewers. M&N provided consultant support to the Hampton Roads District S&B Office on an as needed basis during the construction stage of the Phase 1 contract for the design-build project in Chesapeake, VA, which widened the existing interstate from 4 to 6 lanes along nearly 9 miles of Interstate 64 (I-64). Bridge work included a new fixed-span High-Rise Bridge with 100-foot vertical clearance over the Elizabeth River, replacement of an overpass bridge, and widening of six existing I-64 bridges.				
03/15-12/18	VDOT Term Contract for Design of Highway Structures and Bridges, Statewide, VA: Project Manager for design and construction phase support activities related to 25 task orders that included 14 unique bridge projects. Services included preliminary and final design services for new bridges, bridge replacements, and bridge repair projects along with corresponding approach roadway design as required.				
12/12-03/14	Route 60 Warwick Boulevard over Lake Maury Bridge Replacement, Newport News, VA: Quality Control Bridge Engineer for plan development of a replacement of the bridge that carries Warwick Boulevard over Lake Maury. The replacement bridge design carries six lanes of traffic, and the northeast bridge approach will be improved by adding one through lane. Two lanes of traffic had to be maintained in each direction during construction to eliminate traffic detours and minimize traffic delays in the area. Plans and an engineer's estimate were provided for each context-sensitive replacement alternative, along with a final recommendation.				

Firm employed by Moffatt & Nichol Inc.					
Name	Tom Spencer, PE		Years of relevant experience with this employer		18
Title	Asset Management		Years of relevant experience with other employer(s)		27
Degree(s) / Years / Specialization		BS, 1981, Civil Engineering			
Active registration number / state / expiration date					
Year registered	2010	Discipline	PE LA , License No.: 35742 / expires 3/31/2027, Civil		
Contract role(s) / brief description of responsibilities		Tom Spencer will lead M&N's asset management work.			
Experience dates					
5/20 - ongoing	PIANC Working Group 233: Lead Author developing a new guideline for the Inspection, Maintenance, and Repair of Waterfront Facilities. The guideline will emphasize modern techniques in asset management, inspection, maintenance, rehabilitation, and monitoring. Key new topics and concepts include a detailed discussion of Intervention methods, guidance on contemporary digital inspection technologies, and the evaluation of the load-carrying capacity of existing structures.				
06/14 - ongoing	LADOTD, Various Bridge Inspections – Multiple Contracts, Statewide, LA: Principal-in-charge, Inspection and rehabilitation practice leader, team leader, engineer-diver, and QA/QC manager who has performed bridge inspection services in those various roles, supporting M&N's inspection efforts for LADOTD under various contracts. Tom's experience includes the underwater inspection and assessment of nearly 1000 bridges with the findings, assessments, and recommendations presented in bridge specific reports. Bridge types include concrete, steel, and timber bridges. Acoustic imaging techniques were utilized to identify structural deficiencies and determine scour limits. Tom also responded to an emergency inspection request related to high water and flood levels for various bridges.				
06/18 – 12/19	LADOTD, Bridge Inspection Manual, Baton Rouge, LA: Health and safety officer who authored the safety section of the Bridge Inspection Manual (BIM) for LADOTD. The BIM was designed to capture all previous policies, directives, memorandums, manuals, and forms into a single, centralized reference manual. The BIM aligns the Bridge Inspection Office Headquarters' goals with all nine LADOTD districts. The BIM will also allow for better communication and quality management among LADOTD project managers, local bridge owners, and consultants.				
06/07 – 11/08	Special Facility Condition Assessment Program (S-FCAP), Development of Engineered Management System (EMS) for Waterfront Structures - Naval Facilities Engineering Command, Norfolk, VA: Principal-in-charge, Project Engineer, Subject Matter Expert. Developed the structural waterfront engineering program data to determine the condition indices of the various elements with various levels of degradation. The development included a listing of the material types, marine asset categories, asset defects, deduct value curves, Q curves, budgetary repair costs, and estimation of the service life of the assets. The assets included piles, pile caps, quays, relieving platforms, beams and girders, decks, utility vaults, utility trenches, mooring foundations, lighting foundations, utility mounds, fender piles, fender framing, fenders, camels, separators, dolphins, bollards, double bitts, and cleats. Provided input parameters for the marine structural elements of the Navy's asset inventory system.				

Firm employed by Moffatt & Nichol Inc.					
Name	Christopher "Chip" Eschenbach, ADCI, CWI		Years of relevant experience with this employer		8
Title	Survey and Subsurface Investigations		Years of relevant experience with other employer(s)		0
Degree(s) / Years / Specialization		AS, 2015, Welding Technology			
Active registration number / state / expiration date					
Year registered		Discipline			
Contract role(s) / brief description of responsibilities		Chip Eschenbach will lead survey and subsurface investigations.			
Experience dates					
07/21-ongoing	LADOTD Underwater Bridge Inspections, Statewide, LA: Engineering Technician Diver responsible for maintaining the diving and inspection equipment, planning and preparing all necessary tools and information, providing field notes and observations, and writing reports. Provides routine maintenance of the inspection equipment and proper record keeping, uses the manufacturer's recommendations to maintain high standards for our inspections, and ensures that the industry standards are met before anything is used. Identifies the inspection locations for planning and preparation, reviews previous inspection data, identifies the proper lodging and safety accommodations, confirms tools are available for use, and confirms that safety concerns are addressed. Provides field notes and observations of the field data collection process, using a diver or non-diving inspector, and taking photos, video, or using acoustic imaging to collect data. Assists in the report development process and the rounds of QA/QC.				
04/24-ongoing	MDOT 2023 IDIQ Underwater Bridge Inspections, Statewide, MS: Engineering Technician Diver responsible for maintaining the diving and inspection equipment, planning and preparing all necessary tools and information, and providing field notes and observations. Maintaining the inspection equipment entails routine maintenance, proper record keeping, using the manufacturer's recommendations to maintain high standards for our inspections, and ensuring that the industry standards are met before anything is used. Planning and preparation have included the tools that are available for use and that all safety concerns are addressed. Providing field notes and observations using a diver or a non-diving inspection and taking photos or video.				
10/20-12/23	LADOTD IDIQ Contract for In-Depth Bridge Inspections, Statewide, LA: NBIS Inspector for routine bridge inspections throughout Louisiana, including 100% visual inspections in accordance with NBIS requirements. Performed a routine bridge inspection of the cable-stayed Audubon Bridge above the deck utilizing rope access techniques in St. Francisville. Responsibilities included preparing SPRAT and climbing gear for inspection, coordinating with the other climbing teams, performing inspection on each cable for cable-stay bridge using rope access and performing inspection on the cable-stay towers, relaying defects and photographing defects found.				
09/19-03/20	LADOTD NBIS Underwater Bridge Inspection Retainer Contract, Statewide, LA: NBIS Inspector for the five-year retainer contract to perform Level I, II, and III underwater bridge inspections in accordance with NBIS and AASHTO Manual for Bridge Element Inspection. Completed underwater inspection fieldwork, inspection reports, and quality control reviews. Underwater acoustic imaging techniques were used to locate structural deficiencies, identify potential undermining, observe the limits of scour, and document the limits of riprap installations.				

Firm employed by Moffatt & Nichol Inc.					
Name	Alex Welfle, PE		Years of relevant experience with this employer		7
Title	MOT Design and Staging		Years of relevant experience with other employer(s)		7
Degree(s) / Years / Specialization		BS, 2012, Civil Engineering			
Active registration number / state / expiration date					
Year registered	2016	Discipline	PE FL, License No. PE 86552 / Expires 8/30/2026, Civil		
Contract role(s) / brief description of responsibilities		Alex Welfle will lead MOT Design and Staging Alex Welfle, PE, is a Principal Engineer with experience leading complex civil infrastructure and transportation design projects for counties, municipalities, and the Florida Department of Transportation. He serves as the Principal Engineer responsible for directing and overseeing the entire engineering design phase, providing technical leadership, quality control, and integration across all engineering disciplines. Alex has extensive experience delivering roadway, stormwater, drainage, and utility design for projects in constrained urban and suburban corridors. His background includes leading the development of construction documents from planning and preliminary design through final design, incorporating drainage analysis, utility coordination, maintenance-of-traffic considerations, and constructability review.			
Experience dates					
03/25 – 03/25	Louisiana Department of Transportation & Development (LADOTD) Inventory & Inspection of Ancillary Structures, Statewide ,LA: Performed quality control on the maintenance-of-traffic design for the most recent 5-year retainer contract to perform overhead sign truss inspections and rehabilitation designs throughout Louisiana. Temporary traffic control plans were ensured to meet LADOTD Standard Plans, the Manual on Uniform Traffic Control Devices and industry standards.				
01/23 – 12/24	Carpenter Creek Headwater Project, Escambia County, FL: Project Manager and Lead Maintenance of Traffic Engineer for design services to help improve water quality and reduce flooding for this Escambia County park pond project on Olive Road within the Carpenter Creek Watershed. The site includes a regional pond, 12-space parking lot, walking paths, boardwalks, and other passive park amenities.				
08/21 – 03/26	Olive Road Improvements (Palafox Street to Davis Highway), Escambia County, FL: Project Engineer, Assistant Project Manager, and Lead Maintenance of Traffic Engineer for multimodal improvements along a 3.5-mile section of Olive Road to improve pedestrian and bicycle safety by converting a two-lane roadway with ditches into an urban three-lane section with curb and gutter, sidewalks, and multiuse path. Upgrades to the existing cross drain serving Carpenter Creek reduce upstream flooding and water overtopping the roadway.				
09/25 – 03/26	Mazurek Plantation Retrofit, Escambia County, FL: Project Manager and Lead Maintenance of Traffic Engineer for the analysis of the existing conveyance system that serves Mazurek Plantation. The goal of this project was to alleviate localized flooding and prevent residential runoff from directly discharging into Carpenter Creek without treatment. Project consisted of the extension and redesign of the conveyance trunk line and the addition of several inlets to improve capture efficiency. Project was permitted through FDEP via a retrofit General Permit for water quantity.				

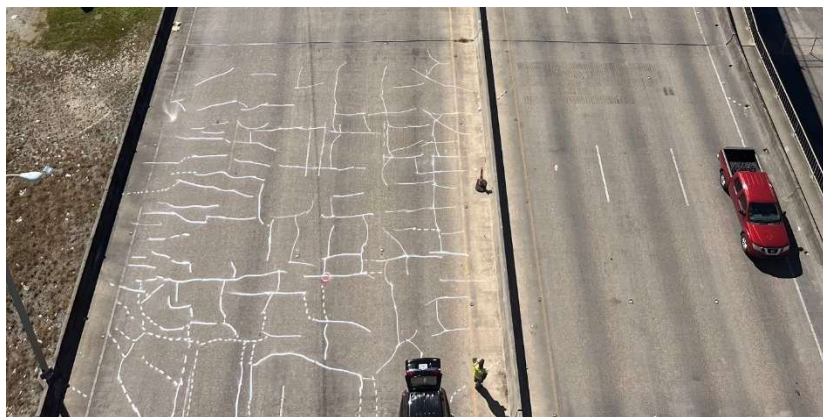
Firm employed by Moffatt & Nichol Inc.					
Name	Stephen (Steve) Parker		Years of relevant experience with this employer		2
Title	Environmental Permitting		Years of relevant experience with other employer(s)		31
Degree(s) / Years / Specialization		BS, 1984, Zoology/Wildlife Management MS, 1987, Botany			
Active registration number / state / expiration date					
Year registered		Discipline			
Contract role(s) / brief description of responsibilities		Steve Parker will lead environmental permitting.			
Experience dates					
10/22 – 11/23	Aberdeen Port Rail Spur Environmental Assessment, City of Aberdeen, Monroe County, MS: Project Manager for the Draft/Final Environmental Assessment for the Aberdeen Port Rail spur EA. His responsibilities included agency and tribal coordination, leading a team in drafting of the Environmental Assessment, using US EPA Motor Vehicles Emission Simulator (MOVES4); to estimate construction air emissions impacts, and drafting the Finding of No Significant Impact (FONSI) for the project. The City of Aberdeen had received funding from the US Department of Transportation Maritime Administration under their Small Ports Project Infrastructure Development Program to construct 12,200 linear feet of rail spur between the Port of Aberdeen and the Kansas City Southern Rail. The purpose of the Project is to establish rail access to the Port of Aberdeen, which will in turn increase utilization of the port, allow for more efficient movement of products, and provide economic opportunities to the residents of Aberdeen and the surrounding area.				
11/23 – 04/26	Project Steel Wheel Columbus Dock Expansion Environmental Assessment, Columbus, Lowndes County MS: Project Manager for the Draft Environmental Assessment for the Project Steel Wheel Columbus Dock Expansion. His responsibilities included agency and tribal coordination, leading a team in drafting the EA, and will also include drafting the FONSI for the project. Lowndes County will receive funding from the US Department of Transportation Maritime Administration (MARAD) under their Small Ports Project Infrastructure Development Program (PIDP) to construct 9,757 linear feet of rail spur between the Columbus Port of and the Kansas City Southern Rail. The Project is part of a larger expansion by Steel Dynamics, Inc. (SDI), which plans to invest \$2.5 billion in Lowndes County and create 1,000 jobs with an average annual salary of \$93,000. The expansion includes a state-of-the-art low-carbon, aluminum flat rolled mill and a biocarbon production facility at the SDI Columbus facility, which is 13 miles from the Project via truck route. Phase 3 funds will be used for site acquisition and site preparation, infrastructure improvements, and workforce training. Adding the rail spur at the Port allows scrap metal and finished steel rolls to be transported between the Port and the Steel Dynamics facility via rail cars, taking an estimated 35,000 trucks off the road annually.				
02/22 – 11/23	Mississippi Trustee Implementation Group (MS TIG) Restoration Plan 4, Coastal Mississippi, Jackson, Harrison, and Hancock Counties, MS: Environmental Scientist who provided contractual support services including project budgets, and the development of reasonable range of alternatives, TIG meetings, Environmental Consequences Chapter/Cumulative Impacts, and Monitoring and Adaptive Management Plans. Project funding by restoration types included wetlands, coastal, and nearshore habitats; nutrient reduction (nonpoint source), and enhance recreational opportunities. The Restoration Plan included an evaluation of the Reasonable Range of Alternatives under the Oil Pollution Act (OPA) and the National Environmental Policy Act (NEPA). Seven projects were approved for a total restoration costs of \$26.3 Million.				

Firm employed by Moffatt & Nichol Inc.					
Name	Bryan Tyson, PE, ADCI		Years of relevant experience with this employer		6
Title	Structure Condition Assessments		Years of relevant experience with other employer(s)		9
Degree(s) / Years / Specialization			BS, 2010, Civil Engineering MS, 2010, Civil Engineering		
Active registration number / state / expiration date					
Year registered	2016	Discipline	PE LA , License No.: PE.0043425 / expires 3/31/2027, Civil		
Contract role(s) / brief description of responsibilities			Bryan Tyson will lead marine condition assessments and will provide post-design construction support.		
Experience dates					
04/24 - ongoing	LADOTD IDIQ Contract for Bridge Inspection Services, Statewide, LA: Inspection Team Leader for in-depth inspection (fulfilling both routine & fracture critical inspections) of several large bridges within Louisiana. Provided site mob/demob & bridge inspection. Level III inspections were completed in accordance with FHWA, BIRM, AASHTO Manual for Bridge Evaluation, AASHTO BEIM, and the LADOTD Bridge Inspection Manual. Bridges included Interstate 10 (John James Audubon) Bridge over Mississippi River, Ventress with in-depth inspection of structure's towers and cable stays using rope access techniques.				
02/23 - ongoing	LADOTD Specifications for the National Bridge Inventory (SNBI) Program Development and Manual Publications, Statewide, LA: Structural Engineer for update & further development of Bridge Inspection Manual (including off-system directives), Bridge Load Rating Manual, and Coding & Field Guide. Update resulted from recent NBIS changes in CFR & implementation of SNBI. Manual will be fully compliant with the FHWA SNBI Program Metrics in accordance with published timeline. Manual will be uniquely ordered in a systemic fashion with appendix to store vital updated forms for Bridge Inspection Program. M&N has been retained for 5 years to provide critical updates following NBIS changes.				
06/22 – ongoing	LADOTD IDIQ for Underwater Bridge Inspection, Statewide, LA: Insp. Team Leader/Member for 2 tasks (to date) under M&N's third, consecutive contract to provide UW NBIS bridge insp. statewide. When completed, a total of 699 bridges will be inspected under those 2 tasks. Includes in-depth UWI on signature bridges over large waterways with deep foundations & dynamic channel conditions. Inspections augmented with NDE acoustic imaging technology to consistently monitor streambed changes & structural deficiencies between inspection cycles. Responded to several emergency requests for inspection within hours to days utilizing local personnel.				
06/17 – 04/18	LADOTD Underwater Bridge Inspection of Large River Crossings, Statewide, LA: Structural Engineer, Inspection Team Leader, and Diver for two tasks under a five-year, open-end retainer contract to perform underwater bridge inspections throughout Louisiana. Provided Level I, II, & III inspections of submerged elements in accordance with FHWA, BIRM, AASHTO MBE, current NBIS requirements, & LADOTD Engineering & Maintenance Directives. Bridge types included movable swing span, bascule, truss, timber stringer, cable-stayed, single & multi-span bridges up to 8 miles long. Assisted with preparation of NBIS inspection reports. During the two tasks, Mr. Tyson provided inspection of 41 major bridges over large waterways with deep foundation & dynamic channel conditions.				
01/17-01/18 09/15-12/15	LADOTD Retainer Contract for Underwater Bridge Inspection with the Majority of Work in Districts 03, 07, & 61, 2013-2018, Statewide. LA: Structural Engineer and Inspection Team Member for 2 tasks out of 10 completed for this LADOTD five-yr-long retainer contract to perform underwater bridge inspections throughout LA. Provided Level I, II, and III inspections of submerged elements in accordance with				

	FHWA, BIRM, AASHTO MBE, current NBIS requirements and LADOTD engineering & maintenance directives. Bridge types included movable swing span bridges, bascule bridges, truss bridges, timber stringer bridges, cable-stayed bridges, single and multi-span bridges. Assisted preparation of NBIS inspection reports.
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17. Firm Experience:

Firm name	Wiss, Janney, Elstner Associates, Inc.		Discipline(s)*		Bridge	
Project name	Danziger Lift Bridge Additional Work – Approach Span Assessment			Firm responsibility (prime or sub?)		Sub
Project number	44-21594, H.000303.6	Owner's name	Louisiana Department of Transportation and Development			
Project location	New Orleans, Louisiana			Owner's Project Manager		Jeffrey Hastings
Owner's address, phone, email		LADOTD Bridge Design Section, 1201 Capitol Access Road, Baton Rouge, LA 70802, (225) 379-1460, Jeffrey.Hastings@la.gov				
Services commenced by this firm (mm/yy)		03/23	Total consultant contract cost (\$1,000's)			\$276
Services completed by this firm (mm/yy)		05/23	Cost of consultant services provided by this firm (\$1,000's)			\$276



Wiss, Janney, Elstner Associates, Inc. (WJE) performed a condition assessment of the approach spans of the Danziger Lift Bridge over the Inner Harbor Navigation Canal in New Orleans for the Louisiana Department of Transportation and Development (LADOTD). The objective of the investigation was to assess the condition of the reinforced concrete bridge

deck and accessible superstructure and substructure elements in advance of planned rehabilitation work and identify elements requiring intervention over the next twenty-five years. WJE performed field investigations that included visual inspections, sounding surveys, crack mapping, ground penetrating radar (GPR) reinforcement cover surveys, and representative concrete core sampling of the approach spans. Laboratory evaluations of core samples included petrographic examination and chloride concentration testing to characterize concrete constituents and properties, evaluate deterioration mechanisms, and assess corrosion-related durability risks. WJE also visually evaluated expansion joints, barriers, and accessible superstructure and substructure elements to identify distress conditions, including cracking, spalling, and previous repairs, and to assess the overall condition and serviceability of the bridge components.

Relevance to LADOTD	
✓	Condition assessment
✓	Maintenance planning
✓	Preservation alternatives
✓	Data collection and analysis
✓	Mitigation strategies
✓	Field and laboratory testing

The bridge approach spans were found to be in generally good condition and expected to perform serviceably for the next 25 years without interventions; however, because several spans exhibited more extensive cracking than others, an application of a methyl methacrylate flood coat followed by a broadcast sand was presented as an optional treatment consistent with good bridge preservation practices.

Members involved: Jonathan C. McGormley, P.E., serving as Project Manager, and Marwa Abdelrahman, Ph.D., leading field assessment, laboratory data interpretation, and durability evaluation. Mohamed ElBatanouny reviewing bridge preservation recommendations.

Firm name	Wiss, Janney, Elstner Associates, Inc.		Discipline(s)*		Bridge	
Project name	Testing and Evaluations of Structures, TO 3, Service Life Estimates				Firm responsibility (prime or sub?)	Prime
Project number	44-25003, H.009730.5	Owner's name	Louisiana Department of Transportation and Development			
Project location	Orleans Parish and Jefferson Parish, Louisiana			Owner's Project Manager	Bradley Mistich	
Owner's address, phone, email		LADOTD Bridge Maintenance Section, 1201 Capitol Access Road, Baton Rouge, LA 70802, (225) 379-1544, Bradley.Mistich@la.gov				
Services commenced by this firm (mm/yy)		05/25	Total consultant contract cost (\$1,000's)			\$543
Services completed by this firm (mm/yy)		Ongoing	Cost of consultant services provided by this firm (\$1,000's)			\$543



WJE is performing service life evaluations of the Rigolets Bridge (US-90 over Rigolets Pass) and the Caminada Bay Bridge (LA-1 over Caminada Bay) for the Louisiana Department of Transportation and Development (LADOTD) under IDIQ Contract No. 4400025003 for Nondestructive Evaluation (NDE) of Structures Statewide. The objective of the investigations is to evaluate the effects of marine and brackish-water chloride exposure on reinforced concrete substructure elements for the purpose of estimating remaining service life and supporting long-term preservation planning. WJE reviewed previous inspection reports and as-built drawings prior to performing field investigations that included visual and hammer sounding surveys, and in-depth evaluations at representative study areas that included as-built reinforcement cover assessment, corrosion evaluation using electrical surface resistivity and half-cell potential methods, and material sampling. Laboratory evaluations of concrete core samples included petrographic examination, chloride concentration testing, and concrete diffusion property testing to characterize the concrete properties, exposure conditions, and potential deterioration mechanisms. The findings from the field and laboratory investigations were synthesized to develop inputs for WJE CASLE™ probabilistic service life models used to evaluate future chloride ingress, corrosion initiation, and potential corrosion-related deterioration of the substructures. Based on the findings, WJE is developing conceptual recommendations related to preservation, maintenance, future in-depth inspections, and long-term corrosion mitigation strategies for the bridge substructures.

Relevance to LADOTD

- ✓ Condition evaluation
- ✓ Service life estimates
- ✓ Data collection and analysis
- ✓ Mitigation strategies
- ✓ Field and laboratory testing



Members involved: Jonathan McGormley, P.E., serving as Contract Manager, and Marwa Abdelrahman, Ph.D., leading the service life modeling efforts for the project.

Firm name	Wiss, Janney, Elstner Associates, Inc		Discipline(s) Bridge		Bridge	
Project name	US190 Over LA415 and CPKC RR Emergency Repairs				Firm responsibility (prime or sub?) Sub	
Project number		Owner's name	Louisiana Department of Transportation and Development			
Project location	Allendale Westover, West Baton Rouge Parish			Owner's Project Manager		John Fontenot
Owner's address, phone, email		LADOTD District 61 Operations, Baton Rouge, 8100 Airline Highway, Baton Rouge, LA 70815, (225) 231-4102, john.fontenot2@la.gov				
Services commenced by this firm (mm/yy)		11/25	Total consultant contract cost (\$1,000's)			NA
Services completed by this firm (mm/yy)		Ongoing	Cost of consultant services provided by this firm (\$1,000's)			\$100



US 190 over LA 415 and the CPKC Railroad is a multi-span structure consisting of ten precast concrete approach spans flanking a five-span steel superstructure crossing the railroad. Because of the skew of the railroad, the steel superstructure consists of floor beams spanning between single concrete columns. Each floor beam supports ten rolled-shape stringers. In the two end spans, the steel stringers are supported on fixed bearings on concrete wall piers while the other end of the stringer is supported on saddles riveted to the floor beam web. The structure was originally constructed in 1939 and has only seen limited repairs over its nearly 90-year service life.

Relevance to LADOTD

- ✓ Condition assessment
- ✓ Load Rating
- ✓ Repair design

Inspections over the last three years have identified extensive corrosion-related distress of the stringers in the two end spans as both ends of the stringers are below deck expansion joints. In 2025, inspections of the stringer section loss led to the load posting of the bridge. Because this structure serves as an emergency truck route from Baton Rouge, posting limits triggered the need to complete emergency repairs to the bridge. CEC Inc. was selected by the LADOTD to complete the needed emergency repairs to remove the load posting and to install preventative maintenance

repairs to avoid future emergency repairs until the bridge could be programmed for replacement. WJE was retained by CEC to develop the steel repairs for the structure.

Working together with CEC, WJE inspected the structure to evaluate the extent of section loss in the stringers. Analysis of the effects of section loss on stringer capacity demonstrated adequate strength to support legal loads allowing the posting to be removed; however, the conditions warranted repair to achieve an additional ten to twenty years of service until replacement. Bolted galvanized web plate repairs were developed to restore web section loss. Installation of the web repairs required installation of through-bolted angles at most interior concrete diaphragms. At the end span diaphragms, access openings were cut in the diaphragms to create space to install the repairs. Installation of the repairs was completed without shoring. To extend the service life of these repairs, in addition to installing a multi-coat paint system, bent plate flashing was installed below the finger joint above each girder to direct run-off and debris away from the stringer flanges. Installation of the repairs is ongoing.

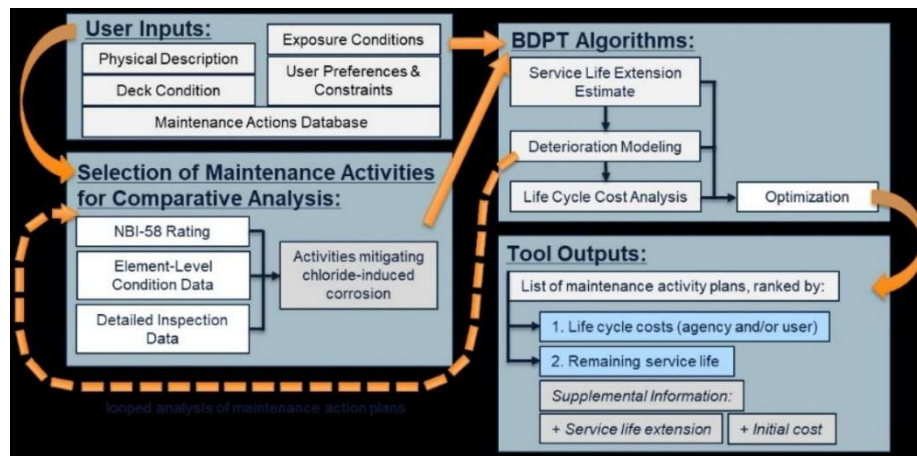
Members involved: Jonathan C. McGormley served as Project Manager and Engineer responsible for the structure inspection and development of the repair details.

Firm name	Wiss, Janney, Elstner Associates, Inc		Discipline(s)*		Bridge	
Project name	TPF-5(474) Bridge Deck Preservation Portal			Firm responsibility (prime or sub?)		Prime
Project number	TPF-5(474)	Owner's name	FHWA, IADOT, INDOT, MNDOT, MODOT, NMDOT, TXDOT			
Project location	WJE's Janney Technical Center, Northbrook, IL			Owner's Project Manager		Raj Ailaney
Owner's address, phone, email		Federal Highway Administration, 1200 New Jersey Avenue, SE, Washington, DC 20590, (202) 366-6749, Raj.Ailaney@dot.gov				
Services commenced by this firm (mm/yy)		01/22	Total consultant contract cost (\$1,000's)			\$735
Services completed by this firm (mm/yy)		Ongoing	Cost of consultant services provided by this firm (\$1,000's)			\$735

The Bridge Deck Preservation Tool (BDPT) is a nationally accessible, data-driven decision-support tool developed by Wiss, Janney, Elstner Associates, Inc., to assist transportation agencies and engineers in selecting effective maintenance and preservation strategies for reinforced concrete bridge decks. Integrated within the Federal Highway Administration's (FHWA) InfoBridge platform, the BDPT provides a consistent and transparent framework for evaluating preservation alternatives at the project level. The tool is designed to function with varying levels of available inspection data, ranging from basic National Bridge Inventory (NBI) condition ratings to detailed bridge element inspection data, crack mapping, delamination surveys, and chloride concentration measurements, making it adaptable to a wide range of agency practices and resource availability.

Relevance to LADOTD

- ✓ Asset management
- ✓ Maintenance planning
- ✓ Preservation alternatives
- ✓ Data evaluation
- ✓ Life-cycle costs



The BDPT framework incorporates several interconnected analytical modules that guide users through a structured preservation decision-making process. The tool first evaluates bridge deck condition, environmental exposure, and user-defined preferences to determine feasible maintenance actions using engineering-based filters and thresholds. Probabilistic service life extension and deterioration modeling algorithms are then applied to estimate the expected performance benefits of each preservation strategy. A life-cycle cost analysis module evaluates the economic implications of each alternative, while a multi-objective optimization framework ranks maintenance actions based on service life benefits, cost efficiency, and agency priorities. Together, these components provide a comprehensive framework for identifying cost-effective and performance-driven bridge deck preservation strategies.

The current version of the BDPT is specifically intended for reinforced concrete bridge decks where chloride-induced corrosion governs deterioration and preservation actions remain feasible. Although the tool does not replace detailed service-life design or rehabilitation analyses, it provides transportation agencies with valuable comparative insights for maintenance planning and asset management. By integrating engineering judgment, probabilistic deterioration modeling, and life-cycle cost principles, the BDPT enables bridge owners to make informed, data-driven decisions that improve bridge durability, optimize maintenance timing, and extend the service life of bridge infrastructure. The project also included developing a framework to extend the tool to include preservation action for bridge superstructure and substructure elements.

Members involved: Dr. ElBatanouny is serving as the project manager for the BDPT while Dr. Abdelrahman is serving as project engineer.

Firm name	Wiss, Janney, Elstner Associates, Inc.		Discipline(s)*		Bridge	
Project name	LA-70 Sunshine Bridge over the Mississippi River, Vertical Member Failure			Firm responsibility (prime or sub?)		Sub
Project number	H.015228.5	Owner's name	Louisiana Department of Transportation and Development			
Project location	St. James Parish, LA			Owner's Project Manager		Chris Guidry
Owner's address, phone, email		LADOTD Bridge Design Section, 1201 Capitol Access Road, Baton Rouge, LA 70802, (225) 379-1076, Mark.Bucci@la.gov				
Services commenced by this firm (mm/yy)		08/2022	Total consultant contract cost (\$1,000's)			\$193
Services completed by this firm (mm/yy)		06/2025	Cost of consultant services provided by this firm (\$1,000's)			\$193



The Sunshine Bridge is a cantilevered through truss with a main span of 825 feet that crosses the Mississippi River. Constructed in 1964, the bridge provides 170 feet of vertical clearance over the river channel. The bridge is a continuous five-span riveted steel through truss comprised of 83 panel points, with a vertical member at each panel point. In August 2022, during a routine inspection of the Sunshine Bridge by the LADOTD, two fractured angles comprising the flange of Vertical Member L37-U37N were observed at the upper U37N connection. The cracks occurred at the same elevation and were aligned with the bottom of the gusset plate. Due to the cracks, the westbound right lane on the bridge was closed to traffic. Based on an initial structural evaluation of the fractures by WJE, it was estimated that approximately 60 percent of the member capacity remained. Thus, the bridge was allowed to remain open; however, no permitted loads or vehicles requiring a permit from the LADOTD were allowed to use the bridge during the lane closure.

Relevance to LADOTD

- ✓ Emergency repairs
- ✓ Load Rating
- ✓ Data collection and analysis
- ✓ Repair recommendations
- ✓ Field and laboratory testing

WJE performed a structural investigation and developed emergency repairs to address the partial fracture. Within two days of the finding, WJE engineers prepared a preliminary repair design with the 1-inch thick A709 Grade 50 plate procured, cut, drilled, and primed by the following week. WJE then installed the splice plate and carefully removed samples from the two fractured angles, which were sent to WJE's laboratory for metallurgical evaluation. Fracture of member U37N was the result of section loss of the material on the north face that created a surface geometry that introduced stress concentrations and subsequent cracking. This localized deterioration involved pre-existing corrosion, geometric distortion from pack rust, and cumulative fatigue damage.

To evaluate the significance of the fracture findings on the remaining vertical members, WJE installed and monitored sensors for six months at the three north truss vertical members L37'-U37'N, L39'-U39'N, and U39'-U39'N. The monitoring data from the geometrically mirrored member, U37'N, particularly at the west outboard flange, revealed several similar conditions consistent with those that preceded the U37N failure. Fatigue analysis confirmed significantly higher effective stress ranges at U37'N West Outboard—up to 4.5 ksi—compared to the 1.2 to 1.3 ksi ranges typical at other members. Although still below the constant amplitude fatigue limit for Category A details (24 ksi), the effects of section loss are apparent and will continue to increase. Environmental effects, including thermal cycling and wind-induced oscillations, further demonstrated that members with section loss such as U37'N may be more susceptible to stress amplification under vortex shedding. Recommendations to the LADOTD included repairing U37'N with a similar repair as for U37N, reinspecting the vertical members and installing repairs where section loss is observed, and updating NSTM inspection procedures to include documenting future section loss at these connections.

Members involved: J. McGormley (Project Manager).

Firm name	Moffatt & Nichol Inc.		Discipline(s)*		Bridge	
Project name	Asset Management System			Firm responsibility (prime or sub?)		Prime
Project number		Owner's name	Southeast Louisiana Flood Protection Authority - East			
Project location	New Orleans, Louisiana			Owner's Project Manager		Steven Spencer
Owner's address, phone, email		6920 Franklin Ave., New Orleans, LA 70122, 504-280-2416, sspencer@slfpae.com				
Services commenced by this firm (mm/yy)		08/2014	Total consultant contract cost (\$1,000's)			\$395
Services completed by this firm (mm/yy)		12/2017	Cost of consultant services provided by this firm (\$1,000's)			\$395

Moffatt & Nichol (M&N) was contracted to evaluate, select and implement an Asset Management System (Phase 1). This assessment led the client, Southeast Louisiana Flood Protection Authority - East (SLFPA-E), to the decision to engage M&N to develop and implement a custom Asset Management System (Phase 2).

Phase 1: Identification of Asset Management System Functions and Requirements. M&N systematically evaluated existing asset management software and existing procedures. Tasks associated with the Phase 1 effort included:

- Review of existing AMP systems and their adaptability for future needs
- Interviews with stakeholders to identify appropriate LOS and KPIs
- Create a project scope and requirements document to identify the proper solution
- Review of SLFPA-E's demands and desire to standardize and streamline the maintenance and reporting procedures through the development and implementation of an Asset Management System
- Recommendations for selection of the Asset Management System/Software
- Project Management Plan to lead implementation

Phase 2: Custom Asset Management Software Development. Following the recommendation from M&N's Phase 1 assessment that no existing commercial software fully addressed the SLFPA-E's unique asset management needs, Phase 2 focused on the custom development of tailored asset management software. M&N collaborated closely with SLFPA-E to design and build a software solution that aligned precisely with their specific requirements and workflows. Leveraging M&N's expertise, the SLFPA-E entrusted the team to drive the design, successfully balancing functionality, cost, and project timeline.

This involved in-depth analysis of SLFPA-E's asset inventory, maintenance procedures, reporting needs, and long-term goals. The custom software incorporated features critical for SLFPA-E's water control structures, including a robust inspection application, streamlined maintenance tracking, and comprehensive reporting capabilities. The development process emphasized user-friendliness and efficiency, ensuring seamless integration into SLFPA-E's operations and related systems. By creating a bespoke asset management system, SLFPA-E gained a powerful tool to optimize maintenance practices, enhance decision-making, and improve the overall management of their critical water control infrastructure.

Members involved: Chace Hulon.

Relevance to LADOTD	
✓	Asset management system
✓	Stakeholder coordination and public Involvement
✓	Lifecycle asset management and long-term infrastructure planning support
✓	Experience supporting resilient flood protection and water control infrastructure systems

Firm name	Moffatt & Nichol Inc.		Discipline(s)*		Bridge	
Project name	Citywide Bridge Strategic Plan			Firm responsibility (prime or sub?)		Prime
Project number	C-134522	Owner's name	City of Los Angeles			
Project location	Los Angeles, CA			Owner's Project Manager		Scott Gibson
Owner's address, phone, email		1149 S. Broadway, Suite 700, Los Angeles, CA 90015-2213, (213) 485-5101, scott.gibson@lacity.org				
Services commenced by this firm (mm/yy)		2022	Total consultant contract cost (\$1,000's)			\$1,686
Services completed by this firm (mm/yy)		2024	Cost of consultant services provided by this firm (\$1,000's)			\$1,680



Through our on-call contract, M&N was tasked with establishing a comprehensive Citywide Bridge Strategic Plan (BSP). The main objective was to create an expeditious program to advance repair, retrofit, or build new bridge projects and provide continuous maintenance for city bridges. The goal was for the BSP to create a self-sustaining program and effective funding vehicle for decades. M&N led this effort, including prioritizing maintenance, inspection of potentially high-risk bridges that need immediate attention, as well as long-range capital project needs. Tasks included but were not limited to the following:

- Various grant applications, including traffic safety grants.
- Initial environmental process guidance for the BSP
- Provide COLA with various contract mechanisms for routine maintenance
- Bridge PS&Es for routine maintenance for various bridges
- Structural Health Monitoring Pilot project evaluation

M&N worked with the City to establish a comprehensive and prioritized framework for bridge maintenance, rehabilitation, and replacement, ensuring structural resilience and public safety for 51 bridges while maximizing funding opportunities of \$25 million at the federal, state, and local level. The plan included these key objectives:

- Inventory Assessment and Prioritization - including 51 bridges.
- Funding Strategy and Federal Compliance - sought \$15 million over five years.
- Initial environmental process guidance for the BSP
- Non-Routine Maintenance and Long-Term Planning - establishing an annual baseline for non-routine maintenance of \$1.5 million.
- Provide the City with various contract mechanisms for routine maintenance.
- Bridge PS&Es for routine maintenance for various bridges.
- Seismic Safety and Structural Resilience - identifying six (6) structurally vulnerable bridges needing urgent attention within five years.
- Establish and Maintain Asset Management System - leveraging existing platforms, including InspectX and Cartegraph, to establish and maintain a comprehensive bridge asset management system.
- Create Policies and Procedures for a Bridge Preservation Program with an effective asset management strategy.

Members involved: Chace Hulon.

Wiss, Janney, Elstner Associates, Inc.

Relevance to LADOTD

✓	Planning-level cost estimates for specific bridges including assumptions and contingencies
✓	Condition assessments
✓	Recommended preservation, rehabilitation, and replacement actions in feasibility studies.
✓	Prioritization or improvements
✓	Environmental permitting
✓	MOT design
✓	PS&E
✓	Stakeholder coordination and public Involvement

Firm name	Moffatt & Nichol Inc.			Discipline(s)*		Bridge		
Project name	LADOTD Complex Bridge Inspection					Firm responsibility (prime or sub?)		Sub
Project number	H.009730.5, Task Order 03		Owner's name	Louisiana Department of Transportation and Development				
Project location	Statewide, Louisiana				Owner's Project Manager		Stephanie Doolittle, P.E.	
Owner's address, phone, email		1201 Capitol Access Road, Baton Rouge, Louisiana 70802 225-379-1329, stephanie.dootlittle@la.gov						
Services commenced by this firm (mm/yy)			02/23	Total consultant contract cost (\$1,000's)				\$470
Services completed by this firm (mm/yy)			12/24	Cost of consultant services provided by this firm (\$1,000's)				\$260

M&N was responsible for performing bridge inspection of complex structures statewide, utilizing an IDIQ contract. Structure types include cantilever trusses, cable-stayed bridges, steel vertical lift bridges, and plate girder bascule bridges. Tasks include providing bridge inspections, SPRAT/rope access, underwater inspections, bridge ratings, categorization and documentation of bridge assets, and the development of the LADOTD Bridge Inspection Manual (BIM) and the Coding & Field Guide. All statewide inspections of in-service bridges throughout Louisiana are performed in accordance with FHWA guidelines. The comprehensive in-depth reports included a detailed summary of the rope access inspection methodology, inspection findings of current conditions and noted deficiencies, field notes, and photographs.

M&N developed major updates to the manual, including off-system directives, to support the creation of a new Bridge Load Rating Manual and a new Coding & Field Guide. A team of subject matter experts contributed to the development and reviews at periodic milestones. M&N collaborated with the LADOTD staff throughout the development to manage expectations and maintain direction. In-person progress meetings occurred monthly, which included facilitating various District Bridge Engineers throughout the state. The manual is compliant with the NBIP (23 metrics and the three new metrics). The manual is thoughtfully organized systematically and interactively, with an appendix to store all vital updated forms for the Bridge Inspection Program. The Coding & Field Guide is uniquely designed for a seamless navigation experience. M&N has been retained for five years to provide annual updates as needed.



Members involved: Chace Hulon, Tom Spencer, Chip Eschenbach, Bryan Tyson.

Relevance to LADOTD	
✓	Program policy development
✓	Condition assessments and identified deficiencies
✓	Recommended preservation and repair actions
✓	Structured data collection and prioritized repair reporting
✓	Hydrographic surveying
✓	Retainer contract
✓	Technology and tools
✓	MOT and ATSSA work zone safety

18. Approach and Methodology:

Project Approach

WJE, in partnership with Moffatt & Nichol (M&N), provides a program-focused approach aligned directly with LADOTD's IDIQ Scope of Services for the Bridge Maintenance Division. Our approach integrates structure asset management planning, preservation project development, post-design construction support, and contract management into a unified workflow. This approach moves beyond isolated task execution and instead delivers a consistent, scalable methodology that improves prioritization, accelerates delivery, and maximizes lifecycle value across the statewide bridge program for all districts. Where applicable and requested, the 2022 TAMP is integrated into the decision process with the objective of achieving a desired state of good repair for structures systemwide.

Our team combines advanced engineering expertise with district-level bridge knowledge, ensuring that each task order is informed by both system-wide data and local operational realities. This balance allows us to efficiently identify needs, develop practical solutions, and deliver projects that meet LADOTD's goals for safety, mobility, and cost-effective asset stewardship. To accomplish this, we incorporate the concepts of innovation, reliability, and value into each task order.

Innovation

Our innovation lies in how we connect the elements of the LADOTD scope into a continuous, efficient workflow. We begin by screening bridge inventories, possibly with the assistance from non-public, large language models, to identify poor-condition structures, critical corridors, and high-risk locations. These candidates are validated through targeted field assessments and nondestructive testing, ensuring decisions are based on accurate and current data. Identified deficiencies are then grouped into common deterioration types, allowing the development of standardized repair approaches that can be applied across multiple structures.

This structured methodology reduces variability, shortens design durations, and improves constructability. By transitioning seamlessly from condition assessment to repair standardization and project packaging, we streamline the delivery process and enable LADOTD to advance preservation projects more efficiently across a large inventory. Our development of the Bridge Deck Preservation Tool for the FHWA's InfoBridge platform enables us to leverage that software to the advantage of the LADOTD as we develop asset management plans throughout the state.

Reliability

Reliable outcomes depend on the quality of field data and the experience of those interpreting it. Our approach emphasizes the role of engineers who are familiar with LADOTD bridge assets and district priorities. These engineers lead field investigations, validate inspection data, and provide rapid response for storm damage and emergency conditions. This expertise is supported by advanced NDT tools and WJE's laboratory capabilities, ensuring that all decisions are grounded in defensible data. By integrating district knowledge with system-level analysis, the WJE team provides LADOTD with consistent, accurate recommendations and the ability to respond quickly to emerging needs.

Value

We deliver value by aligning engineering decisions with lifecycle cost, schedule, and operational impacts. Our methodology prioritizes preservation strategies that extend service life at the lowest practical cost while avoiding unnecessary rehabilitation or replacement. Projects are developed with a focus on constructability and minimal disruption to the traveling public.

In addition to engineering considerations, we incorporate non-engineering factors such as traffic impacts, stakeholder coordination, and funding constraints into decision-making. Cost transparency is maintained through planning-level estimates and refined design-stage estimates, allowing LADOTD to confidently allocate resources and demonstrate measurable value through cost savings and service-life extension.

Project Methodology



Our methodology is directly aligned with the four primary components of the DOTD Scope of Services and is implemented as a continuous, program-level workflow as described below. Refer to the Organizational Chart in Section 14 for information on proposed staffing. Before starting the task order process, the WJE Project Manager meets with the LADOTD Project Manager or designee to determine the precise objectives of the task order; LADOTD resources that may be involved in its execution; the availability of information from the field as well as other important documents; and restrictions associated with potential disruptions to the travelling public or shipping lanes; etc. All work products receive appropriate QA/QC reviews in accordance with our standard procedures prior to delivery. Each task order will include a scope and objectives for the project, assumptions used to inform the decision making, defined deliverables, a schedule by task to complete the agreed scope, references to applicable standards, projected staffing and expertise to complete the work, and an estimated budget. The schedule and deliverables for a task order will include the following:

Task	Deliverable	Schedule
Task 1 – Asset Management Plan Development	Condition assessment findings, recommended actions, prioritization of improvements, cost estimates	3 months
Task 2 – Preservation Project Development	Subsurface and utility coordination, environmental permitting, engineering analysis and design, MOT, preparation of specifications and estimates, development of public outreach and stakeholder strategies	6 months
Task 3 – Post-Design Construction Support	Responding to requests for information, submittal reviews, contractor change request reviews	9 months
Task 4 – Contract Management	Monthly progress reports, monthly invoices, compliance with contract procedures, follow QC/QA Plan	18 months

Asset Management Plan Development Structure Asset Management Plan Development begins with a comprehensive evaluation of existing inspection data, bridge files, and historical documentation. This information is supplemented, where necessary, by targeted field inspections led by experienced engineers to validate conditions and identify deterioration mechanisms. Using this data-driven approach, we develop structure-specific recommendations that optimize condition, performance, and lifecycle cost. Each plan includes condition assessments, gap analysis, recommended actions, prioritization where requested, and planning-level cost estimates with clearly defined assumptions.

It is anticipated that structure asset management plans will be developed for bridges in each Louisiana district using one or more task orders. The plans will help identify bridge-specific repairs that are prioritized to achieve a desired service life extension while controlling costs. Where possible standardized repairs such as timber pile wrapping will be developed to address similar conditions in multiple structures of the same type. To effectively undertake these plans, WJE will utilize its collective knowledge of existing structural behavior and performance of bridges over their service lives to determine where each structure falls in the bridge preservation curve as presented in Figure 1.

The objective is to select preservation strategies that maintain bridge conditions as Good or Fair; however, recognizing that many bridge assets requiring maintenance are in the Fair to Poor conditions, preservation strategies targeted at specific deterioration conditions can be designed to extend the service life and increase deficient load ratings without the need to perform a complete bridge rehabilitation or replacement. In some cases, recommendations for rehabilitation or replacement may make the most economical sense as preservation measures may not be able to improve the condition of the structure sufficiently and for enough time, e.g., remove load posting, to warrant their use, thus, structures with these conditions would be prioritized for future rehabilitation or replacement with short-term temporary repairs installed until this could be done.

Using the information contained in the bridge file, the WJE-led team approaches preparation of an asset management plan by first identifying what information is needed to 1) determine the cause of the distress and/or 2) help inform the selection of possible preservation actions. If such information is not available, then a condition assessment targeted to collect the needed information is carried out. Our approach to collecting this information will rely on three key differentiating aspects:

- 1) **An applied understanding of structural and materials behavior.** WJE personnel have the capabilities through various non-destructive tools and techniques to assess the condition of structures beyond that provided by visual inspection.
- 2) **Non-conventional inspection access techniques.** The team members collectively have experience assessing the condition of structures using a variety of access methods; however, when conventional inspection access techniques are too costly, lane closures are unwanted, or the structure too complicated, the team will employ rope access through our difficult access teams or utilize our climbing robot (Hausbot) equipped with various NDE tools.
- 3) **Efficient data collection and interpretation capabilities.** Bridge assessments can produce significant field data. To manage this data, WJE has developed an inspection process that ties inspection notes and photos spatially to relevant bridge documents using our WJE Plannote iPad software. The data collected using Plannote can be uploaded to the inspect X bridge inspection software and asset management database.

As discussed above, the WJE team will make recommendations for actions consistent with the task order objectives. We anticipate that use of the Bridge Preservation Tool will allow us to efficiently assign preservation actions to a large number of structures at a system level. We can then prioritize actions on a per bridge basis to meet the task order objectives. As part of the plan development, the cost to perform these actions is estimated at a sufficient detail to enable planning-level cost estimates.

Preservation Project Development

Structure Preservation Project Development builds directly upon the asset management plans. Selected improvements are advanced into complete preconstruction packages that include survey and subsurface investigations, utility coordination, and environmental permitting with these efforts being led by M&N. Engineering analysis and design are performed with an emphasis on constructability and durability, incorporating maintenance of traffic and staging strategies that reflect district input and minimize impacts to the public. Specifications, cost estimates, and stakeholder engagement strategies are developed to ensure projects are fully coordinated and ready for implementation. The WJE-led team prepares a complete preconstruction package to enable a contractor to implement the work. Careful selection of methods and materials, and strategic scoping and staging approaches can shorten durations, lower costs, and increase safety. Corridor or bundled projects can produce economies of scale if properly implemented.

There is a fundamental difference in the way a preservation/rehabilitation project is approached versus a new design project. The approach to repair is highly constrained by the characteristics of the existing structure (e.g. original design loads, material properties, condition, geometry) and utilizes more rigorous evaluation procedures, when warranted, over the simplified, generalized design-based evaluation procedures associated with new design. Using the inspection and load rating information, repair concepts are developed that address rating deficiencies, long-term durability, historic features, and changed traffic configurations. Where possible, innovative repair approaches will be implemented to avoid use of costly shoring, falsework, or strongback systems needed to replace or strengthen members.

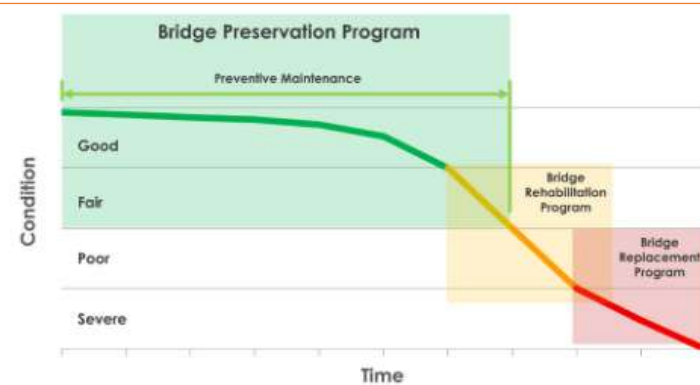


Figure 1 - FHWA Bridge Preservation Curve

A load rating of all elements affected by the inspection findings for the structure will be performed when requested using Load Factor and Resistance Rating (LRFR) methods. The load rating effort will include all legal and permit trucks as well as emergency vehicles. For this effort, we will use a combination of BrR and SAP2000 depending on the structure complexity. The load rating also will consider the effects of deterioration documented during the condition assessment. By contrast, design-based evaluation methods are inherently conservative and do not lend themselves to the vast array of deteriorated conditions encountered in older structures. For example, design equations for gusset plates typically represent thickness as a single value when in fact deterioration results in variable degrees of pitting—from none to perforation. As such, design-based strength and stability formulas may be inappropriate to load rate deteriorated members. WJE has led the industry in understanding these issues and brings this experience to the project to affect load ratings and eventual solutions that appropriately account for deterioration while avoiding unnecessary repairs. Therefore, when appropriate and approved by the LADOTD PM, refined analysis methods outlined in the AASHTO Manual for Bridge Evaluation are employed to accurately reflect member loading and capacities. Load ratings may also be improved by collecting and analyzing material samples.

With the design and analysis complete, the WJE-led team will prepare construction documents consistent with DOTD standards. In addition, specifications that detail special materials or processes/procedures and cost estimates, utilizing our experience with construction material and production rate costs, will be developed. The pre-construction documents will also include maintenance of traffic and construction staging plans that reflect input from the District on when and how the motoring public will be affected. These decisions will be intertwined with input from project stakeholders as well as the public. Depending on the magnitude of disruption anticipated by the project, outreach efforts such as open meetings, DOTD project website updates, and news releases can be used to engage the public and mitigate negative publicity.



Post-Design Construction Support

Post-Design Construction Support provides continuity between design and execution. The WJE-led team supports LADOTD during construction by responding to RFIs, reviewing contractor submittals, and evaluating proposed changes. This ensures that field conditions are appropriately addressed while maintaining the intent of the design. Our familiarity with the project from earlier phases will allow for efficient resolution of issues and helps avoid delays and unnecessary costs. With an in-state presence provided by M&N, the team will be able to respond quickly should an on-site presence be needed to evaluate an uncovered condition or determine whether the installed repair is conforming with the design but with the understanding that construction engineering and inspection services will be provided by others.



Contract Management

Contract Management is led by Jonathan C. McGormley, PE as Project Manager, who serves as the primary point of contact for LADOTD. The Project Manager ensures consistency across all task orders and maintains alignment with contract requirements. Monthly progress reports provide clear visibility into schedule, budget, and key issues, while timely invoicing and internal QA/QC procedures ensure compliance with DOTD standards. Continuous coordination with LADOTD staff supports efficient execution and accountability throughout the contract duration.

Through this integrated methodology, the WJE team delivers a seamless transition from planning through construction support, ensuring that all elements of the DOTD scope are executed in a coordinated, efficient, and value-driven manner while maintaining flexibility to respond to district-specific needs.

19. Workload:

Firm(s) <u>ALL FIRMS</u> MUST BE REPRESENTED IN THIS TABLE	Discip line(s) *	Contract Number and State Project Number	Project Name	Remaining Unpaid Balance**
Wiss, Janney, Elstner Associates, Inc.	Bridge	4400001762, H.014899.6	I-10/310 Bonnet Carré Fire Damage Repair	\$37,618
Wiss, Janney, Elstner Associates, Inc.	Bridge	44-21594, H.009730.4	T-1 Steel Weld Assessment	\$13,816
Wiss, Janney, Elstner Associates, Inc.	Bridge	44-25003, H.009730.5-TO1	NDE for Testing/Evaluation of Structures, TO 1	\$350,108
Wiss, Janney, Elstner Associates, Inc.	Bridge	44-25003 H.009730.5-TO2	Testing/Eval of Structures, TO 2, In-Depth Bridge Inspection, UT	\$298,129
Wiss, Janney, Elstner Associates, Inc.	Bridge	44-25003, H.009730.5-TO3	Testing/Eval of Structures, TO 3 , Service Life Estimates	\$145,120
Wiss, Janney, Elstner Associates, Inc.	Bridge	44-25003, H.009730.5-TO4	Testing/Eval of Structures, TO 4 , Deck Scans	\$2,293,079
Wiss, Janney, Elstner Associates, Inc.	Bridge	4400023923, H.014283	Danziger Bridge Electrical Repairs	\$559,022
Wiss, Janney, Elstner Associates, Inc.	Bridge	DOTLT 1000428	Skew Detection Replacement on Vertical Lift	\$238,496
Wiss, Janney, Elstner Associates, Inc.	Bridge	44-21515, H.012738	Movable Bridge Rehabilitation – Morbihan	\$20,438
Wiss, Janney, Elstner Associates, Inc.	Bridge	44-21515, H.010004	Movable Bridge Rehabilitation – Olivier	\$32,550
Wiss, Janney, Elstner Associates, Inc.	Bridge	44-21515, H.011974.5	Movable Bridge Rehabilitation – Dulac	\$1,620
Wiss, Janney, Elstner Associates, Inc.	Bridge	44-21515, H.011991.5	Movable Bridge Rehabilitation – Daspit	\$32,650
Wiss, Janney, Elstner Associates, Inc.	Bridge	44-21515, H.014191	Movable Bridge Rehabilitation – Nelson	\$30,425
Wiss, Janney, Elstner Associates, Inc.	Bridge	4400023923, H.016537.5	West Larose Skew System Repairs	\$185,259
Wiss, Janney, Elstner Associates, Inc.	Bridge	44-21513, H.012737	Bayou Bonfouca Inspection	\$14,501
Wiss, Janney, Elstner Associates, Inc.	Bridge	44-21513, H.012044.5	Grand Lake Rehabilitation	\$18,866
Moffatt & Nichol Inc.	Bridge	44-29207 / H.009730.5	IDIQ Contract for Underwater Bridge Inspection – TO1,	\$2,050,359
Moffatt & Nichol Inc.	Other (Sign Trusses & Radio)	44-31911 / H.011331.1	IDIQ Contract for Inventory and Inspection of Sign Trusses and Radio Towers, TO 1	\$1,821,804
Moffatt & Nichol Inc.	Bridge	44-29683	IDIQ In-Depth Bridge Inspection Statewide (241360)	\$657,160

20. Certifications/Licenses:

21. QA/QC Plan:

22. Sub-consultant information:

Firm Name (Name must match <u>exactly</u> as registered with Louisiana's Secretary of State (SOS): <u>including punctuation, include screenshot(s) from SOS at the end of Section 20</u>)	Address	Point of Contact and email address	Phone Number
Moffatt & Nichol Inc.	301 Main Street, Suite 800 Baton Rouge, LA 70801-0009	Chace Hulon, PE chulon@moffattnichol.com	(225) 336-2075

23. Location: