

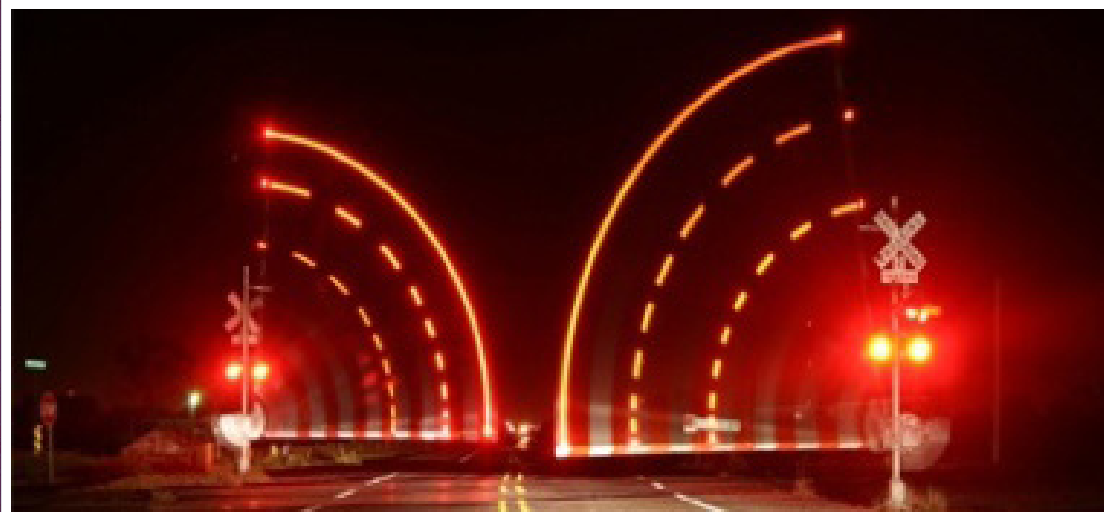
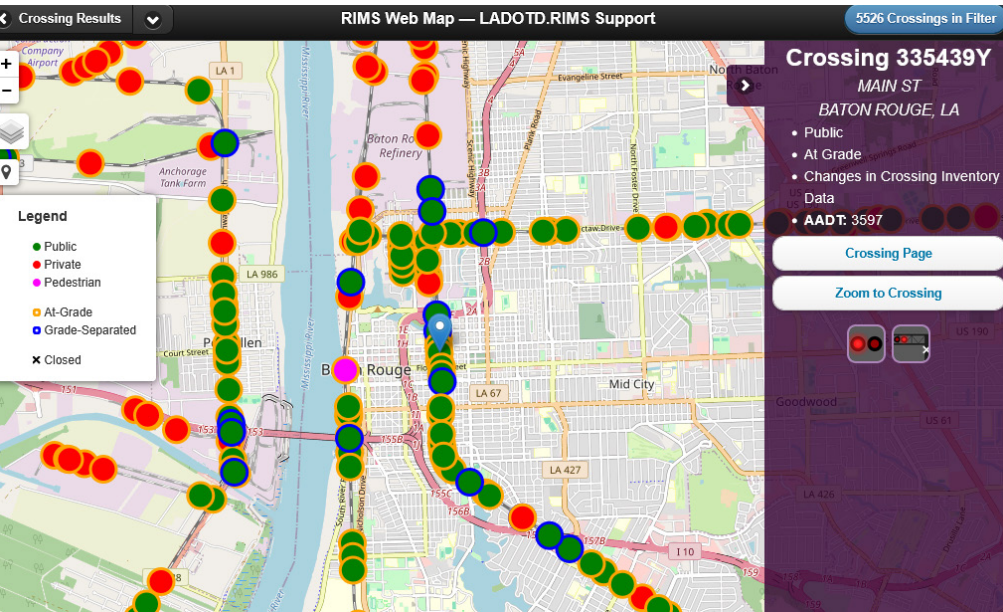
Proposal Produced for
Louisiana Department of Transportation and Development



moffatt & nichol

RR SAFETY: DATA & INVENTORY (2024-2026) STATEWIDE

CONTRACT NO. 4400035239 | July 4, 2026





One American Place
301 Main Street, Suite 800
Baton Rouge, LA 70801
(225) 336-2075 Fax (225) 336-2076

Department of Transportation and Development
Attn: Selection Committee
Consultant Contracts Services Administrator
1201 Capitol Access Road, Room 405-E
Baton Rouge, LA 70802-4438

RE: Contract No. 4400035239, State Project No. H.015402.1, Federal Aid Project No. H015402, RR Safety: Data & Inventory (2024-2026) Statewide

Moffatt & Nichol (M&N) is proud to offer the Louisiana Department of Transportation and Development (LADOTD) a top-tier Team that leads the nation in Rail Crossing Safety Inventory Management

To support safer highway-rail crossings across Louisiana, LADOTD requires a web-based, GIS-integrated platform that can serve LADOTD staff, Class I and shortline railroads, and local partners with accurate, up-to-date crossing data. M&N's Rail Inventory Management System (RIMS) is ready and built with purpose to continue serving LADOTD. Through this engagement, LADOTD is looking for a consultant to maintain the crossing inventory database, generate FRA-ready reports and weekly updates, and provide training and application support over the five-year period. From our Baton Rouge office, we have served as the 15-year incumbent delivering on the two LADOTD Rail Inventory Management System (RIMS) contracts to date, as an update to the Railroad Safety Information Systems (RSIS). We provide you with the unparalleled resources and expertise for your highway-rail crossing inventory data and safety program. LADOTD has demonstrated a level of confidence in M&N's leadership and capability by enacting 3-year extensions for each of the two previous 5-year contracts. With 6 Statewide contracts and multiple private railroad contracts, RIMS is an established and highly regarded tool that is uniquely suited to meeting LADOTD's requirements. This M&N-established protocol, has been the "go-to" rail-safety crossing management program for State DOTs, transit authorities and Class I Railroads. This level of expertise we present to you is not available in any other Team.

M&N has evaluated tens of thousands of highway-rail crossings and led hundreds of public workshops and public hearings in the development of implementable rail safety crossing improvements. LADOTD can rely on M&N's national expertise, specifically in the area of FRA rail crossing safety, data and database management, but with local, immediate attention. On this latest contract, M&N's team of experts provides LADOTD with the opportunity to conduct a systematic review of highway-rail grade crossings for safety risks identification, prioritization needs, inventory, system training, corridor studies, crossing closures, safety solutions identification, and strategic actions to improve crossing safety.

This state-of the art expertise enables M&N to assist the LADOTD in aligning FRA requirements, noteworthy practices from the Federal Highway Administration (FHWA), and other state requirements where transportation safety goals and objectives overlap. Because of M&N's continual engagement in developing state and national technical, regulatory, and procedural requirements, we provide LADOTD with a voice to the FRA and FHWA through the day-to-day representation through our active relationships with the FRA.

By combining the qualitative results of data management with effective crossing safety program development, we will assist in establishing a baseline for transparency and a data-driven crossing safety program. We will continue to operate and maintain your RIMS program and ensure that comprehensive and direct solutions are synchronized with FRA's and FHWA's changing requirements.

With our 15-year level of service to your program, M&N will continue to coordinate effectively with Class I and short line railroads, and provide DOTD with a practical, defensible framework for prioritizing safety improvements across Louisiana's public at-grade crossings. M&N is well positioned to provide that support through an integrated team offering railroad safety, data management, GIS, application support, field verification, and program delivery experience tailored to the needs of this contract. M&N's existing coordination and respect from Class I railroads will facilitate meetings with Class I railroads and multiple short line railroads as a means of developing improved communications and identification of crucial data exchange challenges directly responsible for identification, evaluation, and selection of safety projects. The ability of RIMS to provide an instantaneous snapshot of the status of data integrity in Louisiana will serve as a pivotal point in addressing these problems.

Over the last 2 RIMS contracts, M&N has demonstrated our collaborative success to improve inventory through the annual selection process, with FRA and FHWA oversight personnel recognizing the ability of RIMS to assist in the data-driven approach for project selection and to maintain the goal of transparency as sound engineering practices are applied to the support of State of Louisiana rail safety programs.

M&N brings the multidisciplinary perspective this effort demands. We provide a dedicated team of developers that are crossing inventory experts with over 20 years' experience understanding the purpose and utility of crossing inventory data. A reliable program for Louisiana must support accurate and timely data collection, maintain compatibility with FRA requirements, integrate effectively with GIS platforms, allow appropriate user access and audit trails, and produce information that DOTD can use to make informed funding and program decisions. The team's experience with rail-related data systems, corridor and crossing evaluations, benefit-cost and prioritization methodologies, and stakeholder coordination provides a strong foundation for delivering those outcomes.

Thank you for your consideration of M&N's qualifications for this important assignment. We appreciate the opportunity to submit our response and would value the chance to continue supporting LADOTD's railroad safety objectives through a data-driven, practical, and service-oriented partnership.

Sincerely,

Moffatt & Nichol



Jonathan Hird, PE, CEng, FICE
Vice President | Business Unit Leader | Principal-in-Charge



RR SAFETY: DATA & INVENTORY (2024-2026) STATEWIDE SECTIONS 1-11



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DOTD FORM: 24-102

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	RR SAFETY: DATA & INVENTORY (2024-2026) STATEWIDE
2. Contract Number(s) as shown in the advertisement	CONTRACT NO. 4400035239
3. State Project Number(s), if shown in the advertisement	STATE PROJECT NO. H.015402.1 FEDERAL AID PROJECT NO. H015402
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>)	Moffatt & Nichol, 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.0003104
6. Prime consultant mailing address	301 Main Street, Suite 800 Baton Rouge, LA 70801
7. Prime consultant physical address (existing or to be established, if location is used as an evaluation criteria)	301 Main Street, Suite 800 Baton Rouge, LA 70801
8. Name, title, phone number, and email address of prime consultant's contract point of contact	Jonathan Hird, PE, CEng, FICE Vice President (225) 610-1930 jhird@moffattnichol.com
9. Name, title, phone number, and email address of the official with signing authority for this proposal	Jonathan Hird, PE, CEng, FICE Vice President (225) 610-1930 jhird@moffattnichol.com

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

Moffatt & Nichol, Inc.

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.

Jonathan Hird

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

Date: June 4, 2026

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.

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.

<u>Firm(s):</u>	N/A	<u>Firm(s)' %:</u> N/A
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RR SAFETY: DATA & INVENTORY (2024-2026) STATEWIDE SECTIONS 12-15



12. Discipline Table:

As indicated in the advertisement, insert a completed table here. The percentages for the prime and sub-consultants must total 100% for each discipline, as well as the overall total percent of the contract.

The **only** disciplines to be used are listed in the drop down in each row (Appraiser, Bridge, CE&I/OV, CPM, Data Collection, Environmental, Geotech, ITS, Other (must specify), Planning, Right-of-Way, Road, Survey, and Traffic). **Remove rows as needed.**

Discipline(s)	% of Overall Contract	Prime Moffatt & Nichol, Inc.	Each Discipline must total to 100%
Data Collection	30	30	100%
Planning	20	20	100%
Other (Web-based System)	50	50	100%
Identify the percentage of work for the overall contract to be performed by the prime consultant and each sub-consultant.			
Percent of Contract	100%	100%	100%

13. Team Size:

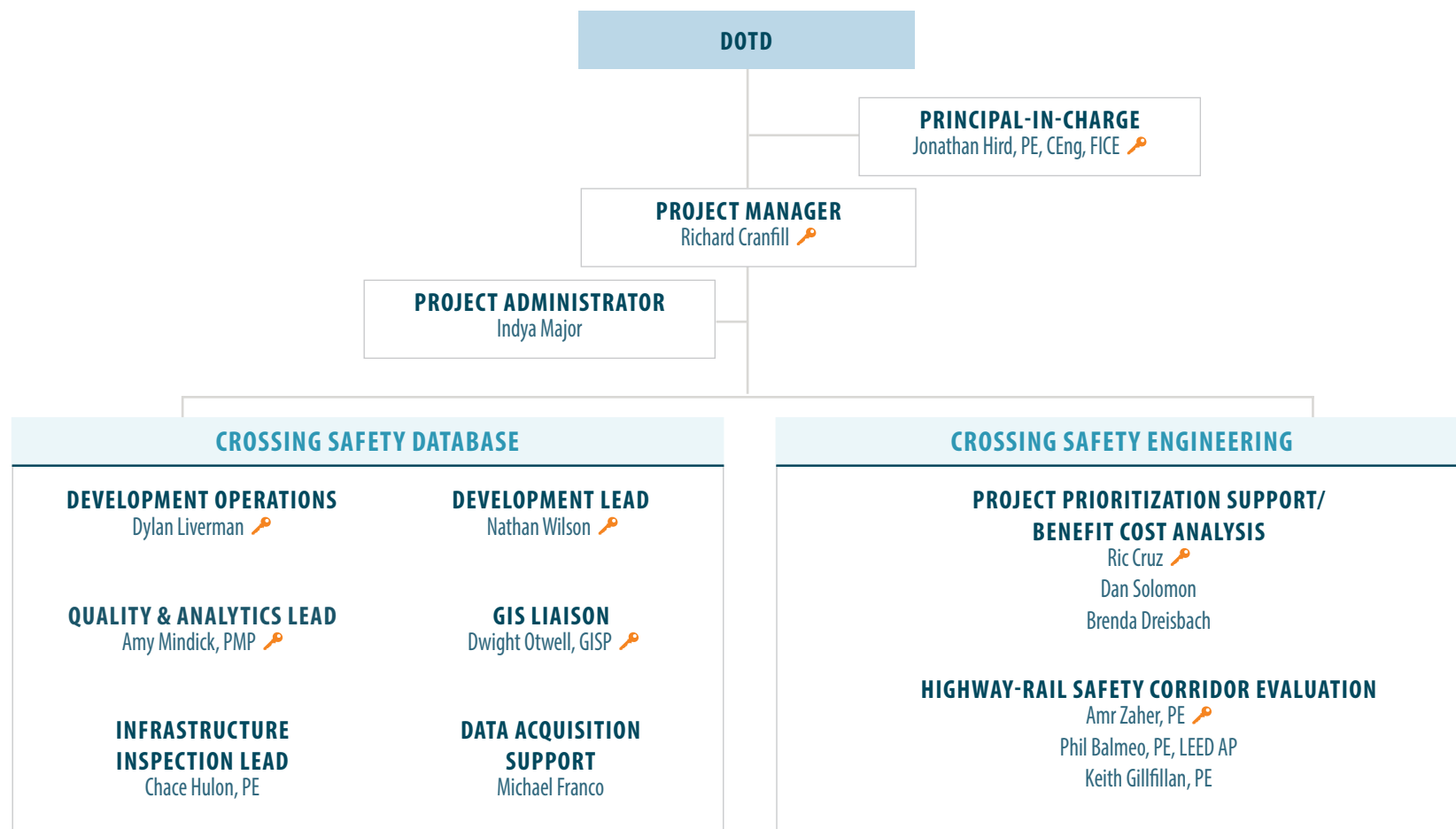
For all firms that are part of this team, indicate the approximate number of personnel to be committed to this contract, by DOTD Job Classification and the total number of personnel within the firm that could provide support, if needed. If a specialized job classification is required and not included on the DOTD job classification list, specify "Other (must specify)" and include the classification title inside the parentheses. The DOTD Job Classification(s) to be used can be found at the following link: <https://bit.ly/DOTDJobClassifications>

Firm name	DOTD Job Classification	Number of personnel committed to this contract	Total number of personnel available in this DOTD Job Classification (if needed)
Moffatt & Nichol	Principal	1	8
	Administrative	2	20
	Engineer	9	64
	Inspector - Lead	4	24
	GIS Analyst	5	10

***For evaluation purposes only**, and as referenced in the Scope of Services on page 2 of IDIQ advertisements only, the consultant shall assume the number of concurrently active task orders specified in the advertisement and shall identify the number of **committed** personnel accordingly.

14. Organizational Chart:

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



LEGEND

 Key Personnel

15. Minimum Personnel Requirements:

Use the table below to identify both prime consultant and sub-consultant staff designated to work on this contract meeting the Minimum Personnel Requirements (MPRs) specified in the advertisement. Ensure the résumé reflects the required experience stated in the MPR. Make sure the P.E. discipline is also listed (highlighted in table) that is meeting the MPR; e.g. professional civil engineer should show the discipline of the license as civil if meeting that MPR.

MPR No. Do not insert wording from ad	Personnel being used to meet the MPR (Individual(s) may not satisfy more than one MPR unless specifically allowed by Attachment B of the advertisement)	Firm employed by	Type of license and discipline meeting MPR/ certification & number (Ex: PE # - Civil)	State of license	License / certification expiration date
1	Jonathan Hird, PE, CEng, FICE <i>*Resume on page 7</i>	Moffatt & Nichol, Inc.	PE #32299 - Civil	LA	09/30/2026
2	Jonathan Hird, PE, CEng, FICE	Moffatt & Nichol, Inc.	PE #32299 - Civil	LA	09/30/2026
3	Jonathan Hird, PE, CEng, FICE	Moffatt & Nichol, Inc.	PE #32299 - Civil	LA	09/30/2026
4	Jonathan Hird, PE, CEng, FICE	Moffatt & Nichol, Inc.	PE #32299 - Civil	LA	09/30/2026
4	Amr Zaher, PE <i>*Resume on page 16</i>	Moffatt & Nichol, Inc.	PE #C85826 - Civil	CA	09/30/2027
4	Keith Gillfillan, PE <i>*Resume on page 17</i>	Moffatt & Nichol, Inc.	PE #C30434 - Civil	CA	03/03/2028
5	Richard Cranfill <i>*Resume on page 8</i>	Moffatt & Nichol, Inc.	-	-	-
5	Dwight Otwell, GISP <i>*Resume on page 14</i>	Moffatt & Nichol, Inc.	GISP #45570 - GIS	Global	07/25/2028
5	Dylan Liverman <i>*Resume on page 11</i>	Moffatt & Nichol, Inc.	-	-	-
5	Nathan Wilson <i>*Resume on page 12</i>	Moffatt & Nichol, Inc.	-	-	-
5	Amy Mindick, PMP <i>*Resume on page 13</i>	Moffatt & Nichol, Inc.	PMP #2148145 - GIS	Global	02/01/2027

**Resumes link to the corresponding pages noted above*



RR SAFETY: DATA & INVENTORY (2024-2026) STATEWIDE

SECTION 16



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16. Staff Experience:

Firm employed by Moffatt & Nichol			
Name	Jonathan Hird, PE, CEEng, FICE 		Years of relevant experience with this employer
Title	Vice President • Principal • Business Unit Leader		Years of relevant experience with other employer(s)
Degree(s) / Years / Specialization		Master of Science / 2001 / Civil and Environmental Engineering Bachelor of Science / 1993 / Environmental Science	
Active registration number / state / expiration date		#32299 / Louisiana / September 30, 2026	
Year registered	2006	Discipline	Civil
Contract role(s) / brief description of responsibilities		Principal-in-Charge / Jonathan will serve as the Principal-in-Charge from the local M&N office in Baton Rouge, and will be responsible for over-all project performance, QA/QC, and contracting.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
12/11 – 06/18	LADOTD RSIS Railroad Inventory Upgrade (2012 – 2019), Baton Rouge, LA. Principal-in-Charge leading the effort to provide Web-based crossing safety inventory service (RIMS) for LADOTD. Provided oversight for a comprehensive evaluation of LADOTD, RSIS data, and FRA inventory data for Louisiana railroads and provided suggestions to modify state RSIS data to comply with the latest FRA requirements. Facilitated development of course of action for resolution of discrepancies and implementation of changes, coordinated with Louisiana’s Class I and Short line Railroads to promote accuracy in inventory.		
07/18 – 06/26 (ongoing)	LADOTD RSIS Railroad Inventory Upgrade (2019 – Present), Baton Rouge, LA. Principal-in-Charge of the successfully recompeted continuation of the RIMS contract for LADOTD. Assisted in the ongoing evaluation of LADOTD’s highway–rail safety prioritization process and provided recommendations to improve the existing models and update current rating factors. Throughout the contract, provided primary Point of Contact for LADOTD and liaised with FRA on areas to improve RSIA compliance, Louisiana’s inventory data accuracy, and interaction between FRA, LADOTD, and railroads. Provided a final report including project and recommendations on how LADOTD, FRA, and the railroads can best maintain consistent records for highway–rail crossings contract end.		
08/20-04/23	LADOTD Louisiana Waterways State Transportation Plan, Statewide, LA. Principal-in-Charge. The plan was developed from the Systems Analysis of the economic impacts of waterborne commerce to the State of Louisiana. The plan was structured to dovetail into the Statewide Transportation Plan. Coordinated with Port Economic Development Officials in the development of rail improvement projects to increase efficiencies in inter-modal exchange and modal bottlenecks, developed first iteration BCAs, evaluated both individually and as a portfolio of projects implemented together.		
08/24-03/26	Northeast Louisiana Port Commission Comprehensive Master Plan, Tensas Parish, LA. Principal-in-Charge providing technical oversight for the port/freight economics that identified volumetric multi-modal freight pathways and identify projects (marine structural, upland port development, transportation network improvement etc., that would increase project throughput for the newly created multi-modal district. Coordinated with Northeast Louisiana Railroad Development District to develop Least Cost Market Analyses and benefit-cost analysis (BCAs) for the extension of the Delta Southern Railroad short-line rail re-installation as an operational alternative to mitigate business interruption issues during shallow draft limitations during harvest export.		

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Firm employed by Moffatt & Nichol			
Name	Richard Cranfill 		Years of relevant experience with this employer
Title	Project Manager • Business Analyst		Years of relevant experience with other employer(s)
Degree(s) / Years / Specialization		Bachelor of Science, Mechanical Engineering, North Carolina State University, 2011 Certificate in Machining Technology, Wake Technical Community College, North Carolina, 2009	
Active registration number / state / expiration date		-	
Year registered	-	Discipline	-
Contract role(s) / brief description of responsibilities		Project Manager / Richard will serve as the Project Manager, understand LADOTD requirements and assign appropriate resources to fulfill task requirements, maintain quality, and report on project progress.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
12/11 – 06/18	LADOTD RSIS Railroad Inventory Upgrade (2012 – 2019), Baton Rouge, LA. Project Manager who provided project tracking, project management assistance, and coordination between software development team, engineers and management for a Web-based, crossing safety, inventory service for the LADOTD. Generated a progress report and translated software code for client approval. Developed training material, including webinars and PowerPoint presentations.		
07/18 – 06/26 (ongoing)	LADOTD RSIS Railroad Inventory Upgrade (2019 – Present), Baton Rouge, LA. Project Manager of the successfully recompeted continuation of the RIMS contract for LADOTD. Managed the ongoing support of LADOTD’s highway–rail safety prioritization process, implementing improvements and recommendations to support a data-driven program. Worked with FRA and DOTD railroad partners to improve data accuracy and implement best practices. Coordinated subject matter experts for DOTD corridor and model evaluations, provided project updates and annual reports. Hosted user training sessions and webinars.		
07/13 – 05/26 (ongoing)	NDOT Rail Inventory Management System (RIMS), Statewide, NE. Assistant Project Manager and Rail Specialist who provided project tracking and scheduling to bring the NDOT online with RIMS. Conducted weekly status meetings following agile project management practices to coordinate tasks required of the NDOT IT and Rail sections with the feature planning and development of the RIMS team. Technical contributions included workflow validation, bug testing, reporting and quality control (QC). Conducted training in the use of the RIMS system via webinar and in person, including field training of rail inventory techniques.		
05/22 – 05/25	North Carolina Department of Transportation (NCDOT) Rail Planning Application. Project Manager for this RSIA upgrade, conducted business rules and workflow analysis to assist in the development of a Web-based planning application. Tasks included identifying data sources such as the NCDOT SARAH 3.0 rail inventory program and the NCDOT GIS rail layer and developing Web-service protocols to link the data and develop a framework for a Web-based data aggregation tool for rail planning and project identification.		

Firm employed by Moffatt & Nichol			
Name	Ricardo (Ric) Cruz 		Years of relevant experience with this employer
Title	Senior Transportation Systems Analyst		Years of relevant experience with other employer(s)
Degree(s) / Years / Specialization		Bachelor of Science, Interdisciplinary Studies in Aviation / 2014 / Business, and Religion The Citadel, South Carolina, / 1978 / Civil Engineering Courses	
Active registration number / state / expiration date		-	
Year registered	-	Discipline	-
Contract role(s) / brief description of responsibilities		Project Prioritization Support/Benefit Cost Analysis / Ric will provide oversight for Project Prioritization and Benefit Cost Analysis, coordinating the efforts of M&N's multi-disciplinary subject matter experts to assist DOTD with the development of the annual Railroad Safety Program.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
12/11 – 06/18	LADOTD RSIS Railroad Inventory Upgrade (2012 – 2019), Baton Rouge, LA. Prioritization Lead leading the effort to provide Web-based crossing safety inventory service (RIMS) for LADOTD. Performed a comprehensive evaluation of LADOTD RSIS data and FRA inventory data for Louisiana railroads and provided suggestions to modify state RSIS data to comply with the latest FRA requirements, implement changes, and incorporate FRA with LADOTD data into a Web-based system. Reviewed the discrepancies between LADOTD, RSIS, and FRA with LADOTD project manager.		
07/18 – 06/26 (ongoing)	LADOTD RSIS Railroad Inventory Upgrade (2019 – Present), Baton Rouge, LA. Prioritization Lead leading the effort to provide Web-based crossing safety inventory service (RIMS) for LADOTD. Performed a comprehensive evaluation of LADOTD RSIS data and FRA inventory data for Louisiana railroads and provided suggestions to modify state RSIS data to comply with the latest FRA requirements, implement changes, and incorporate FRA with LADOTD data into a Web-based system. Reviewed the discrepancies between LADOTD, RSIS, and FRA with LADOTD project manager.		
04/18 – 04/21	West Virginia Division of Highways (WVDOH) RIMS, Charlottesville, WV. Project Manager for the implementation of M&N’s RIMS to manage the states railroad data. Directed analysis of WVDOH’s GIS database of statewide railroad data and translation of that data into RIMS for future railroad system data management. Trained WVDOH in the use of RIMS and software support including compliance with Federal regulations and modification to meet client requirements.		
07/13 – 05/26 (ongoing)	NDOT Rail Inventory Management System (RIMS), Statewide, NE. Project Manager for implementation of M&N’s RIMS as both a tool for crossing inventory and for automatically interoperating with other related NDOT systems. Project fully integrated NDOT’s custom mainframe data into RIMS and implemented a Web service to request and relay up-to-date railroad crossing information.		
09/22 – 12/23	Statewide Waterborne Commerce Master Plan, Baton Rouge, LA. Project Manager who directed the waterways transportation plan for this Louisiana Transportation Research Center project, part of the LADOT. This included operational updates and maintenance plans.		

Firm employed by Moffatt & Nichol				
Name	Indya Major		Years of relevant experience with this employer	2
Title	Administrator		Years of relevant experience with other employer(s)	7
Degree(s) / Years / Specialization			-	
Active registration number / state / expiration date			-	
Year registered	-	Discipline	-	
Contract role(s) / brief description of responsibilities			Project Administrator / Indya will serve as Project Administrator from the local M&N office in Baton Rouge providing coordination between M&N's local forces and subject matter experts nationwide, ensuring that project controls meet DOTD requirements, and processing Extra Work Letters.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
05/23 – 12/26	GEC On-Call Embed Services for Two Class I Railroads, Nationwide. Project Coordinator for consecutive multi-year on-call services contracts. Provides consistent and continuous liaison support to Railroad staff, Sponsors, and stakeholders for over 200 projects ranging from utilities, sidewalks, Section 130 Program Projects, road resurfacing, passenger stations and bridge construction. Agreement development and review of requested agreement modifications, project milestone documentation and filing, and coordinating insurance compliance. Coordinated various aspects of project documentation coordination and project close-out with railroad.			
02/22 – 01/32 (ongoing)	Quiet Zone Coordination, Class 1 Railroads, Nationwide. Program Coordinator for M&N's on-call contract providing quiet zone documentation and estimate coordination between the public authority and the Class I railroads. Works on the railroad's behalf to facilitate the development of agreements and financials coordination. Also assists with stakeholder, Railroad, and Sponsor documentation and close-out coordination.			

Firm employed by Moffatt & Nichol			
Name	Dylan Liverman 		Years of relevant experience with this employer
Title	Software Development Lead		Years of relevant experience with other employer(s)
Degree(s) / Years / Specialization		Associate of Applied Science / 2009 / Networking Technology	
Active registration number / state / expiration date		-	
Year registered	-	Discipline	-
Contract role(s) / brief description of responsibilities		Development Operations / Dylan will serve as Development Operations Manager and will be responsible for production server operations, quality assurance (QA) server ops, and software development operations.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
12/11 – 06/18	LADOTD RSIS Railroad Inventory Upgrade (2012 – 2019), Baton Rouge, LA. Lead Software Engineer the design of the RIMS for LADOTD. Designed an easy-to-use, mobile-friendly User Interface that satisfied all the needs of office and field personnel. Worked with the FRA to identify the most efficient way to communicate FRA submittals to the National File and analyzed procedures to determine the validation rules mandated by the FRA’s software. Worked with the FRA to identify the most efficient way to communicate FRA submittals to the National File and analyzed procedures to determine the validation rules mandated by the FRA’s software.		
07/18 – 06/26 (ongoing)	LADOTD RSIS Railroad Inventory Upgrade (2019 – Present), Baton Rouge, LA. Lead Software Engineer the design of the RIMS for LADOTD. Designed an easy-to-use, mobile-friendly User Interface that satisfied all the needs of office and field personnel. Worked with the FRA to identify the most efficient way to communicate FRA submittals to the National File and analyzed procedures to determine the validation rules mandated by the FRA’s software. Worked with the FRA to identify the most efficient way to communicate FRA submittals to the National File and analyzed procedures to determine the validation rules mandated by the FRA’s software.		
07/13 – 05/26 (ongoing)	NDOT Rail Inventory Management System (RIMS), Statewide, NE. As Development Operations Manager , Dylan analyzed Data contained in state’s mainframe-based rail module and developed a translation tool to migrate data to M&N’s RIMS. Evaluated data, identified potential ambiguities, and worked with the client to correct. Tailored RIMS to meet the needs of NDOT including developing a web service to facilitate automated data transfer between RIMS and state mainframe system.		
04/18 – 04/21	WVDOH RIMS Hosted Application, Charleston, WV. As Development Operations Lead , Dylan worked with the client to implement RIMS as a statewide database for crossing inventory including identification of WVDOH data needs beyond those required by the Federal Railroad Administration. Developed a typical interactive Web map as part of RIMS to spatially present data and tailored it for WVDOH to meet its needs. Collaborated with WVDOH GIS Department to identify map servers that could be integrated with the GIS components of the RIMS application to integrate data sets.		
05/20 - Present	RIMS, Multiple Clients, Multiple States. Project Owner and Devops Engineer for an interactive web application designed for management of highway–railroad at-grade crossing inventories. The software facilitates data transfer and efficient communication with the FRA’s National File and other agency data sources. The software is easily customized to meet specific client needs and highly scalable to maximize performance and user access. It was developed for use with a variety of mobile devices to allow field data collection and real-time data updates to reduce data entry redundancy and error potential.		

Firm employed by Moffatt & Nichol			
Name	Nathan Wilson 		Years of relevant experience with this employer
Title	Lead Programmer		Years of relevant experience with other employer(s)
Degree(s) / Years / Specialization		Bachelor of Science / 2011 / Computer Engineering	
Active registration number / state / expiration date		-	
Year registered	-	Discipline	-
Contract role(s) / brief description of responsibilities		Development Lead / Nathan will serve as Software Development Lead and will be responsible for software engineering and software architecture.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
12/11 – 06/18	LADOTD RSIS Railroad Inventory Upgrade (2012 – 2019), Baton Rouge, LA. As Web-Application Developer provided features and client customization that were needed for the first RIMS deployment. Wrote internal API documentation and implemented unit tests, permissions functionality, and customizable data model functionality necessary for satisfying LADOT and Development’s requirements.		
07/18 – 06/26 (ongoing)	LADOTD RSIS Railroad Inventory Upgrade (2019 – Present), Baton Rouge, LA. As Web-Application Developer provided features and client customization that were needed for the first RIMS deployment. Wrote internal API documentation and implemented unit tests, permissions functionality, and customizable data model functionality necessary for satisfying LADOT and Development’s requirements.		
05/22 – 05/25	Engineering Data Analysis and Modeling Support, Statewide, NC. Web-Application Developer of the Rail Project Prioritization Application, a demonstrative project prioritization web application, for the North Carolina Department of Transportation (NCDOT). Implemented a fully user-configurable schema of field types associated with project proposals and user-specified criteria and model formulas for ranking proposals by cost-benefit ratios and other metrics. The system and web interface enable data analysts to construct deep hierarchies of project data that specify the properties of associated items and item groups, such as multiple rail segments, and specify appropriate aggregation operations upon them for the purpose of cost-benefit modeling.		
07/13 – 05/23	RIMS Web Service, Class I Railroads and Existing Clients, Confidential. As Web-Application Developer of this RIMS web service, implemented external REST API for Class I railroads and other RIMS clients to access and modify inventories and related data hosted on RIMS through their existing inventory and railroad management systems and through other automated means. Designed the API structure to be semantically clear and intuitive for outside developers. Provided documentation through an OpenAPI schema and Django REST Framework’s browser interface.		
06/14 – 07/21	RIMS – Rail-Highway Crossing Safety Program, Carson City, NV. Web-Application Developer for extending RIMS for the Nevada Department of Transportation with solutions that assist in developing and implementing its rail-highway crossing safety program. For crossing inventories, implemented sortable field set importing, entry, and history tracking for multivariate items such as lane and track details. Also created a new crossing project tracking system and user-customizable crossing equipment condition inventories. These new systems link to main crossing inventories, can be accessed through various parts of RIMS, and share core features with inventories such as searching and report generation.		

Firm employed by Moffatt & Nichol			
Name	Amy Mindick, PMP		Years of relevant experience with this employer
Title	Project Manager • Senior GIS Manager		Years of relevant experience with other employer(s)
Degree(s) / Years / Specialization		Bachelor of Science / 1997 / Mining and Minerals Engineering Associate of Science / 2013 / Geospatial Technology	
Active registration number / state / expiration date		PMP #2148145 / Global / February 2, 2027	
Year registered	2018	Discipline	GIS
Contract role(s) / brief description of responsibilities		Quality & Analytics Lead / Amy will serve as the Quality & Analytics Lead, ensuring that data collection and analysis procedures and deliverables adhere to quality standards.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
12/11 – 06/18	LADOTD RSIS Railroad Inventory Upgrade (2012 – 2019), Baton Rouge, LA. As GIS Specialist , Amy analyzed field- and office- collected data to compare results of PCAPS, office generated, and model-generated crossing rankings for use in the corridor approach model (North Carolina Model) for rail-highway project selection. Worked with LADOTD Highway-Rail Crossing coordinator to prioritize crossing improvements based on the benefit cost associated along the Baton Rouge to New Orleans Corridor. Presented data in both spatial and tabular formats. Provided annual updates for LADOTD’s Railroad Safety Project Selection and Prioritization Process.		
07/18 – 06/26 (ongoing)	LADOTD RSIS Railroad Inventory Upgrade (2019 – Present), Baton Rouge, LA. As GIS Specialist , Amy analyzed field- and office- collected data to compare results of PCAPS, office generated, and model-generated crossing rankings for use in the corridor approach model (North Carolina Model) for rail-highway project selection. Worked with LADOTD Highway-Rail Crossing coordinator to prioritize crossing improvements based on the benefit cost associated along the Baton Rouge to New Orleans Corridor. Presented data in both spatial and tabular formats. Provided annual updates for LADOTD’s Railroad Safety Project Selection and Prioritization Process.		
07/19 – 12/23	Engineering Data Analysis & Modeling Support, Raleigh, NC. As GIS Specialist for NCDOT’s benefit-cost model of highway-railroad at-grade crossing crash and safety countermeasures, Amy combined data from multiple sources (SARAH and RIMS) to establish the service lives of active warning devices at the state’s highway-railroad crossings. This research has aided the NCDOT Rail Division with project prioritization and grant application submittals. Working with the rail mode team for NCDOT’s Strategic Transportation Investment P4.0, devised scalable criteria for scoring cost effectiveness, system health (capacity and connectivity), safety and suitability and project support. Adapted available statewide GIS resources to develop an easy to understand spatially based scoring system for portions of the selected criteria.		
07/19 – 12/23	NCDOT Rail Division Incident Mapping, Raleigh, NC. GIS Specialist who provided thematic mapping of statewide Rail-Highway incidents and trespassing incidents. Deliverables included maps, training, and detailed documentation for future recreation of maps.		

Firm employed by Moffatt & Nichol			
Name	Dwight Otwell, GISP 		Years of relevant experience with this employer
Title	Project Manager • GIS Specialist Sr.		Years of relevant experience with other employer(s)
Degree(s) / Years / Specialization		Master of Science / 2008 / Natural Resource Management, Spatial Information Systems Bachelor of Science / 2002 / Forest Management	
Active registration number / state / expiration date		#45570 / Global / July 25, 2028	
Year registered	2014	Discipline	GIS
Contract role(s) / brief description of responsibilities		GIS Liaison / Dwight will serve as a dedicated liaison between DOTD's Enterprise GIS stakeholders and M&N database API subject matter experts to facilitate integration and interoperability between systems.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
12/11 – 06/18	LADOTD RSIS Railroad Inventory Upgrade (2012 – 2019), Baton Rouge, LA. As senior technician developed a corridor approach model to help the LADOTD select rail-highway projects. Implemented economic impact models in a spatial environment and developed tools to expand model inputs.		
07/18 – 06/26 (ongoing)	LADOTD RSIS Railroad Inventory Upgrade (2019 – Present), Baton Rouge, LA. As senior technician developed a corridor approach model to help the LADOTD select rail-highway projects. Implemented economic impact models in a spatial environment and developed tools to expand model inputs.		
07/13 – 05/26 (ongoing)	NDOT Rail Inventory Management System (RIMS), Statewide, NE. As Senior Analyst and Trainer , set up and managed the desktop inventory project for the Nebraska Department of Transportation (NDOT), which used remote-sensing resources to update highway rail crossing inventory database records. Created the workflow; identified priority attributes; and developed rules for updating records based on image date, inventory date, and date of individual attribute updates. Developed a scoring system to prioritize locations and attributes crucial to Nebraska and developed a process to identify crossings with requisite imagery. Performed quality assurance/quality control (QA/QC) and delivered the project on time and within budget.		
06/14 – 07/21	RIMS – Rail-Highway Crossing Safety Program, Carson City, NV. As GIS analyst , conducted yearly on-site training for new RIMS users for the Nevada Department of Roads. Performed demonstrations of new tools available within RIMS and ensured that the RIMS User Guide was current and comprehensive. Acted as an on-call RIMS user help line live resource.		
07/22 – 06/24	Rail Crossing GIS Point Layer Update, Charlotte, NC. Senior technician responsible for rectification of inventory records of selected at-grade railroad crossings within the jurisdictional boundaries of the Charlotte-Mecklenburg metropolitan area for the Charlotte Department of Transportation. Conflated federal, state, local, and private datasets to determine best-known positions of crossings and justified such against publicly available road datasets and orthophotography. Assessed and, where necessary, corrected and updated attribute information associated with each crossing record. Performed error analysis to verify the accuracy of crossing attributes.		

Firm employed by Moffatt & Nichol			
Name	Brenda DiGirolamo		Years of relevant experience with this employer
Title	Economic Analyst		Years of relevant experience with other employer(s)
Degree(s) / Years / Specialization		Bachelor of Science / 2021 / Mathematics with concentration in Statistics	
Active registration number / state / expiration date		-	
Year registered	-	Discipline	-
Contract role(s) / brief description of responsibilities		Project Prioritization Support/Benefit Cost Analysis / Brenda will provide support for Project Prioritization and Benefit Cost Analysis as a subject matter expert in the application of BCA methodologies to crossing safety project prioritization and grant application support.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
09/25 - 09/26 (ongoing)	Virginia Department of Transportation (VDOT) State Action Plan (SAP), Statewide, VA. Analyst for project to outline the process used to analyze collision statistics and apply a methodology for assessing risk at crossings in Virginia. The probability and expected cost associated with collisions at each railroad crossing was used to determine risk, which helped identify at-risk crossings within the state. Conducted statistical analysis on characteristics associated with the severity of collisions at public crossings in Virginia, identifying significant findings. Researched and analyzed the U.S. Department of Transportation (USDOT) model, the new 2020 FRA accident prediction model, and the new 2020 FRA accident severity model.		
07/21 – 12/22	NDOT SAP, Statewide, NE. Analyst for project to outline the process used to analyze collision statistics and apply a methodology for assessing risk at railroad crossings in Nebraska. The probability and expected cost associated with collisions at each crossing was used to determine risk, which helped identify at-risk crossings within the state. Conducted statistical analysis of characteristics associated with the severity of collisions at public crossings in Nebraska, identifying significant findings. Researched and analyzed the USDOT model, the new 2020 FRA accident prediction model, the new 2020 FRA accident severity model and the new 2020 Nebraska highway-rail grade crossing (HRGC) crash prediction model. Investigated the new FRA accident prediction model against the old 2020 FRA accident prediction model and drew comparisons.		
07/22 – 02/22	Wisconsin Department of Transportation (WisDOT) State Action Plan, Statewide, WI. Analyst for project to outline the process used to analyze collision statistics and apply a methodology of assessing risk at railroad crossings in Wisconsin. The probability and expected cost associated with collisions at each crossing was used to determine risk, which helped identify at-risk crossings within the state. Researched and analyzed the USDOT model, the new 2020 FRA accident prediction model, the new 2020 FRA accident severity model, and the WisDOT model. Investigated the new FRA accident prediction model against the old 2020 FRA accident prediction model and drew comparisons. Similarly, compared the WisDOT model with the USDOT model.		
01/23 – 02/23	City of Los Angeles 2023 RAISE Grant Application, Los Angeles, CA. Provided Benefit Cost Analysis (BCA) Support Services for a large municipality’s transit department for a project to install more than 300 bus shelters to provide shelter, shade, safety, traveler information, and comfort for bus users, with amenities that support economic growth and equitable transportation. Awards are pending.		

Firm employed by Moffatt & Nichol			
Name	Amr Zaher, PE 		Years of relevant experience with this employer
Title	Rail and Transit Practice Manager		Years of relevant experience with other employer(s)
Degree(s) / Years / Specialization		Master of Science / 2014 / Civil Engineering Bachelor's Degree / 2011 / Civil Engineering	
Active registration number / state / expiration date		#C85826 / CA / September 30, 2026	
Year registered	2016	Discipline	Civil
Contract role(s) / brief description of responsibilities		Highway-Rail Safety Corridor Evaluation / Amr will provide support for Highway-Rail Safety Corridor Evaluation as a subject matter expert in the planning and evaluation of highway-rail safety corridor projects.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
08/20 – 12/25	Lone Hill to Control Point (CP) White Double-Track Project, Los Angeles County, CA. Project Manager for the final engineering design (plans, specifications, and estimate) for the addition of approximately 3.9 track miles of second main track on the SCRRA/MetroLink San Bernardino Line—the busiest commuter rail line in the SCRRA system. This Metro project aims to enhance operations and safety by alleviating an existing single-track bottleneck between Lone Hill and CP White within the cities of San Dimas, La Verne, and Pomona, while also improving grade crossings and establishing quiet zone-ready crossings to improve safety, mobility, and the overall quality of life for the community.		
06/23 – 05/26	Perris Valley Line (PVL) Double-Track Project Final Design Plans, Specifications, and Estimates (PS&E), Riverside County, CA. As Task Order/Project Manager for this Riverside County Transportation Commission PVL Double-Track Project, oversees the project team and subconsultants, managing the scope, schedule, and budget and ensuring the successful delivery of the final PS&E documents. Supported by the task leads, ensures the project progresses smoothly and meets all technical and regulatory requirements. This significant project involves upgrading 6.5 miles of track between the newly constructed CP March (MP 74.9) and CP Nuevo (MP 81.4).		
01/21 – 12/25	Metrolink Program Management/Construction Management On-Call, CTO No.1, Los Angeles, CA. Deputy Project Manager for the Los Angeles Union Station and BNSF third-party projects for the SCRRA. Facilitated complex technical review sessions, leads coordination meetings, and provides regular updates on technical issues and solutions, project progress, and controls. These projects include major station improvements and crossing safety enhancements.		
08/18 – 12/24	Pennsylvania Avenue Grade Separation Projects, Beaumont, CA. Project Engineer supporting development of the 30 percent preliminary engineering rail design for this City of Beaumont project, including Union Pacific Railroad shoofly track design package, phasing, initial project cost estimate, and design coordination. The design phase includes advancing the project to plans, specifications, and estimate.		
06/23 – 05/26	On-Call Engineering and Environmental Services for the Construction of Commuter Rail Station Capital Improvement Projects, Riverside County, CA. Project Manager in the early phase of this important on-call contract. Developed and negotiated scope and fee proposals, coordinating with the Riverside County Transportation Commission (RCTC) and working closely with the legal department to ensure compliance with all contractual requirements. Responsibilities include managing subconsultants to complete all labor and rate forms as specified by the contract.		

Firm employed by Moffatt & Nichol			
Name	Keith Gillfillan, PE		Years of relevant experience with this employer
Title	Vice President • Transportation Senior Program Manager		Years of relevant experience with other employer(s)
Degree(s) / Years / Specialization		Master of Business Administration / 1984 / Business Bachelor of Science / 1978 / Civil Engineering	
Active registration number / state / expiration date		#30434 / CA / March 3, 2028	
Year registered	1979	Discipline	Civil
Contract role(s) / brief description of responsibilities		Highway-Rail Safety Corridor Evaluation / Keith will provide support for Highway-Rail Safety Corridor Evaluation as a subject matter expert in the planning and evaluation of highway-rail safety corridor projects.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
10/22 – 05/24	City of El Segundo, El Segundo Park Place Extension and Grade Separation, El Segundo, CA. Project Manager responsible for overseeing this complex grade separation and roadway extension project. This project calls for constructing a railroad overpass and railroad bridge at the UPRR, BNSF, Chevron rail lines at the Park Place Extension. This project also includes work with Hazmat, Geotechnical, Environmental re-validation, utility coordination/relocation, railroad coordination, etc. M&N has been approved for full final design services.		
04/19 – 05/26	San Gabriel Valley Council of Governments (SGVCOG), Montebello Corridor Grade Separation, Montebello, CA. Project Manager for this multi-phase transportation improvement corridor project responsible for performing preliminary engineering analysis, alternatives evaluation, and preparation of construction documents. This project calls for constructing a roadway underpass and railroad bridge at the UPRR Los Angeles subdivision railroad crossing on Montebello Boulevard and a street bridge at Montebello Boulevard and Olympic Avenue, and installing safety improvements, including railroad quad crossing gates, for enhanced safety at the crossings on Greenwood and Vail Avenues. Project includes civil, roadway, utilities (storm drain, sewer, and water), and grade separation (roadway under rail) components. The team is currently providing support during construction services.		
04/21 – 01/24	City of Rancho Cucamonga, Etiwanda Avenue Grade Separation, Rancho Cucamonga, CA. Civil Design Lead responsible for tasks related to a new grade separation structure, coordination with businesses and property owners for reconfiguring development parcels to be compatible with street re-alignments. The grade separation will not only reduce vehicle and truck delays and queuing along Etiwanda Avenue, but will also improve mobility, safety, and level of service at the crossing. Oversaw construction document preparation for the civil, roadway, city-owned utilities, and private property improvements—to exceed all permitting agency standards and fit seamlessly with the other technical aspects, such as structures and non-city owned utilities.		
12/16 – 06/20	SGVCOG, Puente Avenue Grade Separation, City of Industry, CA. Project Manager responsible for delivery, technical oversight, and preparation of construction documents for grade separating Puente Ave from Valley Blvd. and the Union Pacific Railroad by constructing a roadway underpass. Phase 1 consisted of a feasibility analysis, railroad inventory assessment and environmental approval of various alternatives to grade separate an existing roadway and railroad crossing. Phase 2 involved Final Plans, Specifications and Estimate (Final PS&E) and Phase 3 Design Support during construction.		

Firm employed by Moffatt & Nichol			
Name	Daniel (Dan) Solomon		Years of relevant experience with this employer
Title	Vice President		Years of relevant experience with other employer(s)
Degree(s) / Years / Specialization		Bachelor of Arts / 2000 / Economics Bachelor of Arts / 2000 / English	
Active registration number / state / expiration date		-	
Year registered	-	Discipline	-
Contract role(s) / brief description of responsibilities		Project Prioritization Support/Benefit Cost Analysis / Dan will provide support for Project Prioritization and Benefit Cost Analysis as a subject matter expert in transportation economic analysis and the application of BCA methodologies.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
05/21 – 07/21	BCA, Humboldt, CA. Lead Economist for this Humboldt Bay Harbor District project to develop the benefit-cost analysis (model and report), which was submitted by the Port of Humboldt’s application for the U.S. Department of Transportation’s Port Infrastructure Development Program grant program. The port sought to establish a dedicated multipurpose (staging and manufacturing) offshore wind hub. It would be the first such facility on the west coast of the United States and would be one of the first in the United States dedicated to floating-base turbines.		
07/21 – 01/22	Tower Manufacturing – BCA, Albany NY. As BCA Lead , Dan led the development of the BCA, including the model/calculations and supporting report, which was submitted by the Port of Albany (Albany Port District Commission) as part of its application for the USDOT’s Port Infrastructure Development Program grant program. The funds were designated to be used to construct a greenfield terminal, to be utilized by a tower and transition piece manufacturer.		
05/21 – 12/21	Terminal 5 BCA. As BCA Support , Dan supported the team that was developing the BCA for the Quonset Development Corporation’s Infrastructure for Rebuilding America grant application. Provided inputs into the BCA model, including estimates for future installation activity on the U.S. east coast, location and number of potential operating staging ports, and estimates of future activity at the port. This analysis formed the base inputs to the benefit calculations.		
03/20 – 11/25	Strategic Master Plan, Mobile, AL. Lead Economist for developing the commercial analysis and cargo projections for the Port of Mobile’s 2018 Strategic Plan for the Alabama Port Authority. The technical team used the cargo projections to evaluate the infrastructure and equipment requirements for the port, as well as associated capital needs. The commercial analysis focused on existing bulk, breakbulk, and containerized cargo, as well as provided guidance on potential value-added operations that would support future growth and extend market reach, by focus, on targeted inland developments.		
10/11 – 12/25	Bi-Annual Forecast Update, Savannah, GA. Lead Analyst for producing cargo forecasts for container and general cargo port facilities for the Georgia Ports Authority. These forecasts were used by the planning body to direct capital to priority investments at the respective facilities. Forecasts were developed through market analysis of a wide range of commodities and cargo flows, including dry bulk, roll-on/roll-off, break-bulk, and containerized commodities.		

Firm employed by Moffatt & Nichol			
Name	Chace Hulon, PE		Years of relevant experience with this employer
Title	Vice President • National Structures Inspection Program Manager		Years of relevant experience with other employer(s)
Degree(s) / Years / Specialization		Bachelor of Science / 2005 / Civil Engineering	
Active registration number / state / expiration date		#39701 / Louisiana / September 30, 2027	
Year registered	2015	Discipline	Civil
Contract role(s) / brief description of responsibilities		Infrastructure Inspection Lead / Chace will serve as Infrastructure Inspection Lead, coordinating with GIS and crossing data analysts and assigning resources to conduct inventory verification field visits for identified locations, and providing logistics and planning expertise to support a multi-year statewide evaluation.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
11/25 – 12/30 (estimated)	LADOTD Inventory and Inspection of Signs – Task Order No. 1, 2 & 3, Statewide, LA. Project Manager for the five-year retainer contract to perform over 1,500 sign truss inspections throughout Louisiana, leading the development of the updated Ancillary Structures Inspection Program and an ArcGIS-based asset management system, as well as an updated Inventory & Inspection Manual for Ancillary Structures; inspections included steel and aluminum welds, high stress moment connections, and fracture-critical elements in accordance with FHWA and ASIRM guidelines, and responsibilities also included managing the QA/QC plan and performing QC reviews on inspection reports.		
07/22 – 10/22	New Orleans Aviation Board, Louis Armstrong International Airport Inspection of Overhead Sign Structures and Landside Wayfinding Sign Structures, New Orleans, LA. Project Manager who managed this damage assessment project post Hurricane Ida that included a total of 62 sign structures of which 31 were overhead sign structures. Aerial lifts and structure climbing techniques were utilized along with appropriate maintenance of traffic and some lane closures. A punch list of damage and repair recommendations, supported with photo documentation, was prepared and QC reviews were performed.		
05/15 – 05/20	LADOTD Ancillary Structures Inventory & Inspection, Statewide, LA. Project Manager for the previous 5-year retainer contract to perform an unknown number of sign truss inspections throughout Louisiana. M&N inventoried and inspected 1,500 overhead sign structures in three years and notified the Department of 55 critical findings that resulted in the safe removal or replacement of the structures. Led the development of an internal inventory management system. Inspections include steel and aluminum welds, high stress moment connections, and fracture critical elements in accordance with FHWA guidelines. Managed the QA/QC plan and performed QC reviews on inspection reports.		
06/17 – 04/18	LADOTD Underwater Bridge Inspections – Task Order No. 1 & 2, Statewide, LA. Project Manager for the 2013 retainer contract to perform 506 underwater bridge inspections throughout Louisiana. Level I, II, and III inspections of submerged elements were performed in accordance with the FHWA, BIRM, AASHTO MBE, current NBIS requirements and LADOTD engineering and maintenance directives. Bridge types included movable swing span bridges, bascule bridges, truss bridges, timber stringer bridges, cable-stayed bridges, single and multi-span bridges up to 8 miles in length. Managed the QA/QC plan and performed QC reviews as the confirming engineer on NBIS inspection reports.		

Firm employed by Moffatt & Nichol				
Name	Michael Franco		Years of relevant experience with this employer	2
Title	Inspection & Rehabilitation Operations Manager		Years of relevant experience with other employer(s)	15
Degree(s) / Years / Specialization		Bachelor of Science / 2008 / Mechanical Engineering		
Active registration number / state / expiration date		-		
Year registered	-	Discipline	-	
Contract role(s) / brief description of responsibilities		Data Acquisition Support / Michael will provide Data Acquisition Support for inventory verification field visits and act as a subject matter expert on the safe and accurate application of aerial or vehicle-based photography or videography for data collection purposes.		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
01/25 – 12/25	LADOTD Underwater Bridge Inspections, Statewide, LA. Project Manager for the retainer contract to perform 838 underwater bridge inspections throughout Louisiana. Level I, II, and III inspections of submerged elements were performed in accordance with the FHWA, BIRM, AASHTO MBE, current NBIS requirements and LADOTD engineering and maintenance directives. Bridge types included movable swing span bridges, bascule bridges, truss bridges, timber stringer bridges, cable-stayed bridges, single and multi-span bridges up to 8 miles in length. Managed the QA/QC plan and reviews on NBIS inspection reports.			
09/21 – 10/21	CSRS Tulane Campus Disaster Relief Flights, New Orleans, LA. A Certified FAA Part 107 Drone Pilot deployed to various locations across Tulane University’s campus in New Orleans immediately following Hurricane Ida. He conducted aerial photography and videography to document storm-related damage. The captured imagery was provided to CSRS to support FEMA damage assessments and aid in the development of post-hurricane recovery estimates.			
01/24 – 12/25	LADOTD Inventory & Inspection of Ancillary Structures, Statewide, LA. Assistant Project Manager for the most recent 5-year retainer contract to perform approximately 1,550 overhead sign truss inspections and rehabilitation designs throughout Louisiana. Ancillary inspections include steel and aluminum welds, high-stress moment connections, and fracture-critical elements in accordance with Federal Highway Administration guidelines. The team performs Level III inspections with ultrasonic testing on bolted connections, mag particle testing on steel-welded connections, and dye penetrant testing on aluminum-welded connections. Performed quality assurance/quality control reviews of inspection reports.			
04/21 – 04/21	DCMC Disaster Relief Flights & Modeling, Lake Charles, LA. A Certified FAA Part 107 Drone Pilot and Terrestrial Laser Scanning Technician deployed to Sacred Heart School and Church following Hurricane Laura. Utilizing DroneDeploy, he captured aerial imagery to generate photogrammetry models of the exterior structures, while interior conditions were documented through high-resolution terrestrial laser scanning.			
07/21 – 12/22	Marathon Petroleum Corporation Construction Progress, Flight Garyville, LA. A Certified FAA Part 107 Drone Pilot who performed aerial operations during the construction phase of an active Marathon project. The work involved capturing the transport and placement of large industrial equipment—from barge delivery, across the levee, to designated laydown yards throughout the plant site.			

Firm employed by Moffatt & Nichol			
Name	Phil Balmeo, PE, LEED AP		Years of relevant experience with this employer
Title	Transportation Senior Program Manager		Years of relevant experience with other employer(s)
Degree(s) / Years / Specialization		Bachelor of Science / 1998 / Engineering Master of Science / 1999 / Engineering	
Active registration number / state / expiration date		#C65475/ CA / September 30, 2026	
Year registered	2003	Discipline	Civil
Contract role(s) / brief description of responsibilities		Highway-Rail Safety Corridor Evaluation / Phil will provide added support for Highway-Rail Safety Corridor Evaluation as a subject matter expert in the planning and evaluation of highway-rail safety corridor projects.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
01/26 – 10/28 (ongoing)	San Gabriel Valley Bus Rapid Transit (BRT) Corridor Improvements Project – Segment 5 (Preliminary Engineering, Final Design, and Outreach Services), San Gabriel Valley Council of Governments, El Monte/Los Angeles County/City of Industry, CA. Project Manager for the Project consisting of a 6.6 mile long conversion of existing general purpose travel lanes to mixed use and dedicated BRT lanes. Overall coordination and design standards will comply with LAMTA and Foothill Transit and the various local jurisdictional standards. Project also calls to assist SGVCOG with Utility Coordination/Notification. Outreach coordination and Environmental Revalidation is also part of M&N’s scope to SGVCOG. Full preliminary design, final PS&E, and construction support are also included in M&N’s effort for this BRT 5 Project. M&N is responsible for civil, roadway, traffic, ADA, bus stop, and utilities coordination/adjustments.		
07/24 – 06/26 (ongoing)	Alameda Corridor Transportation Authority (ACTA), Los Angeles, CA. Project Manager for M&N’s legacy project. M&N has provided the ACTA with professional services and staff augmentation since ACTA’s inception dating back to the late 1990s. In a joint venture, the firm provided professional services for the preliminary planning and construction of the Alameda Corridor, a 22-mile cargo expressway project that required the development of various roadway and railroad improvement alternatives along a highly urbanized industrial corridor to improve the movement of commercial traffic through central Los Angeles County. In 2024, ACTA awarded M&N a 5-year on-call engineering services contract which converted the existing staff augmentation structure to staffing tasks on an as-needed basis. M&N is already working on various tasks orders under this contract including rail corridor analysis, capital improvements support, and operations and maintenance support.		
05/23 – 12/23	Honolulu Harbor Pier 51A & 51B Terminal Refurbishment, Matson Terminals Pier 51 A/B, Honolulu, HI. Project Manager who provided final engineering, plans, specifications, and engineer’s estimates for client to bid various container yard modifications including building modifications and demolition. He oversaw in-house staff and outside consulting firms to complete the work assigned.		
01/20 – 03/22	Project M2 Support and Redesign, APM Terminals, Port of Los Angeles (APMT, POLA). Project Manager who provided preliminary, final engineering, plans, specifications, and engineer’s estimates for client to bid various container yard modifications for more efficient operations. Oversaw in-house staff and outside consulting firms to complete the work assigned. Provided design support during construction.		



RR SAFETY: DATA & INVENTORY (2024-2026) STATEWIDE

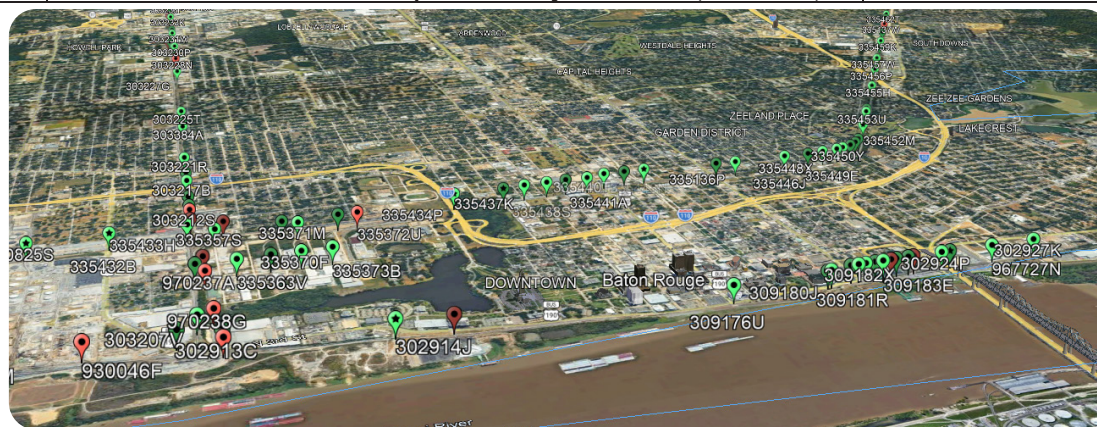
SECTION 17



17. Firm Experience: PROJECT 1

Firm name	Moffatt & Nichol, Inc.		Discipline(s)*		Data Collection, Traffic, Planning	
Project name	LADOTD RSIS Railroad Inventory Upgrade (2012 – 2019)				Firm responsibility (prime or sub?)	Prime
Project number	H.971294.1 & H.009823.5	Owner's name	LADOTD			
Project location	Statewide, LA			Owner's Project Manager	Shawn Luke, PE	
Owner's address, phone, email	1201 Capitol Access Rd, Baton Rouge, LA 70802 • (225) 379-1385 • shawn.luke@la.gov					
Services commenced by this firm (mm/yy)		12/11	Total consultant contract cost (\$1,000's)			\$430,000
Services completed by this firm (mm/yy)		06/18	Cost of consultant services provided by this firm (\$1,000's)			\$430,000

As the first project of its RIMS initiative, M&N developed a new crossing management system to replace Louisiana's Rail Safety Information System (RSIS) and enable the LADOTD to submit crossing updates to the FRA. The legacy LADOTD RSIS mainframe database required translation from its older schema to the newer FRA specification that is supported by RIMS and import into RIMS for hosting and communication interface with the FRA. Aspects of the FRA system, such as crossing history and field validation, were also implemented and later refined for scalability. Because RSIS included customization outside the FRA Crossing File's scope, Louisiana's "view" of RIMS was modularly adopted to include additional data fields of exclusive interest to inventory maintainers in Louisiana. In addition to crossing data and history, the initial deployment of RIMS also included line graphs of rating models such as the FRA's Accident Prediction Model, features for sharing related documents such as pictures and memoranda, and personal data exporting capability such as customizable comma-separated value files for spreadsheet applications, Keyhole Markup Language files for viewing in various GIS applications, and printable inventories for hard copy records. After successful deployment of RSIS, the LADOTD desired better communication with railroads as a result of questions about various data fields. In response, they started a public/private initiative (PPI) that granted railroads full write access to LADOTD records. Participants included Class I Railroads such as Union Pacific, Burlington Northern Santa Fe, Kansas City Southern, and Norfolk Southern. The PPI introduced a new internal data model for tracking FRA history that permitted a better separation of railroad and state data tracking. To facilitate coordinating data inventory improvement between the railroad and state, an added notification feature allowed state and railroad inventory approvers to discuss questions about each other's inventory data. The contract period of performance was for 5 years but was extended for a further 3 years to seize on the momentum of successful rail crossing safety conflicts resolution.



Firm Experience: PROJECT 2

Firm name	Moffatt & Nichol, Inc.		Discipline(s)*		Data Collection, Traffic, Planning	
Project name	LADOTD RSIS Railroad Inventory Upgrade (2019 – Present)				Firm responsibility (prime or sub?)	Prime
Project number	H.012811.1	Owner's name	LADOTD			
Project location	Statewide, LA			Owner's Project Manager	Shawn Luke, PE	
Owner's address, phone, email	1201 Capitol Access Rd, Baton Rouge, LA 70802 • (225) 379-1385 • shawn.luke@la.gov					
Services commenced by this firm (mm/yy)		07/18	Total consultant contract cost (\$1,000's)			\$372,000
Services completed by this firm (mm/yy)		06/26	Cost of consultant services provided by this firm (\$1,000's)			\$372,000

Under the successful recompile in 2018 LADOTD retained M&N to continue using RIMS to manage crossing inventory data needs and to support highway-rail safety efforts for LADOTD statewide. RIMS was initially developed in partnership with LADOTD and one of the primary design goals for both parties was to maintain accurate and compliant communication with the FRA nationwide Grade Crossing Inventory System (GCIS). M&N has continually made improvements to RIMS and monitors FRA to ensure LADOTD safety data is accurately reported to and correctly represented in FRA data. The 2015 FRA National Highway-Rail Crossing Inventory Reporting Requirements Ruling introduced the first fully automatable system to system data communication route between the FRA and the states and railroads providing safety data. The increased attention on crossing inventory data and updated FRA system has increased the utility of the data available for supporting data-driven project prioritization, but that information is only useful to the extent that it is accessible to project managers. Access to and visibility of key information relevant to project success sets RIMS apart, as our team understands the requirements from a crossing safety perspective, not just a software development perspective. For these reasons we pioneered the use of the FRA GCIS Application Programming Interface (API) to maintain near real-time communication with the FRA GCIS to the extent that their systems will allow. This effort resulted in LADOTD being recognized as a leader in the crossing safety data technology space, and our coordination with FRA and their internal teams resulted in improvements to the FRA GCIS and clarification on reporting rules and requirements that benefited not only LADOTD, but state DOTs railroads nationwide. RIMS provides LADOTD managers and partners with access to historical crossing equipment and rail volume data, that is all publicly available but requires the deep understanding of the structure and regulatory constraints related to these datasets to organize and display this information in an intuitive and accessible format.

1	303236F	Public	Hwy	At Grade	Open (Changed)	2025-12-15			
	IC Delta Hammond 4.900					Airline Hwy In Baton Rouge, LA			
2	335465N	Public	Hwy	At Grade	Open (Changed)	2026-02-26			
	KCS Southeast New Orleans 794.460					Essen Lane Near Baton Rouge, LA			
3	335460E	Public	Hwy	At Grade	Open (Changed)	2026-02-26			
	KCS Southeast New Orleans 791.980					College Drive In Baton Rouge, LA			
4	908251G	Public	Hwy	At Grade	Open (Changed)	2025-12-15			
	IC Delta Baton Rouge 1.410					Scenic Hwy Near Scotlandville, LA			
5	335331P	Public	Hwy	At Grade	Open (Changed)	2026-02-26			
	KCS Southeast New Orleans 785.170					Us 61 Near Baton Rouge, LA			
6	335348T	Public	Hwy	At Grade	Open (Changed)	2026-02-26			
	KCS Southeast New Orleans 785.170					Airline Hwy Near Baton Rouge, LA			

Relevance to LADOTD

- Web-based inventory system
- FRA-compliant data integration
- Railroad state data coordination
- Crossing safety prioritization models
- User access and notifications
- GIS and exportable reporting

Key Team Members Involved

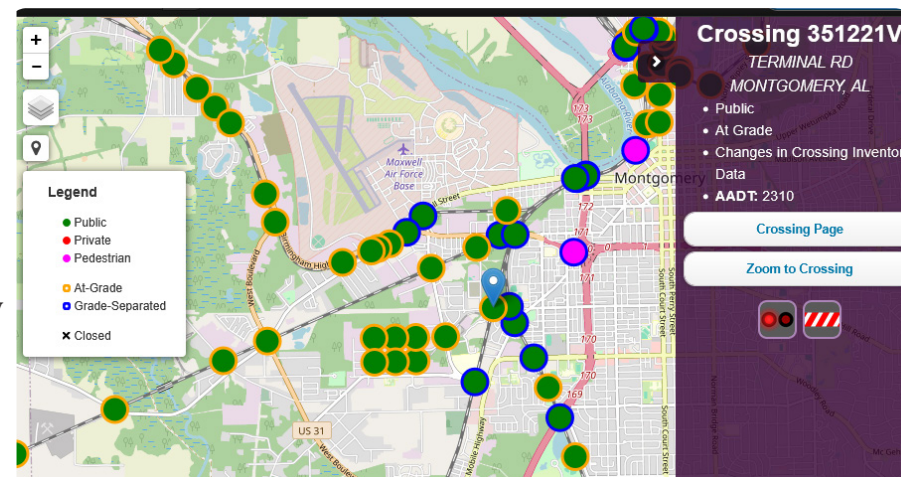
Jonathan Hird **Principal-in-Charge** • Richard Cranfill **Project Manager** • Dylan Liverman **Assistant Project Manager** • Ric Cruz **Prioritization Lead** • Nathan Wilson **Lead Programmer** • Amy Mindick **Quality & Analytics Lead**

Firm Experience: PROJECT 3

Firm name	Moffatt & Nichol, Inc.		Discipline(s)*	Data Collection, Traffic, Planning	
Project name	ALDOT RIMS			Firm responsibility (prime or sub?)	Prime
Project number	Contract No.: CTR060028	Owner's name	Alabama Department of Transportation (ALDOT)		
Project location	Montgomery, AL		Owner's Project Manager	Ronn Sherrod	
Owner's address, phone, email	1409 Colisseum Blvd, Montgomery, AL 36115 • (334) 242-6705 • sherrodr@dot.state.al.us				
Services commenced by this firm (mm/yy)	01/24	Total consultant contract cost (\$1,000's)			\$196,000
Services completed by this firm (mm/yy)	12/26 (ongoing)	Cost of consultant services provided by this firm (\$1,000's)			\$196,000

M&N provided a Web-based RIMS to host and manage the ALDOT highway-rail grade crossing inventory data for compliance with the Rail Safety Improvement Act and FRA/FHWA reporting requirements. The firm delivered a secure, multi-tenant, hosted solution that maintains ALDOT's rail crossing database, supports unlimited users and updates, and allows on-demand data transfer and access within the RIMS environment.

With an initial two-year subscription period, M&N configured and customized RIMS for ALDOT, including GIS-based inventory data import, translation rules, photo import rules, and custom printable forms such as diagnostic review forms and warning device checklists. M&N is also supporting ALDOT with bespoke project management and invoice management modules to be implemented per their specification. Replacing a static, single-point-of-access tracking database with an accessible interface that will allow multiple project managers and their internal partners to coordinate and collaborate on-demand and as-needed. With RIMS as a foundation, all crossing related identification, location, prioritization, railroad operations, incident reports, and historical records are automatically associated with any relevant project records, pre-filling needed calculations, form-letters, or diagnostic forms avoiding redundant data entry and ensuring the latest FRA reported data is available. As with all RIMS clients, ALDOT receives expert data compliance and reconciliation support facilitating communication with railroad, municipal, and federal partners and providing guidance on relevant best practices and industry standards. RIMS access provides ALDOT with a connection to a community of tech forward and knowledgeable crossing safety managers, engineers, and developers, both within M&N through our RIMS clients who share a passion for data-driven crossing safety support and that provide the feedback that keeps RIMS advancing ahead with features that easily integrate with workflow needs. As part of continued support, annual on-site training, and as-needed training webinars are provided. In addition, all documentation is integrated with RIMS, including Web-based training documents and in-line help documentation for the FRA reportable fields.

**Relevance to LADOTD**

- Web-based rail inventory
- FRA/FHWA compliance support
- Secure multi-tenant hosting
- GIS-enabled data integration
- Project and invoice modules
- User training and documentation

Key Team Members Involved

Richard Cranfill **Project Manager** • Amy Mindick **Quality & Analytics Lead** • Dwight Otwell **GIS Liaison** • Dylan Liverman **Development Operations** • Ric Cruz **Project Prioritization Support/BCA**

Moffatt & Nichol, Inc.

Firm Experience: PROJECT 4

Firm name	Moffatt & Nichol, Inc.		Discipline(s)*		Data Collection, Traffic, Planning	
Project name	NDOT Rail Inventory Management System (RIMS)				Firm responsibility (prime or sub?)	Prime
Project number	Contract Agreement No.: PP1803	Owner's name	Nebraska Department of Transportation (NDOT)			
Project location	Statewide, NE			Owner's Project Manager	Travis Haberman	
Owner's address, phone, email	1500 Hwy 2, Lincoln, NE 68509 • (402) 479-4515 • travis.haberman@nebraska.gov					
Services commenced by this firm (mm/yy)		07/13	Total consultant contract cost (\$1,000's)			\$667,000
Services completed by this firm (mm/yy)		05/2026 (ongoing)	Cost of consultant services provided by this firm (\$1,000's)			\$667,000

M&N provides the Rail Inventory Management System (RIMS), a Web-based system, as a mechanism for entering, maintaining, updating, and transmitting information associated with the information gathering and reporting requirements of the 2008 Rail Safety Improvement Act (RSIA) and the 2015 FRA National Highway-Rail Crossing Inventory Ruling reporting requirements. This project ensures that the Rail Section receives the high level of engineering safety application support services necessary to maintain a successful Crossing Safety Program. M&N developed the RIMS application to assist in managing State Rail Crossing Safety Programs. It is a comprehensive database used in the day-to-day operations of Crossing Safety Programs as a foundation for data collection, storage and basic analysis. RIMS utilizes modern web standards to effectively assist crossing safety personnel in maintaining their highway-rail crossing inventory database. The passage of the 2008 RSIA and the 2015 FRA National Highway-Rail Crossing Inventory Ruling reporting requirements has tasked the states and railroads with a set of requirements that are currently not supported by existing database systems. NDOT's implementation of M&N's RIMS application includes custom fields to support GIS, project, and custom data beyond the standard FRA specification, and custom web services support in addition to our standard API access. A custom diagnostic review form was developed to support the crossing safety program and eliminate redundant data entry for known values. In addition, M&N has supported the implementation of a data-driven prioritization process as outlined in NDOT's State Action Plan (SAP) and continues to provide subject matter experts for individual and corridor crossing safety project planning and prioritization. M&N assists NDOT in regularly reviewing crossing data issues and supporting the accurate reporting of safety information to the FRA GCIS and FHWA partners.

Crash Subquery		Accident Reports Search — LADOTD.RIMS Support		Action
1	817626P Union Pacific Railroad Company: Freight Train (Rail Equipment Struck Highway Us...	Highway: Pedestrian (Moving Over Crossing @ None mph)	Injured: 1, Killed: 0	Mar 22nd, 2026, 2:10 pm EDT
2	073292A BNSF Railway Company: Freight Train (Rail Equipment Struck by Highway User @ ...	Highway: Truck (Moving Over Crossing @ 20 mph)	Injured: 1, Killed: 0	Mar 17th, 2026, 12:15 pm EDT
3	981887L CORNHUSKER RAILROAD, LLC: Freight Train (Rail Equipment Struck by Highway U...	Highway: Truck-Trailer (@ 25 mph)	Injured: 0, Killed: 1	Mar 13th, 2026, 3:30 pm EDT
4	070267G BNSF Railway Company: Freight Train (Rail Equipment Struck by Highway User @ ...	Highway: Truck-Trailer (Moving Over Crossing @ 60 mph)	Injured: 0, Killed: 1	Feb 19th, 2026, 11:04 am EST
5	083244M BNSF Railway Company: Freight Train (Rail Equipment Struck by Highway User @ 2...	Highway: Pick-up Truck (Moving Over Crossing @ 40 mph)	Injured: 1, Killed: 0	Jan 30th, 2026, 9:38 am EST
6	083560K BNSF Railway Company: Freight Train (Rail Equipment Struck Highway User @ 10 ...	Highway: Pick-up Truck (Moving Over Crossing @ 20 mph)	Injured: 1, Killed: 0	Jan 29th, 2026, 5:09 pm EST

Relevance to LADOTD

- Web-based inventory system
- FRA-compliant data integration
- Railroad state data coordination
- Crossing safety prioritization models
- User access and notifications

Key Team Members Involved

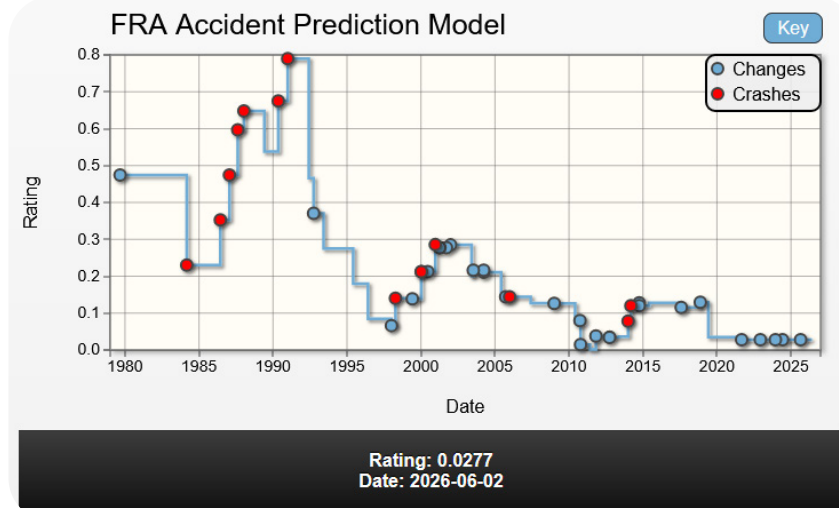
Richard Cranfill **Project Manager** • Ric Cruz
Assistant Project Manager • Dwight Otwell **Senior Analyst and Trainer** • Dylan Liverman **Development Operations Manager**

Moffatt & Nichol, Inc.

Firm Experience: PROJECT 5

Firm name	Moffatt & Nichol, Inc.		Discipline(s)*		Data Collection, Traffic, Planning	
Project name	VDOT Highway-Rail Crossing BCA Support				Firm responsibility (prime or sub?)	Sub
Project number	Contract ID: 50515	Owner's name	Virginia Department of Transportation (VDOT)			
Project location	Richmond, VA			Owner's Project Manager	Tracy Turpin, PE	
Owner's address, phone, email		02430 Pine Forest Drive, South Chesterfield, VA 23834 • (804)786-6610 • tracy.turpin@vdot.virginia.gov				
Services commenced by this firm (mm/yy)		09/25	Total consultant contract cost (\$1,000's)			\$49,000
Services completed by this firm (mm/yy)		09/26 (ongoing)	Cost of consultant services provided by this firm (\$1,000's)			\$49,000

For this task order, our team supported the continuation of the data-driven prioritization process outlined for VDOT in their State Action Plan. VDOT uses M&N's RIMS application to collect and manage crossing inventory data, and to export the results of the FRA accident prediction model as the initial step in ranking and prioritizing at-grade crossing improvements. To support a data-driven approach to comparing similarly ranked projects and to support a corridor approach to project consolidation and ranking, M&N was tasked with evaluating VDOT's needs, determining requirements, and implementing a tool for evaluating at-grade rail crossing improvements identified through the VDOT Section 130 program and the Rail Crossing Elimination Program. To help VDOT prioritize limited FHWA funding among projects with similar risk profiles, M&N developed a streamlined BCA tool to compare average construction costs and safety benefits across similarly ranked projects, both at individual locations and along selected corridors (for example, comparing three signalized crossing projects in Roanoke to three or more crossings of similar risk in another municipality). Crossings, located statewide, were selected either from a ranked risk-exposure list, using the FRA accident prediction model, or from district-level municipal and state project requests. While the VDOT projects considered were primarily at-grade crossing improvements rather than grade separations, the methodology provided a data-driven framework for the state to allocate FHWA funds among stakeholder-proposed projects, offering relevant experience that can be applied to similar funding and prioritization efforts. VDOT, in coordination with federal and state rail partners, hosts quarterly stakeholder meetings among the partners that developed the Virginia Highway-Rail Grade Crossing SAP, and has relied on M&N to share our nationally recognized expertise in crossing safety data reporting requirements and data-driven support with stakeholders and partners to promote an environment of communication and cooperation in support of the highway-rail crossing safety improvement goals of the Commonwealth.

**Relevance to LADOTD**

- Section 130 program support
- FRA-based risk ranking
- Streamlined BCA prioritization
- FHWA funding allocation
- Statewide SAP development
- Safety-focused rail improvements

Key Team Members Involved

Richard Cranfill **Project Manager** • Ric Cruz
Assistant Project Manager



RR SAFETY: DATA & INVENTORY (2024-2026) STATEWIDE SECTIONS 18-23



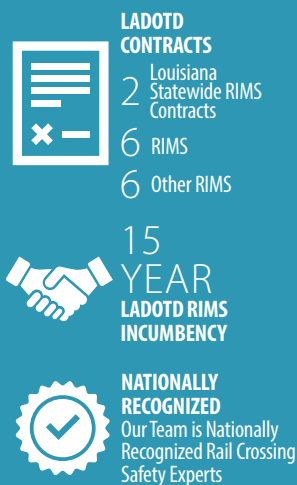
18. Approach and Methodology:

INTRODUCTION TO MOFFATT & NICHOL

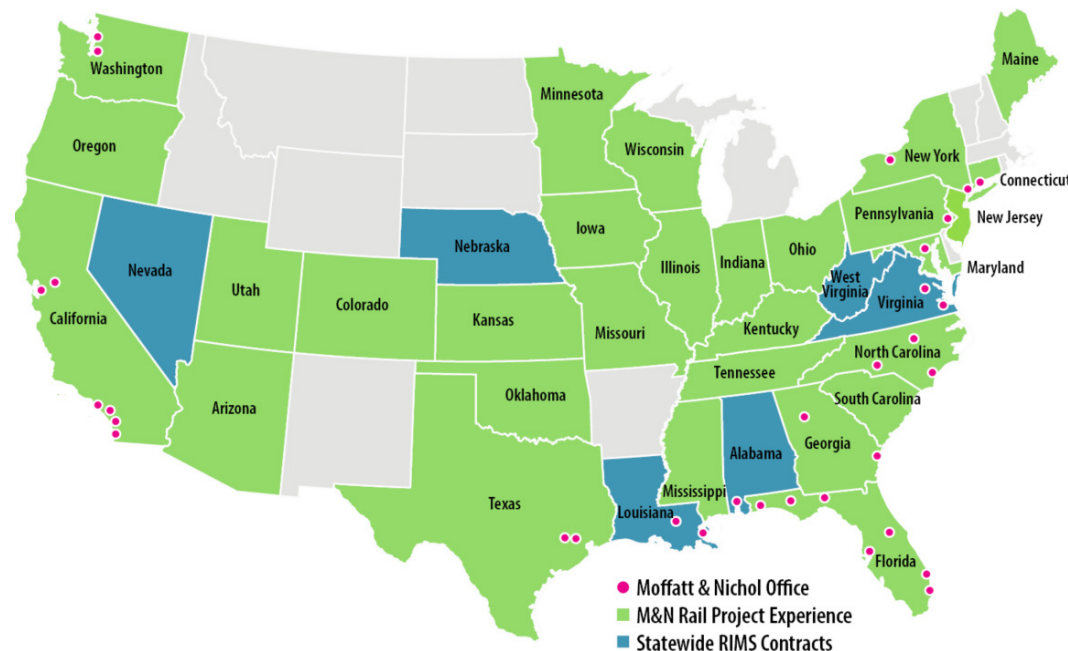
In 2011, the LADOTD contracted the services of M&N for the migration of the RSIS data on approximately 9,000 RSIS railroad crossings into a Web-based application. M&N provided the RIMS to perform the contract requirements including, but not limited to, supporting the Highway-Rail Safety Program in the evaluation and maintenance of decision critical safety data for over 2,700 public at-grade railroad crossings, maintaining awareness of over 400 public grade separations and over 2,300 private crossings, evaluating and implementing DOTD's prioritization process, implementing database improvements for FRA interaction process, support DOTD's Highway-Rail Safety Program with reports and preparation of the biannual Railroad Safety Program meetings, and maintain an ongoing interface for the Web-based system to the FRA's system while meeting FRA inventory requirements. Results of this contract were used for planning and preconstruction engineering of Highway-Rail Safety projects and DOTD's roadway construction projects that cross a railroad. In 2014 DOTD renewed the contract for an additional three years in support of existing and additional requirements per the 2015 FRA Notice of Proposed Rulemaking. In 2018 DOTD again selected M&N's RIMS, as the only off-the-shelf, ready-to-deploy service that is capable of immediately meeting all DOTD's crossing safety database and support needs, for a 5-year contract and subsequent three-year renewal marking an impressive 15 years of service to DOTD.

M&N's rail safety group is a dedicated Center of Excellence within Moffatt & Nichol and is not committed to any other assignments with LADOTD

M&N ADVANTAGE //



M&N's Web-based RIMS **currently stores and maintains** the most recent DOTD Railroad Safety Inventory data for all Louisiana Federal DOT railroad crossings. If selected, **no migration** and **no development** of RIMS would be required. DOTD's current access will continue throughout the contract timeline, meeting State Project No. H.015402.1 requirements from the start of the contract period. DOTD rail personnel will be able to proceed using RIMS as provided since 2012.



M&N WILL ADDRESS THE SCOPE OF SERVICES REQUIREMENTS AS FOLLOWS:

1. Performing a Comprehensive Evaluation

A capable crossing inventory safety system provides data that supports facilities for modeling, rating crossing safety, and general evaluation of crossing safety programs. In addition to being a data collection and QA/QC data management tool, RIMS identifies discrepancies in Railroad/FRA/State data that would not pass current FRA validation rules. M&N has provided recommendations during the data validation

process that allows railroad data managers to document practices/assumptions that mitigate a considerable amount of the documented discrepancies. Our efforts will assist railroad managers in identifying, verifying and correcting the remaining discrepancies, developing and documenting crossing data management and collection protocols, and providing support assistance as required.

2. Understanding FRA Inventory Requirements

Understanding the complex relationship between the reporting requirements defined in 49 CFR Part 234 Subpart F and the eligibility requirements for the FHWA Railway-Highway Crossings Program (23 U.S.C. 130) has been the leading factor in M&N's ability to provide a service that can successfully communicate with the FRA and meet DOTDs programming needs. Strict adherence to Federal reporting requirements, FRA system monitoring, and a framework intentionally built for adaptability to changing FRA or FHWA RHCP requirements.

3. Reviewing Discrepancies

Since 2011, M&N has provided data evaluations that concentrate on mitigating data discrepancies between the FRA, railroads, and RSIS. We will continue to evaluate the data integrity within the RIMS system with the subsequent validation results. By using approved assumptions, detailed database comparisons, and data validation techniques the overall integrity of the data will be evaluated, and specific recommendations will summarize our findings. M&N will develop data and process improvement recommendations designed to streamline crossing inventory data management, discrepancy resolution, and implementation of appropriate process changes.

4. Assisting the DOTD Project Manager

M&N's RIMS application is designed to facilitate communication with railroads and to support DOTD in identifying railroad data needs coordinating the accurate reporting of that data to the FRA GCIS. RIMS can support the submission of railroad data to the FRA GCIS for any short line railroads that elect to delegate their reporting authority to DOTD as defined in 49 CFR 234. This assists the DOTD project manager in coordinating, implementing, and managing programs at statewide, division, and section levels within DOTD.

5. Maintaining Existing Data Fields

M&N currently provides support in RIMS for DOTD-specific fields. In addition to the required FRA Part I through Part V fields, we will continue to support additional fields based on DOTD Crossing Safety Program requirements.

6. Collection of Additional FRA Data

Constant monitoring of DOTD, Railroad and FRA Data streams allows M&N to notice changes in data requirements and business rules that may not be officially documented. Our automated system is able to detect and alert us to subtle changes in policy and procedure.

7. Local Jurisdiction Inventory Data Collection

In selecting M&N, RIMS can provide provides multiple options for identifying crossing records needing updates to municipal jurisdiction data and exporting those records in multiple formats for sharing and requesting highway-rail crossing information from local entities. For this task dedicated staff in Baton Rouge will be assigned to support the DOTD Project Manager in identifying needed updates and implementing plans and procedures for requesting updates. RIMS can also support the addition of a form letter containing the relevant crossing details for the request to accompany exports.

8. Verification and Updating of Crossing Inventory

M&N has extensive experience across the country collecting and verifying crossing inventory information both virtually and in the field. M&N was one of the first firms to leverage publicly available imagery to facilitate railroad crossing inventory information management. By selectively referencing publicly available imagery, M&N minimizes expense and time requirements while maintaining high quality standards. When available imagery is not sufficient to fully capture current conditions, field teams are deployed to perform on-site inspections.



9. Web Application Compatible with GIS Database

M&N's RIMS is a hosted web application powered by a relational database. Railroad and Shortline data is continuously integrated into the database by monitoring the FRA's API. Shortlines may be granted direct access to RIMS for an additional fee and with the necessary agreements in place. Data is available in a GIS format and a robust API is available to integrate with DOTD's Enterprise Systems. A liaison with experience in ESRI Roads and Highways will be provided to facilitate LRS integration.

10. FRA Forms, Prioritization, and Searchable Reporting

M&N's RIMS application has the capability to generate inventory forms, prioritization reports, and other custom reports. Forms can be customized, for example, the inspection report currently used by DOTD in RIMS displays an approved disclaimer.

11. Submitting Regular FRA Inventory Updates to the FRA Database

M&N's RIMS application is capable of electronically submitting updated records to the FRA immediately after DOTD approval via the FRA GCIS API. As the FRA implements changes to submittal methods, updates will be incorporated. RIMS is also capable of verifying the update within the FRA GCIS and logs the approval date, submittal date and FRA verification date.

12. Enabling DOTD to Assign Security

M&N's RIMS application allows organization administrators access to the Web-based system with the ability to grant unlimited organization users with defined rights (read, write, approve, and administrator) to your account. The draft update system allows users to make changes to the FRA data that their organization is responsible for and stores information as a draft for those users that do not have approval rights. Historical records show which user made changes to drafts and approved records.



M&N's experience across the Country puts our team on the forefront of rail safety, new innovations, and best practices.

13. DOTD Personnel Training

M&N will schedule an on-site training class and field demonstration. The RIMS Web-based system features an integrated user guide and field definitions. Those familiar with RIMS will not need training to continue use.

14. Providing Application Support for The Contract

M&N's RIMS standard application features include updates in support of Crossing Safety Programs to stay in compliance with FRA/FHWA regulations, requirements, protocols, and process changes. M&N will provide DOTD access to RIMS with all functionality included in, but not limited to, the standard feature set. In addition, RIMS will have continuous development, seamless handling of FRA data conflicts, follow FRA design changes, provide help desk support, and provide annual user training. M&N will provide 120 hours of customized development at the request of DOTD management. M&N currently provides RIMS service to DOTD, WVDOT, NEDOT, NVDOT, VDOT, ALDOT, as well as Class I railroads, commuter railroads, and transit railroads. In addition, M&N's engineering staff supporting multiple rail infrastructure projects across the country use RIMS. RIMS was developed to support private and public entities as a central national database but is flexible enough to include custom features for each client's individual requirements. M&N continues to serve DOTD by providing support for customization of reports, forms, training, and coordination with FRA. M&N has maintained a proactive relationship with the FRA's Office of Railroad Safety. Our personnel have been actively involved in national committees directly involved in the development and framing of crossing safety policy and protocols including AREMA, TRB, NCUTCD, AASHTO, and the AAR. In addition, TavlaSolutions has been instrumental in working with the FRA's Office of Railroad Safety and office of Research, Data and Innovation in making recommendations, testing, troubleshooting, and overall support for their crossing inventory database systems. M&N's institutional knowledge and ongoing communication with FRA National Crossing Safety database managers grants us the unique capability of addressing cross-safety data issues and procedures in a

timely manner for the DOTD and our clients. We appreciate the opportunity to continue our service to DOTD.

15. A System with a User-Friendly Interface

M&N's RIMS application uses a responsive design that is effective and usable both on desktop and mobile devices. User management is intuitive and allows office supervisors to monitor and QC field collection crews.

16. Highway Rail/Safety Prioritization Process Evaluation

M&N's RIMS application integrates a multimodal approach into its rating models. Crossing lists can be scored with one or several different models at the same time to enable easy comparison and analysis.

Integrated Models:

- ✓ FRA APS86 (FRA WBAPS/GRADEDEC)
- ✓ FRA APS20 (GRADEDEC)
- ✓ The New Hampshire model
- ✓ LADOTD-1 (Original Model)
- ✓ LADOTD-2 (Modified New Hampshire Rating)
- ✓ LADOTD-3 (Modified New Hampshire Rating with Speed Factor)

**M&N is an expert in developing cost benefit models
in an FRA-compliant environment**

17. DOTD Annual Railroad Safety Program Support

M&N has supported this process since 2012 by compiling the available data sources via a partially manual process which can easily be continued. Available data sources have improved to the point that additional process automation can be included, allowing DOTD to schedule data collection deadlines and matrix report generation as dictated by funding schedule needs.

18. Corridor Evaluation Planning Support

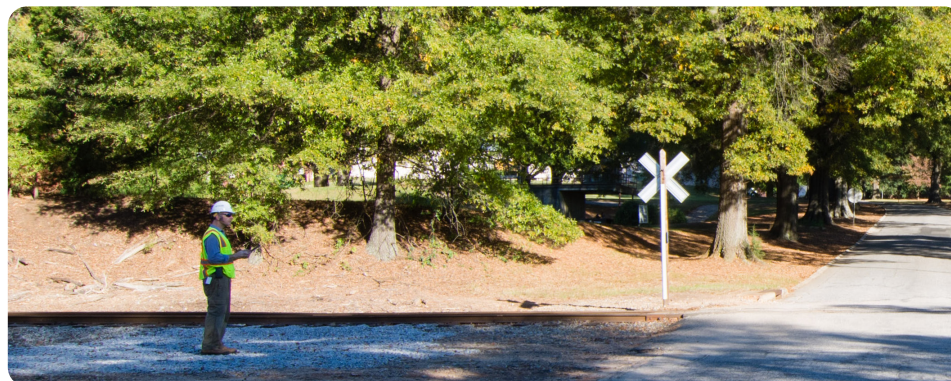
We will utilize the advanced selection capabilities of RIMS to select and manage the corridors in support of the evaluation process. Engineering and economic advisors are available to support the inclusion of benefit cost methodologies for identifying or prioritizing corridor improvement projects.

19. Vertical Profile of Public At-Grade Crossings Evaluation

Using a GIS we will extract profiles that follow the roadway geometry from the highest available resolution LiDAR data. The profiles will be scored based on the methodology described in Roadway Design Standards to Accommodate Low-Clearance Vehicles section of Transportation Research Record No. 1356 (Ronald Eck and S. K. Kang). Scoring will allow us to determine the severity of the profile as well as the tolerance of profiles that are not classified as high profile yet. The methodology will be automated by our proprietary software in such a way that it would allow for potential of inclusion into the RIMS package.

20. Prioritizing Crossings

A scoring system will be developed based on the above criteria. Using M&N's in-house developed multimodal network analysis toolkit, alternate routes for a crossing will be discovered and measured. Scores will be developed for crossings with significant detour costs as well as crossing with insignificant detour costs. The scoring system will be used to build a prioritized list of crossings.



19. Workload:

For all contracts where a firm on the team is a prime consultant or sub-consultant and where **a)** the consultant selection was made by DOTD, and **b)** a contract was executed by the consultant and the contracting entity by the date the advertisement for this proposal was posted, list all work meeting the following criteria:

- 1) one of the team's firms is responsible for the performance of the work;
- 2) authorization to perform the work has been provided, as provided in the contract between the consultant and the contracting entity;
- 3) the work has not yet been performed and invoiced; and
- 4) the work is not currently suspended for an indefinite period of time.

For indefinite delivery/indefinite quantity (IDIQ) contracts, list open Task Orders individually.

List only the portion of the fees attributable to firms on the team.

Firm(s) ALL FIRMS MUST BE REPRESENTED IN THIS TABLE	Discipline(s) *	Contract Number and State Project Number	Project Name	Remaining Unpaid Balance**
Moffatt & Nichol, Inc.	Data Collection, Traffic, Planning	4400031911 H.011331.1	IDIQ Inventory and Inspection of Sign and Radio Towers Statewide - Task Order No. 1	\$1,724,340
	Bridge	4400029683 H.009730.5	IDIQ In-Depth Bridge Inspection - Task Order No. 1	\$472,419
	Bridge	4400029207 H.009730.5	IDIQ Contract for Underwater Bridge Inspection Statewide - Task Order No. 1	\$1,771,329
	Bridge	4400023512 H.009730.5	IDIQ In-Depth Bridge Inspection of Complex Structures - Task Order No. 4	\$70,703
	Bridge	4400023512 H.009730.5	IDIQ In-Depth Bridge Inspection of Complex Structures - Task Order No.7	\$54,362
	Data Collection, Traffic, Planning	4400011834 H.012811.1	DOTD Railroad Inventory Systems Railroad Inventory Upgrade Statewide Supplemental Agreement No. 1	\$21,703

(Add rows as needed)

DO NOT SUM

* **The only disciplines to be used are: Appraiser, Bridge, CE&I/OV, CPM, Data Collection, Environmental, Geotech, ITS, Other (must specify), Planning, Right-of-Way, Road, Survey, and Traffic.** If a firm has more than one discipline for any single project, the firm can use multiple rows to express the remaining unpaid balance per discipline.

** Round to the nearest dollar. **Do not** round to the nearest thousands. If there are no active contracts with a remaining unpaid balance, place N/A in the Remaining Unpaid Balance column. NOTE: **ALL** FIRMS MUST BE REPRESENTED IN THIS TABLE. LEAVING THE "REMAINING UNPAID BALANCE" COLUMN BLANK IS NOT ACCEPTABLE.

Moffatt & Nichol, Inc.

20. Certifications/Licenses:

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

Moffatt & Nichol				
Staff	Title	PE License	PMP	GISP
Jonathan Hird, PE, CEng, FICE 	Principal in Charge	☒		
Richard Cranfill 	Project Manager			
Ric Cruz 	Project Prioritization Support/Benefit Cost Analysis			
Indya Major	Project Administrator			
Dylan Liverman 	Development Operations			
Nathan Wilson	Development Lead			
Amy Mindick, PMP 	Quality & Analytics Lead		☒	
Dwight Otwell, GISP 	GIS Liaison			☒
Brenda Dreisbach	Project Prioritization Support/Benefit Cost Analysis			
Amr Zaher, PE 	Highway-Rail Safety Corridor Evaluation	☒		
Keith Gillfillan, PE	Highway-Rail Safety Corridor Evaluation	☒		
Dan Solomon	Project Prioritization Support/Benefit Cost Analysis			
Chace Hulon, PE	Infrastructure Inspection Lead	☒		
Michael Franco	Data Acquisition Support			
Phil Balmeo, PE, LEED AP	Highway-Rail Safety Corridor Evaluation	☒		

Moffatt & Nichol



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

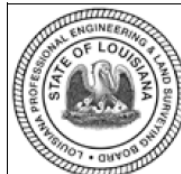
Mr. Jonathan Paul Hird

License/Certificate Type - Number

PE.0032299

Status: **Active**

Exp Date: 09/30/2026



LOUISIANA PROFESSIONAL
ENGINEERING & LAND SURVEYING BOARD
(LAPELS)
8550 United Plaza Blvd, Suite 903
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Chace Mikel Hulon

License/Certificate Type - Number

PE.0039701

Status: **Active**

Expiration Date

09/30/2027



BOARD FOR PROFESSIONAL ENGINEERS,
LAND SURVEYORS, AND GEOLOGISTS



This Is To Certify That Pursuant
To The Provisions of Chapter 7, Division 3 of the Business and Professions Code

Amr Mohamed Zaher

IS DULY LICENSED AS A
PROFESSIONAL ENGINEER
IN
Civil Engineering

In The State of California, and Is Entitled To All The Rights and
Privileges Conferred In Said Code

WITNESS OUR HAND AND SEAL

Certificate No. **C 85826**

This 26th day of May, 2016, at Sacramento, California.

BOARD FOR PROFESSIONAL ENGINEERS,
LAND SURVEYORS, AND GEOLOGISTS



Richard B. Moore
Richard B. Moore, P.L.S. – Executive Officer

Robert A. Stockton
Robert A. Stockton, P.E. – Board President



BOARD FOR PROFESSIONAL ENGINEERS, LAND SURVEYORS, AND GEOLOGISTS

LICENSING DETAILS FOR: 65475

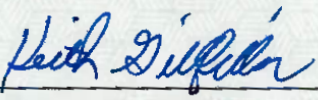
NAME: BALMEO, PHILLIP HERRING

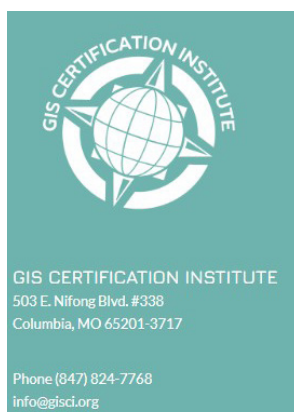
LICENSE TYPE: CIVIL ENGINEER

LICENSE STATUS: CLEAR 

ADDRESS

2809 CHARLEMAGNE AVE
LONG BEACH CA 90815
LOS ANGELES COUNTY

Board for Professional Engineers, Land Surveyors, and Geologists 2535 Capitol Oaks Drive, Suite 300 Sacramento, CA 95833-2944 (916) 999-3600 Toll Free: (866) 780-5370 www.bpelsg.ca.gov	
 	
Civil Engineer	
Certificate No. C 30434	Expiration 3/31/2028
KEITH ALAN GILLFILLAN 421 E BAY AVE NEWPORT BEACH, CA 92661-1267	
Signature 	Receipt No. 60352491



Dwight Otwell

Sr GIS Specialist / Project Manager

☒ GISP Approved

Active

Cert Number: 45570

Expiration: 07/25/2028

Zip: 27609

21. QA/QC Plan: N/A

If the advertisement requires submission of a QA/QC plan, include it here. **Otherwise, leave this section blank. If a QA/QC plan is included in this section and was not required by the advertisement, it will be redacted.**

22. Sub-consultant information: **N/A**

If one or more sub-consultants will be used, provide the name, address, point of contact and phone number for each. Otherwise, leave this section blank.

Firm Name (Name must match <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

(Add rows as needed)

23. Location:

If location is an evaluation criterion for this advertisement (see page 2) and the prime consultant intends to establish a local presence, describe the plan for doing so. **Otherwise, leave this section blank. Any information included in this section will be redacted if not required by the Evaluation Criteria section of the advertisement.**



moffatt & nichol

Contact:

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