

## **Prequalifications**

Statewide On-Call Construction Engineering and Inspection Services Prequalified List of Consultants for locally administered LPA Qualifications-Based Selection Contracts





169 Ocean Boulevard/PO Box 249 Hampton, NH 03842 603.601.8154 TheEngineeringCorp.com Create | Design | Innovate

February 2, 2024

Tobey Reynolds, PE Assistant Director of Project Development Chairman, Consultant Selection Committee New Hampshire Department of Transportation 7 Hazen Drive, PO Box 483 Concord, NH 03301

Re: Statewide On-Call Construction Engineering and Inspection Services Prequalified List of Consultants for locally administered Local Public Agency (LPA) Qualifications-Based Selection Contracts

Dear Mr. Reynolds:

**TEC, Inc.** (TEC) is pleased to submit the attached Letter of Interest/qualifications package to the New Hampshire Department of Transportation (NHDOT) which demonstrates TEC's capabilities to be prequalified on the Department's "Long List" for Construction Engineering (CE) services as part of the Local Public Agency (LPA) process. In accordance with *NHDOT Notice 2020-03*, this listing will allow LPAs yet another option for managing their federally-funded construction project.

TEC is a local, multidisciplinary engineering consulting firm located in Hampton, NH, that provides structural, transportation, traffic, civil-site design, and construction administration services to public agencies and municipalities throughout New England. We have been serving our public transportation clients for 20 plus years. During this time, we have sustained considerable growth to over 70 full-time employees due to our unwavering dedication to our clients and their projects. Our *recently completed LPA CE projects* along **High Street and the School Campus Connector Trail in Somersworth** are prime examples in demonstrating TEC's competence and experience for CE services while working with an LPA. We are providing you the enclosed requested information including our project understanding and approach, project team, organizational chart with associated team classifications (and LPA certifications), relevant project references, resumes, and applicable work experience.

We have aligned ourselves with **Normandeau Associates** (Normandeau) and **Doucet Survey** (Doucet), whose seniorlevel personnel have decades of relatable, NHDOT/LPA project experience and are committed to collaborating with TEC on this endeavor. We intend to retain a qualified material testing company upon receipt of assignment.

Thank you again for your consideration. We are hopeful for the opportunity to demonstrate that we will be a valuable and reliable construction engineering resource for LPAs as a continuing member on the Department's "Long List." Please do not hesitate to contact us at (603) 601-8154 if you have any questions about the TEC Team.

Sincerely, TEC, Inc. "The Engineering Corporation"

Jody P. Trunfio, PE Principal/Contract Manager jtrunfio@theengineeringcorp.com

Enclosure



## Project Understanding & Approach



## Project Understanding & Approach

The TEC team is familiar with the administrative requirements, procedures, and practices related to the planning, design, funding, and construction of transportation projects through the LPA process. Annually, roughly \$45 million dollars of Local Federal Aid is appropriated through various programs, including TAP, CMAQ, HSIP, MOBRR, MUPCA, and Emergency Relief where municipalities, school groups, state agencies and in some instances nonprofits serve as subrecipients. However, we understand this management option is new per NHDOT Notice 2020-03, designed to eliminate potential conflicts of interest between the PE and CE, and that the rules may change over time. Since the beginning of 2021, an LPA must utilize separate consultants for PE and CE services per NHDOT Notice 2020-05. This contract will provide another option to the project sponsor for utilizing and managing federal funding.

Our team has experienced personnel to provide NHDOT with construction-related engineering services, including LPA federally-funded projects. Recently, TEC completed the LPA/CMAQ & LPA/TAP Projects in Somersworth. Both Doucet and Normandeau are actively working on LPA projects, which are further explained in the Applicable Work Experience section.

Once NHDOT's Notice to Proceed to Award the Low Bid letter is sent from NHDOT to the LPA, officially starting the CE process, TEC's Contract Manager will scope our efforts and engage our team to manage the construction process through project closeout. We will collaborate with NHDOT, the Federal Compliance Officer, the municipality, consulting firms, and contractors to ensure projects are constructed according to the design, schedule, and budget.

TEC will be responsible for scheduling, documenting, and leading a successful **preconstruction meeting**, held prior to the start of the project to establish the schedule and key contacts. We will discuss special requirements such as specific details in the contract documents, utility coordination, material testing, the quality assurance program, and communication with stakeholders, local officials, and emergency responders.



TEC will verify that work is performed in accordance with the approved plans and that resources and infrastructure is protected.

Once construction starts, The TEC team will provide dedicated staff, rich with field engineering experience, that possess a keen understanding of day to day construction engineering and inspection (CE&I) service responsibilities. Our team members provide construction oversight both in the office and field for projects that TEC and other firms have designed, including bridges, roadways, and traffic signals. Our CE&I staff will ensure conformance with contract documents and verify that municipal infrastructure is not compromised. Their responsibilities include taking measurements, performing elementary survey, record keeping, material inspections, reviewing contractor CPM schedules and updates, developing as-built drawings, shop drawing reviews, contract quantity calculations, preparing pay estimates, ensuring state and federal EEO compliance, completing contractor performance records, and ensuring contractor wage compliance.

Daily participation or "close to full time" oversight and inspection is paramount for any LPA construction project. It allows the on-site CE professionals dedicated to the project to stay up to date on project progress, on-site data collection for work completed, timely LPA communication, and reviewing and reacting to unforeseen site conditions in a timely fashion. Most importantly, it is needed to satisfy Office of Access, Opportunity & Compliance requirements. This type of availability and involvement is critical to keeping the construction project on schedule and

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TEC The Engineering Corp

avoiding project delays due to the lack of on-site representation and communication. Ensuring project compliance through inspection and oversight is critical to the LPA to ensure that federal funds are properly utilized. Having a "constant face" is the preferred approach that TEC takes for managing the CE process both in the office and out in the field. Having continuity in project staffing ensures familiarity with other project stakeholders and minimizes information getting "lost in translation" through staffing substitution.

Our field engineers are attuned to preparing sound project records through our vast construction inspection experience on LPA and other locallymanaged projects. Preparing **detailed**, **daily**, **field reports tracks and memorializes the project story** and is extremely useful for reviewing monthly payment requisitions, tracking project quantities for various pay items, and retracing past project occurrences. Other project record documentation vital to a CE project include correspondence files such as NTP documentation, field book calculations, change orders, material deliveries, certificates of compliance, material testing reports, OAOC records, working plans and as-built plans, and Buy America certificates.

TEC's qualified personnel will also be tasked with supporting the LPA with construction reimbursement requests to the Department. TEC will assist in compiling the necessary information that demonstrates work performed by the contractor and paid for by the project sponsor is compliant with OAOC requirements and eligible for reimbursement. Other pertinent documentation submitted with the monthly request includes status reports, certification statements, and TEC's certified item summary of the work completed in the reimbursement request.

As work may sometimes be required that is different or in addition to the work provided for the contract documents, TEC's CE personnel will work with the Project Sponsor to **review and accept any modifications** of the existing contract through change orders with prior approval from the Department. Depending on the type of change order, TEC will be involved either through review of the request, the preparation of an Independent Government Estimate (IGE), or through the negotiation and coordination with NHDOT through its approval. and acceptance of construction materials. Working with the Department's Materials and Research Bureau, TEC will retain a subconsultant, both NETTCP and ACI certified, and familiar with LPA, NHDOT, and OAOC requirements to perform a Quality Assurance Program (QAP) for on site material testing in accordance with the Department's documented standards. Ensuring acceptable materials are used on site during construction is essential to the longevity and durability of the infrastructure constructed.

Upon construction completion, TEC will lead the final inspection along with the Project Sponsor, Contract Administrator, Contractor, NHDOT Project Manager, and FHWA representative to develop the **project punch list** with the Contract Administrator, identifying flaws or incomplete work required to be corrected and completed per the contract requirements. Upon contract completion of the punchlist items, TEC's Contract Manager will work with Project Sponsor to prepare and issue the **Complete and Accepted letter** acknowledging the date for which the project is turned over to the Project Sponsor for perpetual maintenance of the completed infrastructure.

At project completion, TEC has the personnel capable with assisting the Project Sponsor with final reimbursement and project close out, assisting in the preparation of the necessary LPA paperwork, including a completed Final Reimbursement Checklist with associated documents such as final lien waiver forms, final completion forms, and consent of Surety forms. TEC will work with the contractor to develop, finalize, and issue, electronic, half-sized and full-sized as-built plans documenting all changes, as well as materials certifications. Additionally, final construction photos will be filed to document completed work and the condition of the infrastructure at the time that the project is turned over to the Project Sponsor. Lastly, TEC will assist the Project Sponsor in developing the Financial Summary identifying a breakdown of participating and non-participating costs, working with the PE consultant as appropriate for the earlier LPA project phases.

#### Critical with any construction project is the testing



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## **Organizational Chart**



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## **Organizational Chart**

For this contract, TEC will serve as prime and provide CE&I services, Doucet Survey, LLC (Doucet) will provide SURV services, Normandeau Associates (Normandeau) will provide ENV services, and our team member for TEST will be identified once the project is assigned in order to provide the LPA with more flexibility in selecting a preferred consultant. The chart below depicts the organization of our team.



#### TEC has 21 team members that are LPA certified.



## **Project Team**



## **Project Team**

TEC, Inc. (TEC) is an award-winning, multidisciplinary engineering firm that provides transportation, civil, and structural design and construction management services to municipalities, private entities, and other public agencies throughout New England. Located in Hampton, NH, with two offices in MA, the firm has over 70 planning, permitting, design, and construction professionals, of which 12 engineers are licensed to practice in NH. In addition, we are pregualified with NHDOT and have 21 team members that are LPA certified with some renewing in 2024. TEC is municipally focused and municipalities represent approximately 80% of our client base. We have assisted over 150 communities with their projects, including Seabrook, Brentwood, Raymond, Portsmouth, Dover, Manchester, Nashua, Salem, Londonderry, and Stratham in NH. TEC has recently completed CE&I services on two separate projects through CMAQ and TAP Grants with the City of Somersworth.

The table below shows all the staff that we anticipate using on LPA projects, their experience, classifications, licenses, and certifications. Prior to construction beginning on any task assigned to TEC by the Department, we will ensure our team of varying engineering disciplines either renews or obtains their LPA and OAOC certifications as recommended by the Department.

#### **Key Personnel**

Following are summaries of our staff anticipated to be used on typical LPA CE projects:

#### TONY CIOLFI, PE | Project Manager/Senior Highway Inspector

Tony is a transportation engineer with experience in highway/roadway design and construction oversight. He will be NHDOT's **single point of contact** for this assignment. Tony will maintain clear lines of communication and will be responsible for ensuring that this project is constructed in accordance with the contract documents; recording and maintaining all documentation; and that project materials meet or exceed federal, state, and industry standards. He will ensure that projects are completed to NHDOT's and FHWA's objectives, schedule, and budget.

Tony meets all the requirements for this role, including having physical highway construction inspection experience on NHDOT projects and practical application with the procedures of the Department and with the NHDOT Standard Specifications for Road and Bridge Construction. Tony was the Project Manager for the CE&I services on the two Somersworth projects including the traffic signal upgrades at six (6) intersections along High Street, as wel as the rehabilitation of the School Campus Connector Trail. He provided CEI management services to the Banfield Road transportation improvement project in Portsmouth. He has other pedestrian improvement project experience including the Driftway Complete Streets project in Salsibury, MA and also oversaw the construction of the Silver Street Roundabout in Dover. His NHDOT experience includes I-93 Widening Project at Exit 4 in Londonderry and the NH Route 113 in Holderness.

CE&I Services LPA Projects	in Support of	Years of Experience	Y ears with Firm	PM/CONSTRUCTION ENG. OF RECORD	ENGINEER INSPECTOR - LEVEL III	ENGINEER INSPECTOR - LEVELII	ENGINEER INSPECTOR - LEVELI	LPA CERTIFIED	NH LICENSED PE	NH LICENSED SURVEYOR	OAOC CERTIFIED	CESSWI CERTIFIED	CPESC CERTIFIED	NETTCP CERTIFIED	NH CERTIFIED WETLAND SCIENTIST	Professional Traffic Operations Engineer	Road Safety Professional	OSHA 10-Hour Certification	OSHA 40-Hour HAZWOPPER Certification
Tony Ciolfi, PE	Project Manager/Senior Highway Inspector	30	8	X				Х	Х		Х							Х	
Jody Trunfio, PE	Principal in Charge/Contract Manager	23	22					Х	х		Х							Х	
Sam Gregorio, PE, PTOE, RSP1	Senior Signal Inspector	13	13		Х			Х	Х							Х	Х	Х	
Kevin Dandrade, PE, PTOE	Principal Signal Inspector	27	19	1	Х		i I	Х	Х							Х		Х	
Greg Gaudreau, PE	Senior Bridge Inspector	19	3		X			х	х									х	
Jason Brzezowski, EIT	Highway Inspector	19	6			Х		Х										Х	
Patrick Hanlon	Highway Inspector	27	5			Х		Х						-				Х	
Lee Kreplick	Highway Inspector	9	9				Х	Х											
Brenna Heinley, EIT	Highway Inspector	3	3				Х	Х			Х								
Megan Cramton	Highway Inspector	2	2				Х	х										Х	
Andrew Spurr, PE	Bridge Inspector	8	7			Х												Х	
Melanie Martell	Bridge Inspector	1	1				Х	Х										Х	
Matt Miloro, EIT	Bridge Inspector	2	2				Х	Х										Х	
Jeremy Harvey	Bridge Inspector	<1	<1				Х	Х										Х	
Steve Michaud, PS (Doucet)	Survey Consultant	28	26		Х					Х								Х	
Ben Griffith (Normandeau)	Environmental Inspector	15	9	-	X					-					Х				Х

NHDOT

Statewide On-Call Construction Engineering and Inspection Services Prequalified List of Consultants for locally administered LPA Qualifications-Based Selection Contracts



PROJECT TEAM

#### JODY TRUNFIO, PE | Principal in Charge/Contract Manager

Jody is a structural engineer and the Principal servicing TEC's Hampton office. He will ensure that the firm's resources meet the demands required for LPA projects with the commitment of quality, safety, delivery, and cost control. Jody has overseen the design and construction of numerous bridges ranging in design complexity including single and multi-span girder bridges, deck and through trusses, and arch bridges for highways and railroads. He currently serves as the project manager for TEC's design efforts on NHDOT's Hampton to Portsmouth Rail Trail and US Route 1 bridge project in Hampton, and was contract manager for both of the Somersworth LPA CE&I projects.

#### SAM GREGORIO, PE, PTOE, RSP, | Senior Signal Inspector

Sam is a senior traffic engineer who has overseen the construction and provided close-out inspections for many traffic signal and transportation infrastructure projects. For the Woodbury Ave Signal Interconnect LPA/CMAQ Project, he managed the transportation planning, permitting, and design, and performed all the signal inspections as part of the project's CE services.

#### KEVIN DANDRADE, PE, PTOE | Senior Signal Inspector

Kevin is a traffic engineer and one of TEC's "working principals." He has overseen the planning, design, and construction monitoring for many transportation projects in NH. He worked with Sam on the Woodbury Ave Signal Interconnect LPA/CMAQ Project in Portsmouth, and managed the Central Ave/Route 108 LPA/ CMAQ Signal Design Coordination in Dover.

#### **GREG GAUDREAU, PE | Senior Bridge Inspector**

Greg has experience inspecting, designing, and overseeing the construction of culverts and various bridge types, including steel, concrete, and timber bridges. He has reviewed contractor shop drawings, RFI responses, performed field visits, attended team meetings, provided reports, and ensured quality.

#### STEVE MICHAUD, PS (Doucet) | Survey Consultant

Steve, Doucet's SVP, has worked on various Federal Aid projects that have included 100 miles of municipal transportation projects throughout NH, many of these being LPA projects. Steve is well versed in providing construction layout, deformation and as-built surveys in accordance with NHDOT standards.

#### BEN GRIFFITH (Normandeau) | Environmental Consultant

Ben is a wildlife biologist and NH-Certified Wetland Scientist with experience providing natural resource services on road, bridge, and other infrastructure projects, including construction and post construction monitoring. He worked on the LPA New Castle Avenue Road and Seawall Reconstruction in Portsmouth.

#### JASON BRZEZOWSKI, EIT | Highway Inspector

Jason has experience providing construction monitoring and site development, traffic, and highway engineering services for municipalities and DOTs in New England. His NHDOT design experience includes the I-93 Widening Contract H from Salem to Manchester, I-93 Exit 4A in Londonderry and Derry, and I-293 Exit 4 Bridge Rehabilitation (5 Millyard Bridges) in Manchester.

#### PATRICK HANLON | Highway Inspector

Patrick has managed various municipal roadway improvement projects in four New England states. He has overseen construction on behalf of contractors, municipalities, and TEC. He provides on-site construction inspection for many **federal and state-funded projects** to ensure conformance with contract documents. He recently finished overseeing the construction of the \$9M Merrimack St Corridor in Lawrence, MA. He monitored contractor progress, quantities, and the budget, and provided the City with up-to-date reports.

#### CHRIS RAYMOND, PE | Highway Inspector

Chris is a civil engineer and oversees the construction of many municipal transportation projects. He recently oversaw the construction of the Woodbury Ave Signal Interconnect LPA/CMAQ Project in Portsmouth. Chris currently serves as the Project Manager for the Town of Seabrook's on-call municipal engineering services and has performed over 70 assignments, many involving construction observation and monitoring.

#### BRENNA HEINLEY, EIT | Highway Inspector

Brenna has provided CEI services on many transportation projects. She was the CE Inspector for our two Somersworth projects. Her experience includes completing cost estimates, permits, and site plans as part of the sewer outfall pipe replacement within the Route 286 Corridor in Seabrook, and has overseen the construction of subdivision roadways and driveways in Brentwood.

#### ANDREW SPURR, PE | Bridge Inspector

Andrew has significant experience with MassDOT and municipal clients, and is experienced in bridge design, inspection, and rehabilitation; and maintenance of various structural elements. His experience includes project management, scheduling, structural analysis, design calculations, preparation of project specifications, cost estimating, construction administration services and utility coordination.

NHDOT Statewide On-Call Construction Engineering and Inspection Services Prequalified List of Consultants for locally administered LPA Qualifications-Based Selection Contracts



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## References



Blaw-Knox

## References

# 1. Amber Hall, PE City Engineer City of Somersworth Engineering Office One Government Way Somersworth, NH 03878 ahall@somersworthnh.gov (603) 692-9524 RE: CMAQ Grant CEI Services & TAP Grant CEI Services

#### 2. David Desfosses

Project Manager City of Portsmouth Department of Public Works 680 Peverly Hill Road Portsmouth, NH 03801 djdesfosses@cityofportsmouth.com (603) 498-4747 RE: Woodbury Avenue Signal Interconnect LPA project

#### 3. Brendan O'Regan

Public Works Director Town of Saugus 515 Main Street Saugus, MA 01906 boregan@saugus-ma.gov (781) 231-4145 RE: Water Street State Bridge Aid project



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## Appendix



## Resumes

#### Tony Ciolfi, PE PROJECT MANAGER/ SENIOR HIGHWAY INSPECTOR



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YEARS WITH TEC

9

- Bachelor of Science in Civil Engineering
- Licensed PE in NH
- LPA & OAOC Certified
- LPA physical construction experience
- NHDOT Labor Compliance Certification
- OSHA-10 Certified

Tony is a transportation engineer with experience in highway/roadway design and construction oversight and will serve as the Project Manager for this contract. His expertise includes intersection redesign, roadway design, traffic control plans, drainage design, wetland application and mitigation design, and construction inspection. He has experience providing CEI services on numerous transportation projects including six (6) High Street intersections and the School Campus Connector Trail in Somersworth, Woodbury Avenue in Portsmouth, the Merrimack Street Corridor, the Silver Street Roundabout, the Driftway Corridor improvement project and served as Project Manger on the recently completed Banfield Road transportation improvement project. Tony also has physical highway construction inspection experience on NHDOT projects. His strengths include incorporating all project elements of design into the completion of PS&E documents for roadway improvement projects that range from large, state DOT highways to local municipal intersection designs.

#### **Relevant Project Experience**

- Six (6) High Street Intersections, Somersworth, NH - Project Manager (See Applicable Work Exp.)
- School Campus Connector Trail, Somersworth, NH - Project Manager (See Applicable Work Exp.)
- Silver Street Roundabout, Dover, NH Project Engineer/Construction Inspector (See Applicable Work Exp.)
- Merrimack Street Corridor Roadway Improvements, Lawrence, MA - Project Engineer/Construction Inspector (See Applicable Work Exp.)
- NHDOT US Route 1 Bridge over NHRR, Hampton, NH Highway Engineer

#### Jody Trunfio, PE PRINCIPAL-IN-CHARGE/ CONTRACT MANAGER

- Master of Science in Civil Engineering
- Bachelor of Science in Civil Engineering
- Licensed PE in NH
- LPA & OAOC Certified
- FHWA-NHI-130053 Bridge Inspection Refresher
- FHWA-NHI-130078 Fracture Critical Inspection Techniques for Steel Bridges
- FHWA-NHI-130055 Safety Inspection of In-Service Bridges
- OSHA-10 Certified

Jody is a structural engineer and Principal serving TEC's Hampton office. His experience includes new and rehabilitated bridge design and construction inspection, bridge confirmatory inspection and capacity ratings, retaining walls, and building design. Jody has overseen the design and construction of numerous bridge types ranging in design complexity including single and multi-span girder bridges, deck and through trusses, and arch bridges for highways and railroads. His managerial responsibilities have included the overall administrative, contractual, financial, and technical leadership of transportation projects, as well as interaction with public and private clients, supervision of subconsultants, and coordination with state and local agencies.

#### **Relevant Project Experience**

- Six (6) High Street Intersections, Somersworth, NH - Principal-in-Charge (See Applicable Work Exp.)
- School Campus Connector Trail, Somersworth, NH - Principal-in-Charge (See Applicable Work Exp.)
- NHDOT US Route 1 Bridge over NHRR, Hampton, NH TEC Principal-in-Charge
- NH-286 Blackwater Bridge Sewer Line Replacement, Seabrook, NH - Principal-in-Charge
- Water Street Bridge Replacement, Saugus, MA -Senior Project Manager (See Applicable Work Exp.)
- Signature Bridge, Lowell, MA Principal-in-Charge
- Market Street Bridge & Route 3A Widening, Hookset, NH - Senior Structural Engineer
- Merrimack Street Corridor Roadway Improvements, Lawrence, MA - Structural Project Manager



NHDOT Statewide On-Call Construction Engineering and Inspection Services Prequalified List of Consultants for locally administered LPA Qualifications-Based Selection Contracts



#### Sam Gregorio, PE, PTOE, RSP<sub>1</sub>

SENIOR SIGNAL INSPECTOR

- Master of Science in Civil Engineering
- Bachelor of Science in Civil Engineering
- Licensed PE in NH
- LPA Certified
- LPA physical construction experience
- Professional Traffic Operations Engineer (PTOE)
- Road Safety Professional
- OSHA-10 Certified

Sam is a Senior Design Engineer for the Transportation Planning and ITS Group and has over 12 years of experience in civil engineering. He leads TEC's traffic engineering design and planning, and delivers quality engineering solution to clients across New England. His expertise includes traffic impact and parking analysis, multimodal and Complete Streets roadway design, Temporary Traffic Control Plans (TTCPs), Road Safety Audits (RSAs), traffic signal timing/infrastructure layout, and construction inspections.

YEARS EXPERIENCE

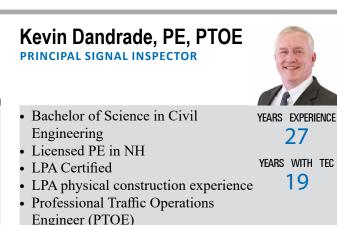
13

YEARS WITH TEC

13

#### **Relevant Project Experience**

- Woodbury Avenue Traffic Signal Interconnect LPA/ CMAQ Project, Portsmouth, NH - Project Manager: Sam managed the transportation planning, permitting, and design, and performed all the signal inspections for seven intersections as part of the project's CE services. (See Applicable Work Exp.)
- Silver Street Roundabout, Dover, NH Senior Traffic Engineer (See Applicable Work Exp.)
- NHDOT NH-286 Blackwater Bridge Sewer Line Replacement, Seabrook, NH - Senior Traffic Engineer
- Stratham Safe Routes to School, Stratham, NH Deputy Project Manager
- Union Avenue Corridor Study, Laconia, NH Lead Traffic Engineer
- Downtown Traffic Flow Study, Laconia, NH Traffic Engineer
- Maplewood Avenue Road Diet, Portsmouth, NH -Senior Traffic Engineer
- Woodmont Planned Unit Development, Londonderry, NH - Senior Traffic Engineer



**OSHA-10** Certified

Kevin is a traffic engineer and one of TEC's "working principals." He has overseen the planning, design, and construction monitoring for numerous transportation projects in New Hampshire. His experience includes master plans, site plans, corridor studies, traffic impact evaluations, parking studies, traffic management plans, roadway and infrastructure design, traffic signal design and inspection, Complete Streets/multimodal design, site access and parking design. Kevin received the "Transportation Engineer of the Year Award" from the New England Section of the Institute of Transportation Engineers in 2018.

#### **Relevant Project Experience**

- Woodbury Avenue Traffic Signal Interconnect LPA/ CMAQ Project, Portsmouth, NH - Principal in Charge: Kevin oversaw the transportation planning, permitting, and design, and signal inspections for seven intersections. (See Applicable Work Exp.)
- Silver Street Roundabout, Dover, NH Project Manager (See Applicable Work Exp.)
- Maplewood Avenue CMAQ Project, Portsmouth, NH Senior Traffic Engineer
- Central Avenue/Route 108 CMAQ Signal Design Coordination, Dover, NH - Project Manager
- Market Street Bridge & Route 3A Widening, Hooksett, NH - Project Manager
- Woodmont Commons Planned Unit Development, Londonderry, NH - Principal in Charge & Transportation Leader
- Granite Street Corridor Design, Manchester, NH -Senior Traffic Engineer
- Loudon Road Pedestrian Safety and Corridor Study, Concord, NH - Lead Project Engineer
- Downtown Laconia Two-Way Conversion Study, Laconia, NH - Project Manager



#### Greg Gaudreau, PE

SENIOR BRIDGE INSPECTOR

- Bachelor of Science in Civil Engineering
- Associate of Science in Civil & Environmental Technology
- LPA Certified
- Licensed PE in NH
- OSHA-10 Certified

Greg is a structural engineer with experience inspecting, designing, and overseeing the construction of culverts and various bridge types, including steel, concrete, and timber bridges. During construction, he has reviewed contractor shop drawings, RFI responses, performed field visits, attended team meetings, provided reports, and ensured quality.

#### **Relevant Project Experience**

- NH-286 Blackwater Bridge Sewer Line Replacement, Seabrook, NH - Senior Structural Engineer
- Broadway Street Railroad Culvert, Dover, NH -Senior Structural Engineer
- Shatagee Road Culvert Replacement, Raymond, NH - Senior Structural Engineer
- Sutton Road Bridge over Sucker Brook, Webster, MA- Senior Structural Engineer
- Manchaug Road over Mumford River, Sutton, MA -Senior Structural Engineer
- District 4 Bridge Preservation Contract, Various Locations, MA - Senior Structural Engineer
- Belmont Street Bridge Rehabilitation, Worcester, MA - Senior Structural Engineer
- Apple Street Culvert Replacement, Essex, MA -Senior Structural Engineer

### Steve Michaud, PS SURVEY CONSULTANT (DOUCET)

- Bachelor of Science in Resource Economics Licensed PS in NH
- Licensed Land Surveyor in NH
- OSHA-10 Certified



YEARS AT DOUCET 26

Steve, Doucet's Senior Vice President, has worked on over 1,000 Federal Aid projects that have included 100 miles of municipal transportation projects throughout New Hampshire, many of these being LPA projects. Steve leads Doucet Survey's UAV (Unmanned Aerial Vehicle) team and is developing a portfolio of mapping, volumetric, inspection and photography projects using this emerging technology. Steve is the primary point of contact for Doucet Survey's On-Call Survey Services contract with NHDOT.

#### LPA Project Experience

- Rehabilitation of the Bement Covered Bridge, Braford, NH - Project Surveyor (See Applicable Work Exp.)
- Rockingham Rail Trail Expansion, Manchester, NH - Project Surveyor (See Applicable Work Exp.)
- UNH Main Street Improvements, Durham, NH -Project Surveyor
- Depot Intersection Redevelopment, Salem, NH -Project Surveyor
- Winter Street, Spring Street and Epping Road Improvements, Exeter, NH - Project Surveyor

#### Other Relevant Project Experience

- NHDOT Statewide On-Call Survey Contract
- 2 miles Route 101, Bedford, NH
- 1 mile NH Route 108. Dover, NH
- .8 mile Silver Street Dover, NH
- 4 miles Jady Hill neighborhood, Exeter, NH
- 3,100 feet Portsmouth Avenue, Greenland, NH
- .9 miles Dearborn Road Greenland, NH
- 1 mile Camp Sargent Road, Merrimack, NH
- 1.8 miles Grafton & NH Route 33, Portsmouth, NH
- 1,400 feet Market Street, Portsmouth, NH
- 1 mile Sagamore Avenue Portsmouth, NH
- 5 miles Colonial Pines, Rochester, NH
- 2.8 miles Franklin Street Area, Rochester, NH
- 1 mile Wakefield Street Rochester, NH



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The Engineering Corp Ben Griffith

ENVIRONMENTAL CONSULTANT (NORMANDEAU)



- Bachelor of Arts in Biology
- NH Certified Wetland Scientist
- OSHA 40-Hour HAZWOPPER Certification



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Ben is a Certified Wetland Scientist and wildlife biologist with twelve years of professional experience conducting various natural resource studies. He has a diverse set of wetlands and wildlife skills including wetland delineations, vertebrate and invertebrate fauna surveys, and habitat assessments. He has particular expertise in avian surveys coupled with extensive knowledge of species identification and life histories of North American birds. In addition to his field skills, he has experience producing technical reports, permit applications, and GIS-based graphics.

#### **Relevant Project Experience**

- New Castle Avenue Road & Seawall Reconstruction LPA Project, Portsmouth, NH -Wetland Scientist (See Applicable Work Exp.)
- Sagamore Creek Bridge Design & Permitting Services LPA Project, Jackson, NH Wetland Scientist/ Wildlife Biologist (See Applicable Work Exp.)
- NHDOT Cresson Bridge Restoration, Swanzey, NH
   Wildlife Biologist
- NHDOT Exit 4A EIS, Derry, NH GIS Technician
- NHDOT Route 4 Durham Bridge Categorical Exclusion, Durham, NH Technical Writer
- NHDOT Open Road Tolling, Bedford, NH Wetland Scientist
- Market Street Gateway Expansion, City of Portsmouth, NH - Permitting Specialist
- Structure Replacement, K165 Line, Eversource Energy, Hudson, NH - Wetland Scientist
- Northern Pass Transmission Line, Northeast Utilities, NH - Wetland Scientist



Jason has experience providing construction monitoring and site development, traffic, and highway engineering services for municipalities and DOTs in New England. He observes and monitors construction activity to ensure projects are in conformance with contract documents. His responsibilities include taking measurements, performing elementary survey, record keeping, material inspections, reviewing contractor schedules, developing as-built drawings, shop drawing reviews, contract quantity calculations, preparing pay estimates, ensuring state and federal EEO compliance, completing contractor performance records, and ensuring contractor wage compliance.

#### **Relevant Project Experience**

- Merrimack Street Corridor Roadway Improvements, Lawrence, MA - Construction Inspector (See Applicable Work Exp.)
- Woodmont Commons Site Development Route 102 Corridor, Londonderry, NH - QC/QA Engineer/ Construction Inspector
- South Street, Salem Road, & Main Street Improvements, Tewksbury, MA - Project Engineer/Construction Inspector
- Route 40 (Groton Road) & Oak Hill Road, Westford, MA - Construction Inspector
- Westford Road & Dunstable Road Improvements at Flints Corner, Tyngsboro, MA - Highway Engineer/ Construction Inspector
- Cedar Street Roadway Improvements, Milford, MA - Construction Inspector
- NHDOT I-93 Widening Contract H, Salem to Manchester, NH - Highway Engineer
- NHDOT I-93 Exit 4A, Londonderry & Derry, NH -Highway Engineer
- NHDOT I-293 Exit 4 Bridge Rehabilitation (5 Millyard Bridges), Manchester, NH - Highway Engineer



## Patrick Hanlon



- Bachelor of Science in Geology
- LPA Certified
- OSHA-10 Certified



Patrick has managed various municipal roadway improvement projects in four New England states. He has overseen construction on behalf of contractors, municipalities, and TEC. He provides on-site construction inspection for numerous state-funded projects to ensure conformance with contract documents. Patrick's responsibilities include taking measurements, performing elementary survey, record keeping, material inspections, reviewing contractor schedules, developing as-built drawings, shop drawing reviews, contract quantity calculations, preparing pay estimates, ensuring state and federal EEO compliance, completing contractor performance records, and ensuring contractor wage compliance.

#### Relevant Project Experience

- Merrimack Street Corridor Roadway Improvements, Lawrence, MA - Construction Inspector (See Applicable Work Exp.)
- Route 12 at Harwood Street Improvements, Oxford, MA Construction Inspector

## Lee Kreplick



- Bachelor of Science in Civil Engineering
- Keolis Roadway Worker Protection Certification
  - OSHA-10 Certified

9 years with tec 9

Lee is a highway design engineer and has assisted with the planning, analysis, and design for transportation projects throughout MA and NH. His expertise includes geometric roadway layout and 3-D modeling, drainage design, project estimating, writing technical specifications, ADA-accessible ramp design, and highway plans.

# Brenna Heinley, EIT HIGHWAY INSPECTOR • LPA Certified • Bachelor of Science in Civil Engineering • ASCE- American Society of Civil Engineering • OSHA-10 Certified

Brenna is an LPA Certified highway engineer with experience providing highway design and construction inspection services for multiple municipalities. She has overseen the construction of subdivision roadways and driveways for multiple large development projects. Her recent project work includes CEI services for six (6) intersections along High Street and the School Campus Connector Trail in Somersworth.

#### Andrew Spurr, PE BRIDGE INSPECTOR



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Engineer-in-TrainingFHWI-NHI-130055 Safety

Bachelor of Science in Civil

- Inspection of In-Service Bridges
- Certification • OSHA-10 Certified

Engineering

Andrew is experienced in bridge design, inspection, and rehabilitation; and maintenance of various structural elements. His experience includes project management, scheduling, structural analysis, design calculations, preparation of project specifications, cost estimating, construction administration services and utility coordination. Andrew has significant experience working with MassDOT and municipal clients.



## **Applicable Work Experience**



#### CE&I Services, Somersworth, NH

Key Personnel: Tony, Jody, Brenna

TEC recently completed providing CE&I services on two separate projects through a CMAQ and TAP Grant.

The CMAQ project consists of traffic signal upgrades at six (6) intersections along High Street. The TAP project consists of three components: Sidewalk replacements along the east side of High Street to include ADA ramps, crosswalks, drainage improvements and sign upgrades; Pedestrian improvements adjacent to the school on Memorial Drive; Rehabilitation of the School Campus Connector Trail.

TEC provided construction oversight and inspection including: Observation that all phases of the project are compliant with the plans, specifications, and contract including checking line and grade; Monitoring that the project is maintained that allows for the safe and efficient movement of traffic through the Work Zone in accordance with the MUTCD and approved Traffic Control Plan (TCP); Preparing and managing all documentation related to the construction phase of the project; Approving payments for work completed satisfactorily; Assisting the NHDOT Office of Access, Opportunity & Compliance with federal and state labor requirements and documentation.



#### Services/Highlights

- LPA Process
- CMAQ Grant
- TAP Grant
- Utility coordination
- Permitting
   Construction administration & inspection services



#### Woodbury Avenue Traffic Signal Interconnect Project, Portsmouth, NH

Key Personnel: Sam, Chris, & Kevin

TEC provided professional engineering and planning services for the reconstruction of seven intersections along the Woodbury Avenue corridor. This was an LPA **project that was funded through a CMAQ grant**. The goal of the project was to improve traffic progression along the signalized corridor so that air quality improves. This was achieved by interconnecting and coordinating the signals in a manner that was cost effective, required less maintenance, and was adaptable to the changing traffic demands. The project included ADA-compliant wheelchair ramp upgrades, new traffic signal equipment, and retrofitting of existing traffic signal infrastructure.

TEC monitored the construction progress, verified quantities, documented field changes, coordinated material testing, and reviewed and processed contractor invoices. TEC completed and collected daily forms and reports, including sign-in sheets, certified pay rolls, pay roll log sheets, prompt pay certifications, and labor standards interviews that were **subject to monthly audits by NHDOT's Federal Compliance Officer** to verify conformance with the LPA process.

#### Services/Highlights

- LPA Process
- CMAQ Grant
- Civil site engineering
- Transportation engineering
- Structural engineering
- Alternative site
   evaluation & permitting
- Survey & CADD
- Construction management

#### Silver Square Roundabout, Dover, NH

Key Personnel: Sam, Tony, & Kevin

TEC completed the transportation analysis, permitting, and design of the off-site improvements to construct a modern roundabout that supports the adjacent Silver Square mixed-use development. The new roundabout realigned the intersection of Silver Street, Knox Marsh Road, and the Spaulding Turnpike (NH Route 16) Exit 8, and serves as an important gateway for the City of Dover.

Our staff performed analysis of several traffic control alternatives, including a traffic signal, single-lane roundabout, and a multi-lane roundabout. We utilized roundabout capacity methodologies to "right-size" a roundabout to fit within the existing ROW. This allowed the improvements to be constructed as part of a public-private partnership between the developer and the City of Dover. The project also included new pedestrian and bicycle accommodations, drainage and water system modifications, landscaping, traffic sign and pavement markings, and other related work. This design was reviewed by the City of Dover and NHDOT.

TEC made weekly visits to the site to observe construction. Our inspector reviewed and approved all shop drawings.

## Services/Highlights• Transportation analysisoutreach• Transportation planning & permitting• Drainage & water• Intersection design• Landscaping• Traffic sign & pavement• Cost estimating• Roadway design• Construction-phase• Roadway design• Services

• Public/community





#### Water Street Bridge Replacement, Saugus, MA

Key Personnel: Jody & Andrew

TEC provided professional design engineering and construction-phase services for the replacement of the bridge carrying Route 129 (Water Street) over the Saugus River in Saugus, MA. TEC's structural team provided a complete structural design to replace the deteriorated granite clapper culvert with a precast concrete box culvert and adjacent precast concrete wingwalls. This bridge replacement project was part of MassDOT's "Small Bridge Program," meaning all relevant MassDOT Specifications and Details must be incorporated into the bridge design. Due to the large amount of daily traffic on Water Street, the client wished to minimize the time the road closure would be in place. TEC's design incorporated the use of Prefabricated Bridge Elements and Systems (PBES) to accelerate the construction process and ensure the road closure did not exceed one weekend. TEC also oversaw the construction of the bridge to ensure it was built in accordance with the construction documents and MassDOT Standard Specifications.

#### Services/Highlights

- Bridge design
- Survey mapping & technology
- Hydraulic analysis
- Geotechnical engineering



#### Merrimack Street Corridor Roadway Improvements, Lawrence, MA

Key Personnel: Jody, Sam, Tony, Jason, & Patrick

In 2014 and 2017, the City of Lawrence was awarded MassWorks funding to construct transportation improvements that support continued economic development and expansion along the Merrimack Street corridor, while improving multimodal connectivity for pedestrians, bicyclists, transit riders (both MVRTA bus and MBTA commuter rail), and vehicular traffic. TEC performed all planning, design, MassDOT access permitting, construction administration and MassWorks grant administration since 2012. The proposed improvements included the installation of four new traffic signals and modification to an existing traffic signal at the I-495 off-ramp. Additionally, the multimodal project included new bike lanes, multiuse side path, sidewalks, bus stop turnouts and shelters, updated street lighting, park benches, and landscaping. TEC is working with the City to deliver the next phase of improvements along the westerly end of the Merrimack Street corridor. TEC supported the City in its applications to successfully secure more than \$9 million in grants through the MassWorks Infrastructure Program for design and construction for the easterly end of Merrimack Street.

#### Services/Highlights

- Corridor study
- Traffic analysis/
- modeling
- Road Safety Audit
- Alternatives analysis
- Traffic signal design
- Public outreach
- Roadway/highway design
- Complete Streets design

- Streetscape design
   Drainage analysis (
- Drainage analysis/ design
- Water main design
- Utility coordination
- Environmental permitting
- Construction cost estimating
- Construction administration

APPLICABLE WORK EXPERIENCE



#### New Castle Avenue Road & Seawall Reconstruction, Portsmouth, NH

Key Personnel: Ben

The New Castle Avenue Roadway and Seawall were sinking into the sea and in sore need of repair. The project consisted of seawall reconstruction, environmental mitigation of wetlands, furnishing and installing drainage structures, granite curb, concrete sidewalks, street paving, and restoring bituminous driveway aprons.

Normandeau provided natural resource surveys, state and federal regulatory analysis and permitting, Essential Fish Habitat assessment, Categorical Exclusion documentation, and salt marsh restoration design/construction oversight for the reconstruction of the Route 1B and the adjacent Seawall. An Individual Permit from the USACE in the form of a Letter of Permission was required, and a compensatory salt marsh was also constructed in a nearby tidal pond with harvested peat blocks. Both successful mitigation areas were monitored by Normandeau for five years.

#### Services/Highlights

- LPA Process
- Environmental consulting
- Seawall reconstructionRoadway
  - reconstruction



#### Sagamore Creek Bridge Design & Permitting Services, Jackson, NH

Key Personnel: Ben

The project involves replacing the NH Route 1A Bridge over the Sagamore Creek in Portsmouth, and minor improvements to the sections of NH Route 1A approaching the bridge from the north and south. The replacement is a new variable-depth steel girder bridge approximately 418 feet long and 42.5 feet wide. The bridge includes two 12-foot travel lanes, two 5-foot paved shoulders for bicycles, and one fully-accessible 5.5-foot sidewalk. Approach roadway improvements included new curbing and sidewalks, drainage facilities, replacement of the water main that crosses the existing bridge, and retaining walls in three of the project quadrants. Normandeau provided resource delineations, agency coordination, environmental permitting, and construction monitoring for this LPA bridge replacement project. The firm coordinated Natural Resource Agency pre-application meetings to discuss temporary impacts to tidal and subtidal wetlands during construction for a temporary trestle adjacent to the existing bridge, and potential effects on fisheries resources in the channel during bridge work. They prepared an Essential Fish Habitat (EFH) Assessment, state wetland and shoreland permit applications; a Coastal Zone Consistency Certification report, and a Categorical Exclusion for NEPA compliance.

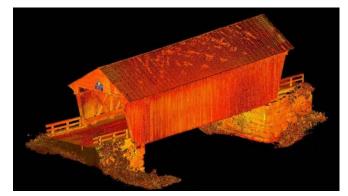
#### Services/Highlights

- LPA Process
- Environmental consulting
- Bridge replacementRoadway

improvements

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#### Rehabilitation of the Bement Covered Bridge, Bradford, NH

#### Key Personnel: Steve

Bement Covered Bridge is a historic, wooden covered bridge on Center Road over Warner River in Bradford, NH. A long truss bridge, it was built in 1854 is and on the National Register of Historic Places.

The rehabilitation includes full replacement of the lower chord and deck, installation of new floor beams, replacing the deteriorated bridge truss members, siding replacement, new timber approach railing supported by cast-in-place concrete moment slabs, complete replacement of the north abutment with a new dry laid stone abutment and approach roadway reconstruction.

Doucet performed ROW and topographic survey along with high definition laser scanning and delivered standard plans in Civil 3D and a 3D model of each truss in Revit.

#### Services/Highlights

- LPA Process
- ROW & topographic survey
- Bridge rehabilitation



#### Rockingham Rail Trail Expansion, Manchester, NH

Key Personnel: Steve

The City of Manchester was awarded a Transportation Alternatives Program (TAP) grant to extend the Rockingham Recreational Trail from Mammoth Road to Lake Shore Road in Manchester, NH.

Doucet completed an approximate ROW survey and topographic survey along the 2-mile section through urban and rural sections of Manchester. The survey area included five intersections and 10 side streets. All the survey was tied to NHSPC NAD83(2011) and NAVD88 datums.

#### Services/Highlights

- LPA Process
- ROW & topographic survey
- Rail Trail expansion