



Prequalifications

Statewide On-Call Preliminary Engineering
Prequalified List of Consultants for locally
administered Local Public Agency (LPA)
Qualifications-Based Selection Contracts



February 1, 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 Preliminary Engineering 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 Preliminary Engineering (PE) services as part of the 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 PE project* along **Woodbury Avenue in Portsmouth** is a prime example in demonstrating TEC's competence and experience for PE services while working with an LPA. We are providing you the enclosed requested information including our project understanding and approach, project team (with noted LPA certifications), organizational chart, relevant project references, resumes, and applicable work experience.

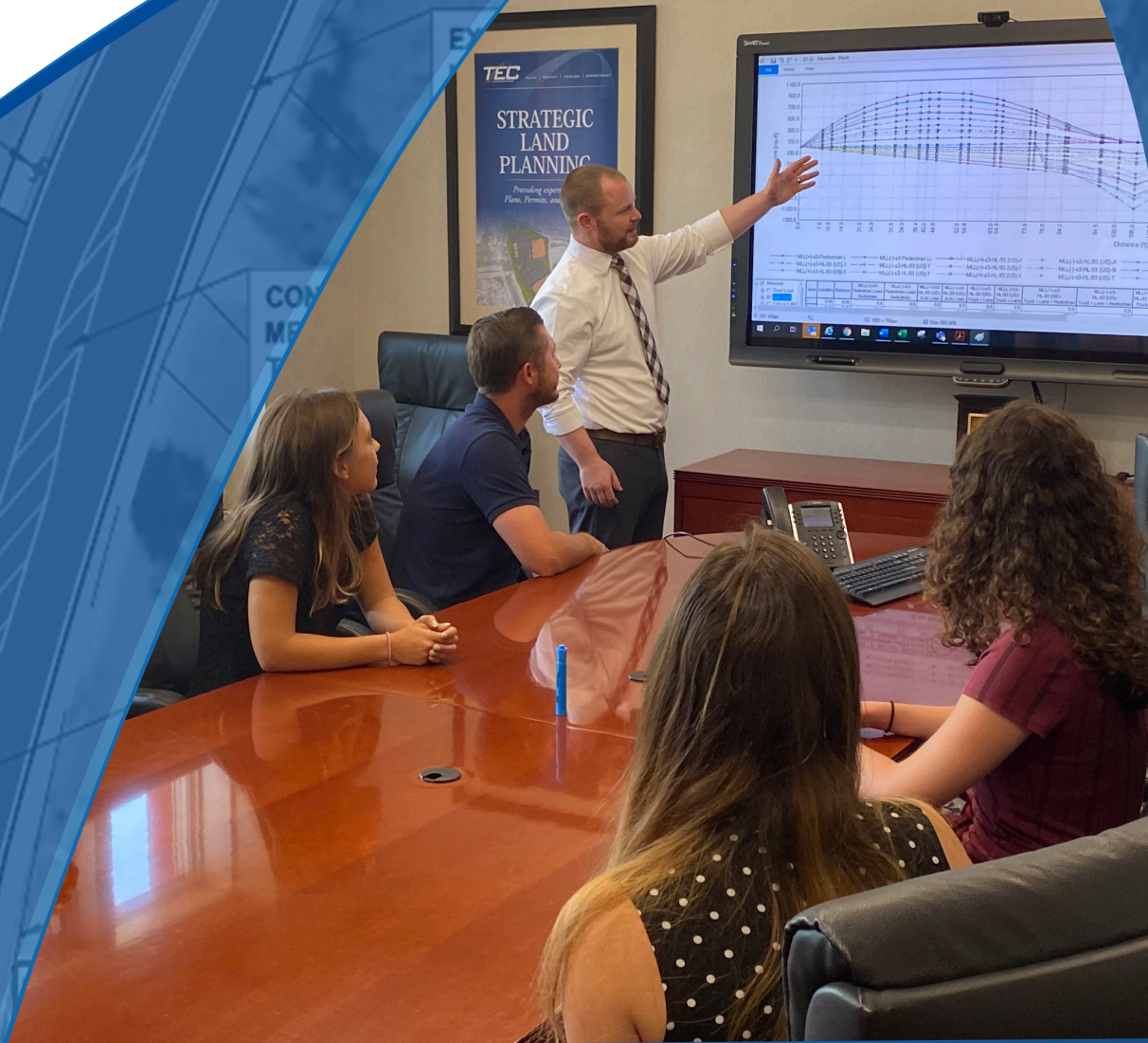
We have aligned ourselves with **Normandeau Associates** (Normandeau) and **Doucet Survey** (Doucet), whose senior-level personnel have decades of relatable, NHDOT/LPA project experience and are committed to collaborating with TEC on this endeavor. We intend to select qualified geotechnical and hydraulic subconsultants upon receipt of assignment to provide the full complement of services as part of this solicitation and potential work.

Thank you again for your consideration. We are hopeful for the opportunity to demonstrate that we will be a valuable and reliable design 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
Project Manager/Principal in Charge
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. Approximately **\$45 million in Local Federal Aid is appropriated annually through various programs in the STIP**, 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 highway- and bridge-related engineering services. This includes LPA federally-funded projects. Recently, TEC completed the Woodbury Avenue Signal Interconnect **LPA/CMAQ** Project in Portsmouth. And, both Doucet and Normandeau are actively working on LPA projects further explained in the Applicable Work Experience section.

TEC will kickoff and cultivate our relationship with the NHDOT Project Manager, representing the LPA, by initiating the **Project Scoping Meeting**—a critical first step in the LPA project process. This will help identify and plan the design efforts and allow TEC to select the appropriate team members to accomplish the design before handing the reins over to CE members.

TEC's Project Manager will be responsible for developing the **project schedule** and carrying out PE and ROW services, which includes the **Engineering Study, Preliminary Design, Final Design/PS&E, and the Bid Phase** of the project. As we've learned from our LPA training, **no work begins until we receive authorization to start (RATS)** from NHDOT for the various phases of the PE and ROW project components. Throughout the PE and ROW process, we will collaborate with NHDOT, the Federal Compliance Officer, the municipality, and any stakeholders to ensure projects are designed according to **NHDOT's LPA Manual** and the FHWA's requirements.

ENGINEERING STUDY: The TEC Team will start the project by developing a comprehensive, yet concise Engineering Study that allows us to fully understand existing conditions and constraints, both geometrically and environmentally, learn what potential ROW features may or may not come into play with the proposed project, and outline what type of utility coordination would be needed throughout the PE phase. Doucet will obtain and document most of this information and TEC and Normandeau will visually note existing conditions and potential items for design consideration. We will rely on Normandeau's expertise in identifying and demarcating environmental and cultural resources within the project area that will help define the scope of permitting the project through NEPA and at the state and local levels.

TEC's senior personnel are well versed in conducting public informational meetings at the onset of projects. This forum provides an opportunity for the design team to receive local insight and feedback following our team's presentation of existing conditions, funding, and scope. This **Local Concerns Meeting** is a critical milestone in the LPA PE process as it helps navigate the proper project scope for future design phases.

The **Purpose and Need Statement** is considered the backbone of any LPA project. We will develop this using the information we obtained through our existing conditions due diligence and from the Local Concerns Meeting to formulate project goals. We will use these goals to evaluate design alternatives and describe how we will progress with the project.

The **Engineering Study** will identify and list the design standards our team will use to evaluate potential alternatives. We will always include a "no build" option as a baseline to compare the alternatives. Several parameters will be considered when vetting the preferred alternative, including environmental, cultural, and property impacts, as well as cost, before arriving at our proposed action. TEC will present the preferred alternative to the public and then submit the Engineering Study on behalf of the LPA to NHDOT for review and approval.

PRELIMINARY DESIGN: Once the Engineering Study is approved by NHDOT and the Project Sponsor has received the authorization to begin the preliminary design, Normandeau will commence the **Environmen-**

tal Study. This usually includes a determination that the LPA project is considered to be classified as a Programmatic Categorical Exclusion (CE) as part of the NEPA process. Normandeau will dive into the federal requirements and prepare the CE determination checklist. All aspects of the project will be vetted, including ROW, traffic, roadway access, cultural resources, 4(f) jurisdiction, 6(f) jurisdiction, and wetlands and surface waters. The checklist will yield whether a **Programmatic CE or Individual CE** would apply. Next, we will identify whether any utilities will need to be relocated and potential ROW implications. We will develop a list of utility entities that will need to remain connected to the project throughout construction. Should the results of the NEPA process alter our previous Proposed Action from the Engineering Study, the TEC Team will refine the design plans and cost estimates. As most LPA projects utilize federal funds, we will need to evaluate and document potential **Design Exceptions (DE) against FHWA's 10 Controlling Criteria and seek approval of the DE no later than the Preliminary Plan stage.** As we near the Preliminary Design submission, the TEC Team will work with the LPA to prepare a meeting request memo to schedule and present before NHDOT's Traffic Control Committee (TCC). This task is prudent where the committee can review the project's significance to **Work Zone Safety and Mobility Policy Guidelines.** We will incorporate any feedback and suggestions from the TCC into our work product, so we can compile and submit our Preliminary Design submission to NHDOT for review and approval.

FINAL DESIGN/PS&E: Upon acceptance of the Preliminary Design from NHDOT and having received clearance through NEPA, the TEC Team will work alongside the LPA through the completion of the Final Design and development of the final plans, specifications, and construction cost estimate **following DOT's authorization to start.** Doucet will help us finalize ROW plans and will assist the sponsor as needed with any necessary appraisals or acquisitions. As the PE Engineer of Record, it will be important for the TEC team to maintain our OAOC training as the project nears the "line in the sand" date, where TEC will transfer the project over to the CE. Tasks leading up to this transfer include finalizing detailed construction plans, preparing an accurate list of pay items and quantities, compiling the bid proposal on behalf of the Project Sponsor, complete with standard and special project specifications, as well as providing the final construction cost estimate to advertise the project. Once these are completed, the TEC Team will submit the final

design package to NHDOT on the Project Sponsor's letterhead, so that DOT can approve and authorize the final PS&E package complete with project certifications (i.e. NEPA Complete memo, ROW Certificate, utility certificates, etc.). **While we wait for FHWA approval on the appropriation of construction funding, the TEC Team will collaborate with the Project Sponsor in preparation of bid phase.**

BID PHASE: Utilizing a broad outreach, the TEC Team will support the LPA through the competitive bid process, ensuring adequate statewide notification the project bid is distributed in accordance with state and federal procurement processes. As questions normally develop through the review of bidding documents, the **TEC Team will manage and respond to prospective bidder questions in a timely fashion.** Depending on the scale of the project, we may encourage the LPA to conduct a pre-bid meeting to provide prospective bidders with the opportunity to view the project on site and/or as any questions for common resolution. We would always encourage our Project Sponsor to advertise the project such that the contractors are "prequalified" and capable to perform the work demonstrated through previous work experience, company size, equipment, and project references. We are available to assist the Project Sponsor at the bid opening, reviewing each bid for the basic requirements, and identification of the lowest responsible bidder. Following the bid opening, we will work with the LPA to review all bids to ensure that the apparent low bid is responsive and that it was prepared by a responsible bidding entity. Once the bids are thoroughly reviewed and the TEC Team has conferred with the LPA on the bid award recommendation, we will draft our **Recommendation to Award Letter** to NHDOT so they can review the sponsor's efforts of processing the bid, bid advertisement, and review summary of bids. This will confirm that the project, inclusive of CE and material testing, is less than the programmed funding identified in the PS&E authorized amount. At that time, **NHDOT will send their Notice to Proceed to Award Low Bid Letter, thereby concluding the PE process with the TEC Team.**



Organizational Chart

Organizational Chart

For this contract, TEC will serve as prime and provide RDWY, TRAF, BRDG, STRC, PLAN, PINV services, Doucet Survey, LLC (Doucet) will provide SURV services, Normandeau Associates (Normandeau) will provide ENV services, and our team member(s) for HYD, GEO 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 New Hampshire. In addition, we are prequalified with NHDOT and have **18 team members that are LPA certified with some renewing in 2024.**

We have over 20 years of proven experience identifying cost-effective engineering solutions at the planning, permitting, and design stages of important permitting and infrastructure improvement projects. We are 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, Somersworth, Hampton, Manchester, Nashua, Salem, Londonderry, and Stratham in New Hampshire.

The types of tasks that may be assigned are all in TEC's wheelhouse. We have performed projects that are similar in scope and budget, including roadway widening; roundabouts; Complete Streets; improvements to intersections, sidewalks, signals, and roadways; multiuse paths and bike lanes; parking lots; and culvert and bridge replacements. When working on these types of projects, we try to focus on innovative ideas that will reduce costs, improve productivity and efficiency, enhance safety and mobility, and extend the service life of these assets.

TEC has provided planning-level corridor studies master plans for a variety of municipal clients that determine opportunities for vehicular operation improvements; evaluate traffic signal and roundabout viability; identify opportunities for pedestrian and bicycle infrastructure; and provide a practical plan to significantly contribute to the safety, health, economic competitiveness, and the quality of life of the communities. We have worked collaboratively with residents, municipal staff, and strategic committees in over 20 Massachusetts communities to successfully prepare prioritization plans for implementation of MassDOT-sponsored Complete Streets multimodal projects.

TEC has designed various bridges that are new or have

been rehabilitated, preserved, or replaced. They include steel truss bridges, single and multi-span steel and prestressed concrete girder bridges, concrete slab bridges, timber bridges, gusset plate analysis and retrofits, seismic design and retrofits, secant pile wall structures, tunnel structures, integral and semi-integral abutments, MSE wall, scour retrofits and countermeasures and railroad bridges. Additionally, TEC has extensive experience utilizing Accelerated Bridge Construction (ABC) techniques.

TEC has performed numerous bridge inspections and ratings for municipalities, DOTs, and private entities. Our staff have performed inspections on all types of structures and our inspectors have all necessary inspection and safety training.

Key Personnel

The table on the next page shows all the staff that we anticipate using on LPA projects, their experience, classifications, licenses, and certifications. Prior to any task assigned to TEC by the Department, we will ensure our team of varying engineering disciplines either renews or obtains their **LPA certifications** as recommended by the Department. Following are summaries of our key staff anticipated to be used on typical LPA projects:

JODY TRUNFIO, PE | Project Manager/Principal in Charge

Jody is a structural engineer and a Principal serving TEC's Hampton office. He will be the LPA's single point of contact and will effectively provide **project management services.** Jody will maintain clear lines of communication with the LPA and will be responsible for the technical completeness of all documents produced. He will ensure that projects that are completed to NHDOT's and FHWA's requirements, and that submissions, invoices, and documentation like **monthly progress reports** are timely and accurate. Jody is a skilled project manager with proven ability to coordinate tasks among clients, subconsultants, and in-house personnel. He currently serves as project manager for TEC's design efforts on NHDOT's Hampton to Portsmouth Rail Trail and US Route 1 bridge project in Hampton. Additionally, Jody has experience developing and presenting technical material and project details, and engaging stakeholders at **Local Concerns and Proposed Action Meetings** as part of the **public involvement** process during the design development phase.

Highway & Bridge Design Engineering Services in Support of LPA Projects

Key Personnel	Project Role	Years of Experience		Years with Firm																				
				CONTRACT MANAGEMENT	PROJECT MANAGEMENT	HIGHWAY DESIGN	BRIDGE DESIGN	STRUCTURAL ENGINEER	ALTERNATIVE PROCUREMENT METHODS	CORRIDOR STUDY PLANNING	BRIDGE INSPECTION	BRIDGE LOAD RATING	HYDROLOGY	ENVIRONMENTAL	TRAFFIC ANALYSIS	GEOTECHNICAL ENGINEER	SURVEYOR	PUBLIC INVOLVEMENT	LPA CERTIFIED	NH LICENSED PE	NH LICENSED SURVEYOR	Professional Traffic Operations Engineer	Road Safety Professional	NH CERTIFIED WETLAND SCIENTIST
Jody Trunfio, PE	Project Manager/Principal in Charge	23	22	X	X		X	X	X	X	X	X						X	X	X				
Tony Cioffi, PE	Highway Lead	30	8			X												X	X	X				
Chris Raymond, PE	Highway Engineer	9	9			X												X	X	X				
Alex Sellar, PE	Highway Engineer	9	2			X							X					X	X					
Lauren Nicholson, PE	Highway Engineer	8	8			X																		
Matt Perry, PE	Highway Engineer	4	4			X												X	X	X				
Lee Kreplick	Highway Engineer	6	6			X																		
Brenna Heinley, EIT	Highway Engineer	3	3			X												X	X					
Dylan Skinner, EIT	Highway Engineer	4	4			X												X	X					
Jason Brzezowski, EIT	Highway Engineer	20	6			X												X						
Megan Cramton	Highway Engineer	2	2			X												X						
Greg Gaudreau, PE	Bridge Lead	19	3				X	X	X		X	X	X					X	X	X				
Bob Niccoli, PE, SE	Bridge Engineer	15	4				X	X	X		X	X						X	X	X				
Andrew Spurr, PE	Bridge Engineer	8	8				X	X			X	X						X						
Nelson Sosa, PE	Bridge Engineer	15	3				X	X	X		X	X						X						
Michelle Thibault, EIT	Bridge Engineer	3	3				X	X			X	X							X					
Matt Miloro, EIT	Bridge Engineer	2	2				X	X			X	X							X					
Jeremy Harvey	Bridge Engineer	<1	<1				X	X			X	X							X					
Melanie Martell	Bridge Engineer	2	2				X	X			X	X							X					
Spencer McKinnon	Bridge Engineer	2	<1				X	X			X	X							X					
Sam Gregorio, PE, PTOE, RSP	Traffic Lead	13	13							X					X			X	X	X		X	X	
Kevin Dandrade, PE, PTOE	Planning Lead	27	19	X						X					X			X	X	X		X		
Gerson Ribeiro	Traffic Engineer	4	4												X									
Rana Eslamifard	Traffic Engineer	3	2												X									
Frankie Schripsema	Traffic Engineer	2	2												X									
Ben Griffith (Normandeau)	Environmental Engineer	15	9										X											X
Steve Michaud, PS (Doucet)	Survey Consultant	28	26														X			X				

TONY CIOLFI, PE | Highway Lead

Tony is a transportation engineer with highway design and construction oversight experience, and will be the **primary point of contact**. He will maintain clear communication and ensure projects are constructed in accordance with contract documents; proper documentation; that project materials meet or exceed federal, state, and industry standards; and projects meet NHDOT's & FHWA's objectives, schedule, and budget.

GREG GAUDREAU, PE | Bridge Lead

Greg is a structural engineer with experience in the design and construction oversight of bridge rehabilitations and replacements. Greg's experience also includes **substructure protection through scour countermeasures**, accelerated bridge construction (ABC) techniques, and **alternative procurement methods**. He has performed on numerous inspection and rating contracts for New England DOTs.

SAM GREGORIO, PE, PTOE, RSP | Traffic Lead

Sam was the Project Manager for the recently completed Woodbury Avenue Signal Interconnect Project in Portsmouth, which was an **LPA/CMAQ project**. His expertise includes traffic impact and parking analysis, multimodal and Complete Streets design, **Temporary Traffic Control Plans**, Road Safety Audits, traffic signal timing/infrastructure layout, and construction inspections. He leads TEC's traffic engineering design & planning, and is a licensed Road Safety Professional

familiar with **FHWA HSIP Program Requirements**.

KEVIN DANDRADE, PE, PTOE | Senior Transportation Planner

Kevin has successfully overseen numerous design and engineering studies. His transportation planning and traffic engineering experience includes **preparing technical reports** such as planning-level corridor studies and master plans. Kevin has assisted over 30 communities with Complete Streets and SRTS projects. He will manage traffic operations and safety analysis, and design of traffic control and signalization.

STEVE MICHAUD, PS (Doucet) | Survey Consultant

Steve, Doucet's Senior Vice President, has worked on various Federal Aid projects that include 100 miles of municipal transportation projects throughout NH, many of these being LPA projects. Steve primarily handles project management and will provide **ROW layout and plan development**, including any necessary survey work, for reestablishing and documenting the existing highway ROW in a manner suitable for recording at the Registry of Deeds.

BEN GRIFFITH (Normandeau) | Environmental Consultant

Ben is a wildlife biologist and NH-Certified Wetland Scientist with experience **providing natural resource services on transportation projects**, including wetland and wildlife resource field surveys, permits, and GIS mapping. He worked on the LPA New Castle Avenue Road and Seawall Reconstruction in Portsmouth.



References

References

1. Peter Rice, PE

Director of Public Works
City of Portsmouth
Department of Public Works
680 Peverly Hill Road
Portsmouth, NH 03801
phrice@pw.cityofportsmouth.com
(603) 427-1530
RE: Woodbury Avenue Signal Interconnect LPA project

2. Jen Hale, PE

Director of Public Works
Town of Hampton
Department of Public Works
100 Winnacunnet Road
Hampton, NH 03842
jhale@hamptonnh.gov
(603) 926-3202
RE: Hampton On-Call General
Engineering Services Contract

3. Michael Bobinsky

Director of Public Works & Utilities
City of Somersworth
One Government Way
Somersworth, NH 03878
(603) 692-4266
RE: High Street TAP and CMAQ LPA Projects



Appendix

Resumes

Jody Trunfio, PE

PROJECT MANAGER/
PRINCIPAL-IN-CHARGE



- 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
- | | |
|------------------|----|
| YEARS EXPERIENCE | 23 |
| YEARS WITH TEC | 22 |

Jody is a structural engineer and the Regional Office Manager for 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

- 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
- Market Street Bridge & Route 3A Widening, Hookset, NH - Senior Structural Engineer (See [Applicable Work Exp.](#))
- Water Street Bridge Replacement, Saugus, MA - Senior Project Manager (See [Applicable Work Exp.](#))
- MassDOT Non-Complex Bridge Inspections, Various Locations, MA - Project Manager

Tony Ciolfi, PE

HIGHWAY LEAD



- Bachelor of Science in Civil Engineering
 - Licensed PE in NH
 - LPA & OAOC Certified
 - OSHA-10 Certified
- | | |
|------------------|----|
| YEARS EXPERIENCE | 30 |
| YEARS WITH TEC | 8 |

Tony is a transportation engineer with experience in highway/roadway design and construction oversight. His expertise includes intersection redesign, roadway design, traffic control plans, drainage design, and wetland application and mitigation design. 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

- Banfield Road & Culvert Improvements, Portsmouth, NH - Project Manager (See [Applicable Work Exp.](#))
- Silver Street Roundabout, Dover, NH - Project Engineer/Construction Inspector (See [Applicable Work Exp.](#))
- NHDOT US Route 1 Bridge over NHRR, Hampton, NH - Highway Engineer
- New Hampshire Seacoast Greenway, Seabrook to Portsmouth, NH - Senior Highway Engineer
- NHDOT I-93 Widening Project at Exit 4, Londonderry, NH - Highway Engineer
- NHDOT NH Route 113, Holderness, NH - Highway Engineer
- UNH Main Street West Widening, Durham, NH - Highway Engineer
- Highland Avenue Reconstruction Project, Hampton, NH - Highway Engineer
- State Street Sidewalk Improvements, Portsmouth, NH - Highway Engineer
- Woodbury Avenue Complete Streets Improvements, Portsmouth, NH - Highway Engineer

Greg Gaudreau, PE

BRIDGE LEAD



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

YEARS EXPERIENCE

19

YEARS WITH TEC

3

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. Greg's experience also includes substructure protection through scour countermeasures, accelerated bridge construction (ABC) techniques, and alternative procurement methods. He has performed on numerous inspection and rating contracts for New England DOTs. 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

Sam Gregorio, PE, PTOE, RSP₁

TRAFFIC LEAD



- Master of Science in Civil Engineering
- Bachelor of Science in Civil Engineering
- Licensed PE in NH
- LPA Certified
- Professional Traffic Operations Engineer (PTOE)
- Road Safety Professional (RSP₁)
- OSHA-10 Certified

YEARS EXPERIENCE

13

YEARS WITH TEC

13

Sam is Senior Design Engineer for the Transportation Planning and ITS Group and has over 10 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.

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. ([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

Kevin Dandrade, PE, PTOE

PLANNING LEAD



- Bachelor of Science in Civil Engineering
- Licensed PE in NH
- LPA Certified
- Professional Traffic Operations Engineer (PTOE)
- OSHA-10 Certified

YEARS EXPERIENCE

27

YEARS WITH TEC

19

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 [\(See Applicable Work Exp.\)](#)
- Market Street Bridge & Route 3A Widening, Hooksett, 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
- 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

Ben Griffith

ENVIRONMENTAL CONSULTANT (NORMANDEAU)



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

YEARS EXPERIENCE

15

AT NORMANDEAU

9

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
- 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

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 EXPERIENCE
28

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, Bradford, NH - Project Surveyor ([See Applicable Work Exp.](#))
- Rockingham Rail Trail Expansion, Manchester, NH - Project Surveyor
- 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

Brenna Heinley, EIT

HIGHWAY ENGINEER



- LPA Certified
- Bachelor of Science in Civil Engineering
- ASCE- American Society of Civil Engineering
- OSHA-10 Certified

YEARS EXPERIENCE
3

YEARS WITH TEC
3

Brenna is an LPA Certified highway engineer with experience providing highway design and construction inspection services for multiple municipalities. She also has completed cost estimates, permits and site plans and conducts peer reviews and site inspections for new and ongoing development projects as part of the peer review services that TEC provides for the Town of Brentwood, NH. She has overseen the construction of subdivision roadways and driveways for multiple large development projects. Brenna has gained valuable design experience while working on site plans and environmental permitting for a culvert replacement in Raymond, NH.

Relevant Project Experience

- Blackwater River Bridge Sewer Outfall Pipe Replacement, Seabrook, NH - Highway Construction Inspector
- Peer Review Services, Brentwood, NH - Highway Construction Inspector
- Shatagee Road Culvert Replacement, Raymond, NH - Highway Construction Inspector

Michelle Thibault, EIT

BRIDGE ENGINEER



- Bachelor of Science in Civil Engineering
- Engineer-in-Training (EIT)
- LPA Certified
- OSHA-10 Certified

YEARS EXPERIENCE

3

YEARS WITH TEC

3

Michelle is a structural engineer with experience in bridge design, bridge rehabilitation, analysis and load ratings. She has served as a Team Member for bridge inspections including complex truss inspections. Michelle's experience also includes three-dimensional structural modeling, construction staging analysis, construction drawings, estimating, and construction oversight.

Relevant Project Experience

- Beaver Brook Road Culvert Replacement, Westford, MA - Structural Engineer
- Dean Street Culvert Replacement, Norton, MA - Structural Engineer
- LMRC Rail Trail, Lawrence, MA - Structural Engineer
- Route 2 over the Hoosic River, North Adams, MA - Structural Engineer
- Berkeley Investments, Inc. 250 Canal Stress Truss Bridge, Lawrence, MA - Structural Engineer

Chris Raymond, PE

HIGHWAY ENGINEER



- Bachelor of Science in Civil Engineering
- Licensed PE in NH
- LPA Certified
- OSHA-10 Certified

YEARS EXPERIENCE

9

YEARS WITH TEC

9

Chris is a highway engineer and project manager with experience in land development and transportation improvements projects throughout New Hampshire and Massachusetts. His expertise includes site design, pedestrian infrastructure improvements, state permitting, construction inspection, and municipal peer review services. He also has experience in site layout and grading, stormwater management and design, utility design, construction cost estimates, and design plans.

Relevant Project Experience

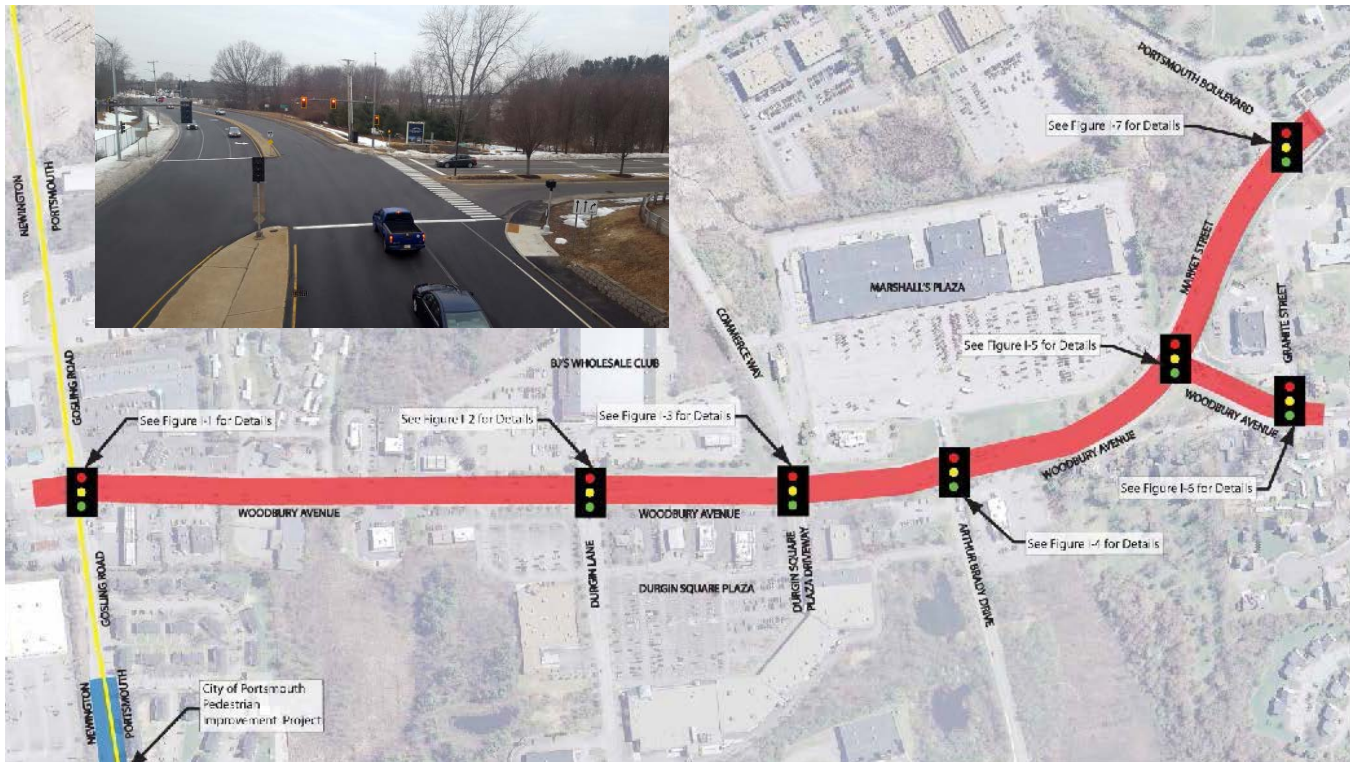
- Woodbury Avenue Traffic Signal Interconnect LPA/CMAQ Project, Portsmouth, NH - Construction Inspector: Chris was responsible for monitoring the construction progress, verifying quantities, documenting field changes, coordinating required material testing, reviewing and processing contractor invoices, and completing daily forms and reports that were subject to monthly audits by the state to verify conformance with the LPA process. ([See Applicable Work Exp.](#))
- Silver Square Roundabout, Dover, NH - Highway Engineer ([See Applicable Work Exp.](#))
- Banfield Road & Culvert Improvements, Portsmouth, NH - Project Engineer ([See Applicable Work Exp.](#))
- Merrimack Street Improvements, Lawrence, MA - Highway Engineer/Construction Inspector
- Exeter Hospital, Plaistow, NH - Project Manager/Construction Inspector
- Civil Engineering Peer Review Services (70 assignments), Seabrook, NH - Project Manager
- Riverwalk Complex, Lawrence, MA - Civil Engineer
- Dascomb Road Development, Andover, MA - Civil Engineer

Applicable Work Experience

The chart showcases our team's varied experience working together and providing similar highway and bridge design services for LPAs, municipally-led, and DOT-managed design efforts. Selected projects from this list are detailed in the following pages.

Project	Highlights/Description	Services	Staff
Woodbury Avenue Corridor/ Portsmouth, NH LPA	LPA/CMAQ project; Engineering study including traffic analysis; improvements to 7 intersections; signalization; 4,500-ft corridor; ROW & utility certificates; property acquisitions; & signal structures.	RDWY & TRAF	JT, KD, SG, & CR
New Castle Avenue Road & Seawall Reconstruction/ Portsmouth, NH LPA	Normandeau provided natural resource surveys, state, and federal regulatory analysis and permitting, documentation, and salt marsh restoration design/construction oversight. Normandeau monitored the mitigation areas for five years.	ENV	BG
Various Surveys of LPA Projects/ Various Locations, NH LPA	Doucet provided surveys for the rehabilitation of the Bement Covered Bridge in Bradford; UNH Main Street Improvements in Durham; Manchester Rail Trail in Manchester; Depot Intersection Redevelopment in Salem; and Winter Street, Spring Street and Epping Road Improvements in Exeter.	SURV	SM
Water Street Bridge Replacement/Saugus, MA SBA	Replaced a deteriorated granite clapper culvert with a precast concrete box culvert and adjacent precast concrete wingwalls; funded through the Massachusetts State Bridge Aid (Small Bridge Program).	BRDG, RDWY, TRAF, HYD, GEO, ENV, & SURV	JT, SG, & KD
Silver Street Roundabout/ Dover, NH	Roundabout; roadway & intersection design; drainage; pedestrian & bicycle accommodations; permitting; development drive request; & public outreach.	PLAN, RDWY, TRAF, PINV, & ENV	JT, TC, SG, & CR
Banfield Road Corridor & Culverts/Portsmouth, NH	Three culvert replacements; 2 miles of roadway reconstruction & widening; Complete Streets; traffic analysis; sidewalks; bike lanes; drainage; intersection improvements; permitting; & public outreach.	PLAN, RDWY, TRAF, STRC, PINV, & ENV	JT, TC, CR, & SG
NHDOT NH Seacoast Greenway Rail Trail/Hampton to Portsmouth, NH	Currently scoping the design of 9-mile multimodal trail section that passes under NHDOT Bridge 163/184.	PLAN, RDWY, & PINV	JT, & TC
NHDOT US Route 1 over NHRR Bridge/Hampton, NH	Providing transportation & civil engineering design support; rail trail coordination; & multimodal path design.	RDWY & TRAF	JT, TC, SG, & SM
Lowell 6 Bridges Project/ Lowell, MA	Prepared a 5-year Capital Improvement Plan to prioritize the repair, rehabilitation, and replacement of six structurally deficient bridges; scour countermeasures; & public outreach.	PLAN, BRDG, RDWY, TRAF, HYD, GEO, ENV, SURV, PINV	JT, BN, SG, & KD
Market Street Bridge & Route 3A Widening/Hooksett, NH	Traffic study; signalization; widening of Route 3A & the I-93 Exit 10 Southbound ramps; & new bridge & private connector road.	PLAN, RDWY, BRDG, & TRAF	JT & SG
On-Call General Engineering Services/Salem, NH	On-call planning & design services; permitting assistance; bid & proposal development; operating plans; feasibility reports; cost/benefit analysis; & peer reviews.	RDWY, BRDG, TRAF, & ENV	JT, TC, KD, SG, & BN
MassDOT Non-Complex Bridge Inspections/Statewide, MA	Performed 10 routine bridge inspections for structures ranging from 1-5 spans over water and roadways/highways.	BRDG	JT
MassDOT Safe Routes to School/ Statewide, MA	Six, on-call contracts since 2008; programmatic projects; 70+ communities assisted; roadway & intersection improvements; traffic signals & analysis; multimodal; drainage; permitting; & public outreach.	PLAN, RDWY, TRAF, PINV, & ENV	JT, TC, KD, SG, & BN
MassDOT Complete Streets Design/Statewide, MA	On-call; programmatic projects; corridor studies; 20+ communities assisted since 2016; roadway & intersection improvements; traffic signals & analysis; multimodal; drainage; permitting; & public outreach.	PLAN, RDWY, TRAF, PINV, & ENV	JT, TC, KD, SG, & BN
Route 102 Corridor & Signalized Intersections/Londonderry, NH	Two new signals interconnected with 4 existing signals; traffic impact & corridor studies; 2,150 ft of highway reconstruction; part of NHDOT's I-93 Widening Project at Exit 4; 5 overhead sign structures; & permitting.	PLAN, RDWY, TRAF, STRC, & ENV	JT, TC, KD, SG, & BN

Staff: JT=J. Trunfio, SG=S. Gregorio, TC=T. Ciolfi, CR=C. Raymond, KD=K. Dandrade, BN=B. Niccoli, SM=S. Michaud, & BG=B. Griffith



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 and Market Street corridor. This was an **LPA project that was funded through a CMAQ grant**. The goal 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 conducted an evaluation of traffic impacts documented in an Engineering Study, which also included an alternatives analysis of adaptive traffic signal control, an evaluation of structural standing for all traffic signal infrastructure, and preparation on conceptual design plans of the proposed traffic signal and ADA improvements. TEC prepared final design plans, specifications, cost estimates, shop drawing approvals, and provided on-site construction services for the reconstruction of the seven intersections.



Services/Highlights

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



Water Street Bridge Replacement, Saugus, MA

Key Personnel: Jody, Bob, & 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

- State Bridge Aid
- Bridge design
- Survey mapping & technology
- Hydraulic analysis
- Geotechnical engineering
- Utility coordination



Silver Square Roundabout, Dover, NH

Key Personnel: Sam, Tony, Chris, & 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 analysis
- Transportation planning & permitting
- Intersection design
- Traffic sign & pavement markings
- Roadway design
- Public/community



Banfield Road Corridor & Culverts, Portsmouth, NH

Key Personnel: Jody, Lori, Tony, Chris, & Sam

TEC provided professional engineering services for design and traffic analysis for approximately 2 miles of roadway reconstruction along Banfield Road.

Our team worked with the City of Portsmouth Traffic and Planning Departments to complete a Traffic Impact Assessment for the traffic related impacts associated with Water Country access and egress movements. We also teamed with the City of Portsmouth to hold multiple **neighborhood meetings** to reach consensus with the public on the proposed roadway improvements and Water Country traffic patterns.

Banfield Road was designed based on TEC’s Complete Streets Master Plan to include 3 culvert replacements, widening for two-foot shoulders and an eight-foot sidewalk, and associated impacts to private properties. **Intersection improvements** were designed at both ends and at intersections along the 2-mile road. The firm prepared ROW property impact plans for the City to negotiate with property owners. Wetland Permit Plans were necessary for wetland impacts associated with the roadway widening and culvert replacement.

Services/Highlights

- Roadway Master Plan
- Traffic study
- Public meetings & coordination
- Highway design
- Structural engineering
- Pavement markings
- Drainage design
- Landscape design coordination
- Local & state permitting
- Cost estimating



Market Street Bridge & Route 3A Widening, Hookset, NH

Key Personnel: Jody & Kevin

TEC prepared a detailed traffic study and off-site design package to facilitate the construction of a new supermarket and private connector road at I-93 Exit 10 in Hookset, NH. This work involved a change in limited access and comprehensive permitting with NHDOT and the Town of Hookset.

The design addressed widening along Route 3A and the I-93 Southbound Ramps to introduce turn lanes and new traffic signal operations, corridor traffic signal coordination, and a privately-owned and maintained bridge to Central Park Drive to improve the access management and safety of the Route 3A corridor.



Services/Highlights

- Traffic study
- Bridge design
- Roadway widening
- Construction-phase



New Castle Avenue Road & Seawall Reconstruction, Portsmouth, NH

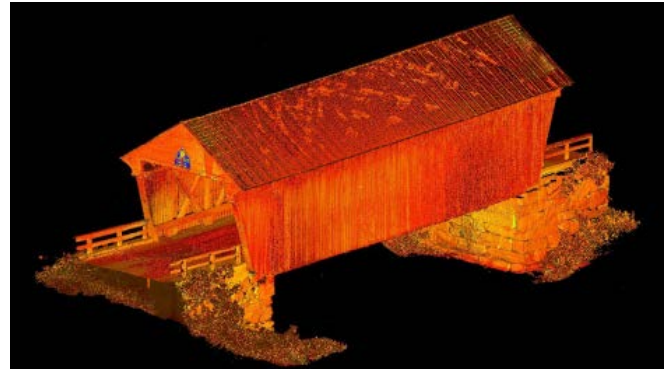
Key Personnel: Ben

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 reconstruction
- Roadway reconstruction



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 and is 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