TOWN OF NEWCASTLE, MAINE

Proposal

DECEMBER 2023

# Professional Services for Pre-Engineering Services, MaineDOT Win 27790.00

WRIGHT-PIERCE
Engineering a Better Environment

TYLin

WRIGHT-PIERCE
Engineering a Better Environment

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December 7, 2023

Denise M. Clavette
4 Pump Street
Newcastle, ME 04553

**SUBJECT: Professional Services for Pre-Engineering Services**
**WIN 27790.00**

Dear Ms. Clavette,

The Town of Newcastle has prepared studies, adopted new zoning ordinances, and given much thought to a comprehensive plan that supports a vision of a vital downtown. Newcastle is more than just a pass through on the way to Damariscotta. During the Comprehensive Plan development, the Town identified potential changes to the Main Street/River Road and Main Street/Academy Hill Road/Mills Road intersection and even experimented with a four-way intersection at the later intersection. The reconfiguration of the two main intersections offers an opportunity to undertake a more transformative project to improve the downtown and position the Town for additional funding opportunities through programs offered by the Maine Department of Transportation.

Wright-Pierce has worked with several Maine communities in developing projects related to roadway reconfiguration and overall downtown revitalization that are geared towards the specific needs of the community. We have already put some thought into the following key issues to address with the Pre-Engineering Services:

- Study of the potential traffic, parking, and pedestrian enhancements, such as:
  - Understanding the traffic volumes
  - Roadway rights-of-way (ROW)
  - Pedestrian infrastructure in the area
- Gaining the public's input
- Formulating an understanding of the traffic patterns and community needs
- Developing a thorough traffic plan tailored to the needs of the Town

As a multi-disciplinary engineering firm with significant community development experience, Wright-Pierce has provided similar services to municipalities like Newcastle since 1947. Working with Wright-Pierce offers the following benefits:

- **A Seasoned Project Team Experienced in Civil Infrastructure.** Jan Wiegman, our proposed Project Manager, is well known in the Maine civil infrastructure community and has contributed to multiple similar and successful roadway design projects. This experience includes significant, direct experience

working in nearby Damariscotta. The timing of this project is ideal as Jan recently finished a multi-year engineering assignment for another Maine client. As such, his current schedule will afford him ample time to devote to this project. Principal-in-Charge, Ryan Wingard, has provided project oversight for dozens of roadway improvement projects and is currently serving in this capacity for roadway reconstruction projects in the City of Bath as well as in Rockland and Brunswick.

- **Proven Track Record of Successful Downtown Revitalization Plans.** Downtown plans each have their own unique features that reflect the specific needs of that community. Wright-Pierce, and specifically Technical Advisor Jeff Preble, has been involved with implementing the various elements of downtown plans for Maine communities for several years. This experience includes downtown revitalization plans recently completed for Harrison, Rangeley, Richmond, Sanford, Norridgewock, Gardiner, and Rockland, Maine. Jeff is currently involved in planning efforts for Kittery and South Berwick, Maine. In Rangeley, our team is providing support for implementation of the action items identified in the adopted downtown revitalization plan.

- **Commitment to Client Satisfaction.** Delivering responsive, client-focused service is a core value at Wright-Pierce. We have an excellent record in maintaining strong client relationships over the long term and are confident our past work preparing downtown plans attests to the importance we place on client satisfaction. Please reach out to the references provided within Section D of this proposal to learn more.

We acknowledge receipt of the response to questions sent by the Town on November 14th. We appreciate being considered for this opportunity and look forward to meeting with the selection committee to present our qualifications/approach to this project or answering any questions you may have.

Sincerely,
**WRIGHT-PIERCE**

Ryan T. Wingard, PE
Vice President, Principal-in-Charge
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207.523.1419

Jan B. Wiegman, PE
Project Manager
jan.wiegman@wright-pierce.com
207.319.1520

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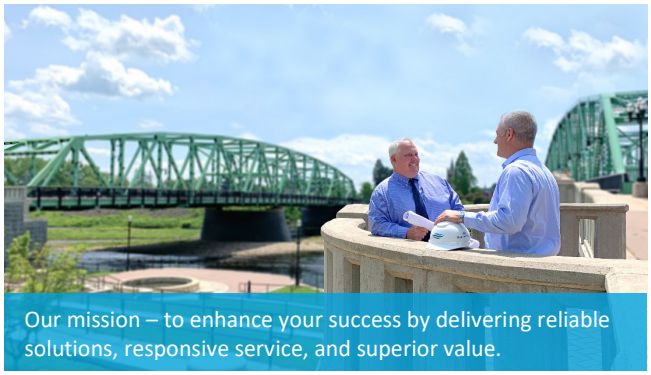
# A

# Quality of Consultant Team



Our mission – to enhance your success by delivering reliable solutions, responsive service, and superior value.

**ACEC** Award-Winning Projects
**PSMJ** Circle of Excellence
**ENR Top 500** Design Firms
**ENR Top 200** Environmental Firms
**ENR Top 50** Sewer and Waste Engineering
**ENR Top 25** Sanitary and Storm Sewers
**ENR Top 25** Wastewater Treatment Plants
**Top 50** Trenchless Engineering Firms

## Wright-Pierce Overview

Wright-Pierce is an award-winning, multidiscipline engineering firm that has been providing civil infrastructure, drinking water, and wastewater services since 1947. Employee-owned and operated, our firm is made up of more than 300 engineers and support professionals in offices throughout the Northeast and Southeast. We complete many projects with construction values ranging from less than $100,000 to more than $100 million. We provide full-service engineering from planning to design, bidding, construction administration, and operational support.

## An Award-Winning Firm

Wright-Pierce has been recognized by several industry organizations for business performance and engineering excellence. We rank in Engineering News-Record (ENR) “Top” lists, including the Top 500 Design Firms and Top 200 Environmental Design Firms in the country. Many of our projects receive regional ACEC Engineering Excellence Awards. In addition, Wright-Pierce is a multi-year winner of the PSMJ Resources, Inc. ‘Circle of Excellence’ Award.

## Teaming Partner TYLin Overview

TYLin offers more than 30 years of local experience with the capabilities of a national, Engineering News-Record-ranked design firm (ranked 8th in transportation). Their group of professionals believes in providing creative, technically sound solutions to a wide range of clients in the public, private, and not-for-profit sectors. Their planners, engineers, and technical support staff artfully combine theory, practicality, cost effectiveness, and aesthetics in assessing and identifying solutions that incorporate all users of the transportation system.

TYLin has led dozens of similar studies and implemented projects throughout the state of Maine that include condition assessments, analysis of future scenarios, and development of improvement alternatives. This work includes collaborative efforts with Wright-Pierce like the Oquossoc Village Improvement Study in Rangeley and the ongoing Kittery Route 1 Corridor Feasibility Study.

## Working Together, Working for You

From our full-service, diverse staff of experienced engineering professionals, operators, technicians, and support personnel, we have assembled a project team with many years of demonstrated practical experience completing similar projects. We understand that no one will know the requirements of this project better than you. To find the best solution, working together as a team will be essential, and our team is committed to working with you.

We have brought on a specialty traffic teaming partner in TYLin, which brings together the ideal collaboration of civil and traffic engineering expertise. We have partnered with TYLin in this capacity on several successful projects in Maine. Wright-Pierce will be the prime consultant and TYLin will work closely with the Town of Newcastle for traffic engineering aspects of the project.

## Project Team Organization

**Jan Wiegman** will be your dedicated Project Manager for this project. He has 40 years of experience working on similar projects and has direct experience working on downtown revitalization projects in various Maine communities. Jan will be supported by the technical team shown below, many of which have worked together before on projects similar to this one and have familiarity with you and the project.

**PRINCIPAL-IN-CHARGE**

Ryan Wingard, PE

**TECHNICAL ADVISOR**

Jeff Preble, PE

**PROJECT MANAGER**

Jan Wiegman, PE

**PROJECT ENGINEER**

Nate Edwards, PE

**SUPPORT SERVICES**

**Landscape Architecture**
Kalle Maggio, PLA

**GIS Mapping**
Christine Manderson, GISP

**TRAFFIC ENGINEERING**

**TYLin Technical Expert**
Shawn Davis, PE

**TYLin Traffic Engineer**
Thomas Errico, PE

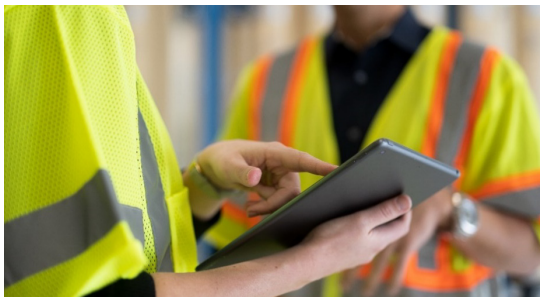
## Introducing Our Key Team Members

The following introductions describe each of our key team members and explains:

- Their role and responsibilities for this project
- Their general qualifications as they relate to this project
- A synopsis of specific experience that helps them add value to this project

Additional information about each team member and their experience can be found in their resume in an appendix to this submittal.

**Wright-Pierce team members typically participate through all phases of a project to ensure continuity, effective implementation of original concepts, and overall success.**



**Experience:** 39 years
**Joined Firm:** 2011
**Professional License:** ME

### Project Manager: Jan Wiegman, PE

Jan will serve as Project Manager for this contract. In this role, he will be the primary point of contact for communications with the Municipality of Newcastle. He will be responsible for coordinating the technical efforts of the project team and for monitoring schedule and budget compliance. Jan has nearly four decades of engineering design, permitting, and project management experience on a wide variety of civil, structural, and transportation projects. Most recently, he has been managing several large-scale site development and transportation related projects and providing technical guidance on a myriad of projects including pedestrian and transportation projects.

**Experience:** 27 years
**Joined Firm:** 2007
**Professional Licenses:** ME, CT, FL, MA, MI, NH, RI, VT

### Principal-in-Charge: Ryan Wingard, PE

Ryan will serve as Principal-in-Charge for this contract. In this role, he will be responsible for acting as the firm's authorized representative in negotiations and for ensuring contractual obligations are met. Additionally, Ryan will be available to assist with meetings and presentations, as necessary. As Principal-in-Charge, Ryan will commit the team resources needed for this contract. Ryan has over two decades of civil infrastructure experience, including downtown revitalization, roadway reconstruction, stormwater system design, watershed characterization, wastewater system design, and project management. His specialties center on hydrology and hydraulics as they pertain to stormwater, watershed, wastewater, and CSO systems.

**Experience:** 38 years
**Joined Firm:** 2001
**Professional Licenses:** ME, NH, CT

## Technical Advisor: Jeff Preble, PE

Jeff will serve as Technical Advisor, providing technical advice to the project team and reviews of interim technical documents. He will also assist with ensuring that our QA/QC program is implemented and will be a QC reviewer. He has extensive experience in downtown planning having completed recent plans for Harrison, Rangeley, and Richmond. His experience also includes street and highway design and reconstruction, and site design, stormwater management plans, sewer separation, storm drainage, surface water treatment, water distribution systems, water system planning and analysis, sewer replacements, and wastewater pump stations.

**Experience:** 6 years
**Joined Firm:** 2019
**Professional Licenses:** ME, NH

## Project Engineer: Nate Edwards, PE

Nate will serve as the Project Engineer. In this role he will assist the project team and work with the Project Manager in execution of concept designs, including technical calculations and development of opinions of costs. His experience includes project development from the study phase through design and bidding, and into successful completion of construction. Nate's skill set includes hydraulic and hydrological modeling, developing construction plans and specifications, construction observation and documentation, and completing third-party review of proposed developments.

**Experience:** 11 years
**Joined Firm:** 2021
**Professional Licenses:** ME, NH, CT, MA, NY

## Landscape Architect: Kalle Maggio, PLA

Kalle will serve as Landscape Architect. She will leverage training in landscape architecture and community planning to develop sustainable, context sensitive landscape design for this project. Kalle brings over a decade of experience in landscape architecture, design, and horticulture. Her project experience includes urban landscape architecture, green infrastructure practices, park and recreational program elements, campus master planning, streetscape beautifications, bike and trailway design, traffic calming techniques, sustainable landscape design, signage and wayfinding design, and residential design.

**Experience:** 22 years
**Joined Firm:** 2013
**Professional License:** Geographic Information Systems Professional

## GIS Mapping: Christine Manderson, GISP

Christine is a GIS analyst at Wright-Pierce, working out of the Topsham, ME, office. She will provide GIS mapping services, as needed, for this project. Christine has more than 20 years of experience in both the public and private sectors. She has conducted spatial analysis, data collection, custom cartography, and managed geographic data on a wide range of topics in a wide range of industries. She has managed GIS data on water and sewer systems, created municipal parcel and zoning maps, evacuation plans, and conducted habitat modeling and conservation planning.

**Experience:** 21 years
**Joined Firm:** 2018
**Professional License:** ME

## Technical Expert: Shawn Davis, PE

Shawn's strong project management and highway design skills were honed at Maine DOT where he served as a lead designer for several complex roadway design projects in the northern section of Maine, including Wallagrass Route 11 Reconstruction and Fort Kent Route 1 reconstruction. Shawn was also the lead designer for the Caribou Connector project, where he gained local knowledge and a vast appreciation for land use, economic development, and communities needs in the area.

**Experience:** 36 years
**Joined Firm:** 2005
**Professional License:** ME, VT, MA

## Traffic Engineer: Thomas Errico, PE

Tom's background in traffic engineering includes access management, corridor studies, traffic operations studies, pedestrian studies, parking studies, safety evaluations, and traffic impact studies. He has significant experience in designing traffic signals, developing and maintaining traffic plans, and determining intersection and roadway design requirements for highway projects, including auxiliary lanes, bicycle and pedestrian facilities, signing, and traffic control.

## Availability & Capacity to Perform

Wright-Pierce has over 300 engineering and support staff. We complete hundreds of projects per year and have appropriate staffing in place to deliver. Many of our projects are on stringent administrative order schedules and we have a proven track record of meeting these and other accelerated project schedules.

As we begin projects, we allocate appropriate team resources to meet our clients' requirements. Typically, team members remain the same throughout the duration of the project to ensure continuity and proper execution of design through construction.

### Current & Planned Workloads

We utilize state-of-the-art business management software, BST10, that includes staffing workload resource planning which is updated monthly. These data are utilized to project 12-month workloads for all staff and to identify project team members with appropriate availability for specific assignments. Based on this analysis and the projected start and duration of this project, we have identified key project team members who we will commit to complete the project within budget and on schedule. The percentages listed reflect the current bandwidth and will be more than sufficient to complete this effort for the Town.

**Wright-Pierce will commit the necessary resources to complete your project within the desired timeframe.**

| Key Team Member Availability | | |
|---|---|---|
| Jan Wiegman, PE | Project Manager | 30% |
| Ryan Wingard, PE | Principal-in-Charge | 10% |
| Jeff Preble, PE | Technical Advisor | 10% |
| Nate Edwards, PE | Project Engineer | 30% |
| Kalle Maggio, PLA | Landscape Architect | 60% |
| Christine Manderson, GISP | GIS Mapping | 30% |
| Shawn Davis, PE | Technical Expert: | 20% |
| Thomas Errico, PE | Traffic Engineer | 10% |

# B

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## Project Understanding

Newcastle has prepared studies, adopted new zoning ordinances, and given much thought to a comprehensive plan that supports a vision of a vital downtown and not just a pass through on the way to Damariscotta. There are several businesses and community functions in the vicinity of the downtown that could be enhanced by a varied traffic pattern, additional parking, and pedestrian amenities. The recent planning efforts have identified potential intersection improvements and opportunities that could enhance the economic environment for the downtown businesses and community functions. In support of this vision, the Town has sought out funding from the Maine Department of Transportation (Maine DOT) under the Village Partnership Initiative (VPI) program to study the key transportation issues that could help manage traffic, add parking and pedestrian facilities, and create a welcoming village entrance.

During the Comprehensive Plan development, the Town identified potential changes to the Main Street/Academy Hill Road/Mills Road intersection and even experimented with a four-way intersection. The second intersection that has been identified as being a key influence on traffic entering downtown is the intersection of Route 1 and River Road. This is a complex intersection for vehicles turning from or into River Road and gives priority to the Route 1 vehicles, which does not create a sense that an approaching vehicle is entering a more congested downtown.

The reconfiguration of the two main intersections offers an opportunity to undertake a more transformative project to improve the downtown and position the Town for additional funding opportunities through programs offered by the Maine Department of Transportation.

## Key Issues

There are several key issues to address with the Pre-Engineering Services to study the potential traffic, parking and pedestrian enhancements, such as understanding the traffic volumes, roadway rights-of-way (ROW), and pedestrian infrastructure in the area. Items such as gaining the Town's input will be important in formulating the understanding of the traffic patterns and community needs that will play into developing a thorough traffic plan tailored to the needs of the Town.


Main Street looking south toward the River Road intersection. Note the crosswalk without ADA accessibility on sidewalk.


Entry into Newcastle from Damariscotta.

## Town Input

Although not mentioned in the RFP, we have found that stakeholder involvement in the development of a traffic study is valuable in understanding the local concerns that need to be addressed by the potential solutions. An advisory committee of key Town stakeholders is recommended for reaching out to community members and promoting the ongoing work for the study. Common themes for improvements are often derived from the advisory committee insights.

## ADA Accessibility

During our recent site visit, we observed that many of the crosswalks within the downtown area do not meet current Americans with Disabilities Act (ADA) standards and future projects aimed at improving pedestrian safety will require upgrading the crosswalks to meet such. This will include providing detectable warning plates and ensuring ramps with proper slopes and widths are met for wheelchair maneuverability.

Even though Wright-Pierce has been designing pedestrian improvements to ADA standards for many years, we have been closely watching the coming U.S. Access Board final ruling on ADA accessibility guidelines. As of September 7th, 2023, the final rule has become effective requiring ADA accessibility guidelines to be followed for all pedestrian facilities within public rights-of-way. This includes sidewalks, crosswalks, curb ramps, shared use paths, intersections, roundabouts, and other pedestrian access routes.

## Downtown Parking

The examination of the available right-of-way area for additional on-street parking will need to be explored. There are currently parallel access and parking to support some of the business on Main Street and there may be opportunities to rework the space for more accessible parking and other amenities such as outdoor seating, esplanades, and walkways. Opportunities for off-street parking behind the buildings, and other areas adjacent to downtown will need to be explored. Implementing signage and improving pedestrian connectivity will help tie the off-street parking areas to downtown businesses.

## Creating Downtown Gateway

We will explore opportunities to create an entrance statement for vehicles approaching downtown. This may include using streetscape landscaping features to emphasize the change in the travel way or

Enhancement to the pedestrian system will be a key item to study for the project.

emphasizing a scenic view along the route. The use of signage will also be examined as a potential gateway announcement that the traveler is no longer on the high-speed route and has arrived in Newcastle.

## Project Approach

The goal for this project is to develop potential traffic calming measures at two key downtown intersections and identify opportunities for additional on-street parking and pedestrian enhancements within the Main Street and adjacent corridors.

Since 1947, we have worked on thousands of projects and developed a proven project approach that each of our project managers implements on every project, to the extent possible. A typical engineering study project would follow the various phases of work identified in the graphic below. We will work with you to refine our approach and customize it to fit your project goals, budget, and desired schedule.

### 1 Project Planning

- Fully understand goals, timeline, and critical success factors
- Develop workplan, scope of services, schedule, and budget

### 2 Engineering Study

- Investigate, document, and analyze important data
- Suggest alternatives with consideration of safety, innovation, and cost-savings
- Make recommendations with client's best interest in mind

**Community engagement and public outreach is essential to giving the people in the community a voice in development of this project. This photo is a photo from Town of Harrison, Maine public meeting, facilitated by Wright-Pierce.**

## A Focus on Public Engagement

Wright-Pierce recognizes the importance of effective communications between the project team members, Town staff, the select board, the public, partnering engineering firms, and other stakeholders to make this a successful project. We also recognize that communication needs are different for every project. Our team will work collaboratively with Town staff to develop a customized approach designed specifically for you. Several or all of the following elements could be included as part of a public participation plan for the Town, based on your preference.

### Cloud Based Document Access

Wright-Pierce maintains an active OneDrive site for electronically sharing large drawings and documents. We can make progress drawings available quickly for viewing by project stakeholders. In addition, we create PDF files of all our design drawings so they can be emailed and read without the need for costly engineering software. This could be an alternative approach to a project website posting location.

### Informational Meetings and Presentations

Wright-Pierce's work plan includes periodic informational meetings with Town staff, Board of Selectmen, and members of the public. Details on our level of effort for meetings are presented in the scope of services. Many of our company leaders facilitate

trainings and we understand the need to make complex technical information easy to understand by the public. Our project manager and principals will lead all presentation efforts and help communicate project progress with designated parties.

## Scope of Services

Based on our understanding of the project and discussions with the Town, we propose the following scope of services to complete Pre-Engineering services for the downtown traffic assessment and pedestrian improvements for the Town of Newcastle.

### Task 1 – Inventory, Mapping, Project Kickoff Meeting

The initial step in the project will include an inventory of downtown assets and key features and development of base mapping. Wright-Pierce will:

- Develop base mapping from available GIS, LiDAR, or aerial images covering the desired downtown area limits.
- Gather available traffic data from Maine DOT for the intersections.
- Identify the key parking/pedestrian needs within the downtown area.
- Attend a project kickoff meeting with the Town appointed advisory committee.

We will engage the local advisory committee, to be organized by Town staff, and Maine DOT to assist in information gathering and confirmation of the project objectives. Goals of the kickoff meeting will be to:

- Review the proposed work tasks.
- Discuss level of project involvement by the committee and Town staff.
- Review mapping, reports, and identify additional inventory/research needs.
- Identify key stakeholders to involve in the outreach process.
- Present and brainstorm local issues, strengths, and weaknesses.
- Conduct a site visit to gather information and photos of key assets within the study area.

### Task 2 – Develop Parking, Pedestrian, and Intersection Concepts

Using the base plans that were prepared in Task 1, we will develop concept plans for additional on street parking, pedestrian improvements, and intersection configurations that will calm traffic, provide for additional parking and pedestrian friendly streets. We will coordinate with the local advisory committee and Town staff to review the concepts. The concepts will be prepared for the following project locations:

#### 1. Main Street between River Road and Academy Hill Road intersections

We will focus on opportunities for additional street parking where current ROW and easements allow. Sidewalks and crosswalks will need to be reviewed for modifications for safety and ADA compliance. There are some grade challenges in this section with a portion of the western transition having retaining walls between the sidewalk and adjacent properties. The roadway lane widths will be reviewed to see if there is opportunity to reduce the lane widths to promote safety create space for parking.

#### 2. Main Street from Academy Hill Road to the Damariscotta River Bridge

We will focus on opportunities for additional street parking where current ROW and easements allow. Sidewalks and crosswalks will need to be reviewed for modifications for safety and ADA compliance.

The current configuration of the parking in this section of the roadway is a separate aisle and parking off the main thread of the roadway. There may be an opportunity to broaden the sidewalk area closer to the buildings to allow for outdoor display and seating areas as well as additional esplanades and on-street parking and an overall more efficient use of the space between the travel way and the buildings.

#### 3. Mills Road from Academy Hill Road to Stewart Street

We will focus on opportunities for additional street parking where current ROW and easements allow. Sidewalks and crosswalks will need to be reviewed for

modifications for safety and ADA compliance. The existing roadway has a narrow sidewalk along one side of the road and an open drainage system for most of the length of the study area.

There appears to be an opportunity to improve the sidewalk and potentially to add on-street parking with the introduction of curbing and a closed drainage system.

### 4. Intersection of River Road and Main Street

This intersection will be reviewed for ways to improve safety, make River Road access less confusing, and calm traffic entering downtown. We will prepare concepts for a gateway to the downtown at the intersection to signal drivers they are transitioning to a different traffic mode and look for ways to highlight scenic vistas near this intersection.

We will examine the use of a roundabout for the intersection that will serve to calm the traffic and could also signal a different driving pattern. The grade on River Road and proximity of Barroll Point Road are challenges that will be evaluated. Decorative lighting and landscaping will be evaluated as options to define the gateway into the villages.

The vehicle movements through the intersection will be assessed in both the current and future improvement conditions. The assessment will include development of design hour traffic volumes, creating a Synchro/SimTraffic Model for determining level of service, delay, queues, and conducting a safety analysis. A field investigation will also be performed. Future traffic volume forecasts will be developed according to background growth rates and localized development. Utilizing the Synchro/SimTraffic Model, we will assess various improvement alternatives including intersection reconfigurations and roundabouts.

### 5. Intersection of Academy Hill Road, Mills Road, and Main Street

Wright-Pierce will develop alternatives that address pedestrian safety and traffic movements through the intersection. We will additionally develop a village vernacular for streetscape improvements that may include landscaping, decorative lighting, curbing, and sidewalk materials.

This intersection, as it is currently configured, favors travelers from Route 1 south to the detriment of the local traffic movements. There are grade and pedestrian movements that will also need to be considered in the overall concepts that are prepared.

The vehicle movements through the intersection will be assessed in both the current and future improvement conditions. The assessment will include development of design hour traffic volumes, creating a Synchro/SimTraffic Model for determining level of service, delay, queues, and conducting a safety analysis. A field investigation will also be performed. Future traffic volume forecasts will be developed according to background growth rates and localized development. Utilizing the Synchro/SimTraffic Model, we will assess various improvement alternatives including intersection reconfigurations and roundabouts.

## Task 3 – Follow up Meetings with Town

The presentation of Draft concepts and results of traffic modeling will be made to the Town advisory committee and Maine DOT for comment prior to a public meeting to present the draft findings. We will discuss the concepts and overall impacts to the traffic at the intersections.

## Task 4 – Finalization of Concept Plans and Narrative

Based on input from the Town and Maine DOT, we will complete the concepts for the five traffic areas and finalize a report explaining the changes and summarizing the results of the intersection traffic analysis.

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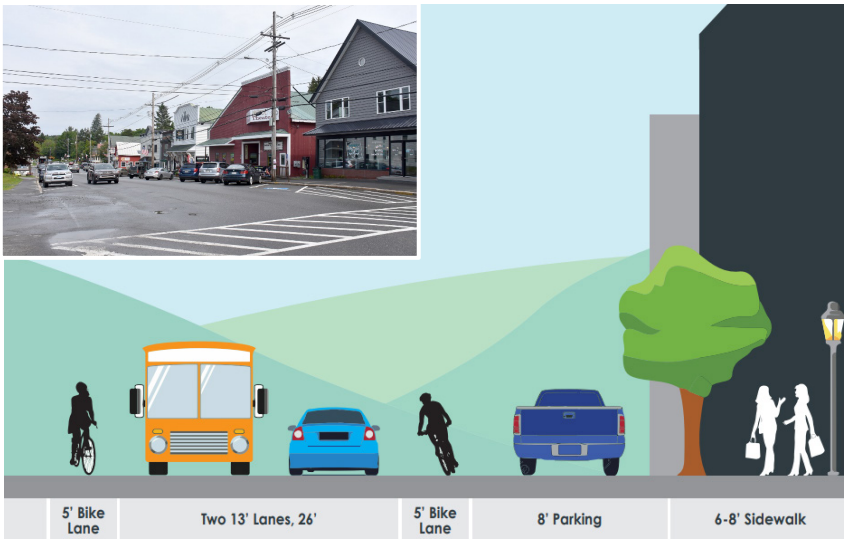
# Prior Experience

## Projects Similar to Newcastle's Needs

To demonstrate our experience, we have selected the following projects similar in scope and size to Newcastle's project. Key members of our proposed team have been directly involved in the implementation of these projects, better enabling Wright-Pierce to apply our experience and expertise to the Town's benefit.


# Open Spaces & Downtown Revitalization Plan

## Rangeley, Maine




**Sample rendering of plan with downtown photo inset.**

Wright-Pierce worked with the Town of Rangeley to develop a Downtown Revitalization Action Plan to serve the community as an instrument for identifying and prioritizing revitalization goals in the Rangeley and Oquossoc Village areas. The Town's goals for the plan included identifying needed capital investment to support physical improvements (utilities, parking lots, streetscape elements, etc.) and promotion of the vision for the downtown. A Tax Increment Finance (TIF) District was established as a result of the Action Plan to help fund future investments in the village areas.

Wright-Pierce performed a building inventory condition assessment, inventory of retail/commercial space, inventory of residential units, pedestrian/bicycle infrastructure and accessibility, assessment of streetscapes and utilities, signage, parking management, and connections to natural and recreational areas. A public participation process was prepared and facilitated by Wright-Pierce and the Town of Rangeley to learn what the community wanted to prioritize in their plan. Wright-Pierce incorporated the Town's natural amenities and proposed improvements to the built environment. Assessment of the current state of each of these plan components culminated in specific recommendations for implementing each component of the plan. The plan concludes with a prioritized action plan for downtown revitalization implementation strategies in a phased approach.

### Client Contact

**Town of Rangeley**
15 School Street
Rangeley, ME 04970

**Joe Roach**
Town Manager
207.864.3326
townmanager@rangeleyme.org

### Highlights

- Downtown revitalization plan development
- Historic center preservation
- Bicycle and pedestrian systems
- Safety improvements
- Broadband and cell phone service improvements
- Vehicular traffic flow and safety conditions
- Street lighting
- Ongoing projects post-plan including streetscapes, sidewalks, and roadway reconstruction

### Dates

2017 – ongoing

### Key Personnel

Jeff Preble, Kalle Maggio, Ryan Wingard

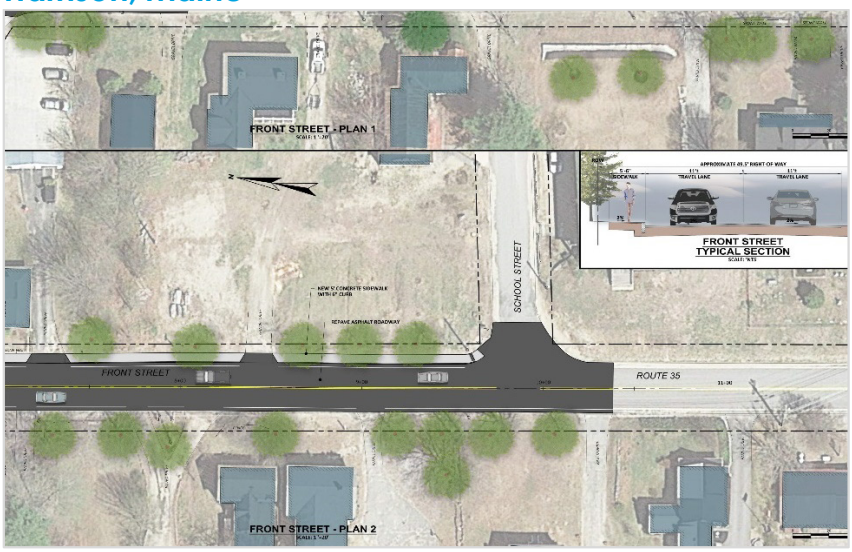

Concept plan for Route 4 and Route 17 intersection improvements in Oquossoc Village.


Concept plan for Carry Road for the Oquossoc Village Transportation Study.

In addition to the downtown revitalization planning project, Wright-Pierce has designed several projects for Rangeley including full street reconstruction, new sidewalks, drainage system, and new water mains and service in residential neighborhoods in the heart of the downtown area. We are currently working with TY Lin on a Transportation Study in Oquossoc Village aimed at improving safety throughout the village area.

# Parks & Downtown Revitalization Action Plan

## Harrison, Maine




Wright-Pierce developed a master plan for parks and strategic infrastructure improvements along the main streets in Harrison, Maine. Wright-Pierce is currently working with the Town to prepare and facilitate three public workshops to discuss the community's goals and objectives for their Downtown Revitalization Action Plan. Concept plans convey the proposed improvements the community envisions and will be part of a report that will be used to obtain available funds needed to manage and construct the projects. Planning level estimates are being provided for Crystal Lake Park, pedestrian connection to the Crystal Lake boat launch, Mill Park, downtown sidewalk improvements including Lincoln Street, Long Lake Park, street lighting, and general landscaping in the downtown area.

The Town had expressed their desire to begin renovations on Front Street. The Front Street project started at the Main Street intersection and included replacement of the deteriorating sidewalk up to School Street. The project extended approximately 840 linear feet of pavement milling and asphalt pavement overlay abutting the sidewalk on the east side and the edge of pavement on the west side of the roadway. Drainage improvements were made to align the sidewalk on the west side of Front Street. New pedestrian curb ramps were designed to be code compliant and meet ADA standards.

### Client Contact

**Town of Harrison**
20 Front Street
Harrison, ME 04040

**Cass Newell**
Town Manager
207.583.2241 ext. 318
cnewell@harrisonmaine.org

### Highlights

- Base mapping from aerial and LiDAR information
- Master planning and conceptual design services
- Survey of citizens
- Conceptual layout of sidewalk improvements
- Funding assistance in coordination with MaineDOT
- Community outreach
- ADA-compliant curbing and ramos
- Sidewalk planning estimations

### Dates

2021 – 2022

### Key Personnel

Jeff Preble, Kalle Maggio, Ryan Wingard

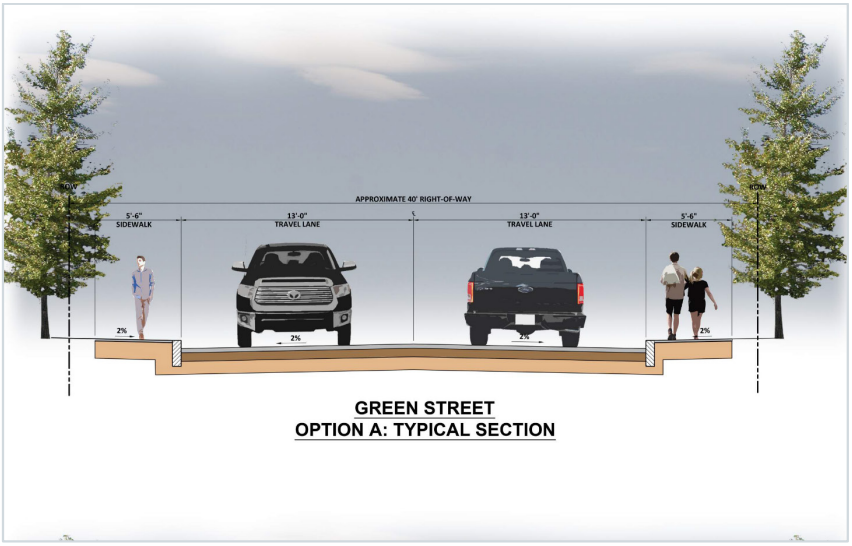
Front Street neighborhood before improvements.

Front Street neighborhood after improvements.

Wright-Pierce worked closely with the Town of Harrison to develop a plan that kept the interest and goals of its citizens in mind. The Front Street project replaced an aging sidewalk and improved access management into the Town Office parking lot.

# Green Street Roadway & Sidewalk Rehabilitation

## Bath, Maine




GREEN STREET
OPTION A: TYPICAL SECTION

The City of Bath wanted to address Green Street's deteriorating roadway conditions and storm water separation from the combined sewer. The sidewalks were also to be consolidated from both sides of the road to one side. The sidewalk consolidation was part of a long-term capital and maintenance goal to maintain sidewalks on one side of the street for low traffic residential streets.

Wright-Pierce evaluated the condition of the 1,300-foot-long roadway and developed a pavement rehabilitation plan. Several rendered concepts were developed and presented to the City Council committee and residents for sidewalk consolidation. Accommodation of on-street parking was evaluated while trying to minimize impacts to large street trees. At public meetings, residents expressed a strong desire to keep both sidewalks and allow for on-street parking.

The City decided to stop the design until it could reach agreement with the residents on the sidewalk consolidation. The project has since focused on the storm drain separation component of the road reconstruction as there is critical and time-sensitive funding for the separation work. Wright-Pierce was also working with the Bath Water District on a water line replacement design in this road and included the water line replacement design with the storm drain separation design in hopes of streamlining construction.

### Client Contact

**City of Bath**
55 Front Street
Bath, ME 04530

**Lee Leiner**
Public Works Director
207.443.8357
lleiner@cityofbath.com

### Highlights

- Roadway rehabilitation
- Consolidate sidewalks onto one side of the street
- Driveways and walkways with structures close to ROW
- Storm Drain separation
- Utility coordination for pole relocation
- Minimized impacts to large trees
- Community engagement
- Coordination with Bath Water District

### Dates

2018 – ongoing

### Key Personnel

Jan Wiegman, Nate Edwards, Kalle Maggio

**Wright-Pierce worked with the City of Bath to rehabilitate Green Street, while considering the concerns of the public.**

# Downtown Revitalization & Municipal Facility Study

## Richmond, Maine

After completion of a downtown revitalization plan, Wright-Pierce worked with the Town of Richmond to implement the downtown streetscape improvement goals in a multi-phase approach. These streetscape improvements included a downtown parking master plan; new, LED ornamental street lights; new year-round imprinted crosswalks; new site amenities (signage, trash receptacles, benches and bike racks); street, tree and landscape improvements; and replacement of sidewalks to meet the latest American's with Disabilities Act (ADA) accessibility standards. Sidewalk improvements also included decorative surface treatments and new granite curbing. Wright-Pierce assisted the Town with preliminary design and construction cost estimates for procurement of local, state and federal funding.

Wright-Pierce then developed contract design documents, administered bidding and performed construction administration services through project completion. Reconfiguration of parking, shoulder striping, and minor adjustments to driveway and road intersection alignments were coordinated with requirements of the Maine Department of Transportation along Route 197 (Main Street) and Route 24 (Front Street).

The team is currently performing an assessment of four separate municipal areas to define future projects and plan for improvements.

### Client Contact

**Town of Richmond**
26 Gardiner Street
Richmond, ME 04357

**Laurisa Loon**
Town Manager
207.737.4305
townmanager@richmondmaine.com

### Highlights

- Assessment of spaces and features of each building and site to be planned for
- Review of local permitting
- Preparation of conceptual site plans
- Streetscape improvement goals from that plan went through a thorough public participation process to come up with a prioritized action plan for implementing the community's vision of the downtown
- Developed preliminary plans and cost estimates to assist with securing funding for phased implementation
- Coordinated the projects with a variety of stakeholder interests

### Dates

2002 – ongoing

### Key Personnel

Jeff Preble, Kalle Maggio, Ryan Wingard

Waterfront park restroom and observation deck improvements.


Ongoing municpal facility study project showing renderings of proposed improvements for Town facilities.

Wright-Pierce is performing an assessment of four separate municipal areas. This assessment in being performed in order to define future projects and plan for improvements. Improvements being evaluated include Houdlette Field, the Town Office, the Police Station, adding a sand/salt storage building, and creating an emergency services building.

# Harbor Road Pedestrian Improvements

## Wells, Maine

The Town of Wells retained Wright-Pierce to assist in developing a design for the pedestrian access improvements of 3,600 long sidewalk and path along Harbor Road. A portion of the path was along the Rachel Carson Preserve and offered stunning views into the large marsh area. The path connected the Route 1 with the Harbor Park and an existing walking path at Harbor Park. The project was funded by the Federal Lands Access Program (FLAP) Grant, and required substantial coordination with the MaineDOT, as well as coordination with the abutting federal landowner, the Rachel Carson Preserve (USFWS).

A viewing platform was constructed overlooking the marsh as part of the new walkway. The details of the platform were closely coordinated with USFWS and the Rachel Carson Preserve to match access with the preserve's goals.

The project was a Locally Administered Project (LAP) through Maine DOT and required the LAP processes be followed from design through construction.

### Client Contact

**Town of Wells**

208 Sanford Road
Wells, ME 04090

**Mike Livingston**
Town Engineer/Town Planner
207.646.5113
mlivingston@townofwells.org

### Highlights

- FLAP/FHWA Funding
- Coordination with project partners (USFWS)
- LAP Project

### Dates

2018 – 2021

### Key Personnel

Jan Wiegman, Nate Edwards, Ryan Wingard

**Connecting critical portions of the community through close coordination with permitting and funding requirements.**

# Bristol Road Sidewalk

## Damariscotta, Maine

The Town of Damariscotta was awarded a sidewalk grant from the Maine Department of Transportation (DOT) to construct a 2,000-foot-long sidewalk along Bristol Road (State Route 129) from downtown to the Miles Memorial Hospital entrance. The route is an important pedestrian connection from the downtown sidewalk network to the hospital destination.

The sidewalk presented challenging grading accommodations and storm drain improvement opportunities. We worked closely with Maine DOT and followed the Locally Administered Projects (LAP) design process as the funding and the route were within State route jurisdiction. We worked closely with the Town, State, and abutters to develop solutions that worked for all the parties and made for a successful project.

The project was designed to minimize impacts to a sensitive coastal area along Days Cove. We designed a new storm drainage system around existing sewer and overhead utilities that required significant utility coordination efforts. Maine DOT worked on the property and easement acquisitions while we completed the design and prepared the project for bidding.

### Client Contact

**Town of Damariscotta**
21 School Street
Damariscotta, ME 04543

**Matt Lutkus**
Town Manager
207.563.5168
MLutkus@damariscottame.com

### Highlights

- Grading challenges
- Storm drain improvements
- LAP design project
- Sensitive coastal areas
- Important pedestrian connection
- Utility coordination

### Dates

2012 – 2020

### Key Personnel

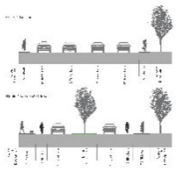
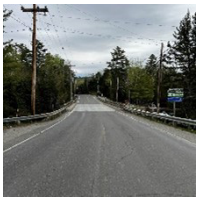
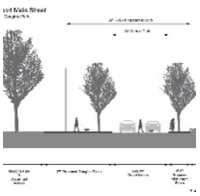
Jan Wiegman

**Wright-Pierce worked closely with the Town, State, and abutters to develop solutions that worked for all parties and made for a successful project.**

## Additional Relevant Wright-Pierce Experience

| | Project Name – Location | Overview |
|---|---|---|
|  | **Downtown Revitalization and Streetscape Skowhegan, Maine** | As part of a downtown beautification and pedestrian improvement project, we provided design for new period lighting poles and fixtures; "Street Print" textured and colored sidewalks; new pedestrian crossings with ADA detectable warning devices; new cross walk signals and markings; and new street trees. |
|  | **Downtown Planning and Design Sanford, Maine** | Assisted the City of Sanford in establishing a downtown master plan and developing the final design for the Midtown Mall. The plan highlighted projected costs; options and site plan alternatives; and palettes for site amenities, hardscape materials, street trees, and streetlights. In addition, the project involved stairway improvements for better access between Main Street and the Town's waterfront. |
|  | **Downtown Revitalization Gray, Maine** | As part of a community-wide planning process, we assisted the community in helping to visualize the redevelopment potential of Hancock Block—the heart of Gray's village center. This project involved coordination with concurrent planning studies by the Sustain Southern Maine initiative and the Monument Square redevelopment plan. |
|  | **Downtown Revitalization Eastport, Maine** | Assisted with a variety of initiatives for revitalization of the Eastport downtown area. Initiatives included elements related to landscaping and lighting improvements along the harbor walk; rehabilitation of sidewalks and the installation of period lighting along Water Street; and creating new and improved public spaces at Bank Square and Overlook Park. |
|  | **Downtown Revitalization Wilton, Maine** | Comprehensive assessment of the downtown area and facilitation of a series of community engagement activities to identify concerns and ideas to enhance downtown. The resulting plan included improvements to the the streetscape character, outlined strategies for downtown housing, and ways to create a more economically viable downtown. |
|  | **Downtown Revitalization Bridgton, Maine** | Key components of this revitalization plan included renovation of a landmark theater building, expansion of retail property, provisions for new landscaping, and enhancements to public and private parking facilities. |
|  | **Downtown Revitalization Gardiner, Maine** | Replacement and expansion of the lighting systems, a gateway signage program, extensive landscaping improvements, rehabilitation of sidewalks, improvements to the Water Street mini park, and design and bidding assistance for a facade improvements program. The downtown buildings were also evaluated to assess rehabilitation work needed to optimize utilization of upper floor space. |

## TYLin Relevant Experience

| | Project Name – Location | Overview |
|---|---|---|
|  | **Route 1 Corridor Feasibility Study Kittery, Maine** | Together with Wright Pierce, TYLin is completing this study to identify transportation improvements that will improve safety, compliment future land use goals and build-out scenarios, address sea-level rise, and better accommodate access for all transportation users. It will not only consider highway safety and mobility but also emphasize improvements for active transportation and transit. |
|  | **Oquossoc Village Improvement Study Rangeley, Maine** | TYLin is completing this study in downtown Oquossoc Village, focusing on pedestrian connectivity, bicycle accommodations, and safety. The study is analyzing different potential locations of sidewalks and crosswalks, including consideration of widening an existing bridge over the Rangeley River to accommodate a sidewalk or adding a separate pedestrian/mixed-use bridge. The project also includes making shoulder widths consistent to accommodate bicycles, adding shared-use arrows, and implementing safety and geometric improvements. Additional considerations are being made for re-aligning Marina Road into Shore Road to reduce the opening width along Carry Road and coordinating connectivity to the Oquossoc Park improvements being designed by Wright-Pierce. |
|  | **Route 1 Main Street Feasibility Study Presque Isle, Maine** | TYLin is developing this feasibility study to identify business-friendly alternatives that improve safety and accessibility for all transportation modes while supporting economic development in the City's historic downtown. Our team evaluated the existing and recent historic performance of the transportation system, with a focus on identification of bicycle and pedestrian deficiencies, vulnerable uses within the study area, and equity concerns. Sidewalk and crosswalk facilities were analyzed for potential ADA compliance issues. Signal timing, intersection movements, and historic traffic and crash data were examined to identify potential options for traffic calming. A thorough site walk was completed with local stakeholders to discuss use patterns and problem areas. |
|  | **Bucksport Safety, Accessibility, and Economic Study Bucksport, Maine** | Completed by TYLin, this study promotes safe, convenient, and attractive pedestrian facilities on Main Street that will provide ADA accessible connectivity to local businesses and attractions. Recommendations supported repurposing outmoded infrastructure, with the potential to convert parking spaces and lane configurations that were previously necessary to streetscape and intermodal transportation facilities that can support goals for sustainability, while complementing economic development efforts. The study included the evaluation of installing a sidewalk along Route 15 to fill pedestrian access gaps, with consideration of connection to a parallel, off-site Riverwalk. |
|  | **Pleasant Street Corridor Transportation Study Brunswick, Maine** | TYLin conducted this transportation study of Pleasant Street from the I-295/Route 1 area to Maine Street. The study objective was to conduct an analysis of potential improvement strategies to improve congestion and safety along the corridor without widening Pleasant Street. The study reviewed/identified recommendations on access management, frontage roads, changes to lane configurations, additions to the roadway grid, traffic demand management strategies, traffic signal modifications, and bicycle and pedestrian access. Project considerations included a roundabout. |

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# D

## Client References

The following are references of clients for whom we have provided similar services to your proposed project. We have completed projects for these clients within the last five years. These contacts are familiar with Wright-Pierce, know our work ethic, and can speak to the services we provide. Please contact them and ask specifically about our:

- Responsiveness
- Sensitivity to local goals and objectives
- Adherence to scope, schedule, and budgets
- Attention to detail
- Ability to work with committees and stakeholders
- Effectiveness in dealing with regulatory agencies
- Technical knowledge

**The references below will be able to share candid opinions regarding the quality of service that has been provided by Wright-Pierce.**

### Client References

| Reference | Contact | Project Relevance |
|---|---|---|
| **City of Bath**<br>55 Front Street<br>Bath, ME 04530 | **Lee Leiner**<br>Public Works Director<br>207.443.8357<br>lleiner@cityofbath.com | • Community engagement<br>• Roadway rehabilitation |
| **Town of Rangeley**<br>15 School Street<br>Rangeley, ME 04970 | **Joe Roach**<br>Town Manager<br>207.864.3326<br>townmanager@rangeleyme.org | • Vehicular traffic flow and safety conditions<br>• Downtown revitalization plan development<br>• Bicycle and pedestrian systems<br>• Safety improvements |
| **Town of Harrison**<br>20 Front Street<br>Harrison, ME 04040 | **Cass Newell**<br>Town Manager<br>207.583.2241 ext. 318<br>cnewell@harrisonmaine.org | • Conceptual layout of sidewalk improvements<br>• MaineDOT Funding assistance<br>• Community outreach<br>• ADA-compliant curbing and ramps |
| **Town of Bucksport (Reference for TYLin)**<br>50 Main Street<br>Bucksport, ME 04416 | **Katlyn Eldridge**<br>Assessor<br>207.469.7368<br>keldridge@bucksportmaine.gov | • Development of infrastructure improvements<br>• Promotion of safe facilities<br>• Examination of parking facilities and lane configurations |

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# Schedule Quality



## Cost Control & Avoiding Overruns

Cost control starts at the scoping phase. It is critically important for our Project Manager and Technical Leaders understand your project objectives. We will collaborate with you in developing the project fee in alignment with the project scope. Experience has shown upfront input by technical experts ensures project budgets are set correctly.

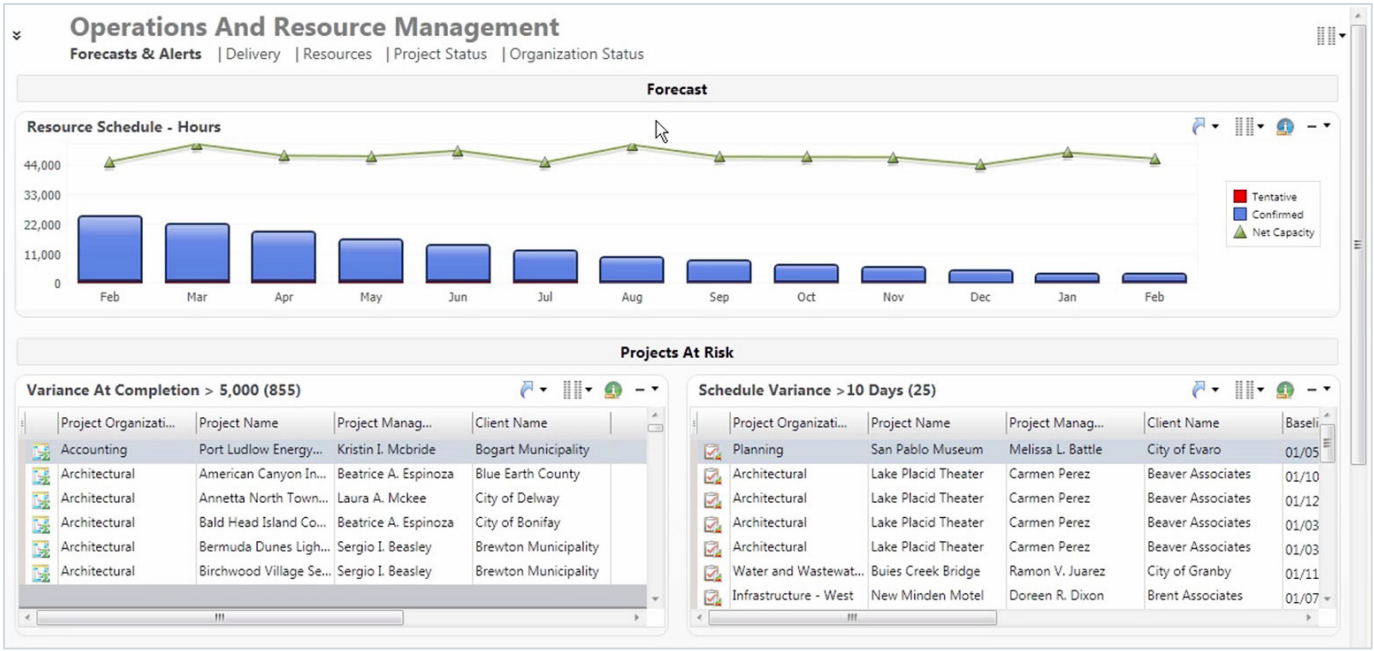
During project implementation, our Project Manager utilizes BST10 (shown below) to manage and monitor the budget on a weekly basis while providing monthly invoices. If at any point during the execution of the project we feel that a decision has been made that will require an increase in budget, we will immediately bring that to your attention. This will enable proactive discussions regarding cost control.

## Adhering to Schedule & Budget

Wright-Pierce uses BST10 as our project management system. BST10 is an industry leading software program that is used for project initiation, project tracking, resource allocation, time management, and accounting functions for all our projects.
At the initiation of a project, our project manager inputs data related to project team; tasks and subtasks; hours and schedule. This information is then incorporated into a company-wide resource management tool capable of reporting utilization and availability of individual employees and entire project teams. Project managers are required to update the hours projections for each team member monthly. Our Operations Managers then run biweekly reports to assess staffing needs to keep projects on track.

However, projects cannot be managed solely through software and reports. We also conduct weekly resource planning meetings on local, regional, and corporate levels to identify potential schedule issues and overloaded or underloaded staff. This two-pronged approach allows us to proactively manage our resources and maintain project schedules.

On a large project with multiple subconsultants, the Project Manager establishes an effective protocol to communicate information in a timely fashion. Our team has been using and will continue to use Microsoft Teams for project meetings and SharePoint for internal data transmission and data management needs. These tools enable our personnel to effectively communicate face-to-face even when miles apart.




**Sample dashboard of our BST10 resource management tools.**

## Capacity to Perform

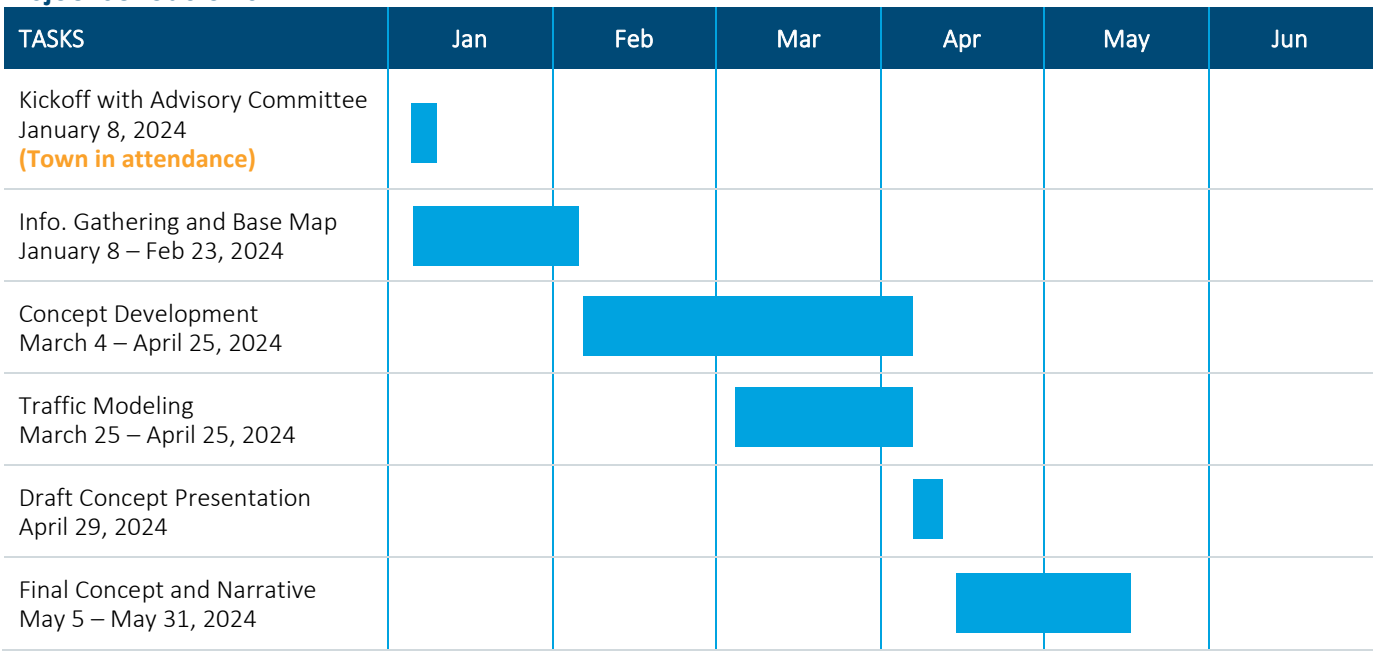
As requested in the RFP, please see Section A, page 6, for details on project team availability and capacity to perform.

## Proposed Schedule

The ability to perform is judged on a firm's relevant experience on similar projects, the qualifications and availability of the staff assigned to the project, the overall expertise of the firm, and the firm's commitment to the project. All these are key criteria and factors to judge a firm's ability to complete the work in a timely fashion. We have the depth and redundancy built into the project team to meet the required deadlines.

The work noted below is scheduled to begin as soon as an authorization to proceed is issued. We are flexible to adjust the proposed schedule below, based on the Town's desired completion timeframe.

### Project Schedule 2024



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# Contact Information

F

Per the RFP's instruction, we have provided below the names, phone numbers, and email addresses of the contacts to whom the Town of Newcastle may direct questions about the submittal and updates about the review process.

**Primary Contact**
Jan Wiegman, PE
Project Manager

jan.wiegman
@wright-pierce.com

207.319.1520

11 Bowdoin Mill Island, Suite 140
Topsham, ME 04086

**Secondary Contact**
Ryan Wingard, PE
Vice President, Principal-in-Charge

ryan.wingard
@wright-pierce.com

207.523.1419

75 Washington Avenue, Suite 202
Portland, ME 04101

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# Signature Page

G

I certify that all of the information in this technical proposal is true and accurate.

**WRIGHT-PIERCE**

Ryan T. Wingard, PE
Vice President, Principal-in-Charge
ryan.wingard@wright-pierce.com
207.523.1419

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# RESUMES

# Jan B. S. Wiegman, PE

## PROJECT MANAGER

**Project Assignment: Project Manger**

**Education**
M.S., Civil Engineering Rice University

B.S. Civil Engineering
University of New Hampshire

**Professional Registration**
Maine

**Experience**
39 Years

**Joined Firm**
2011

**Professional Certification**
MaineDOT Local Project Administrator

**Professional Affiliations**
American Society of Civil Engineers

## Experience Summary

Jan has nearly four decades of engineering design, permitting, and project management experience on a wide variety of civil, structural, and transportation projects. Most recently, he has been managing several large-scale site development and transportation related projects and providing technical guidance on a myriad of projects including pedestrian and transportation projects.

## Relevant Project Experience

### Crawford Drive Sidewalk, Bath, ME

Preparation of sidewalk design for an important pedestrian link between a school and a large park with recreation fields. The sidewalk project also included roadway pavement rehabilitation, drainage improvements, sewer repair, and stormwater separation.

### Overlook Sidewalk, Rangeley, ME

Conducted design reviews of plans and specifications for the construction of a 3,400-foot-long sidewalk that was funded through Maine DOT.

### Roadway Rehabilitation, Benton Avenue, Winslow, ME

Prepared designs for the sewer and stormwater infrastructure improvements to a mile-long section of Benton Avenue in Winslow. The project also included the reconstruction of the arterial roadway and pedestrian enhancements.

### Harbor Dredging and Dock Design, Wells, ME

Prepared concept designs for the dredging of the Town Harbor and establishment of docking facilities to replace moorings that were subject to rapid deposition of sediment in the Webhannet River. Engaged with permitting and natural resource agencies on the permitting for the project.

### Sidewalk Design, Furbish Road and Harbor Road, Wells, ME

Prepared design and construction documents for a 4,000-foot-long sidewalk along an important Town road linking Route 1 with beaches. A portion of the sidewalk was adjacent to the Rachel Carson Reserve which required coordination with US Fish and Wildlife managers. Included overlooks of the reserve area.

### Sidewalk Lighting Improvements, Main Street, Kingfield, ME

Prepared lighting design for a 4,700-foot-long sidewalk along Main Street in downtown Kingfield. The project was bid and constructed as part of a Maine DOT roadway and sidewalk project in the area. Worked with the Town, Maine DOT, and Maine Historic Preservation for fixture types and locations.

### Traffic Circulation Planning, Great Salt Bay School, Damariscotta, ME
Prepared concept plans for segregating bus and parent pick-up and drop-off circulation and to address parking for elementary school.

### Sidewalk Design ME DOT LAP Bristol Road, Damariscotta, ME
Prepared design and construction documents for a 2,000-foot-long sidewalk along an important Town road linking a hospital with downtown. Project was Maine DOT LAP funded and needed to conform to Federal Highway Administration standards.

### Sidewalk Design, Western Avenue, Bath, ME
Designed a critical link in the sidewalk along Western Avenue in Bath that connects a retail area with a residential area.

### Commercial Street Reconstruction, Bath, ME
Prepared roadway and utility reconstruction design for this important arterial street in the community. The project included the removal of vestige trolley rails in the center of the roadway.

### Pedestrian Bridge, Coastal Maine Botanical Gardens, Boothbay, ME
Prepared designs for two pedestrian bridges that crossed a large wetland at the entrance of the Coastal Maine Botanical Gardens and a pond on the interior of the gardens. The bridges had minimal impacts to the wetlands.

### Tufts Pond Road Reconstruction Plan, Kingfield, ME
Designed roadway reconstruction including replacement of culverts and ditch improvements for this two-mile-long roadway. There were several challenges including very steep sections and large storm flows from the uphill sides of the road.

### Brown Road Reconstruction, Oakfield, ME
Preparation of design plans for the reconstruction of a 3.2-mile-long roadway. The roadway improvements included ditching improvements, replacing and upgrading culverts, widening the roadway in several areas, and replacing base and subbase gravels over portions of the roadway.

### Spaulding Lake Road Reconstruction Oakfield, ME
Preparation of design plans for the reconstruction of a 1.75-mile-long roadway. A portion of the roadway is paved and the remainder with a gravel surface needed to be reconstructed. Reconstruction consisted of culverts replacement, ditch restoration, and placement of geotextile fabric under portions of the roadway which experienced groundwater related issues during the springtime.

### Admiral Fitch Avenue Lane Reconfiguration, Brunswick, ME
Designed the restriping plans for four-lane roadway at the entrance to Brunswick Landing development. The roadway was reconfigured to be two lanes and have wider shoulders for accommodating bicycle lanes and a center turn lane.

### Route 1 Construction Detour, Woodland Mill, Baileyville, ME
Designed a temporary bypass of Route 1 to accommodate the construction of a major pipeline crossing of Route 1 for a major industrial use.

# Ryan T. Wingard, PE

## VICE PRESIDENT, CIVIL PRACTICE GROUP LEADER

**Project Assignment: Principal-in-Charge**

### Education

M.S., Civil Engineering, Wayne State University

B.S., Civil and Environmental Engineering, University of Michigan

### Professional Registration

Maine
Connecticut
Florida
Massachusetts
Michigan
New Hampshire
Rhode Island
Vermont

### Experience

27 Years

### Joined Firm

2007

### Training / Certifications

Certified Professional in Sediment and Erosion Control # 4630

Maine DEP Certification in Maintenance and Inspection of Stormwater Best Management Practices

### Professional Affiliations

American Council of Engineering Companies (board member 2016-present)

American Society of Civil Engineers (ASCE)

New England Water Environment Association (NEWEA)

American Public Works Association (APWA)

## Experience Summary

Ryan has over two decades of water resources-related experience, including stormwater system design, watershed characterization, wastewater system design, and project management. His specialties center on hydrology and hydraulics as they pertain to stormwater, watershed, wastewater, and CSO systems, including dams. He has successfully managed a variety of water resources projects for numerous municipal, private, commercial, and industrial clients. His in-depth knowledge of hydrologic and hydraulic systems is an asset for any water resources related project. He is also a certified professional in erosion and sediment control (CPESC).

## Relevant Project Experience

### Nash and Weld Street Sidewalks, Dixfield, ME

Project manager for the design of 3,600 feet of sidewalk as part of the Maine Safe Routes to School Program. The new sidewalk connects schools to residential areas.

### Northern Avenue Sidewalk Reconstruction, Farmingdale, ME

Project manager for the design of 3,000 feet of sidewalk associated with the roadway and stormwater improvements project.

### E. E. Cummings Multi-Use Trail (Phase I, Phase II), Old Orchard Beach, ME

Project manager for the design and construction of 5,000 feet of multi-use trail connecting various schools in town.

### Saco Avenue Sidewalk, Old Orchard Beach, ME

Project engineer for the preliminary design of 200 feet of brick sidewalk near the intersection of Saco Avenue and Staples Street.

### First Street Sidewalk, Old Orchard Beach, ME

Project manager for the design of 3,000 feet of sidewalk to improve pedestrian mobility to and from the beach area.

### Staples Street Sidewalk, Old Orchard Beach, ME

Project manager for the design and construction of 1,500 feet of sidewalk to connect the Saco Avenue to the beach area.

### TAP and Municipal Sidewalk Improvement Project, Somersworth, NH

Project Manager and Principal review of over two miles of new residential and urban sidewalks including several cross walks and school connectors.

### Municipal Sidewalk Improvement Project, Bethel CT

Principal reviewer for sidewalk improvement project including over 4,000 feet of new sidewalk, over a dozen crosswalks, and various other pedestrian safety components.

### Presentations

Wingard, Ryan, "Stretching Towards the Finish Line – A 10 Year Journey with Lebanon, NH's CSO Program", presented at NEWEA CSO/Wet Weather Issues Specialty Conference, Portland, Maine, October 30, 2018

Wingard, Ryan, "Enhancing CSO Storage by Integrating Separation and Green Infrastructure into the Back Cove South Storage Conduit", presented at NEWEA CSO Specialty Conference, Lowell, Massachusetts, October 27, 2015

Wingard, Ryan, "Responding to Infrastructure Failure Resulting from Climate and Weather Changes", presented at APWA Fall Conference, Chelmsford, Massachusetts, October 2015

Wingard, Ryan, "Back Cove South Storage Conduit, City of Portland, Maine", presented at MEWEA Fall Conference, Bethel, Maine, September 17, 2015

Wingard, Ryan, "Asset management, CMOM & CSO System Planning", presented at Management Candidate School, Kennebunk, Maine, December 2014

Wingard, R.T., "Climate Change and Infrastructure: Implementing Solutions", presented at the E2TECH Conference Portland, Maine, April 2013

### Pleasant Street Sewer Separation, Westbrook, ME

Project manager for the design and construction of roadway, sewer, storm, and water improvements.

### Center Street Sewer Separation Design, Biddeford, ME

Project manager for design of 1,000 lineal feet of new roadway and storm drain and rehabilitation/replacement of existing sanitary sewer.

### Graham Street Sewer Separation Design, Biddeford, ME

Project manager for design of 1,2500 lineal feet of new roadway storm drain and rehabilitation/replacement of existing sanitary sewer.

### Kennard/Mitchell/Chestnut/Rochester Sewer Separation, Westbrook, ME

Designed sewer separation in three separate areas of the City including new storm drain, replacement/extension of existing sanitary sewer, new sidewalk, and approximately 2,300 feet of full-depth road reconstruction.

### Portland Back Cove South CSO Storage Facility, Portland, ME

Project manager for the design of a 3.5-million-gallon storage conduit including roadway improvements. Also assisted with the development of green/sewer separation projects to optimize the storage conduit operation.

### Portland Back Cove West CSO Storage Facility, Portland, ME

Project manager for the design of a 3.0-million-gallon storage conduit including roadway improvements. Also assisted with the development of green/sewer separation projects to optimize the storage conduit operation.

### Elm/Union Sewer Separation Design, Biddeford, ME

Project manager for design of 5,000 lineal feet of new roadway and storm drain and rehabilitation/replacement of existing sanitary sewer.

### Northern Avenue Roadway Reconstruction, Farmingdale, ME

Project manager for the design of 3,000 feet of roadway reconstruction and associated storm drain improvements.

### Phase I Richmond Utility District Sewer, Richmond, ME

Project manager for design and construction of 3,000 lineal feet of sewer including new manholes, roadway improvements, and lateral connections.

### Phase II Richmond Utility District Sewer, Richmond, ME

Project manager for design and construction of 3,000 lineal feet of sewer including new manholes, roadway improvements, and lateral connections.

### Reggio and Odessa Stormwater Improvements, Old Orchard Beach, ME

Project manager for field work and design to improve roadway and drainage conditions.

### Ocean/Seaview Sewer Design, Old Orchard Beach, ME

Project manager for design of 5,000 lineal feet of six-inch and eight-inch sewer including new manholes, roadway improvements, and lateral connections.

# Jeffrey D. Preble, PE

**SENIOR PROJECT MANAGER**

**Project Assignment: Technical Advisor**

**Education**
B.S., Civil Engineering,
University of Maine, Orono

**Professional Registration**
Maine
New Hampshire
Connecticut

**Experience**
39 Years

**Joined Firm**
2001

**Professional Affiliations**
Maine Water Utilities Association (MWUA)

Maine Rural Water Association (MRWA)

Maine Chapter American Public Works Association

**Presentations**
Preble, J., "Replacing a Package Plant with a Pump Station" MEWEA Fall Conference 2020

Preble, J., "Coordinating Utility Improvements with Maine Department of Transportation" MEWEA Fall Conference 2019

## Experience Summary

Jeff is a senior project manager and serves as the Maine Regional Group Leader in the Civil Practice Group at Wright-Pierce. He has extensive experience in downtown planning, stormwater management plans, street and highway design and reconstruction, site design, sewer separation, storm drainage projects, surface water treatment, water distribution systems, water system planning and analysis, sewer replacements, wastewater pump stations, sanitary landfills, transfer stations, and recycling and wastewater systems.

## Relevant Project Experience

### Foundry Road Improvements, Livermore Falls, ME

Project manager for a roadway improvement project undertaken in conjunction with a water main replacement project. Road improvements focused on drainage improvements, refining the profile of the road, and replacing base gravel materials.

### Allen Street Reconstruction, Rangeley, ME

Project manager for the reconstruction of Allen Street, including roadway, sidewalk, drainage, water main replacement, and utility services.

### Downtown Parking Improvements, Rangeley, ME

Project manager for improving the arrangement of parking stalls in downtown Rangeley. Provided assessment and modifications to existing handicap ramps, curbing and cross walk locations.

### Brunswick Avenue, Gardiner, ME

Project manager for the replacement of a granite block retaining wall, sidewalk upgrades, and mill/fill paving project in downtown Gardiner.

### Old Jay Hill Road, Jay, ME

Project manager for reconstruction of Old Jay Hill Road, including drainage, roadway profiles adjustments, and funding agency assistance.

### Bald Mountain Road, Rangeley, ME

Project manager for the replacement of two multi-culvert crossings. Project included drainage analysis, permitting, and roadway alignment improvements.

### Saddleback Access Road Reconstruction, Dallas & Sandy River Plantation, ME

Project manager for the reconstruction of the Saddleback Mountain Road, including rock removal, drainage improvements, pavement reclamation, and a tunnel for groomer access.

### Redington Road Improvements, Dallas Plantation, ME

Project manager for two phases of roadway improvements including culvert

replacements, ditching, and paving. Project also included hydraulic and hydrologic analysis of a major stream crossing.

### Front Street Reconstruction, Harrison, ME

Project manager for improvements to Front Street (Route 35) consisting of new curbing, replacement of sidewalks, ADA accessibility improvements, and a mill and overlay of Front Street. The project qualified for funding under the MeDOT's Municipal Partnership Initiative.

### Roadway Reconstruction, North Berwick, ME

Project involved reconstruction of approximately 1,000 linear feet of roadway. Improvements included new storm drainage system, granite curbing, sidewalks, milling existing pavement, reshaping roadway, and paving.

### Railroad Street Improvements, Bangor, ME

Assisted the firm of Carol R. Johnson Associates in the design of the Railroad Street improvements project as part of the river park that was developed along the Penobscot River. The reconstruction of approximately 800 feet of Railroad Street involved new utilities including storm drainage, primary underground electrical and communications, and water main replacement, and providing new sidewalks. Project also included several utility crossings of an active rail line.

### Front Street Improvements, Bangor, ME

Assisted the firm of Carol R. Johnson Associates in the design of the street improvements as part of the river park that was developed along the Penobscot River. The reconstruction involved new utilities including storm drainage, primary underground electrical and communications, and water main replacement, and providing new sidewalks.

### Route 27 Bypass Turning Lanes, Kingfield, ME

Project manager for construction of turning lanes into a major industrial facility on a state highway.

### Main Street Sidewalk, Rangeley, ME

Project manager for a new sidewalk along Main Street in Rangeley to connect a section of sidewalk to an existing sidewalk on Loon Lake Road.

### Overlook Sidewalk, Rangeley, ME

Project manager for the design and permitting associated with a new sidewalk connecting downtown Rangeley to the Scenic Overlook overlooking Rangeley Lake.

### Rangeley Building Supply Crosswalk, Rangeley, ME

Project manager for the design of a new crosswalk to serve the employees of a local business. Project involved new handicapped ramps, rapid flashing solar beacons, and sidewalk connections.

### Brunswick Avenue Sidewalk Improvements, Gardiner, ME

Project Manager for updating existing sidewalks and adding ADA accessible ramps and crosswalks. Utility coordination included relocating overhead power lines.

# Nathan S. Edwards, PE

## LEAD PROJECT ENGINEER

**Project Assignment: Project Engineer**

**Education**
M.Eng., Civil Engineering, University of New Hampshire

B.S., Environmental Engineering, University of New Hampshire

**Professional Registration**
Maine
New Hampshire

**Experience**
6 Years

**Joined Firm**
2018

**Certifications**
Maine DOT LPA
Maine DEP Inspection and Maintenance of Stormwater BMPs

## Experience Summary

Nate has successfully completed staff engineering responsibilities for a variety of projects ranging from private developments to industrial facility expansions to municipal roadway designs. His experience includes project development from the study phase through design and bidding, and into successful completion of construction. Nate's skill set includes hydraulic and hydrological modeling, developing construction plans and specifications, construction observation and documentation, and completing third-party review of proposed developments. He is experienced in AutoCAD Civil 3D, HEC-RAS, Hydraflow Storm Sewers, HydroCAD, Storm and Sanitary Analysis, and Land Surveying.

## Relevant Project Experience

### Commercial Street Rehabilitation, Bath, ME

Design of roadway improvements to Commercial Street in Bath, ME. Included removal of trolley rails, full-depth replacement of pavement and mill and overlay of various portions of the road, and limited storm drain and sewer replacement. Preparation of contract documents and construction administration once final design is complete.

### Green Street Rehabilitation, Bath, ME

Construction administration of the Green Street Rehabilitation project in Bath, ME. Project consisted of all new sewer and storm drain on Green Street. Improvements also consisted of sidewalk reconstruction and reclamation and paving of the existing roadway.

### Crawford Drive and Sidewalk Improvements, Bath, ME

Final design and construction administration of improvements to Crawford Drive in Bath, ME. Improvements consisted of spot repairs to the sewer main and installation of additional storm drain and underdrain prior to reclamation and paving of the existing road. A sidewalk was also added to the road to provide pedestrian connectivity through the neighborhood.

### Tufts Pond Road, Kingfield, ME

Design and construction administration of the rehabilitation of Tufts Pond Road in Kingfield, ME. Several cross culverts and driveway culverts will be replaced. A portion of the road has already been reclaimed and will receive additional base gravel prior to paving. The other portion of the road that has not been reclaimed and will be shimmed and overlaid.

### Sunset Heights Sewer and Storm Drain Improvements, Winslow, ME

Design of 2.5 miles of road reconstruction in the Sunset Heights community, which

includes full storm drain and sewer replacement, with some water relocation. Hydrologic and hydraulic modeling using HydroCAD was performed of the project area and used to design all new stormwater infrastructure.

### Riverside Drive and Associated Infrastructure, Ludlow, MA

Design of a new roadway (Riverside Drive) in Ludlow, MA including new water, sewer, stormwater infrastructure, and underground electric. Preparation of a MassDEP Stormwater Report. Designed the proposed stormwater drainage system which consisted of water quality swales, bioretention areas, infiltration trenches, and stormwater water quality treatment units along the nearly 5,000-foot proposed road. Development of associated construction drawings and specifications.

### Woodman Area Improvements, Rochester, NH

Design and permitting of full depth roadway reconstruction and utility replacement in the Woodman Area of Rochester, NH. The project proposed to reconstruct an approximately 20-acre area of the City of Rochester and replaced its sewer, water, and stormwater infrastructure. Hydrologic and hydraulic modeling was performed of the area and used to design all new stormwater infrastructure including multiple bioretention and grassed underdrain soil filters for stormwater treatment. Development of construction documents and ongoing construction administration.

### Belknap and Elm Road Reconstruction, Dover, NH

Design of full depth road reconstruction of Belknap and Elm Road in Dover, NH. Hydrologic and hydraulic modeling of the proposed stormwater infrastructure using Storm and Sanitary Analysis.

### Combined Sewer Separation, Lebanon, NH

Design of full depth road reconstruction of various streets in Lebanon, NH as part of a multi-year phased combined sewer separation project. Hydrologic modeling using HydroCAD of existing and proposed stormwater infrastructure. Storm drain design and hydraulic modeling with Hydraflow Storm Sewers of the proposed drainage network.

# Kalle Maggio, PLA

## LANDSCAPE ARCHITECT

**Project Assignment: Landscape Architect**

**Education**
B.L.A., Landscape Architecture, State University of New York, College of Environmental Science and Forestry

**Professional Registration**
Registered Landscape Architect: Maine, New Hampshire, Connecticut, Massachusetts, New York

CLARB-certified Landscape Architect

**Experience**
11 Years

**Joined Firm**
2021

**Professional Affiliations**
American Society of Landscape Architects (ASLA) Executive Board Secretary

Plan NH Visioning for Sustainable Communities

## Experience Summary

Kalle brings over a decade of experience in landscape architecture, landscape design, and horticulture to her role at Wright-Pierce, including projects for both public and private clients. She has taken several projects from preliminary design concepts to completion and works closely with engineers, architects, contractors, and horticulturists. Her project experience includes urban landscape architecture, green infrastructure practices, park and recreational program elements, campus master planning, streetscape beautifications, bike and trailway design, traffic calming techniques, sustainable landscape design, signage and wayfinding design, and residential design. She is proficient in AutoCAD Civil 3D, Land F/X, Adobe design programs, and Sketchup.

## Relevant Project Experience

### Downtown Beautification, Harrison, ME

Landscape Architect for project including redevelopment scenarios of the parks and downtown areas in Harrison. This includes roadway and sidewalk improvements as well as community outreach efforts.

### Downtown Revitalization Projects, Rangeley, ME

Landscape Architect for assessment and recommendations for downtown revitalization items in downtown Rangeley and the Oquossoc Village including streetscapes, sidewalks, bicycle/pedestrian, parking area connectivity to waterfront, trailhead enhancements, bus routes, lighting, stormwater utilities, and signage.

### Green Street Rehabilitation, Bath, ME

Landscape Architect for project including 1,300-foot-long roadway and a pavement rehabilitation plan. Several concepts were developed to be presented to residents for sidewalk consolidation. Accommodation of on-street parking was evaluated while trying to minimize impacts to large street trees.

### Woodman Avenue Improvements, Rochester, NH

Landscape Architect for project including water, sewer, and stormwater infrastructure improvement for a number of streets in Rochester. This includes park improvements in Woodman Park and the Interval Area.

### Westbury Post Avenue Streetscape Beautification, Westbury, NY*

Worked as a Landscape Architect to develop conceptual designs and construction documentation for the Village of Westbury Core Downtown Streetscape Beautification project. The project involved the installation of new bulbouts, curb and decorative sidewalks, benches, waste containers, new drainage structures, pipe runs, and modifications to accommodate the new curb alignment. Included

improvements to Union Avenue and Post Avenue intersection. Provided redesign of the intersection, which required the existing slip lane at the intersection be repurposed as a public plaza space for ceremonial events and leisure activities for the community. This project required conceptual design, site layout, grading drainage design, and supporting construction documentation. Both projects included meetings/coordination with the Village Mayor and Superintendent of Buildings.

### NCDPW Design Services – Resurfacing Phase 62 & 65*

Landscape Architect responsible for identifying and assessing over 1,500 street trees that impact over 13 miles of roadway improvement projects during and after construction. Tree assessments include the current size and health of each tree specimen; the growth habit and suitability of the trees' surrounding environment such as the planter size, sidewalk, curbing, and adjacent pavements; and whether it will survive the roadway improvement construction project.

### Stony Brook Road, Stonybrook, NY*

Landscape Architect responsible for field observations and assessments and the development of preliminary design files and construction documents for the Town of Brookhaven's desire to construct +/- 3,600 linear feet of pedestrian sidewalk and bicycle facility improvements along Stony Brook Road. Project improvements included ADA-compliant handicap ramps at street crossings, extension of the existing bicycle lanes from the Firehouse to Development Drive, new traffic patterns and signaling for pedestrians and motorists, ornamental pedestrian-scale lighting, and landscape restoration. (2019)

### Bay Shore Bay-Way Corridor Project, Bayshore, NY*

Landscape Architect for the design of the Bay Shore Bay-Way Corridor on Fourth Avenue, between the LIRR station and Montauk Highway and Maple Avenue (and from Montauk Highway to the Fire Island Ferries). Project features included ADA-compliance for sidewalks, bike lanes, mill and overlay of Maple Avenue from Gibson to the Ferries, and select curb and sidewalk replacement along Fourth Avenue. This was a federal-aid project with the New York State Department of Transportation for the Town of Islip. Tasks included visual aids for client meetings, construction plans, and site inventory. (2017 – 2019)

### Main Street Streetscape Improvements, Port Washington, NY*

As Landscape Architect, provided technical drawings of the final design for streetscaping on the Main Street corridor from NY 101 to the LIRR train station to revitalize downtown Port Washington for the Town of North Hempstead. The project involved the installation of new bulbouts, curb and decorative sidewalks, street trees, benches, waste containers, new drainage structures, pipe runs, and modifications to accommodate the new curb alignment. This project also included meetings/ coordination with the Town Councilwoman and a public information meeting. (2016 – 2019)

*Experience from previous employer

# Christine L. Manderson, GISP

## GIS ANALYST

**Project Assignment: GIS Mapping**

**Education**
B.S., Computer Science, Boston University

**Professional Registration**
Certified Geographic Information Systems Professional (GISP)

**Experience**
22 Years

**Joined Firm**
2013

**Professional Affiliations**
Member, Maine GIS Users Group (MEGUG)

**Research/Course Work**
GIS Web-Based Maps and Applications

ESRI training on Building and Editing Geodatabases

## Experience Summary

Christine is the GIS Analyst at Wright-Pierce. She has 22 years of experience in GIS and an additional 10 years working with custom programs and data management for utilities. She has conducted spatial analysis, data collection, custom cartography, and managed geographic data for a variety of customers. She has managed GIS data in water and sewer networks, created municipal parcel and zoning maps, and customized entry forms for GIS data management. She is proficient with diverse hardware and software tools, including Esri ArcGIS, ArcGIS Online, Spatial Analyst, 3D Analyst, and Trimble GPS.

## Relevant Project Experience

**Greater Augusta Utility District Sewer System Assessment Maps, Augusta, ME**
Created maps for assistance with field work on a variety of projects in Augusta and Hallowell.

**BIA Zone Feasibility Study, Bangor, ME**
Developed a series of maps to illustrate the impact of the proposed BIA water zone on the City's water system.

**Wastewater Collection System Study, Bath, ME**
Created a series of maps to show the results and recommendations from the south end collection system study.

**Old Ferry Road Culvert Replacement, Wiscasset, ME**
Performed an analysis of the watershed for the tidal crossing located on Old Ferry Road in Wiscasset, ME. Calculated contributing drainage area to appropriately size the new culvert. Developed maps for analysis and permitting.

**GIS System Development, Maine Natural Gas, Brunswick, ME**
Developed GIS database from existing and new data. Established links to documents and CAD drawings. Created ArcGIS Online mobile data platform.

**GIS Data Support, Maine Natural Gas, Brunswick, ME**
Assisted in creation and maintenance of GIS data for gas distribution. Created mobile app utilizing ArcGIS Collector for valve inspection data for PUC submission.

**Merrymeeting Trail, Bowdoinham, ME**
Developed detailed maps for analysis of feasibility of proposed rail trail bike routes.

**ArcGIS Online, Camden, ME**
Created dataset for ArcGIS Online for field smoke testing project and generated a map book for field workers.

**West Falmouth Sewer Master Study, Falmouth, ME**
Provided support for the sewer study, including analysis of parcel and terrain data in conjunction with existing and proposed sewer infrastructure. Designed a series of detailed maps illustrating recommendations for presentation.

**Water Supply Master Plan, Greater Augusta Utility District, ME**
Produced a series of maps depicting assets and conditions for water district master plan overview.

**Shoreland Zoning Map, Lisbon, ME**
Developed final shoreland zoning map for the town of Lisbon, approved by the Maine DEP.

**Proposed Back Cove Storage Maps, Portland, ME**
Created series of maps for Back Cove storage facility proposal showing existing and proposed sewer features.

**Regional Bicycle and Pedestrian Study, Portland Area Comprehensive Transportation System (PACTS), Portland, ME**
GIS data development for PACTS regional transportation study, which covers more than 15 municipalities.

**CCTV Results, Rockland, ME**
Developed a Python app to create GIS location data from CCTV results in Access database. Generated map book showing detailed CCTV results for each sewer pipe.

**Village Master Plan Maps, Standish, ME**
Developed a series of maps which depict the existing conditions for the village master plan.

**Fire Services Map, Whiting, ME**
Generated 5-mile travel radius from fire station using road network. Prepared map of fire company service area, including fire company assets and area conditions.

**Corridor Connector Road Study, Wiscasset, ME**
Used spatial analysis to demonstrate feasibility of alternative proposed connector road and commercial development plans.

**Phase 1 of Locke Street Area Combined Sewer Separation, Haverhill, MA**
Mapping assistance for combined sewer separation in the Locke Street Area. Project consists of new dual 48-inch stormwater outfalls, 4,600 LF of 12-inch to 60-inch storm drains, and rehabilitation to existing sewer pipes, sewer manholes, and storm drainpipes.

**Kelly Road Culvert Watershed Analysis, Dracut, MA**
Produced Excel sheet summary of GIS watershed analysis, combining data from DEM, land cover and soils to provide detailed information for hydraulic modeling for culvert sizing and design.

# Shawn Davis, PE

**TECHNICAL EXPERT**

**Project Assignment: Technical Expert**

**Education**
B.S., Civil Engineering,
University of Maine

**Professional Registration**
Maine

**Experience**
21 Years

**Joined Firm**
2018

**Professional Certifications**
Maine DOT LPA

## Experience Summary

Shawn joined TYLin after a 16-year career with the Maine DOT. His strong project management and highway design skills were honed at Maine DOT where he served as a lead designer for several complex roadway design projects in the northern section of Maine, including Wallagrass Route 11 Reconstruction and Fort Kent Route 1 reconstruction. Shawn was also the lead designer for the Caribou Connector project, where he gained local knowledge and a vast appreciation for land use, economic development, and communities needs in the area. He then served as Senior Project Manager in the Eastern Region for many highway improvement projects.

## Relevant Project Experience

### MaineDOT, Presque Isle U.S. Route 1, Main Street Downtown Transportation Study, Presque Isle, ME

This feasibility study will examine the downtown portion of Route 1 (Maine Street). The purpose of the feasibility study is to identify business-friendly alternatives to improve safety and accessibility for all transportation modes while supporting economic development in historic Downtown Presque Isle. Developing short-term and long-term improvements reflecting the dynamic character of Main Street, identifying opportunities for not only improving mobility, safety, and aesthetics, but also strengthening connections to surrounding residential neighborhoods.

### Safety, Accessibility, and Economic Study, Bucksport, ME

Senior Project Engineer for development of short and long-term enhancements along Route 15 through downtown. The study promotes safe, convenient, and attractive pedestrian facilities on Main Street which will provide ADA accessible connectivity to local businesses and attractions. The study includes the evaluation of installing sidewalk along Route 15 to fill in gaps of pedestrian access, with consideration of connection to a parallel, off-site Riverwalk.

### Oquossoc Village Improvement Study, Rangeley, ME

as Senior Project Engineer for study in downtown Oquossoc Village, focusing on pedestrian connectivity, bicycle accommodations, and safety. The study is analyzing different potential locations of sidewalks and crosswalks, including consideration of widening an existing bridge over the Rangeley River to accommodate a sidewalk or adding a separate pedestrian/mixed-use bridge.

### Route 1 Corridor Feasibility Study, Kittery, ME

Assisting in the development of recommendations for both short and long-term improvements to improve accessibility and safety for all transportation modes on Route 1. Study goals include better aligning the transportation corridor along Route 1 Mall Road with desired redevelopment, identifying short-term safety

improvements associated with pedestrian crossing needs, and evaluating long-term corridor conceptual improvements and alternatives that provide safe access as well as bicycle and pedestrian accommodations. The study will identify transportation improvements to improve safety, complement future land use goals and build-out scenarios, address sea-level rise, and better accommodate access for all transportation users. The study will not only consider highway safety and mobility but also emphasize improvements for active transportation and transit.

**MaineDOT, Kittery Route 103 Improvements, Kittery, ME**
TYLin was selected for the design of this ½ mile urban roadway improvement project which included sidewalk and crosswalk improvements, on-street parking upgrades, traffic signal improvements at the entrance to the Portsmouth Naval Shipyard, improved pedestrian safety features and roadway overlay. Drainage and maintenance of traffic design was also required. Significant coordination with the Maine DOT, the Town of Kittery, the Portsmouth Naval Shipyard, and the Regional Planning Commission was necessary to ensure the project met local expectations.

**Bicycle & Pedestrian Safety Study, Millinocket, ME**
Developed recommendations for both short and long-term improvements for bicycle and pedestrian modes. Recommendations envision transportation options that support the goals for livability and sustainability, promote walking and bicycling as an integral part of an active lifestyle, and foster a sense of community while complimenting economic development efforts.

**MaineDOT, South Street Sidewalk Construction, Blue Hill, ME**
Project Manager overseeing design of the addition of ADA compliant sidewalks and shoulder construction in Blue Hill. This project is an LPA with the town of Blue Hill that is administered by Maine DOT and, as such, involves much coordination with the town as a stakeholder.

**MaineDOT, Skowhegan Bridge Feasibility and Planning Study, Skowhegan, ME**
TYLin was selected to perform this planning study which includes a mobility analysis of the single crossing of Kennebec River in Skowhegan. Working closely with Maine DOT and the town of Skowhegan, this project involves extensive origin-destination traffic data collection to help understand user patterns that will help to determine recommendations of improvements.

**Bold Coast Scenic Bikeway, Washington County, ME**
TYLin was selected for field verification and layout of this bike route because of our ties to Washington County and rural Maine. This project involves verification of concept and field location of signage for the Bold Coast Scenic Bikeway, the spans from Gouldsboro to Calais, ME.

**Morrill's Corner Roadway Improvements Phase I & II, Portland, ME**
TYLin is responsible for preliminary and final design through PS&E complete and includes project management and coordination with all stakeholders including the public. Design tasks include horizontal and vertical alignment, traffic volume forecasts, roadway typical sections, upgrading drainage, upgrading intersections, and providing an engineers' estimate.

# Thomas A. Errico, PE

## SENIOR TRAFFIC ENGINEER

**Project Assignment: Traffic Engineer**

**Education**
B.S., Civil Engineering, Northeastern University

M.S., Civil Engineering, Northeastern University

**Professional Registration**
Maine
Vermont
Massachusetts

**Experience**
36 Years

**Joined Firm**
2005

**Professional Certifications**
Maine DOT LPA Certified

**Professional Affiliations**
Institute of Transportation Engineers (ITE)

Association of Pedestrian and Bicycle Professionals

Member & Workshop Instructor for The National Complete Streets Coalition

## Experience Summary

Tom joined TYLin as a Senior Associate and New England Traffic Engineering Director. His background in traffic engineering includes access management, corridor studies, traffic operations studies, pedestrian studies, parking studies, safety evaluations, and traffic impact studies. He has significant experience in designing traffic signals, developing and maintaining traffic plans, and determining intersection and roadway design requirements for highway projects, including auxiliary lanes, bicycle and pedestrian facilities, signing, and traffic control.

## Relevant Project Experience

### MaineDOT, Presque Isle U.S. Route 1, Main Street Downtown Transportation Study, Presque Isle, ME

Examining the downtown portion of Route 1 (Maine Street), the purpose of this feasibility study is to identify business-friendly alternatives to improve safety and accessibility for all transportation modes while supporting economic development in historic Downtown Presque Isle. Developing short-term and long-term improvements reflecting the dynamic character of Main Street, identifying opportunities for not only improving mobility, safety, and aesthetics, but also strengthening connections to surrounding residential neighborhoods.

### Bucksport Safety, Accessibility, and Economic Study, Bucksport, ME

Developed recommendations for both short and long-term enhancements along Route 15 through downtown. The study promotes safe, convenient, and attractive pedestrian facilities on Main Street which will provide ADA accessible connectivity to local businesses and attractions. The study includes the evaluation of installing sidewalk along Route 15 to fill in gaps of pedestrian access, with consideration of connection to a parallel, off-site Riverwalk.

### Route 1 Corridor Feasibility Study, Kittery, ME

Developing recommendations for both short and long-term improvements to improve accessibility and safety for all transportation modes on Route 1. Goals include better aligning the transportation corridor along Route 1 Mall Road with desired redevelopment and identifying short-term safety improvements associated with pedestrian crossing needs and evaluating long-term corridor conceptual improvements and alternatives that provide safe access as well as bicycle and pedestrian accommodations.

### Oquossoc Village Improvement Study, Rangeley, ME

Leading this study in downtown Oquossoc Village, focusing on pedestrian connectivity, bicycle accommodations, and safety. The study is analyzing different potential locations of sidewalks and crosswalks, including consideration of widening an existing bridge over the Rangeley River to accommodate a sidewalk or adding a

separate pedestrian/mixed-use bridge. The project also includes making shoulder widths consistent to accommodate bicycles, adding shared-use arrows, and implementing safety and geometric improvements at the intersection of Carry Road and Rumford Road.

**Pleasant Street Transportation Corridor Study, Brunswick, ME**
Developed multimodal, safety, and mobility recommendations for a busy stretch of roadway that has competing regional and local priorities. The study objective was to conduct an analysis of potential improvement strategies to improve congestion and safety along the corridor without widening Pleasant Street. The study reviewed and identified recommendations on access management, frontage roads, changes to lane configurations, additions to the roadway grid, traffic demand management strategies, traffic signal modifications, and bicycle and pedestrian access.

**Bicycle & Pedestrian Safety Study, Millinocket, ME**
Developed recommendations for both short and long-term improvements for bicycle and pedestrian modes. Recommendations envision transportation options that support the goals for livability and sustainability, promote walking and bicycling as an integral part of an active lifestyle, and foster a sense of community while complimenting economic development efforts.

**Route 111 Transportation Alternatives/South Street Connections Study, Biddeford, ME**
Investigating the benefit of constructing a new parallel roadway from the Exit 32 interchange on the Maine Turnpike, parallel to Route 111 towards the west. The purpose of the study is to improve connectivity between I-95 via Exit 32, and South Street and downtown Biddeford. The improvements will relieve congestion and improve safety along Route 111/Route 1 and support economic development opportunities given reasonable available state, local, federal and MTA funding.

**Foreside Traffic, Parking, and Land Use Master Plan, Kittery, ME**
Developed transportation recommendations for the Foreside area of Kittery, which was experiencing traffic congestion and parking challenges. Key tasks included reviewing current parking requirements for site plan approvals, identifying strategies for increasing parking supply and efficiency, evaluating the conversion of multiple streets from one-way configuration to two-way flow, and reviewing on-street parking regulations for improved parking turnover and utilization.

**Portland Area Comprehensive Transportation System (PACTS), Scarborough and Saco Route One Complete Streets Plan, Scarborough & Saco, ME**
Developed a corridor plan that identifies and provides concept designs for multi-modal transportation opportunities. Provided transportation planning services with emphasis on access management practices, intersection improvement analysis, traffic signal optimization and coordination, multi-modal design, complete streets planning and design, and public process facilitation and presentation skills.


WRIGHT-PIERCE
Engineering a Better Environment

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