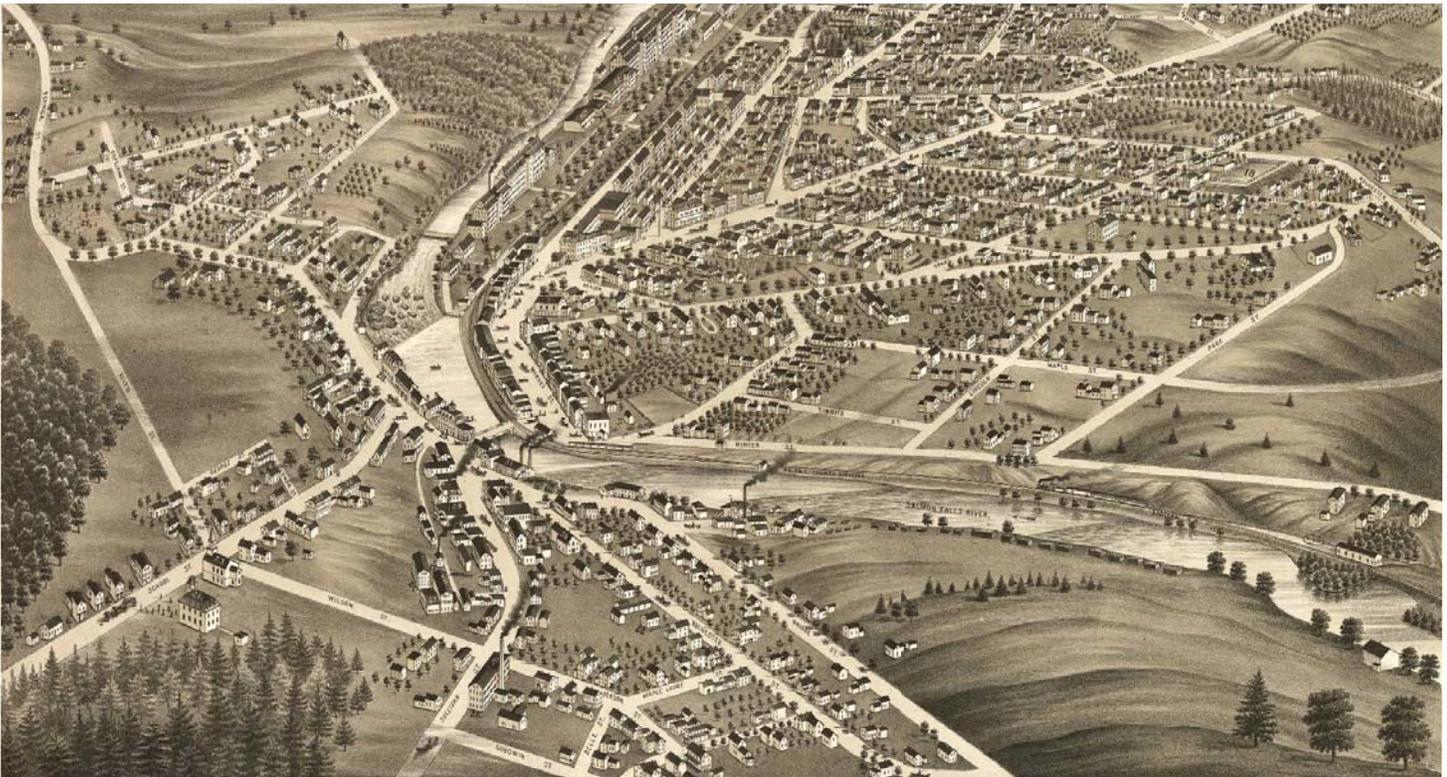


# PROPOSAL

## Kittery Area Comprehensive Transportation System

*Request for Technical and Cost Proposals  
Berwick Downtown Vehicle, Bicycle and Pedestrian Study  
June 2018*



**GREAT FALLS REFERENCES**

- 1. Park Hill
- 2. Bath School
- 3. Granite School
- 4. Pringle School
- 5. St. John's Church
- 6. St. Joseph's Church
- 7. St. Peter's Church
- 8. St. Paul's Church
- 9. St. Vincent's Church
- 10. St. Ann's Church
- 11. St. Francis' Church
- 12. St. James' Church
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**DERWICK REFERENCES**

- 1. St. Peter's Church
- 2. St. Joseph's Church
- 3. St. Vincent's Church
- 4. St. Ann's Church
- 5. St. Francis' Church
- 6. St. Michael's Church
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**GREAT FALLS & BERWICK**  
STRAFFORD CO. NEW HAMPSHIRE - 1877, YORK CO. MAINE.  
FROM POSITION NORTH WEST, LOOKING SOUTH.

June 29, 2018

Tom Reinauer, Transportation Director – KACTS  
110 Main Street, Suite 1400  
Saco, ME 04072

**Re: Kittery Area Comprehensive Transportation System (KACTS)  
Berwick Downtown Vehicle, Bicycle and Pedestrian Study  
MMI #6510-02**

Dear Mr. Reinauer:

Milone & MacBroom, Inc. (MMI) is pleased to submit our qualifications to KACTS for the Berwick Downtown Vehicle, Bicycle and Pedestrian Study. Our proposed scope of work will address Berwick's current and future needs. MMI has substantial experience with Complete Streets and multimodal studies specifically, as well as related projects in traffic and transportation planning, design and operations, land use, and streetscape and urban design in Maine and across New England. We have completed similar studies across Maine, as examples; the York Village Revitalization Study, PACTS Gorham Downtown Bicycle and Pedestrian Study, and the Town of Brunswick/Midcoast Regional Redevelopment Authority Cooks Corner Bypass/Connector Road study. This is a great opportunity to apply our comprehensive Complete Streets approach to improve transportation mobility and quality of life for all users and traffic modes in this Berwick downtown area of economic revitalization.

The following Proposal presents our approach to completing this planning project, describes our relevant experience, and identifies our substantial staff resources committed to making this project a success. We sincerely feel that that MMI Project Team is the most suitable to complete this project for the following reasons:

- Our Proposed Project Manager, Carl Eppich, AICP, is uniquely qualified to oversee this project with directly relevant planning experience developing land-use and multi-modal transportation solutions in the southern Maine area. We feel it is important to the outcomes of this study to have our project team lead by a senior transportation planner with multimodal expertise.
- Additionally, our Lead Traffic & Transportation Engineer, John Adams, PE, PTOE, IMSA II, has worked on several similar type studies in other Maine communities and is adept at public stakeholder process.
- Our Portland, Maine-based Team consists of transportation planners skilled in multi-modal planning, land use and economic development planners, a Senior Landscape Architect, traffic engineers, and civil engineers;
- MMI's comprehensive technical in-house experience with over 160 staff from allied professions in nearby New England offices, including employees who bring knowledge, insight, and lessons learned from Complete Streets projects that have been evaluated and implemented throughout New England;

**Mr. Tom Reinauer**

**June 29, 2018**

**Page 2**

- Our staff is highly experienced at bringing stakeholders and the public citizenry into project discussions and decisions making process that lead to consensus and project success. We utilize different methods, media and technologies to ensure all aspects of the stakeholders and citizenry are reached and encouraged to participate in shaping their new downtown.

We will also be rounding out the MMI team to supplement our staff resources with Diana Burgess (Maine WBE firm), who will provide support in the preparation of CADD plans.

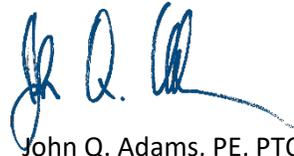
We look forward to working with the Town of Berwick, KACTS, and all stakeholders, and to refining our work effort to meet all of your expectations on this interesting and exciting project. Please do not hesitate to contact us with any questions regarding our submittal.

Sincerely,

**MILONE & MACBROOM, INC.**



Carl Eppich, AICP  
Project Manager



John Q. Adams, PE, PTOE  
Maine Regional Manager

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*Price Proposal sent under separate cover*



## Section 1

# Technical Proposal

## KACTS Berwick Downtown Vehicle, Bicycle and Pedestrian Study



*Panorama of Development Site*

### PROJECT UNDERSTANDING

The Town of Berwick, in conjunction with KACTS and MaineDOT, is seeking a consulting firm to develop a traffic, bicycle, and pedestrian plan and recommendations for the Downtown Berwick area. The team at Milone & MacBroom (MMI) understands the revitalization that Berwick is experiencing, with the recent \$2M in Brownfield grants that were awarded, as well as the opportunity that the 11.7-acre space can provide. The master plan concept from Mark Kehaya shows the potential economic development and community advancement that Berwick is poised to experience. There is high potential for this area of the downtown to become a thriving mixed-use center that showcases all of the wonderful things that Berwick has to offer, while accommodating all transportation users and traffic modes on its streets. Through the efforts of a local, highly-motivated volunteer base, Berwick government staff, and a local developer, Berwick is poised for great changes and improvements to their downtown.

With increased commercial density and activity in the downtown, it will be important to balance uses within the public right of way through an approach that both properly structures and anticipates growth. This project provides an opportunity to tailor a design approach that reinforces downtown Berwick's unique identity: one that is reflective of its blend of historic architecture in a compact human-scaled town center that is enhanced by a scenic riverfront. All bicycle and pedestrian improvements which will be proposed as part of this project will be thoughtfully designed in order to support the 2014 Comprehensive Plan's objectives for a safe, friendly downtown. The redevelopment of the former Prime Tanning site will be realized, tearing down the final barrier to Berwick cultivating a built environment which supports small businesses and entrepreneurship through an approach which includes conservation and green space.

The goals and objectives of this important study are consistent with the Town of Berwick's Vision statement from their 2014 Vision Report, which states:

**Berwick, Maine**, is a rural, riverside town that appreciates the importance of a connected, actively engaged community & proudly cultivates its unique strengths and small town character by:

**Promoting** small business & creative outlets where local talent, entrepreneurship, & agriculture flourish;

**Fostering** a healthy relationship with land and river through conservation, environmentally minded development, substantial and functional green space, & responsible recreation;

**Creating** a safe, friendly downtown where youth, families & community come together.

This project will harness the current synergy in Berwick, and utilize it to reshape this area of the downtown. The designs and recommendations proposed within this project will initiate many exciting and revitalizing changes in order to improve operations and safety for all users and modes traveling to, from, and through this important area. One of the keys to this project will be to effectively collaborate and build off of the efforts to date of the important stakeholders such as: Town staff, KACTS, the site developer, MaineDOT, Envision Berwick, and the Berwick Planning Board and Board of Selectman. We understand that much work has already been done in Berwick, and we want to involve those voices in order to build upon their existing vision. Envision Berwick has been appointed by the Board of Selectman to implement the Comprehensive Plan, which includes the 2014 Envisioning Downtown Berwick Vision Report.



# Technical Proposal

## KACTS Berwick Downtown Vehicle, Bicycle and Pedestrian Study

### PROJECT CONSIDERATIONS

The town has identified 7 objectives for the project, outlined the anticipated methodology, study team, and final deliverables. Based on these objectives and our understanding of the past studies and project area, we have highlighted aspects of, and considerations for, the proposed scope of work.

- Identify an optimal traffic circulation pattern for all users. The Downtown Berwick area is in need of improvements to support mobility and access for all users. It is important to develop infrastructural recommendations which create a safe and comfortable environment for pedestrians and bicycles while simultaneously developing a vehicular street network which both increases mobility along the corridor and creates accommodations which invite motorists to stay and visit. The MMI team understands that this is a careful balance, and will evaluate all types of traffic circulation that will best cater to the needs of all network users.



*Worn crosswalk paint by Eleanor's Street*

- Evaluate options for improving new and existing intersections. The proposed concept master plan for the former Prime Tanning parcel creates a new road through the middle of the site and new intersections on each end. There are several key intersections within the Main Street study area that we will examine closely to develop appropriate treatments which would facilitate improved pedestrian and bicycle safety and connectivity. As part of this process, we will consider the volume, types, and patterns of traffic for the new and existing intersections. Where improvements are proposed, we will perform traffic modeling to identify impacts to vehicular queuing and function. Additionally, we will examine existing traffic signals and where necessary, make recommendations to improve safety.
- Evaluate the feasibility of on-street parking around the former Prime Tanning parcel. With the proposed redevelopment will come increased parking demands for visitors and patrons. To be responsive to specific needs related to on-street parking it will be important to increase parking capacity, improve connections to off-street parking locations within areas of high demand and add any necessary wayfinding signage to help drivers easily locate parking. Alternatively, lesser utilized spaces may afford opportunities for streetscape enhancements, such as pedestrian extensions, landscape elements, or green storm water infrastructure. Additional parking will also relieve nearby ball fields which have inadequate parking facilities.



*One-way street section on Rochester Street*

- Evaluate the feasibility of converting traffic from one-way to two-way along Sullivan Street. A recent national and statewide trend is the conversion of streets directionality from one-way to two-way. In the past, municipalities have favored the vehicular mobility and simplicity of one-way streets. However, a human focused approach to downtowns which capitalizes on the economic development advantages and traffic calming aspect of two-way streets has led to the reversal of many one-way corridors in downtown areas. The MMI team will evaluate the appropriateness of two-way traffic in the Downtown Berwick area.

- Identify bike/pedestrian deficiencies and solutions. An increase in greenspace and safety for bicycles and pedestrians can help improve downtown areas. The MMI team will evaluate options for improved connectivity for bicyclists and pedestrians through an increase of sidewalks, shared-use paths, and bicyclist specific infrastructure which could be a combination of formal bikes lanes, shared lane markings ('sharrows'), and off-road shared-use paths. The appropriate use of these different tools, and their placement throughout the area, will be determined by the project process.

# Technical Proposal

## KACTS Berwick Downtown Vehicle, Bicycle and Pedestrian Study

- Moderate a community forum. The importance of community engagement and buy-in to the public process cannot be understated. Community engagement for this project will build upon previous efforts and will include outreach in the form of public meetings. Our past work with MPO's showcases our understanding of the public participation process requirements. We will work with KACTS and the town of Berwick to utilize known successful methods of outreach, working to ensure that the meetings are engaging and accessible.

We recognize that the Downtown Berwick area has some very special or desirable qualities and, quite frankly, these are the things that make Berwick so attractive to both residents and visitors alike. We welcome good public interaction as the local community has a unique understanding of, and vision for, their Town. Additionally, they will be the primary beneficiaries of the enhancements. Through these meetings we will create a level of shared ownership over the design by engaging the community and regulatory agencies in the design process, rather than isolating these stakeholders and putting ourselves in a position where we need to "sell" the project recommendations later.

- Develop concepts, such as roundabouts, bike lanes, and crosswalks. The MMI team has vast experience in the planning and design of all types of roadway infrastructure, including roundabouts. Our evaluations of the traffic volume and classification of vehicles will lead us to the right choices for concept plans for Berwick and its unique collection of roadway users. Should traffic signals become the desired traffic control solution for a particular intersection, we will evaluate options to use current signal controller capabilities and traffic adaptive technologies to best handle potential changing traffic patterns to reduce congestion and improve operations for all users and modes. All of the decisions will then ultimately be weighed against how the operations of the intersection will affect the most vulnerable roadway users, bicycles and pedestrians.



*Crossing facilities by Sullivan Street*

## PROJECT APPROACH

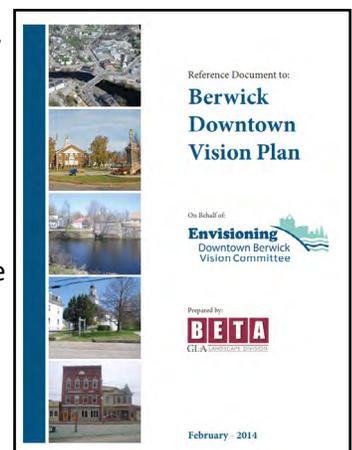
### Project Initiation

Milone & MacBroom, Inc. (MMI) will first meet with the Stakeholder Study Team to determine and finalize the scope of work for the project. This discussion will include any potential modifications to the tasks suggested in the RFP, allowing our team to expand upon the details within our approach which the Study Team believes will be most beneficial. We will also utilize this opportunity as a chance to discuss the project schedule, including the timing and format of an outreach plan. Lastly, we will finalize communications expectations, including protocol for the development of progress reports and day-to-day liaison roles.

### Data Assembly and Assimilation

The goal of this task is to develop a thorough understanding of the existing physical, infrastructural, and community resources, as well as needs, within the Downtown Berwick area. During this phase members of our team will obtain and review pertinent data and plans necessary to undertake the study and develop thoughtful and appropriate recommendations. The material collected through this data assembly effort will become the foundation upon which the rest of the study will be built.

There have been many previous studies or concept plans that have been developed for the Downtown Berwick area. MMI will review the studies and bring forward the relevant portions for consideration as a part of our study. The review will include Mark Kehava's Concept Plan, which in part is the catalyst for this study. We will also review the 2014



# Technical Proposal

## KACTS Berwick Downtown Vehicle, Bicycle and Pedestrian Study

Downtown Vision Report and the VHB Berwick Traffic Circulation & Parking Evaluation. Additionally, MMI will request crash data for the Downtown Berwick area from MaineDOT and review high crash locations and crash patterns to help understand potential safety issues. Finally, we will assemble existing available traffic, pedestrian, and bicycle count data to develop a profile of Berwick's current multimodal facilities, as well as the mode choice of its street users.

Finally, we will assemble mapping data. This will include not only GIS base mapping of land use, zoning, and transportation infrastructure, to illustrate findings and concepts, but also the location of utilities in order to assist in the infrastructure evaluation.

### Bicycle / Pedestrian Evaluation

We understand that additional safe and comfortable pedestrian access in the Downtown Berwick area can encourage economic development and a vibrant downtown. This effort will analyze existing pedestrian and bicycling patterns in the Berwick Downtown area in relation to the vehicular networks, and comment on the challenges and opportunities present. Key origins and destinations for active transportation users will be identified, and integrated into the bicycle and pedestrian evaluation in order to develop recommendations which accurately identify the places which would most benefit from active transportation infrastructure investments, as well as what types of infrastructure improvements are more applicable.

The current study area has a number of deficiencies for bicycles and pedestrians. While the sidewalks are prevalent in the majority of the study area, pedestrian wayfinding can be difficult with certain intersections not providing full pedestrian crossing access. For example, the intersection of Market Street with Sullivan Street and Rochester Street can be difficult for pedestrians to access due to the one-way street network. Other sections of the study area, such as School Street, provide pedestrian access, but the sidewalk conditions and lack of separation between the pedestrian and vehicular space may inhibit pedestrian use. Other streets, like Wilson Street, would benefit greatly from the implementation of pedestrian infrastructure as many pedestrians currently utilize it even though it does not have sidewalks.



*The area around the Civil War monument is in need of additional bicycle and pedestrian infrastructure*

The development of strategic pedestrian infrastructure throughout the Downtown Berwick area, including sidewalks and esplanades separating the pedestrians from traffic, can be key to area-wide vibrant development.

Bicycle access in the study area can be confusing. This is especially problematic around the Town Hall where the multitude of one-way street pairings make navigation an issue. The addition of bicycle-specific infrastructure can encourage more frequent and safer bicycle users. Potential improvements which could benefit bicyclists in the area include wayfinding signage, on-road infrastructure (shared lane markings and bicycle lanes), safety signage, and off-road infrastructure (greenways and trails).



*The intersection of Wilson Street and School Street, just outside of the study area, are still important to the overall study*

MMI will fully inventory and identify all existing bicycle and pedestrian infrastructure in the study area, including ADA facilities. From this inventory, MMI will identify the opportunities for improvements that will complement development in the downtown area. The proposed improvements will have cost estimates determined for them and then prioritized. The priority system may be modified at the discretion of the Study Team but will generally be based on the amount of benefit provided to the network.

# Technical Proposal

## KACTS Berwick Downtown Vehicle, Bicycle and Pedestrian Study

### Subsurface Infrastructure Evaluation

To start the assessment of the current conditions, MMI will do a cursory inspection of the subsurface utilities for the study area. The inspection will determine the location and functionality of the subsurface infrastructure including drainage, water, and sewer systems. This review will be a key consideration in evaluating recommendations and guide future decisions and cost estimates for the study area.

### Current Traffic Conditions Evaluation

Using the gathered transportation data, MMI will create a transportation model with the Synchro software suite. This traffic model will help determine the congestion and capacity of the current roadway. Further, the model will be calibrated by the observation of existing traffic. The model will additionally help ascertain existing traffic programming issues, allowing MMI to identify issues and bottlenecks of the area's traffic movements. Existing metrics such as V/C ratios, queue length data, and Levels of Service will be catalogued and used to help identify current operational deficiencies.

### Constraints and Opportunities

The results of the bicycle/pedestrian, infrastructure, and traffic conditions evaluation will be summarized and a list of study area deficiencies established. Impacts to parking will also be considered. From those findings, we will then work with the Study Team to develop a series of mitigation proposals to evaluate. These will likely include operational changes such as the one-way to two-way conversion of Sullivan Street, traffic control changes, geometric improvements, and infrastructure upgrades. As necessary, the Synchro model will be updated and the effect of the operational changes evaluated. Geometric improvements will be illustrated in concept on the assembled GIS mapping.

A matrix of options will be developed for steering committee and public input. Preferred alternatives will be selected and a schedule developed for implementation with estimated costs and benefits for each. MMI will create concept plans and renderings of the selected actions as well. By using the strengths of imagery combined with words, we can connect effectively and ensure more people grasp all the details of the design.

### Coordination and Outreach

Our team understands that in order to be successful, a transportation plan must include an equitable public engagement strategy which allows for diverse participation. Throughout this process, our role will be to guide discussions and strike a delicate balance to ensure that all voices are heard. With two former MPO staff members in MMI's Maine office, MMI has a deep familiarization with the public process that Berwick/KACTS will be seeking for the study.

Our strategy will connect relevant stakeholders and other citizens of Berwick through a series of meetings with the Study Team and the greater public. MMI plans to collaborate start to finish with the project Study Team. We anticipate hosting three Study Team meetings in addition to the kickoff meeting: a kickoff meeting to determine final scope and goals of the project that MMI will be proposing, an initial meeting to review conditions, data collection, and some initial recommendations; a meeting to review the developed concept plans; and a final meeting to review the concept plan and illustrations.

In order to capture the opinions and visions of the greater public, MMI anticipates hosting two public meetings. These meetings will be scheduled at key points within the project process to align well with needed moments of decision-making in order to ensure that any input gathered has the greatest potential to truly impact the plan. The dates, times and locations



*The status of subsurface infrastructure, including areas with additional drainage requirements, will be key in decision making*



*Getting input for the project, from municipal staff and the public, will be key in recommendations*

# Technical Proposal

## KACTS Berwick Downtown Vehicle, Bicycle and Pedestrian Study

will be selected to ensure the largest and more equitable attendance levels possible.

The first meeting will be held to introduce the project and gather feedback from the public about the ways they currently use the study area, as well as the ways they would like to see it improved. The MMI team will develop an interactive strategy for this meeting in order to best engage attendees and capture their honest feedback. Potential interactive elements include a visioning exercise to help our project team understand individual aspirations for the future of the active transportation in the Downtown Berwick area; a creative small-group mapping activity to help attendees capture their ideas on a physical visual map; and a walking audit. Our team has significant experience running all of these types of events in the past.

The second meeting will be focused on the review of the draft findings developed in cooperation with the Study Team and based on the public input gathered in the first meeting. MMI will submit all meeting materials ahead of any public event for review by Berwick, KACTS and MaineDOT staff before any recommendations are discussed publicly.

### [Final Report](#)

After input from the Study Team and the public on the preferred alternatives, MMI will complete the study with a draft report, documenting the data collection, analysis, findings, and recommendations for review by Berwick, KACTS and MaineDOT staff. After receiving comments, MMI will submit a final draft of the report. The final submission will be in a printed and in an electronic format.



*Street furniture will help transform Berwick into a more walkable community*

## PROJECT SCOPE

### Downtown Berwick Study

#### Task 1 [Project Kick-Off](#)

- Task 1.1 Meet with Study Team to develop Purpose and Need Statement for project with review of previous relevant studies.
- Task 1.2 Collaborate with Study Team to determine a final scope of work.
- Task 1.3 Identify additional data collection to be completed to support project needs.

#### Task 2 [Review Available Data](#)

- Task 2.1 Review existing documentation of previous work, to include at least Mark Kehaya's Concept Plan, 2014 Downtown Vision Report, VHB Berwick Traffic Circulation & Parking Evaluation, and Crash data/HCL locations from MaineDOT.

#### Task 3 [Bicycle / Pedestrian Deficiencies](#)

- Task 3.1 Identify opportunities for enhanced connectivity and safe crossings for bicycles and pedestrians along the corridor.
- Task 3.2 Identify locations in which a bicycle lane can be placed based on available pavement width and road conditions.
- Task 3.3 Complete sidewalk inventory of Village Center area and prioritized list of improvements including ADA compliance with planning level cost estimates.

*Deliverable: Memo of existing conditions, opportunities, assessment, and proposed prioritized improvements for bicycle*

# Technical Proposal

## KACTS Berwick Downtown Vehicle, Bicycle and Pedestrian Study

*and pedestrian infrastructure in the Village Center area.*

### Task 4 Assessment of Current Conditions

- Task 4.1 Inspection and analysis of sub-surface infrastructure in the Village Center area.
- Task 4.2 Creation of transportation model for analysis of traffic data, including volumes and capacity.
- Task 4.3 Analyze crash data and MaineDOT designated High Crash Locations.
- Task 4.4 In consultation with steering committee, discuss recommendations from analysis.

*Deliverable: Memo of existing conditions, traffic data and analysis, and crash data.*

### Task 5 Assessment of Future Scenarios

- Task 5.1 After developing at least three different rendered future scenarios, create traffic models for analysis, including a safety and mobility analysis for recommendations with a no-build option.

### Task 6 Develop Preliminary Recommendations

- Task 6.1 In cooperation with Study Team, select an optimal plan to develop that will improve the traffic circulation, walkability, and biking in Downtown Berwick.
- Task 6.2 Develop cost estimates with cost/benefit analysis of concept recommendations.
- Task 6.3 Create at least three renderings, photo-simulations, or other types of illustrative graphics to convey the concepts and recommendations.
- Task 6.4 Develop construction schedule for recommended alternative design.
- Task 6.5 Create draft Feasibility Report of recommended alternative.

*Deliverable: Memo of recommended alternative with renderings of future scenarios.*

### Task 7 Public Feedback

- Task 7.1 Collaborate with the Study Team, which would be made up of town staff, Planning Board, Selectmen, Envision Berwick, Mark Kehaya, and MaineDOT staff in at least three meetings; a kickoff meeting, a meeting to review initial conditions, data collection, and some initial recommendations, a meeting to review the developed concept plans, and a meeting to review the concept plan and illustrations.
- Task 7.2 Prepare for and attend two public meetings; a meeting to introduce the project and solicit feedback, and a meeting to review the draft.

*Deliverable: Attendance at a kickoff meeting with Study Team members, three MMI/Study Team meetings, two public meetings, materials and presentations for meetings, and a summary of meeting notes.*

### Task 8 Final Report

- Task 8.1 Combine and refine a draft and final report of all previous deliverables, including illustrative graphics and renderings.
- Task 8.2 Ensure MaineDOT acceptance with review from MaineDOT staff before submittal of Final Draft of Report.

*Deliverable: A draft and final report of study results and materials.*

# Technical Proposal

## KACTS Berwick Downtown Vehicle, Bicycle and Pedestrian Study

Proposed Project Schedule		August	Sept	October	Nov	Dec	Jan	Feb	March	April
<b>KACTS - Downtown Berwick Study</b>										
<b>Task 1: Project Kick-Off</b>										
Develop Purpose and Need										
Determine Final Scope										
Identify Additional Data Collection										
<b>Task 2: Review Available Data</b>										
Review Previous Studies										
<b>Task 3: Bicycle / Pedestrian Deficiencies</b>										
Identify Opportunities										
Bicycle Lane Location Feasibility										
Sidewalk Inventory										
Deliverable:										
<b>Task 4: Assessment of Current Conditions</b>										
Inspection and Analysis of Sub-Surface Infrastructure										
Transportation Model										
Crash Data Analysis										
Initial Recommendations										
Deliverable:										
<b>Task 5: Assessment of Future Scenarios</b>										
Develop Concept Plans										
Traffic Analysis of Concept Plans										
Deliverable:										
<b>Task 6: Develop Preliminary Recommendations</b>										
Select Optimal Plan										
Concept Illustrations										
Schedule of Optimal Plan										
Deliverable:										
<b>Task 7: Public Feedback</b>										
Kick-Off Meeting										
Steering Committee Meetings										
Public Meetings										
Deliverable:										
<b>Task 8: Final Report</b>										
Draft Report										
Final Submission of all Reports and Graphics										

# Technical Proposal

## KACTS Berwick Downtown Vehicle, Bicycle and Pedestrian Study

### KACTS CONSULTANT'S DETAILED COST PROPOSAL FORM

**Consultant Name:** Milone & MacBroom, Inc.  
**Vendor/Customer No.:** KACTS, Berwick Downtown Study  
**Project Title/Location:** Berwick Downtown Vehicle, Bicycle & Pedestrian Study  
**Service Area or Phase of Work:**

**Orig. Date:** June 29, 2018  
**Revised Date:**  
**Contact Name:** John Adams, PE, PTOE  
**Contact e-mail address:** [jadams@mminc.com](mailto:jadams@mminc.com)

#	Task Descriptions	Project Director, QA/QC Dave Sullivan, PE	Lead Traffic Engineer, John Adams, PE, PTOE, IMSA II	Project Manager, Carl Eppich, AICP	Senior Landscape Architect, Regina Leonard, LA	Project Traffic & Transportation Engineer Jason Ready, PE, PTOE, IMSA II	Bike & Ped Planning, Anna Stokes, AICP	Project Planner, Rebecca Auger, AICP	Project Traffic Engineer, Kwesi Brown, PE, PTOE	Project Transportation Engineer, Bill Van Duzer, PE, PTOE	MMI Engineer / Planner Staff	MMI Admin Staff	Project Partner / Diana's CADD Services	TOTAL
		Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours
1	Task 1: Project Kick-Off	4.00	4.00	8.00	6.00	6.00					4.00	2.00		30.00
2														
3	Task 2: Review Available Data	1.00	2.00	8.00	2.00	12.00	4.00	4.00	2.00	4.00	12.00	4.00		55.00
4														
5	Task 3: Bicycle / Pedestrian Deficiencies	1.00	1.00	8.00	2.00	8.00	12.00		1.00	2.00	8.00	4.00		47.00
6														
7	Task 4: Assessment of Current Conditions	1.00	6.00	14.00	8.00	16.00	4.00	4.00	2.00	12.00	24.00	2.00		93.00
8														
9	Task 5: Assessment of Future Scenarios	2.00	8.00	12.00	10.00	24.00	4.00	4.00	3.00	12.00	32.00	4.00	24.00	139.00
10														
11	Task 6: Develop Preliminary Recommendations	2.00	4.00	8.00	10.00	6.00	4.00	4.00	3.00	12.00	20.00	4.00	10.00	87.00
12														
13	Task 7: Public Feedback	1.00	12.00	18.00	18.00	6.00	8.00				8.00	6.00	6.00	83.00
14														
15	Task 8: Final Report	4.00	4.00	16.00	12.00	16.00	8.00	12.00	4.00	4.00	20.00	12.00		112.00
16														
17														
18														
19														
20														
21														
	<b>TOTAL HOURS</b>	<b>12.00</b>	<b>41.00</b>	<b>92.00</b>	<b>68.00</b>	<b>94.00</b>	<b>44.00</b>	<b>28.00</b>	<b>15.00</b>	<b>46.00</b>	<b>128.00</b>	<b>38.00</b>	<b>40.00</b>	<b>646.00</b>

## Section 2

# Experience

## KACTS Berwick Downtown Vehicle, Bicycle and Pedestrian Study

### BRIEF HISTORY OF FIRM

(MMI) is a multidisciplinary consulting firm that has worked with communities throughout New England on planning and design for downtown-centric projects. As planners, engineers, and landscape architects, it is our role to consider both the details and the context of each project - to ascertain those qualities that confer a special sense of place and to find a balance between sometimes conflicting factors. Our design and engineering professionals offer extensive experience in all aspects and phases of municipal sidewalk and streetscape development. We have assisted communities at every level: in crafting a vision, designing treatment concepts, leading technical design, preparing bid documents, and overseeing construction.

MMI's goal is to include bicycling and walking as integral elements of transportation in all of the communities in which we work. We evaluate traffic and transportation planning from various perspectives, making transportation safer for all users whether in a car, on foot, a bike, or using a wheel chair. Our passion for improving the way people, goods, and services move throughout our communities is apparent in each of our projects. Our team includes engineers who specialize in bicycle and pedestrian studies.

MMI is well versed in all the processes and responsibilities inherent in both the LAP and MPI programs; working alongside MaineDOT is typical for many public roadway and streetscape improvement projects in Maine.



### RELEVANT PROJECTS

The following **Project Experience** with similar projects, along with Key Staff, on these projects follow. Only Key Staff that are part of the proposed MMI Team listed in Section 3 are included.

#### **PACTS Bicycle / Pedestrian Study, Gorham, Maine**

Milone & MacBroom was retained by the Portland Area Comprehensive Transportation System (PACTS) and the Town of Gorham for this ongoing study and conceptual design project. The overall goals and objectives were to work with local stakeholders and reviewing agencies to complete plans for the implementation of bicycle and pedestrian elements and infrastructure into the vehicle centric downtown area of the Gorham Village. This study also involved reviewing and improving bicycle and pedestrian movements to and from the village area and the Gorham High School, Middle School, Village Elementary School, Narragansett Elementary School, the University of Southern Maine Campus, and local retail stores and restaurants. The area was challenging in that it serves as both a destination for local residents and users, and also as an important regional route and area for the movement of goods and services, commuters and recreational users. To accomplish these goals, the study took a comprehensive and holistic review of parking, transit,



land-use and existing bike and pedestrian patterns to make recommendations to improve safety and mobility of all modes of traffic through and within the Gorham Village area. This study provided a well-defined list of actionable projects that have been conceptually designed with budget cost estimates that are ready for funding applications.

#### KEY STAFF:

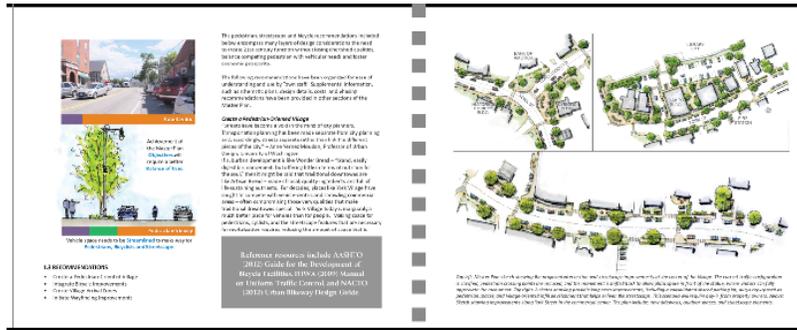
- Regina Leonard, PLA, Project Manager
- John Adams, PE, PTOE, Lead Traffic Engineer
- Dave Sullivan, PE, Lead Transportation Planner
- Jason Ready, PE, PTOE, Transportation Planner
- Anna Stokes, AICP, Lead Bike / Pedestrian Planner
- Carl Eppich, AICP, PACTS Project Manager
- Diana Burgess, CADD drafting services

# Experience

## KACTS Berwick Downtown Vehicle, Bicycle and Pedestrian Study

### York Village Master Plan, York, Maine

Milone & MacBroom, as part of a planning and design team lead by Lachman Architects, prepared a master plan to guide the revitalization of York Village. The process included traffic and parking data collection and analysis, extensive outreach to stakeholders and the public, zoning analysis, intersection, and streetscape design.



The plan identified critical infrastructure and streetscape changes as well as parking and rezoning strategies to encourage private investment. The Plan was adopted by the Town's Board of Selectmen in 2015.

#### KEY STAFF:

Regina Leonard, PLA, Lead Landscape Architect, Lead Public Outreach  
John Adams, PE, PTOE, Lead Traffic Engineer

### Comparison of ALTERNATIVES

**SELECTED ALTERNATIVES**

- NO BUILD (EXISTING)
- "Y" CONCEPT
- "TEE" CONCEPT

**UPDATED TRAFFIC MODELING**

- ONE LANE APPROACHES
- BYPASS LANES
- TURNING LANES

	"Y" Concept		"Tee"	
	W/150' LT LANES	100' BYPASS	W/150' LT LANES	100' BYPASS
OVERALL	15.4	12.9	15.4	15.4
YORK EB	2.5/A/10/190*	2.5/B/10/155*	2.3/A/10/170*	2.3/B/10/180*
YORK WB	2.5/A/10/30*	2.4/A/10/20*	2.3/A/10/30*	2.3/A/10/30*
LONG SANDS SB	13.9/E/12/10/433*	69.2/E/1300/600*	41.8/E/1300/370*	44.1/E/1200/390*

\*Q15 ROUNDED TO NEAREST 10'      □ INTERSECTION

### York Village Revitalization Phase One, York, Maine

Milone & MacBroom is currently working with the Town of York on the preliminary design report for the public right-of-way improvements recommended as part of the York Village Revitalization project, which the MMI project team completed in the spring of 2015. This "next phase" project includes close coordination with the town and MaineDOT following the Local Project Administration (LPA) project protocol. This \$2.3 million project focused on the realignment of the street and intersection through the village center, with new public plaza space, expanded sidewalk network, streetscape elements and plantings. The project is scheduled for construction in 2020.

#### KEY STAFF:

Regina Leonard, PLA, Project Manager, Lead Landscape Architect

### Downtown / Main Street Parking Study, Yarmouth, Maine

Milone & MacBroom, Inc. recently completed a parking study of the Downtown/Main Street area of Yarmouth. As part of the study, the project team conducted parking counts, analyzed existing parking utilization in the downtown, prepared projections for future required parking supply, conducted community outreach, and developed recommendations to address parking needs. Milone & MacBroom also identified potential off-street parking areas and provided recommendations for improving existing vehicular and pedestrian connectivity to downtown destinations. The final report identified critical pedestrian crossings and identified issues related to on-street parking and required sight lines, as well as ADA considerations for existing sidewalks. The plan was completed in early 2017.

#### KEY STAFF:

Regina Leonard, PLA, Project Manager, Lead Public Outreach  
Dave Sullivan, PE, Lead Transportation Planner  
Anna Sullivan, AICP, Lead Bike / Pedestrian Planner



Yarmouth Crossing Sketch  
Downtown / Main Street Parking Study

# Experience

## KACTS Berwick Downtown Vehicle, Bicycle and Pedestrian Study

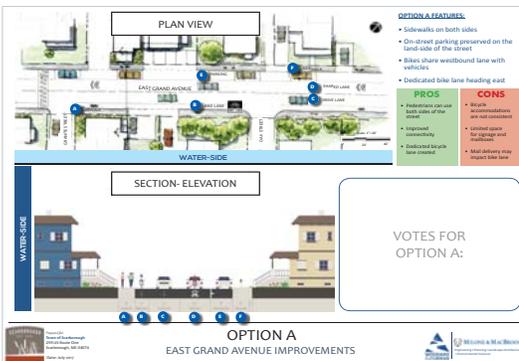


### East Grand Avenue Complete Streets / Pine Point Area Master Plan, Scarborough, Maine

Milone & MacBroom recently completed planning a design for a 3/4 mile section of East Grand Avenue in the Town of Scarborough. The project sought to modernize the failing and outdated transportation infrastructure in the Pine Point area of Scarborough, providing new sidewalks, bicycle accommodations, and considering on-street parking, pedestrian crossings, and connectivity to adjacent neighborhoods and beaches. As part of the project, Milone & MacBroom prepared conceptual design alternatives, conducted outreach meetings, and developed a Preliminary Design Report to support the Town's efforts to secure funding through the MaineDOT LAP (Locally Administered Project) program. The project was aligned with intersection improvements design and an overall master plan for Pine Point.

#### KEY STAFF:

John Adams, PE, PTOE, MMI Project Manager, Lead Transportation / Traffic Engineer, Public Outreach  
 Jason Ready, PE, PTOE, Transportation Planner  
 Anna Stokes, AICP, Lead Bike / Pedestrian Planner  
 Regina Leonard, PLA, Lead Public Outreach, Lead Landscape Architect



### College Street Reconstruction, Brunswick, Maine

The Town of Brunswick retained Milone & MacBroom to provide engineering design, master planning and construction administration services for the College Street Reconstruction project. Primary stakeholders in the project included Bowdoin College, Brunswick Sewer District, Brunswick-Topsham Water District, and Brunswick Public Works.

The project consisted of full-depth reconstruction of approximately 1,800 linear feet of roadway, realignment and construction of new sidewalks on both sides of College Street and along Coffin Street, replacement and temporary bypass of an existing 6" water main with a new larger 12" main, removal and replacement of sewer manholes and pipe, evaluation (camera and inspection) of existing storm drainage system and design of improvements, and the redesign of three roadway intersections including College Street at Maine Street, College Street at Park Row, and College Street at Harpswell Road. Additional design elements incorporated into the streetscape project included new granite curbing, bituminous sidewalks, granite paver crosswalks, street lighting, driveway reconfiguration and landscaping. Traffic calming elements were an important aspect of the project, and included multiple raised speed tables with textured granite transition ramps and granite roadside bollards to define the pedestrian spaces.

The project was constructed in 2015 with construction administration support from Milone & MacBroom.

#### KEY STAFF:

John Adams, PE, PTOE, Project Manager, Lead Transportation Engineer



# Experience

## KACTS Berwick Downtown Vehicle, Bicycle and Pedestrian Study

### Spring Street Complete Streets Project, Portland, Maine

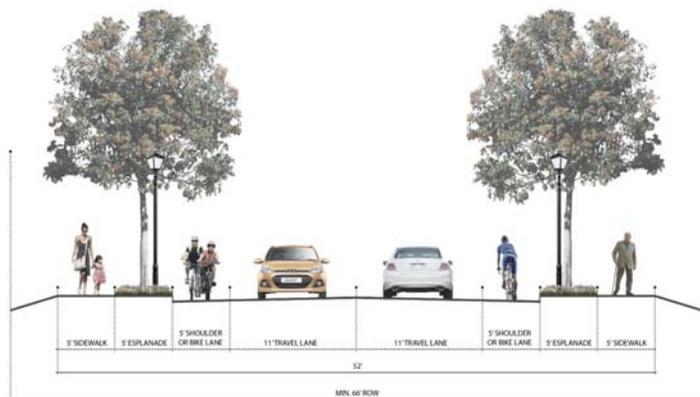
The City of Portland retained Milone & MacBroom in 2014 to provide engineering and landscape architecture services for the redesign of a 2,400 foot section of the Spring Street arterial. The design objectives called for transforming Spring Street from a four-lane, vehicle-centric, and high-speed arterial to a lower-speed, two-lane, complete street with reinforced connectivity to the surrounding neighborhoods and districts including arts, historic, and downtown.

The project included a survey of existing conditions and collection of traffic data in order to assess and further develop a prior concept design. Milone & MacBroom proposed modifications to enhance traffic flow based on Synchro traffic modeling and proposed improvements to existing parking and the integration of a bicycle climbing lane. The team also prepared scenarios for streetscape enhancements, including new plaza spaces, green stormwater infrastructure, sidewalks, and landscaping. The pavement gained will serve to accommodate bicycles and sidewalk expansion.

Milone & MacBroom worked closely with the City, MaineDOT, and utility companies through project design and implementation. Engineering and design followed the Local Administered Project (LAP) process through Preliminary Design Report and Final Design. The Spring Street project was constructed in 2015-16.

#### KEY STAFF:

John Adams, PE, PTOE, Project Manager, Lead Traffic Engineer  
Regina Leonard, PLA, Lead Landscape Architect



BRUNSWICK COLLECTOR ROAD STANDARD (CURBED SECTION)  
COMPLETE STREET OPTION



### Brunswick Connector Road, Brunswick, Maine

Milone & MacBroom provided comprehensive design services allowing the Town of Brunswick to realize their vision of a new connector road critical to the revitalization of a former Naval Air Station. Beginning at the engineering study phase, the project relied on the close collaboration between town staff and project stakeholders the Midcoast Region Redevelopment Authority, local utility companies, and major property owners.

In advance of design, the firm completed in-depth traffic analysis for the new connector road linking Admiral Fitch Avenue to Route 24. The proposed roadway design incorporates complete streets elements following recent policies adopted by the Town. The design involved 1500' of new roadway, intersection reconfiguration, traffic control signals, bicycle lanes and pedestrian amenities, landscaping, and utility coordination for, water, electrical, and street lighting.

#### KEY STAFF:

John Adams, PE, PTOE, Project Manager, Lead Traffic Engineer  
William Van Duzer, PE, PTOE, Lead Roadway Designer  
Jason Ready, Lead Transportation Planner

# Experience

## KACTS Berwick Downtown Vehicle, Bicycle and Pedestrian Study

### UCONN Health Center Campus Traffic Improvements, Farmington, Connecticut

Milone & MacBroom provided planning, engineering, design, and construction inspection services on several projects as part of our on-call contract with the University of Connecticut Health Care Center's 1-million- square-foot campus expansion project. New traffic signals and traffic signal upgrades at multiple intersections within the Route 4 closed-loop system were designed, and the firm provided construction oversight as well.

These improvements include new signal equipment with improved operations and coordination within the closed-loop system.

Roadway improvements at 11 intersections, eight off-site and three internal, have been constructed. These improvements are located on state roads including CT Route 4 and State Route 508 and include approximately 3,500 linear feet of roadway widening to provide additional through and turn lanes at several intersections and improved geometric reconfiguration on intersection approaches. The design includes a 120-foot-diameter roundabout on Main Road which also provides a well-landscaped entry statement.



#### KEY STAFF:

David Sullivan, PE, Project Director

Kwesi Brown, PE, PTOE, Project Manager

### Two Intersection Study & Preliminary Design, Bridgton, Maine

Milone & MacBroom was retained by the Town of Bridgton, Maine and the Maine Department of Transportation to perform a traffic study, analysis and preliminary design for two downtown intersections. The intersections book-end the downtown at the west and east ends. Intersection 1 is Main Street (Rte 302) at South High Street. This intersection is a complex triangular "rotary like" intersection with a historic Civil War Monument in the middle. Intersection 2 is Main Street (Rte 302) at Route 117. This intersection is a transition point as vehicles enter the Town from higher speed rural areas.



The Town of Bridgton has undertaken a plan to review and redesign how their downtown Main Street and two major intersections functions for all modes of transportation and all users. The objective of the Town is to slow speeds by providing traffic calming elements, increase infrastructure for pedestrian and bicycle traffic, and to increase safety for all users as they create a sense of place and revitalize their valuable downtown area. To that end, Milone & MacBroom has reviewed accident data, collected traffic volumes, field reviewed existing operations, performed traffic modeling of intersection redesign alternatives, surveyed both intersections and prepared preliminary design plans for both intersections. As part of this project we are also coordinating with the Maine Historic Preservation Commission on the potential minor relocation of a Civil War Monument. Intersection 1 has two alternatives, one without monument relocation and one with relocation. In all cases, we have employed a complete streets design philosophy.

#### KEY STAFF:

John Adams, PE, PTOE, Project Manager

Jason Ready, PE, PTOE, Transportation Planner

Michael Cleary, EIT, Civil Engineer

# Experience

## KACTS Berwick Downtown Vehicle, Bicycle and Pedestrian Study



### **Downtown TOD Traffic, Non-Motorized Transportation, Parking Study, New London, Connecticut**

Milone & MacBroom is undertaking a comprehensive study of transportation needs in the center of New London that is particularly focused on developing improvements to best accommodate new developments including a National Coast Guard Museum and expansion of Cross Sound Ferry. Existing conditions and operations were measured for vehicle traffic flow and parking. Pedestrian safety and access was qualitatively assessed. Future projected demands were estimated based on the new museum and the ferry expansion, as well as taking into account increased vibrancy in the downtown, reoccupancy of currently vacant building space (a building-by-building occupancy survey of downtown buildings was completed), and increased ridership at several different transportation modes that flow through the city's intermodal transportation center. Future needs were then identified and context-sensitive improvement concepts and strategies developed, including roadway and traffic

signal infrastructure upgrades and operational improvements; pedestrian safety and mobility improvements; and parking supply, management and operational improvements. The next step of the study will be to analyze likely operational conditions and necessary transportation infrastructure modifications that would be needed to convert one-way streets in the downtown to become two-way streets. The study may lead to subsequent design work.

#### KEY STAFF:

Dave Sullivan, PE, Project Director / Multimodal Planning and Outreach

Anna Stokes, AICP, Lead Bike / Pedestrian Planner



### **Downtown Bristol Revitalization, Bristol, Connecticut**

Milone & MacBroom is in the process of assisting the City of Bristol in an effort to revitalize a key section of Downtown Bristol. Working with the Bristol Development Authority, Milone & MacBroom is conducting a planning and design process to revitalize Centre Square – the former Bristol Centre Mall site. The goal of the project is to determine development methods for the Centre Square site and identify options that improves the city's ability to facilitate such a development. Through comprehensive analysis of the local market and realizing the potential to capitalize on new investments and opportunities, the project aims to create a short-term action plan for development.

Understanding the opportunities and challenges to development on the site will be achieved by thoroughly assessing demographic trends, transportation systems, real estate and retail markets, environmental constraints, site conditions, and fiscal realities. The project will create a flexible, market-supported redevelopment plan that is backed by the community, connects to and integrates well with the existing Downtown, creates a vibrant and pedestrian friendly downtown, and takes advantage of the region's growing demand for city center living.

#### KEY STAFF:

Rebecca Augur, AICP, Local Market Analysis / Urban Planning

David Sullivan, PE, Regulatory Traffic Approval Manager

Kwesi Brown, PE, PTOE, Traffic Signal Design

# Experience

## KACTS Berwick Downtown Vehicle, Bicycle and Pedestrian Study

### Lower Main Street, Bridgton, Maine

Milone & MacBroom is currently assisting the Town of Bridgton with designing and engineering roadway and streetscape improvements for Lower Main Street. The design seeks to improve the existing transportation route from Main Street to neighborhoods and recreational areas, to expand on-street parking, and to provide visual continuity with the downtown. The project included an evaluation of treatment alternatives to allow the community to select the most appropriate design approach prior to the development of the engineered drawings.

MMI's scope of work includes an existing conditions and right-of-way survey as well as roadway and streetscape design, including curbing and sidewalk (north side), storm drains, sewer-line stubs (intersections), CMP poles, street trees, and lighting. The firm is currently in the preliminary design phase and will wrap up final design this summer. The project will be constructed in 2019.



#### KEY STAFF:

John Adams, PE, PTOE, Project Manager, Lead Traffic Engineer  
William Van Duzer, PE, PTOE, Lead Civil Engineer  
Jason Ready, PE, PTOE, Lead Transportation Planner  
Regina Leonard, PLA, Lead Landscape Architect  
Hannah Ritmiller, EIT, Civil Engineer  
Michael Cleary, EIT, Civil Engineer



### Colby College Roundabout, Waterville, Maine

Milone & MacBroom is currently assisting Colby College in the development and design with engineering roadway and streetscape improvements for two roundabouts on the Colby College campus in Waterville, Maine. The design seeks to improve the operations of the existing intersections, improve bicycle and pedestrian safety and access, and to provide a gateway entrance to the campus. The project planning included an alternatives analysis for several intersection options allowing the college to select the most appropriate design prior to the start of engineered drawings.

MMI's scope of work includes an existing conditions and right-of-way survey as well as roadway and streetscape design, including curbing and sidewalk, storm drains, , CMP poles, street trees, and lighting. The firm is currently in the preliminary design phase and will wrap up final design this summer. The project will be constructed in 2019.

#### KEY STAFF:

John Adams, PE, PTOE, Project Manager, Lead Traffic Engineer  
William Van Duzer, PE, PTOE, Lead Civil Engineer  
Jason Read, PE, PTOE, Traffic Engineer



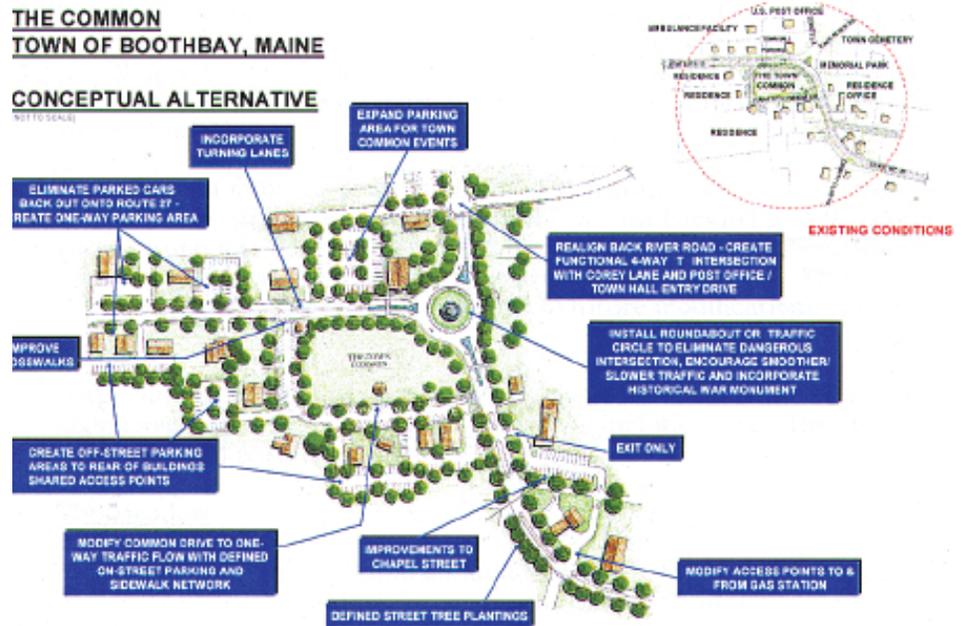
# Experience

## KACTS Berwick Downtown Vehicle, Bicycle and Pedestrian Study

### Route 27 Complete Streets Corridor Study – Boothbay, Boothbay Harbor, & Edgecomb, Maine

MMI conducted a Route 27 Complete Streets Corridor Study and provided traffic engineering and landscape architecture services to the Towns of Boothbay, Boothbay Harbor, & Edgecomb. Our team worked with each town to form a consensus on how Route 27 should be developed, taking into consideration each town's objectives and aspirations for each different community. The study included the following tasks:

- Data collection including review of aerial mapping and traffic counts
- Analysis of existing conditions, which included field reconnaissance and traffic, and level-of-service analysis
- Conceptual development in which community charrettes were held to identify community concerns and land use objectives
- Recommendations for improvements in the form of a detailed master plan for the 9-mile-long study corridor



Boothbay Conceptual Alternative Rendering

The Towns of Boothbay and Boothbay Harbor each adopted recommended improvements and used the results to request funding for design and construction.

#### KEY STAFF:

John Adams, PE, PTOE, Project Manager



### Depot Street Streetscape, Bridgton, Maine

After receiving funding through the HUD Community Development Block Grant Program, the Town of Bridgton hired Milone & MacBroom to lead the public involvement effort and prepare engineering design plans and specifications to complete a streetscape enhancement and complete reconstruction of Depot Street between Main Street and the Stevens Brook Bridge. The project included new concrete and brick sidewalks, relocation of overhead power utilities, drainage improvements, curbing and repaving of the roadway. Streetscape amenities included ADA-compliance improvements, street trees, decorative pedestrian-scale lighting, benches and litter receptacles.

Construction was completed in 2015 with construction inspection and administration assistance from Milone & MacBroom to ensure that the strict standards associated with Federally-funded HUD projects were followed.

#### KEY STAFF:

John Adams, PE, PTOE, Project Manager  
Regina Leonard, PLA, Lead Landscape Architect

# References

## KACTS Berwick Downtown Vehicle, Bicycle and Pedestrian Study

### *Municipal References*

**Denise Clavette, Director of Planning and Development  
(former Economic Development Director in Yarmouth)**

City of Saco  
300 Main Street  
Saco, Maine 04072  
dclavette@sacomaine.org  
(207) 282-3487

**Dean Lessard, PE, Director of Public Works  
Steve Burns, Town Manager**

Town of York  
186 York Street  
York, Maine 03909  
*Dean Lessard:*  
dlessard@yorkmaine.org  
(207) 363-1010 Ext. 6201

*Steve Burns:*  
sburns@yorkmaine.org  
(207) 3630-1000 Ext. 6021

**Angela Blanchette, PE, Town Engineer**

Town of Scarborough  
259 US Route 1  
Scarborough, ME 04074  
ablanchette@ci.scarborough.me.us  
(207) 730-4089

**Robert A. Peabody, Jr., Town Manager**

Town of Bridgton  
3 Chase Street, Suite 1  
Bridgton, Maine 04009  
townmgr@bridgtonmaine.org  
(207) 647-8786

**Bruce Hyman, Transportation Program Manager**

City of Portland  
389 Congress Street  
Portland, Maine 04101  
hyman@portlandmaine.gov  
(207) 874-8717

**Justin Malley, Executive Director**

Bristol Development Authority  
111 North Main Street  
Bristol, CT 06010  
justinmalley@ci.bristol.ct.us  
(860) 584-6185

**Linda Smith, Economic & Development Director**

Town of Brunswick  
85 Union Street  
Brunswick, Maine 04011  
lsmith@brunswickme.org  
(207) 721-0292

**Robert Faunce, County Planner**

Town of Boothbay Harbor  
Lincoln County Regional Planning Commission  
297 Bath Road  
Wiscasset, ME 04578  
rfaunce@lcrpc.org  
(207) 754-0069

## Section 3

# Qualifications

## KACTS Berwick Downtown Vehicle, Bicycle and Pedestrian Study

### PROJECT TEAM EXPERTISE

We approach each project passionately and intelligently because we believe the details matter in design, in schedule, and in budgets.

#### In-House Capabilities

As a multidisciplinary consulting firm of engineers, landscape architects, environmental scientists, and community planners, Milone & MacBroom has all of the professional disciplines in-house necessary to complete this assignment. This capability provides our clients with closely coordinated projects that can be completed with greater efficiency and in a timely manner.

#### Traffic Engineering

Traffic Engineering is more than just the science of processing vehicles safely and quickly. It is also the art of developing solutions for access and circulation problems at scales ranging from individual lots, to streets and neighborhoods, to cities and regions. We use information-driven, fact-based, problem-solving processes for maximizing public space, improving pedestrian/bicycle safety and providing opportunities for intermodal connections. The result is a coordinated plan that delivers traffic conditions, smarter parking strategies, and more efficient use of valuable land.

Milone & MacBroom traffic engineers design pretimed and actuated traffic signals for installation at isolated intersection control or closed-loop traffic signal systems. These designs have included emergency vehicle and railroad preemption as well as integration into existing signal systems. Our experience also includes the design of modern signalization that places emphasis on bicyclist and pedestrians, such as rapid flashing beacons and HAWK signals. Additionally, the firm's staff conducts peer reviews and prepares design standards for communities to reduce the number of driveway openings along major arterial roadways as well as traffic impact studies to determine what improvements, if any, are required to mitigate the impact of additional traffic on a roadway network system. The firm's studies have recommended improvements as small as the creation of a left turn bypass lane to the addition of turning lanes and traffic signalization at major intersections. The firm also coordinates routinely with OSTA to approve municipal and private development projects.

#### Traffic Data Collection & Analysis

Most of the assignments that pass through our transportation group require some level of data collection and analysis. Our sequential planning and design engineering work for York Village, for example, required traffic data collection, including compilation of existing source materials, and field counts to assess peak hour volumes, turning movements, and parking utilization. For the York project, our analysis focused on the central intersection to determine operational improvements; pedestrian safety and mobility improvements; and parking supply, management and operational improvements.

#### Transportation / Planning

The Transportation and Planning Groups of Milone & MacBroom have been involved with many planning projects that combine all elements of the proposed project components. These projects have included development potential studies, economic development strategies, townwide master planning, build-out analyses, corridor studies, parking studies, neighborhood revitalization studies, traffic and pedestrian circulation improvement studies, safety analyses, traffic demand management planning, and bicycle studies.

Our team of transportation, planning, and traffic engineering professionals continually strives to keep up to date with the latest design principles, philosophies, and technologies. We understand that sustainable transportation design improves the feeling and sense of



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## KACTS Berwick Downtown Vehicle, Bicycle and Pedestrian Study

neighborhood cohesion through effective landscaping, roadway configuration, traffic controls, roadway lighting, and pedestrian amenities.

### Feasibility Studies

Our senior traffic and transportation engineers have significant experience leading transportation and traffic-focused feasibility studies, including intersections and corridor analysis and design. Our work typically balances many aspects of transportation planning - complete streets, traffic calming, road diets, safety, streetscape, low impact green stormwater design, and quality of life improvements – to identify and assess feasible approaches and alternatives to design.

Milone & MacBroom staff routinely work with MaineDOT, Metropolitan Planning Organizations (MPO), and municipalities to develop effective purpose and need statements that are reflective of both technical issues and community input.

Our traffic and transportation professionals are experienced in all aspects of traffic modeling and projections that are necessary to assess design feasibility. In conjunction with this work, we routinely establish design years or study horizons and consult with regional models, MaineDOT staff, and MPO staff to confirm appropriate background growth rates. We collect, review, and analyze traffic safety and volume data as well as existing conditions in the field, such as the observation of typical and peak traffic operations. Our studies often include traffic modeling of existing and proposed alternatives using state of the art HCM, Synchro/Simtraffic, SIDRA, and VISSIM technology, as well as calibrations to existing patterns of use based on our field observations. Safety analysis is an important part of our projects, from reviewing accident history data and performing field safety assessments to developing collision diagrams and determining solutions to improve safety. To ensure we stay up to date with the latest highway design and safety standards, our transportation group professionals acquire training in Federal Highway Administration (FHWA) Road Safety Audit (RSA) training.

### Streetscape and Community Revitalization

With our ability to understand the communities we serve, the Milone & MacBroom project team has assisted our public clients with recognizing their inherent characteristics that form the basis for



investing in healthy, safe, and walkable neighborhoods: rural, urban, or suburban. We have always put an emphasis on aiding communities in promoting the historical and cultural attributes that make them unique. Milone & MacBroom, Inc. provides master planning, detailed site planning, design, and construction support services for municipal revitalizations and sidewalk and streetscape improvements. Our project experience ranges from historic town centers that want to strengthen the visual character of their community, urban neighborhoods seeking revitalization, and industrial communities looking to provide an economic stimulus to the surrounding area. Our design experience includes granite curbing, brick and concrete sidewalks, street trees, decorative lighting, gateway treatments, pedestrian amenities, historic elements, traffic calming, and utilities. Our project team includes a mix of landscape architects, transportation engineers, and planners to ensure we maintain traffic/pedestrian safety, ADA compliance, and community vision while creating a livable public space that draws users.

We believe that if the solution is right, it will enhance the environment and make it beautiful--people will use it, and it will endure. Designs emerge out of rigorous research and continuous collaboration to develop innovative re-imagining of place and use. We are tenacious in achieving our mutual goals and continue to be engaged with our clients and their places long after our projects have taken root.

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### MaineDOT Experience

Milone & MacBroom currently maintains a General Consultant Agreement (GCA) with MaineDOT and has had a GCA for over a decade. Our Maine staff are certified in MaineDOT's Local Project Administration. Not long ago, we worked with MaineDOT on a Preliminary Design for York Village road and intersection improvements, as well as Preliminary Design updates for the City of Gardiner's Cobbossee Trail on-street segments.

### Community Outreach

Milone & MacBroom has the ability and proven experience assisting communities to reach a consensus as to the location of greenways/ bikeways and developing design guidelines. The firm routinely conducts design charettes to engage stakeholders and the general public in identifying issues and opportunities. We feel it is necessary to utilize a variety of research and graphic methods within multiple public forums to convey and interact with communities.

The MMI Project Team understands the need for visual communication in the world of planning and design. The public opinion of a project, as well as its overall success and failure, are often directly tied to the graphic materials produced. These visual components are the basis and defense of the design idea. The MMI Project Team is capable of producing professional and unique documents, such as maps, cross-sections and conceptual renderings, which visually communicate even the most complex ideas.



## PROJECT TEAM

Milone & MacBroom has a professional staff that has extensive experience in helping communities build consensus, define strategies, and implement successful revitalization programs which promote economic vitality. Our project team will be overseen by **David Sullivan, P.E., Associate, Manager of Traffic Engineering**. Mr. Sullivan, **Project Director** will oversee Quality Control and Quality Assurance for this project.

**Project Manager Carl Eppich, AICP** is a Multimodal Transportation Planner responsible for preparing studies dealing with various aspects of transportation planning and traffic engineering. His primary work efforts have included corridor studies, transportation planning studies, and site development studies of traffic impact, parking utilization, and multi-modal circulation, access, and safety.

**Mr. Eppich will be the main point of contact for this proposal. He can be reached regarding any questions or clarifications.**

**Carl Eppich, AICP**  
Milone & MacBroom, Inc.  
121 Middle Street, Suite 201  
Portland, ME 04101  
p. (207) 541-9544  
[ceppich@mminc.com](mailto:ceppich@mminc.com)  
[www.mminc.com](http://www.mminc.com)



*Carl Eppich, AICP*

**Contract Manager, John Adams, P.E., PTOE**, will oversee contractual matters, and be accountable, along with our Project Manager, for the project schedule and budget. Mr. Adams has been responsible for the feasibility study, design, project coordination, preparation of plans, specifications, cost estimates, and construction documents for many successful projects across New England.

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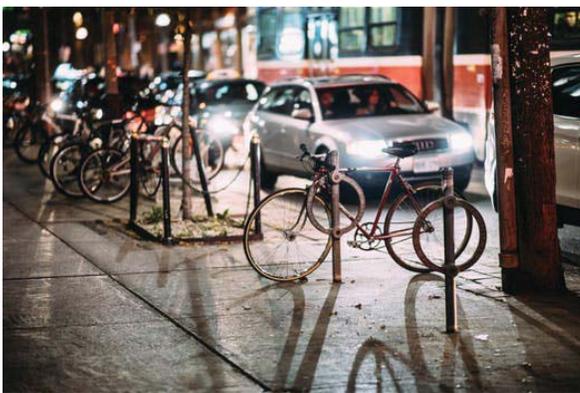


### TRAFFIC PLANNING & ANALYSIS TEAM

**Lead, Traffic Planning & Analysis: John Adams, P.E., PTOE**, will review and analyze traffic data (counts, crash data), oversee the team's traffic modeling, conceptual roadway and intersection design, and proposed traffic signal layout, phasing and ADA design. Mr. Adams has over 24 years of engineering experience including roadway and intersection design, traffic signal design and coordination, design of signal system communications architecture, operation of traffic signal systems via signal management software, and traffic impact safety and planning studies. He also is adept at traffic modeling using HCM, Synchro/SimTraffic software. Mr. Adams also has experience in trail design, drainage improvements, bridge, roadway and traffic signal inspection. He has been actively involved in both the York Village Master Plan development and the Preliminary Design of the associated roadway and intersection improvements.

**Jason Ready, P.E., PTOE**, will review and analyze traffic data (counts, crash data), assist in the team's traffic modeling, conceptual roadway and intersection design, and proposed traffic signal layout, phasing and ADA design. Mr. Ready is a Project Engineer in the firm's Transportation department. He has over 12 years of experience in traffic engineering and municipal planning, including road safety audits, traffic signal management through the creation of new timings and coordination plans using Synchro/SimTraffic, and determination of sign and striping needs for bike and pedestrian traffic. Mr. Ready is proficient in traffic data collection and analysis as well as organization and presentation utilizing GIS. He is also experienced in managing and reviewing transportation planning studies, including complete streets. Mr. Ready contributed to the Gorham Bicycle and Pedestrian Plan in several areas, such as a public pedestrian walking audit, creating feasible ideas of bicycle and pedestrian infrastructure implementation, and a sidewalk condition inventory for the entire town which could be used as a start for future capital sidewalk projects.

**Kwesi Brown, P.E., PTOE** will assist with our team's traffic planning and analysis efforts, including traffic, safety & mobility, and traffic modeling & operational analysis. Mr. Brown is a Project Manager in our Traffic Engineering Division. Mr. Brown has eleven years of experience in traffic engineering and studies, transportation planning, and access management. He is responsible for the design of traffic signals and signal systems, traffic impact studies, and corridor planning studies. He has been involved in several of the firm's roadway / streetscape improvements projects that have included upgrades of existing traffic signals, signal timing revisions, turn lanes, improved roadway geometry, sidewalks and crosswalks, landscaping, and illumination.



### BICYCLE & PEDESTRIAN PLANNING TEAM

**Lead, Bicycle & Pedestrian Planning: Carl Eppich, AICP**, will manage all aspects of the project and the team's activities and will lead the planning of bicycle and pedestrian elements within this downtown Berwick project area. Mr. Eppich brings a depth of knowledge within the planning realm from his previous work experience, including: serving as project planner for the Southern Maine Regional Planning Commission, Assistant Town Planner for the Town of Kennebunk, and his most recent work experience serving as a senior transportation planner for the Portland Area Comprehensive Transportation System (PACTS). He brings a unique perspective to our project team having worked in the public and municipal sectors for many years. His recent work includes adoption of the Regional PACTS Bicycle-Pedestrian Plan to an Active Transportation Plan. He also brings in-depth knowledge of

Federal, MaineDOT and MPO regulations as they pertain to project development and funding mechanisms, which will be of great benefit to the Town and to KACTS.

**Anna Stokes, AICP**, will assist with bicycle and pedestrian planning, analysis of bicycle use and pedestrian activity data, and in gathering stakeholder input through use of in-person meetings, post card mailings, and online surveys. Ms. Stokes

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is a Transportation Planner with experience in transportation, urban planning, design, environmental stewardship, and multimodal transportation planning and design as well as planning for alternative fuels and advanced vehicle technology. She is a skilled researcher, writer, designer, and problem solver with significant experience in the fields of urban planning and public policy. She is a personal and professional advocate for bicycles and pedestrians with a strong interest in helping communities increase the quality of life for their residents through strategic urban planning and well-designed transportation facilities. She has experience in multimodal transportation planning, public outreach, urban planning, design, complete streets, and alternative fuels.



### STREETSCAPE / URBAN PLANNING TEAM

**Lead, Streetscape / Urban Planning: Regina S. Leonard, PLA,** will be leading all aspects of our team's streetscape and urban design efforts. Ms. Leonard will also lead our efforts as they relate to the design of all project landscape architecture elements. Ms. Leonard brings 19 years of experience that is strongly based in municipal settings and includes a range of services from conceptual-level design through project implementation. Ms. Leonard has worked on many downtown and village settings on streetscape, complete streets, and other public realm projects. Her work experience includes revitalization efforts for Northeast Harbor Waterfront, York Village, Camden Downtown, Milo Downtown, Waldoboro Center, and block redevelopment projects in Rockland and Thomaston. Having worked in both the private and public

sector, she understands the inherent complexities of civic-scale projects and has demonstrated experience working with communities and interest groups toward common goals.

**Rebecca Augur, AICP,** will assist in land use planning and zoning efforts. Ms. Augur offers diverse experience as a consulting, regional, and municipal planner. Her technical skills in zoning regulation development, GIS analysis, and public outreach enhance the capabilities of the firm's Planning Group. She is experienced in a variety of community and school planning projects. Her training and experience as a regional and municipal planner contribute to her deep understanding of the complex demographic, housing, and social factors influencing community plans and decision-making, as well as her ability to facilitate the public planning process.



### ROADWAY LAYOUT / ENGINEERING TEAM

**Lead, Roadway Layout & Planning: David Sullivan, P.E.,** will lead review and QA/QC efforts, and ensure project milestones and schedules are met. Mr. Sullivan has supervised numerous traffic engineering and transportation planning studies and improvement plans for new developments, corridors, and campus settings. Integral to these efforts were multimodal evaluations and complete streets solutions. He has also supervised countless traffic impact studies for a variety of sites throughout the northeast for both public and private clients. Mr. Sullivan has significant experience related to parking studies. This includes evaluation of multiple facilities within town/city centers; individual multiuse projects where shared parking demand by users was evaluated; and operational evaluation of various parking strategies.

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**William Van Duzer, P.E., PTOE**, is a Lead Transportation Engineer and will take the lead on intersection and roadway design efforts, sub-surface inspection and utilities. Mr. Van Duzer has a wide range of transportation engineering experience on projects throughout the northeast, including roadway and intersection design and improvements, traffic analysis and improvements, and traffic signal layout and systems coordination in addition to providing construction administration and inspection. He has performed data collection, analysis, and evaluation for the preparation of reports and assisted in the development of contract documents.

**Chalers Teale, PE, LSP, LEP**, will assist in the sub-surface inspections of infrastructure for the study area. Mr. Teale has extensive expertise in subsoil investigations and foundation design including field investigations for geotechnical and dam projects which have included slope stability analysis and design, detailed dam investigation studies, vertical and horizontal bearing capacity analysis for both shallow and deep foundation systems, seepage analysis and subdrainage design, implementation of geotechnical problems by solution on computers, soil laboratory testing, testing of soil improvement methods and field inspections and testing. Prepared numerous analyses and designs for new dams and repairs to existing dams.

**Hannah Ritmiller, EIT**, is a project civil engineer and designer and will assist with CADD and plan production of conceptual layouts. Ms. Ritmiller assists on all aspects of our Maine office projects. This ranges from preparation of AutoCADD base plans, preparation of complete design plan sets, including roadway and site layout, grading and utilities, signs and markings, construction details, profiles and cross-sections and preparation of bid documents.

**Michael Cleary, EIT**, is a Civil Engineer and will assist with CADD drawings, inspection, and traffic data collection. Mr. Cleary has experience in site and transportation design as well as construction means and methods for residential, commercial, and public projects. His office responsibilities include site and roadway layout, storm and sewer design, site grading, and budget estimation.

### SUBCONTRACTOR

**Diana Burgess, Diana's CADD Service, LLC, P O Box 1010, Buxton, ME 04093** will assist in CADD and graphics projection. Ms. Burgess is **DBE certified** in Maine, New Hampshire, and Vermont and provides CADD drafting services to many small and large engineering firms throughout Southern Maine. With over 30 years of drafting experience, owner Diana Burgess helps to prepare plans for highway projects, site plans, traffic signal plans, bridges, municipal roadway reconstruction/rehabilitation projects, and many other civil engineering related projects.



### **PUBLIC OUTREACH TEAM**

**Lead, Public Outreach: Carl Eppich, AICP**, has found that successful community outreach programs provide meaningful participation from diverse stakeholders, encourage dialogue in the communities, and build trust for the project. These efforts are comprehensive, innovate, and flexible to community concerns. He will use these guiding principles to conduct outreach and facilitation for Berwick / KACTS during this project.

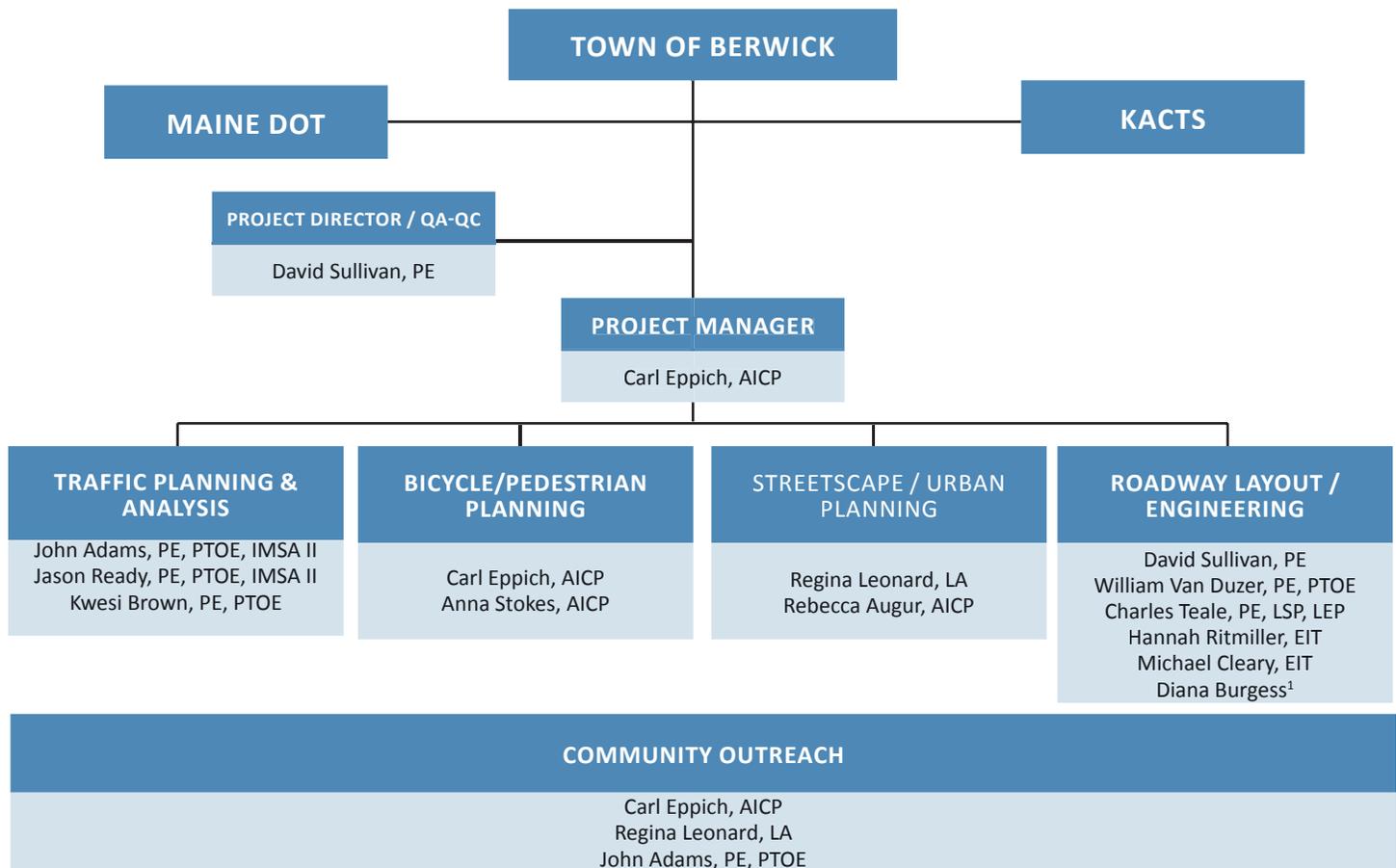
**Regina S. Leonard, MLA**, will assist with our community outreach activities. She has had great success with her recent outreach efforts for the Town of Yarmouth's Parking Study. By first creating a landing page on the website devoted to the study, she designed postcards that the Town sent out to all abutters and stakeholders that allowed them to see a description of the proposed plan and provided a survey link. It proved to be a valuable tool for the Town. Each outreach plan requires a fresh perspective tailored to the unique ways people interact with their community. She is a dynamic contributor at public meetings and will be a valuable resource when presenting meeting materials at public engagement events.

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**John Adams, P.E., PTOE**, has experience in working through stakeholder and public processes to build consensus. With experience in both the public and private sector, his work combines technical proficiency with the engagement of local, regional and state stakeholders. Mr. Adams understands that throughout the public outreach process, MMI's role will be to guide discussions and strike a delicate balance to ensure that all voices are heard and consensus is reached.

### ORGANIZATIONAL CHART



Subconsultant:  
Diana's CADD Services, LLC (DBE)<sup>1</sup>

## Section 4



# Staffing Availability / Ability to Complete Work

## KACTS Berwick Downtown Vehicle, Bicycle and Pedestrian Study

### COMMUNICATION:

Externally, our Project Managers and Principals maintain open and honest communication with our clients. For this project, monthly updates will be provided coincident with invoicing. Conference calls will be arranged when necessary to discuss project schedule. Work summaries will also be submitted with monthly invoices. The purpose of these communications will be to keep the Municipality informed. Perhaps the largest issue relating to schedule creep is lack of communication and/or length of time between regular communications. Our Project Managers and Principals are committed to identifying issues early, before they become problems.



### EARLY IDENTIFICATION OF POTENTIAL IMPACTS:

Early identification of potential impacts is extremely important. While a quality Preliminary Design Report will serve to provide a good assessment of the available alternatives, the document must provide a solid early indication of the potential impacts. The due diligence phase including survey and utility, subsurface and environmental investigations, is critical to the design. The findings from such efforts often define the impacts and constructability issues. Understanding the impacts to privately-owned properties, existing utilities, and the environment, is essential to developing preliminary cost opinions and identifying any constructability issues. When the impacts are not properly resolved during the design phase, the end result often takes the form of delays during construction - which typically leads to cost overruns. The designer must consider constructability, as site constraints may affect production rates resulting in higher unit prices. Our firm has the advantage of being able to commit construction management staff for review of projects, which can be very effective given their field experience and perspective.

### COST ESTIMATING:

The accuracy of engineering cost estimates is obviously important given this tool is critical to proper funding for projects. It is not enough to simply consider published unit prices when preparing estimates. Early estimates must include the proper contingencies and allowances, including inflationary factors depending on the construction year. More detailed estimates must consider those items which typically have the potential for overages, such as rock excavation, ground water handling, sheeting/shoring, driveway repairs and turf establishment limits, and traffic control officers, etc. Still, we cannot rely on projected quantities and published unit prices alone. We also need to consider similar projects recently constructed in other communities and trends in pricing for materials and labor. The designer must consider constructability, as site constraints may affect production rates resulting in higher unit prices.

### PROJECT APPROACH

- **Define** Goals & Expectations Clearly
- **Develop** Comprehensive Scope
- **Communicate** with Town/KACTS/MaineDOT Regularly
- **Track** Schedule & Costs
- **Understand** Existing Conditions Completely
- **Initiate** Stakeholder Involvement Early
- **Conduct** Thorough Alternatives Analysis
- **Develop** Early Understanding of Impacts, Costs
- **Consider** Context Sensitive Design Solutions
- **Apply** Value Engineering Principles
- **Maintain** Continued Contact with Stakeholders
- **Build** Consensus for Preferred Alternative
- **Identify** Mitigation Strategies Early
- **Design** with Technical Excellency
- **Commit** to Quality Control
- **Adhere** to Policies & Procedures

 MILONE & MACBROOM

### VALUE ENGINEERING:

Milone & Macbroom staff has specialized training in the area of Value Engineering. While your project may not require a true analysis, our staff have been trained to approach every project with a value-minded thought process. With out-of-the-box solutions and a creative approach to design and construction, we can typically identify opportunities for savings on any project.