



ROUTE ONE NORTH CONCEPT MASTER PLAN
FALMOUTH, MAINE

RFP submitted by:

MRLD
TY Lin International
Wright-Pierce

29 September 2016

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MRLD

Landscape Architecture + Urbanism

29 September 2016

Mr. Nathan Poore
Town Manager
Town of Falmouth
271 Falmouth Road
Falmouth, ME 04105

Dear Mr. Poore,

MRLD in collaboration with TY Lin and Wright-Pierce are pleased to submit this proposal for the development of Concept Plan for the Route 1 North Area. This is an important project for the Town, and an exciting opportunity for the Project Team. We have worked on numerous master plans similar in nature. We appreciate the professional process of developing unique and appropriate solutions for each community. We believe in a transparent, research, and design-driven process leading to clear actionable outcomes. The Project Team's successful history of collaborations is a testament to the professionalism, dedication, and personal enthusiasm we share with each community.

The Project Team will help the Town clearly articulate a future vision for the area, identify and prioritize infrastructure improvements, and identify concept amendments to existing land use, zoning regulations, and design standards that will enable the vision. This is engaging work because many factors are carefully balanced to develop an informed concept master plan.

It should be noted that the Project Team has extensive experience in the area, recently sharing in the recognition of the Route One South Honorable Mention. MRLD has assisted the Town with planning efforts in and adjacent to the Study Area. Tom Errico, the TY Lin manager for the Concept Plan, is currently the Project Manager for the *PACTS' North of Portland Route 1 Corridor Complete Street Plan*. We will be able to carefully track the two studies, integrating the process, findings, and schedule of both projects to maximize efficiency and increase opportunities for inspired collaboration.

Thank you for reviewing our submittal. In addition please review the provided links to other studies. We look forward to the opportunity of meeting with you.

Sincerely,

Mitchell Rasor

1. Introduction to Project Team

MRLD is a Yarmouth based landscape and urbanism office serving the public and private sectors in the development of master plans, site plans, zoning, streetscapes, economic / market studies, policy, public engagement, waterfronts, and urban design. Mitchell Rasor, MRLD Principal, founded MRLD in 2000 and is the designated Project Manager for the Route One North Concept Master Plan. Mitchell has managed numerous master planning efforts. MRLD takes pride in clearly communicating in written and graphic format with clients, stakeholders, and the public regarding complex planning and design issues. Mitchell has been honored by numerous regional and national groups for his work in the areas of landscape architecture, planning, urban design, and public engagement.

TY Lin is a full-service, professional engineering firm focused on the planning, design, and construction of infrastructure solutions for public and private clients worldwide. TY Lin's Maine office is located in the Concept Master Plan Study Area. Headquartered in San Francisco for over 60 years, TYLI has more than 2,500 professionals in more than 50 offices throughout the Americas and Asia. TY Lin is currently ranked #13 in ENR's Top 50 Transportation Firms. Tom Errico will manage the Route One North Concept Master Plan for TY Lin. Tom is a nationally recognized Complete Streets expert and was the ITE New England Section "2014 Transportation Engineer of the Year." Tom Errico is currently the Project Manager for the PACTS' *North of Portland Route 1 Corridor Complete Street Plan*

Wright-Pierce, founded in 1947, is a full service, New England based engineering firm. As a respected, quality-driven firm, Wright-Pierce takes pride in providing technical excellence and helping clients realize their visions. For the Route One North Concept Master Plan, Wright-Pierce will provide the team with expertise in utility and infrastructure planning, analyzing capacity and cost estimating issues in regards to the Concepts. Christopher Dwinal is a Senior Project Manager at Wright-Pierce and will manage the Route One North Project for Wright-Pierce

Town of Falmouth | Community

**Mitchell Rasor – MRLD | Landscape Architecture + Master Planning
Project Manager**

**Tom Errico – TY Lin
Mobility Planning
Cost Estimating**

**Christopher Dwinal – Wright Pierce
Utility / Infrastructure Planning
Cost Estimating**

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MRLD and TY Lin have a strong working history on integrated master planning, zoning, design, and mobility projects including:

- 21st Century Downtown Master Plan – North Windham, ME
- New Auburn Village Center Master Plan – Auburn, ME
- Winter Street Shared Space Design – Rockland, ME
- Bath Road Master Plan – Wiscasset, ME
- Falmouth Route One Infrastructure Plan – Falmouth, ME
- Bayside Transportation Master Plan – Portland, ME
- Broadway Corridor Study – Bangor, ME
- Downtown Pedestrian Study – Westbrook, ME
- West Commercial Street Multi-Modal Corridor Study – Portland, ME
- 21st Century Downtown Master Plan Preliminary Engineering – Windham, ME
- Topsham Fair Mall Road Master Plan – Topsham, ME
- Pleasant Street Area Traffic and Urban Design Study – Rockland, ME
- Biddeford Square – Biddeford, ME

TY Lin and MRLD successfully teamed with Wright-Pierce on:

- The Bayside Transportation Plan – Portland, ME
- 21st Century Downtown Plan Preliminary Engineering Documents –North Windham, ME

Examples of MRLD / TY Lin integrated Mobility and Master Planning Studies include:

Bath Road Master Plan

http://lcrpc.org/uploads/visual_edit/bath-roadmaster-plan-1.pdf

New Auburn Village Center Study

<http://avcog.org/DocumentCenter/View/1783>

North Windham 21st Century Downtown Master Plan

<http://www.windhammaine.us/DocumentCenter/View/235>

Bayside Transportation Master Plan

<http://www.portlandmaine.gov/AgendaCenter/ViewFile/Item/3802?fileID=15812>

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MRLD has developed master plans and zoning regulations for numerous Maine communities, including the first adopted Form Based Code. The Standish Form Based Code is for a 2,000 +/- acre area. MRLD regularly prepares planning studies for study areas between 50 and 1,000 acres.

Standish Corner Form Based Code Village Districts

<http://ecode360.com/29444870>

2. Project Approach

MRLD in collaboration with TY Lin and Wright Pierce (Project Team) will carefully balance an analysis of the capacity of the sites in the Study Area – primarily zoned as Business Professional between the 295 interchange running north to Cumberland – with a vision of how these parcels can absorb growth in a strategic manner. The lands in the Study Area will be treated as a special resource in the community, and evaluated in the context of other resources, policies, and visions. As noted in the Comprehensive Plan, the Study Area and surrounding residential areas are designated growth areas – and the Comprehensive Plan statement “Falmouth in the 2020’s...a smart town, with great neighborhoods,” reflects the proactive approach Falmouth is taking with planning as a tool for placemaking and economic development. Be it Route 100, Route One South, open space planning, stormwater planning or the Route One North Concept Master Plan, Falmouth is moving forward in a smart manner to best invest in, manage, and nurture the resources of the community.

For example, the Town recently completed a major zoning and construction process to make Route One South – the Village Districts – more walkable and flexible for economic development, mixed-use projects, and infill (re)development. The Project Team will work carefully with Staff and the Committee to determine the appropriate zoning and standards that either extend or complement Route One South. In general, the Project Team believes that communities are inherently diverse in nature and the push and pull between different areas should be guided by planning based in thorough analysis, community visioning, and proof of concepts.

Market forces, policies, standards, infrastructure, and site capacity should align to establish a master plan that does not simply achieve a vision for the highest and best use, but considers the context of the greater policies, community visioning, and economic development. In summary, a zone is not a watershed defined by topography draining to low points, but the sum of many variables – both cultural and environmental – that defines an area contextually. A successful concept master plan reflects the specifics of the area, the values of the community, as well as context – leading to clear recommendations for zoning, standards, the required supporting infrastructure, and policy.

The Project Team excels at master planning and is encouraged that the Town is not treating this effort as a zoning / number crunching exercise, but looking to see how analyses and visioning results in a design-driven concept master plan, weaving together:

- Zoning
- Policy
- Visioning

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- Standards
- Mobility
- Economic Development
- Connectivity
- Infrastructure
- Environmental Opportunities and Constraints
- Context
- Water Quality
- Green Infrastructure
- Stakeholder and Public Engagement

Route One is a defining spine running the entire eastern seaboard as well as communities within Maine. Over the years, some communities have created village “1A” spurs such as in Damariscotta. In other communities, such as Rockland, Route 1, morphs into the historic Main Street. Each community is continually “negotiating” the opportunities and constraints of Route One. Is Route One an economic engine or an economic drain? Is Route One the cause for congestion or a key aspect of connectivity? Does Route One reflect the values and identity of a community or a regional identity? How does a community balance a corridor with placemaking strategies?

In Falmouth, parallel mobility infrastructure exists along Route 1, such as Route 9, 295, and 88. These different Routes serve different functions and support a variety of regional and local growth patterns and uses.

Furthermore as noted, the Study Area is constrained to the west by ledge and to the east by water. How can these constraints be integrated into concepts as strengths or defining characteristics, not limiting factors?

The Project Team will not only look at the cultural and environmental parameters in the Study Area, but also identify existing and emerging patterns of growth and uses south and north of the study area to further understand how this critical corridor should be designed to support the desired growth while simultaneously making smart transitions to the north and south. Due north of the Study Area is Cumberland, but the Project Team will not draw a line at this boundary, but as mentioned above, fold contextual analysis into due diligence as part of concept planning and placemaking.

3. Scope of Work

A. Inventory and Condition of Assessment of Current Infrastructure / Previous Studies

The Project Team will assess utility and transportation infrastructure in the Study Area to understand the capacity to support future growth. Any deficiencies or issues will be identified utilizing available resources and field observations.

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In addition to infrastructure capacity, the “ecological infrastructure” of the Study Area will be reviewed to understand how these features impact / guide growth. This work will be completed utilizing Town resources such as GIS as well as input from Staff and stakeholders. Sites will be visited for field observation.

In addition to infrastructure assessment, existing zoning and policies – as well as any previous studies – will be reviewed and summarized.

Deliverable: Technical Memo on assessment of infrastructure and existing and previous studies.

B. Traffic Data Collection and Analysis

TY Lin will lead the traffic data collection and analysis utilizing available resources. As noted above, Tom Errico of TY Lin is the Project Manager for the PACTS’ *North of Portland Route 1 Corridor Complete Street Plan*. Having Tom on the team will streamline planning efforts and ensure the two Master Plans are integrated efforts in terms of information, schedule, and expertise.

Route One is increasingly becoming a multi-modal corridor and Complete Street planning and Context Sensitive Solutions will be woven into every step of the Master Planning effort.

Deliverable: Technical Memo and analysis assessment of traffic data, road conditions.

C. Concept Options and Typical Conceptual Cross Section(s)

The Project Team will develop concept options after assessing utility, transportation, and ecological infrastructures. The Concept Options will also reflect input from stakeholders, the Committee, and staff. The Project Team will hold a master planning session with the Staff and Committee.

Furthermore, the Concept Options will reflect different approaches to guiding growth by strategically leveraging different approaches to zoning, land use, economic development, and policy implementation. The master planning for an area such as Route One North is in many ways an exercise in master planning for the entire community. The Study Area requires specific, local analysis, but the Study Area must be planned in the context of greater issues such as market forces, other initiatives, housing strategies, branding, and synergies with emerging growth sector trends.

Deliverable: Concept options and cross sections presented in graphic format with supporting written summaries.

D. Cost Estimates

As part of developing the cost estimates, order of magnitude cost estimates will be prepared identifying improvements to utility infrastructure, Route One, or any recommended strategic Town street connectivity creating a framework for desired growth patterns and uses.

Deliverable: Summary of probable costs relating to required infrastructure improvements

E. Recommendations

After vetting the concepts with the Staff, Committee, and Town – through discussions and an evaluation matrix – recommendations for a Concept Master Plan will be developed. The Final Concept Master Plan may reflect different components of the draft plans, leading to the most responsible, resilient, and innovative Concept Master Plan.

Recommendations will include, but not be limited to zoning, land use, standards, connectivity, branding, and policy. These recommendations will be detailed enough to allow the Town to review the implications following existing protocols for zoning review and amendments. Furthermore, the recommendations will be legible in the Concept Master Plan. The Concept Master Plan will be an articulate document, graphically conveying the intent and meaning of the recommendations.

Deliverable: Summary recommendations enabling the vision for future growth in the Study Areas as illustrated in the Concept Master Plan. Route One North Concept Master Plan Report with supporting graphics, text, recommendations, documentation of process, cost estimates, and infrastructure / traffic assessments.

F. Meetings

In addition to monthly meeting with the Committee (anticipating eight meetings), the Project Team will also hold a public meeting at the beginning of the process to gather input on the community's vision for Route One North. It is understood that the community will have an opportunity to review the progress of the project as deliverables are made available for review as well as attend a progress presentation to the Town Council. The Project Team will work with Staff and the Committee to determine the most appropriate time to meet with the Town Council. Besides regular Committee meetings, a kick-off public workshop, one or two presentations to the Town Council, the Project Team assumes a minimum of five meetings with Staff – in addition to conference calls and electronic communications as needed.

4. Schedule

The following schedule is recommended in order to allow time for adequate research, Staff, Committee, and community input, concept development, and the deliverable of the Final Concept Plan and related cost estimates and recommendations. The Project Team is willing to work with the Town to refine this schedule and the timing of deliverables – all in electronic format as required.

Late October

Kick-off meeting with staff and committee

Late November

Presentation of existing condition analysis to Staff and Committee and preparation for public workshop

Early December

Public workshop

Late December

Debrief of public workshop with Staff and Committee and concept planning exercise

Late January

Presentation of draft concepts to Staff and Committee

Late March

Presentation of refined draft concepts to Staff and Committee and preparation for presentation to Town Council

Late April

Presentation to draft final Concept Master Plan, costs, and recommendations to Staff and Committee

Late May

Presentation of Final Draft Concept Master Plan, cost estimates, and recommendations to Staff, Committee and Town Council as needed.

5. Fee / Hours / Rates / Direct Costs

Lump Sum Fixed Fee: \$26,040.00

Task	Hours/ Staff						
		Rasor / MRLD	Versel / MRLD	Production / MRLD	Errico / TY Lin	Greenlaw / TY Lin	Dwinal / Wright-Pierce
A. Inventory Infrastructure		10	10	10	2	2	15
B. Traffic Data and Analysis					2	8	
C. Concept Options		20		25	8		
D. Cost Estimates		5			2	4	15
E. Recommendations		30	5	30	8		
F. Meetings		30			8		4
Total:		95	15	65	30	14	34

Schedule of Hourly Rates:

MRLD:

Mitchell Rasor: \$120.00

David Versel: \$100.00

Production: \$60.00

TY Lin:

Tom Errico: \$130.00

Ariel Greenlaw: \$90.00

Wright-Pierce:

Christopher Dwinal: \$120.00

Direct Expenses:

Travel: No Cost

Out of Housing Printing / Plotting / Binding: Cost

In-House Printing: \$00.10 per page

In-house Plotting: \$20.00 for 24 x 36 plot

6. References

Tony Plante

Town Manager

Town of Windham

207-892-1907 x1121

atplante@windhammaine.us

- *21st Century Downtown Master Plan*
- *21st Century Downtown Master Plan Preliminary Engineering Documents*

Bruce Hyman

Transportation Program Manager

City of Portland

207-874-8717

bhyman@portlandmaine.gov

- *Bayside Transportation Master Plan*
- *Standish Corner Village Form Base Code*

Rod Melanson

Town Planner

Town of Topsham

207-725-1724

rmelanson@topshammaine.com

- *Main Street Village Master Plan*
- *Topsham Fair Mall Road Master Plan*

7. Experience

MRLD

Landscape Architecture + Urbanism

OVERVIEW

MRLD is an award winning landscape architecture and urban design office based in Yarmouth, Maine. Mitchell Rasor, a landscape architect and urban designer, founded MRLD in 2000. The office collaborates with clients and communities in an engaging manner leading to informed and integrated decisions regarding land use, economic development, design, mobility, zoning, and visioning.

The design, planning, and community engagement work of MRLD has been recognized by such organizations as the Congress for the New Urbanism, AIA New England, AIA Maine, The Maine Association of Planners, The New England Association of Planners, Friends of Midcoast Maine, The Environmental Protection Agency, The Museum of Modern Art, The American Society of Landscape Architects, The National Association of Homebuilders, The Rudy Bruner Foundation, GPCOG, and MaineBiz.

We work closely with clients, architects, and other professionals sharing our appreciation of the collaborative process. This approach encourages trust and transparency throughout the course of a project. Our extensive experience with community visioning forums and stakeholder relations engages a cross-section of the entire community, building consensus for a project.

Our select, but broad client base includes institutions, municipalities, the private sector, and non-profit agencies. This range of work gives us a unique understanding of varying project types, market forces, group dynamics, and policy decisions.

The office is currently working on a range of public and private projects involving land use policy, economic development, streetscapes, mobility, civic spaces, location efficient development, master plans, waterfront planning and design, Brownfields, urban design, and green infrastructure

Whether working at the scale of a 2,000-acre master plan or an urban plaza, the office emphasizes the quality of good design to create engaging, economically sustainable, and environmentally sensitive places.

MRLD has developed specific expertise and is recognized in the areas of:

- Complete Streets / Shared Spaces / Low Impact / Green Development
- Corridor and Commercial Center Retrofits
- Public Participation and Stakeholder Engagement
- Alternative Zoning and Implementation
- Visualizations
- Master Planning / Urban Design
- Low Impact Development and Green Infrastructure
- Site / Landscape Design
- Permitting / Construction Documents

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Mitchell Razor: RLA (ME & MA), CLARB, MaineDOT LAP Principal

Mitchell Razor has over 20 years of experience with landscape architecture and urban design, with a particular focus on integrating land use, mobility, and the built environment. He founded MRLD in 2000. The office is recognized for work in the areas of downtown / waterfront revitalization, complete streets, streetscapes, alternative zoning, visualizations, and public participation. Mitchell is currently an Assistant Professor at the Maine College of Art and has previously taught at Bates, Bowdoin, the University of Virginia, and the Harvard University Graduate School of Design. He has been recognized with numerous regional and national honors.

Select Projects

- 21st Century Downtown Master Plan; Windham, ME
- 21st Century Downtown Preliminary Engineering Documents; Windham, ME
- 3 Lincoln Street Market and Urban Design Study (MERC site); Biddeford, ME
- Bath Road / Route 1 Master Plan; Wiscasset, ME
- Bayside Transportation Master Plan and Urban Design; Portland, ME
- Biddeford Square Shared Space Street Design; Biddeford, ME
- Broadway Corridor Study; Bangor, ME
- Chocolate Church Urban Arts Campus Master Plan; Bath, ME
- Downtown Revitalization Master Plan; Rockland, ME
- Downtown / Waterfront Master Plan; Belfast, ME
- Erie Canal Corridor Master Plan; Monroe County, NY
- Eastern Waterfront Building Height Zoning Study; Portland, ME
- Falmouth Shopping Center TOD Retrofit Master Plan; Falmouth, ME
- Front Street and Harbor Village Master Plan; Belfast, ME
- Gorham Road Complete / Green Street Preliminary Design; Scarborough, ME
- Highwood Square / Dixwell Ave Corridor Improvements; Hamden, CT
- Infill Development Design Standards and Visualizations; Falmouth, ME
- Lower Village Main Street Revitalization and West Kennebunk Form-Based Scenarios; Kennebunk, ME
- Main Street Gateway Transit-Oriented Development; Westbrook, ME
- Maine State Pier Urban Design and Multi-Modal Plan; Portland, ME
- Minot Avenue Vision; Auburn, ME
- Mountain Division Line Node Master Plans: Port of Portland to New Hampshire
- New Auburn Village Center Study; Auburn, ME
- Pleasant Street Traffic and Streetscape Study; Rockland, ME
- Portland Public Market / Preble Street Streetscape; Portland, ME
- Portland Public Works Redevelopment Study; Portland, ME
- Preble Street Resource Center / Preble Street Teen Center / Lighthouse Shelter; Portland, ME
- Reclaiming Franklin Street; Portland, ME
- Route 1 South Infrastructure / Public Realm Master Plan and Design (Phases 1 and 2); Falmouth, ME
- "ReEnvisioning the Highway Strip" (with GrowSmart): Topsham, Belfast and Augusta
- Shore and Harbor Master Plan; Damariscotta, ME
- South Windham Village / Little Falls Corridor Improvements Plan; Windham / Gorham, ME
- Standish Corner Master Plan and Form-Based Code; Standish, ME
- Sustain Southern Maine Connectivity Urban Design: Gray Village and Steep Falls
- Topsham Crossing Great American Neighborhood; Topsham, ME
- Topsham Fair Mall Road Transportation Master Plan and Urban Design; Topsham, ME
- Topsham Main Street Village Master Plan; Topsham, ME
- Waterfront Area Redevelopment Plan and Street Designs, Rockland, ME
- Wayfinding Master Plan and Design, Belfast, ME
- West Commercial Street Multi-Modal Corridor Study; Portland, ME
- Westbrook Downtown Pedestrian Study; Westbrook, ME
- Winter Street Shared Space Redesign; Rockland, ME

Education

- Harvard University Graduate School of Design, Cambridge, MA: Masters in Landscape Architecture
- Oberlin College, Oberlin, OH: BA English/Environmental Art

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David Versel - AICP

Associate

David Versel has over 15 years of regional and national experience in the areas of community / economic development, real estate market and feasibility analysis, fiscal and economic analysis and tourism, and visitor attraction development.

Select Community/Economic Development Planning Experience

- Economic Revitalization Strategies; Cheektowaga, NY
- Lincolnville Waterfront Master Plan; Lincolnville, ME
- Economic Development Plan; Berlin, VT
- Reuse Strategy for Historic Railroad Village; Thurmond, WV
- Village Master Plan; Williamsville, NY
- Comprehensive Economic Development Plan; Pike County, KY
- Main Street Village Plan Master Plan; Topsham, ME
- Downtown Revitalization Study Update; Westbrook, ME
- Business & Economic Development Study, New Gloucester, ME
- Community Development Plan for the Mountain Division Line; Fryeburg, ME
- Housing Assessment and Action Plan; Gardiner, ME
- Comprehensive Plan; Amherst, NY

Select Real Estate Market and Feasibility Analysis Experience

- North Dam Mill Redevelopment; Biddeford, ME
- Waterfront Area Market Analysis; Rockland, ME
- Private Beach Club Market Analysis; Portland, Maine area
- Market and Fiscal Assessment of Public Works Site Redevelopment; Portland, ME
- New Seabury Master Plan; Mashpee, MA
- Holton Square Market Study; Charlotte, NC

Select Fiscal and Economic Analysis Experience

- Economic Impact Tool for National Scenic Byways Program
- Buffalo-Niagara Medical Campus Economic Impact; Buffalo, NY
- Fiscal Impact Review of Proposed Wal-Mart; Damariscotta, ME
- Topsham Crossing School Impact Assessment; Topsham, ME
- Fiscal Impact of Office Development; Green, OH
- Mellon Arena Redevelopment Strategy; Pittsburgh, PA
- Fifth-Forbes Redevelopment Financial Analysis; Pittsburgh, PA
- Reedy River Corridor Fiscal and Economic Impact Study; Greenville, SC
- Harris Hill Commons Fiscal Impact Analysis; Clarence, NY
- Uptown Housing TIF Analysis; Houston, TX
- Downtown Parking and Access Study; Buffalo, NY
- Fiscal Analysis of Prince George's County General Plan; Maryland

Education

- Master of City Planning – Georgia Institute of Technology – Atlanta, GA
- BA, Architecture – Washington University – St. Louis, MO

INFILL DEVELOPMENT DESIGN STANDARDS | FALMOUTH | ME



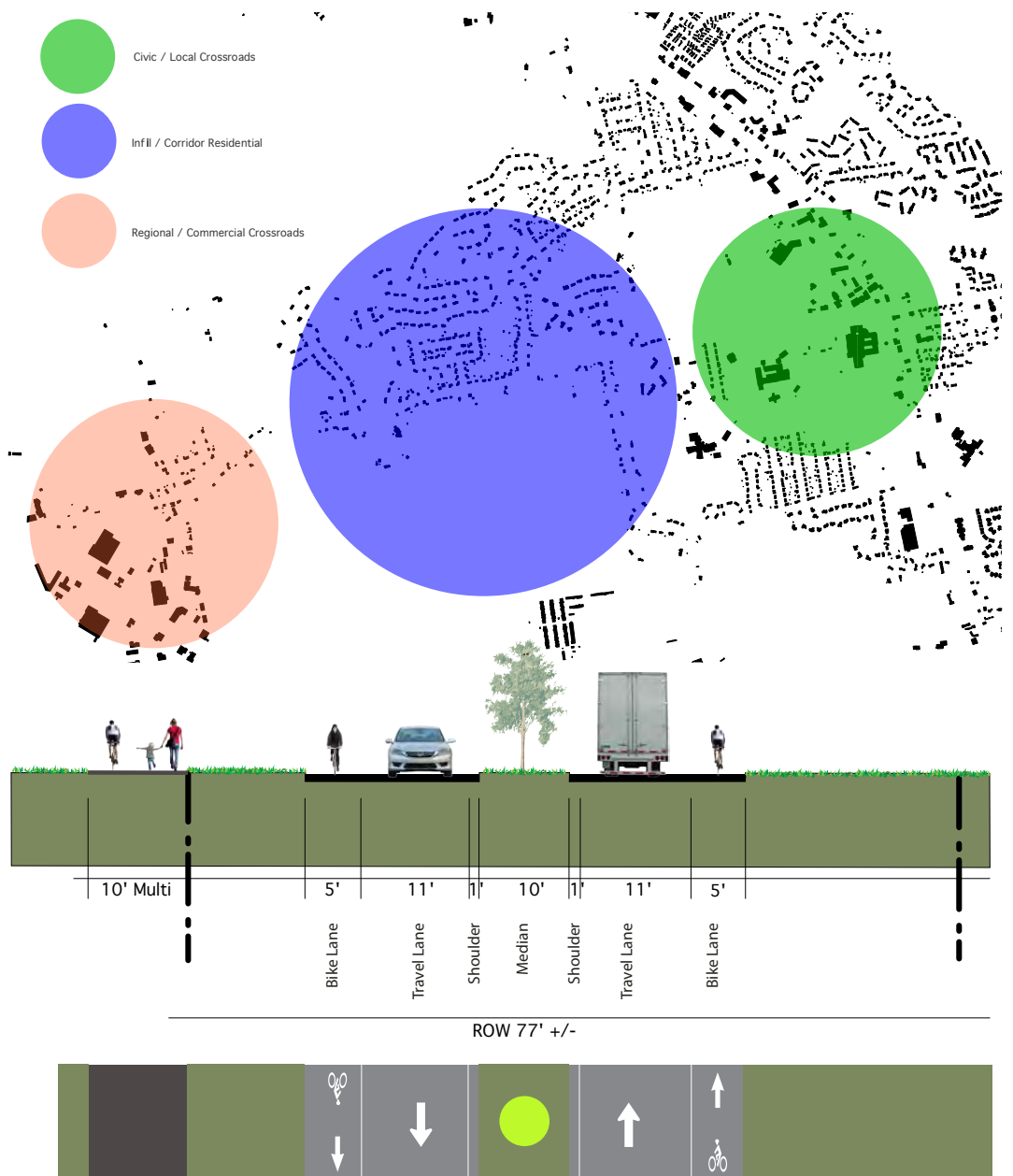
MRLD assisted the Town of Falmouth with the development of new zoning and design standards encouraging economic development by providing more flexibility for infill growth. Increased densities, reduced parking ratios, a greater range of allowable uses, and the retrofitting of parking lots into walkable streets with liner buildings provide opportunities for development that are currently now allowed.

MRLD and TY Lin also worked on the Route 1 South Infrastructure Master Plan, leading to the successful referendum for the 11.7 million dollar project. The Master Plan addresses specific issues within the right-of-way, but also supports phased growth leading to a more pedestrian-friendly and mixed-use environment throughout the commercial district. It is recognized that traditional lot-by-lot planning rather than area master planning has fragmented the district in terms of connectivity, scale, and community identity.

The Infrastructure Master Plan was taken to Design Development level documents and estimating in Phase II.

Before and after images were being prepared for the new standards as part of the infill planning process.

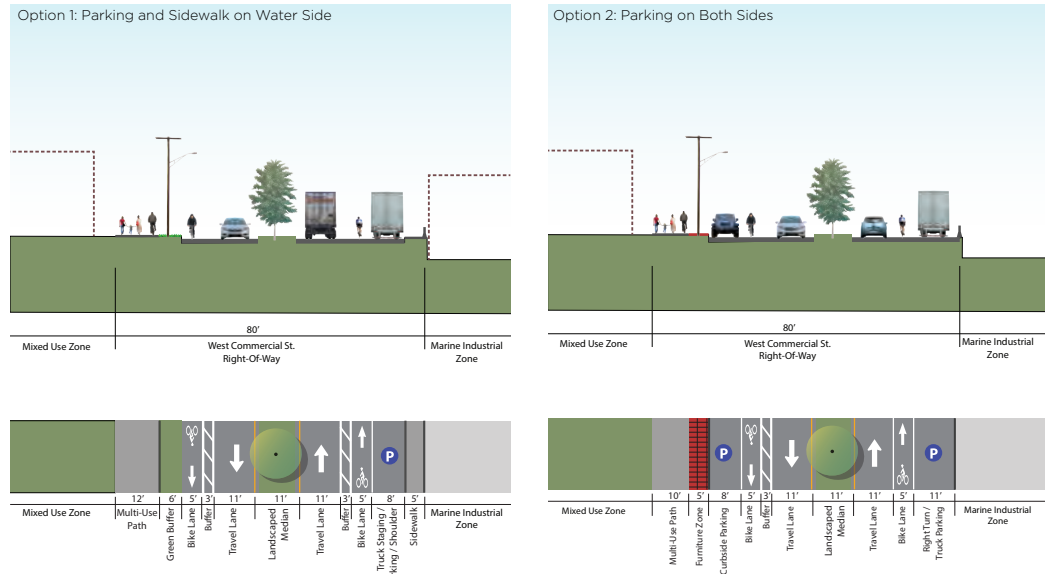
GORHAM ROAD COMPLETE STREET DESIGN | SCARBOROUGH | ME



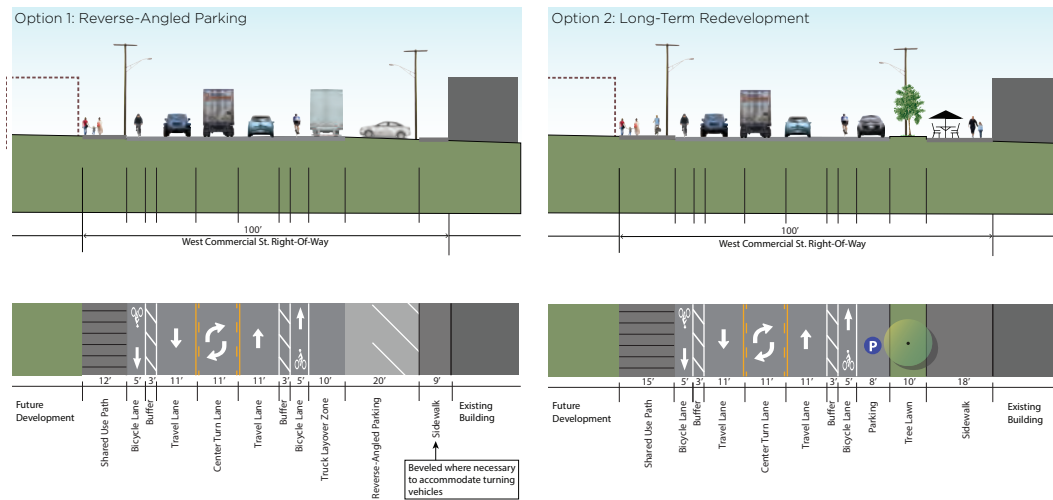
The Town of Scarborough retained the team of Woodard & Curran and MRLD to develop a Complete / Green Street preliminary design for a three-mile stretch of Gorham Road. The design builds off previous studies such as the Transportation Master Plan and the Comprehensive Plan, but fine tunes site specification recommendations for streetscape, mobility, access management, Complete Streets, and green infrastructure – including a new state of the art Nonesuch River stream crossing.

This portion of Gorham Road includes the Oak Hill commercial core, the civic and education campuses, undeveloped lands, as well as established residential neighborhoods. While right sizing the road the length of the corridor, a series of cross-sections were developed reflecting how the street design responds to context. Furthermore, the design for the corridor is responsive to existing and anticipated growth in the area. The project team coordinated several public forums that were integral to developing a design reflecting the needs of the community.

WEST COMMERCIAL MULTI-MODAL STUDY | PORTLAND | ME



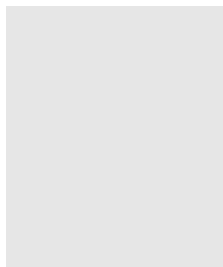
West Commercial Street - Section D



MRLD is collaborating with Alta Planning and TY Lin on the West Commercial Street Multi-Modal Study for the City of Portland. West Commercial Street is evolving into Portland’s new working waterfront, but there are a range of other uses and users that must be accommodated. The project area – running from High Street to the Veteran’s Memorial Bridge – is seeing extensive redevelopment with the expansion of the International Marine Terminal, new boat yards and mixed-use developments, as well as existing uses. The study area ranges in character from the Old Port to the working waterfront to vacant land.

The study team is using a Context Sensitive Approach to identifying existing and future land use patterns. From this analysis, four different distinct areas have been noted along the corridor. Concept Complete Street cross sections are currently being developed. The different street sections support the existing and envisioned land use in order to create a corridor that is functional, safe, and attractive.

MAIN STREET GATEWAY | WESTBROOK | ME



MRLD was retained by Pike Industries to prepare a 90-acre master plan for a proposed \$110-million dollar transit oriented redevelopment of a quarry site. The client previously commissioned a design for a lifestyle center, but refocused the project as a transit-oriented / new urbanist development in response to existing bus service, an anticipated train station on the Mountain Division Line, which bisects the site, and a park and ride facility serving Southern Maine via the adjacent turnpike exit. MRLD is currently working with the Greater Portland Council of Governments on revitalization master plans for communities along the Mountain Division Line running between the Port of Portland and Conway, NH.

The project balances the needs of pedestrians and vehicles with well-defined street networks and a series of open spaces. Views of signature buildings and the reclaimed quarry are established through street alignments and strategically located parks.

Parking is located in mixed-use structures, on-street parking, and surface lots placed behind buildings and along the rail corridor. Low impact development and green infrastructures are integrated throughout the site as landscape features to store and treat stormwater.

Main Street Gateway is integrated with the context by fronting the existing perimeter streets with new buildings and aligning new streets with existing intersections.

BAYSIDE TRANSPORTATION MASTER PLAN | PORTLAND | ME

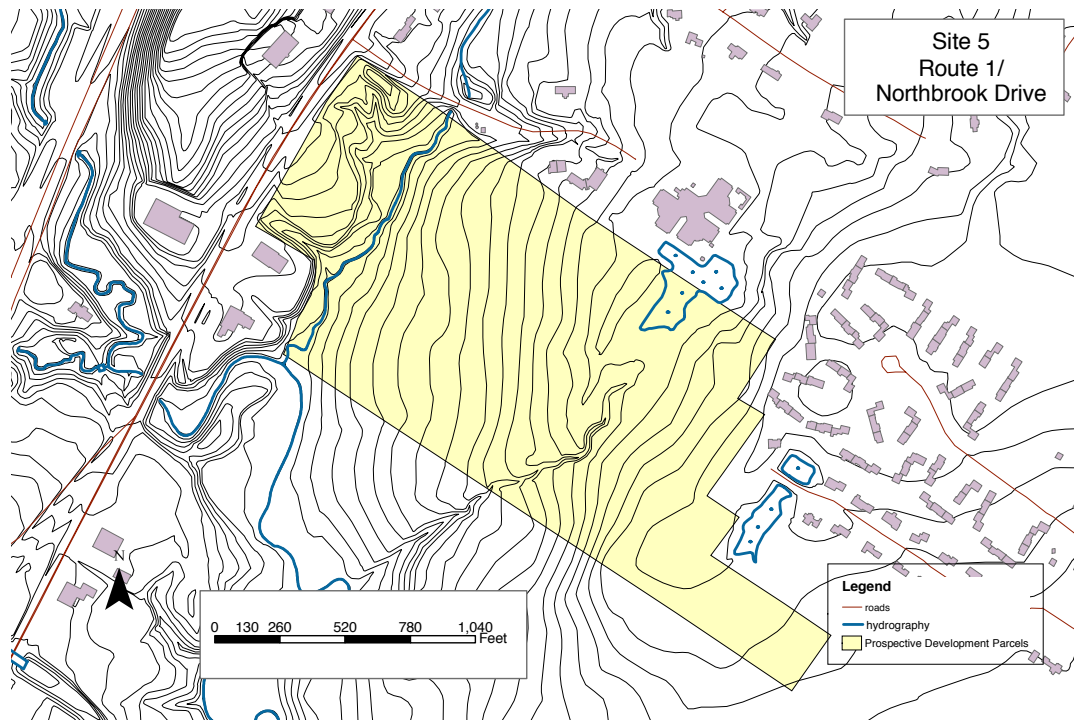


MRLD are the urban designers and street design consultants for the ongoing Bayside Transportation Master Plan. The intent of the Master Plan is to review and consolidate the goals and accomplishments of previous studies, policies as well as recent and ongoing development impacting transportation, land use, and economic development issues in the 250-acre study area. The project team is following a Complete Street methodology to forecast growth and transportation needs in order to prepare a comprehensive guiding document integrating mobility and urban design.

A key aspect of the Master Plan is to leverage proposed improvements, such as the Marginal Way stormwater conduit project, to implement mobility / streetscape improvements in a cost effective manner. In addition, the Master Plan is identifying critical concepts to be further studied for transportation and redevelopment implications. The above graphics (existing and proposed) represent a long-term vision of a one-way to two-way street conversion, in addition to complete street / shared space design components supporting the transformation of the adjacent buildings from low intensity to vibrant and mixed uses.

The Master Plan process includes extensive public outreach, coordination with numerous City Departments, and the MaineDOT

HOUSING ASSESSMENT STUDY | FALMOUTH | ME



MRLD and Community Current assisted the Town of Falmouth with a Study and Action Plan for workforce housing options. MRLD was tasked with reviewing select sites throughout Town for their potential as housing. Zoning, environmental constraints, anticipated development costs – including land cost, accessibility, the Comprehensive Plan vision, and stakeholder input were incorporated into a decision making matrix regarding the six to eight sites.

One of the sites, Site 5: The Northbrook Drive, is located in the Route One North Study Area.



MRLD and TY Lin worked with Town of Wiscasset, MaineDOT and the Lincoln County Regional Planning Commission on a Context Sensitive Solution based integrated land use / transportation Master Plan for Route 1 running from the Woolich town line to the historic village. The primary goal of the Master Plan is to promote growth by planning for it in a coordinated and responsible manner.

This four-mile segment of Bath Road is well known for traffic congestion. We are helping the community alleviate congestion and plan for sustained growth through smart land use policies, the identification of location efficient street networks, and coordinated traffic infrastructure improvements. Corridor planning can be particularly difficult because of legacy access management and strip development. The Master Plan thoroughly addresses these issues, providing equitable solutions that can be phased in a strategic manner.

In addition to promoting growth without further impacting the capacity or safety of Bath Road, the Master Plan includes new site design and streetscape standards to enhance visual quality, strategies for preserving open space and greening the corridor, new Zoning Districts, the redistribution of land uses, and funding mechanisms for paying for the improvements.

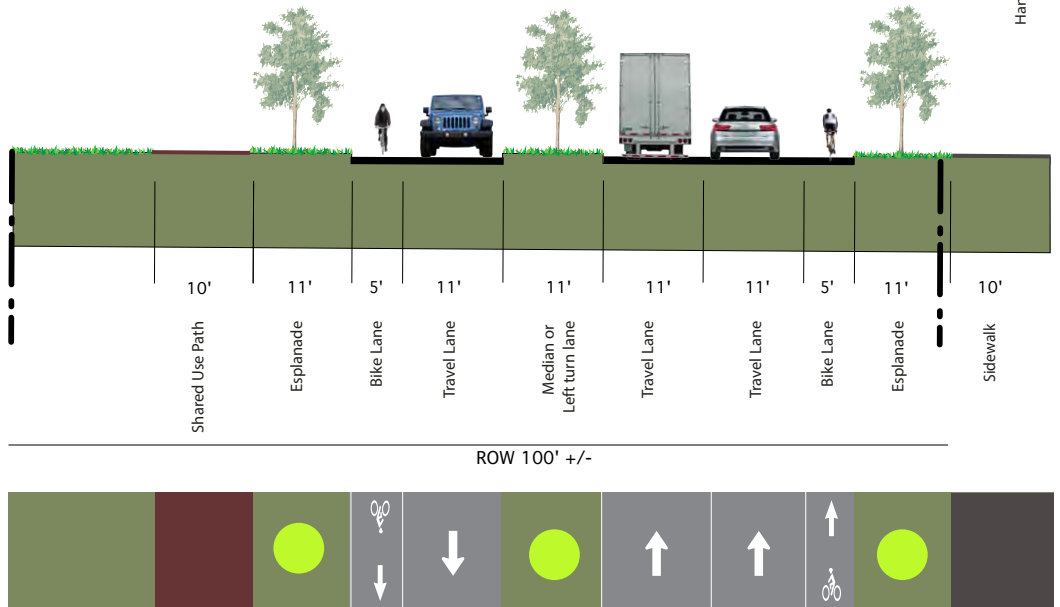
MRLD prepared a number of photosimulations illustrating the vision for the recommended thematic areas along Bath Road.

TOPSHAM FAIR MALL ROAD MASTER PLAN | TOPSHAM | ME



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TY LIN and MRLD are working with the Town of Topsham on a Master Plan for the Topsham Fair Mall Road integrating issues relating to zoning, economic development, community vision, multi-modal transportation, urban design, standards, branding, wayfinding, and local / regional analysis of market competitiveness.

The Project Team regularly teams on projects requiring a holistic approach to analysis, leading to informed and dynamic solutions.

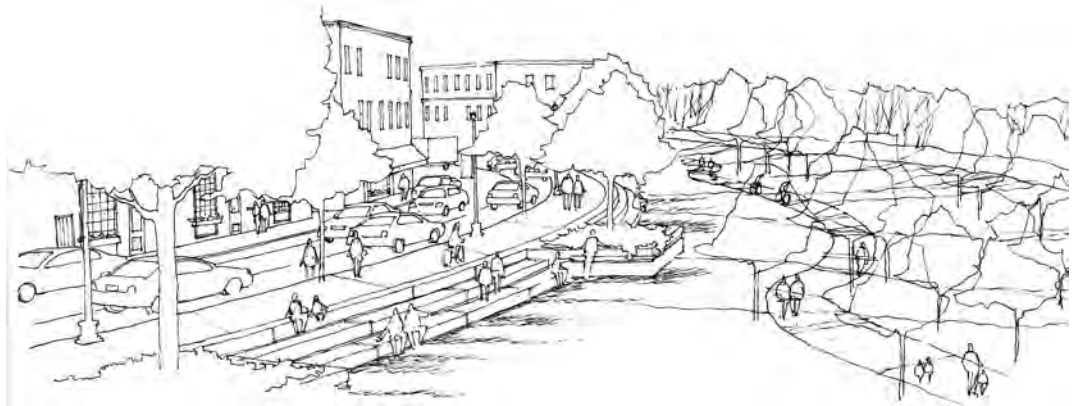
TWENTY FIRST CENTURY DOWNTOWN | NORTH WINDHAM | ME



MRLD collaborated with TY Lin on the revitalization of greying malls and big box development in North Windham as a mixed-use 21st Century Downtown by retrofitting new building forms, green infrastructure, Complete Streets, mobilities, and land uses throughout the 600-acre study area. North Windham is currently comprised of nondescript auto-oriented development along the Route 302 corridor, which impedes connectivity and negatively impacts public perception. This ambitious urban design study identifies clear short-term and long-term strategies increasing greater efficiencies for future infill and (re)development, public investment, vehicular and pedestrian movement, improved visual quality, and the rebranding of North Windham as the gateway to the Lakes Region. Key metrics for the success of the Study include increased FAR's, increased node to segment ratios, an increased tax base, Route 302 corridor improvements, more mixed-use projects, and the creation of new location efficient residential neighborhoods surrounding the commercial core. The Study was adopted by the Council and is being implemented in phases.

2014 Maine Association of Planners Plan of the Year

NEW AUBURN VILLAGE CENTER STUDY | AUBURN | ME

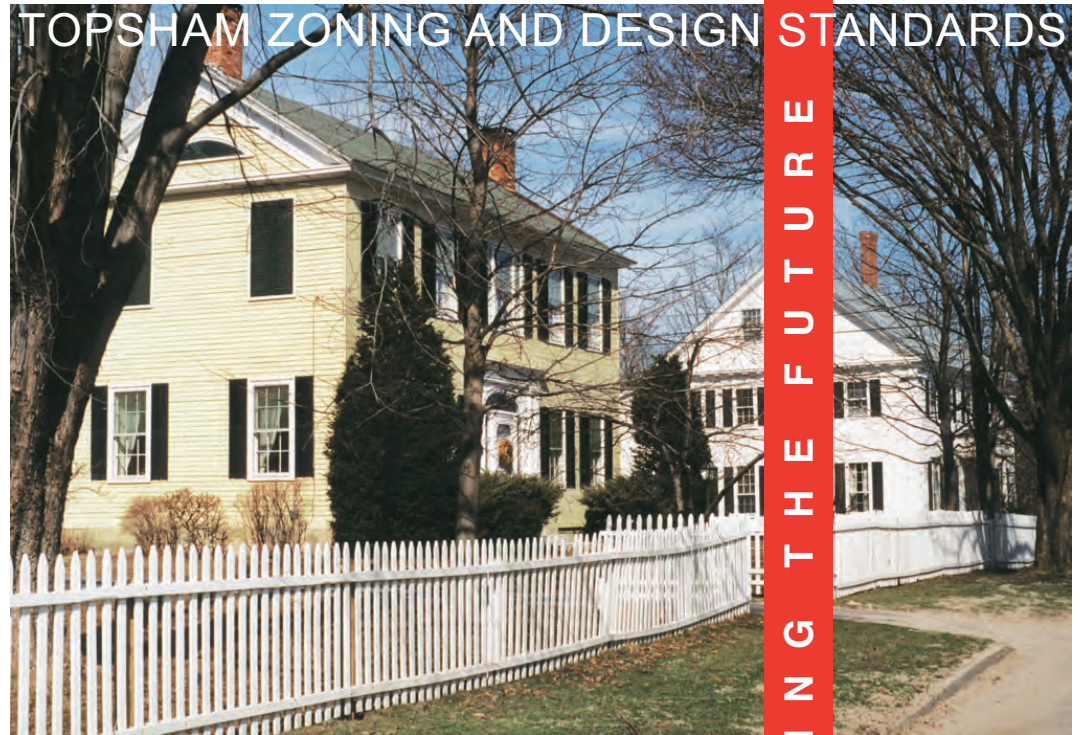


MRLD assisted Auburn with a complete urban design / mobility redevelopment plan for New Auburn Village Center and the mill district. The total study area is approximately 45 acres and includes frontage on both the Little Androscoggin and Androscoggin Rivers. The focus area for redevelopment is approximately 15 acres. This area has been severed from the 1873 New Auburn street grid by a series of planning decisions favoring the automobile over the pedestrian. It was not the goal of the Study to recreate the past, but instead craft an ideal future of economic recovery and demographic rebound through urban form, where streets are the framework for revitalization, not a barrier.

The process began with the drafting and adoption of a Value and Needs Statement, which includes a range of metrics for guiding the process. Metrics included establishing the right balance between the scale of development in relationship to the public realm and parking requirements, creating new development blocks responsive to the market and the future economy of the area. Particular attention was given to the location of new streets, open space, and the relationship between future development and river accessibility.

The Study resulted in detail street drawings, changes to zoning standards, implementation strategies, and illustrative perspectives.

The City purchased and removed several buildings to enable the vision of the Study. Funds have also been allocated to the CIP to implement specific infrastructure recommendations. The Riverway as shown above sketch is now in the preliminary engineering phase.



**natural resource protection
economic development
village preservation
smart growth**

DEFINING THE FUTURE

The Town of Topsham retained MRLD to revise zoning and design standards to all the existing Commercial Zones – specifically the Route 196 Corridor. An expansive Commercial Zone was better defined as a corridor along Route 196. New mixed-use and residential zones were established in areas previously zoned Commercial to promote the desired development patterns and visual character. In addition to the rezoning efforts, extensive guidelines were established for the corridor including lighting, signage, landscaping, parking, building forms / orientation, setbacks, lot sizes, FAR's, pedestrian mobility / amenities, stormwater facilities, and access management.

MRLD prepared a brochure detailing the recommended changes as part of a thorough community outreach process. All recommended zoning changes and design standards were approved and codified.

Maine Association of Planners Plan of The Year

RE-ENVISIONING THE HIGHWAY STRIP WORKSHOPS | ME

Evaluate surrounding undeveloped or partially developed lands for the possibility of trails or other pedestrian connections.

- This may serve as a way to reconnect with potential consumers within walking distance and as a recreational amenity for entertainment or hospitality uses that may be appropriate for the center. Located areas not viable to preserve wetlands or for management of storm water as this may be prime natural habitat for a trail network.

Superimpose a crossroads configuration to and within the parking lot that:

- Explicitly aligns with adjacent roads and access points to adjacent properties (especially examine the road layout within a 200 to 250 ft radius for possibilities of connecting grid streets that can support the shopping center and that improve accessibility from them. For example, office workers who might patronize a restaurant in the center, etc.)
- Considers major retail parking along the internal roads that provide "through" and "corner" for additional productive building space, which may be smaller structures that can be built and market incrementally or a larger structure for a use that fills a market need, such as a hotel.

At the end of internal roads, "terminate the view" with an important structure.

- Provide a long view to the entry to an anchor store, a new building on an adjacent lot, or a structure that serves as part of the brand of the center.

Identify dead/slow parking area of parking lot and designate for redevelopment.

- Primarily is obtained by observation over different peak periods.
- Show all of the best represent a general view of the lot that has significant access points with the 20th highest hour of the year in terms of parking demand as reflecting the Urban Land Institute's Parking Requirements for Shopping Centers, typically occurring during the afternoon of a day in the second week of December.
- To gain a better picture of areas of excess parking, consider parking spaces for employees to be provided in locations that may be inaccessible for customers (e.g., behind center building) with access via an employee entrance (back door) such that the employees are not using accessible areas of the parking lot whether for customer parking or re-entrance.

Design the redevelopment strategy in a way that can be phased, such that earlier phases can help finance later phases.



MRLD is increasingly working with communities and property owners to revitalize corridors and strip development. The office is aware of the environmental, mobility, fiscal, and political challenges of working with corridors and both greying and thriving shopping centers. In light of MRLD's experience assisting numerous communities in Maine with corridor zoning and design, GrowSmart Maine retained Mitchell Rasor, MRLD Principal, to assist with a series of intensive workshops.

The workshops included the property owners, local officials and other professionals. MRLD assisted GrowSmart with three workshops: Route 3 in Belfast, Route 196 in Topsham, and Western Avenue in Augusta.

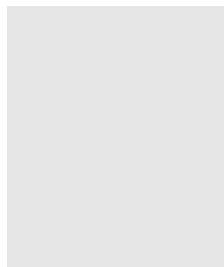
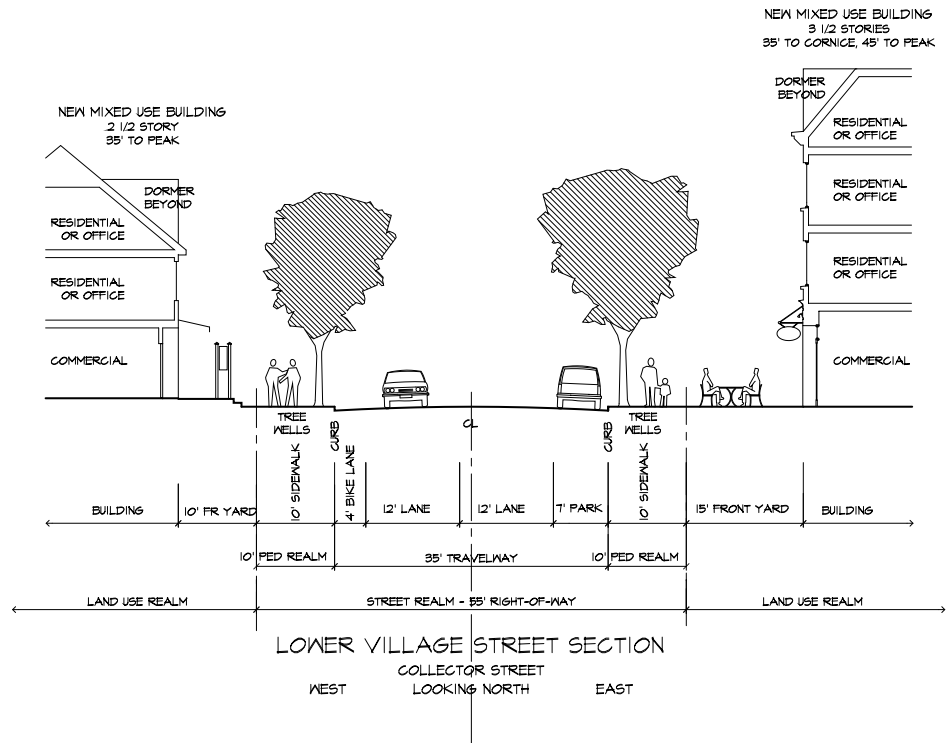
The results of the workshops is a best practices tool kit for communities dealing with the complexities of corridor management. The above graphic illustrates a pedestrian-friendly and infill redevelopment of Reny's Plaza in Belfast.

MOBILITY AND OPEN SPACE PLAN | BREWER | ME



A Mobility and Open Space was prepared for Brewer as part of the comprehensive planning process. The Plan took into account extensive analysis of existing natural resources, development patterns, transit plans, regulatory policy and regional bike / ped connectivity initiatives. The Plan complemented the Future Land Use Plan in that strategic sewer extensions and infill neighborhoods were carefully located in order to minimize habitat fragmentation while protecting rural character and scenic vistas.

TOPSHAM MAIN STREET VILLAGE MASTER PLAN | TOPSHAM | ME



MRLD developed a 600-acre context sensitive solution Main Street Village Master Plan for the two-mile stretch of Main Street / Route 201 running from the Androscoggin River to I-295. The Master Plan is extensive in scope, including recommendations for economic development, housing, connectivity, streetscape details, traffic calming, protection of natural areas, building forms, and the integration of the surrounding residential neighborhoods with Main Street.

MRLD was subsequently retained to implement the standards and policies of the Master Plan. Main Street (Route 201) was interpreted as a transect and coded into four distinct “complete street” zones to best match existing conditions and the envisioned context for the Main Street corridor.

Raised traffic tables, new sidewalks, on-street parking and buildings set closer to the street were recommended in the Plan and have since been constructed.

MRLD’s Route 196 Commercial Corridor Zoning and Design Standards was awarded the Maine Association of Planner’s Plan of the Year.

ROUTE 1 INFRASTRUCTURE / PUBLIC REALM PLAN | FALMOUTH | ME



MRLD collaborated with TY Lin and Woodard & Curran on the Route One South Infrastructure Master Plan. The Master Plan provides a detailed vision – with supporting technical documentation – of a vibrant public realm, including future infill development and critical vehicular and pedestrian improvements. By holistically addressing land use, urban design, stormwater, and Complete Streets, the Master Plan aligns policy with design, funding, and input from stakeholders. The \$11.7-million project was approved at the Town meeting and has been constructed – the most comprehensive Complete / Green Street project in Maine. The project team held numerous workshops to develop a range of redevelopment scenarios in order to best meet the needs of the community.

The project is one of the most ambitious arterial retrofits in Maine and includes new streetscapes, medians, inter-parcel connections, transit stops, on-street parking, and green infrastructure treating over six acres of impervious surface.

MRLD's visualizations were a key aspect to conveying the intent of the project, leading to the allocation of the TIF funds and the adoption of enabling site design standards. The project team prepared the Master Plan and the Phase II Preliminary Engineering Documents.

STANDISH CORNER DISTRICT FORM-BASED CODE | STANDISH | ME



MRLD was retained by Standish to develop the first Form-Based Code in Maine and one of the first rural / landscape centric codes in the nation. The 2,000-acre Standish Corner District is based on MRLD's 2008 Standish Corner Master Plan, which calls for a series of walkable and interconnected mixed-use neighborhoods supporting the historic village core at the intersection of Routes 25 and 35.

The Code is user-friendly, informed by both complete "street frontage types", required ROW amenities and parametrics - rather than prescriptive form standards - ensuring that incremental growth creates a mosaic of interconnected neighborhoods, active open spaces, and protected natural areas. The Code requires a vibrant public realm, strategic investments in infrastructures, and the specific location of buildings to create a pedestrian-scaled environment. Embedded in the Code is a soft algorithm that is responsive to variables including market forces, distance from existing infrastructures, nested patterns, intersection types, and building form - not use - as the determining factor for regulatory review.

2010 Greater Portland Council of Governments "ReCOgnition" award: Town of Standish for Sustainable and Community Planning

MaineDOT Preliminary Sidewalk Engineering Grant



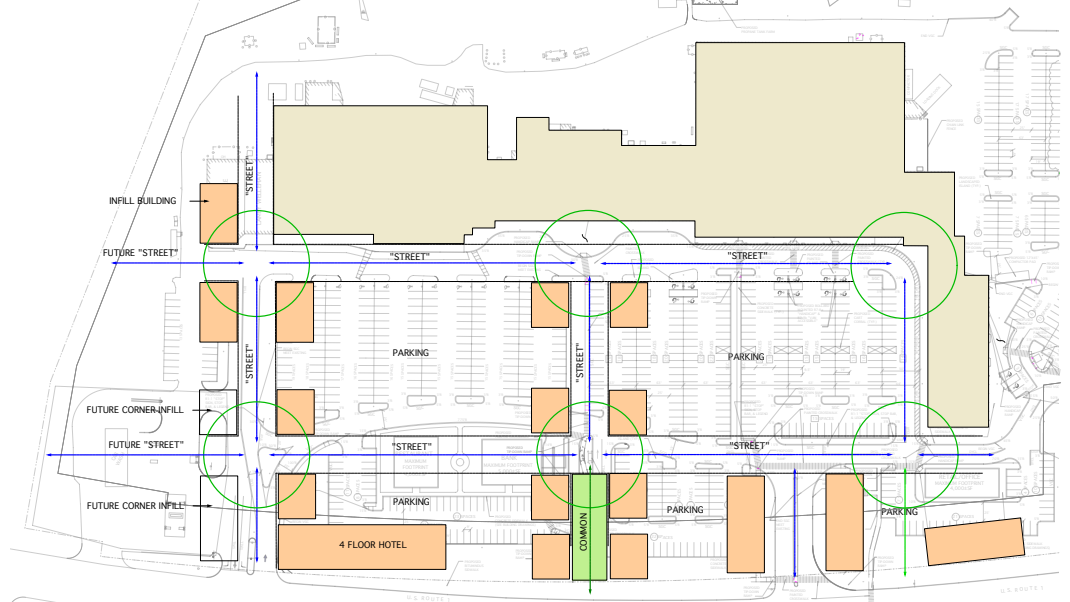
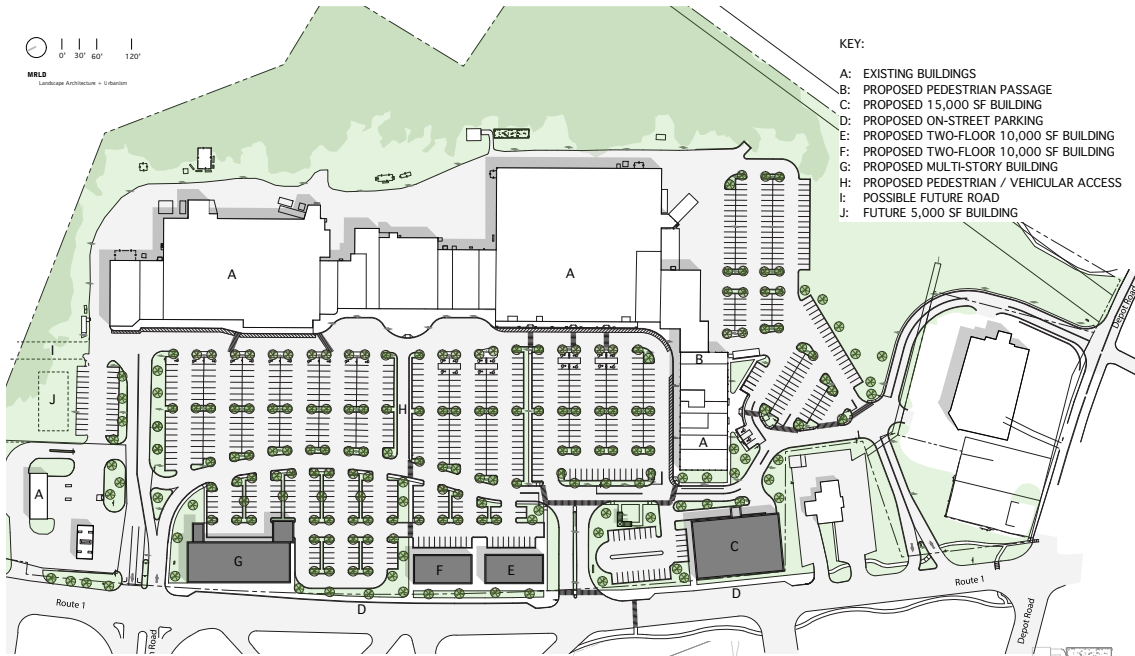
MRLD regularly works with communities on the editing and development of Land Use Ordinances and Design Standards. This work is often part of implementing the goals of Master Plans prepared by MRLD.

Some of the communities that MRLD has worked with include Topsham, Portland, Gardiner, Rockland, Falmouth, Damariscotta, Belfast, Windham, and Standish. MRLD drafted the Standish Corner District Code, the first Form-Based Code adopted in Maine.

In addition to developing zoning and design standards, MRLD has also designed, branded, and implemented wayfinding systems for commercial centers as well as communities such as Belfast and Damariscotta.

MRLD staff has full graphic design capacities and regularly works with clients on branding, graphic identity, and both print and web production.

FALMOUTH SHOPPING CENTER MASTER PLAN | FALMOUTH | ME



MRLD was retained by Falmouth Realty Associates of Braintree, MA to study long-term redevelopment scenarios for the Falmouth Shopping Center. The master plan meets the realities of the market as well as the new design standards and policies for the commercial area of Falmouth. Key goals of the new design standards are to reinforce the sense of place of Route 1 with liner buildings, on-street parking, sidewalks, internal parking lot "street" circulation systems, and strong pedestrian connectivity between developments. MRLD and TY Lin were previously retained by the Town of Falmouth to plan and design a 12 million dollar Route 1 Complete / Green Street retrofit encouraging economic development and pedestrian activity.

The Master Plan allows for flexibility in growth, but provides the client and the Town with a starting point to negotiate the best terms for the highest and best use for the existing property and the planned build-out of lands to the north.

T.Y. LIN INTERNATIONAL | 12 Northbrook Drive, Building A, Suite One, Falmouth, ME 04105

TYLI is a full-service, professional engineering firm focused on the planning, design, and construction of infrastructure solutions for public and private clients worldwide. Headquartered in San Francisco for over 60 years, TYLI has more than 2,500 professionals in more than 50 offices throughout the Americas and Asia. TYLI is currently ranked #13 in ENR's Top 50 Transportation Firms.

TYLI provides services in the following areas:



- Municipal Engineering
- Site Design
- Transportation Engineering & Planning
- Roadway Systems
- Bicycles and Pedestrian Facilities
- Bridges and Structures
- Hydraulics & Hydrology
- Lighting & Engineering Design
- Design-Build
- Construction Engineering and Inspection

Extensive Local Experience and Resources: TYLI is nationally recognized for its award-winning, iconic bridges such as the Hoover Dam Bridge and the San Francisco-Oakland Bay Bridge; however, the vast majority of TYLI's work is on smaller transportation planning projects such as this one for the Towns of Falmouth, Cumberland and Yarmouth. TYLI's Falmouth, Maine office employs 45 people and has been providing engineering services to Municipalities and MaineDOT for over 30 years. The Falmouth office has worked on over 100 local projects over the years including Falmouth Route 1 Infrastructure Plan, Bayside Transportation Master Plan in Portland, Broadway Corridor Study in Bangor, Beth Condon Memorial Parkway in Yarmouth and the Topsham Fair Mall Road Transportation Master Plan.

Additionally, TYLI has worked on many important planning and complete streets oriented design projects around the country including the management of Chicago DOT's Bicycle Program, the award winning Historic Erie Canal Aqueduct, Broad Street Corridor Master Plan in Rochester, New York, and the Coconut Grove Complete Streets Plan in Fort Lauderdale, Florida.

Sustainability: As funding resources continue to deplete, it becomes ever more important to be certain that monies are well spent. The sustainability of new projects and the impacts they have on the Towns will be important for years to come. The Falmouth office of TYLI has five certified Envision Sustainability Professionals (ENV SP). Of the twelve people listed in the ENV SP directory in the State of Maine, TYLI has five of them.

The TYLI team has experience with several projects within the study area and additional experience providing services similar to those requested in the RFP to municipalities throughout the region. The following table provides a summary of that relevant experience.

<p>Multimodal Complete Corridors and Centers Concept (PACTS Long Range Plan) - Portland Area, Maine</p>	
	<p>TYLI assisted PACTS with the development of a portion of its <i>Destination 2040</i> long range transportation plan: to facilitate the prioritization of specific multi-jurisdictional corridors within PACTS’ four sub-regions, and to assist PACTS in conceptually developing and analyzing transportation-related capital improvements to support long-term sustainable economic development within the PACTS region. Complete streets projects were identified and prioritized by municipality and by PACTS sub-region. The result will contribute to the eventual realization of the Long Range Regional Transportation Planning (LRTCP) committee’s “Complete Corridors and Centers Concept.” <u>Key Staff: Tom Errico</u></p>
<p>Bicycle and Pedestrian Safety Action Plan – Broward County, Florida</p>	
	<p>As a sub to Kittelson & Associates, Inc., the TYLI staff is leading bicycle and pedestrian crash analysis using ArcGIS software package to identify hot spot zones and recommending appropriate safety countermeasures based on the 4Es Concept – Engineering, Education, Enforcement, and Emergency Services. TYLI staff will use PBCAT to analyze crash data for selected hot spots. The project includes extensive public engagement, stakeholder/agency coordination through public workshops, meetings, as well as Walking and Biking Audits. This Action Plan will culminate with the Broward MPO Board adoption and will include an implementation plan. <u>Key Staff: Tom Errico, Ariel Greenlaw</u></p>

Beth Condon Memorial Pathway Feasibility Study– Yarmouth, Maine



Tom Farmer (while employed elsewhere) and TYLI provided the following services for this study; development of potential alignments, analysis of off-road facilities, development of construction cost estimates, assistance with the public input process and development of all retaining wall and bridge options, and assisted with the production of the final report. This study focused on the Route 1 corridor linking the northerly terminus of the existing path near the Royal River in Yarmouth to the YMCA facility in Freeport. The project was initiated to determine if the extension of the pathway is feasible based upon an evaluation of user-demand, safety, economics, environmental impact and aesthetics.

Key Staff: Darin Bryant, Tom Errico

Beth Condon Memorial Pathway Design Phase One – Yarmouth, Maine



TYLI designed this half-mile segment of the pathway that previously had no provisions for pedestrians or cyclists. High traffic volumes, narrow shoulders and lack of sidewalks did not allow or promote non-motorized forms of transportation in this area. The extension of the pathway to the north now provides safe walking and cycling opportunities for a greater population and serve as the north-south backbone to a town-wide pedestrian system. TYLI provided services for preliminary and final path design, drainage design, signing and utility coordination. Necessary signing for project safety and traffic signal modifications to add crosswalk push buttons and provide for appropriate phasing and timing are also included in this project, in addition to construction administration and inspection services.

Key Staff: Darin Bryant, Tom Errico, Joe Howe

Beth Condon Memorial Pathway Phase One Extension – Yarmouth, Maine



TYLI provided design services for the extension of the previous half mile pathway. After construction of Phase One there was one missing ¼ mile link of path between Hannaford Plaza and the East Main Street ramp. After additional funding was obtained, TYLI was selected to design the remaining portion of the Phase One project. This contract included a feasibility study for use of “road diet” principals to accommodate a pedestrian/bicycle path along the remaining portion of the Phase One corridor. Also included was final path design, drainage design, signing and utility coordination. TYLI completed traffic analyses at the East Main Street Ramp/Route 1 intersection and developed plans for the proposed lane reduction/stripping revisions from the Hannaford Plaza to the I-295 Southbound Off-Ramp. Necessary signing for project safety and traffic signal modifications to provide for appropriate phasing and timing for the one-lane southbound scenario are also included in this project.

Key Staff: Tom Errico, Darin Bryant, Joe Howe

Falmouth Route 1 South Infrastructure Plan – Falmouth, Maine



TYLI prepared a Preliminary Plan for the Route 1 South corridor from Route 88 to the turnpike spur. The Preliminary Plan includes the required infrastructure to support a walkable and revitalized commercial core, and includes streetscape features including lighting, banners, surface treatments, and landscaping as well as extensive proposed utility modifications including underground power and communications. Significant stormwater upgrades are included. The project is the underpinning of Comprehensive Plan goals including complete streets, connectivity, infill development, expanded recreational opportunities, universal access, public transit, green infrastructure, and energy efficiency.

Key Staff: Tom Errico, Ariel Greenlaw

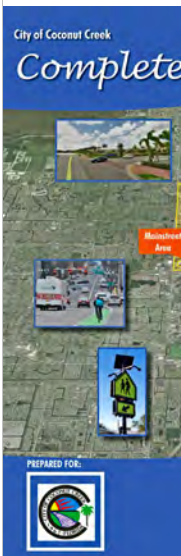
Route 100 Visioning Study - Falmouth, Maine



TYLI assisted in the development of a Visioning Plan for Route 100. The need to prepare an updated vision for Route 100 was identified in the 2013 Comprehensive Plan and appeared consistently in several recent annual Council Work Plans. The objective of the Vision Plan was to develop a creative concept plan for Town Council consideration that shapes the Route 100 area from the Portland City line to the Cumberland Town line into a well-planned area for the community, which considers traffic, infrastructure, and development issues with a planning horizon of approximately 25 years. A plan that is both visionary and realistic, so that it can, and will, be implemented in the near future. TYLI led the transportation planning and engineering efforts, with a focus on complete streets planning and design.

Key Staff: Tom Errico, Ariel Greenlaw

Coconut Grove Complete Streets Plan – Fort Lauderdale, Florida



TYLI developed a complete streets implementation plan for the City of Coconut Creek that will serve the basis on updating the City’s comprehensive plan and land development regulations. TYLI staff analyzed the major corridors in the City to identify bike/ped improvement needs and develop proposed typical sections based on Broward County Complete Street Guidelines and “best practices.” The Complete Streets Plan identified 23 projects - a total investment of approximately \$116 million over the next 25 years for a variety of short-, mid-, and long-term multimodal modal improvements, such as, “Complete Streets” (\$73 million); sidewalk (\$7.8 million); enhanced transit service (\$6.5 million); safety improvements (\$0.4 million); bicycle infrastructure (\$0.15 million); and greenways improvements (\$28.5 million). TYLI staff coordinated and prepared existing and proposed conceptual typical sections to accommodate Complete Streets design principles as appropriate for 12 major travel corridors in the City.

Key Staff: Tom Errico

Bayside Transportation Master Plan – Portland, Maine



TYLI developed a plan for transportation infrastructure in the rapidly changing Bayside area of the City. The Bayside Transportation Master Plan is an integrated multi-modal initiative, examining pedestrian, bicycle, vehicular and transit access, connectivity, land use and urban form within the context of the City's and MaineDOT's Complete Streets Policy. The Bayside Neighborhood within Portland has become one of the most dynamic areas of the City with a variety of near and long-term activities that prompted the City and PACTS to pursue a Master Plan to inform transportation initiatives. With so many things happening, a comprehensive review is necessary to ensure a sustainable transportation system is planned and supports land use and economic development goals. The Master Plan will provide an overall comprehensive transportation vision for the Bayside Neighborhood, but also will provide more detailed recommendations for the following Focus Areas:

- Oxford Street/Portland Street
- Pearl Street Extension
- Lancaster Street

Complete Streets Workshops, University of Massachusetts –

Statewide, Massachusetts



TYLI designed and delivered a program to provide Complete Streets design training to municipal engineers, municipal managers, contractors, regional planning authorities, engineering consultants and MassDOT engineers. The purpose of the training was to reinforce MassDOT's commitment to Complete Streets design policy consistent with the MassDOT Project Development and Design Guide.

Key Staff: Tom Errico

Thomas A. Errico, PE

Project Manager

Total Years' Experience:

TYLI: 16 Total: 29

Registrations:

Registered Professional Engineer in
Maine (6618), 1990;
Vermont (6321), 1992;
New Hampshire (10096), 1999;
Massachusetts (37701), 1993;

Certifications:

Certified Maine DOT
Locally Administered
Project Manager

Academic Achievements:

M.S., Civil Engineering,
Northeastern University,
Boston, Massachusetts,
1996

B.S., Civil Engineering,
Northeastern University,
Boston, Massachusetts,
1985

Awards:

"2013 Transportation
Engineer of the Year" –
Institute of Transportation
Engineers (New England
Section)

"2015 Distinguished
Service Award" – Institute
of Transportation
Engineers (New England
Section)

Professional Activities:

Workshop Instructor for
The National Complete
Streets Coalition;

Member, Institute of
Transportation Engineers
(ITE), 1997-Present;

Director of the New
England Section, ITE

Thomas Errico joined T.Y. Lin International as a senior associate and New England Traffic Engineering Director. Tom has served as Project Manager/Lead Traffic Engineer for a variety of design and study projects for municipal and state agency clients throughout New England. Named "2013 Transportation Engineer of the Year" by the New England section of the Institute of Transportation Engineers, Tom is passionate about his work and dedicated to increasing the livability and mobility access for all users in cities and towns across New England. 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. Project experience relevant to this proposal includes:

Topsham Traffic Peer Review Services, Topsham, ME – Town of Topsham. Provided traffic peer review services for two development projects in the Topsham Fair Mall. A key outcome was the development of an interim pavement marking plan for Topsham Fair Mall Road.

Main Street/Summer Street Roundabout Feasibility Study, Topsham, ME – Town of Topsham. Project Manager for the evaluation of constructing a roundabout at the intersection of Main Street and Summer Street.

State Street/High Street Two-Way Feasibility Study, Portland, ME – City of Portland. Project Manager for the feasibility study of converting State and High Streets to two-way between the Casco Bay Bridge and I-295. Work includes conducting traffic counts, developing a simulation model and assessing traffic mobility on both roads following the change. In addition, a review of on-street parking impacts and intersection geometry conditions following the conversion will be evaluated.

Bayside Transportation Master Plan, Portland, ME – PACTS/City of Portland. Project Manager developing transportation recommendations for this rapidly developing mixed-use area of the City. A key part of the study is evaluating the conversion of Preble and Elm Streets from their one-way configuration to two-way flow.

21st Century Downtown Master Plan, North Windham, ME – Town of Windham. Project Manager/Lead Traffic Engineer for the development of the 21st Century Downtown Master Plan. The plan's purpose was to develop a comprehensive vision for transportation improvements in North Windham. *The plan was awarded "2014 Plan of the Year" by the Maine Association of Planners.*

Route 100 Vision Plan, Falmouth, ME – Town of Falmouth – Lead Transportation Engineer for the development of a Complete Streets Vision

2010 - Chair of the NEITE
Technical Committee;

Member, Institute of
Transportation Engineers
(ITE), 1997-Present;

Director of the New
England Section, ITE
2010;

Institute of Transportation
Engineers (ITE),

National Committee
Member on publishing a
Report on Current
Practices on Pavement
Markings and Signing at
Crosswalks, 2010;

Member of the National
Complete Streets Council

Member of the Association
of Pedestrian and Bicycle
Professionals

Plan for the Route 100 area from the Portland City Line to the
Cumberland Town line.

Complete Streets Design Training Initiative, Statewide, MA – University of Massachusetts. Project Manager responsible for the development and delivery of approximately 80 training workshops throughout the state of Massachusetts. The workshops attendees will include MassDOT engineers, consultants, and municipal staff.

Anderson Street Neighborhood By-Way Project, Portland, ME – City of Portland. Project Manager designing improvements that incorporate improved bicycle, pedestrian and streetscape enhancements between Fox Street and Plowman Street.

Safety Improvement Project Located on U.S. Route 302, Bridgton, ME – MaineDOT. Project Manager providing oversight of all design work. TYLI provided preliminary and final design of proposed improvements that will consist of a continuous two way left turn lane with median islands for traffic calming. This section will also include a pavement overlay.

Route 302 Improvements, Westbrook, ME – MaineDOT. Project oversight for proposed roadway improvements will consist of either the construction of left-turn lanes (Route 302) with flashing beacon or a roundabout at the Route 302/Hardy Road/Duck Pond Road intersection in Westbrook. TYLI's Alternatives Analysis will determine the preferred option for consideration. The project design is on hold as the local municipality is considering funding constraints.

Route 1/Route 27 Intersection Improvement Project, Wiscasset, ME – MaineDOT. Project Manager currently designing improvements that will install Wiscasset's first traffic signal and construct new sidewalks and crossing provisions in the downtown village.

Main Street and Turner Street Pedestrian Improvements, Auburn, ME
Lead Traffic Engineer for preparation of design plans associated with relocating and enhancing the existing crosswalk on Main Street and providing a new crosswalk on Turner Street to the YMCA.

Court Street Pedestrian Improvements, Auburn, ME
Lead Traffic Engineer for the identification and design of improvements related to the River Trail and providing connectivity to the Downtown. Key design elements included revising signal phasing and timing, modifying intersection geometry to provide shorter and safer pedestrian crossings, and implementing enhanced crosswalk markings.

Route 1 Multi-Use Path / Road Diet Project, Yarmouth, ME – Town of Yarmouth. Traffic Engineer designing roadway and intersection improvements following the extension of the Beth Condon Path, including removing of a Route 1 southbound travel lane. Conducted traffic analysis in support of a lane reduction on Route 1 to accommodate the design and construction of a multi-use path. Close coordination and approval by MaineDOT was required.

Park Avenue / St. John Street Road Diet Projects, Portland, ME – MaineDOT. Project Manager responsible for design improvements which implemented bicycle lanes and other bicycle facility enhancements on these

two urban streets. Work included preparing design plans and specifications that met City of Portland standards and accepted by MaineDOT.

Route 9 Traffic Calming Improvements, Biddeford, ME – MaineDOT.

Project Manager for the preliminary and final design of traffic calming measures along Route 9 associated with the University of New England's (UNE's) expansion. Scope included provision of sidewalks, gateway islands, drainage, lighting, landscaping, and flashing pedestrian-actuated warning signs at proposed crosswalks.

Veterans Memorial Bridge Design Build Project, Portland-South

Portland, ME – MaineDOT. Lead Traffic Engineer responsible for traffic analysis supporting the replacement of the Veterans Memorial Bridge. Work included the development of a Synchro/SimTraffic model for assessing traffic operations and development of traffic signal plans for four intersections. The SimTraffic model was an important part of advocating for a new roadway network and an enhanced multi-modal environment.

New Auburn Village Center Study, Auburn, Maine – ATRC and the City of Auburn. Project Manager and Lead Traffic Engineer responsible for traffic analysis supporting the transportation and urban design improvements. A key component of the study was the evaluation of roundabout intersection designs at key village locations.

Route One Infrastructure Plan, Falmouth, ME - Town of Falmouth.

Project Manager and Lead Traffic Engineer in the development of a Plan that is a coordinated investment in, and improvement of, the public right-of-way infrastructure of Route One to make it a more attractive, cohesive, functional, and pedestrian-friendly street that strengthens its economic viability and implements the Town's vision.

Complete Streets Technical Presentations. Instructor conducting Complete Streets Training. These have included the following:

- 2014 Maine ACSE Winter Meeting
- 2012 MaineDOT Transportation Conference
- 2012 Maine Active Community Conference
- Bicycle Coalition of Maine Advocates Meetings (January – May 2013)
- 2011 New England Bike-Walk Summit
- 2012 Maine Transportation Safety Council
- New Hampshire MPO Group
- Maine Chapter of the Institute of Transportation Engineers

Bath Road Master Plan – Town of Wiscasset, ME / MaineDOT

Project Manager responsible for producing a plan that maximizes development opportunities along Bath Road through the strategic coordination of traffic infrastructure improvements, land use policies and design standards. By planning for growth, Bath Road will remain safe, congestion will be minimized and visual character will be preserved and enhanced. Ultimately, this Master Plan is intended to help Wiscasset shape a future for Bath Road and surrounding areas that reflects the needs and values of the community.

COMPANY PROFILE



Maine

Topsham Office

99 Main Street
Topsham, ME 04086
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Portland Office

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888.621.8156

New Hampshire

The Ammon Center, Suite 208
175 Ammon Drive
Manchester, NH 03103

230 Commerce Way, Suite 302
Portsmouth, NH 03801

Massachusetts

40 Shattuck Road, Suite 305
Andover, MA 01810

Connecticut

169 Main Street
700 Plaza Middlesex
Middletown, CT 06457

Rhode Island

The Westminster Square Building
10 Dorrance Street, Suite 840
Providence, RI 02903

Wright-Pierce, founded in 1947, is a full service, New England-based consulting firm providing a full range of planning, design and permitting services to municipal and private sector clients throughout the Northeast.

Employee-owned and customer focused, Wright Pierce has a staff of more than 200 professionals and support staff located in seven offices. While our prime area of operation is the Northeast, we also selectively provide services elsewhere in the United States and globally.

Innovative Solutions that are Grounded in Years of Experience

As a respected, quality-driven firm, we are proud of our verifiable track record for delivering technical excellence and helping clients realize their visions. We do not subscribe to a “one-size-fits-all” philosophy; rather, we identify the best solution for your specific needs.

Holistic, Long-Term Approach and Planning

We understand that finding solutions to the issues facing our communities is best done through appropriate dialogue with the community and critical stakeholders, balanced with technical expertise and guidance. We pride ourselves in our ability to use public process to develop planned solutions that will enjoy the level of broad-based public support to carry them through implementation, and well into the future.

Responsive Service Focused on Your Success

As a valued client, the success of your project is our foremost concern, and the only measure of our success.

- What sets us apart is expertise in developing creative, sustainable, efficient solutions tailored to meet your needs — today and tomorrow.
- We listen, investigate and understand the requirements.
- We create environments that foster collaborative visioning processes.
- We understand fiscal constraints and emphasize solutions that yield the maximum value.
- We involve and collaborate with our clients every step of the way.
- We are about building long-standing relationships and delivering on our promise to help you succeed and improve our communities for the future.

Wright-Pierce — innovative, reliable, sustainable solutions for your success today and tomorrow!

CHRISTOPHER A. DWINAL, PE

Senior Project Manager

Education

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

Graduate Study, Groundwater
Hydrology, Tufts University

Graduate Study, Water Chemistry,
University of New Hampshire

Professional Registration

Maine
New Hampshire
Massachusetts

Experience

25 Years

Joined Firm

1993

Professional Affiliations

Maine Water Environment
Association

New England Water Environment
Association

New Hampshire Water Pollution
Control Association

Tau Beta Pi
Water Environment Federation

Publications

Dwinal, C.A., Hazelton, S. and G.
Hill, "Commercial and Residential
Organics Pilot," BioCycle,
October 1996

Giggey, M.D., Pinnette, J.R. and
C.A. Dwinal, "Odor Control Factors
in Compost Site Selection,"
BioCycle,
February 1995

Dwinal, C.A., Grotton, E.J. and R.A.
Behr, "Revised Method of
Approximate Structural Analysis,"
Journal of Structural Engineering
Div., ASCE, November 1990

EXPERIENCE SUMMARY

Mr. Dwinal is a senior project manager at Wright-Pierce and is the Maine Wastewater Group Leader for Wright-Pierce. He is currently serving several Maine and New Hampshire clients as a project manager. He has extensive experience in the planning, design and construction administration of wastewater treatment facilities, odor control systems, residuals management facilities, septage treatment facilities, pump stations and collection systems. Ongoing projects include construction administration for a \$14 million Phase 2 upgrade at the Berlin, NH, wastewater treatment facility; construction administration of a \$6 million Phase 2 upgrade at the Merrimack, NH, wastewater treatment facility and composting facility; and the construction administration of an 18.4-MGD pump station in Portland, Maine.

RELEVANT PROJECT EXPERIENCE

Wastewater Collection and Combined Sewer Overflows

- Private Infiltration & Inflow Investigation & Remediation Plan, Cape Elizabeth, ME
- Sewer Rehabilitation Projects, Bar Harbor, ME
- Sewer Master Plan, North Stonington, CT
- Mill Creek Force Main Evaluation, Falmouth, ME
- Combined Sewer Overflow Master Plan, South Portland, ME
- Combined Sewer Overflow Master Plan, Cape Elizabeth, ME
- Collection System Evaluation, Bath, ME
- Phase 2 Collection System Evaluation, Bath, ME

Pump Stations

- Fore River Pump Station Upgrade, Portland, ME
- Pump Stations Upgrade, Westbrook, ME
- Pump Station Evaluations, Portland, ME
- Pump Station Upgrade, Cape Elizabeth, ME
- Pump Station and Terminus Manhole Replacement, Cape Elizabeth, ME
- Long Creek Pump Station Upgrade, South Portland, ME
- Comprehensive Pump Station Evaluation, Falmouth, ME
- Pump Station Preliminary Design, Portland, Maine
- Multiple Pump Station Evaluations, Bath, ME
- Mill Creek Pump Station Upgrade, Falmouth, ME

Wastewater Treatment

- Evaluation of Impact of Methadone Clinic, Warren Sanitary District, ME
- Secondary Treatment Operations Assistance, East End WWTF, Portland, ME
- Evaluation of Flows from Seafood Processing Facility, Richmond, ME
- WWTF Capacity Evaluation, Falmouth, ME
- Slide Gate Replacement and Flow Splitter Evaluation, Portland, ME
- Groundwater & Surface Water Protection Program, Brunswick & Freeport, ME
- Evaluation of Water-Treatment Residuals Options, Private Business, ME