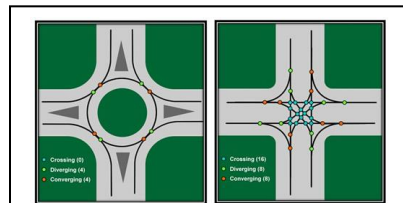


PACTS Intersection Improvement Application for 2016/2017/2018 Work Program

PACTS Staff and members of both the PACTS Planning Committee and Technical Committee will use the information provided in the attached form to score and rank Proposals for Intersection projects.



Information provided in the first section of the form will be used in the new PACTS Intersection Formula and the information provided in the second section of the form will be used to evaluate the proposal's consistency with *Destination Tomorrow*. Please reference the current TIP Process Guideline for more application information.

Examples of eligible **Intersection Improvements** are:

- addition or upgrade of signals,
- addition or widening of shoulders,
- addition of turning or through lanes,
- improves level of service for all modes.

Projects must consider all user groups and may also include new sidewalks and pedestrian accommodations. Although not a requirement it would be beneficial for the project to be on an NHS designated roadway to help in meeting DOT and FHWA requirements. Please note, some of the sections related to Road Rebuild proposals and questions may or may not be applicable to this application. Please indicate N/A for the non-applicable questions.

General Requirements for Proposals:

1. Proposals must be received by PACTS by **4:00 p.m. on February 7, 2014**.
2. Three (3) hard copies as well as an electronic submittal of proposals are required. Email (or cd) to ceppich@gpcog.org and pniehoff@gpcog.org. Attach supplementary information as needed.
3. Proposals must be based on a thorough analysis and include a detailed purpose and need statement, scope of work, and cost estimate.
4. Intersection applications must include results of capacity analyses of current and proposed conditions.
5. If applicable under this set aside signal proposals must be supported by a MaineDOT approved warrant analysis. MaineDOT support documents **must** be submitted with this application.
6. Must demonstrate consistency with *Destination Tomorrow* with consideration of the **2009 PACTS Regional Bicycle and Pedestrian Plan Update and PACTS Regional Bicycle and Pedestrian Design Guidance** where applicable and not conflict with a municipality's comprehensive plan or other policy document.

All questions must be completed – Please use not applicable (N/A) or no, as appropriate and reason why you believe the question is not applicable.

Please contact Paul Niehoff or Carl Eppich with any questions you may have as you prepare your proposal. (207) 774-9891.



2016/2017/2018 Road Rebuild and Intersection Application

Section 1 – Project Overview

Set Aside Category: Intersections

Project Name: Traffic Signal Improvements - Broadway at Evans and Broadway at Lincoln Streets

Section 2 – Project Location, Description and Justification

Municipality: South Portland

Route Number/Street Name: Broadway

Description of Project Location: The intersections of Broadway at Evans and Lincoln Streets are key to the movement of traffic from the East Side of South Portland to the West Side of the community. This section of Broadway is the sole link in the existing roadway network that provides for this east-west movement. These two signalized intersections are located approximately 1,000 feet apart and currently operate independent of each other, i.e. they are not interconnected or coordinated. Peak hour congestion rises regularly to unacceptable levels in the PM at both intersections resulting in long queues and cycle failures.. This situation is not only an inconvenience to the traveling public on a regular basis, but an issue for emergency response agencies (police and fire) which are delayed from passing through this location due to the congestion.

Federal Functional Classification: Broadway - Minor Arterial

MaineDOT Corridor Priority: Broadway - 3

[\(http://www.maine.gov/mdot/about/assets/search/\)](http://www.maine.gov/mdot/about/assets/search/)

NHS: Yes No
(PACTS staff to indicate)

AADT:
Broadway -
24640

LAP?: Yes No

Is the proposed project in an identified PACTS Congestion Management Process area? (see CMP map and descriptions):

Yes No

If so, describe any congestion mitigation benefits of the proposed project:

Please state the detailed purpose and need(s) and how the project will address those needs: The intersections of Broadway at Evans and Lincoln both have major movements that operate at unacceptable LOS (F) in the PM peak hour as evidenced by the attached Synchro/SimTraffic analyses. The proposed Project will address this situation by upgrading the existing signal equipment and installing interconnection features both between the intersections and with the City/Region's RTMS to allow for new signal coordination programming and regular data collection and monitoring/management of this location by the Regional RTMS. Overall vehicle delays will be reduced at these two intesections between 15%-44% depending on the location and time period. The installation of continuous vehicle counting capabilities and RTMS communications will allow the City and Region to monitor this key link in the roadway system for purposes of on-going optimization of traffic operations.

Describe the proposed scope of work: Replace the existing traffic signal detection with video that includes vehicle counting capabilities at both intersections, replace the existing Multiconics controller at Lincoln Street with a new TS2-1 Naztec cabinet, install wireless communication interconnection between the two intersectionioins, develop new signal coordination timing plans to optimize traffic flow during key travel times, and connect this critical location into the Regional RTMS system for on-going signal monitoring and management. The latter objective will be accomplished by connecting to the City's cross-town fiber optic infrastructure that is currently being constructed by the Ciy's IT Department.

Section 3 – Municipal Contact Information

Please provide the following information about the sponsoring municipality (for joint applications, please attach additional contact information):

Municipality or municipalities if joint application: South Portland		
Primary Contact :Charles (Tex) Haeuser	Title: Planning Director	
Mailing Address:25 Cottage Road	City: South Portland	Zip Code: 04106
Phone Number: 207-767-7649	E-mail Address:chaeuser@southportland.org	

Section 4 – Municipal Endorsement

Is this project endorsed? Yes No

Endorsement Type (examples: ACE Team, Bike and Pedestrian Committee, City Council, etc.):

Date:

Section 5 – Project Application Details

Has this project been reviewed and submitted in conjunction with other projects in the area, either under design or construction? Yes No N/A

If yes, please specify the projects:

Is the proposed project part of a public-private partnership or multi-municipal initiative? Yes No N/A

If yes, please explain:

Multimodal aspects and safety for all users: Has this project been reviewed with an emphasis on pedestrian/bicycle accommodations, improvements or safety and/or transit use? Yes No N/A

If yes, please explain: This stretch of Broadway is included as part of the Regional Bike Ped Plan and more specifically a Multi-Use Path Project recently developed with a PACTS grant linking the VMB to the Greenbelt.

Multimodal Components

Will the project include new (not rebuilt) sidewalks or include aspects that will improve bicycle access or safety? Yes No N/A

If yes, please explain:Improved vehicle flow via signal coordination will decrease congestion and improve safety for both bike and pedestrian travel across this corridor.

Will the project include a new or improved sidewalk AND is in a location within 1,000 feet of two of these five land uses: a store, a school, a church, ten or more housing units or a non-retail business? Yes No N/A

If yes, please explain:

Does the project include pedestrian improvements such as the addition of a new or improved traffic signal with a pedestrian phase or construction of ADA ramps or a pedestrian refuge island? Yes No N/A

If yes, please explain:The new traffic signal programming will address the needs of pedestrians and bicyclists at both intersections.

Is the project for a location in a land development zone in which a local ordinance allows mixed-use development and shows promise for reduction in travel demand or is part of a Travel Demand Management (TDM) plan or project?? Yes No N/A

If yes, please explain:This section of Broadway is in an existing Limited Business zoning district. which allows mixed-use. It also is designated in the City's Comprehensive Plan for moderate mixed-use development. There is promise, therefore, for a

reduction in travel demand associated with increased transit viability and usage.

Is the project on an existing transit route? Yes No N/A

If yes, please explain: This intersection is located on South Portland Bus' Transit Route 24B, Maine Mall via Community Center

Is the project on a primary truck route? Yes No N/A

If yes, please explain: Broadway is a major truck route because it is the primary east-west link in the City's roadway network.

Does the project enhance direct freight access to abutting commercial or industrial properties? Yes No N/A

If yes, please explain: There are several commercial and industrial uses in this section of Broadway (e.g., Autozone, Mequire & Jones Steel) whose freight access would be enhanced by the proposed improvements.

Safety, Capacity and Other Improvements

Does the project address a high crash location or other safety concerns? Yes No N/A

If yes, please explain:

MaineDOT node numbers: Broadway at Evans 14658 and Broadway at Lincoln 14657

Total Accidents: Evans 16, Lincoln 24

Critical Rate Factor (CRF): 0 for both

Percent of accidents with personal injury: 25 at Lincoln and 43.8 at Evans

(contact Greg Costello at greg.costello@maine.gov or 624-3618) FMI

If applicable, for intersections, what is the current delay, LOS or V/C ratio and how will the project address this need?

Please provide copies of the results providing volume-to-capacity, level of service, and delay for the intersection, based upon methods contained in the Highway Capacity Manual. **The analysis should be provided for the no-build and improved conditions.** N/A

Please explain: See Attached Detail Information. Based on vehicle counts collected in 2013 and current signal programming at these two intersections, delays and LOS during the AM and PM peak hours are as follows:

Broadway at Evans - AM Existing LOS C (27.2 sec. delay) AM Proposed LOS C (21.7 sec. delay) - 20% reduction

Broadway at Evans - PM Existing LOS C (34.5 sec. delay) PM Proposed LOS B (19.2 sec. delay) - 44% reduction

Broadway at Lincoln - AM Existing LOS C (24.2 sec. delay) AM Proposed LOS C (20.5 sec. delay) - 15% reduction

Broadway at Lincoln - PM Existing LOS D (48.0 sec. delay) PM Proposed LOS D (37.2 sec. delay) - 22% reduction

For intersection improvements that require new signals where none currently exist, has a warrant analysis been completed and verified by the MaineDOT? Please attach. Yes No N/A

For intersections, please provide turning movement volumes that are no older than two years. Please attach. Yes No N/A

For Road Rebuilds, what is the current Pavement Condition Rating (PCR) value? Value(s):

Will the project change the road's horizontal or vertical alignment? Yes No N/A

If yes, please describe:

Are there any right-of-way impacts? Yes No N/A

If yes, please identify them and explain the impacts:

Has this project been reviewed for potential environmental impacts? Yes No N/A

If yes, please explain:

Will the project meet clear zone requirements? Yes No N/A

If no, please explain:

Will the project require or result in, **design exceptions** (vertical and horizontal alignment, shoulder/lane widths, clear zones and/or others)? Yes No N/A

If yes, please explain:

Will the project require historical and/or environmental review? Yes No N/A

If yes, please explain: Usually required when federal funds are involved.

For a Road Rebuild is a licensed and registered PE stamped document attached? Yes No

If no, please explain: N/A

For roadway segments, please provide directional traffic volumes. N/A

For roadway segments, please provide proposed roadway cross-section(s). N/A

Section 6 – Estimated Costs by Phase and Scheduling

Phase		Estimate	Requested Delivery Year
<input type="checkbox"/>	Preliminary Engineering	\$ 6000	2016
<input type="checkbox"/>	Right-of-Way	\$ 0	2016
<input type="checkbox"/>	Construction	\$ 91000	2016
<input type="checkbox"/>	Construction Engineering	\$ 2500	2016
	Total Estimated Cost	\$ 99500	

Source of the estimate and contact information: Sebago Technics, Inc. - Stephen S. Sawyer, Jr, PE Tel. (207)-200-2082 or email ssawyer@sebagotechnics.com.

Multi-year Project: Is the request for only PE and RW in the first year (2016) of the Three Year Work Plan with construction in subsequent years of the Work Plan?

Please Explain: No. This is a single year project.

Section 7 – Destination Tomorrow Section

1. How is the project important to the region? Please list regional benefits of the project.

Relevant Policy: Policy 1: Regional Focus

– Prioritize a regional approach to transportation and land use planning and decision making founded on effective communication and management of regional resources in agreement with our other policies.

Answer: This corridor links South Portland with Portland and points north via Lincoln Street and I-295 Exit 4. This accounts for traffic volumes that are higher than can be attributed to just South Portland travelers.

2. How would the project maintain or improve the existing transportation system? Please list infrastructure improvements and services the project proposes to accommodate all transportation modes.

Relevant Policy: Policy 2: Maintaining and Transforming the Transportation System

– Maintain and improve Mobility, Safety, and Accessibility of existing infrastructure while improving and completing infrastructure and services to accommodate non-motorized vehicular modes in the appropriate places.

Answer: It will improve the transportation system by providing significant congestion relief in the corridor. This will benefit bus users and bicyclists as well as motorists. The project grew out of and is integral to the requested Lincoln Street drainage improvements road rebuild project and the requested Lincoln Street-Billy Vachon Multi-Use Path bike-ped project.

3. How would the project enhance existing businesses, employment and economic development opportunities? Please list benefits to businesses and how the project furthers development opportunities with a mix of uses and connects jobs and housing by walking, biking or transit.

Relevant Policy: Policy 3: Economic Development

– Enhance regional prosperity through support for the economic vitality of existing business and for economic development opportunities that are efficiently located based on the availability of transportation in mixed use and compactly developed areas.

Answer: The project will enhance existing businesses and bolster the City's economic development efforts by eliminating a major bottleneck for all modes of travel (including transit). The complementary multi-use path will significantly improve the connection to jobs and housing by walking and biking.

4. How would the project improve the transportation-land-use connection? Please list benefits to (1) transportation choice (density), (2) accessibility in terms of ease of travel between points (distance), (3) variety of compatible uses and services made available (diversity); and (4) overall design. Design may include geometry, interconnections, access management, streetscape, and preservation of community character.

Relevant Policy: Policy 4: Transportation-Land Use Connection

– Strengthen the connection between land use, transportation and community livability in the planning process.

Answer: 1. As mentioned, this area is slated for mixed-use infill and redevelopment and intensification, which will result in greater residential density and improved ability to support transit. 2. It will remove a bottleneck by improving signal functioning and thus reduce congestion and ease travel along Broadway and the Broadway/Lincoln/I-295 corridor. 3. The extension of a bike-ped shared-use path from the associated Lincoln Street-Billy Vachon Multi-Use Path project will increase the diversity of travelers within this corridor and ultimately will lead to a corresponding increase in the diversity of area land uses. 4. The combination of improved vehicle travel with improved walking and biking opportunities will enhance the image and community character of this area.

5. How does the proposed project promote the use of energy efficient transportation and improve the human and natural environment? Please list benefits in terms of energy use, energy savings; and benefits to natural resources such as air, water, and land; and cultural benefits such as places preserved.

Relevant Policy: Policy 5: Environmental Quality and Energy Conservation

– Protect and improve the human and natural environments including natural and cultural resources, air and water quality, and prepare and be proactive for the *most likely* impacts of climate change. Make transportation improvements that use more energy efficient transportation options, low and non-polluting modes such as transit, and/or reduce harmful pollutants associated with transportation.

Answer: The project will result in reduced idling at intersections, and the associated multi-use path will eliminate a number of automobile trips. These will lead to reduced use of fossil fuels and a decrease in the generation of greenhouse gases.