



PACTS Technical Committee Meeting AGENDA

Tuesday, January 14, 2019

8:30-10:00 a.m. at GPCOG

AGENDA ITEM	Time	Facilitator	Action
1. Meeting Start	8:30	Chair	
2. Public Comments	–	Chair	Public input
3. Acceptance of Minutes – 12/10/19 (Attachment A)	–	Chair	Vote
4. Transportation Improvement Program Funding Discussion <i>Staff have worked with MaineDOT to assess the funding deficits in the 2019 PACTS TIP and the implications of deferring projects and funding.</i>	8:35	Chair	Informational and discussion
C5. Collector Paving: Pavement Maintenance Strategies (Link) <i>Staff have researched pavement maintenance alternative strategies to consider for the PACTS region.</i>	8:50	Staff	Discuss and vote
6. MPI Program Open for Applications (Attachment B) <i>Staff have created an MPI cover sheet for requirements and selection criteria. Sub regional applications may be submitted from January 1st through March 1st.</i>	9:25	Chair	Informational and discussion
7. Regional Traffic Management System: Request for Proposal (Attachment C) <i>Staff have drafted an RFP to evaluate approximately 125 signals in the PACTS region.</i>	9:30	Staff	Review, modify if needed, and vote
8. Regional Traffic Management System: RTMS 3 Portland Peninsula Study (Link) <i>A final report on the Portland signal evaluation was submitted by VHB.</i>	9:40	Chair	Informational and discussion
9. Regional Traffic Management System: RTMS William Clarke Drive Spotlight (Attachment D) <i>A signal coordination corridor assessment was performed by PACTS consultants in Westbrook.</i>	9:45	Chair	Informational and discussion
8. Adjourn	10:00	Chair	Vote

1. Welcome- Patrick Fox, Chairman

2. Public Comments

3. Acceptance of 12/10/19 Minutes (Attachment A)

4. TIP Funding Discussion

Staff Report

During the summer, staff worked with MaineDOT and members to assess the funding deficits in the 2019 PACTS Transportation Improvement Program. As a result, PACTS decided to defer construction by a year for several projects and decided not to select new capital projects to be funded with the 2022 federal allocation. By deferring several projects, PACTS:

- Funded the deficit in the 2019 capital program
- Added 30% more funding to ensure the costs of 2020 collector road projects were anticipated
- Provided additional funding for 2020, 2021 and 2022 projects with anticipated deficits

Today, members will discuss the current estimates and bid environment for the 2020 capital program.

Proposed Action: For discussion only.

5. Collector Paving: Pavement Maintenance Strategies

Staff Report

The PACTS Collector Road Pavement Condition Executive Summary, produced by VHB in January 2019 and revised for June 2019, has identified a funding gap of \$4.9 million per year for Collector paving maintenance. The original estimate by VHB identified a need for \$7.1 million for annual maintenance. Following a year of high construction bids, with no anticipated reprise, that funding gap has likely increased. Based on concerns voiced by members of the PACTS Technical Committee PACTS Staff have researched pavement maintenance strategies considering alternative treatment, timing, and selection processes. Staff will present some of their findings to the committee for consideration.

For additional information regarding the condition of the collector network please refer to the [2018 Collector Road Pavement Condition Study](#) by VHB on the [GPCOG website](#).

Proposed Action: Discuss and consider alternative pavement maintenance strategies. Choose to continue with the current collector pavement maintenance strategy or endorse staff to explore alternative maintenance strategies for future.

6. MPI Program Open for Applications

Staff Report

At the PACTS Technical Committee meeting in December we reviewed the PACTS Municipal Partnership Initiative Policy (MPI), which outlines the process by which we will be selecting projects for state funding for 2021. The policy allocates \$400,000 to each subregion, to give them the first opportunity to submit projects to be funded. If there is a subregion that does not submit projects to be funded or does not use all their allocated funding, the remaining funding will become available to the entire region. As with last year, you are encouraged to schedule subregional meetings as the deadline for subregional project submission is at the end of February (one month later than last year). Please see the attached MPI Policy for the full schedule and application guidelines.

Proposed Action: For discussion only.

7. RTMS: RFP

Staff Report

Staff have drafted an RFP for the evaluation of approximately 125 signals in the RTMS communities which have not previously been studied and an evaluation of signal communication. The RFP will also include maintenance and operations of RTMS signals within municipalities who have signed the RTMS Memorandum of Agreement.

Attached is the first 6.5 pages of the draft RFP, omitting the “General Information” section which contains required MaineDOT documentation.

Proposed Action: Review, discuss, modify as needed, and approve the RTMS RFP to be released.

8. RTMS: RTMS 3 Portland Peninsula

Staff Report

A [final report](#) on the Portland signal evaluation by VHB was submitted and is now available on the [GPCOG website](#).

Proposed Action: Informational and discussion only.

9. RTMS: William Clarke Drive Spotlight

Staff Report

Toward the end of the 2019 RTMS Maintenance and Operations contract Westbrook contacted PACTS staff regarding a signal coordination issue along William Clark Drive. PACTS staff informed the consultants, Milone and MacBroom and Sebago Technics of the issue. The consultants and Westbrook city staff met to discuss the issue, which PACTS staff were unable to attend.

Following their meeting, the consultants implemented a new coordination plan along the corridor and provided infrastructure observations and recommendations. Please see the attached e-mail report provided by Sebago Technics.

Attached is a summary of the corridor study by Sebago Technics and Milone and MacBroom.

Proposed Action: Informational and discussion only.

Attachment A
PACTS Technical Committee
MINUTES
December 10th, 2019
8:30 a.m. – 10:00 a.m.

In attendance:

Name	Affiliation
Patrick Fox, Chair	Saco
Tom Milligan	Biddeford
Adam Bliss	Freeport
Joe Cooper	Old Orchard Beach
Justin Gove	South Portland
Erik Street	Yarmouth
Jay Reynolds	Falmouth
Bill Shane	Cumberland
Bob Malley	Cape Elizabeth
Jeremiah Bartlett	Portland
Darryl Belz	MaineDOT
Staff:	
Rick Harbison	
Elizabeth Roberts	
Harold Spetla	

1. Welcome/Introductions/Sign-In – Patrick Fox, Chair

Patrick opened the meeting at 8:32 a.m.

2. Public Comment

There was no public comment.

3. Acceptance of 10/08/2019 Minutes

At 8:33 AM, Tom Milligan motioned to accept the minutes, Erik Street seconded.

4. Collector Paving Reviews Update

PACTS staff Harold Spetla highlighted that due to the parameters set as a committee for selecting projects, combining segments to lengthen shorter segments and bring them into eligibility for selection. He noted in Saco a section of street was discussed that would fall out of consideration if it weren't included with a longer segment and advised that these meetings were looking to combine segments, look at PCI values and discuss transit.

Harold advised they're looking for feedback on how the consultants have performed and whether they've had good communication with municipalities. He advised he spoke with VHB and that they've used the data that was already available from a previous study but that it doesn't mean it was necessarily perfect, and that they are trying to refine and improve as they go along.

PACTS Engineer Elizabeth Roberts noted they will welcome feedback and that the goals are to create something meaningful that can result in projects.

Harold advised he has the next 3 weeks, through the holidays, to schedule meetings and that they normally take an hour.

Someone asked whether long-range plans have been discussed and what to do to start maintaining the network. It was advised that the first round of investigation and reporting from VHB shows the sustainable levels, and that these meetings help to confirm the data is right, along with construction dates.

5. Review of VHB's Draft High Crash Location Desktop Assessment

Rick advised that VHB has created a draft desktop assessment for a South Portland site. He noted once a template was settled on, all the remaining 25 assessments would be completed. Once those were completed, they would be reviewed and phase 2 would be road safety audits, alternatives, benefits cost scenarios, etc.

Rick referenced attachment B and explained a high-level overview of what the site is, noting diagrams, street view and photos, to assist the reader with orientation.

Rick also noted there would be a section showing diagrams to follow. He asked for feedback on the assessment. It was noted the recommendations are concise and easy. Rick advised the first phase is advance signal warnings, group signal warnings, and more things the city could likely tackle on its own. He advised all the information would be compiled into separate reports and each community would get a separate packet. Rick noted they would start doing site visits in the spring for phase 2 and finishing up in the summer. He advised the same thing would be done next year but would be done in house with Elizabeth Roberts.

6. PACTS Municipal Partnership Initiative

Harold highlighted applications are open from January to March 1st. It was noted there is a longer time to submit, allowing regions time to get through the holidays, and that communities need to be mindful that if they are securing a 50% match, they will be doing it during their budget cycle.

Harold advised attachment D is a checklist and streamlining the process for staff so that applications meet all the outlined criteria in the policy. He noted they were hoping to have 2-3 sentences describing requirements, and that there were a lot of variabilities last year in what was received from the towns.

Motion to change MPI Policy language. Bob Malley motioned; Bill Shane seconded.

7. Unified Planning Work Program Update

Harold noted it was approved by the policy committee with a 1-month public review process, and there were no public comments. It has been approved and adopted for 2020-2021.

It was also noted that Sara Zografos will be the Executive Director of BACTS, and her last day would be January 17th, and that a new regional planner would be joining MaineDOT.

8. Adjourn

Adam Bliss motioned to adjourn at 9:40 AM, Tom Milligan seconded. All were in favor.

Attachment B

2021 PACTS Municipal Partnership Initiative Policy

Overview

The Portland Area Comprehensive Transportation System's ("PACTS") Municipal Partnership Initiative ("PACTS MPI") builds upon the Maine Department of Transportation's ("MaineDOT") successful Municipal Partnership Initiative ("MPI") by using PACTS' annual allocation of state money to be matched with a minimum fifty percent (50%) local funds for road reconstruction or rehabilitation projects. The PACTS MPI is designed to fund collector or arterial roadway projects, and to focus on bringing substandard roads up to PACTS' and MaineDOT's minimum standards thereby having the completed segment(s) eligible for future pavement preservation programs. Preservation, modernization and expansion aspects of these roads for safely accommodating all transportation modes are also eligible uses of the PACTS MPI funds.

Projects funded through PACTS, either with state or federal funding, need to, in some part, support the goals of PACTS' long-range plan, *Destination 2040*. While the intent of the program has always been to reconstruct or rehabilitate collectors and arterials, pavement preservation projects are eligible for these funds. When reasonable and appropriate, roads funded under the MPI program should consider improvements which are over and above the minimum road standards, such as inclusion of new or improved sidewalks, granite, or concrete slipform curb vs. bituminous curb, additional shoulder width for wider paved shoulders or bike lanes, traffic calming, and intersection improvements. All PACTS MPI projects must comply with the Americans with Disabilities ACT (ADA) requirements and consider state and municipal Complete Street Policies.

PACTS MPI Requirements

- **Professional Engineer Certified:** All projects must be designed by an engineer licensed in the State of Maine. Once constructed, the engineer of record must certify that the project was constructed in accordance with the plans and specifications.
- **10-Year Useful Life:** The work included must be considered a capital improvement with a minimum 10-Year useful life.
- **Deliverability:** The construction will be administered by the municipality. The municipality must demonstrate they have the ability or can obtain the ability to administer the project. Construction must commence within twelve (12) months and construction must be certified complete in twenty-four (24) months from when a Cooperative Agreement is executed. If timelines are not met PACTS may reallocate funding to other eligible projects in other communities. However, the municipality may request an extension if extenuating circumstances exist.
- **Public Involvement:** The municipality is responsible to lead the public involvement process consistent with all laws, including Maine's Sensible Transportation Policy Act. The value and extent of documented community support will be considered a project

benefit.

- Betterment to the State Transportation System: Projects must be improvements above and beyond mitigation work for a traffic movement permit, or above and beyond the legal requirements of a highway opening permit.
- Multiple Party Agreements: The municipality and all involved parties must be willing to enter into an agreement whereby the PACTS state funds contribution is capped based on project estimates prior to construction.
- Right-of-Way Acquisition: The PACTS MPI will only reimburse for the right of way required for the transportation betterment. Most projects are expected to be within existing right of way; however, the municipality may want or need to secure property rights. If this is required, the process shall be in accordance with all applicable State and Federal Laws, and a detailed explanation must be provided as part of the application.

Funding

The 2021 PACTS MPI program's state funding is \$ 1,640,201.00. The following are the project funding parameters:

- Minimum state funding per project: \$75,000.00
- Maximum state funding per project: \$400,000.00
- Minimum local funding match: 50%
- PACTS Crack Sealing Program: \$50,000.00 (Maximum)
(50/50 municipal match)

PACTS Project Selection

The PACTS MPI project selection is intended to be simple and similar to the Maine Department of Transportation MPI program. PACTS' MPI program will be a tiered system focused first on each of the subregions. In an effort to encourage sub regional coordination, subregions will have the first opportunity to submit a project/s for MPI funding. The intent is to fund at least one project from each subregion annually. For the first round of project solicitation, the goal is to allocate \$400,000 of PACTS' state MPI per sub region. Once the sub regional deadline for applications has passed, in the event there is remaining funding, a notice will be sent to all municipalities, that there is additional MPI funding available. All PACTS municipalities will be eligible to submit projects for the remaining MPI funding. PACTS will continuously accept project applications and eligible projects will be selected on a first come first served basis. Additional project selection factors include the following:

- **Safety:** The improvement will impact a direct safety need such as infrastructure improvements that address an area with a high crash history or potential for hazardous conditions.

- Economic Development & Job Creation: Preference will be given to projects that allow for job growth and facilitate economic development.
- Degree of Betterment: Projects that provide a greater infrastructure benefit than others such as reducing maintenance costs, improving ride quality, or increasing mobility will be given a higher priority.
- Percentage of Local Match: Preference will be given to projects with a high percentage of non-state funding.
- *Destination 2040*: The degree to which the proposed project is aligned with the goals of *Destination 2040*.
- Customer Benefit: Preference will be given to projects based on the amount and degree of benefit that travelers will realize from the project benefit.

If the applications received total less than the available state dollars, PACTS will not score them. PACTS staff will make a recommendation to the PACTS Technical Committee whether projects meet PACTS MPI Eligibility. Projects meeting the criteria will be funded. In the event that the state dollars requested exceed the state funds available PACTS will score the applications based on the following criteria;

- 1) Collector and/or arterial numerical rankings (based on the most current PACTS Arterial or Collector Road reports) along with such information as PCR/PCI values, transit routes, traffic volumes, etc. also indicated in the most recent road assessment report, and only for those roads, or road segments, that need reconstruction or rehabilitation or must be brought up to design standards. **Total available points: 95.**
- 2) Extra points will be given for a municipal match which is higher than the minimum 50% required by assessing 1 point for every 5 percent (rounded) increment above 50%, up to a maximum of 100% match. For example, a \$200,000 project where the municipality proposes a 60% match (\$120,000 vs. \$100,000) would receive 2 additional points. **Total available points: 10.**
- 3) Extra points will also be awarded for projects that consider improvements which are over and above the minimum road standards, such as inclusion of new or improved sidewalks, granite curb vs. bituminous curb, additional shoulder width for wider paved shoulders or bike lanes, traffic calming, intersection improvements, etc. **Total available points: 10.**

The total maximum points available are 115.

If projects exceed available funding, PACTS Technical Committee will make a recommendation to the Executive Committee for which projects should be funded in 2021. Unfunded projects in 2021 may be preselected for PACTS 2022 MPI funding. This approach will mirror MaineDOT's MPI program whereby projects are currently selected two or more years before funding is available based on program needs versus available funding.

Process after PACTS Selection and Programming (for informational purposes)

1. PACTS will submit the PACTS MPI project candidates, including location information, scope of work, estimated costs by funding stages and funding sources and other information as may be required by the MaineDOT MPO Engineer (“**MPO Engineer**”) for potential inclusion in the annual MaineDOT Work Plan.
2. PACTS staff will participate in the MaineDOT Work Plan Development Meeting (Synergy Meeting) to present their PACTS MPI and other project candidates to MaineDOT representatives. The PACTS MPI project requests may be revised or cancelled as a result of the meeting.
3. Upon acceptance of a PACTS MPI project into the MaineDOT Work Plan, PACTS will provide to the MPO Engineer a letter on PACTS letterhead, formally requesting authorization of the PACTS MPI project, including:
 - a. The name of the Municipality
 - b. Project Description
 - c. Location, including Beginning and Ending Route Log Miles
 - d. Detailed Scope of Work
 - e. Total Project Cost including State, Local and Capped Amounts
 - f. Any Cost of Additional Work above Agreement Estimate
 - g. (Requested) Construction Year
 - h. Municipal contact information
4. The MPO Engineer will work with MaineDOT’s Contract Procurement Office (“**CPO**”) to draft a project-specific Cooperative Agreement with PACTS and the Municipality.
5. The CPO will email the project-specific Cooperative Agreement to PACTS for execution.
6. Upon receiving the Cooperative Agreement from PACTS, the MPO Engineer will submit it to the Bureau of Planning Director for signature and will activate the Work Identification Number (WIN).
7. The fully executed Cooperative Agreement will be sent to the CPO for processing.
8. The CPO will return the fully executed Cooperative Agreement to the municipality accompanied by a Notice to Proceed with copies of all documents submitted to PACTS.
9. Municipality will retain a State of Maine licensed Professional Engineer to oversee all Project activities, including certification that plans were prepared in accordance with agreed-upon scope and relevant state standards.
10. Municipality will submit the plans and specifications to PACTS and MaineDOT for review and concurrence. Any exceptions to State Design Standards must be clearly noted on the project plans cover sheet with a request for MaineDOT acceptance of the State Design

Exception(s).

11. When the project is considered complete the municipality will provide PACTS and the MaineDOT certification through the Engineer of Record that the project is complete and was constructed in accordance with the plans and specifications and meets the MaineDOT quality assurance standards applicable to the project.
12. Municipality will send PACTS their invoice accompanied by supporting documentation for review and approval before forwarding to MaineDOT for payment.
13. Upon approval by PACTS, PACTS will provide to the MPO Engineer a letter on PACTS letterhead formally requesting PACTS' State allocation reimbursement portion of the PACTS MPI project.
14. Payment of PACTS MPI State funds from MaineDOT will ideally be a one-time reimbursement following completion of the work. For larger projects this could be a draw of 1/3, 1/3, 1/3 or 1/2, 1/2 if needed for cash-flow reasons (this would be specified in the project-specific Cooperative Agreement).
15. Review of PACTS invoices will be made by the MaineDOT MPO Coordinator ("**MPO Coordinator**"). Upon acceptance of an invoice, the MPO Coordinator will process the invoice for payment by the Bureau of Finance and Administration directly to the Municipality with notice of said payment to the PACTS staff project manager.
16. The MPO Engineer will ensure that the project is closed out when complete and all payments have been made.

Milestones

1. January 1st-March 1st- Sub regional Project Applications Due.
2. March 1st-April 1st-PACTS staff reviews list of applications, review funding requests totals.
3. April 1st- Final request for additional applications to all PACTS members, if applicable.
4. May: -Final MPI Project List reviewed by PACTS Technical Committee: Technical Committee reviews and submits final list for Executive Committee approval if applications exceed available funding.
5. June: -Executive Committee adopts the final MPI project list. List submitted to MaineDOT for work plan inclusion.
6. July: -Policy Committee ratifies the final MPI Project list, directs staff to confirm projects with MaineDOT for inclusion in the Workplan.

Attachment C

**Request for Proposals for Technical Assistance:
Assessment of the current PACTS Regional Traffic Management System (RTMS)
communications network
Assessment of PACTS RTMS network traffic signals equipment focused on the in-cabinet and
detection equipment
January 21, 2020
RFP #----**

The Portland Area Comprehensive Transportation System (PACTS), the federally designated Metropolitan Planning Organization (MPO) for the Portland, Maine Urbanized Area, is requesting proposals from qualified consulting teams to perform an overall assessment on the current PACTS Regional Traffic Management System (RTMS) communications network, as well as identify, assess, and address traffic signal equipment currently experiencing malfunctions.

Teams may be comprised of transportation planners, traffic engineers, and other traffic signal network professionals. The primary focus of this RFP is to work toward improving the PACTS traffic signal network connectivity and efficiency.

INTRODUCTION

The PACTS RTMS program, started in 2008, has the stated goal to optimize the current roadway network through traffic signal management and to provide direct access for remote management and monitoring of the traffic signals in the PACTS region to improve mobility and capacity along major corridors.

The RTMS program objective is to provide continuity and assure that traffic pattern consistencies are maintained throughout the commuter corridor and that traffic movements occur in the most effective and efficient manner throughout RTMS corridors.

PACTS regional long-range plan, *Destination 2040*, includes an important strategy on the optimization and coordination of traffic signals. This has been and remains a high priority approach to capacity management and intends to make the most efficient and effective use of the PACTS region's signal investments in the PACTS RTMS network. PACTS adopted a RTMS Policy in December of 2010 and provided initial funding for this program led to a Phase 1 study in 2009. Phase 1 identified eight priority corridors between Portland, South Portland, Scarborough, and Westbrook. Another signal study, Phase 2, was completed in 2011 between Saco and Biddeford. In 2017, the Phase 3 signal study was undertaken. Phase 3 was divided into two separate projects based on differing needs on the Portland peninsula versus Scarborough and Gorham.

PACTS has allocated funding to undertake a system wide assessment of up to 125 traffic signals throughout the RTMS communities of Portland, South Portland, Scarborough, Westbrook, Gorham, Saco, and Biddeford that have not yet been included in the earlier assessments. These communities also have the stated goal to standardize the types of (a) signal heads, (b) signal controllers, (c) hardware and software, and (d) methods compatible with current and future software programs.

The consultant will evaluate the overall condition of the existing RTMS communication network. There have been concerns about the reliability of communications between the current PACTS RTMS server and the RTMS corridor traffic signals. Due to interrupted communications between server and signals, PACTS has had issues evaluating conditions and diagnosing issues in a timely manner. Impeded communications have also inhibited signal coordination. Conducting a system-wide assessment of the communications network enables PACTS to begin repairs and improvements.

The consultant will also perform an evaluation of the vehicle detection and in-cabinet equipment at up to 125 RTMS traffic signals. PACTS is concerned that malfunctioning equipment may be creating inefficiencies at individual intersections and negatively affect signal coordination along RTMS corridors. Malfunctioning equipment in the field also hinders traffic conditions assessment and programming adjustments.

An assessment of both, the RTMS communication network, the vehicle detection, and the in-cabinet equipment, is necessary prior to changing programming to optimize operations.

I. PROPOSALS ARE TO BE RECEIVED AT PACTS NO LATER THAN:

Date Due: March 2, 2020

Local Time: 4:30 p.m.

Proposals must be received prior to the time and date for which they are due.

Late Proposals. Any proposal, portion of a proposal, or unrequested proposal revision received at PACTS after the time and date specified on the cover page of this RFP will **not** be accepted.

II. COMMUNICATIONS IN REFERENCE TO THIS RFP

Any communication in reference to this RFP shall be in writing by fax or email and directed to the RFP Coordinator listed below. All correspondence must reference the RFP# and Project name in the subject line.

Name: Elizabeth Roberts, P.E.

Title: Transportation Engineer

Fax: 207-774-7149

E-Mail: eroberts@gpcog.org

III. REQUEST FOR CLARIFICATION/RFP AMENDMENTS

During the proposal preparation period, all requests for clarification and/or additional information must be submitted via e-mail to the RFP Coordinator referenced in Section II of this RFP by no later than 4:30 p.m. on February 5, 2020 PACTS reserves the right to answer or not answer any question received. Late requests for clarification will not be accepted. When appropriate, responses to clarification requests will be emailed to all applicants and posted online no later than close of business on February 10, 2020.

IV. PROPOSAL REQUIREMENT – SCOPE OF WORK

The scope of the work, as further described below, will consist of assessing the condition of the communications network, assessing the vehicle detection, and in-cabinet equipment at up to 125 PACTS RTMS traffic signals.

Task 1: Work Plan Development

The consultant will refine the scope of services and create a detailed schedule and an outline for methodologies to be used to complete each task, as well as identify the responsible staff member for each task.

Deliverables:

- A detailed schedule.
- A work plan with identified methodologies.

Task 2: Perform Overall Assessment of the RTMS Communication Network

The consultant will evaluate communications between the PACTS RTMS server (currently housing Streetwise) and the traffic signals along RTMS corridors. Traffic signal coordination has been

hindered by disrupted communications that may be tied to the condition of the communications network (the server, communications hardware, fiber optic communications, the signal equipment, or any other non-specified equipment within the network). At times, traffic signals are unresponsive to the PACTS server. This has limited PACTS' ability to remotely access and evaluate signal coordination. When remote access is disrupted, precious hours are wasted as a field evaluation becomes necessary. This system-wide assessment would seek to identify and record the condition of the RTMS communication network.

As part of this task, the consultant will review available materials including previous RTMS studies for the region – the Phase 1 study of 2009, the Phase 2 study of 2011, and the Phase 3 studies of 2017 and 2019. Phase 3 was divided into two separate projects – the Portland peninsula and Scarborough and Gorham. The consultant will establish whether previously recommended improvements regarding communications have been implemented and if there are issues with any upgraded signal corridors.

Upon evaluation, the consultant will generate a report that documents where (if any) disrupted communications exist and the cause of the disruption, throughout the RTMS corridors. A detailed description of the cause of disruption in the network is essential for timely and efficient repairs.

Deliverables:

- Detailed information to be included in a report (print, PDF, and editable spreadsheet format, such as Excel) of the communications network condition, to be completed as a spreadsheet and in geospatial format for the entire RTMS region.
- Included in the report, recommendations for repairs and/or improvements to the RTMS communications network.

Task 3: Perform Assessment of RTMS Traffic Signal Equipment

The consultant will evaluate in-cabinet hardware and vehicle detection equipment at up to 125 RTMS traffic signals. The types of detection equipment that the consultant will assess includes but is not limited to: in-pavement loops, microwave radar sensors, video detection equipment, omnidirectional video equipment, and thermal sensors.

Deliverables:

- Detailed information to be included in a report (print, PDF, and editable spreadsheet format, such as Excel) of the in-cabinet hardware condition, to be completed as a spreadsheet and in geospatial format.
- Detailed information to be included in a report (print, PDF, and editable spreadsheet format, such as Excel) of the vehicle detection equipment condition, to be completed as a spreadsheet and in geospatial format.
- Included in the report, recommendations for repairs and/or improvements to the in-cabinet hardware and vehicle detection equipment.

Task 4: Prepare Program for Improvements and Regular Signal Equipment Maintenance

Based on the information collected from Tasks 1-3, the consultant will establish a priority for improvements to individual signals, signal corridors, and the signal network including communications for all RTMS signals and ATMS software. The consultant will also establish a plan for regular signal equipment maintenance and assist with the selection and plan for the system wide implementation of an upgraded ATMS.

Deliverables:

- Detailed information to be included in a report (print, PDF, and editable spreadsheet format, such as Excel) of the priorities for signal and communications network improvements including ATMS software.
- Detailed information to be included in a report (print, PDF, and editable spreadsheet format, such as Excel) of the recommended plan for regular signal equipment maintenance.

Task 5: Develop a Resource for Municipalities that can Link to Traffic Signal Equipment

The consultant will develop a resource, preferably map based, that will enable RTMS municipalities and PACTS to check on the status of the components in the traffic signal cabinets. This task involves linking the traffic signals that communicate with the RTMS server to a map that will provide a real-time status update for the equipment.

Product Deliverable:

- Provide a document or map that will enable RTMS municipalities and PACTS to check on the real-time status of the components in the traffic signal cabinets.

Task 6: Respond to Municipalities' requests related to the RTMS system in their community

The chosen consultant or team must be able to promptly respond to and address problem situations with the traffic signal electronic components and detection as requested by the seven member RTMS communities. The consultant will also be expected to coordinate with municipal maintenance crews as necessary.

Product Deliverable:

- Provide a monthly report item to the RTMS Committee and PACTS of logged work and/or reactive response to incidents in the RTMS member municipalities.

V. SUBMISSION REQUIREMENTS

Submission Information: *Technical Proposals* will be accepted by mail to 970 Baxter Blvd., Portland, ME 04103 no later than 4:30 PM on March 2, 2020. Proposals should include five (5) hard copies of the technical proposal and a USB flash drive containing the proposal as a Portable Document Format (PDF).

The *Price Proposal* must be submitted in a separately sealed envelope no later than the above time. Prices shall be outlined for all required items. Each proposal will be evaluated for all criteria, and then costs will be evaluated independently after the selection is complete. **No mention of price shall be included in other sections of the proposal; otherwise that proposal shall be rejected. Consultant price proposal information will remain confidential, even after the selection process is complete.**

Proposal Package Submittal: Proposal packages must be mailed/delivered as follows:

<p align="center">Regular Mail Proposal Delivery</p>	<p align="center">Hand Carried Proposer Delivery</p>	<p align="center">Hand Carried Proposals from Federal Express/UPS Delivery</p>
<p>Address to:</p> <p>Elizabeth Roberts</p> <p>PACTS</p> <p>970 Baxter Boulevard Portland, Maine 04103</p>	<p>Address to:</p> <p>Elizabeth Roberts</p> <p>PACTS</p> <p>970 Baxter Boulevard Portland, Maine 04103</p>	<p>Address to:</p> <p>Elizabeth Roberts</p> <p>PACTS</p> <p>970 Baxter Boulevard Portland, Maine 04103</p>

Proposal Requirements: Proposals should not exceed 30 pages. The following items must be included:

1. **Summary statement:** A summary statement describing the firm, the firm’s qualifications, the firm’s understanding of the project, and their overall approach.
2. **Work plan:** An overview of approaches and methodologies proposed for accomplishing the outlined tasks and deliverables from Section 4, above.
3. **Relevant work:** A brief description of similar projects that the firm has completed, accompanied by contact information of any references for the listed projects.
4. **Resumes:** Names and description of the qualifications and experience of key staff who will perform work in the proposal, including the Project Manager.
5. **Work schedule:** A detailed project schedule proposal including itemized tasks by key staff and the percentage of each staff’s time allotted for each task (not a person’s cost).
6. **Debarment and Suspension Certification**-Read, sign, and attach the Certification Regarding Debarment, Suspension, Ineligibility, and Involuntary Exclusion (**Schedule B**) to your submission.

Price Proposals: Price proposals should consist of the following elements:

1. **Direct Labor:** Please list all employees including their classifications for the employees who are expected to perform services on this project. Please provide a breakdown of each employee's salary rate including direct labor, indirect labor, and profit. Please show all calculations in detail and include payroll records supporting these rates.
2. **Indirect Labor (Overhead):** Please provide a copy of your latest audited corporate overhead rate report with supporting documentation.
3. **Profit:** The percentage of profits based on criteria specific to a project including, degree of risk, relative difficulty of work, size of job, etc.
4. **Direct Expenses:** Please provide a breakdown of direct expenses, including mileage, lodging, photocopying costs, etc. anticipated for this project. Direct expenses shall be reimbursed at cost, and travel expenses shall be reimbursed in accordance with the current per diem/mileage rates located at <https://www.maine.gov/osc/travel> and <https://www.gsa.gov/travel/plan-book/per-diem-rates>
5. **Subcontractors:** Please identify each task to be subcontracted. List the selected subcontractor's name, location, amount proposed and type of contract. Describe the cost or price estimates for each subcontract. Please note that there is no markup allowed on subcontractor costs. Firms are encouraged to use certified Disadvantaged Business Enterprise (DBE) firms as sub-consultants. Current DBE requirements may be found at the MaineDOT website, "Certified Disadvantaged and Women Business Enterprise" directory available at: <http://www.maine.gov/MaineDOT/disadvantaged-business-enterprises/dbe-home.php>

VI. SELECTION PROCESS

This is a Qualifications Based Selection (QBS) process, and therefore Technical Proposals alone will be used to select the successful proposer. The PACTS Selection Committee will consist of GPCOG and PACTS staff, representatives from the PACTS RTMS Committee, and possibly MaineDOT staff.

The Selection Committee will be looking for a consulting team with a technical background and expertise, as well as the ability to communicate complex material in understandable terms.

Selection Criteria: Proposals will be scored based on a possible total of 100 points. The following criteria will be used:

(1) Firms qualification(s)*	Prerequisite
(2) Experience and skills of Staff and Consultants	15 points
(3) Feasibility and soundness of project schedule	25 points

- (4) Quality and appropriateness of approach/methodology 25 points
- (5) Relevant previous experience 20 points
- (6) References 15 points

*Note: The selected firm or team must demonstrate that they have sufficient and appropriately qualified staff to complete the project.

Following the evaluation, the PACTS Selection Committee may decide to conduct interviews with any or all candidate firms. Once the successful proposer has been selected, the government estimate will be compared against the successful proposer's Price Proposal and contract negotiations will begin. If an agreement cannot be reached with the selected firm, PACTS will negotiate with the next highest rated firm. Once a contract is executed, the consultant will be instructed to commence work on the project.

Attachment D

New Coordination Plans: Westbrook, William Clarke Signal Corridor

All,

Last week we successfully implemented new coordination plans for the William Clarke Signal Corridor in Westbrook.

The proposed timing plans for the William Clarke Corridor are based on the following:

- 2019 Weekday Traffic volumes collected from the counting detectors located at all the intersections except for the New Gorham Rd/Main St and Saco St intersections. The design hour was chosen statistically from the collected traffic volumes.
- Traffic volumes at the New Gorham Rd/Main St and Saco St intersections were based on old historic traffic counts and were scaled to match the traffic observed at the Mechanic St intersection.
- Daily observations from daily driving the corridor during the AM and PM peak hours.

The Proposed AM Coordination Plans were designed to increase the capacity through the New Gorham Rd and Mechanic St intersections, accounting for the significant amount of westbound right turning traffic at Saco St, and to provide a full eastbound end of green progression band from Mechanic St through Stroudwater St. In summary, if you are traveling eastbound through Mechanic St then you should be able to travel all the way through the corridor without stopping at a red signal for longer than a few seconds. A westbound band was also established, which will allow for a 30 second window of traffic to travel from the Westbrook Arterial all the way through the New Gorham Rd/Main St intersection.

The Proposed Midday Coordination Plans minimize the cycle length for better side street and minor movement responsiveness and then maximizes the green bands in both directions.

The Proposed PM Coordination Plans will now coordinate the New Gorham Rd/Main St and Saco St intersections which should have a significant improvement to the westbound flow through the Mechanic St intersection to the New Gorham Rd/Main St intersection. The choke caused by the single westbound travel lane and single traffic controller at the New Gorham Rd/ Main St and Saco St intersections can not be solved by timing changes alone. However these proposed timings attempt to best utilize the capacity of the single travel lane and are designed to keep the westbound queue at Mechanic St reasonable. Additionally, an eastbound band was also established allowing for coordinated progression in that direction also.

For all the intersections, the red, yellow, and pedestrian clearance intervals were updated to current standards.

There was also a change in the order of when the William Clarke Dr left turns are serviced. Today, most of the mainline left turns are serviced before the thru phases. The proposed timings will be servicing one of the left turns before the through phases and one of the left turns after the thru phases at the majority of the intersections. This change allows for a greater directional green time for the William

Clarke Dr approaches and is required to establish effective green bands in both directions. The intersections of Spring St and Stroudwater St see the most benefit from this change.

While implementing the timings we observed the following maintenance issues.

- The traffic signal controllers are older Naztec TS2 controllers and are showing signs of memory corruption: the screens are displaying random characters, it appears that the controllers were not acknowledging changes received from the Streetwise Server (particularly the advanced scheduler), and the internal clocks are drifting significantly from the server time every day (the server is set to download its time to the controllers every morning). We have seen the same issues with other similar aged Naztec controllers and the issue can be corrected by updating/replacing the memory.
- The radio connection between Mechanic St. and Saco St. is offline. As such the controller located at Saco St is not connected to the server and is not receiving clock updates from the server. Interestingly, this intersection is not showing the same signs of memory corruption. However as the clocks for the rest of the system are drifting, Saco St will slowly get out of sync of the rest of the corridor resulting in poor coordination over time. As the capacity between Mechanic St and Saco St is heavily dependent on proper coordination (especially in the PM peak hour), it is recommended that reestablishing communications to the Saco St. controller should be a priority.

Please let me know if there are any questions or if you need anything further in this regard.

Thanks,
Curtis

Curtis Thompson, PE *Transportation Engineer*