

Memorandum for the Record

Boston Region Metropolitan Planning Organization Meeting

June 4, 2015 Meeting

10:00 AM – 12:55 PM, Acton Town Hall, 472 Main Street, Room 204, Acton, MA

David Mohler, Chair, representing Stephanie Pollack, Secretary and Chief Executive Officer, Massachusetts Department of Transportation (MassDOT)

Decisions

The Boston Region Metropolitan Planning Organization (MPO) agreed to the following:

- approve the following work programs:
 - *MassDOT Highway Division On-Call Modeling Support*
 - *MBTA 2015-16 Systemwide Passenger Survey*
 - *Household-Survey-Based Travel Profiles and Trends: Selected Policy Topics*
- release the revised Draft Amendment Three to the federal fiscal years (FFYs) 2015-18 Transportation Improvement Program (TIP) – which programs funding for the MBTA's Winter Resiliency Program – for an abbreviated public review period

Meeting Agenda

1. Public Comments

Roland Bartl, Town of Acton, provided an update on three projects in Acton. He reported that a contract has been awarded for the *Bruce Freeman Rail Trail* project. A groundbreaking ceremony will be scheduled for June or July. Also, plans for the *Assabet River Rail Trail* project are expected to be finalized by August, and the project will be ready for construction in FFY 2016. In addition, conceptual plans for a project to improve the intersection at Kelley's Corner were on display at the meeting location. This project is scheduled to go before MassDOT's Project Review Committee on June 25.

2. Chair's Report—*David Mohler, MassDOT*

There was none.

3. Committee Chairs' Reports

Paul Regan, Chair of the MPO's Administration and Finance Committee, reminded members that the Committee will meet today following this MPO meeting.

4. Regional Transportation Advisory Council Report—*Mike Gowing, Chair, Advisory Council*

M. Gowing reported that the Advisory Council will be submitting a comment letter about the MPO's certification documents – the Long-Range Transportation Plan (LRTP), Transportation Improvement Program (TIP), and Unified Planning Work Program (UPWP) to the MPO on June 11.

5. Executive Director's Report—*Karl Quackenbush, Executive Director, Central Transportation Planning Staff (CTPS)*

K. Quackenbush reported that staff will present an additional action item at today's meeting and ask members to approve the release of a revision to the Draft Amendment Three to the FFYs 2015-18 TIP for public review.

He also recognized Pam Wolfe, Manager of Certification Activities at CTPS, who is retiring. Members applauded her for her service.

6. Welcome from Host Municipality—*Mike Gowing; Doug Halley, CrossTown Connect; and Steve LeDoux, Acton Town Manager*

M. Gowing, D. Halley, and S. LeDoux welcomed members and attendees to Acton.

M. Gowing began by providing an overview of the town noting, among other things, that the town is a "green community," and home to Miracle League Field, which provides an opportunity for children with disabilities to play baseball. Regarding Acton's transportation options, he noted that work is ongoing on the new South Acton commuter rail station, and that the town has a relatively new transportation management association (TMA), CrossTown Connect.

D. Halley provided details about transportation services in Acton and discussed the town's strong commitment to providing transportation for all – including people with special needs, seniors, commuters to Boston, and reverse commuters.

Acton operates several shuttle services for its residents: a shuttle to rail transit for commuters; door-to-door service on Council on Aging vans for seniors; Roadrunner service for seniors, people with disabilities, and general public; and a dial-a-ride service for all residents. The town also offers transit to grocery stores; this service is used by the town's non-English speaking Chinese community. In September, the town will offer a fixed-route shuttle service that will connect commuters to the train station in the morning and evening and provide residents access to local business at other times.

Also CrossTown Connect operates in Acton and four other communities. Five businesses are participating in this TMA. Its central dispatch service has improved

residents' ability to book rides and, as such, ridership has increased and cancelations have decreased.

As next steps, the town is working with MassDOT, the Lowell Regional Transit Authority, and the Montachusets Regional Transit Authority to coordinate Council on Aging van services to destinations such as Emerson Hospital. Also, the town has adopted a Complete Streets policy and plans to put in bicycle lanes to connect the train station to the Bruce Freeman Rail Trail.

D. Halley expressed appreciation for investments that the MPO has made to the town's transportation network and for MAPC's efforts to define Acton's transportation issues and to help plan handicap-accessible trails. He asked that the MBTA provide earlier train service to Acton to enable commuters to make their transit connections.

S. LeDoux then recognized the work of Franny Osman, Acton Selectman, who provided the impetus for starting Acton's shuttle services. He also noted that the Acton town meeting voted to create a new position for a Land Use Director. This position will consolidate various land use function, including planning, zoning, building, health, conservation, and economic development.

7. Work Programs—Karl Quackenbush, Executive Director, CTPS

K. Quackenbush introduced three new work programs, detailed below, which members discussed and voted to approve.

MassDOT Highway Division On-Call Modeling Support

The work program for *MassDOT Highway Division On-Call Modeling Support* will produce an on-call contract that can be used when MassDOT contracts with CTPS for travel forecast services. Over the past few years, the two agencies have contracted on a variety of single-purpose contracts. An on-call contract will streamline the administrative process. It will be effective for three years.

A motion to approve the work program for *MassDOT Highway Division On-Call Modeling Support* was made by the MBTA Advisory Board (Paul Regan), and seconded by the Metropolitan Area Planning Council (MAPC) (Eric Bourassa). The motion carried.

MBTA 2015-16 Systemwide Passenger Survey

Through the work program for the *MBTA 2015-16 Systemwide Passenger Survey*, CTPS will assist the MBTA in conducting a new systemwide survey over a 20-month period. The survey will gather data on MBTA customer characteristics and trip characteristics and yield statistically valid results.

The MBTA is required by the Federal Transit Administration (FTA) to conduct a systemwide survey every five years. The last comprehensive survey was conducted in 2008-09. The new survey will differ from previous ones in that it is designed to be primarily an online survey. Traditional paper surveys will only be distributed on transit services for which there are an insufficient number of online survey responses.

The survey will elicit information on the respondents' demographic characteristics such as gender, racial identity, language, and income. (These characteristics are required for Title VI reporting requirements.) It will also gather information on trip characteristics such as respondents' origins and destinations and means of accessing transit. The survey will also elicit customers' perception of quality of service. The survey will be available in multiple languages and accessible formats.

Tasks in the work program include the following: designing the survey forms for each of eight service categories (i.e. for each subway line, bus, commuter rail, and commuter ferry); creating a database using Qualtrics software; developing and implementing a survey marketing plan and launching the online survey; developing a sampling plan and distribution schedule for paper surveys; distributing paper surveys; editing the data; developing expansion factors to achieve statistical validity at appropriate levels of aggregation; interpreting and analyzing the data; and preparing final reports.

This project will be funded by the MBTA.

A motion to approve the work program for the *MBTA 2015-16 Systemwide Passenger Survey* was made by the MBTA Advisory Board (P. Regan), and seconded by MAPC (E. Bourassa).

Members discussed the work program.

P. Regan inquired about the sample size needed to make the survey statistically valid. K. Quackenbush replied that there are target sample sizes for each of the eight services.

Dennis Crowley, South West Advisory Planning Committee (Town of Medway), asked if any analysis would be conducted relative to prior surveys. K. Quackenbush replied yes, and noted that, to the extent possible, the questions will be comparable to previous surveys so that the results can be compared.

Christine Stickney, South Shore Coalition (Town of Braintree), asked whether the survey would gather data about how people are accessing commuter rail stations. K. Quackenbush replied yes. The "access mode" and "egress mode" questions elicit

information about the specific means of access or egress from a station (i.e. by driving and parking, getting dropped off from an auto, walking, biking, or transferring from another transit line).

C. Stickney inquired about the duration of the survey effort. K. Quackenbush replied that this will be a 20-month effort. The online survey will be available for about 17 months and the paper surveys will be released at intervals during that time.

C. Stickney asked if the results of the survey would be available to municipalities.

D. Mohler confirmed that this data will be publicly available.

Richard Reed, Minuteman Advisory Group on Interlocal Coordination (Town of Bedford), inquired about the time of year that the paper surveys would be distributed. He raised the point that there is the potential to get very different responses regarding customer satisfaction at different times of the year. K. Quackenbush replied that the sampling plan has not yet been developed, but that generally surveys are conducted in fall, winter, and spring, unless there is a specific reason for conducting them in the summer. D. Mohler noted that the work program indicates that there will be a gap in paper sampling during the summer and winter holiday period.

D. Mohler asked whether, if this survey were conducted last year, the surveys would have captured responses that reflected the winter breakdown of the transit system.

K. Quackenbush replied yes and noted that those responses also may have been captured in surveys that the commuter rail operator, Keolis, is required to conduct.

Dennis Giombetti, MetroWest Regional Collaborative (Town of Framingham), suggested that the value of the survey may be less in identifying the big, dramatic problems, since these are obvious, but more in identifying the smaller, subtle problems that may be more seasonal in nature.

Jessica Strunkin, 495/MetroWest Partnership, inquired about how CTPS would coordinate with Keolis during this process. She encouraged CTPS to use groups such as the 495/MetroWest Partnership for outreach. She also asked how CTPS would prevent individuals from responding to the survey more than once. In response to the first question, K. Quackenbush stated that the MBTA will be running the survey and that, as in the past, there will be coordination across departments. In response to the second question, he noted that it would not be possible to fully guard against the possibility of a person responding more than once, however, experience has shown that the larger challenge is to encourage people to fill out the surveys in the first place. He did note, however, that staff can control for multiple responses with the paper surveys

since each has a unique identifier. To some extent duplicates can be guarded against on the online survey because the IP addresses of the respondents will be known.

Rafael Mares, Conservation Law Foundation, remarked that paratransit service is not reflected in the work program and he suggested that the MBTA consider including paratransit in the survey.

R. Mares asked if the MBTA will have access to the survey data while the survey is ongoing to use for transit service planning. K. Quackenbush replied that the plan is for that to happen.

R. Mares inquired if the survey will ask whether the customer is a student, and if so, what type of a student. He noted that this data could be useful to the MBTA as it currently has a Youth Pass pilot program underway. He urged staff to include that question. Elizabeth Moore, Director of Policy and Planning, CTPS, explained that some of this data could be inferred from a question about trip purpose. She also noted that CTPS and the MBTA have been involved in an initiative to standardize survey questions so that results could be compared over time.

Steve Olanoff, Three Rivers Interlocal Council, suggested that the staff who distribute the survey to riders also gather data on fare evasion and other such information. K. Quackenbush replied that, in most cases, the surveyors will be fully occupied in handing out surveys. He explained that the MBTA's automated data collection technologies will be able to provide passenger count data for many transit modes. Staff may do limited counting on modes such as the commuter rail where this technology is not in use.

Franny Osman, Acton Selectmen, asked how unmet transportation needs would be measured (i.e. this effort will be surveying transit riders only, but not non-transit users). K. Quackenbush explained that such data has been captured in other survey efforts, such as the Household Travel Survey. He discussed the purpose of each type of survey; whereas the on-board travel survey gathers information about the travel behavior of individual transit riders, the Household Travel Survey gathers information at the household level and is used to build travel models. F. Osman encouraged staff to find if there are gaps in the data collection efforts. She also suggested that a broader population might be reached through the Registry of Motor Vehicles; brief surveys could be provided to people who are renewing their licenses and registrations, for example. E. Moore added that, when the MBTA prepares its service plan, there will be outreach efforts that will gather more information about unmet needs.

M. Gowing suggested that paratransit data could be collected by having vehicle drivers hand out surveys to their passengers.

Members then voted on the motion to approve the work program for the *MBTA 2015-16 Systemwide Passenger Survey*. The motion carried.

Household-Survey-Based Travel Profiles and Trends: Selected Policy Topics

The work program for the *Household-Survey-Based Travel Profiles and Trends: Selected Policy Topics* project will plumb data gathered from the Household Travel Survey, which was conducted in 2010-11, and create profiles of trip behaviors of people in the various regions of Massachusetts and subregions.

This Household Travel Survey was designed to produce statistically reliable information on characteristics and trip behaviors of people in households in Massachusetts. The information from the survey is used primarily for building travel models. A secondary purpose is to provide information for policymakers, planners, and others.

This work program represents a second phase of an effort to provide profiles of specific topics of interest. The first phase provided profiles of “journey to work” trips in the Boston Region. This second phase will expand on the first phase to profile both work trips and non-work related trips. It will also include profiles for other regions of Massachusetts and breakdowns of data by subregion.

This project is 3C-funded.

A motion to approve the work program for the *Household-Survey-Based Travel Profiles and Trends: Selected Policy Topics* project was made by the MassDOT Highway Division (John Romano), and seconded by MAPC (E. Bourassa). The motion carried.

8. Amendment to Transportation Improvement Plan—*Pam Wolfe, Manager of Certification Activities, MPO Staff*

P. Wolfe presented members with a proposed revision to the Draft Amendment Three to the FFYs 2015-18 TIP. Draft Amendment Three is currently available for public review. The incorporation of this revision would require the MPO to hold a shortened public-review period in order that the MPO can vote on Amendment Three on June 11 as previously scheduled.

This revision would accommodate a request from the MBTA to program approximately \$63.1 million of federal Section 5337 funds for the MBTA’s Winter Resiliency Program. The MBTA is requesting that the MPO expedite the programming of these funds so that the MBTA can begin implementing the Winter Resiliency Program.

During a discussion of this proposal, P. Regan asked whether the Winter Resiliency Program is the same program that is included in the MBTA's FY 2016 budget. Benjamin Bloomenthal, MBTA, replied yes, and explained that the intent of the program is to strengthen the MBTA system in advance of next winter. The program is a priority of the Governor. D. Mohler added that MassDOT and the MBTA are asking for the MPO's early action and an abbreviated public-review process because of the lead time required to purchase the equipment, which must be in place by next winter.

P. Regan asked for details about the equipment that will be purchased. B. Bloomenthal replied that the equipment would include third rail heater upgrades, third rail replacements, snow fences, power upgrades, and emergency generators. These items were identified by the MBTA's operations group as top priorities for staving off the problems that occurred this past winter.

P. Regan inquired about what projects will be taken off the table in order to fund the Winter Resiliency Program. B. Bloomenthal explained that funding would be reallocated from projects that would make improvements to parking systems at station garages, and projects that would improve stations and facilities, such as elevator and escalator projects.

Michael Chong, Federal Highway Administration (FHWA), inquired about staff's plans to notify the public about the revision to Amendment Three. P. Wolfe replied that staff will distribute a notice on MPOinfo, the MPO's email list serve.

D. Giombetti requested that the MBTA provide a brief presentation on the Winter Resiliency Program and discuss what projects will not be funded as a result of it, prior to the MPO's scheduled vote on Amendment Three.

A motion to release the revised Draft Amendment Three to the FFYs 2015-18 TIP – which programs funding for the MBTA's Winter Resiliency Program – for an abbreviated public review period was made by the MetroWest Regional Collaborative (Town of Framingham) (D. Giombetti), and seconded by the Advisory Council (M. Gowing). The motion carried.

9. Long-Range Transportation Plan—*Scott Peterson, Director of Technical Services, and Anne McGahan, MPO Staff*

S. Peterson and A. McGahan provided updates on the Long-Range Transportation Plan (LRTP), *Charting Progress to 2040*.

Modeling Results for the Recommended Projects in the Draft LRTP

S. Peterson gave a presentation on the results of an analysis that modeled a set of projects and programs selected by the MPO for consideration for the LRTP.

He began by giving an overview of the categories in which the selected projects and programs fall. Those categories are: Major Infrastructure, Complete Streets, Intersections Improvements, Bicycle Network and Pedestrian Connections, Community Transportation and Parking, and Flex to Transit.

The modelling exercise used 2012 as the base year and 2040 as the forecast year. Two scenarios were modeled: 1) the no-build scenario, which represents the existing transportation system as well as projects currently under construction or out to bid; and 2) the build scenario, which incorporates the selected set of projects and programs.

Performance measures were used to compare the results of the two scenarios. The differences between them are subtle at the regional level, but more apparent at the local and project level. Transit was not a focus of this analysis.

Compared to the base year, mode share in 2040 was found to change with a reduction in single-occupant-vehicle trips (82% in 2012 to 79% in 2040) and slight increases in the walking and bicycling mode (13% to 15%), and transit modes (5% to 6%).

Regarding transit usage, ridership on local buses is projected to increase as a result of changing land uses and new services. Express bus ridership is not projected to change significantly. Bus rapid transit ridership is expected to spike because of the Silver Line to Chelsea and land use development patterns in South Boston waterfront area. Rapid transit ridership is expected to spike because of the *Green Line Extension* project. Commuter rail usage is expected to increase slightly due to new Park & Ride facilities. No significant change to ferry ridership was projected.

Other performance measures evaluated include vehicle miles travelled (VMT) and vehicle hours travelled (VHT). In the build scenario, compared to the no-build, auto and truck VMT was shown to reduce slightly because of projects in the Major Infrastructure, Complete Streets, and Intersections Improvements programs. VHT were also reduced, particularly in locations with significant truck traffic where there are proposed projects such as the *Reconstruction and Widening on Route 18 (Weymouth)*, the *Middlesex Turnpike Improvements, Phase 3 (Bedford, Billerica and Burlington)*, and the *New Boston Street Bridge Replacement (Woburn)*. (A truck is defined as a vehicle with more than three axles.)

An economic analysis, which quantified the cost savings from reducing VMT, found that the accumulated savings by 2040 would amount to over \$40 million in 2015 dollars. The build scenario would create an estimated 150 permanent jobs and 350 construction jobs by 2030.

For the air quality analysis, staff used the new emissions software, MOVES 2014, which was developed by the US Environmental Protection Agency. A number of pollutants were examined including volatile organic compounds (VOC), nitrogen oxide (NO_x), and carbon monoxide (CO). The analysis assumed that in the future there will be efficiency requirements and new technologies for vehicles that will reduce emissions.

A transportation equity analysis compared average travel times for people who reside in targeted minority and low-income communities to those who reside elsewhere. The analysis also examined whether there are disparate impacts between the build and no-build scenarios for a number of measures of mobility, air quality, and accessibility. The differences between the build and no-build scenarios appeared to be negligible.

The analysis also resulted in estimates of the potential impacts of the set of projects and programs based on goals for the LRTP and a number of performance measures (for example, number of bridges improved, number of miles of substandard pavement improved, crash locations addressed, etc.).

Discussion

D. Mohler noted that it appears as if the analysis is showing that factors outside of the MPO's control – such as policy changes, federal emissions standards, and cleaner vehicle technologies – will have the most impact in terms of reducing vehicle emissions and that changes in project selection will have fewer impacts. S. Peterson confirmed that that is true for this analysis. He noted, however, that for the air quality conformity analysis, staff did not have information to use about specific projects in some program categories. This analysis included only projects in the Major Infrastructure program.

Noting that one of the investment categories in the analysis was Complete Streets, D. Crowley asked whether municipalities that have not opted into the Complete Streets program would be at a disadvantage for receiving funding. He said that some elements of Complete Streets projects are costly for rural and suburban communities to implement. D. Mohler replied that any roadway project designed by MassDOT that receives federal funding in the Commonwealth will be designed to a Complete Streets standard, unless the project gets a design waiver. While the MPO's policy is to invest in Complete Streets as a specific program, the Commonwealth's policy does not preclude the MPO from investing in a non-Complete Streets project. The Complete Streets

Program created by the state legislature that will be implemented by MassDOT and that will provide funding for municipalities to implement Complete Streets projects. A municipality does not need to be eligible for this state program in order to compete for federal funding through the TIP.

L. Dantas observed that the results of the analysis show no significant difference between the build and the no-build scenarios, which indicates that the set of projects and programs analyzed will not result in any significant change in travel behavior.

S. Peterson remarked that many of the major infrastructure projects analyzed are making existing corridors work better and, because of the significant congestion in the region, there is not a significant net gain seen on the performance measures. He also noted that the same land use was assumed for both the build and the no-build scenarios. Future scenario planning, using different land uses could produce different results.

L. Dantas expressed concern that the set of projects and programs selected for the LRTP are not meeting the MPO's goals and objectives. He suggested that the MPO revisit the LRTP to determine if there are ways to influence mode shift, VMT, air quality, and other performance measures. K. Quackenbush discussed how the model results show tendencies and that these results are showing no negative effects on performance measures. While the results do not show significant regional benefits, there may be local benefits from the projects that are not captured in the model.

Jay Monty, At-Large City of Everett, noted that the economic benefits measured in the analysis related to travel time saved, but did not include an estimate of the economic generation that would result from implementing projects. He suggested that the latter would be a useful indicator, and suggested examining the return on investment by type of project. S. Peterson noted that staff has tools to do a more detailed economic analysis to determine what sectors of the economy would benefit, but other tools would be needed to do finer grained analysis at the project level.

E. Bourassa asked if staff will conduct another modeling run that will include the MBTA's transit projects and MassDOT's highway projects (projects that are not funded by the MPO's target funds). S. Peterson replied that maintenance and preservation projects are difficult to model, but that the model could show the impact of bridge projects in cases where bridges are closed due to structural deficiencies.

In response to a question from D. Mohler, S. Peterson confirmed that the analysis of program investments was conducted off-model and that averages were used to

estimate impact (for example, average numbers of Park & Ride spaces were used rather than spaces at specific locations).

Tom Kadzis, City of Boston, inquired about staff's plans for conducting more modeling. S. Peterson replied that staff will not conduct any more modeling for this LRTP, but that staff may conduct more scenario planning going forward. A. McGahan added that staff would only do more modeling for the LRTP if there are changes to the project set as a result of public comments.

Tom Bent, Inner Core Committee (City of Somerville), asked why staff did not consider the future MBTA station at Route 16 – the last station that would be built from the *Green Line Extension to Route 16* project – a regional project considering that it will affect a number of communities. S. Peterson replied that in the modeling, staff separated that station from the portion of the *Green Line Extension* project that is funded by federal New Starts monies. There would not be a Park & Ride facility at the station (limiting its regional impact). T. Bent asked if the considerable bicycle access to the station was factored in to the analysis. S. Peterson noted that the model reflects that mode of access, but that the results did not show a significant spike in bicycle usage at that station.

L. Dantas inquired about the sensitivity of the model to test changes in travel behavior resulting from changes in the frequency of transit service. S. Peterson confirmed that the model is sensitive to changes in the frequency of transit service.

Ken Miller, FHWA, suggested that staff show the differences between the base-year and the future year projections in the LRTP, in addition to the differences between the build and no-build scenarios.

Update on Other LRTP Matters

A. McGahan gave an update on the progress of developing the chapters for the LRTP. Chapter 5, *The Recommended Plan*, was distributed today. Other chapters will be posted on the MPO's website as soon as possible for members to review.

The MPO is scheduled to vote on June 11 to release the LRTP for public review. The public review period would begin on June 22.

10. Pedestrian Signal Phasing Study—Seth Asante, MPO Staff

K. Quackenbush introduced the report on the *Pedestrian Signal Phasing Study*. This study began last year. It was funded with \$30,000 of MPO funds.

S. Asante gave a presentation about the study, which examined two types of pedestrian signal phasing – exclusive and concurrent – and determined under which conditions each type of phasing is appropriate. Staff conducted a literature review and surveyed municipalities as part of this study.

Exclusive phasing allows pedestrians to cross an intersection in all directions while vehicular traffic is stopped. This type of phasing eliminates conflicts between pedestrians and traffic, but it requires longer wait times for pedestrians and delays vehicles. Concurrent phasing allows pedestrians to cross simultaneously with parallel traffic. This type of phasing requires more judgement on the part of the pedestrian and can put pedestrians in conflict with turning vehicles, however, it results in fewer delays.

Exclusive phasing is applied at signalized intersections with high pedestrian volumes (more than 1,200 per day), more than 250 turning vehicles per hour, poor sight distance, crosswalks longer than 55 feet, or where there are high concentrations of elders or young people. Concurrent phasing is applied at intersections with lower pedestrian volumes (less than 1,200 per day), less than 250 turning vehicles per hour, good sight distance, shorter crosswalks, and lower concentrations of elders or young people.

Staff conducted a survey of municipalities to gather data regarding their pedestrian signal phasing practices. Fourteen of the 35 municipalities contacted responded. Many of the municipalities surveyed do not have a written policy regarding pedestrian signal phasing. Most determine the type of phasing to apply on a case-by-case basis.

The respondents reported that they consider intersections candidates for exclusive phasing when there are many pedestrian and vehicle conflicts, poor sight distance, and high pedestrian volumes. The most influential factors contributing to decisions to implement concurrent phasing are the need to minimize motorist delay and reduce traffic queues in locations with good sight distance. Factors that drive municipalities to change phasing include complaints from residents, safety recommendations based on safety and operations data, and recommendations from traffic engineers and planners.

The recommendations from this study include the following:

- Create a regional policy to provide support for municipalities to adopt a local policy regarding pedestrian signal phasing. This would provide for uniform and consistent practices.
- Educate drivers to reduce driver confusion and reduce pedestrian and vehicle conflicts. An education campaign would require cooperation between MassDOT, the Registry of Motor Vehicles, and municipalities.

- Develop warrants for justifying the selection of particular pedestrian signal phasing.
- Improve safety through the use of technologies such as dynamic signs, pedestrian sensors, leading pedestrian interval (LPI) signalization, accessible pedestrian signals, and countdown timers.

Discussion

M. Gowing asked whether the study addressed conflicts from vehicles turning right-on-red. S. Asante explained that part of developing a warrant would determine the thresholds for the number of vehicles making right-on-red turns.

John Romano, MassDOT Highway Division, raised the issue that conflicts between vehicles and pedestrians often occur at concurrent signals because people are not educated about this type of signal phasing (i.e. pedestrians believe they have the right-of-way when then walk signal is on, while motorists don't know that they must yield to the pedestrian when turning). S. Asante then discussed the advantages of LPI to help address this situation. LPI gives pedestrians several seconds head start before the vehicle-turning phase activates.

Richard Canale, At-Large Town of Lexington, raised the idea of having a study that examines crash rates at intersections by signalization mode. S. Asante replied that a large number of intersections would need to be studied to produce a valid conclusion.

Tom O'Rourke, Three Rivers Interlocal Council (Town of Norwood/Neponset Valley Chamber of Commerce), inquired about the next steps for implementing the recommendation to develop a regional policy and he expressed interest in seeing the study recommendations implemented. S. Asante noted that there is not currently a process for developing the policy. He remarked on the benefits of a regional policy for helping to create consistent use of phasing types over a broad area. Concurrent phasing is only implemented in certain areas now. If it was more broadly implemented, pedestrians and motorists would have an opportunity to get used to it and conflicts could be reduced.

Richard Reed, Minuteman Advisory Group on Interlocal Coordination (Town of Bedford), suggested that MassDOT could have a role in creating a consistent policy across the state considering that the agency has responsibility for permitting signals. D. Mohler replied that it would be appropriate for the MPO to recommend that MPO staff discuss this issue with MassDOT Highway staff. Constance Raphael, MassDOT District 4, noted that not all signals are permitted by MassDOT. Signals on municipally owned roads are not permitted by MassDOT.

D. Koses remarked that exclusive signal phasing is used more widely in New England than in other parts of the country. S. Asante noted that this study did not investigate why this is the case, however, he stated that concurrent phasing is used where there are high volumes of traffic and pedestrian movements.

Laura Wiener, At-Large Town of Arlington, stated that the most important recommendation from the study is to develop a warrant for use in determining when particular phasing types are warranted.

R. Canale suggested that it would be useful to develop symbology that could be used at intersections to indicate what type of phasing is employed.

11. Members Items

There were none.

12. Adjourn

A motion to adjourn was made by the MassDOT Highway Division (J. Romano), and seconded by the Massachusetts Port Authority (L. Dantas). The motion carried.

Attendance

Members

Representatives and Alternates

At-Large City (City of Everett)	Jay Monty
At-Large City (City of Newton)	David Koses
At-Large Town (Town of Arlington)	Laura Wiener
At-Large Town (Town of Lexington)	Richard Canale
City of Boston (Boston Transportation Department)	Tom Kadzis
Federal Highway Administration	Michael Chong
Inner Core Committee (City of Somerville)	Tom Bent
Massachusetts Department of Transportation	David Mohler
	John Romano
Massachusetts Port Authority	Lourenço Dantas
MBTA	Benjamin Bloomenthal
MBTA Advisory Board	Paul Regan
Metropolitan Area Planning Council	Eric Bourassa
MetroWest Regional Collaborative (Town of Framingham)	Dennis Giombetti
Minuteman Advisory Group on Interlocal Coordination (Town of Bedford)	Richard Reed
North Shore Task Force	Aaron Clausen
North Suburban Planning Council (City of Woburn)	Tina Cassidy
Regional Transportation Advisory Council	Mike Gowing
South Shore Coalition (Town of Braintree)	Christine Stickney
South West Advisory Planning Committee (Town of Medway)	Dennis Crowley
Three Rivers Interlocal Council (Town of Norwood/Neponset Valley Chamber of Commerce)	Tom O'Rourke

Other Attendees	Affiliation
Janet Adachi	Acton Board of Selectmen
Roland Bartl	Town of Acton
Ashley Basta	Conservation Law Foundation
Peter Berry	Acton Board of Selectmen
Sarah Bradbury	MassDOT District 3
Brenda Gowing	Acton resident
Kristen Guichard	Town of Acton
Doug Halley	CrossTown Connect
Rafael Mares	Conservation Law Foundation
Steve Olanoff	Three Rivers Interlocal Council
Franny Osman	Acton Board of Selectmen
Constance Raphael	MassDOT District 4
Jessica Strunkin	495/MetroWest Partnership
Scott Zadakis	CrossTown Connect

MPO Staff/Central Transportation Planning Staff

Karl Quackenbush, Executive Director
Robin Mannion, Deputy Executive Director

David Fargen
Hiral Gandhi
Maureen Kelly
Anne McGahan
Elizabeth Moore
Pam Wolfe
