

Draft Memorandum for the Record

Transportation Planning and Programming Committee of the Boston Region Metropolitan Planning Organization (MPO)

May 7, 2009 Meeting

10:00 AM –12:20 PM, State Transportation Building, Conference Rooms 2 and 3, 10
Park Plaza, Boston

David Mohler, Chair, representing James Aloisi, Executive Office of Transportation &
Public Works (EOT)

Decisions

The Transportation Planning and Programming Committee voted to take the following
actions:

- accept and release the *Regionwide Suburban Transit Opportunities Study, Phase III*

Meeting Agenda

1. Public Comments

There were none.

2. Chair's Report – David Mohler, EOT

Due to the state's fiscal crisis, EOT and other agencies are laying off staff. The
representatives to this committee from the Massachusetts Turnpike Authority – Shirin
Karanfiloglu and Stephen Hines – were among those laid off. Alan LeBovidge, Executive
Director of the Turnpike Authority, has resigned. Transportation Undersecretary Jeffery
Mullen is now the Acting Executive Director of the Authority.

At a future meeting, there will be a presentation on the bus rapid transit project currently
being proposed by Governor Patrick and the City of Boston that would enhance MBTA
bus route 28 and provide direct service from Dudley to South Station. In response to a

question from Jim Gallagher, Metropolitan Area Planning Council (MAPC), D. Mohler reported that EOT will bring a presentation on this project to the next meeting. This project would be a candidate for American Recovery and Reinvestment Act (ARRA) funding.

3. Subcommittee Chairs' Reports –*Stephen Woelfel, MassHighway, and Jim Gallagher, MAPC*

A joint meeting of the Administration & Finance Subcommittee and the Unified Planning Work Program Subcommittee will convene at 1 PM today.

The Suburban Mobility/Transportation Demand Management (TDM) Subcommittee will meet on May 19.

4. Regional Transportation Advisory Council – *Malek Al-Khatib, Regional Transportation Advisory Council*

The Advisory Council is working on expanding its membership and is interested in receiving more feedback from its members on how to increase participation..

5. Director's Report – *Arnie Soolman, Director, Central Transportation Planning Staff (CTPS)*

On May 4, MPO staff hosted a meeting with professors and students from the University of Biejing who were interested in learning about the MPO process in the United States. MPO staff informed the guests about the MPO processes and the content and development of the certification documents. The Chinese guests informed the MPO staff that strategy for dealing with air quality and congestion issues in China is currently not well coordinated, nor is there an established framework for transportation planning. In the afternoon, staff took the guests on a tour of the Central Artery and the Assembly Square area.

6. Meeting Minutes -- *Pam Wolfe, Manager of Certification Activities, CTPS*

The vote on the minutes of the meeting of April 30 was deferred to the next meeting.

7. Regionwide Suburban Transit Opportunities Study, Phase III – Karl

Quackenbush, Deputy Technical Director, CTPS, and Rob Guptill, MPO Staff

K. Quackenbush provided background by summarizing the first two phases of the *Regionwide Suburban Transit Opportunities Study*. Phase I, which was completed in 2003, involved research into suburban transit in other areas of the country and best practices that could guide the MPO's Suburban Mobility and TDM Subcommittee. Phase II, completed in 2005, used lessons learned from Phase I and made recommendations for seven fixed route transit services. The MPO approved the work program for Phase III in the fall of 2006. This study has focused on the potential for demand-responsive services in the region, as one of the findings from Phase II was that there might be more potential for these than for fixed-route services in low-density suburban settings.

R. Guptill then provided an overview of Phase III. He began by defining several terms:

- *demand-responsive* – the most flexible form of suburban transit service
- *route deviation* – the transit operator has license to deviate from an established route
- *point deviation* – the operator has license to move stops between certain points along the route
- *feeder services* – services that feed the fixed route system
- *dial-a-ride* – truly demand-responsive service in which customers call for pick-up

For the first task of the study, the MPO defined the criteria that could be used to determine if demand-responsive are appropriate for particular communities. Many of the metrics used were the same as those used for fixed route services. Staff then worked with several communities to analyze the potential for demand-responsive service in those communities. The planning analysis considered geography, the existing transportation infrastructure, and demographics. The regional travel demand model was used to project trip behavior and transit demand. This work identified possible new services. The report provides the details on the analysis of several communities.

Members asked questions and made comments:

Staff did a good job on the study. Has there been feedback from communities? (David Koses, City of Newton)

All the communities studied have received the report. Acton is moving forward with a demand-responsive proposal in the MPO Suburban Mobility program. Reading considered it but did not have enough funding. (R. Guptill)

Did you look at the six communities individually or was the intention to have unified recommendations across towns? (Marc Draisen, MAPC)

The towns of Carlisle, Bedford, Lexington, Reading, Acton, and Needham were studied. They were considered individually. (R. Guptill)

Did the study results show that there were a lot of good opportunities for demand-responsive services? Would the services be economically feasible? (M. Draisen)

There were opportunities, for example, Acton took the MPO's recommendations and proposed a service, and Reading took interest as well. For Carlisle, the MPO recommended dial-a-ride service, which is the most expensive of demand-responsive services. The town chose not to move forward. (R. Guptill)

As a result of the study, are there any lessons learned that could be generalized for the region? (M. Draisen)

We can draw conclusions from one town and apply it to another with similar population density and development patterns. But, the challenge of demand-responsive service is that for each community the type of service recommended would depend on an analysis of trip generators in that community. (R. Guptill)

From a policy perspective, what should the Boston Region MPO be looking to do moving forward? What can we learn from how demand-responsive service is being used in other parts of the country. (M. Draisen)

Since the Boston region already has a developed public transit system, it has been more difficult to put in flexible services here. There is an opportunity in this region to look at whether there may be applications for demand-responsive services that mix with fixed-route service. (R. Guptill)

Did the study look at MBTA service (such as paratransit) compared to the potential areas for demand-responsive service? (Paul Regan, MBTA Advisory Board)

A lesson that can be learned from paratransit experience, which is like a dial-a-ride service, is that dial-a-ride is more expensive than other demand-responsive services, such as route deviation, point deviation, and feeder services. (R. Guptill)

P. Regan noted that while the initial capital costs for paratransit would be higher than a dial-a-ride service, once the service is running, the only costs are for labor and fuel.

How comfortable was CTPS with using decade old census data? (D. Koses)

Census 2000 data was used as well as up-to-date residential density data from MAPC. The travel demand model was used to project trips to 2010. The most recent data available is the best to use given the changing nature of the suburbs. (R. Guptill)

Mary Pratt, Town of Hopkinton, noted that local census data, which towns compile each year, could be useful.

Richard Reed, Town of Bedford, noted that Bedford restructured its MBTA-funded transit service (which includes some fixed route and demand-responsive service) and tripled ridership.

Did staff calculate the fare levels that the potential services would need to charge to break even? (Steve Olanoff, Advisory Council)

The report gave a general sense of costs that would be incurred from operating the service (generally about \$4-6 per rider), but the report did not get into exact fare levels. That information could be calculated from the data supplied in the report. (R. Guptill)

A motion to accept and release the *Regionwide Suburban Transit Opportunities Study, Phase III* was made by Thomas Kadzis, City of Boston, and seconded by Thomas Bent, City of Somerville. The motion passed unanimously.

8. Regional Equity Community Outreach Update – Annette Demchur, MPO Staff

Members were provided with the *2009 Regional Equity Briefing Book*, which provides profiles on environmental justice areas in the region, including demographic information and maps depicting the transportation system and land uses in those areas. Members also received a memorandum, titled “Regional Equity Community Outreach Update”, and a matrix, titled “Regional Equity Matrix of Issues and Follow-up.” (See attached memorandum and matrix.)

Members received their first *Regional Equity Briefing Book* after an outreach effort in 2005. The following year, the Traffic Analysis Zones in the regional model changed and, as a result, what were defined as environmental justice areas changed. The new *2009 Regional Equity Briefing Book* includes environmental justice areas based on the new analysis.

For community outreach, environmental justice areas are defined as having a minimum population of 200 minorities, and either median income at or below 60% of the region’s median household income or a population that is 50% or more minority.

Since the last outreach effort in 2005, eleven more communities were added to the roster of environmental justice communities in the region. For the most recent outreach, staff focused on outreach to those communities first.

As summarized in the attached memorandum, the following themes emerged from the outreach:

- Communities that have transit would like to keep it.

- A significant number of residents in environmental justice areas are transit dependent. Service coverage and availability is very important to them.
- Roadway issues raised dealt with roadway condition, safety at intersections, congestion, air quality, and enforcement of traffic and parking regulations.
- Transit service issues included concerns about frequency of service (particularly at off-peak hours, which affects people who work in the evenings), coverage of service (a particular concern for the elderly and for residents of out-lying towns), slow travel times, and system connectivity.
- Transit facility issues included concerns about the conditions of bus shelters (and lack of schedule information there), safety at bus stop locations, the locations of vehicle yards and shops, and construction and development around stations.
- The service reliability of THE RIDE is a major concern.

During a discussion period, M. Draisen raised a question about how staff would follow-up on this work. A. Demchur noted that the information is used in the project selection process for the TIP and Regional Transportation Plan (RTP). M. Draisen stated that the MPO should evaluate the regional equity information and follow-up on the concerns identified since some of the concerns are service-related issues that would not be addressed through TIP or RTP projects. T. Kadzis noted that a challenge for the MPO is to determine how it can help enact operational improvements, given that operations improvements are largely outside of the MPO's purview. Although the MPO can inform implementing agencies of problems, the MPO cannot implement the solutions itself.

J. Gallagher suggested that the MPO redefine the position of Regional Equity Coordinator as an ombudsman position, responsible for a more active follow-up on issues raised and responses to them. P. Wolfe stated that MPO staff could fill that function, if directed.

Ginger Esty, Town of Framingham, suggested that the MPO's role could be to notify municipal public works departments about the concerns of residents of environmental

justice areas. A. Demchur noted that staff does send letters to municipalities and implementing agencies summarizing issues raised by residents.

M. Pratt remarked that sidewalk conditions were identified as a major concern when the MPO's former Environmental Justice Committee was operating. She suggested that the City of Boston address the issue through its pavement management program. She also expressed concern about the reliability of THE RIDE and how MBTA service cuts would affect the paratransit service.

Paul Regan, MBTA Advisory Board, asked staff to consider whether any of the responses to the recent MBTA passenger surveys might provide useful information.

9. Alewife Studies: Part 1 – Alewife Study, Phase II: Improvements to Feeder Bus Routes, Bus Access and Egress and the Route 2/Route 16 Intersection – K.

Quackenbush, Seth Asante, and Alicia Wilson, MPO Staff – and Part 2 – Alewife Bicycle and Pedestrian Study – David Loutzenheiser, MAPC

K. Quackenbush introduced the presentation on the second phase of the Alewife Study by recapping the first phase. Phase I was an investigation of the travel patterns near the Alewife Station that used license plate data and bicycle survey data. The results were presented to the MPO in the summer of 2007.

Phase II began in the fall of 2007. It focused on ways to improve bus service and access to the Alewife garage, issues regarding traffic flow at the Route 2/Route 16 intersection, and bicycle and pedestrian access to the station. To address a concern about the use of 2003 data from the Registry of Motor Vehicles (RMV) in Phase I, staff used 2008 RMV data and determined that the conclusions from Phase I remained valid. The Phase II work was done with input from the Alewife Working Group, which was formed in 2008 by public and private officials concerned with traffic issues in the area.

Traffic Operations

S. Asante then gave a PowerPoint presentation on the results of Phase II in terms of traffic operations at the Route 2/Route 16 intersection. (See attached PowerPoint presentation.) Problems identified in the area were traffic congestion on Route 2 and the Alewife Brook Parkway (which affects bus traffic to the MBTA station), insufficient capacity at the intersection, traffic merging due to inconsistent lane configuration, traffic diversion, and bus access and egress problems at the station.

Staff evaluated short- and long-term solutions that included optimizing the signal at the intersection, adding lanes to increase capacity, converting the intersection to a rotary, and building a flyover at the intersection.

Recommendations developed with the working group included:

- adding a third westbound lane for a short distance between the Alewife Station Access Road approach (jug-handle) and the Minuteman Bike Path overpass
- reconstructing the Route 2 eastbound left-turn lane to Route 16 north into a double left-turn lane
- reconstructing the Alewife Station Access Road (jug-handle) into two lanes for as far back as possible.
- upgrading traffic signal design including new equipment for demand-responsive operation and detectors/sensors for bus priority

Members asked questions about this portion of the study:

For the option that adds a third westbound lane, would the lane be expanded onto the existing shoulder? (T. Kadzis)

The westbound lane could be expanded onto an abandoned sidewalk. There is room to expand the jug-handle. (S. Asante)

Are there conservation issues associated with expanding the jug-handle? (M. Pratt)

The expansion would not go into wetlands. MassHighway would review the wetlands issues. (S. Asante)

Is there any pedestrian access in the area now? (M. Pratt)

There is a sidewalk along Route 2 that is not being used, but there is other pedestrian access in the area. (S. Asante)

For the option that adds a third westbound lane, would there be a need to rebuild the bridge? (J. Gallagher)

The bridge does not need to be expanded, according to MassHighway. (S. Asante)

Would the improvements change the intersection from an F rating (level of service)? (M. Al-Khatib)

Some locations would become D rated. The traffic queues would be substantially reduced. (S. Asante)

Do the recommendations address safety problems at the Alewife Brook Parkway merge? (J. Gallagher)

There is not currently a recommendation for that area. (S. Asante)

Doesn't the jug-handle already operate as two lanes? (D. Koses)

It is not stripped as two lanes. The recommendations propose to make the road officially two lanes. (S. Asante)

M. Pratt suggested placing synchronized traffic lights at the intersection near the station and at the Route 2 and Route 16 split to reduce dangerous merging. S. Asante noted that the traffic signal issues would have to be considered during the project design.

Bus Service

The presentation resumed with A. Wilson discussing the bus service portion of the study. She noted that the license plate survey in Phase I study identified a number of vehicles

from Lexington and Arlington in the garage. Phase II examined whether there was adequate bus service that commuters from those towns could use to travel to the station. Factors considered in this analysis included population density, auto ownership, income, and commuters to Boston and Cambridge who live near bus routes.

The results showed that Arlington is more densely populated than Lexington (with most areas in Arlington having population density higher than 5,000 people per square mile). There is a high degree of auto ownership in both towns, but less so in Arlington where twenty percent of households had incomes below the MPO median. Of commuters to Boston, 80% in Arlington and 19% in Lexington live within a quarter-mile of a bus route. Staff concluded that MBTA bus service is appropriately routed through those areas.

The following ideas for ways to encourage people to use buses were raised:

- limit the number of bus stops along the routes (this would have to be done through coordination with the MBTA and the towns)
- reinstate MBTA bus route #67 into Lexington (though this could lengthen trip times)
- reroute bus #67 within Arlington (though hilly terrain and narrow roads may make this option not feasible)
- consider a shuttle service to Alewife Station funded by the MPO's Suburban Mobility Program

Members asked questions:

There was a recommendation about an auxiliary lane on Route 2 eastbound. Was there consideration of extending the existing lane further? (J. Gallagher)

The lane could not be limited to buses and there would have to be two access points to the lane, which is not allowed by the federal agencies. There would also be weaving issues. (A. Wilson) Staff will look into it. (K. Quackenbush)

If bus stops were reduced would the distance between them be looked at? (M. Pratt)

The changes would not be done indiscriminately. The MBTA and community would have to work together. Some stops are very close together, but consideration would have to be given to factors such as the location of senior housing. (A. Wilson)

Bicycle and Pedestrian Access

D. Loutzenheiser then discussed the *Alewife Bicycle and Pedestrian Access Study*. (See attached study and maps.) He noted that Alewife Station is well accessed by bicyclists and pedestrians, and that there are close to 400 bicycle parking spaces at the station. Due to traffic congestion in the area, there remains a need to maximize and promote non-vehicular means of access to the station.

He referenced several maps (attached) depicting existing bicycle and pedestrian facilities in the Alewife area, as well as projects that are in-progress and proposed. Some key facilities include the Linear Path connecting Alewife to Belmont (soon to be under construction), a DCR project to develop paths from Alewife Station along the Alewife River to the junction with the Mystic River (the trails are being designed to pedestrian standards not bicycle standards), and the Watertown Branch Rail Trail.

He drew attention to several areas (marked by the letters A and B on the attached map) where bicycle and pedestrian access could be improved. At one location there is an abandoned sidewalk and areas proposed for new residential and office development. The west side of Alewife Brook Parkway and Cambridge Park Drive are substandard for bicycles.

The study recommendations are listed on page 11 and 12 of the attached *Alewife Bicycle and Pedestrian Access Study* document.

Members asked questions:

Is there a need for a sidewalk [at the locations marked A and B on the map], and is there a need for pedestrian access through the interchange at-grade? (J. Gallagher)

If DCR develops a path there or properties in the area are developed, there may be a need for pedestrian access. The study committee agrees that the sidewalk can be removed, but that there should be an option to provide pedestrian access up to Route 2. The pedestrian connection should not be eliminated. (D. Loutzenheiser)

Is the working group for this study the same as the one on the CTPS portion of the study?
(S. Woelfel)

No. This working group included city and town planners. DCR and the MBTA were invited. (D. Loutzenheiser)

What is the follow-up on this study? (J. Gallagher)

There is follow-up on the roadway improvements piece of this study. (K. Quackenbush)

M. Draisen stated that he would like to have this study discussed at the Inner Core Committee to encourage municipalities' involvement in advocating for improvements. He noted that there are recommendations from the study that are critical to achieving MetroFuture goals.

Representative William Brownsberger thanked the CTPS and MAPC for giving their attention to traffic and access issues at Alewife, and he thanked the MPO for its support of the Belmont, Cambridge, Somerville Path. He noted that, in the future, he would advocate for some of the improvements recommended in the study.

M. Al-Khatib suggested that staff provide cost estimates for the proposals. S. Asante noted that MassHighway estimated the short-term traffic improvements at approximately \$400,000. D. Loutzenheiser stated that MAPC was not scoped to determine costs for the bicycle and pedestrian improvements.

10. Work Program: Arterial Traffic Signal Improvements and Coordination – K.

Quackenbush, and Mark Abbott, MPO Staff

Members were presented with the work program for *Arterial Traffic Signal Improvements and Coordination*. (See attached.) This work program would examine arterial traffic signal coordination as a strategy for managing roadway congestion. This strategy involves planning to interconnect a series of signals along an arterial so that there is a minimum of delay and breaking of traffic platoons. The aim is to optimize the signal system to give the greatest benefit to the greatest number of travelers.

The objective of the work program is to identify three or four groups of intersections and to develop plans for coordinating the signals. Ten candidate groups would be selected. The locations would be ones that are not currently under study or design, and they would likely be known to the TIP process so as to maximize the potential for implementing improvements. The locations will likely be along major arterials whose signals are owned by state agencies or large cities. The signal owners (MassHighway, Department of Conservation and Recreation, and cities) are expected to be involved in the process. CTPS will aim to get buy-in from those stakeholders for implementing study recommendations. The results and recommendations will be discussed with the stakeholders.

If the study recommendations are implemented the benefits that could be expected include improvements to vehicular traffic flow, reduction in crashes (possibly), improvements to bus transit travel time reliability (if present), and reduction of vehicle emissions. During the study, staff also will consider issues of bicycle and pedestrian accommodation irrespective of signal coordination.

This is a five-month study that will cost \$45,000 in 3C funds.

11. Members Items

J. Gallagher reported that the MPO election is tentatively scheduled for June 9. Election papers are due on May 15.

12. Adjourn

A motion to adjourn was made by P. Regan, and seconded by L. Duncan. The motion passed unanimously.

Transportation Planning and Programming Committee Meeting Attendance
Thursday, May 7, 2009, 10:00 AM

Member Agencies

EOT
City of Boston
City of Newton
City of Salem
City of Somerville
MAPC

MassHighway
MBTA
MBTA Advisory Board
Regional Transportation
Advisory Council
Town of Bedford
Town of Hopkinton
Town of Framingham

Representatives and Alternates

David Mohler
Thomas Kadzis
David Koses
Lynn Duncan
Thomas Bent
Marc Draisen
Jim Gallagher
Stephen Woelfel
Joe Cosgrove
Paul Regan
Malek Al-Khatib
Steve Olanoff
Richard Reed
Mary Pratt
Ginger Esty

MPO Staff/CTPS

Seth Asante
Annette Demchur
Maureen Kelly
Anne McGahan
Elizabeth Moore
Hayes Morrison
Sean Pfalzer
Karl Quackenbush
Arnie Soolman
Alicia Wilson
Pam Wolfe

Other Attendees

William Brownsberger State Representative
Mark Grenard EOT
David Loutzenheiser MAPC