

**Memorandum for the Record
Transportation Planning and Programming Committee of the
Boston Region Metropolitan Planning Organization (MPO)**

December 17, 2009 Meeting

10:00 AM – 12:40 PM, State Transportation Building, Conference Room 4, 10 Park Plaza, Boston

Clinton Bench, Chair, representing Jeffrey Mullan, Secretary and Chief Executive Officer, Massachusetts Department of Transportation (MassDOT)

Decisions

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

- approve the *MWRTA Fixed Route Evaluation* study with recommended changes
- approve the work program for the *Core Efficiencies Study*
- release Amendment Two to the federal fiscal years (FFYs) 2010 – 2013 Transportation Improvement Program (TIP) for a 15-day public review period
- approve the minutes of the meetings of November 19 and December 3 with recommended changes

Meeting Agenda

1. Public Comments

Edward Marsteiner, National Development, thanked the MPO for considering the programming of \$5.9 million in American Recovery and Reinvestment Act (ARRA) funding for the *Lynnfield and Wakefield – Improvements at Walnut Street and I-95 and Salem Street and Audubon Road and I-95* project in draft Amendment Two of the FFYs 2010 – 2013 TIP. He provided an update on the project's status noting that the 100% design plans will be submitted to MassDOT this week and that right-of-way and environmental issues are finalized.

William Gustus, Town of Lynnfield, added his thanks to the MPO members for their attention to the project.

Sue McQuaid, Neponset Valley Chamber of Commerce, reminded members that the *Canton – Route 138* project is shovel ready and that completion of the final phase of the project is a high priority for the Town of Canton and the Three Rivers Interlocal Council (TRIC) subregion. She requested that the members consider programming the project if funds become available during today's TIP Amendment process. The project cost estimate is \$1.2 million.

Steve Olanoff, member of the public, brought to the members' attention that some state legislators are saying that the project for replacing the "Horse Bridge" over Route 24 will not be completed. (The project is in the Commonwealth's Accelerated Bridge Program.) He was unable to verify this information but was concerned that there may be misinformation circulating about the status of the project.

S. Olanoff stated that he would appreciate hearing a report from MassDOT during the Chair's Report agenda item.

Kevin McHugh, Coneco Engineers and Scientists, provided an update on the *Ipswich – Route 1A/Route 133* project. He reported that the design of the project is moving forward and that the proponents hope to have approval from MassDOT by the end of February. He requested that the MPO consider providing ARRA funding for this \$2.3 million project if it becomes available, or consider the project for future funding opportunities.

William Friel, Town of Canton, requested the MPO's consideration for programming ARRA funds for the *Canton – Route 138* project. He stated that the project cost has been reduced to \$1.2 million, that the right-of-way and permitting is complete, and that the project is shovel-ready. He also noted that the roadway serves a key economic development area and it provides access to a fire station. The current condition of the roadway is having a detrimental impact on emergency vehicles, he added. The roadway is state-owned.

2. Chair's Report – *Clinton Bench, MassDOT*

There was no Chair's Report.

Mary Pratt, Town of Hopkinton, asked for an update on items discussed during the meeting of November 19, when Marc Draisen, Metropolitan Area Planning Council (MAPC), requested that the MPO re-establish the practice of including the vice chair in the agenda setting meetings. Eric Bourassa, MAPC, reported that MAPC will attend the agenda setting meetings on Tuesdays the week prior to MPO meetings.

M. Pratt then expressed frustration with how the ARRA process played out this past year. She stated that the MPO had no input in the project selection process and that towns in the region should have received more projects. She stated that she thought that the selection process should not have been conducted "from the top down."

3. Subcommittee Chairs' Reports

A meeting of the Unified Planning Work Program (UPWP) Subcommittee is scheduled for January 21.

4. Regional Transportation Advisory Council – *Laura Wiener, Regional Transportation Advisory Council*

The next Advisory Council meeting is scheduled for January 13. A discussion of the MPO's Clean Air & Mobility Program will be on the agenda. Secretary of Transportation Jeffrey Mullan has been invited to the February meeting. In March, the Advisory Council will have a Bicycle and Pedestrian panel discussion.

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

As reported at a previous meeting, the Manager of the Information Technology and Services Group at CTPS has retired. CTPS will be interviewing candidates for this position next week. If a candidate is selected, a meeting of the MPO's Administration & Finance Subcommittee will be scheduled to approve the new hire. If a candidate is not selected, CTPS will advertise the position again.

6. Evaluation of the MetroWest Regional Transit Authority Fixed Route Network – *Karl Quackenbush, Deputy Director, CTPS, and Jonathan Belcher, MPO Staff*

Members received a presentation on the *MWRTA Fixed Route Evaluation* study at the meeting of December 3. At members' request, staff made changes to the study and presented revised text and tables today. (See attached.)

Jonathan Belcher, MPO staff, highlighted the changes, which included:

- the replacement of one table with two other tables containing data from the National Transit Database; these include figures on FFY 2008 operating data and performance measures for Massachusetts RTAs' fixed-route services and show the MWRTA as having the lowest rate in the state in terms of cost per vehicle hour for fixed-route
- the addition of GIS maps for each MWRTA bus route to the appendix
- clarifications to census data references
- the addition of a reference stating that Saturday service will be added to MWRTA bus route #7
- the addition of a citation referencing a previous MPO report

Ginger Esty, Town of Framingham, and Paul Regan, MBTA Advisory Board, thanked the representative from the MWRTA for providing information from a financial audit of the MWRTA. P. Regan noted that all the RTAs in the state and the MBTA need to focus on building their existing customer base with the service they can afford to provide.

M. Pratt raised the issue of whether taxi vouchers could take the place of some of the MWRTA services. She recommended that the MWRTA keep accurate figures on the cost of renovations to its new headquarters.

Lynn Ahlgren, MWRTA, noted that the MWRTA is service poor relative to its population and has the lowest cost per hour rate in the state. She noted that the system is maturing and ridership is increasing. The MWRTA has been conducting outreach to build its ridership.

A motion to approve the *MWRTA Fixed Route Evaluation* study with the recommended changes was made by Thomas Kadzis, City of Boston, and seconded by Thomas Bent, City of Somerville. The motion passed unanimously.

7. Work Program for the Core Efficiencies Study – *Karl Quackenbush, Deputy Director, CTPS, and Rob Guptill, MPO Staff*

Members were provided with the work program for the *Core Efficiencies Study*. (See attached.) K. Quackenbush noted that periodically it makes sense for the MBTA to conduct systems planning and now is one of those times because there have been changes over the years in terms of customer attitudes and expectations, demographics, and land use patterns, and because the MBTA is facing a period of increasing financial uncertainty. These factors compel a review of how the transit system is structured and how its performance is evaluated.

This work program has three objectives: 1) to review the MBTA's Service Delivery Policy and its existing standards, and recommend revisions as necessary; 2) to evaluate the system in light of these standards and market conditions, and propose alternative service concepts; and 3) to evaluate these concepts with respect to varying levels of financial constraint. The tasks of the work program involve the following:

- reviewing the MBTA's existing service standards and those of peer agencies, developing potential new metrics, and applying those to existing services to evaluate their efficiency;
- conducting a market analysis involving an evaluation of ridership trends, forecasted population and employment densities, and on-board survey data;
- developing alternative service concepts;
- evaluating financial constraint scenarios; and
- documenting the results in technical memoranda.

Members discussed the scope of the work program, issues of financial constraint, and the role of public involvement.

P. Regan asked about how this work program differs from the work done by the MBTA's service planning program, whether staff would look at expanding the system beyond bus service expansion, and if so, whether it is realistic (given financial realities) to be considering expanding the rapid transit system and looking at projects other than those in the Program for Mass Transportation (PMT).

K. Quackenbush replied that the proposal is to conduct a more expansive evaluation than the MBTA's service planning work and that rapid transit expansion would be considered. This work program differs from the PMT process in that it involves systems level planning, rather than the more specific project level planning. He noted that the work program will consider the financial realities.

E. Bourassa asked about the assumptions that staff will be using for financial constraint. K. Quackenbush replied that it is unlikely that staff will assume a fare increase in the near future, but that the specific financial constraint measures have not yet been developed. There will be different levels of assumed financial ability.

Noting that the MBTA will be under financial duress in the coming years and that there may be little capital coming into the system, P. Regan asked if staff would be looking at

unpopular options, such as bus stop consolidation, to improve service reliability and increase capacity. K. Quackenbush replied that staff would look at such options.

P. Regan also stated that other major transit carriers across the nation have implemented fare increases or service cuts and that the problems facing transit systems are national. He noted that it will take political courage among transit officials in Massachusetts to make necessary reductions to service.

David Koses, City of Newton, and Jim Gallagher, MAPC, advocated for including a public outreach element to the work program. D. Koses recommended the creation of an oversight committee to weigh in as the work program is being conducted. J. Gallagher recommended that staff get public input early in the process, including from the MBTA Rider Oversight Committee, and report to the MPO after each technical memorandum is produced.

P. Regan and M. Pratt, however, advised allowing staff to conduct the study first, before involving the public, as this study would provide the basic research that would inform the public debate.

C. Bench noted that staff will make recommendations to the MBTA and that the MBTA would make any accepted service changes as part of the MBTA service planning process, which includes a public process. This study is looking at whether the MBTA is properly serving modern needs (given demographic and development changes) and running the most efficient set of services to meet customer needs, he said.

A motion to approve the work program for the *Core Efficiencies Study* as presented was made by Ginger Esty, Town of Framingham, and seconded by M. Pratt. The motion passed unanimously.

8. TIP Amendment – *Clinton Bench, MassDOT, and Hayes Morrison, MPO Staff*
Members were presented with draft Amendment Two to the FFYs 2010 – 2013 TIP. (See attached TIP tables and MBTA memorandum.) The following changes were proposed:

- remove the \$9 million *Foxborough – Pedestrian Bridge over Route 1* from the list of ARRA-funded projects
- add the \$5.9 million *Lynnfield and Wakefield – Improvements at Walnut Street and I-95 and Salem Street and Audubon Road and I-95* project to the list of ARRA-funded projects
- add \$2.5 million for wind turbines at MBTA layover facilities in Kingston and Newburyport; this funding is available from a Transit Investment for Greenhouse Gas and Energy Reduction (TIGGER) grant that the Federal Transit Administration (FTA) awarded to the MBTA (the grant does not require a local match)

During a discussion of the amendment, M. Pratt inquired as to whether the *Canton – Route 138* project could be added to the ARRA list given that there is a difference of \$3.1 million remaining after the removal of the Foxborough project and the addition of

the Lynnfield/Wakefield project. She noted that most ARRA funding went to the cities in the region and that funding the Canton project would give some recognition to the needs of the smaller towns.

C. Bench replied that MassDOT cannot recommend the addition of any other ARRA projects for this region today. He noted that the Foxborough project remains a priority for the Administration.

Rachel Bain, MassDOT, provided an update on the status of the Canton project. The project went before the MassDOT Highway Division's Project Review Committee six weeks ago and the 100% design plans are being reviewed. MassDOT has not completed its review of the project. Environmental permitting and the acquisition of easements are underway. (The project is in an Area of Critical Environmental Concern.) A public hearing on the project has not been held. For these reasons, MassDOT did not consider the project shovel-ready and eligible for ARRA funding.

William Friel, Town of Canton, stated that the project is ready from the town's perspective. He reported that the town proponents submitted the 100% design plans to MassHighway (now MassDOT Highway Division) in April, that they were recently notified that they should hold a public hearing on the project, and that they were under the impression that the project was being considered for ARRA funding. He stated that this meeting was the first time that the town has been made aware of the outstanding issues affecting the project's readiness. He requested that MassDOT Highway Division conduct the review prior to the end of February so that the project may be eligible for ARRA funding.

R. Bain and Hayes Morrison noted that the confusion about the state of readiness might have come about because the project began the review process as a permit project, and when federal funds were sought for it, the project became subject to a different MassDOT review process.

E. Bourassa noted that MAPC has heard from other municipalities that there has been confusion about project readiness. In response to those concerns, MAPC and MassDOT Highway Division representatives have discussed posting information on MassDOT's website to clarify the issue of readiness.

T. Bent expressed that municipalities are frustrated with the TIP process due to the lack of communication or miscommunication from the MassDOT Highway Division. He stated that the appropriate Highway Division personnel should be present at MPO meetings when the MPO is making decisions about projects. As an MPO member, he expressed frustration over the issue of the *Foxborough – Pedestrian Bridge over Route 1* project, which members were led to believe would be ready in time to receive ARRA funds. Richard Reed, Town of Bedford, voiced agreement with T. Bent's comments.

T. Kadzis posed an alternative possibility for moving forward the *Ipswich – Route 1A/Route 133* and *Canton – Route 138* projects, suggesting that they could be candidates for the next round of TIP funding rather than ARRA funding.

R. Reed asked whether there is a potential for the MPO to see any other ARRA projects and whether MassDOT officials believe the ARRA process is impacting the regular TIP process. R. Bain indicated that MassDOT does not expect to change any other ARRA projects. She noted that there has been some impact to the TIP process given the amount of MassDOT staff time required to address the ARRA projects.

W. Friel requested that MassDOT provide the Town of Canton with information clarifying the existing review work that must be done on the *Route 138* project. He also asked the members to consider the project as approved contingent upon other programmed ARRA projects not going forward or other ARRA funding becoming available to this region. C. Bench stated that he would relay the first request to the appropriate MassDOT officials. Regarding the latter request, he noted that the MPO does not have a mechanism to add projects on contingency.

A motion to release Amendment Two to the FFYs 2010 – 2013 TIP for a 15-day public review period was made by John Romano, MassDOT Highway Division, and seconded by M. Pratt. The motion passed unanimously.

Staff distributed a calendar for the upcoming TIP process. (See attached.)

9. Meeting Minutes – Pam Wolfe, Manager, Certification Activities, MPO Staff
A motion to approve the minutes of the meetings of November 19 and December 3 – with changes to pages 5 and 13 of the November 19 minutes as recommended by M. Pratt, and changes to page 7 and 10 of the December 3 minutes as recommended by D. Koses and M. Pratt respectively – was made by M. Pratt, and seconded by G. Esty. The motion passed unanimously.

10. Status Report on Transportation Control Measures of the State Implementation Plan – Kate Fichter, MassDOT, and Joe Cosgrove, MBTA

MassDOT presented its monthly status report to the MPO on the Transportation Control Measures of the State Implementation Plan (SIP). (See attached report.) This is the second report that MassDOT has provided to the MPO and members of the public on the set of projects that the state is required to construct or design as mitigation for the air quality impacts of the Central Artery/Tunnel project.

K. Fichter and J. Cosgrove noted the following items regarding the specific SIP projects:

A public meeting about the *Green Line Extension to Somerville and Medford* project was held on December 16 in Cambridge. The siting of the new Green Line vehicle maintenance facility remains a controversial issue. Three alternate options for siting the facility are being considered.

A public meeting of the working group for the *Red Line – Blue Line Connector Design* project was held on December 14. MassDOT is on track to complete the project's Draft Environmental Impact Report (DEIR) by June 2010.

The *Fairmount Line Improvement* project involves the design and construction of four new stations on the Fairmount commuter rail line. Three stations are at the 100% design stage. The MBTA recently awarded a \$17.7 million contract for the construction of the *Four Corners Station*. The *Talbot Avenue Bridge and Station* and the *New Market Station* projects are both at 100% design. The MBTA expects to advertise them in late January and February respectively and award contracts in the spring.

Beverly and Salem commuter rail stations have been chosen as the locations for the *Construction of 1,000 New Parking Spaces* project. The Beverly garage will be part of a Transit Oriented Development project. Land acquisition for the Beverly portion has been completed. The MBTA is undertaking a design/build procurement. The Salem garage project is at 30% design. A community progress meeting will be held in January or February.

During a discussion period, Christine Stickney, Town of Braintree, asked how the MBTA determined the locations for the *Construction of 1,000 New Parking Spaces* project. J. Cosgrove replied that Salem and Beverly were among the top five commuter rail stations in the system for boardings, the existing parking facilities near the stations are at 100% capacity, and commuters are using neighborhood streets for parking, which has been problematic for both cities. (The station at Mansfield was also being considered as a location for additional spaces.)

T. Bent thanked the MassDOT staff for holding the *Green Line Extension* project meetings. He pointed out that both Somerville and Cambridge residents largely oppose locating the maintenance facility at Yard 8. While, Option L appears to be the more favorable of the remaining options, he noted that this option still needs to be refined and suggested that there appears to be wasted storage space at the existing facility that could potentially be used. He noted that the City of Somerville is already the host of major transit facilities and that the city hopes that some past inequities get addressed.

11. Update on MPO Clean Air & Mobility Program (formerly CMAQ Program) –

Pam Wolfe, Manager, Certification Activities, MPO Staff, and Eric Bourassa, MAPC
At the meeting of December 3, members gave staff approval to move forward with the MPO's new Clean Air & Mobility Program, which will expand the scope of the MPO's programs for funding transportation projects eligible for federal Congestion Mitigation and Air Quality (CMAQ) Program monies and increase the amount of funding allocated each year to those projects. The Clean Air & Mobility Program combines three existing MPO programs, the *Suburban Mobility Improvement Program*, *Regional Transportation Demand Management Program*, and *Improving the Region's Bicycle Rack Infrastructure Program*.

Staff is planning to conduct public outreach on the new program this winter at the MPO Open House on January 20 and at the TIP How-To seminars in February. Notices will also be sent to the recipients listed in earlier program development material and also to the broader public through the listserves, MPOinfo and MPOmedia. Staff is developing an on-line application now.

The following materials were distributed for review (see attached):

- Clean Air & Mobility Program description
- introductory text for the application
- frequently asked questions
- schedule for 2010
- draft flyer

C. Bench thanked MPO staff and MAPC for their work on this program and noted that it is in line with the Governor's initiatives.

12. Members Items

R. Bain provided an update on the ARRA projects. The *Braintree – Route 37* project was advertised the weekend of December 12. The *Bellingham – Pulaski Boulevard, Norwood – Pleasant Street at Morse Street*, and *Boston – Resurfacing on Federal Aid Roads within Boston* projects are expected to be advertised the weekend of December 19. The Boston project has been split into five separate contracts. In response to a question, R. Bain noted that the *Cambridge and Charlestown – North Bank Pedestrian Bridge* project was awarded on November 30.

13. Adjourn

A motion to adjourn was made by M. Pratt, and seconded by T. Bent. The motion passed unanimously.

Transportation Planning and Programming Committee Meeting Attendance
Thursday, December 17, 2009, 10:00 AM

Member Agencies

MassDOT

City of Boston

City of Newton

City of Somerville

MAPC

MBTA

MBTA Advisory Board

Regional Transportation
Advisory Council

Town of Bedford

Town of Braintree

Town of Framingham

Town of Hopkinton

Representatives and Alternates

Clinton Bench

Rachel Bain

John Romano

Thomas Kadzis

David Koses

Thomas Bent

Eric Bourassa

Jim Gallagher

Joe Cosgrove

Paul Regan

Laura Wiener

Richard Reed

Christine Stickney

Ginger Esty

Mary Pratt

MPO Staff/CTPS

Jonathan Belcher

Mike Callahan

Rob Guptill

Maureen Kelly

Anne McGahan

Hayes Morrison

Sean Pfalzer

Karl Quackenbush

Arnie Soolman

Mary Ellen Sullivan

Pam Wolfe

Other Attendees

Lynn Ahlgren

William Bochnak

Ron Bourne

William Friel

Mark Guenard

William Gustus

Edward Marsteiner

Kevin McHugh

Sue McQuaid

Steve Olanoff

MetroWest Regional Transit
Authority

City of Lynn

Bourne Consulting

Town of Canton

MassDOT

Town of Lynnfield

National Development

Coneco Engineers and Scientists

Neponset Valley Chamber of
Commerce

Regional Transportation
Advisory Council

*Comparison of Existing Fixed-Route Ridership and Operating Costs
to Those of Other Massachusetts RTAs*

Operating data (for federal fiscal year 2008) for the fixed-route services of the 15 regional transit authorities serving the commonwealth are presented in Table 3; performance measures derived from those data are presented in Table 4. The MWRTA network's total number of fixed-route passengers carried was the 12th-highest of the 15 RTAs, exceeding that of the Cape Ann Transportation Authority (CATA), Nantucket Regional Transit Authority (NRTA), and Franklin Regional Transit Authority (FRTA); see Table 3.

The MWRTA fixed-route network's number of passengers carried per vehicle revenue hour was higher than that of two other RTAs, the FRTA and Cape Cod Regional Transit Authority (CCRTA), and just below that of the Montachusett Area Regional Transit Authority (MART) and Greater Attleboro Taunton Regional Transit Authority (GATRA); see Table 4. Thus, while the MWRTA was toward the lower end of the ridership spectrum when compared to other RTAs in the commonwealth, it had neither the lowest total fixed-route ridership nor the lowest number of riders when measured on a per-hour basis.

The MWRTA's cost per hour to provide fixed-route service, \$51.31, was lower than that of any other RTA in the commonwealth. The farebox recovery ratio (the percentage of fixed-route costs covered by fare income) was 22%. This was the fifth-best farebox recovery ratio of the 15 agencies, with the Vineyard Transit Authority (VTA) having the highest, at 38%, and the FRTA the lowest, at just 6%. The operating expense per passenger trip for the MWRTA was the ninth-lowest, at \$6.27. This was better than CATA (\$7.18), the Berkshire Regional Transit Authority (BRTA, \$8.30), GATRA (\$8.49), MART (\$10.24), CCRTA (\$10.47), and FRTA (\$12.33). See Table 4.

TABLE 3
Comparison to Other Massachusetts RTAs' Fixed-Route Services:
Basic Operating Data (FFY 2008)

| RTA | Unlinked Passenger Trips (UPT) | Veh-Rev-Miles (VRM) | Veh-Rev-Hrs (VRH) | Operating Expense (OE) | Fare Revenue (\$) |
|-------|--------------------------------|---------------------|-------------------|------------------------|-------------------|
| BAT | 2,680,500 | 1,327,100 | 118,800 | \$9,580,700 | \$2,258,499 |
| BRTA | 496,300 | 832,000 | 43,500 | \$4,120,000 | \$667,578 |
| CATA | 241,000 | 320,100 | 20,000 | \$1,731,200 | \$196,333 |
| CCRTA | 428,600 | 1,040,600 | 83,500 | \$4,486,900 | \$281,458 |
| FRTA | 126,585 | 281,576 | 15,595 | \$1,561,084 | \$95,176 |
| GATRA | 746,300 | 1,875,200 | 86,700 | \$6,332,400 | \$1,828,410 |
| LRTA | 1,308,500 | 1,115,200 | 73,500 | \$7,069,700 | \$938,400 |
| MART | 602,200 | 825,700 | 67,000 | \$6,165,500 | \$745,763 |
| MVRTA | 2,162,200 | 1,508,400 | 122,600 | \$9,850,500 | \$1,167,515 |
| MVRTA | 344,000 | 492,500 | 42,000 | \$2,155,200 | \$488,145 |
| NRTA | 251,008 | 192,737 | 17,009 | \$1,391,497 | \$363,576 |
| PVTA | 11,741,400 | 4,161,900 | 325,300 | \$28,282,600 | \$4,982,049 |
| SRTA | 1,611,000 | 1,222,400 | 95,200 | \$9,552,700 | \$1,226,109 |
| VTA | 1,031,197 | 858,546 | 57,253 | \$3,069,923 | \$1,166,986 |
| WRTA | 3,102,400 | 1,568,200 | 136,000 | \$14,089,600 | \$2,243,355 |

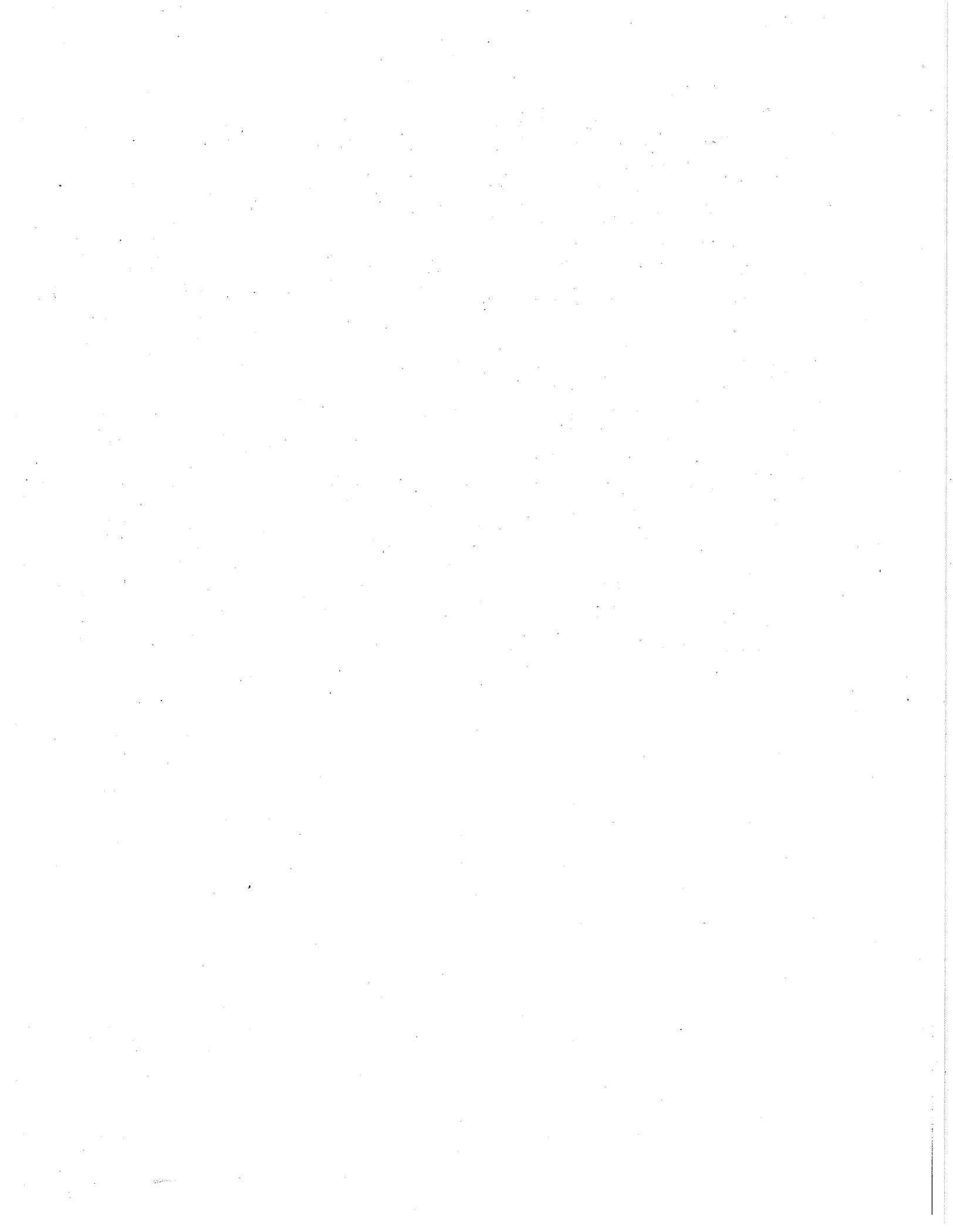
Source: 2008 National Transit Database submittal to FTA by MassDOT

TABLE 4
Comparison to Other Massachusetts RTAs' Fixed-Route Services:
Performance Measures (FFY 2008)

| RTA | Fare Revenue per Trip (\$/UPT) | Operating Expense per Trip (OE/UPT) | Fare Revenue per Mile (\$/VRM) | Operating Expense per Mile (OE/VRM) | Fare Revenue per Hour (\$/VRH) | Operating Expense per Hour (OE/VRH) | Fare Recovery Ratio (\$/OE) | Passengers per Veh-Rev-Hour | Passengers per Mile |
|-------|--------------------------------|-------------------------------------|--------------------------------|-------------------------------------|--------------------------------|-------------------------------------|-----------------------------|-----------------------------|---------------------|
| BAT | \$0.84 | \$3.57 | \$1.70 | \$7.22 | \$19.01 | \$80.65 | 23.6% | 22.56 | 2.02 |
| BRTA | \$1.35 | \$8.30 | \$0.80 | \$4.95 | \$15.35 | \$94.71 | 16.2% | 11.41 | 0.60 |
| CATA | \$0.81 | \$7.18 | \$0.61 | \$5.41 | \$9.82 | \$86.56 | 11.3% | 12.05 | 0.75 |
| CCRTA | \$0.66 | \$10.47 | \$0.27 | \$4.31 | \$3.37 | \$53.74 | 6.3% | 5.13 | 0.41 |
| FRTA | \$0.75 | \$12.33 | \$0.34 | \$5.54 | \$6.10 | \$100.10 | 6.1% | 8.12 | 0.45 |
| GATRA | \$2.45 | \$8.49 | \$0.98 | \$3.38 | \$21.09 | \$73.04 | 28.9% | 8.61 | 0.40 |
| LRTA | \$0.72 | \$5.40 | \$0.84 | \$6.34 | \$12.77 | \$96.19 | 13.3% | 17.80 | 1.17 |
| MART | \$1.24 | \$10.24 | \$0.90 | \$7.47 | \$11.13 | \$92.02 | 12.1% | 8.99 | 0.73 |
| MVRTA | \$0.54 | \$4.56 | \$0.77 | \$6.53 | \$9.52 | \$80.35 | 11.9% | 17.64 | 1.43 |
| MWRTA | \$1.42 | \$6.27 | \$0.99 | \$4.38 | \$11.62 | \$51.31 | 22.6% | 8.19 | 0.69 |
| NRTA | \$1.45 | \$5.54 | \$1.89 | \$7.22 | \$21.38 | \$81.81 | 26.1% | 14.76 | 1.30 |
| PVTA | \$0.42 | \$2.41 | \$1.20 | \$6.80 | \$15.32 | \$86.94 | 17.6% | 36.09 | 2.82 |
| SRTA | \$0.76 | \$5.93 | \$1.00 | \$7.81 | \$12.88 | \$100.34 | 12.8% | 16.92 | 1.32 |
| VTA | \$1.13 | \$2.98 | \$1.36 | \$3.58 | \$20.38 | \$53.62 | 38.0% | 18.01 | 1.20 |
| WRTA | \$0.72 | \$4.54 | \$1.43 | \$8.98 | \$16.50 | \$103.60 | 15.9% | 22.81 | 1.98 |

Note: UPT, OE, VRM, and VRH are defined in Table 3.

Source: 2008 National Transit Database submittal to FTA by MassDOT





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Jeffrey B. Mullan
MassDOT Secretary and CEO
and MPO Chairman

Arnold J. Soolman
Director, MPO Staff

MEMORANDUM

DATE December 17, 2009
TO Transportation Planning and Programming Committee
of the Boston Region Metropolitan Planning Organization
FROM Robert Guptill, CTPS Transportation Planner
RE Work Program for: Core Efficiencies Study

ACTION REQUIRED

Review and approval

PROPOSED MOTION

That the Transportation Planning and Programming Committee of the Boston Region Metropolitan Planning Organization vote to approve the work program for the Core Efficiencies Study in the form of the draft dated December 17, 2009.

PROJECT IDENTIFICATION

Unified Planning Work Program Classification

Technical Support/Operations Analysis Projects

CTPS Project Number

11366

Client(s)

Metropolitan Planning Organization

CTPS Project Supervisors

Principal: Liz Moore

Manager: Robert Guptill

Funding

EOT \$5303 3C Transit Planning Contract #TBD

The Boston Region MPO, the federally designated entity responsible for transportation decision-making for the 101 cities and towns in the MPO region, is composed of:

MassDOT Office of Planning and Programming

City of Boston

City of Newton

City of Somerville

Town of Bedford

Town of Braintree

Town of Framingham

Town of Hopkinton

Metropolitan Area Planning Council

Massachusetts Bay Transportation Authority Advisory Board

Massachusetts Bay Transportation Authority

MassDOT Highway Division

Massachusetts Port Authority

Regional Transportation Advisory Council (nonvoting)

Federal Highway Administration (nonvoting)

Federal Transit Administration (nonvoting)

IMPACT ON MPO WORK

This is MPO work and will be carried out in conformance with the priorities established by the MPO.

BACKGROUND

The MBTA is the nation's oldest public transportation system. Much of the existing system has its origins as streetcar lines built before 1900. The MBTA currently operates three heavy rail rapid transit lines, five light rail rapid transit lines, four bus rapid transit lines, and 178 bus routes. The heavy rail and light rail rapid transit system was completed in 1987 with the relocation of the Orange Line to the Southwest Corridor. Silver Line bus rapid transit routes were introduced to Boston starting in 2002. Over time, the bus system has grown in response to customer demand and now operates a large number of routes with high frequency service in dense urban areas and fewer routes with less frequent service in more suburban areas where auto ownership is greater.

The primary tool that the MBTA currently uses to guide the design and allocation of transit service within the Authority's service area and to measure service quality and productivity is the Service Delivery Policy, which establishes standards for coverage (how far a customer has to walk to reach a transit service), frequency and span of service (how often and the hours in which transit operates), vehicle loading (the number of passengers per vehicle), schedule adherence, and net cost per passenger. These standards have been used in the past to guide the provision of bus service; however, the MBTA currently faces a number of challenges that suggest that the existing standards and the services that they govern may need to change.

For MBTA services to remain viable, they must adapt to the aging population and emerging development patterns, as well as increasingly attract riders who have a choice between public and private transportation. In addition, the effects of the economic downturn on personal income, higher gas prices, and growing awareness of the environmental impacts of driving may affect this choice and will continue to change public attitudes about where and how transit services should be provided. These new expectations may lead to not only a different design of routes, but also perhaps different ways of providing service altogether.

The MBTA is also facing the prospect of increasing financial uncertainty. Sales tax revenues (the primary source of MBTA operational revenue) have continued to decline year-to-year, resulting in gaps between operating revenues and expenses. Over the past several years, the MBTA has periodically raised fares to increase operating revenue. At the same time, the MBTA has also tried to address the for additional service on some routes by reallocating service away from inefficient services (with the highest net-cost-per-passenger ratios). It is unlikely, however, that additional fare increases will be implemented in the next couple of years, making it necessary to rely on a combination of operating efficiencies,

ridership increases on some routes, and possibly service cuts on others to address projected deficits.

Taken together, the conditions discussed above argue for a reevaluation of where and how the MBTA provides transit service, as well as a review of the Service Delivery Policy to determine whether existing service standards need to be revised to guide future services.

OBJECTIVE(S)

This study has three major objectives. The first is to review the Service Delivery Policy and determine whether existing standards should be revised and/or new standards should be added that would help to identify the most efficient services. The second objective is to consider the MBTA system in light of these standards, as well as demographics and development patterns, and to propose concepts and detailed plans for how the system might be adjusted or potentially redesigned to make better use of its identified efficiencies. The third objective is to take these concepts and plans and determine the extent to which they could be refined to accommodate various levels of financial constraint.

WORK DESCRIPTION

Task 1 Review, Develop, and Apply Service Standards

In this Task, a review of service standards at the MBTA and peer agencies will be conducted and additional metrics that could potentially be used to evaluate service will be identified. The rationale for using each type of service standard will be discussed, as will the ways in which different metrics could result in different perceptions of service quality. The new service standards will be applied to existing services to evaluate their efficiency.

Subtask 1.1 Review Existing Service Standards

This Subtask will include a review of the MBTA's existing service standards as well as the service standards used by peer agencies.

The MBTA already measures the following service standards:

- Service coverage (the walking distance to the nearest service)
- Frequency (how often service runs)
- Span of service (the hours of operation)
- Passenger crowding
- Schedule adherence
- Net cost per passenger (operating cost divided by passengers per route or service)

In addition to identifying a list of service standards, this Subtask will also identify the metric used to evaluate each standard. A discussion of each standard will then analyze the implications of using those metrics. For example, a service standard for schedule adherence measured using mid-route timepoints or solely beginning and ending timepoints could result in very different results. Similarly, the metric used to measure service coverage may reflect a conscious choice between providing higher-frequency service with longer walking distances or lower-frequency service with shorter walking distances. Choice riders, for example, may have different preferences for transit service coverage than other demographic rider groups.

Subtask 1.2 Develop Potential New Service Standards

The Subtask will identify potential new service standards that reflect the changing ways in which MBTA service is perceived. While typical service standards tend to measure how the MBTA provides service, many new standards tend to measure how customers use that service. This use is reflective of changing demographic and development patterns among MBTA riders and in the MBTA service area. For example, given the aging of the population, the MBTA may wish to evaluate the extent to which its services provide one-seat rides. Changing development patterns may also encourage the MBTA to examine changes in how passengers access their trip origin and destination as well as the time required for passengers to complete their trips.

This Subtask will likely include an analysis of the following, though this list is by no means exclusive:

- Passenger comfort with respect to the condition of vehicles or waiting areas
- Customer service provided by MBTA personnel
- Accessibility (the extent to which services are accessible to persons with disabilities)
- Connectivity (the extent to which passengers can access their trip origin and destination)
- Transferring (the extent to which passengers must transfer to complete their trip)
- Trip time (the time required to complete a trip)
- Societal cost (the relative cost of an individual transit service given the presence of other transit services in the same area)¹

Subtask 1.3 Apply Service Standards

This Subtask will analyze MBTA service in light of the identified existing and new service standards. This analysis will be qualitative in nature and limited to the general modes of service provided by the MBTA, with some discussion of differences between

¹ For example, the elimination of a bus route that is an area's only public transit service would have a higher societal cost than the elimination of a bus route in an area served by multiple remaining bus routes.

selected individual routes. The MBTA performs a biennial service evaluation of its bus system through the Service Plan. This analysis would not attempt to reach the depth and level of that evaluation.

Products of Task 1

Technical Memorandum that includes the following:

- List and description of recommended new service standards and metrics that could be incorporated into the Service Delivery Policy for service evaluation
- Evaluation of existing services with new service standards

Task 2 Identify Markets

MBTA service will be dramatically affected by changes in metropolitan Boston over the coming years. An aging population, declines in personal incomes due to the economic downturn, higher gas prices, and a growing awareness of the environmental impacts of driving will result in new development patterns that will shape how MBTA service is used. This Task will identify areas in which transit services could be added or consolidated to better meet existing and projected future demand. This will be accomplished through analysis of the following:

- Evaluation of recent ridership trends on existing MBTA services
- Existing and forecasted residential population densities and transit dependency
- Existing and forecasted employment densities and locations of other major activity generators
- Modeled trip origin-destination pairs

The analysis of population and employment forecasts will use the Boston Region MPO's regional travel demand model. Outputs from this model provide an estimate of the number of origin-destination pairs between areas as well as the relative cost of those trips by mode.

Products of Task 2

Technical Memorandum that includes the following:

- Maps of current and projected future population and employment densities, trip flow diagrams, transit markets, and relative modal cost-per-mile estimates
- Recommendations for relative transit service levels for the areas and populations that constitute the MBTA's core constituency

Task 3 Develop Concepts and Plans

This task will develop several potential concepts for service delivery using the service standards developed in Task 1 and the demographic and ridership analyses conducted in Task 2. The pros and cons of each concept will be presented, and general plans for route design and scheduling will be developed to show how each concept could potentially be realized. These plans would generally discuss potential routing concepts and their

accompanying schedules; however, they would not include detailed discussions of individual routes except in perhaps a few specific cases.

Potential concepts may include, but are not limited to, the following:

- Potential expansions of the rail rapid transit network
- Extensive bus rapid transit corridors with local bus service as necessary
- Limited-stop bus services overlaid on key bus route corridors with local bus service as necessary
- Neighborhood-based local bus service with connections to inter-neighborhood bus services
- Hub-and-spoke local bus service where several routes serve a central “hub” station at the same time, providing for a greater ease of transfer

For markets outside of the MBTA’s core constituency (as defined in Task 2), this task will reference the findings of the ongoing Inner Suburban Mobility Study. This Study is exploring mobility options, provided by the MBTA or other entities, for suburban areas in the Route 128 corridor.

Products of Task 3

Technical Memorandum that includes the following:

- List and discussion of several concepts for service delivery
- Route design and scheduling plans for each concept
- Summary of findings from the Inner Suburban Mobility Study as they relate to coordination with MBTA services

Task 4 Evaluate Financial-Constraint Scenarios

The MBTA currently faces uncertainty regarding future levels of funding from the state. As such, this task will present several potential future financial-constraint scenarios for the MBTA. Each of the concepts developed in Task 3 will then be applied to each financial-constraint scenario, and a discussion of how the concepts may need to change or be adjusted in response to each scenario will be presented. This task will also consider the potential impacts of the various financial-constraint scenarios on relevant service standards. For example, some service standards may require an impossible level of expenditure given financial constraints and may need to be modified or eliminated.

Products of Task 4

Technical Memorandum that includes the following:

- List and discussion of several MBTA financial scenarios
- Discussion of potential impacts of each financial scenario on each service delivery concept
- Discussion of potential impacts of each financial scenario on relevant service standards

Task 5 Document Results

The Technical Memoranda developed in Tasks 1-4 will be integrated into a technical report.

Product of Task 5

- Final Technical Report

ESTIMATED SCHEDULE

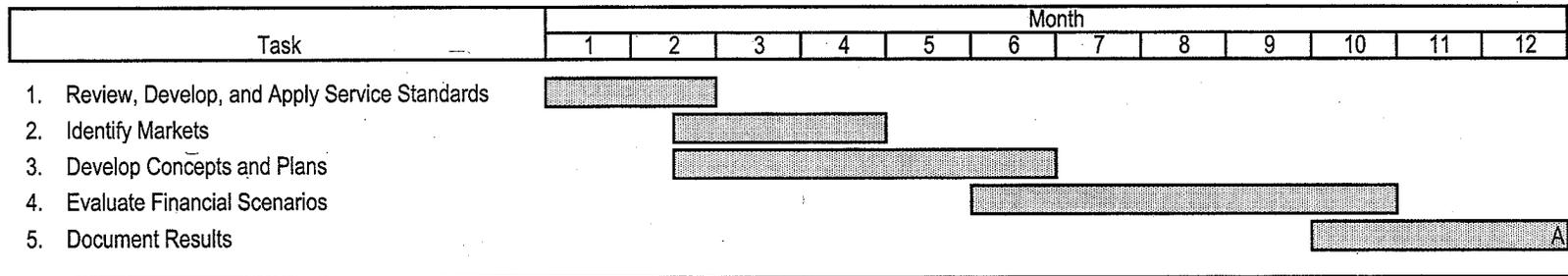
It is estimated that this project will be completed twelve months after the notice to proceed is received. The proposed schedule, by task, is shown in Exhibit 1.

ESTIMATED COST

The total cost of this project is estimated to be \$100,197. This includes the cost of 38.5 person-weeks of staff time and overhead at the rate of 88.99 percent. A detailed breakdown of estimated costs is presented in Exhibit 2.

AJS/RSG/rsg

Exhibit 1
ESTIMATED SCHEDULE
Core Efficiencies Study



Products/Milestones
 A: Technical report

Exhibit 2
ESTIMATED COST
Core Efficiencies Study

Direct Salary and Overhead **\$100,197**

| Task | Person-Weeks | | | Direct Salary | Overhead (@ 88.99%) | Total Cost |
|---|--------------|------|-------|---------------|---------------------|------------|
| | M-1 | P-4 | Total | | | |
| 1. Review, Develop, and Apply Service Standards | 4.0 | 4.0 | 8.0 | \$11,429 | \$10,170 | \$21,599 |
| 2. Identify Markets | 1.5 | 3.0 | 4.5 | \$6,116 | \$5,442 | \$11,558 |
| 3. Develop Concepts and Plans | 4.0 | 6.0 | 10.0 | \$13,868 | \$12,341 | \$26,210 |
| 4. Evaluate Financial Scenarios | 3.0 | 9.0 | 12.0 | \$15,891 | \$14,141 | \$30,032 |
| 5. Document Results | 2.0 | 2.0 | 4.0 | \$5,714 | \$5,085 | \$10,799 |
| Total | 14.5 | 24.0 | 38.5 | \$53,017 | \$47,180 | \$100,198 |

Other Direct Costs **\$0**

TOTAL COST **\$100,197**

Funding
 EOT §5303 3C Transit Planning Contract #TBD

Amendment Two

FFYs 2010 - 2013 TIP

FFY 2010

Indicates a change in project cost

Indicates removed from TIP (cost not reflected in total)

Indicates a project moved in from another TIP funding category

Indicates a project moved out to another TIP element (cost not reflected in total)

Indicates a new addition to the TIP (action taken as denoted)

Indicates a new funding category

Regional Highway Program

FEDERAL-AID TARGET PROJECTS

Congestion Mitigation and Air Quality Improvement Program

| | | | <i>Federal Funds</i> | <i>State Funds</i> | <i>Total Funds</i> |
|---------------|--------|--|-------------------------------------|--------------------------|--------------------|
| Boston | 604761 | South Bay Harbor Trail (construction) | \$3,080,000 | \$770,000 | \$3,850,000 |
| Weymouth | 114906 | Route 53 (Washington Street)/Middle Street | \$1,820,656 | \$455,164 | \$2,275,820 |
| | | | <i>Federal Funds</i> | <i>State/Local Funds</i> | <i>Total Funds</i> |
| Boston Region | | Regionwide CMAQ Program | \$1,600,000 | \$400,000 | \$2,000,000 |
| | | | \$6,500,656 | \$1,625,164 | \$8,125,820 |
| | | | <i>Minimum CMAQ Regional Target</i> | | \$0 |

National Highway System

| | | | <i>Federal Funds</i> | <i>State Funds</i> | <i>Total Funds</i> |
|-----------------------------|--------|--|----------------------|--------------------|---------------------|
| Canton, Randolph & Westwood | 87800 | Route 128 Improvement Program Contract 3, Year Four of Six | \$5,600,000 | \$1,400,000 | \$7,000,000 |
| Dedham, Needham & Westwood | 603206 | Route 128 Improvement Program Contract 4, Year Two of Six | \$8,000,000 | \$2,000,000 | \$10,000,000 |
| | | | \$13,600,000 | \$3,400,000 | \$17,000,000 |

Surface Transportation Program

| | | | <i>Federal Funds</i> | <i>State Funds</i> | <i>Total Funds</i> |
|--------------------|--------|--|----------------------|--------------------|---------------------|
| Danvers/Peabody | 87612 | Route 128 at Route 35 and Route 62 | \$7,360,000 | \$1,840,000 | \$9,200,000 |
| Lexington | 602133 | Intersection Improvements at Route 2A and Waltham St | \$1,289,560 | \$322,390 | \$1,611,950 |
| Everett, Boston | 602382 | Route 99 (Broadway) | \$2,771,088 | \$692,772 | \$3,463,860 |
| Weymouth, Rockland | 604510 | East-West Parkway | \$10,400,000 | \$4,600,000 | \$15,000,000 |
| | | | \$21,820,648 | \$7,455,162 | \$29,275,810 |

Amendment Two

FFYs 2010 - 2013 TIP

FFY 2010

Highway Safety Improvement Program (HSIP) Project

| | | <i>Federal Funds</i> | <i>State Funds</i> | <i>Total Funds</i> |
|---|--|-------------------------------------|--------------------|--------------------|
| Danvers/Peabody | 87612 Route 128 at Route 35 and Route 62 | \$3,867,039 | \$429,671 | \$4,296,710 |
| Highway Safety Improvement Program Total | | \$3,867,039 | \$429,671 | \$4,296,710 |
| | | <i>Minimum HSIP Regional Target</i> | | <i>\$4,296,710</i> |

Total Regional Target Programming **\$56,698,340**
Boston Region MPO Regional Target with State Match *\$56,607,514*

FEDERAL AID NON-TARGET PROJECTS

American Recovery and Reinvestment Act of 2009

| | | <i>Federal Funds</i> | <i>State/Local Funds</i> | <i>Total Funds</i> | <i>Project Notes</i> |
|---|--|----------------------|--------------------------|----------------------|--------------------------|
| Arlington, Cambridge, Somerville | 605372 Minuteman Connector | \$3,600,000 | | \$3,600,000 | |
| Bellingham | 602493 Pulaski Blvd | \$12,982,190 | | \$12,982,190 | |
| Boston | Resurfacing on Federal Aid Roads within Boston | \$21,500,000 | | \$21,500,000 | |
| Boston, Newton, Watertown | 605662 Nonantum Rd Improvements | \$7,926,360 | | \$7,926,360 | |
| Boston Region | Massachusetts Emergency Transportation Fiber Optic Network | \$1,700,000 | | \$1,700,000 | |
| Boston Region | Key Bus Route Investment (flex money to MBTA) | \$10,000,000 | | \$10,000,000 | |
| Braintree | 602027 Resurfacing of Route 37 | \$2,700,000 | | \$2,700,000 | |
| Foxborough | 605871 Pedestrian Bridge over Route 1 | \$0 | | \$0 | project removed from TIP |
| Framingham, Natick | 604991 Route 9 | \$12,500,000 | | \$12,500,000 | |
| Lynn | 605670 Blossom Street Ferry Terminal (flex money to transit) | \$8,400,000 | | \$8,400,000 | |
| Lynnfield, Wakefield | 605756 Improvements at Walnut St and I-95 and Salem St and Audubon Road and I-95 | \$5,922,500 | | \$5,922,500 | |
| Medford | 605122 Clippership Drive | \$1,000,000 | | \$1,000,000 | |
| Norwood | 604916 Pleasant St at Morse St | \$1,151,600 | | \$1,151,600 | |
| Quincy | 604664 Quincy Center Concourse, Phase II | \$8,100,000 | | \$8,100,000 | |
| Revere | Wonderland Station Garage (flex money to MBTA) | \$22,700,000 | | \$22,700,000 | |
| Somerville | 605680 Assembly Square Access Improvements | \$15,000,000 | | \$15,000,000 | |
| Somerville | 603288 Reconstruction of Washington St | \$1,750,000 | | \$1,750,000 | |
| American Recovery and Reinvestment Act Total | | \$136,932,650 | | \$136,932,650 | |

High-Priority Projects (TEA-21)

| | | <i>Federal Funds</i> | <i>State/Local Funds</i> | <i>Total Funds</i> |
|--------|--|----------------------|--------------------------|--------------------|
| Boston | Huntington Ave/Symphony Area Streetscape Constriction (HPP 447) | \$2,140,232 | \$535,058 | \$2,675,290 |
| Boston | Huntington Ave/Symphony Area Streetscape Construction (HPP 1811) | \$820,080 | \$205,020 | \$1,025,100 |

Amendment Two

FFYs 2010 - 2013 TIP

FFY 2010

| High-Priority Projects (SAFETEA-LU) | | <i>Federal Funds</i> | <i>State/Local Funds</i> | <i>Total Funds</i> |
|---|---|----------------------|--------------------------|--------------------|
| Acton to Stow | 604531 Assabet River Rail Trail Design (HPP 1761) | \$1,079,881 | \$269,970 | \$1,349,851 |
| Boston | Chelsea St Bridge Replacement Construction (HPP 2592) | \$1,700,000 | \$425,000 | \$2,125,000 |
| Boston | Chelsea St Bridge Replacement Construction (HPP 4265) | \$6,008,000 | \$1,502,000 | \$7,510,000 |
| Boston | 604997 Museum Way Improvements Construction (HPP 1960) | \$2,871,997 | \$717,999 | \$3,589,996 |
| Boston | 604997 Museum Way Improvements Right of Way Acquisition (HPP 4275) | \$3,004,425 | \$751,106 | \$3,755,531 |
| Boston | Northern Avenue Bridge Design (HPP 4271) | \$800,000 | \$200,000 | \$1,000,000 |
| Boston | East Boston Haul Road Design (HPP 2032) | \$716,800 | \$179,200 | \$896,000 |
| Boston | Rutherford Ave Design (HPP TI 174) | \$2,400,000 | \$600,000 | \$3,000,000 |
| Boston | Sullivan Square, Phase 1 Design (HPP 3568) | \$897,498 | \$224,375 | \$1,121,873 |
| Hudson & Stow | Assabet River Rail Trail Design (HPP 1761) | \$269,250 | \$67,312 | \$336,562 |
| Somerville | I-93 Mystic Avenue Interchange Study (HPP 792) | \$359,000 | \$89,750 | \$448,750 |
| Somerville | 604778 Union Square Improvements Study (HPP 999) | \$73,961 | \$18,490 | \$92,451 |
| Somerville | 604872 Assembly Square Multimodal Access Improvements Construction (HPP 4281) | \$5,007,375 | \$1,251,844 | \$6,259,219 |
| Somerville | 605219 Improvements to Broadway in Somerville Construction (HPP 431)* | \$1,987,798 | \$496,950 | \$2,484,748 |
| Sudbury | Assabet River NWR Parking Design and Construction (HPP 451)** | \$336,000 | \$84,000 | \$420,000 |
| Walpole | 605187 Washington St Construction (HPP 2431) | \$1,259,860 | \$314,965 | \$1,574,825 |
| Weymouth | 601630 Route 18 Design (HPP 1236) | \$1,336,000 | \$334,000 | \$1,670,000 |
| Weymouth | Weymouth Multi-Modal Center Construction (HPP 4276) | \$8,011,800 | \$2,002,950 | \$10,014,750 |
| Section 112 | | <i>Federal Funds</i> | <i>Other Funds</i> | <i>Total Funds</i> |
| Medford | 605122 Clippership Drive Streetscape Construction | \$990,000 | | \$990,000 |
| Section 117 | | <i>Federal Funds</i> | <i>Other Funds</i> | <i>Total Funds</i> |
| Milton | East Milton Square Parking Study (#871) | \$150,000 | | \$150,000 |
| Somerville | Adaptive Reuse and Streetscape Improvements Construction | \$350,000 | | \$350,000 |
| Section 330 | | | | |
| Winthrop | Winthrop Ferry Improvements Construction | \$496,750 | | \$496,750 |
| PLHD Awards (2003) | | <i>Federal Funds</i> | <i>Other Funds</i> | <i>Total Funds</i> |
| Boston | Long Island Pier Improvments | \$35,000 | | \$35,000 |
| 2004 Ferry Boat Discretionary Commuter Ferry | | <i>Federal Funds</i> | <i>State/Local Funds</i> | <i>Total Funds</i> |
| Winthrop | Winthrop Ferry Improvements Construction | \$264,232 | \$66,058 | \$330,290 |

Amendment Two

FFYs 2010 - 2013 TIP

FFY 2010

2005 Ferry Boat Discretionary Ferry Infrastructure

Winthrop Winthrop Ferry Improvements Construction

Eastern Federal Lands Highway Division

Minuteman National Park (Concord) Pavement Management Project

| <i>Federal Funds</i> | <i>State/Local Funds</i> | <i>Total Funds</i> |
|-------------------------------------|--------------------------|---------------------|
| \$208,167 | \$52,042 | \$260,209 |
| <i>Federal Funds</i> | <i>Other Funds</i> | <i>Total Funds</i> |
| \$230,000 | | \$230,000 |
| High-Priority Projects Total | | \$54,192,195 |

*Additional money to be provided from outside sources

**Project management by US Fish and Wildlife

National Highway System - Non Target

Dedham, Needham & Westwood 603206 Route 128 Improvement Program Contract 4

NHS Non Target Total

| <i>Federal Funds</i> | <i>State Funds</i> | <i>Total Funds</i> |
|----------------------|--------------------|---------------------|
| \$12,400,000 | \$3,100,000 | \$15,500,000 |
| \$12,400,000 | \$3,100,000 | \$15,500,000 |

FEDERAL-AID BRIDGE PROJECTS

Bridge

Boston 604388 Route 145 over Belle Isle Inlet

Framingham 604013 Fountain St over MBTA

Major Bridge Total

| <i>Federal Funds</i> | <i>State Funds</i> | <i>Total Funds</i> |
|----------------------|--------------------|--------------------|
| \$4,720,000 | \$1,180,000 | \$5,900,000 |
| \$3,120,000 | \$780,000 | \$3,900,000 |
| \$7,840,000 | \$1,960,000 | \$9,800,000 |

Advance Construction Bridge

Boston 604517 Chelsea Street Bridge

Boston 603370 Route 99 (Alford Street) over Mystic River

Lynn & Saugus 26710 Route 107 (Fox Hill) Bridge, Year Four

Advance Construction Bridge Total

| <i>Federal Funds</i> | <i>State Funds</i> | <i>Total Funds</i> |
|----------------------|--------------------|---------------------|
| \$9,200,000 | \$2,300,000 | \$11,500,000 |
| \$7,200,000 | \$1,800,000 | \$9,000,000 |
| \$6,880,000 | \$1,720,000 | \$8,600,000 |
| \$23,280,000 | \$5,820,000 | \$29,100,000 |

Special Bridge Program

Littleton 604841 Taylor Street over I-495

Maynard 603658 Route 27 over the Assabet River

Special Bridge Total

| <i>Federal Funds</i> | <i>State Funds</i> | <i>Total Funds</i> |
|----------------------|--------------------|---------------------|
| \$18,240,000 | \$4,560,000 | \$22,800,000 |
| \$5,040,000 | \$1,260,000 | \$6,300,000 |
| \$18,240,000 | \$4,560,000 | \$22,800,000 |

Accelerated Bridge Program - Federal Aid GANS Projects***

Ashland 603602 Route 135 (Union Street) over the Sudbury River

Boston/Cambridge 604361 Longfellow Bridge (Cambridge Street over the Charles River)

Boston 603654 Morton Street over the MBTA

Boston 603443 River Street over the MBTA and Amtrak

Wellesley 600776 Rockland Street over CSX

Accelerated Bridge Program Total

| <i>Federal Funds</i> | <i>State Funds</i> | <i>Total Funds</i> |
|---------------------------------|--------------------|----------------------|
| | | \$3,150,000 |
| | | \$60,000,000 |
| | | \$4,157,100 |
| | | \$9,633,664 |
| | | \$2,286,129 |
| | | \$79,226,893 |
| Federal-Aid Bridge Total | | \$156,426,893 |

***GANS conversion to federal aid to begin in 2015

The MBTA received a TIGGER (Transit Investment for Greenhouse Gas and Energy Reductions) grant for \$2.5 million. The funds will be used to build two wind turbines:

- A 100kW turbine at the Kingston Layover which is expected to generate approximately 65% of the electricity needs of the layover (station, layover and parking lot)
- A 600kW turbine at the Newburyport Layover which is expected to generate approximately 85% of the electricity needs of the layover

These two sites were selected after the MBTA did a planning study looking at wind speeds, availability of land, adjacent land use, electricity demands, proximity to a regional interconnectivity point, natural resource impacts and other factors. The MBTA identified three prime locations: Kingston, Newburyport, and Bridgewater. FTA provided sufficient funding to build two out of the three.

Procurement will begin when the funds are received (in the spring). The MBTA expects the Kingston site will be on line first (fall of 2010) and the Bridgewater site will be on line in spring 2011.

In the initial TIGGER grant application, the MBTA requested \$25 million for a series of wind turbine and solar projects on MBTA property. FTA was able to fund \$2.5 million for turbines.

2010 TIP Development Calendar for the FFYs 2011 – 2014 TIP

January 11, 2010 – Letter to Municipal CEOs, asking for name of TIP Contact and including list of active municipal projects and requesting a list of projects to be pursued for funding.

February 1 – Municipal TIP Contact updates and projects to be pursued and Municipal TIP Input Day RSVPs due.

February 8 – Proponent Provided Information Forms (PPIFs) MPO Project Information Forms (PIFs), and new TIP handbooks to be e-mailed to TIP contacts.

February 17 – TIP “How To” seminar - TBD

February 22 – TIP “How To” seminar - TBD

February 23 – TIP “How To” seminar - TBD

March 1 – Proponent Provided Information Forms due from TIP Contacts.

April 12 – Target date for Transportation Planning and Programming Committee members and TIP contacts who RSVPed for TIP day to receive updated MPO Project Information Forms and MPO project evaluation matrix.

One week after distribution of MPO Project Information Forms all municipal changes to information are due back to the Boston Region MPO TIP Manager, Hayes Morrison.

April 26 – Target publishing date of the Boston Region MPO TIP Days book. This information will be transmitted via e-mail to TPPC members and municipal TIP Contacts.

May 5 and 6 – Municipal TIP Input Days.

May 20 – Agency TIP Day.

June 3 – Target date for TPPC members and TIP contacts to receive staff recommendation options for “TIP Tables” for the FFYs 2011 – 2014 TIP; members begin development of Draft TIP.

June 17 – Proposed TPPC meeting to prepare Draft TIP.

July 8 – Vote on Draft TIP for public review.

July 12 – Proposed date for beginning of public review period for Draft TIP.

July 13 – Proposed date for end of public review period for Draft TIP.

August 19 – Proposed date for MPO action on the Draft TIP.



Massachusetts Department of Transportation

**Transit Commitments
December 2009 Status Report**

December 17, 2009

For questions on this document, please contact:

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INTRODUCTION

This report is being submitted to the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) to provide an update on the status of the four outstanding State Implementation Plan (SIP) transportation control measure (TCM) projects: (1) improvements to the Fairmount Line, (2) the siting and construction of 1,000 new commuter parking spaces, (3) the design of the Red Line/Blue Line Connector, and (4) the construction of the Green Line Extension to College Avenue (Medford) and Union Square (Somerville). The U.S. Environmental Protection Agency (EPA) approved the projects as part of the SIP on July 31, 2008. A complete description of the process by which those projects were included in the SIP is provided in the Boston Region MPO's long-range transportation plan – JOURNEY TO 2030 Amendment adopted on September 24, 2009. As part of the approval of the JOURNEY TO 2030 Amendment, FHWA and FTA stated:

“The demonstration of timely implementation of TCMs in the SIP is required for a conformity determination. In order to ensure that the TCMs are completed as scheduled, the Executive Office of Transportation and Public Works shall prepare monthly progress reports to FTA, FHWA, and EPA. In addition to these progress reports EOT (MassDOT after November 1, 2009) shall convene monthly meetings with all interested parties to discuss the status of each TCM. This reporting requirement will be effective starting November 2009.”

This is the second of the required status reports, to be presented at the Boston MPO's Transportation Planning and Programming Committee at their December 17, 2009 meeting. This report builds on the *State Implementation Plan Transit Commitments 2009 Status Report*, submitted to the Massachusetts Department of Environmental Protection on July 1, 2009. This report will be posted on the website of the Massachusetts Department of Transportation.

I. FAIRMOUNT LINE IMPROVEMENT PROJECT

Project Description

The 9.2-mile Fairmount commuter rail line runs from South Station, currently serves four stations (Uphams Corner, Morton Street, Fairmount, and Readville) in the communities of Dorchester, Mattapan, and Hyde Park, and terminates in the Readville section of Boston. The line, which uses right-of-way entirely owned by the MBTA, also includes 41 bridges. It is the only MBTA commuter rail line that exclusively serves neighborhoods within the City of Boston, but ridership has historically been low and passenger facilities along the line do not meet modern standards.

The Fairmount Line Project includes the rehabilitation of the existing Uphams Corner and Morton Street Stations, construction of four new stations – Newmarket, Four Corners, Talbot Avenue, and Blue Hill Avenue – reconstruction of six existing railroad bridges (located over Columbia Road, Quincy Street, Massachusetts Avenue, Talbot Avenue, Woodrow Avenue, and the Neponset River), and construction of a new interlocking and upgraded signal system (required to advance the bridge reconstruction work). These upgrades will enhance future service, allowing for increased frequency on the line.

Project Cost

The total estimate for the Fairmount Line Improvements SIP Project is \$138,105,000.

Project Funding

In August 2007, MassDOT and the MBTA executed a contract to transfer approximately \$39 million in Commonwealth bond funds from MassDOT to the MBTA to support the costs of (1) signal work, (2) reconstructing three major bridges on the line (the Columbia road, Quincy Street, and Massachusetts Avenue bridges), (3) designing three others (the Talbot Avenue, Woodrow Avenue, and Neponset River bridges), and (4) designing the remaining three new stations (the Newmarket, Talbot, and Blue Hill Avenue stations). A supplemental funding agreement providing \$23,756,574 in Commonwealth bond funding has been executed for the cost of construction of the Four Corners Station, enabling construction procurement to take place in Fall 2009 with bid opening Oct. 2009 and construction contract award authorization by MBTA Board of Directors in Dec. 2009.

SIP Deadline

"Before December 31, 2011, construction of the following facilities shall be completed and opened to full public use: Fairmount Line improvements consisting of enhancements of existing stations including without limitation: platform extensions; improved lighting and improved access; a new station in the general location of Four Corners, and a new station in each of the neighborhoods of Dorchester, Mattapan and

Roxbury; and bridge upgrades and other measures to improve service and increase ridership (the Fairmount Line project)."

Project Status

Systems

The upgrades to the interlocking and signal system have been completed and are currently in use, allowing for the reconstruction of structurally deficient bridges along the Fairmount Line.

Bridges

A construction contract to replace the Columbia Road, Quincy Street, and Massachusetts Avenue bridges was awarded in October of 2007, with work currently scheduled to be completed in 2010. The design of the Talbot Avenue, Woodrow Avenue, and Neponset River bridges is 100% complete and construction is expected to begin in the spring of 2010. Talbot Avenue and Woodrow Avenue will be constructed under the same construction contract as the Talbot Avenue Station with the project construction bid advertisement anticipated for January 2010 with finalization of the state funding agreement. The Neponset River Bridge will be a stand-alone construction project occurring at the same time.

Existing Stations

The MBTA held a station-opening at Uphams Corner on January 23, 2007. The reconstruction of Morton Street was celebrated at a station-opening on July 17, 2007. New elements at both stations include extended high-level passenger platforms, accessible walkways, canopies, benches, windscreens, signage, bicycle racks, variable messages signs, lighting, and landscaping.

New Stations

The MBTA has completed the design of **Four Corners Station**. Construction bids were then opened in October 2009. The MBTA Board of directors approved authorization of a \$17.7 million construction contract award to S & R Construction at its December 2009 meeting.

Currently, **Talbot Avenue Station** is at 100% design and the MBTA anticipates putting the project out to bid for construction in January/February 2010. This construction package will also include the rehabilitation of the Talbot Avenue and Woodrow Avenue Bridges. An approximately two-year construction period is anticipated, with the completion of the station and the bridges by November/December 2011.

Newmarket Station is currently at 100% design. An anticipated project construction bid advertisement is for February 2010.

Blue Hill Avenue/Cummins Highway is at 60% design, but concerns raised in the community process have compelled the MBTA to review potential alternative locations for Mattapan Station. A technical assessment of an alternative station site in the River Street area is underway and is expected to be completed by the end of December. Depending on the outcome of the assessment and the ongoing civic engagement process, the MBTA hopes to complete final design of a Mattapan Station in 2010 and maintain the schedule for meeting the December 2011 deadline.

Potential Challenges

Abutter opposition and an extended civic engagement process/technical review could slow progress on constructing a new station in Mattapan.

II. CONSTRUCTION OF 1,000 NEW PARKING SPACES

Project Description

The MBTA will construct 1,000 new parking spaces at the Beverly Commuter Rail Station (500 spaces) and the Salem Commuter Rail Station (500 spaces) to encourage commuters and other travelers to make use of the public transit network for trips into downtown Boston.

Project Cost

Beverly cost estimate (concept level): \$20,300,000

Salem cost estimate (pre-30%): \$45,000,000

Project Funding

MassDOT will fund the costs of the Beverly and Salem parking projects and will require that the development be completed in time to meet with the SIP deadline of December 31, 2011.

SIP Deadline

Before December 31, 2011, construction of the following facilities shall be completed and opened to full public use: 1000 new park and ride parking spaces serving commuter transit facilities within the 101 cities and towns constituting the Boston Metropolitan Planning Organization.

Project Status

Beverly

On June 8, 2008, the MBTA issued a solicitation for a mixed-use development – to include the parking as well as other uses – for appropriate parcels in the vicinity of the Beverly commuter rail station. Proposals were received by the advertised deadline of August 8, 2008, and based on these proposals, MassDOT and the MBTA selected a preferred location on a series of parcels on Rantoul Street in downtown Beverly. Based on that selection, the MBTA completed the federal environmental

review of the project. At its meeting on June 4, 2009, the MBTA Board of Directors voted to acquire the property using state and federal funding. Land acquisition was completed over the summer.

No responsive bids were received in Fall 2009 for joint public-private development of the garage facility. An alternative implementation plan is underway to initiate design of a stand-alone garage facility and undertake a Construction Management At Risk procurement under Massachusetts General Laws Chapter 149A. Action is pending for the MBTA Board of Directors at the Board's January 2010 meeting seeking authorization for the Authority to apply with the Inspector General's office to pursue the alternative procurement option and facilitate meeting the SIP project deadline of December 2011. MassDOT has agreed to assist in the public costs of the Beverly project with the primary requirement that the project meet the overall completion deadlines identified in the SIP. Proposed schedule for implementation includes:

- December 2009/January 2010 through Summer 2010: Design/Permitting
- Fall 2010: Construction Start
- Spring/Summer 2011: Construction Completion (34 weeks)

Salem

The parking garage at the Salem commuter rail station would contain approximately 750 spaces in a multi-level structure to be shared proportionately between the MBTA and the Department of Capital Asset Management (DCAM). Currently, DCAM proposes to contribute \$3 million in exchange for the use of 150 spaces to serve the new Essex County Courthouse complex. The project is estimated to cost approximately \$45 million. In addition to the \$3 million in DCAM funding, the FTA has earmarked \$3.375 million for the project.

The contract amendment to advance design of the 750 space Salem parking garage to 30% was approved by the MBTA and work commenced in early June, 2009. The 30% design was completed in December 2009. The funding agreement is pending to complete the final design. The final design contract scope is scheduled for MBTA Board of Directors approval in January 2010.

Potential Challenges

MassDOT acknowledges that it has failed to meet the first of the interim milestones required for this element of the SIP. MassDOT is also mindful of the approaching 2011 deadline, and is collaborating with the MBTA to advance the projects to implementation. If that becomes unachievable, MassDOT will notify DEP and the public and will identify any necessary mitigation, as required by the SIP, in a timely manner. MassDOT realizes that there is an aggressive design/construction schedule for implementation.

III. RED LINE-BLUE LINE CONNECTOR - DESIGN

Project Description

The proposed Red Line/Blue Line Connector – intended to improve mobility and regional transportation access for residents of East Boston and North Shore communities and the residents of Cambridge and the northwestern suburbs, as well as relieve congestion in the central subway – consists of an extension of the MBTA Blue Line under Cambridge Street to the Red Line station at Charles/MGH. As currently envisioned, the project consists of two major components: (1) a new tunnel extending the Blue Line under Cambridge Street from Joy Street to Charles Circle and (2) a new underground Blue Line station connected to the existing Charles/MGH station. The project will also consider whether and how to make use of the existing Bowdoin Station – which will require significant rehabilitation – possibly including the relocation of underground trackage and platforms at Bowdoin Station. The exact configurations of both the Charles/MGH platform and the new Blue Line station have not yet been determined.

Project Cost

It is estimated that it will require \$30,000,000 to complete the legal commitment (the current consultant contract is for \$3,000,000 to complete a Draft Environmental Impact Report by June 2010).

Project Funding

The ‘immediate needs’ Transportation Bond Bill of 2007 provided state bond funding for the design of the Red Line/Blue Line Connector project. The costs of this project will be supported using funds from that source.

SIP Deadline

Before December 31, 2011, complete final design of the Red Line/Blue Line Connector, from the Blue Line at Government Center to the Red Line at Charles Station.

Project Status

On September 14, 2007, MassDOT filed an Expanded Environmental Notification Form with the Massachusetts Environmental Policy Act Office. A public scoping session was held on October 17, 2007, and the Secretary of Energy & Environmental Affairs issued a certificate on the project on November 15, 2007. Based on the project scope as defined in the MEPA Certificate, MassDOT issued a Request for Proposals on March 27, 2008 for a consultant to complete the necessary environmental reviews and engineering for the project. MassDOT awarded a consultant contract during the summer of 2008.

MassDOT is completing the necessary environmental reviews and conceptual engineering for the project, as described below.

Public Outreach

- Five Working Group meetings have been held with the most recent one on December 14. Additional Working Group meetings will be scheduled every two months until the Draft Environmental Impact Report is submitted.
- A project website has been launched.

Refinement of Alternatives/Conceptual Engineering

- The refinement of alternatives was performed for three options: (1) a no-build option, (2) a tunnel option with Bowdoin Station remaining open, and (3) a tunnel option with Bowdoin Station eliminated. The refinement of alternatives also included an evaluation of potential construction options (a mined tunnel vs. a cut-and-cover tunnel) and construction phasing schemes.
- The Definition of Alternatives/Conceptual Engineering Report was completed in November 2009.

Design Criteria

- A draft Design Criteria Report was prepared and was included with the Definition of Alternatives Report.

Alternatives Analysis

- Alternatives Analysis will be completed between November 2009 and January 2010.

Design

- The conceptual design of the project is underway.

Cost Estimates

- Conceptual cost estimates were included in the Definition of Alternatives Report.

Construction Staging and Sequencing Plans

- Construction Staging and Sequencing Plans were included in the Definition of Alternatives Report.

Real Estate Requirements

- Potential real estate impacts will be identified as part of DEIR/EA.

The following major milestones are anticipated over the course of the next year:

- Alternatives Analysis Report – January 2010
- Draft Environmental Impact Report – June 2010

By filing an Expanded Environmental Notification Form and having successfully selected a design consultant, MassDOT is advancing the Red Line/Blue Line Connector

project. MassDOT currently believes that it is on track to meet the SIP requirement to complete final design for the Red Line/Blue Line Connector by December 31, 2011.

Potential Challenges

There has been some unfavorable press coverage about the Red Line/Blue Line project spending \$3 million on a project that does not currently have capital funds for construction. There is the possibility that soliciting proposals for the approximately \$25 million required to comply with the legal commitment will generate additional negative publicity given recent reviews of the state of the MBTA's finances.

IV. GREEN LINE EXTENSION TO SOMERVILLE AND MEDFORD

Project Description

This project - the purpose of which is to improve corridor mobility, boost transit ridership, improve regional air quality, ensure equitable distribution of transit services, and support opportunities for smart growth initiatives and sustainable development - will extend the Green Line from a relocated Lechmere Station within the MBTA's Lowell Line commuter rail right-of-way to Medford with a branch line along the MBTA's Fitchburg Line commuter rail right-of-way to the vicinity of Union Square in Somerville.

Stations are currently proposed to be located in the vicinity of:

- **Mystic Valley Parkway/Route 16** – Located in the vicinity of the intersection of Mystic Valley Parkway/Route 16 and Boston Avenue in Somerville/Medford, south of the Mystic River. The station platform will be located south of the Mystic Valley Parkway/Route 16 undergrade crossing of the MBTA's Lowell Line commuter rail tracks. Access to the station will be provided via property adjacent to Boston Avenue and Route 16. *This station is proposed to be constructed as part of a second phase of the project, to be completed after the December 31, 2014 legal deadline.*
- **College Avenue/Medford Hillside** – Located at the intersection of College Avenue and Boston Avenue in Medford, adjacent to Tufts University. The station platform will be located on the north side of the College Avenue overgrade bridge crossing of the MBTA's Lowell Line commuter rail tracks. Access to the station will be provided from both Boston Avenue and College Avenue.
- **Broadway/Ball Square, Medford/Somerville** – Located at the intersection of Broadway and Boston Avenue on the north side of Ball Square (located in both Somerville and Medford). The station platform will be located on the north side of the Broadway overgrade bridge crossing of the MBTA's Lowell Line commuter rail tracks. Access to the station will be provided from both Boston Avenue and from Broadway.

- **Lowell Street, Somerville** – Located at the Lowell Street bridge overgrade crossing of the MBTA’s Lowell Line commuter rail tracks, adjacent to the proposed Somerville Community Path. The station platform will be located on the north side of the Lowell Street Bridge and access to the station will be provided from Lowell Street.
- **Gilman Square, Somerville** – Located in the vicinity of the Medford Street crossing of the MBTA’s Lowell Line commuter rail tracks, behind Somerville’s City Hall, Public Library, and High School. The station platform will be located on the north side of the Medford Street overgrade bridge crossing of the MBTA’s Lowell Line commuter rail tracks. Access to the station will be provided from Medford Street. The proposed Somerville Community Path will be located in close proximity to the station.
- **Brickbottom, Somerville** – Located in the vicinity of Washington and Joy Streets in Somerville’s Brickbottom/Inner Belt area. The station platform will be located south of Washington Street’s undergrade crossing of the MBTA’s Lowell Line commuter rail tracks. Access to the station will be provided via property on Joy Street, with potential access also to occur from the City’s proposed Inner Belt development on the east. The proposed Somerville Community Path will be located in close proximity to the station.
- **Union Square, Somerville** – Located east of Prospect Street in the vicinity of Union Square in Somerville. The station platform will be located within the MBTA’s Fitchburg Line commuter rail right-of-way east of Prospect Street from both the street and bridge levels. Access to this station will be provided from Prospect Street.

Support Facility

The Green Line Extension will also require the construction of a new light rail maintenance facility for vehicle care and storage in the vicinity of the Green Line Extension. MassDOT has identified a three-part parcel known as Yard 8 – in the Brickbottom/Inner Belt area of Somerville – as the preferred location within the project corridor for the facility. In addition, MassDOT is currently studying two alternative locations for the maintenance/storage facility, known as ‘Mirror H’ and ‘Option L’. MassDOT has prepared a preliminary analysis of these additional sites, which is available on the Green Line Extension project website (www.mass.gov/greenlineextension). MassDOT also presented the information at a public meeting on December 16 in Cambridge.

Project Cost

The DEIR/EA includes concept plans (at the 10% level) for the alternative alignments considered for the Green Line Extension project, as well as detailed capital cost estimates for those alternatives. The capital improvements include, but are not limited to: construction of track, station structures, drainage, utilities, property acquisitions and relocations, vehicle acquisitions, and the construction of a vehicle maintenance facility. The project cost also includes relocating the existing Lechmere Station. The total cost is

estimated at \$805 million in 2008 dollars, including \$76 million for the purchase of new vehicles. The total estimated costs for the project have been increased to include inflation for the implementation period (Year of Expenditure Dollars or "YOE"). The YOE dollar costs for the project are projected to be \$932.4 million.

Project Funding

MassDOT intends to pursue federal funding – through the competitive New Starts program managed by FTA – for the Green Line Extension. MassDOT worked with an independent consultant retained by FTA in order to verify and refine project plans and estimations in anticipation of submitting a formal application for New Starts funding. Should the Green Line Extension not be successful in the New Starts application process, the Commonwealth will be responsible for funding the full costs of the project on its own. This would compel MassDOT to review all project components and costs for affordability.

SIP Deadline

Before December 31, 2014, construction of the following facilities shall be completed and opened to full public use: 1. The Green Line Extension from Lechmere Station to Medford Hillside; 2. The Green Line Union Square spur of the Green Line Extension to Medford Hillside.

Project Status

The following work has been completed or is currently on-going in support of the Green Line Extension project:

Public Outreach

- Advisory Groups– 11 held
- Station Workshops (February 2008) – 5 held
- Interagency meetings (ongoing) – 31 held so far
- Neighborhood briefings– 16 held so far
- Public agency and local official briefings (ongoing) – 43 held so far
- Institution and business group meetings (ongoing) – 3 held so far
- Public Meetings – 5 held so far
- Advisory Group Tutorials– 3
- Public Hearing – 1 held for DEIR/EA

Refinement of Alternatives

- Completed

Development of Design Criteria

- Completed

Station Location Program and Siting

- Completed

Support Facility Program and Siting

- Completed

Design of Green Line Vehicles

- Underway (using funding provide by MassDOT, the MBTA and their consultant are currently developing vehicle specifications). The MBTA intends to advertise for vehicle procurement early in 2010.

Alternatives Analysis

- Completed

Conceptual Engineering

- Completed

Design

- Completed

Cost Estimates

- Completed, currently being reviewed by FTA

Construction Staging and Sequencing Plans

- Completed, currently being reviewed by FTA

Real Estate Requirements

- Completed, potential real estate impacts have been identified as part of DEIR/EA. MassDOT will continue to work with the project team and the MBTA to investigate opportunities to minimize property impacts during Preliminary Engineering.

The following major milestones are anticipated for the next few months:

- FTA New Starts Application – Winter 2010

Potential Challenges

The siting of the needed vehicle maintenance/storage facility has been the most significant planning challenge for the Green Line Extension project. MassDOT is continuing to work closely with the City of Somerville and community residents to develop a solution for the siting of the facility that meets the needs of all parties, but the delay caused by controversy over the location of the facility has cost the project valuable time.

The Clean Air and Mobility Program

The MPO has launched the Clean Air and Mobility Program in order to fund a wider variety of projects that improve air quality and mobility, and reduce congestion in the region using federal Congestion Mitigation and Air Quality (CMAQ) funds. This program expands on three previously existing programs: the Suburban Mobility, Transportation Demand Management (TDM), and Bike Rack Infrastructure Program. These activities will still be eligible for funds in the Clean Air and Mobility program; however, the program will broaden the scope of possible projects. The objectives of the program are to:

- Support new transit services in areas unserved or underserved by the existing transit system
- Serve as a funding source for implementing small-scale roadway, intersection, bicycle, and pedestrian facilities that are recommended in MPO evaluations and studies
- Develop a broader range of proposals from public entities in the region to expand the variety and scope of CMAQ investments
- Improve the effectiveness of CMAQ funds in reducing emissions and congestion in the region

There will be \$2 million in funds available in federal fiscal year 2010 for CMAQ-eligible projects and programs. The deadline for proposals for funding in the Clean Air and Mobility program is April 1, 2010. There will be four public seminars to provide opportunities to discuss the program with MPO staff. MPO staff will also provide technical assistance to applicants.

Regional transit authorities, municipalities, transportation management associations, chambers of commerce, and nonprofit transportation advocacy groups in the MPO region are invited to submit proposals. All projects must have an RTA, a municipality, or a transportation agency as a fiduciary agent. Joint proposals are accepted.

Applications will be evaluated and selected based on criteria such as vehicle emissions reductions, mobility, sustainability, cost-effectiveness, population served, or modal and geographic balance (compared to other projects to be funded). Eligible projects and programs fall into three categories; transit operations, Transportation Demand Management (TDM)/Transportation Systems Management (TSM) programs or projects, and infrastructure projects. Listed below are some examples of eligible projects and programs, with links to their corresponding federal guidance.

- Diesel engine retrofits (non-transit vehicles)
- “Costs-above” fleet replacement to hybrid vehicles (non-transit vehicles)
- Marketing and promotion of transit, bicycle, and pedestrian modes
- Congestion relief measures (intersection and roadway improvements that improve traffic flow)
- Bicycle parking infrastructure
- Parking-demand-management programs
- Infrastructure investments that increase bicycle and pedestrian mode share (such as bike lanes, sidewalks,

- signs, curb ramps, signals, crosswalks, and crosswalk technology)
- Transit access improvements
- Access management programs
- New transit services (according to past practice in the MPO's Suburban Mobility Program)
- Intermodal facilities
- Travel demand strategies
- Incident management programs
- Traffic operation centers
- Idling reduction methods

Projects and programs must demonstrate air quality benefits and be eligible for federal aid. (Please view the FHWA website for more detailed federal CMAQ guidance.) Infrastructure improvements must be initiated according to the Massachusetts Highway Department Project Development and Design Guide. Another requirement is compliance, when applicable, with the Americans with Disabilities Act. All projects must meet the criteria of the Statewide CMAQ Committee and must either reduce vehicle emissions or, for activities promoting non-automobile modes, must not increase emissions in the region. Transit operations proposals must be for new service. They cannot be used to supplement or replace funding for existing service.

For more information on the Clean Air and Mobility program, please contact Eric Bourassa, Transportation Manager, MAPC, at ebourassa@mapc.org or 617-451-2270 ext. 2043; or Hayes Morrison, TIP Program Manager, MPO staff, at hayesm@bostonmpo.org or 617-973-7129.

December 16, 2009

Clean Air and Mobility Program

Introduction, Program Guidelines, Overview of Application, and Link to Applications

Introduction

The Clean Air and Mobility program expands on three previously existing programs: the Suburban Mobility, Transportation Demand Management (TDM), and the Bicycle Rack Infrastructure programs. These activities will continue in federal fiscal year (FFY) 2010, however, the MPO's new initiative will broaden the program scope to include all activities eligible to be funded with federal Congestion Mitigation and Air Quality (CMAQ) funds.

There will be \$2 million in funds available in federal fiscal year 2010 for CMAQ-eligible projects and programs. The deadline for proposals for funding in the Clean Air and Mobility program is April 1, 2010. There will be four public seminar opportunities to discuss the program with MPO staff. MPO staff will also provide technical assistance to applicants.

Clean Air and Mobility Program Guidelines

Eligible Applicants

Regional transit authorities (RTAs), municipalities, transportation management associations, chambers of commerce, and nonprofit and not-for-profit transportation advocacy groups in the MPO region are invited to submit proposals. All projects must have an RTA, a municipality, or a transportation agency as a fiduciary agent.

Eligible Activities

Eligible projects and programs fall into three categories, transit operations, Transportation Demand Management (TDM/Transportation Systems Management (TSM) programs), and infrastructure projects. Listed below are some examples of eligible projects and programs.

- Diesel engine retrofits (non-transit vehicles)
- "Costs-above" fleet replacement to hybrid vehicles (not-transit vehicles)
- Congestion relief measures (intersection and roadway improvements that improve traffic flow)
- Infrastructure investments that increase bicycle and pedestrian mode share (bike lanes, sidewalks, signs, curb ramps, signals, crosswalks, crosswalk technology)
- Transit access improvements
- Marketing and promotion of transit, bicycle, and pedestrian modes
- Bicycle parking infrastructure
- Parking-demand management programs
- Access management programs

- New transit services (according to past practice in the MPO's Suburban Mobility Program)
- Intermodal facilities
- Travel demand strategies
- Incident management programs
- Traffic operation centers
- Idling reduction methods

Eligibility Prerequisites

There are several basic eligibility prerequisites. Projects must comply with all federal-aid eligibility requirements, such as, for an intersection project, being on a federal-aid eligible roadway. Another requirement is compliance, when applicable, with the Americans with Disabilities Act. In addition, infrastructure improvements must be initiated according to the MassDOT Highway Division Design Guide.

Projects must meet the criteria of the Statewide CMAQ Committee and must either reduce vehicle emissions or, for activities promoting non-automobile modes, must not increase emissions in the region.

Transit operations proposals must be for new service. They cannot be used to supplement or replace funding for existing service.

Project and Program Selection

Considerations will include:

- emissions reductions
- contribution to mobility and sustainability
- cost-effectiveness
- population served
- mode (s) promoted
- geographic balance (compared to other projects to be funded in this program)

Projects and programs will be compared both against those in its own category and against all submitted. Priority is given to projects proposed for areas underserved by transit. Projects cannot duplicate existing service.

Overview of Application

The following items provide guidance for filling out the application.

1. Select Appropriate Application

Please choose the application under which your proposed activity falls. Each application gathers information appropriate for that particular category of activity.

2. Project/ Program Sponsor and Title

Please provide the name of the entity proposing the project or program and the title for the activity.

3. Contact Information

Include name, title, address, telephone, and email address of the individual who will be responsible for directing the project or program on a daily basis.

4. Project Narrative

Provide a brief written description of the proposed project or program. Discuss the need for this activity and identify its objectives. Discuss the project area or the service area and provide a map.

For TDM/TSM programs, identify the expected products.

For transit operations, please discuss ridership and describe the service, including details of the operation.

For infrastructure projects, please provide information from either the previously submitted TIP Proponent Provided Information Form or Highway Division Project Initiation Form. Note the status of the projects in the Highway Division design review process.

5. Project or Program Schedule

For TDM/TSM activities and infrastructure projects, provide the project schedule, including the start and completion dates, and project milestones. For transit operations, provide a schedule that shows the schedule for planning, implementation, and reporting.

6. Project Budget

Provide a budget by activity or task that includes, for example, construction estimates, equipment purchases, and consultant services. If the project has been initiated with the Highway Division, please provide current estimate for total federal participating cost for the project.

7. Documentation of Local Match

Capital projects will be required to have a 20 percent local match each year for up to three years of funding. Operating programs will be required to have a 20, 30, or 40 percent match for years one through three, respectively. An application for funding for years two and three will require cost-benefit reports. If the local government will be providing the match, please provide an outline detailing the matching funds and their sources.

Links to Applications

Please click on the application link that is appropriate for your project or program.

Transit Operations

TDM/TSM Program

Infrastructure

FAQs

1. *What will happen with the Suburban Mobility, Transportation Demand Management (TDM), and Bike Rack Infrastructure Programs?*

Projects previously funded under the Suburban Mobility, Transportation Demand Management (TDM), and Bike Park Infrastructure Programs will still be eligible for funding. The Clean Air and Mobility program aims to achieve even greater clean air and mobility benefits by expanding the program to accommodate more project types.

2. *How do I know if my infrastructure project is eligible for federal aid?*

To determine federal-aid eligibility, please refer to the MassDOT Highway Division Road Inventory Map at [www.mhd.state.ma.us/Webapps/Planning/RoadInventoryMap/\(5y30xf55hd1vjm45gubufpik\)/default.aspx](http://www.mhd.state.ma.us/Webapps/Planning/RoadInventoryMap/(5y30xf55hd1vjm45gubufpik)/default.aspx). Bike paths are also federal aid eligible.

3. *What are the infrastructure project design guidelines?*

Adherence to the Massachusetts Highway Department Project Development and Design Guide is required. It can be viewed at www.mhd.state.ma.us/default.asp?pgid=content/designGuide&sid=about-para4.

4. *Are planning studies eligible for CMAQ funding?*

Planning studies are not eligible for funding and cannot be considered part of the project's local match. Transit projects cannot duplicate an existing service. Projects for fixed-route transit service in a given area must be ADA-compliant if paratransit service is not already provided in that service area.

5. *What is the funding request limit?*

There is no limit for a funding request; however the FFY 2010 CMAQ program is limited to \$2 million total.

6. *What is the proponent's share of project or program funding?*

Capital projects will be required to have a 20 percent local match each year for up to three years of funding. Operating programs will be required to have a 20, 30, or 40 percent match for years one through three, respectively. An application for funding for years two and three will require cost-benefit reports.

7. *When are the proposals due?*

Proposals are due April 1. Please refer to the Clean Air and Mobility Program schedule for more information.

8. *When will the contracts be awarded?*

MassDOT's Office of Transportation Planning is currently scheduled to begin administering contracts in June, 2010.

9. *Where can I find detailed information on CMAQ guidance and eligibility?*

Information on the CMAQ program can be found on the Federal Highway Administration (FHWA) website. The links posted below will take you to Web pages that discuss specific types of projects and programs. In addition, MPO staff are available to answer your questions on this program. You may contact:

For more information on the Clean Air and Mobility program, please contact Eric Bourassa, Transportation Manager, MAPC, at ebourassa@mapc.org or 617-451-2270 ext.2043 or Hayes Morrison, TIP Program Manager and Clean Air and Mobility Program Contact, MPO staff, at hayesm@ctps.org or 617-973-7129.

FHWA website links:

- FHWA CMAQ Brochure –
www.fhwa.dot.gov/environment/cmaq/contents.htm
- CMAQ eligible projects and programs –
www.fhwa.dot.gov/environment/cmaq08gm.htm
- Transit and public transportation projects –
www.fhwa.dot.gov/environment/cmaqpgs/publictranspo/index.htm
- Public private partnerships –
www.fhwa.dot.gov/environment/cmaqpgs/pppartner/index.htm
- ITS projects –
www.fhwa.dot.gov/environment/cmaqpgs/pppartner/index.htm
- Alternative fuel vehicle programs –
www.fhwa.dot.gov/environment/cmaqpgs/altfuel/index.htm
- Telecommute programs –
www.fhwa.dot.gov/environment/cmaqpgs/telework/index.htm
- Diesel engine retrofit programs –
www.fhwa.dot.gov/environment/cmaqpgs/retrom.htm
- Idle-reduction measures –
www.fhwa.dot.gov/environment/cmaqpgs/idlreduct/index.htm
- Operating costs for transportation management systems –
www.ops.fhwa.dot.gov/travelinfo/resources/ops_memo.htm

Clean Air and Mobility Program – 2010 Schedule

- **Wednesday, January 20, Two sessions: noon to 2:00 PM and 5:00 to 7:00 PM**
Boston Region MPO Open House
MPO Conference Room, Suite 2150, State Transportation Building,
10 Park Plaza, Boston
- **Wednesday, January 27, 9:00 AM**
Clean Air and Mobility Program "How-To" Seminar
Wellesley Town Hall, Selectmen's Meeting Room (1st Floor)
- **Wednesday, February 17, 9:00 AM**
TIP "How-To" Seminar
Lynn City Hall, Room 302
- **Tuesday, February 23, 9:00 AM**
TIP "How-To" Seminar
Marlborough City Hall, Memorial Hall (3rd Floor)
- **Wednesday, February 24, 9:00 AM**
TIP "How-To" Seminar
Weymouth Town Hall, Council Chambers
- **Thursday, March 18, 2:00 PM**
Preproposal Meeting
MPO Conference Room, Suite 2150, State Transportation Building,
10 Park Plaza, Boston
- **Thursday, April 1**
Proposals due
- **April 1 – May 20**
Technical review of proposals by MPO staff
- **Thursday, April 15**
Proposal review by the MPO's Clean Air and Mobility Program Subcommittee
- **Thursday, May 6**
Proponent Input Day for MPO's Clean Air and Mobility Program Subcommittee
- **Thursday, May 13**
*MPO's Clean Air and Mobility Program Subcommittee recommends projects to the
Transportation Planning and Programming Committee*
- **Thursday, May 20**
*Transportation Planning and Programming Committee decides on projects to fund in
the FFY 2010 element of the current TIP*

Clean Air and Mobility Program

The MPO is launching its **Clean Air and Mobility Program** to fund projects that improve air quality and mobility, and reduce congestion in the region, using federal CMAQ funds. The MPO has set aside \$2 million in federal fiscal year 2010. The program includes Suburban Mobility, Transportation Demand Management (TDM), and Regional Bike Parking initiatives, and broadens the number of eligible projects and programs to expand the scope of MPO CMAQ investments. Public information sessions will begin early next year on the following dates:

Wednesday, January 20

*State Transportation Building,
MPO Conference Room*

Wednesday, January 27

*Wellesley Town Hall,
Selectmen's Meeting Room*

Wednesday, February 17

Lynn City Hall, Room 302

Tuesday, February 23

*Marlborough City Hall,
Memorial Hall (3rd Floor)*

Wednesday, February 24

Weymouth Town Hall, Council Chambers



For more information on the Clean Air and Mobility Program, please contact **Eric Bourassa**, Transportation Manager, MAPC, at Ebouassa@mapc.org or 617-451-2270 ext.2043 or **Hayes Morrison**, TIP Program Manager, MPO staff, at hayesm@bostonmpo.org or 617-973-7129.



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Jeffrey B. Mullan
MassDOT Secretary and CEO
and MPO Chairman

Arnold J. Soolman
Director, MPO Staff

The Boston Region MPO,
the federally designated
entity responsible for
transportation decision-
making for the 101 cities
and towns in the MPO
region, is composed of:

MassDOT Office of Planning and
Programming

City of Boston

City of Newton

City of Somerville

Town of Bedford

Town of Braintree

Town of Framingham

Town of Hopkinton

Metropolitan Area Planning Council

Massachusetts Bay Transportation
Authority Advisory Board

Massachusetts Bay Transportation
Authority

MassDOT Highway Division

Massachusetts Port Authority

Regional Transportation Advisory
Council (nonvoting)

Federal Highway Administration
(nonvoting)

Federal Transit Administration
(nonvoting)

MEMORANDUM

DATE December 17, 2009
TO Transportation Planning and Programming Committee
of the Boston Region Metropolitan Planning Organization
FROM Alicia Wilson *aw*
RE JARC and New Freedom Grant Programs: Update

Job Access and Reverse Commute (JARC; 49 USC Section 5316) and New Freedom (49 USC Section 5317) are federal formula grant programs whose eligible recipients are states and public bodies. MassDOT is the eligible recipient for the Boston urbanized area, which contains the Boston Region MPO and four other MPOs in Massachusetts. In the late spring of 2009, at the request of MassDOT, the five MPOs conducted a solicitation for proposals for federal fiscal year 2007 funds.* MassDOT uses a competitive selection process to determine which proposals will be funded.

JARC provides grants to support the development and maintenance of projects designed to transport welfare recipients and eligible low-income individuals to and from jobs and activities related to employment. New Freedom provides grants for new public transportation services and public transportation alternatives that improve access for individuals with disabilities in ways that go beyond the requirements of the Americans with Disabilities Act of 1990.

The funding available for the urbanized area was \$939,657 for the JARC Program and \$996,912 for the New Freedom Program. On May 27, the Boston Region MPO sent out a request for proposals; it required submittal by June 26. Three JARC proposals and nine New Freedom proposals were received by the deadline. One additional New Freedom proposal was received after the deadline.

In July 2009, the MPO considered all timely proposals and decided to recommend all for funding by MassDOT. The three JARC proposals totaled \$244,850; the nine New Freedom proposals totaled \$1,079,530. MassDOT funded all of the JARC proposals and five New Freedom proposals, for a total of \$622,220. Among MassDOT's reasons for not funding the other four New Freedom proposals were that they were not fully compliant with program guidelines or not consistent with MassDOT priorities. Brief descriptions of the funded and unfunded proposals follow.

*Funds for these programs are available for the federal fiscal year in which they are appropriated and for two additional fiscal years.

FUNDED PROPOSALS**JARC Awards*****128 Business Council***

Operate shuttle bus services linking the South Street Corridor in Waltham with the Fitchburg and Framingham commuter rail lines as well as the MBTA's Green Line.

Greater Attleboro Taunton Regional Transit Authority

Operate a peak period shuttle from Pembroke to the Kingston commuter rail line.

MetroWest Regional Transit Authority

Provide part of second-year operations funding for the Route 1 shuttle linking MetroWest to MBTA service at the Woodland Green Line station.

New Freedom Awards***Greater Attleboro Taunton Regional Transit Authority***

Expand weekday demand-response service hours and institute limited Saturday service for the elderly and people with disabilities.

Greater Lynn Senior Services, Inc.

Develop a regional mobility management capability to assist elders and adults with disabilities who are not able to access paratransit services or for whom paratransit services are not available to more fully participate in the community.

Human Service Transportation Office, Executive Office of Health and Human Services

Conduct an in-depth evaluation and planning study of Massachusetts's Human Service Transportation regional brokerage system, including ways to integrate additional coordination and mobility management strategies so as to address barriers and unmet transportation needs for people with disabilities, low-income users, and elders.

MetroWest Regional Transit Authority

Fund a mobility manager for a three-year period to improve efficiency and utilization of existing services.

Mystic Valley Elder Services

Provide new and expanded demand-response transportation to older adults and adults with disabilities; this will include central dispatch and the launch of a program to supplement existing transportation resources by reimbursing operating costs for volunteers to drive individuals who cannot access available transportation.

UNFUNDED PROPOSALS (All are New Freedom proposals)***Cape Ann Priority, Inc. (CAPI)***

Institute automobile transportation for seniors and people with visual impairments through the Independent Transportation Network (ITN) service model, which provides service twenty-four hours a day, seven days a week.

Cape Ann Transportation Authority

Acquire Web-based brokerage technology and other software capabilities to improve management and coordination among both vendors and customers of existing human-services transportation.

Cape Ann Transportation Authority

Install five kiosks providing information on transit, paratransit, and taxi services for tourists, seasonal workers, and the general public within the service area.

New England Chapter Paralyzed Veterans of America

Purchase and operate an accessible vehicle to be used for medical appointments and NEPVA activities at a reduced charge or no charge by veterans whose current transportation programs have mostly nonaccessible vehicles.

AW/aw