REGIONAL TRANSPORTATION ADVISORY COUNCIL

Memorandum for the Record
Regional Transportation Advisory Council Meeting

October 10, 2018, Meeting Minutes

3:00 PM–4:30 PM, State Transportation Building**,** Conference Room 4,
10 Park Plaza, Boston

Tegin Teich, Chair, representing the City of Cambridge

Meeting Agenda

1. Introductions

Chair Tegin Teich called the meeting to order at 3:00 PM. Members and guests attending the meeting introduced themselves. (For attendance list, see page 11.)

2. Chair's Report—*T. Teich, City of Cambridge and AnaCristina Fragoso, Boston Society of Civil Engineers*

T. Teich reminded Advisory Council members about ongoing comment periods for the Draft Focus40 Plan and Pedestrian Transportation Plan.

T. Teich shared updates from the September 20, 2018, Metropolitan Planning Organization (MPO) meeting. The MPO discussed setting performance targets for Congestion Mitigation and Air Quality Improvement (CMAQ), considering federal regulations and members' more aspirational goals. This generated conversation about how to use CMAQ funds to best achieve congestion reduction and improvements to air quality.

T. Teich described the MPO's upcoming evaluation by the Federal Highway and Federal Transit Administration. The evaluation will focus on particular areas of the MPO's work, including the MPO's structure and organization. MPO members were invited to anonymous interviews with US Department of Transportation Volpe Center staff. T. Teich chose to participate. The federal agencies will also host a meeting for the public on October 17, 2018.

Steve Olanoff asked whether the federal agencies also planned to host on-site meetings with MPO staff. T. Teich and Jen Rowe confirmed that on-site meetings would occur on October 16 and October 17, 2018.

John Businger asked why the evaluation was not also hosted by the Federal Railroad Administration. S. Olanoff explained that the MPO only distributes federal funding from the Federal Highway and Federal Transit Administrations.

A. Fragoso shared updates from the October 4, 2018, MPO meeting. MPO staff presented a work program for updating express highway volume charts. The counts had last been updated in 2010. Members were interested in capturing data about the types of vehicles and travel to commuter rail stations. MPO staff presented another work program for creating an interactive web-based performance dashboard to document the pedestrian suitability of intersections and route segments throughout the Boston region, based on the recently developed Pedestrian Report Card Assessment tool. T. Teich shared her interest in this work and her desire to invite MPO staff to share the results with the Advisory Council.

A. Fragoso described an MPO staff update about the MPO's Disparate Impact/Disproportionate Burden (DI/DB) policy development, including the consensus reached by a stakeholder working group and staff's intent to approve a policy by February 2019 for implementation in March 2019. The Massachusetts Department of Transportation (MassDOT) and municipal members noted their interest in understanding the equity impacts of projects under consideration for funding.

Lenard Diggins noted that MPO staff intend to include a numerical threshold in its proposed DI/DB policy. Differences in transportation benefits or burdens within this threshold would not be identified as disparity. Such a threshold would be contrary to the unanimous consensus reached by the stakeholder working group; stakeholders felt that any statistically significant difference in benefits or burdens should be identified as a disparity. T. Teich shared her intent to invite MPO staff to discuss the DI/DB policy's development at the November 14, 2018, Advisory Council meeting.

Finally, A. Fragoso and L. Diggins described an MPO staff presentation on intermodal warehouses in Massachusetts and the effects on freight traffic. Both expressed interest in bringing the conversation to the Advisory Council.

3. Update on RailVision, *Scott Hamwey, Manager of Transit Planning, MassDOT*

T. Teich introduced S. Hamwey and expressed gratitude that he was coming before the Advisory Council early in the RailVision process.

S. Hamwey explained that the goal of the RailVision study is to identify future changes to the commuter rail system before procuring a new operating contract. S. Hamwey acknowledged a desire to make the commuter rail work better as an asset—the commuter rail does not carry many people in the middle of the day or on trips originating in Boston. He noted the existence of many perspectives on the issue. Different stakeholders advocate electrifying the entire system, providing express service and faster trips to western Massachusetts, and having service that is more frequent during the day to complement rapid transit service in the Boston region's inner core. While the study is not financially constrained, the team has been given permission to explore tradeoffs between the various proposals, including costs.

S. Hamwey explained how the RailVision team hopes to select eight service alternatives by the end of January and evaluate each by the fall of 2019. The team already completed a qualitative screening that first eliminated ideas that lay beyond the Massachusetts Bay Transportation Authority's (MBTA) purview or interfered with existing service.

The RailVision team is now using sketch-level modeling tools to identify service concepts that would advance at least one of the following objectives: reducing travel time, increasing service frequency, and improving system connectivity. Examples of service concepts include increased off-peak frequency, full or partial electrification, more express trips, urban rail, new connections, increased capacity in the inner core, a South Station expansion, or a North-South Rail Link. For sketch-level modeling, the RailVision team uses ATTUne (identifying constraints related to train operations), an Operating Cost Model (calculating changes to operating cost), and a Regional Dynamic Model (estimating changes to ridership).

After identifying a set of practical service concepts, the RailVision team will package combinations of concepts into eight service alternatives, with the understanding that not every strategy will make sense on every commuter rail line. These concepts will be evaluated using a traditional Rail Traffic Controller model, the CTPS travel demand model, and the Regional Dynamic Model (this time, estimating land use effects).

S. Hamwey led members through several service concepts that lend themselves to maps. First, he discussed express and/or zonal service, aiming to take longer-distance car trips off the highway through faster trips to the inner core. The RailVision team identified key station nodes for express. Nodes include high-ridership stations (for example, Walpole) as well as stations with park-and-ride facilities that intersect the regional highway network (for example, Littleton/495 and Anderson/Woburn Stations) or urban density (for example, Beverly and Salem). Express service would make few if any stops between terminal stations. These express trips would alternate with trips providing local service. Alternatively, a zonal express system would provide local service from the outer stop to an intermediate node, followed by express service to Boston's core. These zonal express trips would alternate with trips beginning at the intermediate stop and providing local service to Boston's core.

Another service concept under consideration is skip-stop service, which aims to reduce overall travel times by running two trains one after another and having each skip service at some stations. Every train would stop at a few nodes, allowing transfers for the relatively few riders who travel from one low-ridership suburb to another low-ridership suburb. S. Hamwey shared that skip-stop service has not achieved meaningful travel time savings in early modeling.

Urban rail is a service concept advocated by communities in dense neighborhoods that experience overcrowding on buses and subways and are traversed by commuter rail lines. Urban rail aims to use new vehicle technology to provide all-day service and 15- to 20-minute

headways to higher-density stations in the inner core. The RailVision team identified end points that were either at the logical end of Boston's contiguous urban density or places that had big terminal park-and-ride stations: Beverly, Reading, Anderson/Woburn, Riverside, Needham Heights, Route 128, and a new Waltham/I-95 station on the Fitchburg Line. Meanwhile, the Red Line already provides equivalent service to communities on the South Shore.

There are several ways to run urban rail service. A transfer could be forced at identified end points and electrified trains could be run from the end points to North or South Station. Alternatively, urban rail frequencies in the urban core could be overlaid with less frequent suburban service through the same stations.

Another service concept combines several strategies that overcome capacity limitations at terminals in order to increase frequencies. Terminal capacity limitations could be addressed by expanding South Station or running trains through a new North-South Rail Link. There could also be opportunities to make commuter rail to rapid transit transfers outside the inner core. For example, a new infill station on the Newburyport Line would connect to the Blue Line at Wonderland. In Cambridge, the Fitchburg Line could make a second connection with the Red Line at Alewife, where there is a great deal of development interest and an opportunity for expanded park-and-ride service. Another strategy creates a new transfer at Sullivan Square station to run trains from the Fitchburg Line through to the Newburyport/Rockport Lines without stopping at North Station. (While North Station faces capacity constraints, commuters' destinations often lie along other rapid transit lines instead of near the station.) Finally, transfers could be created at stations like Forest Hills and Malden Center to new, high-frequency shuttle services. By not running trains along those branches, there may be increased capacity to improve frequency on other commuter rail lines.

The RailVision team will likely combine aspects from these initial service concepts to create the eight service alternatives. For example, urban rail could be implemented in the inner core while providing zonal express service through the suburbs.

Discussion

A. Fragoso asked about RailVision's implementation timeline, to which S. Hamwey explained that the MBTA is already working behind the scenes on procuring the next operating contract, which expires at the end of 2022. The RailVision process needs to conclude by the fall of 2019 to shape the procurement process. For example, RailVision may recommend new schedules and service improvements—changes that could be implemented at the beginning of a new operating contract. However, it may also identify a vision for the system in 10 and 15 years (such as full electrification), which would require major capital investments during the lifetime of a 10-year operating contract. Although RailVision does not have a time horizon, it could recommend a range of short- and long-term changes.

Answering a question from T. Teich, S. Hamwey explained that the RailVision team was in dialogue with an advisory committee, not the public, about the service concepts. The RailVision team is trying to understand where there are opportunities and which problems are solved by the different concepts. The public conversation will start once the team has identified the eight service alternatives. S. Hamwey expressed confidence that the eight service alternatives will address most concepts of interest to the public, including those detailed in a recent TransitMatters report.

John McQueen remarked that the service concepts seemed to focus on inbound trips and asked whether RailVision would explore opportunities for improving reverse commutes to gateway cities. He wondered whether places like Fitchburg, Littleton, and Lowell might respond to more frequent service with increased ridership and felt that even West Station might draw reverse commuters from downtown Boston.

S. Hamwey explained that the MBTA's Fiscal and Management Control Board (FMCB) has allowed the RailVision team to consider a broad range of strategies to improve service. However, the board did not want the team to focus on improving reverse commutes; any improvements would be positive side effects of strategies aimed at other goals. For example, Lowell, Lawrence, and Brockton were identified as express nodes to connect lower-income residents with opportunities in the inner core. Improved reverse commutes from Boston to gateway cities would be a beneficial effect. Similarly, stations like Littleton and Route 128 were identified to intercept commuters heading to Boston on the highways. Improved reverse commutes from Boston to suburban job clusters would be a beneficial effect.

J. McQueen asked whether any of the models for increased service included equipment options such as Diesel Multiple Units, Electrical Multiple Units, or diesel-electric hybrid trains, the latter of which would avoid the cost of electrification facilities and the disruption of environmentally sensitive areas like wetlands along the proposed South Coast Rail project. S. Hamwey noted that the urban rail service concept specifically makes reference to new vehicle technology and assumes service by a new vehicle type. S. Hamwey also acknowledged that there would have to be a level of confidence in emerging technologies like diesel-electric hybrid trains before investing in an electrification scheme requiring miles of new catenary.

J. Businger asked whether the RailVision team was coordinating with Maine, New Hampshire, and Rhode Island and considering implications for Amtrak's Northeast Corridor and Downeaster service. He also expressed concern about future development encroaching on the North-South Rail Link right-of-way. S. Hamwey assured members that as the RailVision team begins modeling service alternatives, it would make sure to understand and represent Amtrak's long-term vision for rail in the northeast.

T. Teich sought to understand how the RailVision team would extrapolate results from modeling service concepts on a particular line to the impact of enacting similar changes system-wide. S. Hamwey used service changes on the Old Colony lines as an example. These lines have constrained capacity for improving service frequency along I-93 through Dorchester. One alternative proposes selecting one trunk line and tripling frequencies along that corridor. Riders on the other two lines would transfer at Braintree to either the chosen trunk line or the Red Line. This service change on the Old Colony lines is compatible with a range of other interventions, like Urban Rail on the Worcester Line and interlining services between the Newburyport and Fitchburg lines. The RailVision team hopes to evaluate packages of service concepts on a system-wide basis, building towards eight service alternatives.

T. Teich wondered whether the MBTA's modeling tools would enable the RailVision team to iterate upon the eight service alternatives. S. Hamwey replied affirmatively, stating that the final plan will likely combine aspects of the eight service alternatives. Results from the eight service alternatives will help the team identify the costs, benefits, and constraints of various interventions. For example, the service alternative containing the previously described changes to the Old Colony line would help the team determine the investment required to create easy transfers at the Braintree station and the expected gain in ridership. This type of information will help the team gather informed public input and eventually aggregate interventions into a final service plan.

T. Teich asked when the detailed land use and demand modeling tools would be applied. S. Hamwey displayed an example of how the RailVision team builds out a timetable for each commuter rail line in each of the service concepts. The ATTUne model then uses a simplified track system of the rail network to create streamlined diagrams of train movement across each line. For example, if the team wished to understand the implications of overlaying an express train on the Worcester line's local service, the ATTUne model would predict when one train would overtake another, or when one train would run into another train entering from a different track. The team would then understand where an investment in triple tracks would be needed to implement express service on the Worcester line. This is the type of analysis that the RailVision team will use to refine the eight service alternatives. The eight service alternatives will then be evaluated with a Regional Traffic Controller operations simulation model of the whole network, allowing the team to see how the whole network would operate.

Matt Moran expressed interest in the new, high-frequency shuttle services. He was curious about whether the models could detect any effects that shuttles or any of the other service alternatives would have on subway ridership. S. Hamwey explained that such impacts would be understood qualitatively in the initial round of evaluation. Following the second round of

evaluation, they should be understood quantitatively with the benefit of the CTPS travel demand model.

As an example, the MBTA is already making investments in the Orange line, which should allow headways to decrease from six to 4.5 minutes and help with the Orange line's capacity issues. At the same time, the RailVision team is considering new high-frequency shuttle services feeding into the Orange line from the south (at Forest Hills) and the north (at Malden Center). The Orange line should be able to absorb the extra riders from the south: the Orange line from the south has more capacity today and shuttle-bus riders would no longer arrive en masse every 45 minutes (the team has been planning for 15-minute shuttle headways). On the other hand, the Orange line from the north has less capacity to spare. While the 4.5-minute headways will help, they may not be enough to counteract the additional ridership generated from new residential developments along the northern end of the Orange line and new transit-oriented developments in Melrose, Reading, and Wakefield. The RailVision team will evaluate these and similar effects on the MBTA's rapid transit network.

Jon Seward approved the team's emphasis on increasing frequency, reducing headways, and expanding service hours in order to develop ridership. He felt the team should also evaluate whether service concepts reduce roadway congestion and contribute to regional economic growth. He also noted his approval of the team's decision to investigate circumferential routes and wondered if there might be a more extensive consideration, perhaps by piloting routes with shuttle buses to gauge demand in advance of significant investment.

J. Seward asked the team to consider using town centers as key nodes for transfers, rather than park and ride stations. Otherwise, he felt the MTBA ran the risk of instigating economic development in inopportune areas. A transit station in Secaucus, New Jersey, for example, created enormous development pressure on a wetland. Finally, he asked whether the RailVision team had considered extending service into the South Boston Seaport, an area constrained by the existing transit system.

S. Hamwey explained that the RailVision team is still grappling with how to address proposals for a possible rail extension to the Seaport along Track 61 in the RailVision process. The team's initial direction from leadership was to focus only on how to best use the existing commuter rail network and facilities. He shared that the team hoped to understand impacts on roadway congestion and development pressure in the second round of analysis. The CTPS model will help the team quantify trips moving off highways and onto commuter rail for each of the eight service alternatives. The Regional Dynamic Model will help the team understand that if a city such as Lynn had 15-minute headways at its commuter rail station, how much more attractive might that make the city for employers or housing.

4. Update on Destination2040, the MPO's Long-Range Transportation Plan (LRTP)—*Anne McGahan, LRTP Manager, MPO Staff*

A. McGahan introduced the MPO's next LRTP, *Destination 2040*, which is scheduled to be adopted in spring 2019. There are three steps in developing the LRTP: updating the Needs Assessment with new analysis, analyzing alternative scenarios, and finalizing the plan with public input.

For the Needs Assessment, MPO staff has been working with MassDOT and other MPOs to update the demographic projections for travel demand modeling. In the meantime, Staff has updated off-model analyses and used the current LRTP's demographics for analyses using travel demand modeling. This research will inform draft recommendations, which will be available for public comment over the next couple of months. Once the updated demographics are ready, staff will rerun the travel demand model and revise the draft recommendations as necessary. The resulting Needs Assessment will be completed in December and will become the first volume of the LRTP. In an improvement to previous practice, later volumes will be based on the same demographic information. Staff will publish an updated Needs Assessment application, allowing the public to review the information online and submit comments.

Staff's next task will be to update the MPO's vision, goals, and objectives. Updates will be informed by the public input and analysis conducted for the Needs Assessment. Staff expect to discuss potential revisions with the MPO in November, release these revisions for public review, and finalize updates in the winter.

Staff may then develop and test a number of scenarios based on themes arising from the goals and objectives, needs assessment recommendations, and/or issues that the MPO wishes to explore. In the spring, staff will evaluate the effects of the MPO's preferred scenario.

Scenario planning leads directly into the selection of projects and programs for the LRTP. Staff will create a Universe of Projects and Programs, evaluate candidate projects using criteria based on the MPO's goals and objectives, and, finally, select a package of projects and programs. Staff expects to receive finances from MassDOT in January or February, upon which to base its selections.

Staff will prepare a draft plan for endorsement by the MPO and circulation for public review and comment. The MPO will then vote to endorse a final plan.

Discussion

T. Teich asked whether it was unusual for there to be overlap in the timeframes for scenario planning, selecting investment programs, and finalizing the plan. A. McGahan explained that staff expects to commence discussions with the MPO about potential programs, goals and

objectives, the Universe of Projects, and scenario planning during November. The last time the MPO updated its LRTP, a scenario arose from a particular objective of interest: the possibility of funding few major infrastructure projects in favor of smaller projects like intersection improvements and Complete Streets. Staff developed two scenarios to determine which most advanced the MPO's goals. Staff hopes that discussions in November will generate interest in possible scenarios. T. Teich noted that the Advisory Council should pay close attention to the LRTP's development in the upcoming months to generate input both at MPO meetings and Advisory Council meetings.

A. McGahan explained that MPO members have yet to pose questions that would lend themselves to scenario planning. She shared her hope that November's discussions will generate such questions.

J. McQueen asked whether the MPO's selection of investments could be pushed back to reflect a finalized scenario plan. A. McGahan explained that the federal fiscal year 2020–24 Transportation Improvement Program (TIP) will represent the first five years of the LRTP. While MassDOT expects a finalized TIP by May, they have indicated that the LRTP may be approved In June.

J. McQueen asked whether it would be possible to accelerate scenario planning. A. McGahan explained that scenario planning includes modeling a final scenario, which will be adopted with the LRTP. She noted that the MPO has yet to provide direction for staff to pursue any scenarios.

A. Fragoso asked about the relationship between the Needs Assessment and scenario planning. A. McGahan described initial recommendations that arise as part of the Needs Assessment, which will be presented to the MPO in November. The Needs Assessment organizes these recommendations, along with associated analysis and public input, by the MPO's existing goal areas: Safety, System Preservation, Capacity Management/Mobility, Clean Air/Clean Communities, Transportation Equity, and Economic Vitality. The recommendations suggest new investment programs as well as studies.

A. Fragoso asked how the investment programs relate to the MPO's performance based planning and programming. A. McGahan explained how the previous LRTP's scenario planning led to four new investment programs: intersection improvements, Complete Streets, community transportation, and bicycle and pedestrian connections. The MPO decided to set aside at least one-half of its discretionary funding in each five-year time band for these four investment programs. While major infrastructure projects must be identified in the LRTP, projects funded within the four new investment programs are first identified in the TIP. The MPO is now reevaluating whether it has the right mix of programs and whether any should be added.

A. McGahan also asked members to keep in mind that the MPO relies upon project proponents, including municipalities, to advance projects through MassDOT's design process. (MPO staff can only evaluate projects when they are close to 25 percent design.)

T. Teich mentioned that the MPO has again discussed shortening public comment periods. She expressed her intention to continue advocating for preserving the 30-day comment period for the LRTP, in particular. The LRTP is a longer document than the TIP and it takes time to understand how the LRTP's various components would affect the organizations that members represent.

A. McGahan indicated that the current LRTP schedule allows for a 30-day comment period.

5. Approval of June 13, 2018 Meeting Minutes—*T. Teich, City of Cambridge*

T. Teich made a motion to approve the June minutes and members approved the minutes.

6. Election Committee—*J. Rowe, MPO Staff*

J. Rowe introduced herself as the new Advisory Council coordinator and recapped the annual elections process. At the September meeting, the Elections Committee recommended T. Teich for Chair and A. Fragoso as Vice Chair. No other nominations we made. The Advisory Council discussed developing a leadership pipeline and building the Council's membership. (Both are initiatives supported by T. Teich, A. Fragoso, and J. Rowe.) T. Teich and A. Fragoso's candidate statements were circulated.

J. Businger motioned for members to elect T. Teich and A. Fragoso as Chair and Vice Chair, respectively. There were no disapproving or abstaining votes.

J. Rowe explained that T. Teich and A. Fragoso will start their new term in November.

7. Old Business, New Business, and Member Announcements

T. Teich invited David Vieira to speak, as Advisory Council members had been given preference earlier in the meeting.

D. Vieira chose not to share his earlier questions and expressed his frustration at not being able to have shared them earlier.

T. Teich expressed appreciation for D. Vieira's criticism and acknowledged that the Advisory Council prioritizes members' discussion and expressed her commitment to respect the time budgeted for meetings.

J. McQueen asked about whether the Council could provide opportunities for the public to submit comments and share presenters' contact information. T. Teich explained that presenters visit the Advisory Council primarily to hear feedback from members given their service on the Regional Transportation Advisory Council. RailVision has a separate process

for engaging the public and MPO staff will send related links to both members and other individuals that have expressed interest in the Council's activities.

T. Teich announced a collaborative effort between the City of Cambridge, the Town of Watertown, the MBTA, and the Department of Conservation and Recreation (DCR) to implement priority bus lanes on Mt. Auburn Street in Watertown and in Cambridge as a quick build project. This project is one of a trio of pilots. Everett piloted level platform boarding. Arlington implemented a month-long pilot on Massachusetts Avenue during morning peak hours. Cambridge's project will be implemented in more temporary materials like paint but will stay in place as the City refines the design. All three projects intend to elevate awareness of the importance of bus service and improve the quality of bus service in the inner core.

T. Teich announced that Cambridge is starting another quick build project on south Massachusetts Avenue in collaboration with the MBTA and DCR. The project will implement parking protected bike lanes and bus-only lanes for Route 1 bus and the CT1 bus south of Central Square to Boston. The City is working with MassDOT, MBTA, and DCR to extend the improvements to the Massachusetts Avenue Bridge. The City of Cambridge is enthusiastic about engaging in inter-departmental, inter-agency initiatives to improve transit.

M. Moran announced that the City of Boston is hiring 20 new positions, including a Transit Coordinator.

J. Rowe reminded members of the MPO's upcoming federal evaluation and encouraged their participation.

8. Adjourn

A motion to adjourn was made and seconded. The motion carried.

Attendees

Member Municipalities	Representatives and Alternates
Boston	Matt Moran
Cambridge	Tegin Teich
Weymouth	Owen MacDonald

Citizen Advocacy Groups	Attendees
American Council of Engineering Companies	Fred Mosely
Boston Society of Architects	Schuyler Larrabee
Boston Society of Civil Engineers (BSCES)	AnaCristina Fragoso; Paul Moyer
CrossTown Connect	Scott Zadakis
MassBike	David Ernst
MBTA Ridership Oversight Committee (ROC)	Lenard Diggins
Move Mass	Jon Seward
National Corridors Initiative (NCI)	John Businger
WalkBoston	John McQueen

Agencies	Attendees
Environmental Protection Agency	Abby Swaine
Three Rivers Interlocal Council	Steve Olanoff

Other Attendees	Affiliation
Ethan Finian	Transit Matters
Patricia Mendez	Disability Commission, City of Boston
Matt Cadwallader	

MPO Staff/Central Transportation Planning Staff
Matt Archer
Anne McGahan
Sandy Johnston
Jen Rowe