

# Memorandum for the Record

## Boston Region Metropolitan Planning Organization Meeting

### December 15, 2016 Meeting

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

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

### Decisions

The Boston Region Metropolitan Planning Organization agreed to the following:

- Approve the minutes of the meeting of November 3
- Approve *Federal Fiscal Years (FFYs) 2017–21 Transportation Improvement Program (TIP) Amendment 1*
- Approve three work programs: *Addressing Priority Corridors from the Long-Range Transportation Plan Needs Assessment, Low-Cost Improvements to Express-Highway Bottleneck Locations, and Safety Effectiveness of Safe Routes to School (SRTS) Programs*

### Meeting Agenda

#### 1. Public Comments

There were none.

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

There was none.

#### 3. Committee Chairs' Reports

Bryan Pounds, Chair of the Unified Planning Work Program (UPWP) Committee, reported on the December 15 meeting. The UPWP committee discussed the timeline for FFY 2018 UPWP Document Development and current outreach.

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

M. Gowing reported that the Advisory council heard a presentation on the GLX (Green Line Extension) project from D. Mohler at their December 14 meeting.

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

K. Quackenbush reported that the staffing level of CTPS is at its lowest since the beginning of his tenure as Executive Director. However, a UPWP Coordinator has been hired: Sandy Johnston will take on the role starting in January 2017.

K. Quackenbush also reported on the December 1 meeting of the Massachusetts Association of Regional Planning Agencies (MARPA). At the meeting, MassDOT announced the acceleration of the production of the State Transportation Improvement Program (STIP) in an effort to make the STIP consistent with the state Capital Investment Plan (CIP). This will result in the Boston Region's TIP being produced by the end of May 2017. The new schedule will be presented to the MPO Board in January.

Jim Gillooly, City of Boston (Boston Transportation Department,) asked for a clearer picture of the acceleration of the STIP and CIP and the schedule of votes. D. Mohler responded that MassDOT's expectation is that in January MassDOT will provide targets and updates on the status of projects in the TIP so that the MPO can begin discussion. He noted that the TIPs will be adopted first and the CIP thereafter.

Paul Regan, MBTA Advisory Board, commented that state law requires the MBTA's CIP be submitted to the Advisory Board in January.

## **6. Approval of Meeting Minutes—*Maureen Kelly, MPO Staff***

A motion to approve the minutes of the meeting of November 3, 2016 was made by the MBTA Advisory Board (Paul Regan,) and seconded by the City of Boston (J. Gillooly). The motion carried.

## **7. Draft Federal Fiscal Years (FFYs) 2017-21 Transportation Improvement Program (TIP) Amendment 1—*Alexandra Kleyman, MPO Staff***

A. Kleyman presented the *Draft Federal Fiscal Years (FFYs) 2017-21 Transportation Improvement Program (TIP) Amendment 1*. On November 3, the MPO voted to release Amendment 1 for a 30-day public review period. On December 1, the comments received by MassDOT to repurpose earmarked funds were presented to the MPO. These earmarks are intended to be flexed to the Federal Transit Administration. The draft TIP tables presented at the December 15 meeting reflect these repurposed earmarks. Three of the earmarks relate to MBTA bus stop accessibility and operational improvements; one supports the Green Line Extension improvements around Lechmere; one provides design funds for signal and intersection improvements on I-93 at Mystic Avenue and McGrath Highway in Somerville in FFY 2017; one programs

construction funds for the same project in FFY 2020. A final comment to the amendment, received from MassDOT on December 14, notes the intention to programs funds for the cleaning and painting of bridges in Randolph, Boston, and Braintree. The last three comments pertain to projects already listed in the STIP that are now being adjusted into the Boston Region TIP so that the two programs align.

### ***Discussion***

Kenneth Miller, Federal Highway Administration, asked about the process of adding projects to the TIP by means of comments from MassDOT as opposed to separate amendments with their own public comment periods. D. Mohler responded that these earmarks cannot be spent on any other projects and that some are already included in the STIP. Most have had some form of public comment process surrounding the projects themselves, if not their inclusion in the TIP.

J. Gillooly asked for a clarification on whether these earmarks have been included in the Amendment since it was introduced. D. Mohler responded that that is not the case; they mainly represent projects in the STIP that need to be added to the Boston Region's TIP.

Lourenço Dantas, MPO Staff, added that because the comments regarding the repurposed earmarks were submitted at the initial stage of the public review period staff provided them to the Board at their December 1 meeting. The MPO could have chosen to extend the public comment period.

D. Mohler suggested releasing the revised draft Amendment 1 for an additional 30 day comment period. He further noted that MassDOT will not approach adding or repurposing projects in the TIP in this fashion going forward.

Thomas Bent, Inner Core Committee (City of Somerville,) asked whether the funds for the Green Line Extension were going towards reducing gaps in funding, suggesting that they could reduce the contributions of Cambridge and Somerville. D. Mohler replied that they would not reduce contributions but fill the gap in funding that still exists.

### ***Vote***

A motion to approve *Federal Fiscal Years (FFYs) 2017-21 Transportation Improvement Program (TIP) Amendment 1* as presented on December 15 was made by the Metropolitan Area Planning Council (Eric Bourassa) and seconded by the City of Boston (J. Gillooly). The motion carried.

## **8. Work Program for Addressing Priority Corridors from the Long-Range Transportation Plan Needs Assessment— Karl Quackenbush, CTPS Executive Director**

K. Quackenbush presented the work program for *Addressing Priority Corridors from the Long-Range Transportation Plan Needs Assessment: FFY 2017*. The MPO's Long-Range Transportation Plan (LRTP), *Charting Progress to 2040*, includes a list of major arterial corridors with significant mobility and safety issues. Each year MPO Staff identify corridors from this list to analyze. Past roadways studied under this program include Route 203 in Boston, Route 114 in Danvers, Route 2 in Concord, Route 30 in Framingham, Route 140 in Franklin, Route 1A (the Lynnway) in Lynn, and the Vinnin Square area in Swampscott. The objective is to identify a segment in the current LRTP where, in the aftermath of study, there is a significant likelihood of effecting concrete change. Part of the decision-making for choosing a specific arterial will be based on district and local interest in order to maximize the opportunity for change.

### ***Discussion***

D. Mohler asked whether follow-up evaluations are done to track changes made by municipalities and their impact as a result of studies done by the MPO. K. Quackenbush responded that staff has pursued this kind of tracking in the past but that it is disruptive and time-consuming when done on an ad hoc basis. Therefore, this activity is going to be incorporated into the ongoing work that the UPWP Coordinator will perform. MPO staff hopes to have a database in place to track and report on this issue later in the year.

### ***Vote***

A motion to approve the work program for *Addressing Priority Corridors from the Long-Range Transportation Plan Needs Assessment FFY 2017* was made by the City of Somerville (T. Bent) and seconded by MassDOT (John Romano). The motion carried.

## **9. Work Program for Low-Cost Improvements to Express-Highway Bottleneck Locations— Karl Quackenbush, CTPS Executive Director, and Seth Asante, MPO Staff**

K. Quackenbush presented the work program for *Low-Cost Improvements to Express-Highway Bottleneck Locations FFY 2017*. MPO staff analyzed several express-highway bottleneck locations in three previous studies; 2011, 2012, and 2015. Staff will work with MassDOT to identify additional express-highway bottleneck segments for study. MPO staff has found that some bottlenecks can be corrected at a relatively low cost. Improvements may include restriping of lanes, ramp modifications, adding additional lanes, or providing traveler information. The process of this work program is identical to

that of the three previous bottleneck studies. Staff will identify three candidate locations and present those to the MPO. These locations may not be the worst overall, as those may not lend themselves to low-cost improvement. With MPO approval, staff will proceed to analyze what kinds of improvements may be appropriate at those locations.

Seth Asante, Project Manager, spoke regarding past successes of this study. The first bottleneck study focused on a section of I-95 and I-90 in Weston. MassDOT has implemented improvements including double-lane exit ramps that have been received well. A second location on I-95 travelling towards Route 3 was identified. MassDOT coordinated with the Town of Burlington to implement various recommendations made by MPO staff.

### ***Discussion***

Richard Canale, At-Large (Town of Lexington), commented regarding a specific recommendations that was made for I-95 South as part of the bottleneck study that has been implemented and, in his opinion, is working well.

### ***Vote***

A motion to approve the work program for *Low-Cost Improvements to Express-Highway Bottleneck Locations FFY 2017* was made by the City of Boston (J. Gillooly) and seconded by the City of Somerville (T. Bent). The motion carried.

## **10. Work Program for Safety Effectiveness of Safe Routes to School (SRTS) Programs— Karl Quackenbush, CTPS Executive Director, and Casey-Marie Claude, MPO Staff**

K. Quackenbush introduced the work program for *Safety Effectiveness of Safe Routes to School (SRTS) Programs*. In FFY 2015, MPO Staff and the UPWP Committee received input from MAGIC subregional stakeholders regarding safety near schools, how children are travelling to school, and how infrastructure investment near schools encourages parents to drive children to school. At the time, there were not sufficient funds to address these concerns comprehensively. In lieu of a full study, MPO staff formulated a mapping exercise of school and crash site locations in the MAGIC subregion. A work scope was presented in the spring of 2015, which the MPO declined to approve. MPO staff and the UPWP committee then worked to create a new scope that would be comprehensive and geographically inclusive, and that is what is being presented today.

Casey-Marie Claude, Project Manager, presented the details of the work program. The Massachusetts Safe Routes to School (SRTS) program is a federally funded initiative of MassDOT that is implemented by MassRIDES. The SRTS program works with schools,

communities, students, and families to encourage elementary and middle school students to bike or walk to school. In this study, MPO staff will investigate and evaluate the effectiveness of the SRTS program and factors contributing to the program's effectiveness. Such factors could include reduced-speed zones, infrastructure improvements, the presence of school crossing guards, and others. MPO staff will identify up to 8 public elementary and middle schools appropriate for study. MPO staff will identify and recommend types of improvements (related to safety, operations, and policy) that appear to have the highest impact on safety and promoting walking and biking to school. This data will assist in evaluating the effectiveness of different SRTS strategies employed.

### ***Discussion***

E. Bourassa asked about coordination with MassRIDES, and whether they do any in-house evaluation of the SRTS program. C. Claude responded that Mark Abbott, MPO staff, met with the SRTS Coordinator and other MassRIDES and MassDOT representatives during the development of the scope. K. Quackenbush added that MassRIDES collects data regarding conditions before a SRTS initiative is implemented, and some evaluations after programs are instituted; however, their ability to comprehensively study outcomes is limited. The analytical tools that MPO staff has are beyond what MassRIDES currently uses.

D. Mohler asked how MPO staff will determine the efficacy of SRTS programs by studying eight schools. K. Quackenbush responded that the hope is to identify a school in each of the eight MPO subregions, as well as to pick schools that have varying characteristics in terms of population density. D. Mohler asked how the eight schools will be selected given that most schools in the program do not have resulting infrastructure improvements, but rather education initiatives. C. Claude responded that they will work with the SRTS coordinator to identify the most appropriate locations for study.

D. Mohler inquired about the wording of a passage on page 4 of the work program. K. Quackenbush indicated that the wording of the section did not accurately portray the intent of the study. He agreed that staff would revise this section to convey that the selection process should not overlook or exclude schools that are in environmental justice zones. .

K. Miller commented that the results of the study will most likely not be statistically significant, but that they may be useful in helping MassRIDES evaluate their programming by identifying schools where the programs are perceived to be working well.

D. Koses commented that it is often municipal policy, and not individual school policy, which influences the choices that families make. Schools do not control infrastructure funding or bus fees, for example. K. Quackenbush concurred that bus fees are influential in family decision-making.

Richard Reed, Minuteman Advisory Group on Interlocal Coordination (Town of Bedford) commented that it seemed staff had not identified the exact measures they would use to measure effectiveness, and related that one of the original driving factors of the discussion in the MAGIC subregion was the issue of congestion caused by parents driving children to school. R. Reed noted that this is an important factor to include in the study, as well as the numbers of children who are now walking to school.

K. Quackenbush mentioned that E. Bourassa has volunteered data from the MAPC “My School Commute” survey. E. Bourassa concurred, noting that the intention of “My School Commute” was to determine whether there are children living close enough to school that they could reasonably walk or bike.

R. Canale brought up the issue of perception on the part of parents when choosing modes for their children, i.e. the perception that walking to school may not be safe, rather than the material conditions of safety, and asked whether there is some way to factor this into the study.

E. Bourassa responded that SRTS programs do attempt to address these ideas, for instance by promoting children walking to and from school buses, and stated that it would be useful to know whether behavioral changes are actually more effective than installing infrastructure.

J. Gillooly asked whether the study will consider a control group of schools that have not been involved in the SRTS program.

K. Quackenbush responded that with MPO staff analyzing the data carefully, they can avoid misattribution of change, and that a controlled experiment would be more expensive. He added that if there is interest, further study could be done.

M. Gowing asked E. Bourassa whether SRTS programs should be incorporated into Complete Streets programs going forward. E. Bourassa responded that they are similar tools, and that Tim Reardon’s (Metropolitan Area Planning Council) presentation on the Local Access tool will showcase a tool that does incorporate school data, but that SRTS is a distinct body of work.

**Vote**

A motion to approve the work program for *Safety Effectiveness of Safe Routes to School (SRTS) Programs*, with changes to the wording of the section regarding Environmental Justice zones, was made by the Metropolitan Area Planning Council (E. Bourassa) and seconded by the City of Boston (J. Gillooly). The motion carried.

**11. Barriers and Opportunities Influencing Mode Shift— Karl**

*Quackenbush, CTPS Executive Director, Katie Pincus and Bill Kuttner, MPO Staff*

K. Quackenbush introduced *Barriers and Opportunities Influencing Mode Shift*, presented by MPO staff members Katie Pincus and Bill Kuttner. Increasing transit mode share is an MPO objective. The study addresses a need for empirical data related to the factors that encourage a shift to transit. The MPO study focused on transit while a complementary MAPC project focused on walking and biking; MAPC's effort resulted in the Local Access tool (presented later in the meeting by T. Reardon).

The 2011 Massachusetts Travel Survey provided staff with data to analyze factors influencing mode shift for two populations: commuters and students. Their respective analyses are summarized next.

**Commuters**

The study area for commuters was more extensive than the MPO region, reflecting the area included in the Regional Travel Demand Model. There are approximately 2 million commuters in the region considered by the study. The study focused on two alternatives: commuters who drive and commuters who choose transit over an available car in their household. This allowed the study to directly consider the factors that influence commuters to choose transit over driving. Commuters who drive and commuters who choose transit represented 85% of all commuters in the study. Of that 85%, 83% drive and 17% choose transit. Commuters living and working in the area immediately in and around Boston and those living outside the central area but commuting in (or vice versa,) had the largest percentage of commuters choosing transit. The largest commuting market, commuters travelling to and from work within an area outside of the center of Boston, had the lowest percentage of commuters choosing transit.

The main geographical determinants of larger transit mode shares were the distance of residences and workplaces from a rail station and the cost and availability of parking near workplaces. High density of employment and population was used as a proxy for



parking demand. The density of work locations had the greatest influence on high transit mode shares. Commute distance and commuter income did not seem to significantly influence mode choice for commuters choosing between an available car and transit.

General strategies to increase the overall number of commuters choosing transit include introducing transit service in the non-competitive commuting markets, improving transit service in the transit-competitive commuting markets, and increasing the amount of commuting in the transit-competitive markets. The study was able to show empirically what is already assumed anecdotally; the geography and structure of commuting markets can constrain mode shift. Efforts to improve transit can increase share in several submarkets, while trends in employment and land use can strengthen transit's mode share. Maintaining quality service is critical to preserve and expand mode share.

### ***Students***

The school portion of the study focused on the 101 municipalities in the MPO region. 768,020 students live or go to school in the MPO region. A majority of students live and go to school in the MPO region. The study divided students into markets based on level of education (primary school, high school, college,) and the location of their school (in the central area around Boston or elsewhere in the region,) as a proxy for density. The factors that have an impact on mode share are density and proximity of school to transit. Socioeconomic factors and eligibility to obtain a driver license did not significantly impact mode share. The school bus mode plays an important role in the primary and high school travel markets. Opportunities for influencing mode shift for students include improving access to transit near schools, increasing outreach to students about transit, exploring changes to the free school bus policy, and encouraging walking and biking modes.

The regional travel demand model includes mode choice models for different trip purposes which have been estimated using 2011-MTS, geographic, and transportation system data. The factors affecting mode choice in the model are analogous to the variables described in this study.

### ***Discussion***

Laura Wiener, At-Large (Town of Arlington), asked whether the study authors had specific data related to the cost and availability of parking. B. Kuttner replied that for the purposes of the study, density was used as a proxy for parking costs based on findings from previous studies indicating that parking costs increase in relation to density.

K. Miller asked whether the cost of transit was considered, given that commuter rail costs can be prohibitive depending on the distance of the trip. B. Kuttner responded that overall the distance and cost did not seem to be the deciding factor in mode choice, but that future studies could consider this question.

M. Gowing commented about the lack of transit options for the largest commuting market, those traveling to and from work within an outlying area. B. Kuttner agreed that these commutes are indicative of the lack of transit options for commutes not involving the central area around Boston. M. Gowing also brought up the issue of the lack of transit options for students participating in after-school programs as an unmet need, and asked whether the study considered this. K. Pincus responded that the survey did not ask any questions about after school program participation or the times when students typically commuted to and from school.

## **12. Local Access: A New Tool for Maximizing Active Transportation Opportunities— *Tim Reardon, Metropolitan Area Planning Council***

Tim Reardon, Director of Data Services at the Metropolitan Area Planning Council, presented the results of MAPC work designed to encourage local mode shift from single-occupant-vehicles to walking and bicycling. This project was a companion piece to the previous work by MPO staff on shifting mode share to transit. This UPWP effort in FFYs 2014 and 2015 led to the creation of a new tool for measuring network utility for complete streets planning incorporating active transportation modes, implementation, and performance evaluation.

### ***Phase 1***

MAPC began by analyzing the 2011 Massachusetts Travel Survey. The survey showed that while people are more likely to walk or bike for shorter trips, in most of the region walking and biking account for a very small percentage of trips taken within 5 miles of home. MAPC found that while the Travel Survey indicated room for improvement, the data was too sparse and outdated to target interventions or track progress.

### ***Phase 2***

In order to help local municipalities find opportunities for encouraging mode shift, MAPC moved toward the creation of a tool allowing communities to prioritize streets most likely to have the greatest benefit if improved. 77% of Massachusetts roadways lack sidewalks, amounting to 35,000 miles of incomplete streets.

MAPC interviewed 50 DPW directors and other local officials in 2014. They found that most street-level improvements are done on an ad hoc basis or in response to

constituent requests. Since the institution of the Complete Streets program in 2014, more communities are doing this work actively. Municipalities need prioritization criteria. MAPC wanted to find a way to help municipalities identify which roadways would have the greatest utility for pedestrians and cyclists if safe and complete streets were available.

Using travel demand software and the 2011 Travel Survey, MAPC created the Active Transportation Network Utility. Focusing on access to shopping, restaurants, personal services, parks, primary schools, and transit, the tool allows users to identify specific streets that are important for access to local services. MAPC generated a Local Access Score for every census bloc in Massachusetts. Users can look at crash data, see gaps in sidewalks, and screen street segments that need attention. The tool can be used to create Pedestrian Prioritization Plans, guide capital investments, institute wayfinding programs, conduct pedestrian and bicycle counts, plan maintenance and enforcement, and conduct ADA Assessments. It is currently being used to guide the Massachusetts Pedestrian and Bicycle Plans.

The tool is relevant to continuing FFY 16 & 17 UPWP projects and could be used by MPO staff. The complete data is available with user guides at [Localaccess.mapc.org](http://Localaccess.mapc.org). MAPC is hoping to follow up with users who have downloaded the data.

### ***Phase 3***

Additional work is ongoing with the Department of Public Health in partnership with several communities to develop a protocol for measuring mode choice at the local level in order to estimate the health impacts of programmatic and infrastructure interventions. MAPC hopes to create neighborhood-level estimates of Pedestrian Miles Traveled (PMT). These numbers can be used to validate the Active Transportation Network Utility Local Access Scores and obtain physical activity estimates for public health models which can measure the impact of street level interventions on chronic disease incidence.

### ***Next Steps***

MAPC is actively promoting [localaccess.mapc.org](http://localaccess.mapc.org) and identifying future enhancements to the network utility model and website that might allow communities to customize data for local conditions.

### ***Discussion***

J. Gillooly asked about the method for estimating Pedestrian Miles Traveled. T. Reardon further explained the equation used to estimate the total pedestrian miles traveled for a local area.

### **13. State Implementation Plan (SIP) Update— *Bryan Pounds, MassDOT***

B. Pounds reported that the annual SIP process is currently addressing public comments and conducting a final review prior to submitting on January 2.

### **14. Members' Items**

T. Bent read the following statement: "It is with mixed emotions that I am reporting to the MPO that the City of Somerville's Board of Aldermen, after much heated debate and public comment, voted unanimously to approve the city's \$50 million dollar contribution toward the Green Line extension. Somerville has once again stepped up and delivered to make this project happen. This is a first-of-its kind donation by a municipality (Somerville & Cambridge) for a transit project that the state had a legal obligation to do as environmental mitigation for the Big Dig. This contribution will, depending on interest rates, cost the city between \$92 and \$103 million dollars, which is money that can't be used for other much needed capital projects. We will be negotiating with developers to pay a fair share of this, but we don't have the value capture tools that we need from the state to be in a better position to do this. As I have stated before, the City of Somerville does not want any other city or town to be put into a position like this and the state should put forward what its policy for transportation projects will be going forward. I do want to thank the MPO for their continued support of the GLX Project."

### **15. Adjourn**

A motion to adjourn was made by the Minuteman Advisory Group on Interlocal Coordination (Town of Bedford) (R. Reed) and seconded by the City of Boston (J. Gillooly). The motion carried.

## Attendance

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### Members

### Representatives and Alternates

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At-Large City (City of Everett)	Jay Monty
At-Large City (City of Newton)	David Koses
At-Large Town (Town of Arlington)	Laura Wiener
At-Large Town (Town of Lexington)	Richard Canale
City of Boston (Boston Planning and Development Agency)	Laura Mérida
City of Boston (Boston Transportation Department)	Jim Gillooly
City of Boston (Boston Transportation Department)	Thomas Kadzis
Federal Highway Administration	Kenneth Miller
Federal Transit Administration	
Inner Core Committee (City of Somerville)	Tom Bent
Massachusetts Department of Transportation	David Mohler
MassDOT Highway Division	John Romano
Massachusetts Bay Transportation Authority (MBTA)	Eric Waaramaa
Massachusetts Port Authority	Laura Gilmore O'Connor
MBTA Advisory Board	Paul Regan
Metropolitan Area Planning Council	Eric Bourassa
MetroWest Regional Collaborative (Town of Framingham)	
Minuteman Advisory Group on Interlocal Coordination (Town of Bedford)	Richard Reed
North Shore Task Force (City of Beverly)	
North Suburban Planning Council (City of Woburn)	Tina Cassidy
Regional Transportation Advisory Council	Mike Gowing
South West Advisory Planning Committee (Town of Medway)	
Three Rivers Interlocal Council (Town of Norwood)	Tom O'Rourke

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<b>Other Attendees</b>	<b>Affiliation</b>
Rafael Mares	Conservation Law Foundation
Tim Reardon	Metropolitan Area Planning Council
Christopher Blackler	
Tracy Litthcut	Boston Transportation Department
Steve Olanoff	Three Rivers Interlocal Council (TRIC)
Bryan Pounds	MassDOT Office of Transportation Planning
A. Pultinas	Boston Resident
Ellen Spring	Office of State Representative Denise Garlick

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**MPO Staff/Central Transportation Planning Staff**

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Karl Quackenbush, Executive Director  
Elizabeth Moore  
Lourenço Dantas  
Alexandra Kleyman  
Jen Rowe  
Róisín Foley  
Scott Peterson  
Seth Asante  
Casey Marie Claude  
Katie Pincus  
William Kuttner

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