

Part A: Applicant Information

DRAFT

Date:*

7/16/20

Municipality*

Medford – lead applicant

Name of official Municipal signatory*

Mayor Breanna Lungo-Koehn

Other Municipalities involved and their roles*

Somerville, co-applicant, partnering municipality

MassDOT, Dist. 4, reviewing-approval role, supportive role

MassDOT, Boston, reviewing-approval role, supportive role

MBTA, coordinate and provide technical support

Description of roles & responsibilities of the applicant and any partnering municipalities*

Medford - Mystic Avenue owner (Main St – ~Hancock St ¼ mile), co-applicant; responsible for implementing Medford portion

Somerville - Mystic Avenue, co-applicant, partnering municipality; responsible for implementing Somerville portion

MassDOT - Mystic Avenue owner (~Hancock St to McGrath Hwy. 1 ½ mile), reviewing-approval, supportive role; permitting, etc.

MBTA – own bus stop signage, coordinate and provide technical support

Contact person*

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Part B: Project Information

Project goals (1-2 sentences)

This project will help with the economic recovery and access to healthcare by improving transit access to both jobs and health care by connecting workers (incl. essential) and vulnerable populations to the Orange Line in environmental justice areas in Medford and Somerville (these goals are expanded upon in the project benefit section). This project also supports City and State longer-term goals and initiatives related to mode shift (single occupant vehicle to transit), climate resiliency (decreased emissions), and equity (providing a cost effective transportation alternative to vulnerable populations to access jobs, medical care, etc.).

Project description

Extending from Main Street in Medford to McGrath Highway (Route 28) in Somerville, this project would provide improved transit service in both the Medford and Somerville communities by providing a dedicated inbound bus lane on Mystic Avenue (Route 38). The project involves painting a dedicated bus lane and providing signage to indicate the lane usage.

The Medford portion is proposed as an AM peak hour bus lane/right turn lane while the Somerville portion is proposed as a 24/7 bus lane/right turn lane. The project involves painting a dedicated bus lane and providing signage to indicate the lane usage. The south most inbound lane will be used as a bus lane during the AM peak hours and parking at other times (City of Medford owned portion). The south most inbound travel lane will be used as a bus lane/right turn only lane during AM peak hours in Medford and all hours in Somerville (State portion). All other portions of the roadway cross section are expected to remain as is during this pilot.

Throughout the Mystic Ave. corridor in the cities of Medford and Somerville, this proposed bus priority treatment would reallocate existing roadway space from either a travel lane or parking shoulder to a bus lane or queue jump lane; therefore, it's a quick-build/proof of concept project with the potential to become permanent. The cities look forward to coordinating with MassDOT and the MBTA on the specific bus priority implementation that accomplishes the project benefits with the greatest efficiency and bus run time savings. While the proposed corridor stretches 2 miles in total, the cities note that there are specific high-congestion and high-delay intersections throughout the corridor that are key areas for bus mobility enhancements – addressing these with priority bus lane paint and signs will have the largest impact and the most significant benefit to residents served by this project.

Project location

Mystic Avenue, Medford and Somerville, MA.

GPS coordinates for project location

From 42°24'54.1"N 71°06'36.9"W

To 42°23'33.2"N 71°05'07.7"W

Does the project include a dedicated bus lane?

Yes No

Description of how the project will be implemented

- Conceptual plan developed based on aerial (by Grant Tech. Support, Kittleson)
- Coordination with MassDOT and the MBTA to develop the best approach to transit priority in the corridor.
- Signs and markings installed by a contractor. It is expected to be installed as follows: by a Medford contractor in Medford portion, and by Somerville contractor on Somerville portion. It is expected that the State will expedite (or waive if\when applicable) permits. Existing on-call contractors or separate project-based contractor will be used.

Description of any materials required to implement the project, and how they will be obtained

The cities would work with MassDOT and the MBTA to determine the extent of lane markings that are needed to accomplish the project goals and clearly communicate the presence of the bus lane. The following is a general assessment of materials. The attached budget estimate includes more detail on materials and how they would be obtained.

- Conceptual Plan Pavement Marking Paint (Text/Symbols, exact design to be coordinated with/approved by MassDOT)
- Traffic Signs, poles, hardware (lane usage signs to reinforce the bus lane markings)
- Strategically placed cones/drums
- Variable message board at one or more key locations to increase awareness and adherence
- Additional data collection as needed to meet the needs of the grant requirements (other than State sourced existing data streams)

Demonstration of compliance with safety and accessibility-related regulations (ADA and MAAB)*

Yes No

Project budget

At this time, based on a conceptual cost estimate prepared by Kittleson & Associates, Inc. it is anticipated that the upper limit cost would be approximately \$223,000 depending on plan approved by MassDOT District 4 (see conceptual budget estimate attached). This is mainly for markings symbols/text and signs spaced out at appropriate intervals to reinforce the new lane usage. Approximately half of the grant funding would be spent in Medford and half in Somerville.

Project timeline and milestones

If awarded immediately, the project could be implemented within 90 days (by Sept. 30, 2020). This timeline for installation of the pavement markings assumes advantageous weather. The cities of Medford and Somerville would aim to substantially complete the project in as efficient a schedule as possible. This approach of quick implementation will allow more time for data collection and analysis of bus operations under these trial transit priority conditions. The exact timeline will depend on all 4 parties (Medford, Somerville, MassDOT, MBTA), including MassDOT review, approval, and permitting.

Explanation of the benefits of the project and how it will meet the goals of this program

Implementation of this project addresses many of the goals set out in the MassDOT Shared Streets and Spaces Grant Program.

Detailed explanation of the project goals:

This project will help with the economic recovery and access to healthcare by improving transit access to both jobs and health care by connecting workers (incl. essential) and vulnerable populations to the Orange Line in environmental justice areas in Medford and Somerville. The cities of Medford and Somerville have pursued multiple inter-related strategies to help keep residents safe and healthy during the pandemic. From business support, food distribution, shared streets, and quick-build traffic calming, the focus of the response has been on ensuring that our most vulnerable and underserved residents have safe access to essential services. Efficient and safely accessible transit service is a key part of this response. We've all seen how COVID-19 exacerbates existing inequalities that we see around our cities.

While some of us are able to limit our potential exposure to the virus by working from home and getting essentials delivered, many people do need to travel outside their homes during this time. Specifically, low income and other underserved communities may not have a choice other than walking, biking, and taking transit to access jobs, groceries, healthcare, and other essential errands.

By providing more reliable transit service through the key corridor of Mystic Ave. in Medford and Somerville, this project is an important component of the cities' holistic and equity-focused pandemic response. Additionally, this project supports both short and longer-term City and State goals related to mode shift and climate resiliency. This project also supports City and State goals and initiatives related to mode shift (single occupant vehicle to transit), climate resiliency (decreased emissions), and equity (providing a cost effective transportation alternative to vulnerable populations to access jobs, medical care, etc.). The project is in a minority, low-income corridor which would benefit by improved transit (MBTA Bus Route 95). It is our understanding that seniors are known to use this and benefit from it as well.

Better Bus Principals:

This project would provide improved transit service in two neighboring communities by providing a dedicated inbound bus lane on Mystic Avenue (Route 38). This project will improve travel time and reliability for MBTA Route 95 bus service by installing approximately two miles of bus priority treatments for inbound service. The facility will help with delays at several high-delay intersections including Mystic Ave. (Route 38) at Harvard St., Mystic Ave. at Shore Dr., Mystic Ave. at Temple St, and Mystic Ave. at McGrath Highway (Route 28). This corridor serves approximately 41 daily weekday inbound trips and 1,400 weekday total riders per day and ~7,000 weekday total riders per week. Route 95 is in the top 50th% percentile of bus ridership among all routes, but on-street traffic congestion contributes to a poor on-time performance of 67%. With build outs like Assembly Row, future Mystic Avenue re-zoning and a fairly new connection to Arlington Center, Medford and Somerville anticipate the demand for this route to grow.

Route 95 is a particularly important route to address during the COVID-19 emergency due to the EJ/vulnerable populations it serves, which lends additional urgency to Medford and Somerville's proposal to increase reliability by creating a bus lane. Route 95 also offers important network connectivity between Arlington Center, Medford Sq., and Sullivan Sq. By improving mobility for residents that rely on transit to make essential trips during the pandemic, this project is an important component of both cities' strategic response to the pandemic. In addition, these improvements to bus reliability will enhance the MBTA's ability to manage headways and crowding during the COVID-19 emergency.

Complete Streets/Shared Streets Principles:

Mystic Avenue has approximately 15,000 vehicles per day (vpd) in the northern section, near Main Street and it carries approximately 17,000 vpd near Harvard Street. The project design can be considered a "road diet" since it reduces the number of general-purpose travel lanes in order to share space among multiple modes. The reallocation of lane usage through this project for transit mobility will contribute to traffic calming and lowering of speeds. As vehicle speeds decrease, the corridor becomes safer for bicycles and pedestrians, and providing these types of safe and efficient mobility options for vulnerable users during the pandemic is one of the Medford and Somerville's key strategies for a holistic mobility response to COVID-19.

In addition to enhanced bus mobility through this project, the Cities of Medford and Somerville have both invested in safer pedestrian infrastructure and access along the Mystic Ave. corridor and in proximity to Route 95 bus service. The City of Medford has collaborated with MassDOT D4 on pedestrian improvements for the crosswalk located at Mystic Ave./Bonner Ave., specifically to enhance safe connections to and from transit (Route 95 bus stops). The City of Medford & MassDOT D4 have also received recent pedestrian improvements at the intersection of Mystic Ave./Harvard St. as part of the Encore Casino mitigation involving adding a 'missing' crosswalk and associated signal infrastructure to that particular crossing. The City of Somerville has worked with MassDOT D4 to improve pedestrian safety and slow traffic at the Mystic and McGrath intersection cluster. Additionally, significant safety improvements were made at the

Mystic Ave and Temple St. intersection to slow vehicle speeds and construct safer pedestrian facilities including bus stop areas.

Other plans and policies that this project supports include Complete Streets policies/goals for the Cities and State, vision zero goals, and goals in Medford's Climate Resiliency plans and Somerville's Climate Forward Plan to expand low carbon mobility options.

Equity:

This project was selected because it advances the equity priorities of both Medford and Somerville. As stated above, the project is in a minority, low-income corridor which would benefit by improved transit. The Mystic Avenue (Route 38) corridor and the adjacent neighborhoods of South Medford and Winter Hill are communities that contain vulnerable, diverse, and low income populations. Data from the 2015-2017 MBTA Systemwide Passenger Survey shows that 41% of riders on Route 95 are classified as minority and 10% of riders are aged 65 or over. These percentages are higher than the equivalent percentage on Routes 89 and 101 which are just a mile away from the Route 95 corridor. Route 89 serves 25% riders that are classified as minority and 3% of riders aged 65 or over and Route 101 serves 31% riders that are classified as minority and 7% of riders aged 65 or over. Improving safety and prioritizing bus mobility along this stretch of Mystic Avenue will provide meaningful benefit for all Medford and Somerville residents, but most particularly for residents of South Medford and Winter Hill.

Quick Build/Potential for Permanence:

The Cities of Medford and Somerville are committed to improving bus mobility by implementing quick-build projects as well as permanent capital projects. To accomplish this proposed project, Medford and Somerville have been coordinating project design and implementation steps with MassDOT Highway Division District 4. The MBTA is also assisting with coordination and technical review of the project. If awarded immediately, it is projected to be implemented within 90 days (by Sept. 30, 2020). The design is being proposed in a manner to facilitate quick-build and ease of expanding/building upon the design. MassDOT D4 has indicated that they are open to this bus lane becoming permanent. Medford and Somerville look forward to coordinating with MassDOT and the MBTA to fully define the extent of this project in both the short and long term.

Part C: Site Information

Proof of ownership/control of the relevant municipal infrastructure: **Please attach relevant documentation as appendix.**

Medford - Mystic Avenue owner (Main St – ~Hancock St ½ mile),

State of Massachusetts - Mystic Avenue owner (~Hancock St to McGrath Hwy. 1 ½ mile)

1. Is this project entirely on municipally-owned infrastructure?*

Yes No

2. Indicate whether any MassDOT-owned infrastructure is integral to the proposed project*

Yes No

Comment

MassDOT owned sections of Mystic Ave(Route 38) (3/4 length of project, ~1.5 miles); ~0.5 miles located in Medford and ~1 mile located in Somerville.

3. Indicate whether any infrastructure owned by a state agency other than MassDOT is integral to the proposed project (i.e. the Department of Conservation & Recreation)*

Yes No

Comment

Note: Some State-owned sections located in Somerville, not just Medford. Somerville doesn't own this infrastructure but has a stake/interest in this section and are very supportive/co-applicant.

4. Demonstrate whether the proposed project is in a Census Block Group identified by the relevant Regional Planning Agency as an Environmental Justice area.*

Yes No

5. Is the site on a National Highway System roadway? [GeoDOT for NHS jurisdictions*](#)

Yes No Unknown

6. Is this project intended to be a temporary or a permanent change? (preference will be given to projects with potential to be lasting)*

Definitely temporary
 Potentially permanent
 Definitely Permanent

7. How fast can the proposed project be implemented?*

Within 0-15 days of award
 Within 15-30 days of award
 More than 30 days

8. Would the proposed project divert, detour, or otherwise impede current public transit service, even temporarily?*

Yes No

9. Would the proposed project repurpose parkland for transportation purposes, even temporarily?*

Yes No

Part D: Eligible Project Types

Eligible project types include changes to streets, curbs, sidewalks, and/or parking (both on- and off-street); illustrative examples are provided below. Proposed projects can draw from any of the categories or individual elements identified here, or introduce alternative ideas. Applications will be scored based on the number of different project elements included, and the functionality, creativity, and capacity to advance the program goals of the overall proposal. Project elements suggested here can be relevant to multiple project types.

Proposals must include at least one project type and two elements listed below, but any additional elements – provided they together form a coherent whole – will garner extra points

Shared Streets and Spaces: Support for increased rates of walking and/or biking by providing greater physical separation and increased safety

- Converted neighborhood streets for exclusive and/or shared use by people walking and/or biking
- Expanded sidewalks
- Safety, traffic calming, and speed reduction measures
- Modified traffic signals to support safe walking and biking (Changes to traffic signals require plans stamped by a registered Professional Engineer, usually a municipal staff member)
- Protected bicycle lanes, bicycle parking, signage, pavement markings
- New and/or expanded infrastructure and capital start-up (non-operating) costs for bicycle and scooter sharing networks
- Accessibility upgrades to curb-ramps, crosswalks, and/or related facilities
- Contiguous walking and/or biking corridors among neighborhoods and/or destinations

Outdoor Dining and Commerce: Safe and functional environments for curbside or sidewalk retail, dining, and civic programming

- Repurposed and/or expanded portions of streets, curbs, and/or sidewalks to create more safe space for pedestrians, retail activity, dining, and community programming
- Repurposed parking areas – on- and off-street – for walking, recreation, outdoor seating, retail and/or dining

Better Buses: Better facilities for bus transportation

- Dedicated lanes
- Transit signal priority
- Bus stops and related facilities and infrastructure

Safe Routes to School: Safe transportation to childcare, schools, and other facilities for children

- Converted neighborhood streets for exclusive and/or shared use by people walking and/or biking
- Signage, crosswalks
- Delineated areas for safe child dropoff and pickup

Innovation: Any other project types not identified here that reimagine and repurposes streets, sidewalks, curbs, and parking areas for safer walking, biking, retail, dining, and/or other civic purposes will be considered.

Appendix

Documents to be included in appendix (If applicable) and submitted altogether as one PDF:

- Locus Maps
- Illustrations of the project

Documents Attached

No File Chosen

File uploads may not work on some mobile devices.

[Submit Form](#)

Shared Streets and Spaces Grant Program

Address

10 Park Plaza, Boston, MA 02116

[Directions](#)

Online

Contact Us [Email Shared Streets and Spaces Grant Program at sharedstreets@dot.state.ma.us](mailto:sharedstreets@dot.state.ma.us)

massDOT Massachusetts Department of Transportation **Road Inventory**

Find address or place

Mystic River

0.4mi

-71.077 42.406 Degrees

Legend

Jurisdiction

- Massachusetts Department of Transportation
- Other State Agency
- Department of Conservation and Recreation
- Federal
- County Institutional
- City or Town accepted road

massDOT Massachusetts Department of Transportation **Road Inventory**

Find address or place

Mystic River

0.4mi

-71.077 42.406 Degrees

Legend

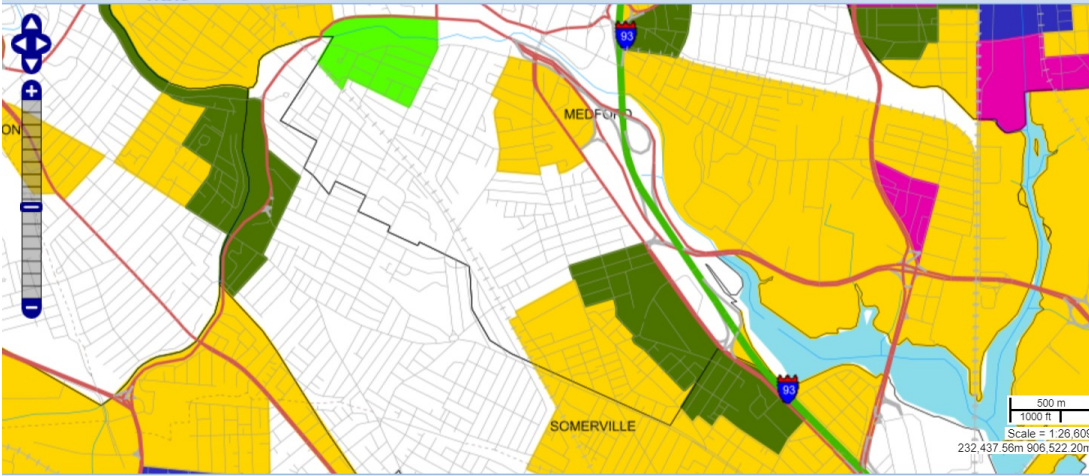
NHS

NHS Status

- NHS - Interstate
- NHS - STRAHNET Connector
- NHS - Other - One-way pair
- NHS - Other - Truck route exclusion
- NHS - Major Airport
- NHS - Major Port Facility
- NHS - Major Amtrak Station
- NHS - Major Rail/Truck terminal
- NHS - Major Intercity Bus terminal
- NHS - Major Public Transit or Multi-Model Passenger Terminal
- NHS - Major Ferry Terminal
- NHS - Other (not in above categories)
- NHS - MAP-21
- Non-NHS

Environmental Justice Viewer

Search for a location Zoom to a town



Available Data Layers

- Search data layers
- Environmental Justice Layers
- Other MassGIS Layers

Active Data Layers

- Check all Uncheck all Remove all
- Census 2010 Roads
 - Massachusetts Towns Black Labels

Legend

- Census 2010 Rivers and Streams
- Environmental Justice Populations 2010
 - Minority
 - Income
 - English Isolation
 - Minority and Income
 - Minority and English Isolation
 - Income and English Isolation
 - Minority, Income and English Isolation
- Census 2010 Towns
- Surrounding States

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Basemaps