NOTICE OF MEETING
10:00 A.M., Tuesday, June 18, 2019
Old Colony Planning Council (OCPC)
70 School Street, Brockton, MA

AGENDA

1. Call to Order and Introductions
2. Public Comments
3. Minutes of May 21, 2019 Old Colony MPO Meeting
4. Brockton Area Transit (BAT) Report
5. MassDOT District 5 Update on Projects Under Design or Construction
6. Draft FFY 2019 Old Colony Unified Planning Work Program (UPWP) Budget Reallocation 1
   ▪ Review, Consultation, and Potential Approval
7. Draft FFY 2020 Old Colony Unified Planning Work Program (UPWP)
   ▪ Review and Potential Release to Public Review and Comment Period
8. Draft FFY 2020-2040 Old Colony Long Range Transportation Plan (LRTP)
   ▪ Review and Potential Release to Public Review and Comment Period
9. Administrative Matters, Other Business, and Date and Time of Next Meeting(s)
10. Adjournment

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This meeting is accessible to people with disabilities and those with limited English proficiency. Accessibility accommodations and language services will be provided free of charge, upon request, as available. Such services include documents in alternate formats, translated documents, assistive listening devices, and interpreters (including American Sign Language). For more information or to request reasonable accommodation and/or language services please, contact Pat Ciaramella at 508-583-1833 Extension 202.
   ▪ If this information is needed in another language, please contact Pat Ciaramella at 508-583-1833 Extension 202.
The public discussion of the Transportation Improvement Program (TIP) at Old Colony JTC, Old Colony MPO, and transportation meetings satisfies the Program of Projects (POP) public hearing requirements of the Federal Transit Administration (FTA).
The 2020 Long Range Transportation Plan (LRTP) helps to determine how federal and state funding will be spent on transportation infrastructure and services in our communities over the next 20 years.

This next series of public outreach events will continue the outreach process looking to gather public input on the recommendations proposed in the document. The document is out for the 21 day public review.

Visit our website at www.ocpcrpa.org/lrtp.html to learn more.

Table Events:

**June 24, 2019**
6PM - 7:30
**Brockton Main Library**
304 Main Street
Brockton, MA 02301

**June 26, 2019**
6PM - 7:30
**Plymouth Main Library**
132 South Street
Plymouth, MA 02360

2020 Long Range Transportation Plan Goals (Draft):

- Enhance and Protect Regional Mobility
- Foster Sustainable, Healthy and Livable Communities
- Ensure Equity and Public Participation
- Enhance Safety and Security
- Promote Environmental Protection and Climate Change Adaptation
- Promote Policies that Ensure Economic Vitality and Fiscal Stewardship

Please contact us if you have any questions:

**Contact Name:** Paul Chenard
**Phone:** 508-583-1833 x 209
**Email:** pchenard@ocpcrpa.org

www.ocpcrpa.org
Summary

Public comments.
Summary

The Old Colony MPO is respectfully asked to consider approval of the May 21, 2019 Old Colony MPO Meeting Minutes.
1. Call to Order and Introductions

Chairperson Stephen Woelfel called the meeting to order at 10:00 A.M. and then read the Meeting Accessibility Statement and the Title VI Notice of Protection Statement. Those in attendance then introduced themselves.

2. Public Comments

There were no public comments at this time.

3. Minutes of the April 16, 2019 Meeting

Chairperson Woelfel asked the Old Colony MPO Members for comments or changes regarding the minutes of the April 16, 2019 meeting. There were no changes.

The Old Colony MPO then endorsed the minutes of the April 16, 2019 Old Colony MPO Meeting.
4. Brockton Area Transit (BAT) Report

Glenn Geiler provided a report on BAT activities:
- Thanked the Old Colony MPO for their support of BATs TIP Projects
- The second phase of the fare increase for BAT will go into effect on July 1, 2019
- BAT has been awarded three MassDOT discretionary grants. These grants awards will provide for expanded service to Stoughton, expanded service to Ashmont, and expanded service to Bridgewater State University (BSU).

5. Old Colony MPO Self-Certification Compliance Statement

Charles Kilmer discussed and then summarized the Old Colony MPO Self-Certification Compliance Statement and each of the ten applicable requirements.

The Self-Certification Compliance Statement certifies that the continuing, cooperative, and comprehensive performance-based multimodal transportation planning process for the Old Colony MPO is addressing major issues facing the region and certifies that the metropolitan transportation planning process is being carried out in accordance with all applicable requirements.

Chairperson Woelfel asked if there is a motion to endorse the Old Colony MPO Self-Certification Compliance Statement. A motion was made and then seconded.

The Old Colony MPO voted unanimously to endorse the Old Colony MPO Self-Certification Compliance Statement.

6. Draft FFY 2019-2023 Old Colony Transportation Improvement Program (TIP) Adjustments and Amendments

Charles Kilmer discussed the FFY 2019-2023 Old Colony TIP Amendment 2, summarized the public review and comment period, and highlighted the public comments received. Charles Kilmer then noted that the Revised Draft FFY 2019-2023 Old Colony TIP Amendment 2 is attached to the staff report.

The Draft FFY 2019-2023 Old Colony TIP Amendment 2 is comprised of the following two parts:

Part 1
Increases the programmed cost for the following two (2) projects:

FFY 2019
1. ABINGTON/BROCKTON - NORTH QUINCY STREET, CHESTNUT STREET, AND BOUNDARY AVENUE ROUNDBOUT AND GEOMETRIC IMPROVEMENTS (608143)
   - AMENDMENT: INCREASE COST - Increase cost from $1,218,906 to $2,121,017 (increase covered by adding $902,111 in Regional Target CMAQ funding)
2. EAST BRIDGEWATER - RESURFACING AND SIDEWALK CONSTRUCTION ON BEDFORD STREET (ROUTE 18), FROM WHITMAN STREET (ROUTE 106) TO CENTRAL STREET (607941)
   o AMENDMENT: INCREASE COST AND ADD FUNDING PROGRAM - Increase cost from $7,763,091 to $9,023,732 (increase covered by adding $1,260,641 in Regional Target STP funding)

Part 2
Replaces the existing Section 2. FAST Act, National Planning Factors, and Performance Based Planning with an updated Section 2. FAST Act, National Planning Factors, and Performance Based Planning reflective of Performance Based Planning Narrative, Performance Measures and Targets (PM1, PM2, PM3, and TAM), and adoption of said Performance Measures and Targets (PM1, PM2, PM3, and TAM).

Charles Kilmer stated that the OCPC Board of Directors and the Old Colony JTC approved Amendment 2 and their respective public meetings.

Charles Kilmer then noted that John Haines of the East Bridgewater Department of Public Works asked if the East Bridgewater Project is still on track for advertisement in June 2019. OCPC responded by saying that the project is on track for advertisement in the fourth quarter of FFY 2019.

Chairperson Woelfel asked if there is a motion to endorse FFY 2019-2023 Old Colony TIP Amendment 2. A motion was made and was seconded.

The Old Colony MPO voted unanimously to endorse the TIP Amendment 2.

7. Draft FFY 2020-2024 Old Colony Transportation Improvement Program (TIP)
   ▪ Public Comments and Potential Endorsement

Charles Kilmer discussed the Draft FFY 2020-2024 Old Colony TIP, summarized the public review and comment period, and highlighted the public comments received. Charles Kilmer then noted that the Revised Draft FFY 2020-2024 Old Colony TIP is attached to the staff report. The programmed highway and bridge projects are as follow:

**FFY 2020**

- Bridgewater and Brockton - Pavement Preservation and Related work on Route 24
  ▪ Pre-25% Design and the cost estimate is $17,851,040

- Brockton - Corridor Improvements on Route 123 (Belmont Street), from Angus Beaton Drive to West Street
  ▪ 75% Design and the cost estimate is $7,350,265

- Pembroke - Resurfacing and Related Work on Route 53
  ▪ 100% Design and the cost estimate is $2,725,075
OLD COLONY METROPOLITAN PLANNING ORGANIZATION (MPO)

**FFY 2021**
- Avon - Intersection Improvements at Harrison Boulevard and Pond Street
  - 25% Design and the cost estimate is $3,521,954
- Avon and Stoughton - Pavement Preservation and Related work on Route 24
  - Pre-25% Design and the cost estimate is $6,312,800
- Easton - Route 123 (Depot Street) Reconstruction from Newell Circle to Route 138
  - 75% Design and the cost estimate is $8,052,916
- Stoughton - Improvements at West Elementary School (SRTS)
  - Pre-25% Design and the cost estimate is $2,982,944

**FFY 2022**
- Brockton - Intersection Improvements @ Crescent Street (Route 27)/Quincy Street/Massasoit Boulevard
  - 25% Design and the cost estimate is $5,520,744
- Stoughton - Intersection Improvements and Related Work at Central Street, Canton Street and Tosca Drive
  - 25% Design and the cost estimate is $3,347,449

**FFY 2023**
- Brockton - Intersection Improvements at Centre Street (Route 123) and Plymouth Street
  - Pre-25% Design and the cost estimate is $1,680,000
- Pembroke - Rehabilitation of Route 36 (Center Street) from Route 27 to Route 14
  - 75% Design and the cost estimate is $8,902,501

**FFY 2024**
- Plympton - Bridge Replacement, Winnetuxet Road Over Winnetuxet River
  - Pre-25% Design and the cost estimate is $2,223,024
- Stoughton - Corridor Improvements on Route 138
  - 25% Design and the cost estimate is $9,155,544

Charles Kilmer stated that the OCPC Board of Directions and the Old Colony JTC reviewed and approved the Draft FFY 2020-2024 Old Colony TIP at their respective public meetings. Charles Kilmer then reported that David Mohler of MassDOT provided comments and requested editing revisions for the FFY 2020-2024 TIP. OCPC completed those revisions. Charles Kilmer then reported that Bill Fitzgerald from the Avon Department of Public Works had inquired about the Avon - Intersection Improvements at Harrison Boulevard and Pond Street and had asked whether it would be possible to program the project in FFY 2020 instead of FFY 2021. Charles Kilmer noted that MassDOT recommended 2021 given the project’s state of the design and readiness, and then noted that if the project is advertised in the first quarter of FFY 2021, rather than the last quarter of FFY 2020, the commencement of actual construction could likely be similar.
Chairperson Woelfel asked if there is a motion to endorse the Draft FFY 2020-2024 Old Colony TIP. A motion was made and was seconded.

The Old Colony MPO voted unanimously to endorse the Draft FFY 2020-2024 Old Colony TIP.

8. Draft Old Colony Long Range Transportation Plan (LRTP)
   ▪ Update and Preferred Set of Projects

Bill McNulty provided an update and presentation on the Draft 2020-2040 Old Colony LRTP. The presentation included information on planning for the future and regional challenges, scenario planning, and preferred sets of projects.

Bill McNulty reported that four possible future planning scenarios have been identified. These planning scenarios will have a significant role in determining how transportation funds are applied in the future. The scenarios are as follows:

- **Planning Scenario 1: High Level of Investment in All Modes**
  - Assumes transportation finance reform and new and/or significantly increased funding sources
  - System-wide improvement of surface transportation network to Excellent and Good Condition
  - Expansion and Modernization of Transit
  - Major Implementation of Bicycle and Pedestrian Plans

- **Planning Scenario 2: Arterial Focused**
  - Focus is placed on improving congestion and safety on arterial routes
  - Intersection Improvements
  - Signal Coordination / Modernization
  - Focus on existing transit level of service vs. system expansion
  - Implementation of Bicycle and Pedestrian Plan

- **Scenario 3: Transit, Mode Shift, and Ride Share Focus**
  - Limited investment in surface transportation network
  - High levels of investment in transit
  - Heavy consideration of creative transit, bicycle and pedestrian, and ride sharing improvements

- **Scenario 4: Limited Levels of Investment**
  - Highly limited resources vs. system needs
  - Priority place on maintenance of existing network, and state of good repair
  - Only highest priority bicycle, pedestrian, and mode shift projects considered

The Draft Old Colony LRTP is anticipated to be completed by the end of May 2019. The Draft LRTP will be released to a 21 day public review and comment period at the June 18, 2019 Old Colony MPO Meeting. On July 16, 2019, the Old Colony MPO is scheduled to review the results of the public review and comment period and consider endorsement of the LRTP.
9. Administrative Matters, Other Business, and Date and Time of Next Meeting(s)

Chairperson Woelfel recognized and congratulated Laurie Muncy and Lisa Sullivan on passing the American Planning Association (APA) - American Institute of Certified Planners (AICP) Exam.

Dan Salvucci inquired about the possibility for BAT to establish a bus route along Route 18 that would connect the multiple health care services and providers. Glenn Geiler thanked Dan Salvucci for the inquired and then noted that this will be looked at during the development of next BAT Comprehensive Regional Transit Plan (CRTP).

The next Old Colony MPO meeting will be held at 10:00 AM, on June 18, 2018.

10. Adjournment

Chairperson Woelfel adjourned the meeting at 10:35 AM.

Respectfully submitted,

Kyle Mowatt
Kyle Mowatt, Transportation Planner

List of Documents for the May 21, 2019 Old Colony MPO Meeting
1. Minutes of April 16, 2019, 2019 Old Colony MPO Meeting
2. Staff Report for May 21, 2019 Old Colony MPO Meeting Agenda Items
June 18, 2019 Old Colony MPO Meeting
Agenda Item 4
Brockton Area Transit Authority (BAT) Report

Summary

Brockton Area Transit to provide update.

Attachment(s)
None
MassDOT District 5 Briefing on Projects Under Design or Construction

Summary

MassDOT District 5 to provide update.
The Unified Planning Work Program (UPWP) provides an overview and budgetary information for the transportation planning tasks and activities, which are to be conducted in the region.

Old Colony Planning Council has identified the need for additional funding for Task 2200 - Multi-Modal Data Surveillance and System Monitoring, Task 2500 - Management Systems, and Task 3200 - Local Highway Transportation Technical Assistance due to the underestimation in the levels of effort. As such, the proposed FFY 2019 UPWP Budget Reallocation 1 is as follows:

### FFY 2019 UPWP Budget Reallocation 1

<table>
<thead>
<tr>
<th>Task and Description</th>
<th>Existing Amount</th>
<th>Proposed Amount</th>
<th>Amount Changed</th>
<th>Additional Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1500 - Title VI and Environmental Justice</td>
<td>$42,000</td>
<td>$32,000</td>
<td>($10,000)</td>
<td>Budget reallocation needed due to the overestimation in the level of effort.</td>
</tr>
<tr>
<td>2100 - Demographic Surveillance &amp; Road Inventory</td>
<td>$25,000</td>
<td>$20,000</td>
<td>($5,000)</td>
<td>Budget reallocation needed due to the overestimation in the level of effort.</td>
</tr>
<tr>
<td>2200 - Multi-modal Data Surveillance and System Monitoring</td>
<td>$74,000</td>
<td>$84,000</td>
<td>$10,000</td>
<td>Budget reallocation needed due to the underestimation in the level of effort.</td>
</tr>
<tr>
<td>2500 - Management Systems and Travel Demand Modeling</td>
<td>$85,000</td>
<td>$95,000</td>
<td>$10,000</td>
<td>Budget reallocation needed due to the underestimation in the level of effort.</td>
</tr>
<tr>
<td>3200 - Local Highway Transportation Technical Assistance</td>
<td>$80,000</td>
<td>$90,000</td>
<td>$10,000</td>
<td>Budget reallocation needed due to the underestimation in the level of effort.</td>
</tr>
<tr>
<td>3400 - Coordinated Public Transit - HST Plan</td>
<td>$38,000</td>
<td>$33,000</td>
<td>($5,000)</td>
<td>Budget reallocation needed due to the overestimation in the level of effort.</td>
</tr>
<tr>
<td>3500 - Performance Management</td>
<td>$43,000</td>
<td>$33,000</td>
<td>($10,000)</td>
<td>Budget reallocation needed due to the overestimation in the level of effort.</td>
</tr>
</tbody>
</table>

Amounts shown are the FHWA PL / MassDOT Share Amounts (Contract 88826)

Attachment(s)

Draft FFY 2019 Old Colony UPWP Budget Reallocation 1
Summary

The Old Colony Unified Planning Work Program (UPWP) provides an overview and budgetary information for the transportation planning tasks and activities, which are to be conducted in the region during the upcoming federal fiscal year. The Old Colony UPWP is a federally required certification document, which is be prepared and endorsed annually by the Old Colony Metropolitan Planning Organization (MPO). The Old Colony Planning Council (OCPC) has the responsibility of preparing and implementing the Old Colony UPWP.

As such, the Old Colony MPO is respectfully asked to review and subsequently release the Draft FFY 2020 Old Colony UPWP to a 21-day public review and comment period. Following the completion of the 21-day public review and comment period, the Old Colony MPO, is then respectfully asked to review the public comments and consider endorsement of the Draft FFY 2020 Old Colony UPWP.
DRAFT FFY 2020
OLD COLONY
UNIFIED PLANNING WORK PROGRAM

PREPARED BY:
OLD COLONY PLANNING COUNCIL (OCPC)
70 SCHOOL STREET, BROCKTON, MASSACHUSETTS
508-583-1833
www.ocpcrpa.org

PREPARED FOR:
TRANSPORTATION AND TRANSPORTATION RELATED PLANNING ACTIVITIES
FROM OCTOBER 1, 2019 THROUGH SEPTEMBER 30, 2020

PREPARED UNDER:
UNIFIED PLANNING WORK PROGRAM (UPWP) TASK 1200

OLD COLONY METROPOLITAN PLANNING ORGANIZATION (MPO)

The preparation of this document has been financed in part through grant[s] from the Federal Highway Administration and Federal Transit Administration, U.S. Department of Transportation, under the Metropolitan Planning Program, Section 104(f) of Title 23, U.S. Code.

The contents of this document do not necessarily reflect the official views or policy of the U.S. Department of Transportation.

JUNE 18, 2019

FOR REVIEW AND POTENTIAL RELEASE TO A 21-DAY PUBLIC REVIEW AND COMMENT PERIOD

PREPARED IN COOPERATION WITH
BAT, FHWA, FTA, AND MASSDOT
UNDER CONTRACT 88826
DISCLAIMER

The preparation of this report has been financed in part through grant[s] from the Federal Highway Administration and Federal Transit Administration, U.S. Department of Transportation, under the State Planning and Research Program, Section 505 [or Metropolitan Planning Program, Section 104(f)] of Title 23, U.S. Code.

The views and opinions of the Old Colony Planning Council expressed herein do not necessarily state or reflect those of the U. S. Department of Transportation.

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FEDERAL “TITLE VI/NONDISCRIMINATION” PROTECTIONS

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ADDITIONAL INFORMATION

To request additional information regarding Title VI and related federal and state nondiscrimination obligations, please contact:

Old Colony Planning Council
Title VI/ Nondiscrimination Coordinator
Pat Ciaramella
70 School Street
Brockton, MA 02301
508-583-1833 Extension 202
pciaramella@ocpcrpa.org
COMPLAINT FILING

To file a complaint alleging a violation of Title VI or related federal nondiscrimination law, contact the Title VI Specialist (above) within 180 days of the alleged discriminatory conduct.

To file a complaint alleging a violation of the state’s Public Accommodation Law, contact the Massachusetts Commission Against Discrimination within 300 days of the alleged discriminatory conduct at:

Massachusetts Commission Against Discrimination (MCAD)
One Ashburton Place, 6th Floor
Boston, MA 02109
617-994-6000
TTY: 617-994-6196

TRANSLATION

English
If this information is needed in another language, please contact the MPO Title VI Coordinator at 508-583-1833 ext. 202.

Spanish
Si necesita esta información en otro idioma, por favor contacte al coordinador de MPO del Titulo VI al 508-583-1833 ext. 202.

Portuguese
Caso estas informações sejam necessárias em outro idioma, por favor, contate o Coordenador de Titulo VI da MPO pelo telefone 508-583-1833, Ramal 202

Chinese Simple
如果需要使用其它语言了解信息，请联系Old Colony大都会规划组织（MPO）《民权法案》第六章协调员，电话508-583-1833，转202。

Chinese Traditional
如果需要使用其他語言瞭解資訊，請聯繫Old Colony大都會規劃組織（MPO）《民權法案》第六章協調員，電話508-583-1833，轉202。

Vietnamese
# FFY 2020 OLD COLONY UNIFIED PLANNING WORK PROGRAM (UPWP)
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- Transportation Planning Staff
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- E. Public Review Period and Public Comments
1. INTRODUCTION

The Old Colony Metropolitan Planning Organization (MPO) conducts and implements a continuing, cooperative, and comprehensive transportation planning process (3C) that results in plans, programs, and projects that encompass all transportation modes and that support the region’s vision and goals. The Old Colony MPO plans for the movement of both people and goods within the region by all modes of travel, including highways, rail, public transportation, bicycles, and foot. It also plans for the connections linking these modes.

The FFY 2020 Old Colony Unified Planning Work Program (UPWP) describes and provides budgetary information for the transportation planning tasks and activities, which are to be conducted in the region during the federal fiscal year. The UPWP is prepared and endorsed annually by the Old Colony MPO, prior to the start of the planning program. The Old Colony Planning Council (OCPC) has the responsibility of preparing the UPWP and implementing the tasks contained here within.

The FFY 2020 Old Colony UPWP describes the planning to be undertaken by the Old Colony MPO. Transportation planning activities are described as procedures under specific tasks. For each task, the anticipated accomplishment or product is provided. For each task, budget, and sources of funding are also provided. For management convenience, similar tasks are grouped into the following elements:

- 1000 - Management and Support of the Planning Process and Certification Activities
- 2000 - Data Reconnaissance, Acquisition, and Analysis Activities
- 3000 - Short Range and Long Range Transportation Planning Activities
- 4000 - Other Transportation Technical Activities

The Old Colony UPWP is a planning and budgeting tool that is used by Brockton Area Transit (BAT), Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Massachusetts Department of Transportation (MassDOT), and Old Colony Planning Council, as the Scope of Services for the contracting for planning services, and may be amended, and/or administratively modified during the program year with approval of the Old Colony MPO. All relevant tasks will be performed with input from MassDOT District 5.

Continued growth in population, employment, and housing, and the associated increases in travel demand continue to place pressure on the transportation system in the Old Colony Region and beyond. The Old Colony Long Range Regional Transportation Plan (LRTP) represents the Old Colony MPO’s effort to create a document and a process that will meet the challenges of preserving and expanding a truly intermodal transportation system. The LRTP includes goals and objectives, performance measures, analyses and recommendations necessary to build and maintain an efficient, effective, and affordable regional transportation system. It is the intention of the Old Colony MPO to build on the current system, striving to make it comprehensive and multi-modal. The goal is a balanced range of well-connected transportation options that will optimize each travel mode: automobile, transit, rail, bicycle, and pedestrian, boat, air, and freight. The LRTP identifies the region’s transportation project needs for the next twenty years. The principal way in which LRTP recommendations will be translated into action is through the Transportation Improvement Program (TIP). The TIP is a multimodal list of investments for which federal surface transportation funds will be used. The TIP covers a five-year period, updated annually, and based on reasonable estimates of funds available to the region.

The FFY 2020 Old Colony UPWP continues to expand on several major tasks that are specifically targeted to implement provisions of several pieces of federal legislations, such as the Fixing America’s Surface
Transportation (FAST) Act, the Clean Air Act Amendments of 1990, and the Americans with Disabilities Act. The Old Colony MPO develops its programs with regional needs in mind, and in alignment with the FAST Act Planning Factors. The federal transportation act, the FAST Act identifies nine (9) Planning Factors that Metropolitan Planning Organizations, such as the Old Colony MPO, must consider in their Unified Planning Work Programs. During the development of the 2020 LRTP, goals and objectives were developed to guide the region’s transportation planning activities through the near future, as were the performance measures that work towards achieving these goals and objectives. Planning staff collaborated with stakeholders in an attempt to develop realistic and achievable targets and performance measures for each individual objective. The Old Colony MPO will continue to collaborate with its planning partners and refine the development of targets and performance measures for objectives, as they are applicable. Additionally, planning staff will continue to self-evaluate on progress towards all objectives and report to its planning partners and to the public as appropriate. The following is a listing of the national planning factors with information provided on the related 2020 LRTP objectives and performance measures.

1.1 FAST Act, National Planning Factors, and Performance Based Planning

The Fixing America’s Surface Transportation Act legislation requires MPOs to implement a continuing, cooperative, and comprehensive performance-based multimodal transportation planning process. To meet this requirement, the Old Colony MPO develops the Long Range Transportation Plan and Transportation Improvement Program that facilitate the safe and efficient movement of safe and efficient management, operation, and development of surface transportation systems that will serve the mobility needs of people and freight (including accessible pedestrian walkways, bicycle transportation facilities, and intermodal facilities that support intercity transportation, including intercity bus facilities and commuter van pool providers) and that fosters economic growth and development within and between States and urbanized areas, and take into consideration resiliency needs while minimizing transportation-related fuel consumption and air pollution in all areas of the region.

The FAST Act continues to emphasize performance-based planning as an integral part of the metropolitan planning process: states are to develop performance goals, guided by the national goals, and then MPOs will work with state departments of transportation to develop MPO performance measures and targets, or adopt the statewide performance measures and targets. The TIP integrates MassDOT’s and the MPOs’ performance measures and link transportation-investment decisions to progress toward achieving performance targets. The MPOs, MassDOT, and providers of public transportation jointly agree and have developed specific written provisions for cooperatively developing and sharing information related to transportation performance data, the selection of performance targets, the reporting of performance targets, the reporting of performance to be used in tracking progress towards attainment of critical outcomes for the MPO regions and the collection of data for the MassDOT Asset Management Plan.

The Old Colony MPO develops the TIP with due consideration of additional planning activities within the metropolitan area, and utilizes a process that provides for the design and delivery of transportation services within the metropolitan planning area. The following is an overview of how the Long Range Transportation Plan and the Transportation Improvement Program reflect the national planning factors and performance-based planning:

- **Safety Goals**: Achieve a significant reduction in traffic fatalities and serious injuries on all public roads; increase the safety of the transportation system for motorized and non-motorized users; ensure that
the transportation system and its users are safe and secure; and review safety data, goals, objectives, and strategies to promote safety.

The Strategic Highway Safety Plan is incorporated into the Long Range Transportation Plan. The Old Colony MPO applies specific criteria in the review of transportation strategies. These criteria are applied to estimated changes in safety. The primary goal of the LRTP is focused on safety and security: “Enhance Safety and Security.” Safety is of such importance that it is recognized in its own chapter of the LRTP. Also included in the LRTP are the following goals: Increase the security of the transportation system for motorized and non-motorized users; examine both transit and highways networks and develop appropriate goals and strategies; review current plans for emergency planning and security elements; identify critical facilities and transportation systems; and define the roles of the various players in promoting security. One area of additional security planning that applies is that of traffic impacts due to extreme weather events such as impending hurricanes, and climate changes.

Objectives:

- Reduce the number and rates of fatalities and serious injuries.
  
  **Target and Performance Measure:** Conduct Road Safety Audits for a minimum of 3 per year. In 2018, 11 locations were analyzed through Road Safety Audits.

- Provide and maintain safe fixed route service (e.g. Preventable Accidents per 100K miles).
  
  **Target and Performance Measure:** Maintain fixed route service preventable accidents/100k miles below 2.00 (FY 2018 is 1.26 (from BAT Performance Dashboard).

- Provide and maintain safe demand response service (Preventable accidents/100k miles).
  
  **Target and Performance Measure:** Maintain demand response service preventable accidents/100k miles below 2.00 (FY 2018 is 0.39) (from BAT Performance Dashboard).

- Protect the viability of transportation infrastructure to accommodate emergency response and evacuations.

- Protect transportation system users from safety and security threats.

- Increase number of Safe Routes to School Partner Schools.
  
  **Target and Performance Measure:** Increase percentage of SRTS Partner Schools to 85% in 10 years. Currently, 71% of eligible partner schools are partner schools.

**Infrastructure Condition (Pavement, Bridge, and Transit) Goals:** Maintain a highway and transit infrastructure asset systems in a state of good repair; and emphasize the preservation of the existing transportation system. As part of the LRTP development, the MPO utilities a pavement management system to develop costs and recommended repair for operation, preservation, and maintenance of the federal aid network.

MassDOT develops the Transportation Asset Management Plan (TAMP) to address pavement and bridge conditions on the National Highway System (NHS). The TAMP includes information on the NHS Inventory and Performance, Life Cycle Planning and Investment Strategy, Risk Management, and a Financial Plan.
Recipients of public transit funds, which can include states, local authorities, and public transportation operators, are required to establish performance targets for safety and state of good repair, develop transit asset management and transit safety plans, and to report on their progress toward achieving targets. Public transportation operators are directed to share information with MPOs and states so that all plans and performance reports are coordinated. The identified state of good repair performance measures for transit asset management with regard to BAT include the following areas: equipment (Percentage of vehicles that have met or exceeded their Useful Life Benchmark (ULB)); rolling stock (Percentage of revenue vehicles within a particular asset class that have met or exceeded their ULB); and facilities (Percentage of facilities within an asset class rated below 3.0 on the FTA Transit Economic Requirements Model scale).

Objectives:

- Provide and maintain fixed route and demand response state of good repair.
  
  **Target and Performance Measure**: Increase miles between breakdowns with passenger interruption on fixed route to 25,000 (goal) within 10 years (currently 27,761) (from BAT Performance Dashboard).

- Improve bridge conditions.
  
  **Target and Performance Measure**: Maintain percentage of bridges categorized structurally deficient below 5% and increase overall average AASHTO rating (current 79) by 10 percent by 2040. Currently, eight percent of the bridges are categorized as structurally deficient.

- Improve pavement conditions and state of good repair.
  
  **Target and Performance Measure**: Achieve 50% of federal-aid eligible roadways in the region with a PCI-based pavement ranking of Good or Excellent within 10 years.

  In 2016, the pavement management system determined that 36% of the federal-aid eligible roadways were categorized as either Good or Excellent.

- **Congestion Reduction Goals**: Achieve a significant reduction in congestion on the NHS; and enhance the integration and mobility of the transportation system, across and between modes, for people and freight. The MPO applies specific criteria in the review of transportation strategies. These criteria are applied to improvements in multimodal accessibility. The LRTP supports these efforts through its goal: “Enhance and Protect Regional Mobility, and Foster Sustainable, Healthy, and Livable Communities.”

Objectives

- Promote Mode Shift by increasing use of transit, carpool/ vanpool, and non-motorized transportation modes such as bicycling and walking.

  **Target and Performance Measure**: Monitor congestion levels on federal-aid eligible highway network annually, and highlight corridors with volume to capacity (v/c) ratios of 0.8 or greater for targeted study and/or improvements.

- Maintain and improve transit system efficiency and capacity.

  **Target and Performance Measure**: Achieve average on-time ranking on fixed-route system of 98% by 2040 (from BAT Performance Dashboard). FY 2018 actual on-time performance is 97.57%.
FFY 2020 OLD COLONY UNIFIED PLANNING WORK PROGRAM (UPWP)

- Increase automobile and bicycle parking capacity and usage at transit stations and commuter lots.
  
  **Target and Performance Measure:** 100% of intermodal facilities with adequate bicycle parking by 2040.

- Eliminate bottlenecks on limited access highways and on the freight network.

- Improve and expand human service coordination, mobility, and accessibility for all modes.

- Reduce number and size of gaps in the ADA accessible sidewalk network.

- Increase use of traffic signal priority (hold current green light) for transit vehicles and traffic signal pre-emption for emergency vehicles (override programmed phasing to provide approaching emergency vehicles a green light).

- Monitor utilization and congestion levels at commuter rail and park & ride parking facilities.
  
  **Target and Performance Measure:** Record utilization data twice annually and report data to MassDOT.

- Improve accessibility for all modes to all users.
  
  **Target and Performance Measure:** 50% of communities with Complete Streets policies within 10 years. Currently, 59% of communities have an approved Complete Street Policy.

- **System Reliability Goals:** Improve the efficiency of the surface transportation system; and promote efficient system operation and management. The Old Colony MPO supports Operation and Management Strategies (O and M) for both the transit and highway networks. The LRTP supports this planning factor through this performance measure: “Maintaining and preserving transit, highway, and bridge infrastructure.” As part of the LRTP development, the MPO utilizes a pavement management system to develop costs and recommended repair for operation, preservation, and maintenance of the federal aid network. The Old Colony MPO and BAT are coordinating to implement a performance based planning process. The MPO integrates BAT’s Transit Asset Management (TAM) Plan into its planning process that prioritizes investments that meet regional performance targets for State of Good Repair. The identified state of good repair performance measures for transit asset management with regard to BAT include the following areas: equipment (Percentage of vehicles that have met or exceeded their Useful Life Benchmark (ULB)); rolling stock (Percentage of revenue vehicles within a particular asset class that have met or exceeded their ULB); and facilities (Percentage of facilities within an asset class rated below 3.0 on the FTA Transit Economic Requirements Model scale). Additionally, the Old Colony TIP contains operation and maintenance costs for the federal aid network and BAT.

**Objectives**

- Provide and maintain fixed route reliability: Miles between breakdowns w/ passenger interruption.
  
  **Target and Performance Measure:** Achieve average of 25,000 miles between breakdowns with passenger interruptions by 2040 (from BAT Performance Dashboard). FY 2018 actual is 27,761 miles between breakdowns with passenger interruptions.

- Provide and maintain demand response reliability: Miles between breakdowns w/ passenger interruption.
Target and Performance Measure: Achieve average of 30,000 miles between breakdowns with passenger interruptions by 2040 (from BAT Performance Dashboard). FY 2018 actual is 33,325 miles between breakdowns with passenger interruptions.

- Provide and maintain highway network travel time reliability.
- Protect and strengthen transportation systems vulnerable to climate change through identification of at-risk transportation assets and development of protection measures for each category of asset.

Freight Movement and Economic Vitality Goals: Improve the nation’s freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development; and support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency. The MPO applies specific criteria in the review of transportation strategies. These criteria are applied to changes of delay and emissions. Reduction in traffic delay has a direct consequence on economic vitality both through the timely arrival of commuters and goods and reduction in fuel expenses and losses due to air pollution. The LRTP directly supports these efforts through the goal: “Promote Policies that Ensure Economic Vitality and Sustainability.” The MPO directly supports regional productivity through its economic development mission manifested in the Regional Policy Plan, including support of the federally approved Old Colony Comprehensive Economic Development Strategy priority projects.

Objectives

- Reduce delay along identified freight routes.
- Improve safety along freight routes.
- Mitigate and improve key arterial (such as Route 106) and limited access highways (Routes 3 and 24) bottlenecks that inhibit efficient freight movement by truck.
- Identify opportunities for promoting intermodal freight movement and uses for the Brockton CSX site.
- Increase access to major employment centers.
- Increase viaduct clearance to improve freight movement, emergency response, and reduce delay.
- Plan and prioritize transportation investments that serve targeted development areas.

Environmental Sustainability Goals: Enhance the performance of the transportation system while protecting and enhancing the natural environment; protect and enhance the environment; promote energy conservation; improve the quality of life; and promote consistency between transportation improvements and State and local planned growth and economic development patterns. The LRTP supports this planning factor through three goals: “Promote Environmental Protection and Climate Change Adaptation, and Pursue the GreenDOT Vision and achieve the three GreenDOT goals.” The LRTP and therefore the TIP includes a focus on addressing Climate Change. Where appropriate, TIP projects will include assessments of vulnerabilities and negative risks that climate change effects or extreme weather events pose, to the region’s transportation infrastructure. These vulnerabilities and risks will be seriously considered when planning future improvements. Where appropriate, TIP projects include adaptation strategies that will enable the region to implement improvements appropriately. The reduction of greenhouse gas emissions (GHG) remains an important goal in addressing climate change.
Objectives

- Minimize negative environmental impacts of the transportation system.
  - **Target and Performance Measure:** Program a minimum of 100% of Congestion Mitigation and Air Quality (CMAQ) Program funding targets.
- Reduce greenhouse gas emissions and ground level ozone (NOx and VOCs) by all transportation modes.
  - **Target and Performance Measure:** 50% of TIP projects reduce GHGs while also reducing negative impacts on the natural environment (such as improved storm water management or the addition of green space). In the FFY 2020-2024 TIP, 67% of the road projects, and 100% of the bus replacement projects had measureable reductions in GHGs.
- Increase the usage of clean alternative fuels and recyclable material for new transportation infrastructure.
- Increase coordination of transportation and housing programs to promote affordable housing near transit.
- Develop and support transportation policies that support healthy lifestyles.
- Support investments that clean up brownfields and avoid investments that increase pressure to develop greenfields.
- Support livable communities and smart growth development patterns through the creation of a balanced multi-modal transportation system.

Reduced Project Delivery Delay Goal: Reduce project costs; promote jobs and the economy; and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agency work practices.

Objectives

- Continue to utilize transportation evaluation criteria in screening potential TIP projects.
  - **Target and Performance Measure:** 100% of all potential projects undergo initial evaluation to determine if project is realistic, viable, and implementable.
- Enhance screening and evaluation of projects to determine Year 1 readiness for TIP.
  - **Target and Performance Measure:** 100% of potential Year 1 TIP projects are screened for implementation readiness. In the FFY 2020-2024 TIP, 100% of Year 1 projects were screened for readiness.
  - **Target and Performance Measure:** At least 80% of Year 1 TIP Projects are advertised. In the FFY 2019-2023 TIP, 100% of Year 1 projects are on schedule to be advertised.
- Continue to maintain annual participation at TIP Day with MassDOT.
  - **Target and Performance Measure:** 100% attendance and participation at TIP Day. One hundred percent attendance and participation at TIP Day has occurred since its inception.
- Reduce time of transit contracting.

Resiliency and Reliability of the Transportation System Goals: Improve the resiliency and reliability of the transportation system; reduce or mitigate stormwater impacts of surface transportation; and promote efficient system operation and management.
**Objectives**

- **Provide and maintain fixed route reliability:** Miles between breakdowns with passenger interruption.
  
  **Target and Performance Measure:** Achieve average of 25,000 miles between breakdowns with passenger interruptions by 2040 (from BAT Performance Dashboard). FY 2018 actual is 27,761 miles between breakdowns with passenger interruptions.

- **Provide and maintain demand response reliability:** Miles between breakdowns with passenger interruption.
  
  **Target and Performance Measure:** Achieve average of 30,000 miles between breakdowns with passenger interruptions by 2040 (from BAT Performance Dashboard). FY 2018 actual is 33,325 miles between breakdowns with passenger interruptions.

- **Provide and maintain highway network travel time reliability.**

- **Protect and strengthen transportation systems vulnerable to climate change through identification of at-risk transportation assets and development of protection measures for each category of asset.**

The Old Colony MPO supports Operation and Management Strategies (O and M) for both the transit and highway networks. The LRTP supports this planning factor through this performance measure: “Maintaining and preserving transit, highway, and bridge infrastructure.” As part of the LRTP development, the MPO utilizes a pavement management system to develop costs and recommended repair for operation, preservation, and maintenance of the federal aid network. Additionally, the Old Colony TIP contains operation and maintenance costs for the federal aid network and BAT.

- **Travel and Tourism - Enhance Travel and Tourism Goals:** The Old Colony MPO is working on efforts to enhance travel and tourism through the LRTP and TIP. Opportunities to monitor, analyze, and develop recommendations will be undertaken.

One desired outcome of performance-based planning is constant quality improvement in project selection and delivery with respect to meeting national goals. If a particular project did not help the plan meet its stated goals, or was more effective than originally thought, that information can inform future decision-making.

The TIP is designed such that once implemented, it makes progress toward achieving the performance targets. Performance-based planning attempts to make the transportation investment decision-making process both informed and accountable. Projects and services implemented through the TIP will help to achieve the performance targets for Safety (PM1), Bridge and Pavement Condition (PM2), System Performance Measures (PM3), and Transit Asset Management State of Good Repair (SGR).

**Safety (PM1)**

The Old Colony MPO has chosen to adopt the statewide safety performance measure targets set by MassDOT for Calendar Year (CY) 2019. In setting these targets, MassDOT has followed FHWA guidelines by using statewide crash data and Highway Performance Monitoring System (HPMS) data for vehicle miles traveled (VMT) in order to calculate 5 year, rolling average trend lines for all FHWA-defined safety measures. For CY 2019 targets, four of the five safety measures - total number of fatalities, rate of fatalities per 100 million vehicle miles traveled, total number of incapacitating injuries, and rate of incapacitating
injuries per 100 million VMT - were established by extending their trend lines into the 2015-2019 period. All four of these measures reflect a modest decrease in statewide trends. The fifth safety measure, the total number of combined incapacitating injuries and fatalities for non-motorized modes, is the only safety measure for which the statewide trend line depicts an increase. MassDOT’s effort to increase non-motorized mode share throughout the Commonwealth has posed a challenge to simultaneously reducing non-motorized injuries and fatalities. Rather than adopt a target that depicts an increase in the trend line, MassDOT has elected to establish a target of non-motorized fatalities and injuries and for CY 2019 that remains constant from the rolling average for 2012–2016. In recent years, MassDOT and the Old Colony MPO have invested in “complete streets,” bicycle and pedestrian infrastructure, intersection, and safety improvements in both the Capital Investment Plan (CIP) and Statewide Transportation Improvement Program (STIP) to address increasing mode share and to incorporate safety mitigation elements into projects. Moving forward, the Old Colony MPO, alongside MassDOT, is actively seeking to improve data collection and methodology for bicycle and pedestrian VMT counts and to continue analyzing crash clusters and crash counts that include both motorized and non-motorized modes in order to address safety issues at these locations.

In all safety categories, MassDOT has established a long-term target of “Toward Zero Deaths” through MassDOT’s Performance Measures Tracker and will be establishing safety targets for the MPO to consider for adoption each calendar year. While the MPO is not required by FHWA to report on annual safety performance targets, FHWA guidelines require MPOs to adopt MassDOT’s annual targets or to establish their own each year.

The safety measures MassDOT has established for CY 2019, and that the Old Colony MPO has adopted, are as follows:

1. Fatalities: The target number of fatalities for years CY 2019 is 353, down from an average of 364 fatalities for the years 2012–2016. [See Figure 1 for Our MPO vs. statewide comparison of the trend for this performance measure]
2. Rate of Fatalities per 100 million VMT: The target fatality rate for years CY 2019 is 0.58, down from a 0.61 average for years 2012–2016. [See Figure 1 for Our MPO vs. statewide comparison of the trend for this performance measure]
3. Incapacitating Injuries: The target number of incapacitating injuries for CY2019 is 2801, down from the average of 3146 for years 2012–2016. [See Figure 2 for Our MPO vs. statewide comparison of the trend for this performance measure]
4. Rate of Incapacitating Injuries per 100 million VMT: The incapacitating injury rate target for CY2019 is 4.37 per year, down from the 5.24 average rate for years 2012–2016. [See Figure 2 for Our MPO vs. statewide comparison of the trend for this performance measure]
5. Total Number of Combined Incapacitating Injuries and Fatalities for Non-Motorized Modes: The CY2019 target number of fatalities and incapacitating injuries for non-motorists is 541 per year, the same as the average for years 2012–2016. [See Figure 3 for Our MPO vs. statewide comparison of the trend for this performance measure]
Total Fatalities
(5-year Averages)

Figure 1
Total Fatalities and Fatality Rate with Old Colony (OC) Data for Comparison

Total Incapacitating Injuries
(5-year Averages)

Figure 2
Total Incapacitating Injuries and Incapacitating Injuries Rate with Old Colony (OC) Data for Comparison
System Preservation Performance (PM2)

System preservation continues to be a priority for the Old Colony Region MPO because the region’s transportation infrastructure is aging. It is also important to improve the resiliency of the region's transportation system to prepare for existing or future extreme conditions, such as sea level rise and flooding.

The Old Colony MPO has chosen to adopt the 2-year (2020) and 4-year (2022) statewide bridge and pavement performance measure targets set by MassDOT. MassDOT was required to adopt a statewide target by May 20, 2018, with MPOs either adopting the statewide target or establishing their own by November 2018. In setting these targets, MassDOT has followed FHWA guidelines by measuring bridges and pavement condition using the 9-point National Bridge Inventory Standards (NBIS); the International Roughness Index (IRI); the presence of pavement rutting; and the presence of pavement cracking. 2-year and 4-year targets were set for six individual performance measures: percent of bridges in good condition; percent of bridges in poor condition; percent of Interstate pavement in good condition; percent of Interstate pavement in poor condition; percent of non-Interstate pavement in good condition; and percent of non-Interstate pavement in poor condition. All of the above performance measures are tracked in detail in MassDOT’s Transportation Asset Management Plan, which is due to be finalized in July 2019. Targets for bridge-related performance measures were determined by identifying which bridge projects are programmed and projecting at what rate bridge conditions deteriorate. The bridge-related performance measures measure the percentage of deck area, rather than the total number of bridges. Performance targets for pavement-related performance measures were based on a single year of data collection, and thus were set to remain steady under the guidance of FHWA. These measures are to be...
revisited at the 2-year mark (2020), once three years of data are available, for more informed target setting.

MassDOT continues to measure pavement quality and to set statewide short-term and long-term targets in the MassDOT Performance Management Tracker using the Pavement Serviceability Index (PSI), which differs from IRI. These measures and targets are used in conjunction with federal measures to inform program sizing and project selection. Table 1 provides the MassDOT Performance Measures and Targets for NHS Pavements, while Table 2 provides the MassDOT Performance Measures and Targets for NHS Bridges.

### Table 1

**MassDOT Performance Measures and Targets for NHS Pavements**

<table>
<thead>
<tr>
<th>Performance Measure</th>
<th>Interstate Pavement (FHWA Full Distress)</th>
<th>Non-Interstate Pavement (FHWA IRI only)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2-Year Target (2020)</td>
<td>2-Year Target (2020)</td>
</tr>
<tr>
<td></td>
<td>4-Year Target (2022)</td>
<td>4-Year Target (2022)</td>
</tr>
<tr>
<td>% Interstate Pavement in Good Condition</td>
<td>74.2%</td>
<td>32.9%</td>
</tr>
<tr>
<td>% Interstate Pavement in Poor Condition</td>
<td>0.1%</td>
<td>31.4%</td>
</tr>
<tr>
<td>% Non-Interstate Pavement in Good Condition</td>
<td></td>
<td>30%</td>
</tr>
<tr>
<td>% Non-Interstate Pavement in Poor Condition</td>
<td></td>
<td>30%</td>
</tr>
</tbody>
</table>
Table 2
MassDOT Performance Measures and Targets for NHS Bridges

<table>
<thead>
<tr>
<th>Performance Measure</th>
<th>Current Condition (2017)</th>
<th>2-Year Target (2020)</th>
<th>4-Year Target (2022)</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Bridges in Good Condition</td>
<td>15.22%</td>
<td>15%</td>
<td>16%</td>
</tr>
<tr>
<td>% Bridges in Poor Condition</td>
<td>12.37%</td>
<td>13%</td>
<td>12%</td>
</tr>
</tbody>
</table>

System Performance Measures (Congestion, Reliability, and Emissions) (PM3)

Through its goal and objectives for capacity management and mobility, the MPO seeks to maximize the region’s existing transportation system so that both people and goods can move reliably and connect to key destinations. Portions of the Old Colony Region are densely developed, which creates challenges to making major changes to its transportation infrastructure to address access, reliability, and congestion mitigation needs. In order to determine how well the region’s roadways are performing with respect to mobility, the MPO applies performance measures that gauge the duration, extent, intensity, and reliability (or regularity) of the occurrence of congestion.

Table 3
MassDOT System Performance Measures and Targets
Congestion, Reliability, and Emissions

<table>
<thead>
<tr>
<th>Performance Measure</th>
<th>Current (2017)</th>
<th>2-Year Target (2020)</th>
<th>4-Year Target (2022)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of Travel Time Reliability (LOTTR)</td>
<td>68% Interstate</td>
<td>68% Interstate</td>
<td>68% Interstate</td>
</tr>
<tr>
<td></td>
<td>80% Non-Interstate</td>
<td>80% Non-Interstate</td>
<td>80% Non-Interstate</td>
</tr>
<tr>
<td>Truck Travel Time Reliability (TTTR)</td>
<td>1.85</td>
<td>1.85</td>
<td>1.85</td>
</tr>
<tr>
<td>Peak Hour Excessive Delay (PHED) (Boston UZA) (Annual hours per capita)</td>
<td>18.31</td>
<td>18.31</td>
<td>18.31</td>
</tr>
<tr>
<td>Non-SOV Travel</td>
<td>33.60% (2016)</td>
<td>34.82%</td>
<td>35.46%</td>
</tr>
<tr>
<td>Emissions Reductions</td>
<td>Baseline (FFY 2014-2017)</td>
<td>1,622 CO</td>
<td>TBD CO - Springfield</td>
</tr>
<tr>
<td></td>
<td></td>
<td>497.9 Ozone</td>
<td>1.1 Ozone</td>
</tr>
</tbody>
</table>

Old Colony MPO staff analyzes congestion in the region using the Congestion Management Process (CMP). The CMP is, “a systematic process for managing congestion that provides information on transportation system performance and on alternative strategies for alleviating congestion and enhancing the mobility of persons and goods to levels that meet state and local needs.” The CMP includes consideration of the implementation of strategies that provide the most efficient and effective use of existing and future transportation facilities. This process allows for monitoring transportation systems for congestion, reviewing and endorsing plans by local communities that make up the region, and revising monitoring of strategies and overall plans to account for a dynamic management system. In both metropolitan and non-
metropolitan areas, consideration needs to be given to strategies that reduce single occupancy vehicle (SOV) travel and improve existing transportation system efficiency. Documentation of the operational Congestion Management Process occurs during the Transportation Management Area (TMA) Certification Review conducted every four (4) years.

The CMP is also designed to identify intersections and road segments that demonstrate congestion, excessive delays, and circulation problems. The CMP identifies these congested facilities through studies completed by OCPC and other agencies and organizations, and through the ongoing monitoring of facilities. Standard operating procedures have been adopted for data collection that allows the monitoring of intersections within the region specifically targeted due to congestion. The CMP identifies numerous congested intersections, based on a threshold of LOS “D” or less, within the Old Colony region.

In addition to the intersection locations, there are several community centers in the region including, Bridgewater Center (Central Square), Downtown Brockton, East Bridgewater Center, Stoughton Center, and West Bridgewater Center, that experience chronic congestion and circulation problems requiring ongoing efforts to improve traffic flow and access, and reduce delays.

When making investments in the region’s transportation system, the Old Colony Region MPO seeks to invest in projects and programs that reduce greenhouse gases (GHGs) and other transportation related pollutants, and otherwise minimize negative environmental impacts. If climate change trends continue as projected, the conditions in the Old Colony Region will include a rise in sea level coupled with storm-induced flooding, and warmer temperatures that would affect the region’s infrastructure, economy, human health, and natural resources. Massachusetts is responding to this challenge by taking action to reduce the GHGs produced in the state, including those generated by the transportation sector. To that end, Massachusetts passed its Global Warming Solutions Act (GWSA), which requires reductions of GHGs by 2020, and further reductions by 2050, relative to 1990 baseline conditions. To meet GWSA requirements, the MPO works with MassDOT and other stakeholders to anticipate the GHG impacts of projects included in the TIP.

Transit System Asset Condition Performance Measures and Targets

Table 4 lists a set of federally required infrastructure condition performance measures for transit systems along with BAT’s Performance Targets. These transit asset management measures, which focus on a specific subset of all transit assets, were established in the FTA’s TAM Rule. Brockton Area Transit presented this information along with supporting documentation to the Old Colony MPO in August 2018. The Old Colony MPO has adopted BAT’s FY 2019 Brockton Area Transit Authority Transit State of Good Repair Targets in their entirety and as their own and for the Old Colony Region, in accordance with the certified 3C Transportation Planning Process.
Table 4
Brockton Area Transit Authority Performance Measures and Targets

<table>
<thead>
<tr>
<th>Performance Targets by Asset Category</th>
<th>Category</th>
<th>Class</th>
<th>Metric</th>
<th>Performance Target for FY 2019</th>
<th>Total Number of Vehicles</th>
<th># of Vehicles that exceed ULB - FY 2018</th>
<th>% of Fleet that exceeds ULB - FY 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rolling Stock</td>
<td>Buses</td>
<td>X% of fleet that exceeds default ULB of 14</td>
<td>0.00%</td>
<td>46</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td></td>
<td>Cutaway Buses</td>
<td>Buses</td>
<td>X% of fleet that exceeds default ULB of 10</td>
<td>0.00%</td>
<td>4</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td></td>
<td>Vans</td>
<td></td>
<td>X% of fleet that exceeds default ULB of 8</td>
<td>5.00%</td>
<td>58</td>
<td>6</td>
<td>10.34%</td>
</tr>
<tr>
<td></td>
<td>Equipment</td>
<td>Non-Revenue Service Vehicle</td>
<td>X% of non-revenue service vehicles that exceeds default ULB of 8</td>
<td>20.00%</td>
<td>10</td>
<td>2</td>
<td>20.00%</td>
</tr>
<tr>
<td></td>
<td>Facilities</td>
<td>Admin/Maintenance Facility</td>
<td>X% of facilities rated under 3.0 on Term scale</td>
<td>0.00%</td>
<td>3</td>
<td>0</td>
<td>0.00%</td>
</tr>
</tbody>
</table>

FTA defines ULB as “the expected lifecycle of a capital asset for a particular transit provider’s operating environment, or the acceptable period of use in service for a particular transit provider’s operating environment.” For example, FTA’s default ULB value for a bus is 14 years. FTA’s Transit Economic Requirements Model (TERM) scale, which pertains to the facilities measure, is a rating system that describes asset condition. The scale values are 1 (poor), 2 (marginal), 3 (adequate), 4 (good), and 5 (excellent). Because each measure is intended to represent the share of transit assets that are not in a state of good repair, the goal is to minimize the value for all four measures. FTA grantees, including transit agencies and agency sponsors, such as MassDOT, are required to develop targets for these TAM measures each fiscal year. MPOs, in turn, are required to set targets for their regions. BAT submitted agency-level targets for state fiscal year (SFY) 2019 (July 2018 through June 2019) to the Old Colony MPO. Their targets reflect the most recent data available on the number, age, and condition of their assets, and their expectations and capital investment plans for improving these assets during SFY 2019.

Consistent with U.S. Department of Transportation’s strategic objectives for the Surface Transportation Program, the FFY 2020 UPWP emphasizes the planning emphasis areas of the FAST Act Implementation, Regional Models of Cooperation, and Ladders of Opportunity.

- **FAST Act Implementation** - The Old Colony MPO continues to develop its performance management approach to transportation planning and programming. Performance-based
planning and programming includes using transportation performance measures, setting targets, reporting performance, and programming transportation investments directed toward the achievement of transportation system performance outcomes. Appropriate UPWP work tasks include working with local planning partners to identify how to implement performance-based planning provisions such as collecting performance data, selecting and reporting performance targets for the metropolitan area, and reporting actual system performance related to those targets. Such activities are included in the FFY 2020 UPWP through tasks such as the Management Systems (Congestion, Pavement, and Safety), and the Performance Management efforts.

- Regional Models of Cooperation - The Old Colony MPO seeks to ensure a Regional Approach to Transportation Planning by Promoting Cooperation and Coordination across MPO and Transit Agency Boundaries. To improve the effectiveness of transportation decision making, the Old Colony MPO thinks beyond traditional borders and conducts a coordinated approach to transportation planning. A coordinated approach supports common goals and capitalizes on opportunities related to project delivery, congestion management, safety, freight, livability, and commerce across boundaries. Improved multi-jurisdictional coordination by MassDOT, MPOs, and providers of public transportation can reduce project delivery times and enhance the efficient use of resources, particularly in urbanized areas that are served by multiple MPOs. During FFY 2020, the Old Colony MPO will continue to coordinate planning activities within the Boston Urbanized Area (UZA) with MassDOT and the common MPOs, and seek to update the Boston UZA Coordination Memorandum of Understanding (MOU) to ensure that there are effective processes for cross-jurisdictional communication to improve collaboration, policy implementation, technology use, and performance management.

- Ladders of Opportunity - The Old Colony MPO, as part of the transportation planning process, identifies transportation connectivity gaps in accessing essential services. Essential services include employment, health care, schools/education, and recreation. The FFY 2020 UPWP includes efforts to develop and implement methods to identify gaps in the connectivity of the transportation system and developing infrastructure and operational solutions that provide the public, especially the traditionally underserved populations, with adequate access to essential services. As such, examples undertaken in previous UPWPs include the Bicycle and Pedestrian Connectivity and Safety Study (assessing the connectivity and safety and condition of pedestrian and bicycle facilities; and evaluating compliance with Americans with Disabilities Act, particularly around schools, concentrations of disadvantaged populations, social services, medical, and transit facilities), the Congestion Management Process, the Route 53 Corridor Study (Hanover, Pembroke, Duxbury, and Kingston), the Route 106 Corridor Study (Kingston, Plympton, Halifax, East Bridgewater, and West Bridgewater), the Route 123 Corridor Study (Abington and Brockton). The FFY 2020 UPWP also includes tasks to develop the Main Street Brockton Corridor Study and the Route 139 Hanover Corridor Study.

This year’s UPWP efforts focus on the development of the Main Street Brockton Corridor Study and the Route 139 Hanover Corridor Study, the FAST Act Performance Management and related Performance Measures and Target development, continued development of the Regional Travel Demand Model (TransCAD), operation of the Congestion Management Process, operation of the Safety Management System, operation of the Pavement Management System, and the development of the Transportation Improvement Program. Attention is also focused on the regional multi-modal data surveillance program (including counting of bicycles and pedestrians, developing an inventory of gaps in the bicycle network, and developing an index of regional bikeability), maintaining regional databases, adjusting and amending...
certification documents as needed, and implementing the management systems. OCPC continues to integrate the Geographic Information Systems into various tasks and plans undertaken. As indicated in the title of the Federal transportation act, the safety of our transportation network has become an increasing priority, and a key consideration in the selection and prioritization of future projects. Tasks within the UPWP are consistent with the goals of the LRTP. As an example, the Plan supports efforts to reduce congestion, improve safety, and develop capital projects that represent an efficient expenditure of public dollars. Such efforts are addressed in this UPWP under multiple tasks that include the Management Systems of Congestion, Pavement, and Safety, along with the TIP.

Federal transportation legislation continues to prioritize the concept of Sustainability and Livability within the transportation planning process. This concept is addressed in the Long Range Transportation Plan, and in the Bicycle - Pedestrian Connectivity and Livability Study. Beyond those efforts, one method for measuring the sustainability of a highway project is to assess the project against existing best practices. With this in mind, FHWA has developed and released a web-based tool known as the Infrastructure Voluntary Evaluation Sustainability Tool (INVEST). As such, the Old Colony MPO will continue to consider sustainability and livability, and seek to utilize the INVEST Tool during the implementation of the FFY 2020 UPWP.

Public participation continues to be a vital element of the transportation planning process. The encouragement of participation and provision of meaningful access to all local citizens in metropolitan transportation planning is one of the most important goals of the "3C" (continuing, cooperative, and comprehensive) process. Community and transit representatives of the Old Colony Joint Transportation Committee (JTC) typically meet monthly on the first Thursday to discuss transportation investments and issues of regional importance. The Old Colony MPO meets several times per year to discuss and coordinate transportation planning issues, and to review and endorse certification documents. A Public Participation Program (PPP) was developed to solicit input to the various tasks and programs undertaken. This process will continually be reviewed and refined as necessary.

The FFY 2020 UPWP is consistent with Federal Planning Regulations and Other Federal Legislative Requirements.

1.2 TITLE VI AND THE AMERICANS WITH DISABILITIES ACT (ADA)

Title VI of the 1964 Civil Rights Act, Executive Order 12898, Executive Order 13166, and Executive Order 13330

Federal “Title VI/ Nondiscrimination” Protections

The Old Colony MPO operates its programs, services, and activities in compliance with federal nondiscrimination laws including Title VI of the Civil Rights Act of 1964 (Title VI), the Civil Rights Restoration Act of 1987, and related statutes and regulations. Title VI prohibits discrimination in federally assisted programs and requires that no person in the United States of America shall, on the grounds of race, color, or national origin (including limited English proficiency), be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity receiving federal assistance. Related federal nondiscrimination laws administrated by the Federal Highway Administration, the Federal Transit Administration, or both prohibit discrimination on the basis of age, sex, and disability. These protected categories are contemplated within the Old Colony MPO’s Title VI Programs consistent with federal interpretation and administration. Additionally, the Old Colony MPO provides meaningful access to
its programs, services, and activities to individuals with limited English proficiency, in compliance with US Department of Transportation policy and guidance on federal Executive Order 13166.

State Nondiscrimination Protections

The Old Colony MPO also complies with the Massachusetts Public Accommodation Law, M.G.L. c 272 §§ 92a, 98, 98a, prohibiting making any distinction, discrimination, or restriction in admission to or treatment in a place of public accommodation based on race, color, religious creed, national origin, sex, sexual orientation, disability, or ancestry. Likewise, the Old Colony MPO complies with the Governor’s Executive Order 526, section 4 requiring all programs, activities, and services provided, performed, licensed, chartered, funded, regulated, or contracted for by the state shall be conducted without unlawful discrimination based on race, color, age, gender, ethnicity, sexual orientation, gender identity or expression, religion, creed, ancestry, national origin, disability, veteran’s status (including Vietnam-era veterans), or background.

Executive Order 12898, dated February 11, 1994, expands upon Title VI, requiring each federal agency to achieve environmental justice by identifying and addressing any disproportionately high adverse human health or environmental effects, including interrelated social and economic effects, of its programs, policies, and activities on minority or low-income populations.

On April 15, 1997, the U.S. Department of Transportation issued its Final Order to Address Environmental Justice in Minority Populations and Low-Income Populations. Among other provisions, this order requires programming and planning activities to:

- Explicitly consider the effects of transportation decisions on minority and low-income populations.
- Provide meaningful opportunities for public involvement by members of minority and low income populations.
- Gather (where relevant, appropriate, and practical) demographic information such as the race, color, national origin, and income level of the populations affected by transportation decisions.
- Minimize or mitigate any adverse impact on minority or low-income populations.

Executive Order 13166, dated August 11, 2000, is intended to ensure compliance with Title VI of the Civil Rights Act of 1964 by specifically calling for improved access to federally conducted and federally assisted programs and activities for persons who, as a result of national origin, have limited English proficiency (LEP). To comply with the order, MPOs are required to develop and implement a system by which LEP persons can meaningfully participate in the transportation planning process.

FTA Environmental Justice Policy Guidance For Federal Transit Administration Recipients Circular 4703.1 (2012) provides recommendations on how to fully engage environmental justice populations in the public transportation decision-making process; how to determine whether environmental justice populations would be subjected to disproportionately high and adverse human health or environmental effects as a result of a transportation plan, project, or activity; and how to avoid, minimize, or mitigate these effects.

FTA Title VI Circular to 4702.1B (2012) provides guidance to grantees on how to comply with Title VI regulations, as well as to ensure grantees provide meaningful language access to persons who are limited English proficient.
The Americans with Disabilities Act (ADA)

Title III of the Americans with Disabilities Act requires all transportation projects, plans, and programs to be accessible to people with disabilities. At the MPO level, this means that public meetings must be held in accessible places and MPO materials must be made available in accessible formats.

1.3 FUNDING SOURCES

The period covered by each contract described in this UPWP by funding source is as follows:

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>FHWA PL/ MassDOT; FTA 5303/ MassDOT</td>
<td>October 2019 through September 2020</td>
</tr>
<tr>
<td>BAT</td>
<td>July 2019 through June 2020</td>
</tr>
</tbody>
</table>

1.4 ADMINISTRATIVE MODIFICATION AND AMENDMENT PROCEDURES

Unified Planning Work Programs, no matter how well planned, may need to be modified from their original MPO endorsed form. There are different actions that may be taken in order to modify the endorsed UPWP. These actions vary, depending on the extent of the modification, and have different impacts on the UPWP. All proposed administrative adjustments and amendments are presented to the MPO for consultation prior to endorsement.

The procedures for modifying the UPWP are:

UPWP Amendment

A UPWP Amendment is the most extensive change procedure that a UPWP may undergo. A UPWP Amendment requires the proposed change to undergo a twenty-one (21) day public review period and requires MPO endorsement. However, the Old Colony MPO, at their discretion, may vote to abbreviate the public comment period under what they consider extraordinary circumstances beyond the MPO’s control. Examples of UPWP Amendments include:

- The addition or removal of UPWP tasks
- The change in start/ completion dates, outside of originally intended federal fiscal year(s)
- The significant change in project scope, cost (over 20% change), and/ or time allocation

UPWP Administrative Modification (Adjustment)

A UPWP Administrative Modification (Adjustment) is a minor Amendment. The Adjustment procedure requires an administrative action, consultation with the MPO, and MassDOT-OTP approval through the utilization of a Budget Reallocation Request Form. Examples of UPWP Adjustments include:

- The reallocation of budget funds
- The change in start/ completion dates, within originally intended federal fiscal year(s)
- Adjustment to project scope

1.5 GEOGRAPHIC DISTRIBUTION OF MAJOR UPWP FUNDED STUDIES

The Old Colony Planning Council staff monitors the geographic distribution of UPWP funded studies over time. Table 5 provides the distribution of Major UPWP Studies over the period of 2004 through 2020. To assist with providing context to the distribution, included in the table is 2010 Population and 2010-2014 Median Household Income. For the purposes of the analysis, a Major UPWP Study is defined as a study programmed in the UPWP under Element 3000 - Short Range and Long Range Transportation Planning Program.
Activities. Major studies under this element typically involve the in-depth study and analysis of roadway corridors within a community or may include a roadway corridor that spans multiple communities. Major UPWP studies also may include studies such as region wide bicycle and pedestrian connectivity studies, climate change transportation studies, and priority development areas/ priority preservation areas studies.

From an examination of the distribution of Major UPWP Studies from 2004 through 2020, the following observations may be made:

- There are higher concentrations of studies within the more populated urban areas (i.e. Brockton and Stoughton). Such concentrations tend to follow areas with elevated levels of congestion and crash clusters.
- The towns of Bridgewater, Plymouth, and Stoughton have higher concentration of studies. A potential explanation for such a trend is that these populous communities feature proximity to limited access highways, commuter rail, and academic institutions of higher learning. Such features, while beneficial in many respects, also feature higher pedestrian, bicyclist and vehicle trips, and the need for additional multimodal and infrastructure.

<table>
<thead>
<tr>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Brockton</td>
<td>93,810</td>
<td>53,542</td>
<td>57%</td>
<td>$48,569</td>
<td>7</td>
<td>10.3%</td>
</tr>
<tr>
<td>Stoughton</td>
<td>26,962</td>
<td>5,822</td>
<td>22%</td>
<td>$74,688</td>
<td>5</td>
<td>7.4%</td>
</tr>
<tr>
<td>Avon</td>
<td>4,356</td>
<td>741</td>
<td>17%</td>
<td>$78,750</td>
<td>4</td>
<td>5.9%</td>
</tr>
<tr>
<td>Bridgewater</td>
<td>26,563</td>
<td>2,941</td>
<td>11%</td>
<td>$88,481</td>
<td>4</td>
<td>5.9%</td>
</tr>
<tr>
<td>Easton</td>
<td>23,112</td>
<td>2,327</td>
<td>10%</td>
<td>$95,372</td>
<td>1</td>
<td>1.5%</td>
</tr>
<tr>
<td>Abington</td>
<td>15,985</td>
<td>1,368</td>
<td>9%</td>
<td>$81,500</td>
<td>4</td>
<td>5.9%</td>
</tr>
<tr>
<td>Plymouth</td>
<td>56,468</td>
<td>4,230</td>
<td>7%</td>
<td>$76,925</td>
<td>4</td>
<td>5.9%</td>
</tr>
<tr>
<td>East Bridgewater</td>
<td>13,794</td>
<td>790</td>
<td>6%</td>
<td>$88,534</td>
<td>4</td>
<td>5.9%</td>
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<tr>
<td>West Bridgewater</td>
<td>6,916</td>
<td>440</td>
<td>6%</td>
<td>$81,573</td>
<td>3</td>
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</tr>
<tr>
<td>Whitman</td>
<td>14,489</td>
<td>886</td>
<td>6%</td>
<td>$76,494</td>
<td>3</td>
<td>4.4%</td>
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<tr>
<td>Kingston</td>
<td>12,629</td>
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<tr>
<td>Halifax</td>
<td>7,518</td>
<td>282</td>
<td>4%</td>
<td>$69,917</td>
<td>3</td>
<td>4.4%</td>
</tr>
<tr>
<td>Duxbury</td>
<td>15,059</td>
<td>560</td>
<td>4%</td>
<td>$120,253</td>
<td>2</td>
<td>2.9%</td>
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<tr>
<td>Pembroke</td>
<td>17,837</td>
<td>699</td>
<td>4%</td>
<td>$89,954</td>
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<td>2.9%</td>
</tr>
<tr>
<td>Plympton</td>
<td>2,820</td>
<td>112</td>
<td>4%</td>
<td>$94,505</td>
<td>2</td>
<td>2.9%</td>
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<tr>
<td>Hanover</td>
<td>13,879</td>
<td>579</td>
<td>4%</td>
<td>$98,750</td>
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<td>2.9%</td>
</tr>
<tr>
<td>Hanson</td>
<td>10,209</td>
<td>424</td>
<td>4%</td>
<td>$93,771</td>
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<td>1.5%</td>
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<tr>
<td>Region wide</td>
<td>362,406</td>
<td>76,341</td>
<td>21%</td>
<td>$84,963</td>
<td>13</td>
<td>19.1%</td>
</tr>
</tbody>
</table>

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1000 - MANAGEMENT AND SUPPORT OF THE PLANNING PROCESS AND CERTIFICATION ACTIVITIES

In order to properly support and effectively control the transportation planning activities of the Old Colony Metropolitan Planning Organization, program support activities must be undertaken. These tasks allow for the functioning and the continued certification of the Old Colony MPO in accordance with the Commonwealth of Massachusetts and U.S. DOT requirements.

1100 - 3C Program Support
1200 - Unified Planning Work Program (UPWP)
1300 - Public Participation Program (PPP)
1400 - Transportation Improvement Program (TIP)
1500 - Title VI and Environmental Justice (EJ)
OBJECTIVE:
To manage, support, and provide the capability to maintain a Comprehensive, Cooperative, and Continuing Transportation Planning and Programming Process at all levels in conformance with applicable Federal and State requirements and guidelines. Tasks include preparation and presentation of transportation plans and programs (Long Range Transportation Plan, Unified Planning Work Program, Transportation Improvement Program, Public Participation Plan, and other transportation studies); Technical assistance and information related to transportation planning to the public, local, state and federal agencies; Updates to memorandums of understanding; Timely response to relevant planning studies by local, state, and federal agencies; and Contract administration.

PREVIOUS WORK:
- Administration of Massachusetts Department of Transportation, Federal Highway Administration, Federal Transit Administration, Brockton Area Transit, Greater Attleboro-Taunton Transit Authority, and Executive Office of Energy and Environmental Affairs contract needs.
- Assistance with statewide transportation planning programs.
- Distribution of information on federal and state rules and regulations.
- Input and support for economic and community development programs.
- Maintenance and federal certification of a viable and ongoing 3C Transportation Planning Process.
- Maintenance and operation of the Old Colony Metropolitan Planning Organization and Old Colony Joint Transportation Committee.
- Preparation of 3C certification documents.
- Provision of ongoing technical assistance to departments, agencies, authorities, and communities.
- Support for public participation and private involvement in the 3C process, Federal Highway Administration, Federal Transit Administration, and air-quality programs.

PROCEDURES:
1. Provide administrative and technical support to the 3C regional planning process; Provide community liaison activities and short term planning assistance to Old Colony communities on transportation planning matters; Review Federal and State transportation programs, guidelines, circulars and manuals, plans and regulations as may be required or necessary; Provide for and support public and private involvement in the 3C Planning Process; and Participate in informational programs on transportation, air quality, hazardous waste, energy conservation, accessibility, casinos/gaming, and other planning.

2. Provide and maintain coordination for Old Colony MPO activities including the preparation and presentation of transportation plans and programs (e.g. Unified Planning Work Program, Long Range Transportation Plan, Transportation Improvement Program, Amendments, etc., Public Participation Plan), developed through the public participation process. Distribute documents/amendments to the Old Colony MPO for appropriate action and/or endorsement as needed; Develop documents necessary for the certification reviews and the self-certification process; and Maintain all Old Colony MPO documentation records, and files.

3. Provide for participation of staff in educational development programs and conferences with coordination of BAT, GATRA, FHWA, FTA, MassDOT, MBTA, and other agencies as needed.
4. Provide inter-agency coordination with other transportation agencies, including FHWA, FTA, MassDOT, MBTA, RPAs, and RTAs on an ongoing, regular basis; Coordinate highway-planning activities with local officials and MassDOT District 5; and Provide certification documents in accordance with the UZA Coordination MOU and participate in review and related update activities.

5. Participate in the South Coast Rail Task Force for the New Bedford/ Fall River Commuter Rail Restoration Project.

6. Provide financial management of the transportation planning contracts with FHWA/ MassDOT, FTA/ MassDOT, Executive Office of Energy and Environmental Affairs, BAT, GATRA, and MBTA staff supervision and work assignment; and Prepare applications, contracts, time sheets, progress reports, invoices, request forms, and perform other contract administration activities necessary to the conduct of the 3C Transportation Planning Process.

7. Follow up on recommendations of previous transportation planning studies by attending and participating in public meetings or making presentation of study results.

8. Coordinate planning activities within the Boston Urbanized Area (UZA) with MassDOT and the common MPOs, to ensure that there are effective processes for cross-jurisdictional communication to foster collaboration, policy implementation, technology use, and performance management.

9. Review and provide consideration and implementation of Old Colony MPO certification review recommendations. Implementation of recommendations will be guided by an action plan, which will be prepared and provided quarterly.

**PRODUCTS:**
Maintenance and federal certification of a viable 3C Transportation Planning Process and Old Colony MPO operation; Input and Support Community Development and Environmental Planning; 3C Memorandum of Understanding; Information on FAST Act and the Clean Air Act (CAA) as needed; Consideration and implementation of MPO certification review recommendations; Inter-agency meetings, memorandum and correspondence on various aspects of the transportation planning program; Attendance and participation in Transportation Program Managers Group; and Administration of contracts and invoices.

**SCHEDULE:**
Management and support activities to be carried out on a continuing basis throughout the program year.

**FUNDING:**

<table>
<thead>
<tr>
<th></th>
<th>FHWA PL</th>
<th>MassDOT</th>
<th>FTA 5303</th>
<th>MassDOT</th>
<th>BAT</th>
<th>MassDOT SCR</th>
<th>TOTAL</th>
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<tr>
<td></td>
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<td>$10,225</td>
<td>$4,544</td>
<td>$1,136</td>
<td></td>
<td></td>
<td>$56,804</td>
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Prepared By Old Colony Planning Council (OCPC)
OBJECTIVE:
To develop, endorse and maintain an annual UPWP that provides a description of the overall transportation related planning activities that are ongoing and anticipated in the region, during the forthcoming year and include funding sources and agency responsibility. Endorsement of this document shall be consistent with the Public Participation Plan.

PREVIOUS WORK:
UPWPs prepared and endorsed annually by the Old Colony MPO; Monthly Invoices; and Quarterly Progress Reports, and Year End Progress Reports.

PROCEDURES:
1. Maintain the current UPWP and prepare related invoicing; and Review and adjust and/ or amend the UPWP when necessary and circulate revisions to the Old Colony MPO, Old Colony JTC, OCPC, and other appropriate agencies for review, adjustments, and/ or endorsement, as appropriate.

2. Follow the Old Colony MPO endorsement process for amendments. Other revisions to the Unified Planning Work Program, such as changes in the existing level of effort or funding of a specific task or the addition/ deletion of a task and procedures within the current contract/ grant programs, etc., will be made as required throughout the program year upon mutual agreement of the agencies involved. Such revisions/ adjustments will be conducted by the OCPC staff and distributed to the appropriate agencies, as appropriate. These revisions/ adjustments do not require formal Old Colony MPO endorsement.

3. Develop the FFY 2021 UPWP for the Old Colony region covering the upcoming federal fiscal year. The UPWP will be developed in conformance with the latest federal and state regulations and guidelines. The UPWP describes transportation, air quality and transportation related planning activities anticipated within the region during the upcoming year. The staff will prepare the UPWP in coordination with the Old Colony JTC and submit it in draft version to BAT, GATRA, FHWA, FTA, OCPC, and MassDOT for public review and comment. The Old Colony MPO will endorse the final document by July 2020.

PRODUCTS:
Maintain the current UPWP and prepare invoices; Prepare Quarterly and Year-End Progress Reports; Prepare and submit Adjustments and Amendments, as needed; and Prepare the FFY 2021 UPWP.

SCHEDULE:
FFY 2021 UPWP to be developed and endorsed by July 2020.

FUNDING:

<table>
<thead>
<tr>
<th></th>
<th>FHWA PL</th>
<th>MassDOT</th>
<th>FTA 5303</th>
<th>MassDOT</th>
<th>BAT</th>
<th>MassDOT SCR</th>
<th>TOTAL</th>
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<tr>
<td></td>
<td>$11,541</td>
<td>$2,885</td>
<td>$1,282</td>
<td>$321</td>
<td></td>
<td></td>
<td>$16,029</td>
</tr>
</tbody>
</table>

Prepared By Old Colony Planning Council (OCPC)
**OBJECTIVE:**
To continue to support and implement the Old Colony MPO’s Public Participation Plan that was developed and endorsed in 2017. This process is designed to ensure that key public agencies at all levels of government, private and nonprofit organizations and interested citizens will be kept apprised of transportation planning activities and opportunities to participate in the region. The encouragement of participation and provision of meaningful access to the metropolitan transportation planning for the public is one of the most important goals of the "3C" (continuing, cooperative, and comprehensive) process. The Public Participation Plan is reviewed and updated as deemed appropriate.

To provide staff support and actively encourage public and private participation in the 3C planning process through the Old Colony JTC, Old Colony MPO, and OCPC.

To continue monitoring the effectiveness of its public participation program. The process outlines the public outreach procedures that will be followed by the Old Colony MPO in developing and amending the Region's LRTP and TIP.

To conduct outreach activities related to the development of FAST Act performance measures and targets.

**PREVIOUS WORK:**
Old Colony JTC Newsletters; OCPC Newsletters; News Releases and Articles for the Media; OCPC Annual Reports; Old Colony JTC meetings; Old Colony LRTPs; Old Colony TIPs and Implementation; Title VI Reports; and Public Participation Plans.

**PROCEDURES:**
1. Provide a proactive public involvement process that provides complete information, timely public notice, full public access to decisions, and support continuing involvement of the public in the developing Plans, Transportation Improvement Programs and other documents; and Employ social media as a meaningful and effective communication medium.

2. Provide staff support and actively encourage public and private participation in the 3C planning process through the Old Colony Joint Transportation Committee including:
   - Host meetings of the Old Colony JTC and Old Colony MPO.
   - Work with the Old Colony JTC, working towards expanding and educating the membership.
   - Modify and expand the Transportation Advisory Network (TAN) as appropriate.
   - Maintain and update comprehensive mailing lists of interested groups, local, state, and federal agencies, Old Colony JTC, minority and low-income groups, and individuals who should be informed of regional plans, programs, and accomplishments in the area of comprehensive transportation and environmental planning and development.
   - Ensure early and continuing involvement of the public in the development of plans and other documents. Utilize visualization techniques and publish or announce the availability of plans and/or document for review and comments.
   - Review and evaluate the effectiveness of the public participation plan; identify innovative public involvement techniques and/or programs that enhance public participation.
   - Implement the public involvement process with particular emphasis on the LRTP and the TIP.
   - Continue to prepare mailings, newspaper announcements, public notices, and public service announcements, as outlined in Old Colony MPO’s Public Participation Plan.
• Continue to identify under-served and under-represented groups in the Old Colony region, continue to make efforts to reach out, attempt to get them interested, and involved in the transportation planning process. OCPC will continue efforts to broaden public participation especially reaching out to the limited English proficient, minority, and low-income population groups.
• Provide staff support and actively encourage both public and private minority groups/ agencies participation in the 3C planning process.

3. Prepare articles and documentation related to transportation planning including: Articles for the OCPC Annual Report, newsletters, website, and other media outlets, as appropriate.

4. Address Title VI and Environmental Justice as part of the public participation process and ensure that there is equity in the distribution of transportation resources in the Old Colony region. This process is designed to ensure that public and private minority agencies, organizations, and interested residents will be kept apprised of transportation planning milestones in the region. The encouragement of meaningful participation of local minority groups, organizations, and citizens in metropolitan transportation planning is one of the most important goals of the "3C" process (comprehensive, cooperative, and continuing).

5. Present transportation plans and programs (Long Range Transportation Plan, Transportation Improvement Program, Public Participation Plan, and Unified Planning Work Program) developed through the public participation process to the Old Colony MPO for appropriate action.

6. Maintain, adjust, and/or amend the current PPP and ensure that the interested parties and the public are involved in developing outreach procedures and will have opportunities to voice their opinions on these changes once proposed. Endorsement procedures will be conducted in a manner acceptable to the FHWA and FTA.

7. Conduct outreach activities related to the development of FAST Act performance measures.

PRODUCTS:
Old Colony MPO meetings; Old Colony JTC meetings and documents; Old Colony MPO meetings and documents; Website Notices; Legal Notices; Articles in OCPC Annual Report and News Releases; Participation in public meetings; Newsletters; Outreach activities related to the development of performance measures and thresholds; Maintenance of a viable Public Participation Process; 2020 Old Colony Title VI Report; and Public Participation Plan Amendments, and refinements for the website.

SCHEDULE:
To be carried out throughout the program year.

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TASK 1400 - TRANSPORTATION IMPROVEMENT PROGRAM (TIP)

OBJECTIVE:
To develop and maintain a multi-year, financially constrained, program of transportation/air quality improvement projects that is consistent with the Old Colony MPO’s LRTP, the State Implementation Plan (SIP), the Environmental Protection Agency’s Air Quality Conformity Regulations, and FHWA and FTA Planning Regulations. The TIP will include a program of highway and transit projects for FFY 2021-2025. Any project, which is to be implemented, using federal funding, must appear in this document and any project, which is to be implemented in the current fiscal year, must appear in the annual element. Projects and service implemented through the TIP will help to achieve the performance targets for Safety (PM 1), Bridge and Pavement Condition (PM 2), System Performance Measures (PM 3), and Transit Asset Management State of Good Repair.

The Old Colony MPO’s FFY 2020-2024 TIP will be maintained and any amendments will be conducted in accordance with the PPP. The FFY 2021-2025 TIP will be developed and endorsed.

PREVIOUS WORK:
Transportation Improvement Programs have been developed and endorsed annually; Public Participation Process; Transportation Improvement Program Amendments and Administrative Modifications; Evaluation Criteria Analyses; GHG Tracking and Evaluations; Project Evaluations; Technical Assistance and formulation, implementation and coordination of TIP Subcommittee; and Preparation of related products.

PROCEDURES:
1. Develop a program of projects: In developing the FFY 2021-2025 TIP, staff will update the list of all transit, highway, or air quality projects that are expected to require federal and state transportation funds for planning and engineering, construction or purchase during FFY 2021-2025. This work will include:
   - All transportation projects or programs that require FHWA or FTA approval.
   - For informational purposes, all projects to be funded with Federal funds other than those from FHWA or FTA.
   - For informational purposes, all projects to be funded with Non-Federal Funds.

2. Provide the following information: The MassDOT identification number; Project description; Transportation Evaluation Criteria Scores; Estimated total cost expressed in year of expenditure dollars; Amount of federal funds proposed to be obligated during each program year; Proposed source of Federal and Non-Federal funds; and Identification of the recipient/sub recipient and state and local agencies responsible for carrying out the project, and project phase. In addition, the total costs of projects seeking Federal funds in each program year shall not exceed reasonably anticipated Federal funds.

3. Prepare the Draft FFY 2021-2025 TIP. The following tasks and procedures will be performed during the development of the Draft FFY 2021-2025 TIP:
   - Include involvement of local legislators, chief local elected officials, and the public through the public participation process.
   - Provide technical assistance to municipalities and transit providers in developing projects and priorities.
   - Meet with communities, MassDOT District 5, MassDOT, and consultants in developing project information, and utilizing Transportation Evaluation Criteria.
Solicit and analyze Congestion Mitigation and Air Quality Projects.

4. The Transportation Improvement Program will also include sections relative to:
   ▪ The relationship to the TIP and to the LRTP.
   ▪ Funding categories and amounts of federal funding proposed to be obligated during each program year.
   ▪ An Annual Listing of Obligated Projects, programs, and an explanation of any significant delays in the planned implementation of major projects.
   ▪ A description of the transportation evaluation criteria and process for prioritizing projects.
   ▪ Air quality significance and relationship of the TIP, State Transportation Improvement Program, and State Implementation Plan.
   ▪ Results of Greenhouse Gas Emission Analyses.
   ▪ A financial plan that compares revenue needs to revenue sources for highway and transit programs.

5. Public Participation: There will be a reasonable opportunity for public comment on the Draft FFY 2021-2025 TIP in accordance with the PPP. At least one public meeting will be held during the TIP development process and both the proposed and approved TIP will be published or otherwise made readily available for informational purposes via various media outlets, and website.

6. TIP Administrative Modifications/Amendments: Amendments to the TIP will require Old Colony MPO endorsement. Administrative Modifications to the TIP typically require approval of the Old Colony JTC and notification of the Old Colony MPO.

8. TIP Project Impact Before and After Evaluation to identify the effectiveness of selected TIP projects. Typically, for intersection improvement projects, intersection operations and safety will be evaluated using turning movement counts, operational performance measures, and crash data.

9. Conduct public health assessments and consider public health outcomes as part of ongoing planning and performance measures planning.

10. TIP Endorsement: The TIP will be reviewed and endorsed by the Old Colony MPO. Once endorsed, the TIP will include the required air quality conformity documentation necessary for U.S. DOT and EPA conformity determinations.

PRODUCTS:
Maintenance of the FFY 2020-2024 TIP, and Amendments and Administrative Modifications, as needed; Preparation and endorsement of the FFY 2021-2025 TIP; and Preparation of TIP Project Impact Before and After Evaluation.

SCHEDULE:
The FFY 2021-2025 TIP will be developed and endorsed by June 2020. TIP Project Impact Before and After Evaluation to be completed by September 2020.

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TASK 1500 - TITLE VI AND ENVIRONMENTAL JUSTICE

OBJECTIVE:
To ensure that there is equity in the distribution of transportation resources in the Old Colony region. Ensuring that the 3C planning process is accessible to the public, including members of the Title VI, Environmental Justice, and Limited English Proficiency communities is a central federal, state, and regional priority. This process is designed to ensure that public and private minority agencies, organizations, and interested citizens will be kept apprised of and involved in the transportation planning milestones in the region. The encouragement of participation and provision of meaningful access to all local citizens in metropolitan transportation planning is one of the most important goals of the "3C" (continuing, cooperative, and comprehensive) process. The MPO process engages these populations and reaches out to them throughout all transportation planning related activities. As such, data collection and data analysis practices throughout the UPWP will reflect the needs of these populations.

PREVIOUS WORK:
Old Colony LEP Plan; Old Colony PPP; Old Colony JTC Newsletters; OCPC Newsletters; News Releases and Articles for the Media; OCPC Annual Reports; Website; Old Colony JTC meetings; 2020 LRTP Public Participation Process; TIP and Implementation Process; and Annual Old Colony Title VI Reports.

PROCEDURES:
1. Ensure that there is equity in the distribution of transportation resources and that there is reasonable access to the planning process, OCPC will continually conduct Title VI and Environmental Justice planning for the Old Colony Region. The planning includes the following:
   - Evaluate the effectiveness of the public participation plan for engaging transportation-disadvantaged communities in the transportation decision-making process.
   - Regional maps using the 2010 Census illustrating where high concentrations of minority and low-income persons are located.
   - Regional maps using the 2010 Census identifying where highway Transportation Improvement Projects are located in relation to minority population and low-income areas.
   - Regional maps using the 2010 Census illustrating the existing transit routes, fatal crash locations, pavement conditions, safe routes to schools buffers, and future capital transit projects.
   - Examination of mobility issues using the 2010 Census, access to jobs and services, and levels of service for both transit services and automobiles.
   - Promote access to the planning process to those with limited English proficiency by developing and utilizing techniques and strategies such as visualizations, graphics, posters, interpreters, and providing information via ethnic media and community based organizations.
   - Analyze the outcomes of processes and plans by assessing the geographic distribution of the benefits and burdens of the regional transportation system to protected populations.

2. Provide staff support and actively encourage both public and private minority groups/ agencies/ community based organizations participation in the 3C planning process through the Old Colony Joint Transportation Committee.

PRODUCTS:
Title VI and Environmental Justice planning for the Old Colony Region; 2020 Title VI Report; Maintain an outreach contact list of minority groups and community based organizations; Develop maps identifying minority and low-income populations, transit route maps, and maps showing existing and future location of Transportation Improvement Program and Transportation Plan projects; Conduct benefits, burden...
analysis, and include in TIP; Continue to expand outreach process and methods; Obtain and secure on-call interpreters; and Utilize MassDOT Title VI Tool.

SCHEDULE:
To be carried out throughout the year.

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2000 - DATA RECONNAISSANCE, ACQUISITION, AND ANALYSIS ACTIVITIES

A major requirement of planning is to know what is actually happening in the real world. Surveillance activities are designed to do just that by gathering data on transportation resources, their use, and demand for their use. This information is used to locate and define problems for further study and analysis, define requirements for plans and designs, develop programming priorities and evaluate the success of projects after implementation.

2100 - Demographic and Land Use Surveillance, and Road Inventory Update
2200 - Multi-Modal Data Surveillance and System Monitoring
2300 - System Planning Resource Activities
2400 - Geographic Information System (GIS)
2500 - Management Systems (Congestion, Pavement & Safety), and Travel Demand Modeling
OBJECTIVE:
To continue to develop, update, and maintain current demographic and land use information and data to ensure that transportation planning, programming analyses, and forecasting methods are based on the most current information. This includes analyzing social, economic, and land use data, including historic, current, and forecast information, and the development, update and revision of socioeconomic forecasts, and updated the road inventory for use in refinement of the regional transportation model and the LRTP.

PREVIOUS WORK:
Population, employment, land use, building permits, build out analyses, Journey to Work data, forecasts, and GIS data analyses; Road Inventory Updates; Regional demographic data book preparations; U.S. Census Participant Statistical Areas Program (PSAP); and MassBuilds project updates.

PROCEDURES:
1. Review and continue to maintain, update, and develop where appropriate existing demographic files based on the 2010 U.S. Census information, and the 2011 Massachusetts Household Transportation Survey.
   - Attend and participate in workshops and courses (US Census, CTP, etc.) sponsored by FHWA, FTA, MassDOT, Baystate Roads, and other agencies or groups.
   - Develop traffic analysis zones for the travel demand model with the most recent census data, as it becomes available.
   - Provide and respond to requests for U.S. Census Data and demographic data.
   - Review and analyze the 2010 U.S. Census Data and demographic data.
   - Review, maintain and periodically update physical data and prepare data maps, including land use, zoning, etc.
   - Review, update, and add development projects in MassBuilds.
   - Prepare and engage in outreach and understanding efforts with regard to the 2020 U.S. Census.
2. Socio-Economic forecasting
   - Develop, update, and revise socioeconomic forecasts for use in refinement of the regional travel demand model.
   - Obtain the necessary information to revise the population and employment projections based on the 2010 U.S. Census, and the 2011 Massachusetts Household Transportation Survey.
3. Monitor changes in local government land use plans and regulations, land use patterns, development projects, trip generations, on and off site mitigation, and the various associated land use characteristics of the region in order to update the land use and zonal forecasts, and to use as inputs into the MassBuilds, congestion management process, and mitigation activities.
4. Continue to collect and update attributes of MassDOT’s Road Inventory File that have not been updated.
   - Assist communities with the documentation needed in order to add newly constructed accepted streets or to change an existing street from an unaccepted to an accepted roadway.
   - Meet with local officials to discuss the Road Inventory Data Files and the changes identified during the Pavement Management survey process.
FFY 2020 OLD COLONY UNIFIED PLANNING WORK PROGRAM (UPWP)

- Continue to maintain the Road Inventory on the Geographic Information System.
- Investigate the feasibility of using a Global Positioning System to plot and update the Road inventory files with new roads created from new subdivision development. Additionally, OCPC will also use the Global Positioning System to plot both existing pedestrian and bicycle trails within the region.

PRODUCTS:
Updated Socio-Economic Data Files; Updated Physical Data Files; Journey-to-Work Data Tables; Journey-to-Work Reports; Technical assistance with regard to the 2010 and 2020 U.S. Census, and the 2011 Massachusetts Household Transportation Survey; Priority Development Areas and Priority Preservation Areas; and Provision of technical assistance, maintenance, and updates regarding the Road Inventory Files.

SCHEDULE:
To be carried out throughout the year.

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Prepared By Old Colony Planning Council (OCPC)
OBJECTIVE:
To develop and maintain a region-wide, multi-modal transportation system monitoring program (includes OCPC Program and MassDOT).

To respond to requests for traffic (vehicle, bicycle, pedestrian, and transit) counts from state, city, and town officials within the region.

To preserve up-to-date files of traffic-specific data characteristics of the multi-modal transportation system, demand, and its use.

To conduct pedestrian, bicyclist counts, and transit counts, and prepare measures such as levels of service.

PREVIOUS WORK:
Annual Old Colony Traffic Volume Reports; Maintenance of comprehensive computer file inventory of local, state and other traffic counts, and MS2 upload; Turning movement counts and Travel Time Studies; Collection and analysis of data previously performed for other Transportation Plans and Studies; Numerous speed and vehicle classification studies requested by member communities; Review of studies and reports prepared by agencies and consultants; and MassDOT/ RPA Traffic Count Program (vehicle, bicycle, pedestrian, and transit). In addition, a count program of strategic road/locations within the region has been developed to provide information for implementation of the regional growth factors, model inputs, etc.

PROCEDURES:
1. Undertake a transportation system counting program (vehicle, bicycle, pedestrian, and transit) in coordination with municipal and MassDOT officials including:
   - Conduct bicycle and pedestrian counts, as appropriate.
   - Conduct directional traffic counts as part of the MassDOT Statewide Traffic Coverage Counts, and upload to MS2.
   - Conduct traffic counts using mechanical recorders and conduct manual turning movement counts at the request of the municipalities within the region, and/or as needed for planning purposes.
   - Conduct transit counts, as appropriate.
   - Conduct turning movement counts, as appropriate, and upload to MS2.
   - Develop bikeability measures and/or quality of service metrics.
   - Maintain and continue to expand on an ongoing region wide traffic count database for use in monitoring regional VMT growth rate.
   - Maintain interactive traffic count database.
   - Measure levels of service for all modes (vehicle, pedestrian, bicycle, and transit).
   - Prepare reports summarizing the traffic counting activities in the region (includes distribution to MassDOT), as appropriate.
   - Prepare and report primary data collected to host municipalities and MassDOT.
   - Prepare inventory of gaps within the regional bicycle network.
   - Provide maintenance, payments, and replacements of all traffic counters, and traffic counting related equipment, as needed.
   - Purchase equipment and supplies as needed to continue the traffic count program.
FFY 2020 OLD COLONY UNIFIED PLANNING WORK PROGRAM (UPWP)

- Verify and calibrate traffic counters according to MassDOT Procedures.

2. Conduct additional transportation system (vehicle, bicycle, pedestrian, and transit) counts as needed in order to refine and update the traffic count database for the travel demand model.

3. Undertake travel time and vehicle occupancy study in the Old Colony region as needed for the Regional Transportation Model, the LRTP, and/or other planning activities.

4. Review, monitor and update the following transportation systems data as needed including:
   - Average Daily Traffic and transportation growth trends and seasonal adjustments (vehicle, pedestrians, bicycles, and transit).
   - Commuter rail parking lots and park and ride facilities (inventory) and utilization study.
   - Traffic crash and crash rate documentation.
   - Traffic control devices.
   - 2010 U.S. Census Place of Work and Residence Data.
   - 2011 Massachusetts Household Transportation Survey.

5. Develop and maintain staff awareness of Intelligent Transportation System Technology, and promote Intelligent Transportation System solutions in the region and participate in the implementation of Intelligent Transportation System Architectures.

PRODUCTS:
Transportation System Counting Program; Bikeability measures and/or quality of service metrics; Highway Data Displays; speed and classification reports; Turning movement counts; MS2 Upload; Vehicle Occupancy and Travel Time Reports as needed and updated traffic counts on a community/roadway basis and a data layer of regional counts with Geographic Information System and Commuter Rail Parking Lots and MassDOT Park and Ride Utilization documentation; Replacement, maintenance, and, purchase of traffic counters, equipment, and software; Annual Traffic Volumes Report; Traffic Count Interactive Database; Turning Movement Count Interactive Database; and Traffic Volume Growth/Decline Rates.

SCHEDULE:
To be carried out typically from January to December (weather permitting). Year End Traffic Volume Report to be completed during spring 2020.

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Prepared By Old Colony Planning Council (OCPC)  Page 35 of 65
TASK 2300 - SYSTEM PLANNING AND RESOURCE ACTIVITIES

OBJECTIVE:
To continually improve the region’s capability for estimating and evaluating impacts of existing and proposed regional and multi-modal transportation facilities and to provide support for the day to day operation of the Transportation Department’s computer system and to expand the utility of the computers to other areas of transportation planning. Additionally, to provide for staff development, training, and their related participation in educational development programs, seminars, conferences, and courses.

PREVIOUS WORK:
Staff development and participation in courses, seminars, and workshops (on-going project); Use of TransCAD, Geographic Information System, HCS, Pavement Management, McTrans Highway Capacity Software, SYNCHRO, Pictometry, CMAQ Analysis, GHG Analysis, and other transportation analysis software packages; Purchase, installation, and upgrade of computer systems, software, and equipment, as needed; and Purchase of relevant reference materials and documents.

PROCEDURES:
1. Staff development, attendance and participation in transportation courses, trainings, seminars and workshops sponsored by BAT, GATRA, DEP, EOEEA, EPA, FHWA, FTA, MassDOT, and others. This will assist staff in continued and ongoing development, maintenance, and application, sketch planning, quick response and other forecasting methods. This will also encompass all activities that are directed to the production of new computer procedures that support analytical, administrative and documentation tasks.

2. Computer hardware and software acquisition, maintenance, and updates.
   - Purchase, update/upgrade, and maintenance of all hardware equipment/supplies and software applications that are needed for the Transportation Section's computer facilities.
   - Integrate computer capabilities into all practical aspects of the transportation planning process. This effort entails the acquisition, testing, and refinement of additional hardware and transportation related software from US DOT supported research and other public agencies as well as private companies.
   - Provide necessary support for the effective operation of the staff's computer facilities.
   - Monitor technological development in the field of computer hardware and software for potential use in planning activities. Continue ongoing planning, evaluation, and implementation of computer software and hardware.
   - Familiarize the Transportation Staff with the computer facilities and applications through informal and formal training sessions.
   - Continue to maintain and update the library of programs and data files.
   - Develop a database that will archive data from past projects and provide current GIS and tabular data in an online format searchable by the public.
   - Maintain website.

PRODUCTS:
Staff development of enhanced technical and multi-modal planning capabilities; Attend courses/workshops etc.; Maintain, and update website, computer hardware and software, and knowledge bases, as needed; Purchase of relevant software, reference materials, and documents; and Application of new forecasting techniques and transportation analysis techniques.
FFY 2020 OLD COLONY UNIFIED PLANNING WORK PROGRAM (UPWP)

SCHEDULE:
To be carried out throughout the year.

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**TASK 2400 - GEOGRAPHIC INFORMATION SYSTEM (GIS)**

**OBJECTIVE:**
To improve, develop, and utilize the digital data and geographic tools of the GIS for various tasks within the UPWP. The GIS provides the ability to store, display, manage, and analyze data for different work tasks. This includes land use projections for the LRTP; road inventory files; travel demand modeling; traffic volume; high-crash locations; roadway functional classification; transit route analysis; and pavement management analysis. This task will also include collaboration with communities and regional organizations, and provide general technical assistance on geographic matters.

**PREVIOUS WORK:**
Roadway Classification; technical assistance program for member communities; Regional crash database; Regional land use map; Regional growth maps; Regional build out analyses; Parcel Maps; Priority Development Areas (PDAs) and Priority Preservation Areas (PPAs); Crash Cluster Maps; Stormwater Maps; and Developed Land as of 2009.

**PROCEDURES:**
1. Collect, maintain, and analyze data on an ongoing and continuing basis.
2. Train staff, enhance system abilities, and develop regional databases and geodatabases.
3. Integrate of existing databases such as road inventory, hydrology, and bicycle and pedestrian infrastructure into Geographic Information System.
4. Utilize GIS and GPS capabilities in maintaining traffic data, mapping pavement condition information, mapping existing and projected land use data for use in various transportation projects such as the revisions to long range transportation plans, special studies, road inventories, roadway functional classifications, crash location analyses, travel demand models, and, transit routes; etc.
5. Review and prepare Priority Development Areas and Priority Preservation Areas, as appropriate.
6. Enter relevant demographic, economic, environmental, stormwater, drainage, and traffic data into the GIS as needed to provide increased abilities for organization, analysis, and retrieval. Establish new database and map overlays on a continual basis as projects develop.
7. Continue the expansion of GIS and GPS technology from a mapping tool to an analytical tool through various project needs.
8. Develop the interactive capabilities of web-based GIS to serve communities.
9. Review, select, and purchase additional software and hardware as needed.

**PRODUCTS:**
Base maps; Overlay files, and photography that can be utilized for tasks including travel demand modeling, traffic counting program, management systems, road inventory; PDAs and PPAs; Crash data processing; Transit routing; Plan updates; Environmentally sensitive areas; Data models for advanced geoprocessing; and Traffic signal and intersection inventory.

**SCHEDULE:**
To be carried out throughout the year.

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Prepared By Old Colony Planning Council (OCPC)  Page 38 of 65
OBJECTIVE:
Congestion Management Process (CMP)
To continue to implement a congestion management process. Considered an ongoing effort, staff will continue to collect and maintain data needed in the estimation of refined performance measures while identifying both existing and future needs of the region’s transportation system (vehicle, pedestrian, bicyclist, and transit). Subsequently, ranked regional listing of congested highways, transit facilities, pedestrian and bicycle, and park and ride parking facilities that have been established will continue to be refined. As part of this System, regional congestion will be addressed at locations identified in the 2020 Old Colony LRTP.

Pavement Management System (PMS)
To continue to implement a pavement management system on a continual basis in keeping with objective driven, performance based planning. Staff will continue to collect and analyze road surface data on federal aid eligible roadways, and update the PMS database on an ongoing basis. Staff will also continue to assist and provide technical assistance to local communities interested in developing a local Pavement Management Program. Staff will continue research in updating and/ or replacing the existing pavement management system software.

Safety Management System (SMS)
To continue to implement a safety management system. This consists of a systematic process that has the goal of reducing the number and severity of traffic crashes on the public roads, reducing transit crashes, reducing pedestrian crashes and injuries, and reducing bicyclist crashes and injuries. Recommended actions include providing information for selecting and implementing effective safety strategies and projects. All opportunities to improve roadway safety are identified, considered, and implemented in all phases of highway planning, design, construction, maintenance, and operation. The safety management system incorporates roadway, human, and vehicle safety elements. Considered an ongoing effort, Staff will collect and maintain data needed in the estimation of refined performance measures and the completion of road safety audits. Staff will identify both existing and future needs of the region’s multi-modal transportation system with regard to safety. Subsequently, this includes development of annual regional listings and monitoring of high hazard intersections and corridors, participation and implementation of the Strategic Highway Safety Plan and the Highway Safety Improvement Program, and evaluation of potential improvements.

Travel Demand Modeling
To continue to develop staff capabilities in using the TransCAD Modeling System and provide assistance in the development of the Statewide Model; Continue refinement, calibration, development, maintenance, and application of the Old Colony Regional Travel Demand Model used in the development of the Long Range Transportation Plan; and Continue refining and calibrating the transportation demand model to meet the forecasting requirements of federal transportation and air quality laws and regulations.

The regional transportation model is an effective and comprehensive way to forecast transportation needs for the next 20 years in the Old Colony region. The transportation model enables forecasting of traffic impacts caused by population and economic growth, identifies congestion growth areas on highways, impacts on travel patterns, and estimate Vehicle Miles Traveled. The model is a valuable
transportation tool in analyzing the transportation network and evaluating alternative solution to transportation problems.

Staff may hire a consultant to assist with model refinements, and will utilize the model in testing of the transportation alternatives as part of the refinement of the Long Range Transportation Plan and traffic studies as appropriate. The model will also be used to assist in identifying future problem areas and in the development of strategies for the ongoing CMP. Staff will utilize the model in testing of the transit alternatives as part of the refinement of the LRTP and transit studies as appropriate. Staff will continue to work with the MassDOT in developing the statewide travel demand model as needed.

**PREVIOUS WORK:**

**Congestion Management Process**
Preparation of the Annual Report; Monitoring and analysis of the parking, transit, and roadway facilities. Link V/C Ratios as part of the regional traffic-counting program; Participation on the Congestion Management Technical Team, development of strategies, and corridor studies; Data collection, consisting of numerous travel time runs on roads identified as having existing congestion; and Analyzation of Brockton Area Transit’s route ridership data. Staff also identified and analyzed the park and ride lots and commuter rail lots in the region, and identified problematic bottleneck areas to be studied in detail.

**Pavement Management System**
Maintenance of a PMS on the federal aid eligible roadways miles in the region (approximately 642 miles); Preparation of the Annual Report; Report On Roadway Condition; Road Inventory Update; Technical assistance to local communities interested in Pavement Management Program; Pavement Management Subcommittee; PCI development for incorporation in transportation evaluation criteria, and formation coordination and implementation of Pavement Management Subcommittee, and related products; Review of consultant proposals for updating and/ or replacing the pavement management system software; and Revisions to the PMS database to reflect changes in road classifications, and cost of materials for developing budgets.

**Safety Management System**
Participation in development of Highway Safety Improvement Program; Safety analyses as part of Transportation Evaluation Criteria application; Crash Rate processing; Top 100 High Hazard Intersections; Preparation of the Annual Report; Road Safety Audits (RSAs); and Studies for communities warranting specific attention to safety.

**Travel Demand Modeling**
The Regional Transportation Model was used as an analytical tool during the development of the LRTP. Staff utilized a regional traffic simulation model that encompasses every community in the region. The model was used to identify and verify congested corridors/ areas in the region for the CMP, Corridor Studies, and Major Bottleneck Identification Studies.

**PROCEDURES:**

**Congestion Management Process**
1. Continue to work with the CMP to identify and coordinate various work tasks and to ensure consistency with requirements of Transportation Management Areas. Staff will continue to attend meetings and training as appropriate since they serve as a forum for the dissemination of data produced by the system and allow personnel from other RPAs to meet and share information on data collection, data sources, etc.
2. Continue to refine the established CMP network by utilizing the region-wide traffic simulation model to identify any additional facilities on which congestion exists or is predicted; and Develop and monitor a system of performance measures and thresholds.

3. Continue to measure identified congestion on CMP corridors/roadways/transit/pedestrian/bicycle through a data collection and analysis effort, which includes, but is not limited to the following:
   - Conduct travel time, delay runs in each identified corridor, and collect traffic counts and turning movement count data, as appropriate.
   - Monitor, survey, and analyze usage at commuter parking lots throughout the region. Develop and monitor mobility and accessibility enhancement measures for the commuter parking lots within the region.
   - Extend and recalibrate the regional model for peak periods and travel time delay. Incorporate turning movement counts and phase specific signal timing information into the model.
   - Continue ongoing collection and analysis of fixed-route transit data. Also included in this process will be to conduct origin/destination surveys of current transit ridership, walk to transit, and the development and utilization of condition measures and load factors.
   - Continue to identify, evaluate, and select strategies that address congestion, and provide administrative and technical support during the implementation of congestion management strategies.
   - Provide inputs to statewide and regional plans and transportation evaluation criteria for Transportation Improvement Programs.
   - Develop knowledge and skills, regarding the integration of goods movement. Meetings with stakeholders representing the freight community, in order to understand inefficiencies.

4. Continue to develop and refine congestion control strategies. Develop both general and corridor specific recommendations for relieving congestion on selected corridors.

5. Continue to evaluate performance measures that provide relevant and up-to-date information on the congestion status of transportation facilities.

6. Continue to identify bicycle and pedestrian connectivity gaps.

7. Continue ongoing assessment of the effectiveness of implemented strategies on alleviating congestion.

8. Continue ongoing monitoring and analyses that identify the underlying causes of congestion.

9. Provide analyses that consider non-traditional congestion management strategies (Transportation Demand Management, growth management, congestion pricing, traffic operational improvements, public transportation, and Intelligent Transportation System) to reduce transportation system congestion.

10. Provide in depth study of regional congestion at priority locations, and to identify potential locations for additional MassDOT Park and Ride Lots.

Pavement Management System
1. Continue to use the Road Manager software, and/or other software to maintain and update the Old Colony Pavement Management Program as needed. Pavement management data collection and analyses will be used to develop estimated costs associated with regional pavement conditions and needs. This information is to support the inclusion of pavement projects in the TIP and will aid in the development of realistic estimates of costs to the Region, particularly while developing the LRTP. Staff will update the PMS database to reflect the expansion of the federal aid eligible mileage due to the reclassification of roads and inclusion of new member communities.

2. Provide technical assistance to member communities interested in the Pavement Management Program.
   - Initiate, coordinate, and develop pavement management programs for local communities.
3. Meet with MassDOT, RPAs, and committees to coordinate regional and statewide efforts and to compare programs and strategies for improvement of data collection, analysis, and assistance to local communities.
   - Stay informed of pavement and roadway improvement projects completed throughout the region.

4. Pavement Management Procedures:
   - Conduct windshield surveys to determine severity and extent of pavement distresses.
   - Train and monitor community personnel in conducting the windshield survey.
   - Input data into pavement management program (Road Manager) and other software(s), as appropriate.
   - Utilize computer capabilities to provide conditions analysis and recommended repairs and costs, and reports to municipalities.
   - Provide follow-up technical assistance, as needed.
   - Train staff in use of pavement management software so that database and management program may be maintained and continued following completion of work efforts.
   - Coordinate and share information with regard to pavement management.
   - Develop a system of performance measures and thresholds.

Safety Management System
1. Develop and work with the SMS to identify and coordinate various work tasks, and prepare and participate in Road Safety Audits. Staff will continue to attend meetings (such as SHSP and TRCC, etc.), and training as appropriate since they serve as a forum for the dissemination of data produced by the system, and allow personnel from other RPAs to meet and share information on data collection, data sources, etc.

2. Review local and state crash data for intersections and corridors. In addition, staff will provide crash data processing, upon request, to assist local police departments in the identification of high locations. Calculation of crash rates (crashes per million entering vehicles and crashes per hundred million miles) and comparison to both State and District Averages will be conducted. For corridors, the crashes per lane mile and fatality per lane mile will be used.

3. Conduct RSAs and develop both site specific and generalized recommendations in order to address safety deficiencies. This will include recommendations regarding geometric, speed reductions, traffic calming techniques, vegetation clearing, signage consolidation, pavement markings, pedestrian ramps and crossings, roundabouts and signalizations, as appropriate. Staff will utilize the Manual on Uniform Traffic Control Devices, the MassDOT Project Development and Design Guide Book, and the Governor’s Highway Safety Bureau.

4. Incorporate safety criteria in the transportation evaluation process used in the development of the TIP. Project specific recommendations will be discussed with local, regional and state officials as appropriate, in order to address safety issues and concerns.
   - Provide administrative and technical support during the implementation of safety management strategies.
   - Provide safety inputs to statewide and regional plans and TIPs.

5. Continue to develop and refine safety strategies, and develop both general and corridor specific recommendations for addressing safety on selected corridors.

6. Develop a system of performance measures and thresholds, and document results of implemented safety measures. Such measures may include percent reduction in crash rate, percent reduction in the number of injury crashes, and percent reduction in crashes involving fatalities. Improve methods for compiling and retrieving crash data through utilization of GIS and through the improvement of information sharing with local, State, and Federal partners.
7. Continue to measure identified safety at high hazard locations through a data collection effort, which includes, but is not limited to the following:
   - Conducting turning movement counts, vehicle volume studies, vehicle speed studies, vehicle classification studies and pedestrian studies.
   - Continuing to identify, evaluate, and select strategies that address safety.
   - Updating status of performance measures at locations where safety improvement have been implemented.

**Travel Demand Modeling**
1. The products developed from the model, i.e. the existing and future year scenarios used for network analysis of air quality and travel demand will be reviewed, evaluated, and utilized as part of any changes/updates to the LRTP and TIP.
2. Continue to refine and update the Old Colony travel demand model to include the block group demographic data from US Census 2010; contract with consultant as needed; this information will be used to calibrate the model (this may include utilizing consultants under contract).
3. Continue to collect/compile, update traffic count data, and adjust as necessary to refine the accuracy of the model.
4. Develop external zones from external stations on the fringe areas of the region to improve the calibration of the existing conditions as appropriate.
5. Utilize the refined and calibrated model for analyzing alternatives in the development and refinement of the Long Range Transportation Plan and other transportation or corridor studies (this may include utilizing consultants under contract).
6. Analyze forecast information to identify deficiencies as required for the LRTP and Air Quality Conformity. Evaluate improvement strategies. Incorporate findings in the LRTP as appropriate.
7. Assist MassDOT in the preparation of statewide modeling efforts as needed. Integrate the 2010 Census Block Group data and MassDOT Road Inventories Files into TransCAD model for use with the statewide travel demand model.
8. Continue work on developing the transit network model as appropriate.
9. Collect data on existing services provided by the MBTA, BAT, and GATRA. This data collection will include route and service information provided by the respective transit providers as appropriate.
10. Collect data on needs for transit services across region. Data will be collected using a variety of techniques such as ridership surveys origin/destination, license plate surveys, and mode split analysis as appropriate.

**PRODUCTS:**

**Congestion Management Process**
Annual Management System Reporting will be prepared; Data collection, intersection data survey, roadway refinement, proposal strategies, progress report preparation, and congestion management team support; In-depth study of regional congestion at priority locations; Consistency with CMP requirement of Transportation Management Areas; Transportation Evaluation Criteria inputs; Locations for expansion of existing Park and Ride Lots; Locations for additional Park and Ride Lots; Establishment of Performances Measures and thresholds; and Measures to reduce greenhouse gas emissions, VMT, and congestion.

**Pavement Management System**
Annual Management System Reporting will be prepared; Continue data collection, analysis, and cost estimates for federal aid eligible roadways in the region and use of said data in evaluation of projects to be programmed in the TIP; Database refinement and information for incorporation into GIS; Operations and maintenance cost to maintain the federal aid roadway network; Technical assistance to local...
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communities; and Establishment of Performances Measures and Thresholds, and Transportation Evaluation Criteria inputs.

Safety Management System
Annual Management System Reporting will be prepared; Road Safety Audits; Top 100 High Hazard Intersections in Old Colony Region; Identification of data collection, intersection data survey, roadway refinement, proposal strategies, and progress report preparation; Development of specific-safety recommendations for intersections, corridors, and pedestrian crossings; Inclusion of safety analyses as a component of the Transportation Evaluation Criteria in the development of the TIP; Establishment of Performances Measures and Thresholds; and Identification of safety specific projects for the Old Colony Region.

Travel Demand Modeling
A completed refined/ recalibrated transportation model for the Old Colony region that can be expanded upon as needed, utilized for travel demand estimation, and forecasting; and Updated network models for the Old Colony region, and refinement of the Traffic Analysis Zones.

SCHEDULE:
Management Systems and processes, and travel demand modeling to be carried out throughout the year. Annual Reports, Road Safety Audits, and analyses to be completed by end of September 2020.

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Element 3000 charts the direction for major transportation development activities in the region. As such, it is concerned with continuously updating projects dealing with the demand for transportation; development of a transportation plan which encompasses a Long Range Element and a Short-Range Element, both incorporating the concept of Transportation Systems Management; a further detailing of the broad findings and recommendations of the Plan in plan refinement; and special purpose plans addressing such items as air quality, energy, and seniors and individuals with disabilities.

3100 - Regional Traffic Studies, ITS, and Intermodal Planning
3200 - Local Highway Transportation Technical Assistance
3300 - Main Street Brockton Corridor Study
3400 - Route 139 Hanover Corridor Study
3500 - Performance Based Planning and Management
TASK 3100 - REGIONAL TRAFFIC STUDIES, ITS, AND INTERMODAL PLANNING

OBJECTIVE:
To provide planning services for highway, bicycle, pedestrian, transit, and movement of goods in the region designed to address immediate traffic and safety problems, and to conduct Intelligent Transportation Systems (ITS) planning. The LRTP identifies deficiencies in the region’s transportation network. The deficiencies are shown in the plan including deficient bridges, dangerous intersections, congested highway corridors, and overcrowded transit facilities. Where projects have not been developed to correct these deficiencies, studies and intermodal planning will have to be undertaken to evaluate each problem in detail and to recommend the appropriate solution.

To provide a comprehensive inventory of roadway facilities that interact with the regional hydrologic network, including the condition, type, location, function, surrounding conditions, and environmental attributes of these facilities. Forthcoming EPA Phase II Stormwater Regulations will require communities to locate and map their roadway stormwater infrastructure.

To update an assessment of vulnerabilities and risks that climate change, and/or extreme weather event pose to critical transportation infrastructure.

Staff will conduct traffic studies and intermodal planning to assist member communities and agencies in developing the appropriate solutions for any identified local transportation deficiencies. Staff also anticipates undertaking traffic studies at selected intersections and along selected roadway corridors identified in the Old Colony LRTP or as part of the CMP, as warranting further study. Continually, staff receives requests from communities to conduct traffic studies. For example, in the past, the town of Whitman requested that OCPC conduct a traffic study on Route 18 and for Whitman Town Center, and the town of Stoughton requested a circulation study in Stoughton Center.

PREVIOUS WORK:
2011 Major Bottleneck Study (Plymouth Route 3 at Exit 6, East Bridgewater Central Square, and West Bridgewater Route 106); 2012 Major Bottleneck Study (Bridgewater Route 104 and Stoughton Route 138); 2013 Major Bottleneck Study (Stoughton Central Street and Avon Harrison Boulevard); 2014 Southwest Brockton Corridor Study; 2014 Regional Freight and Goods Movement Study; Route 53 Corridor Study; Route 58 Corridor Study; Route 106 Corridor Study; Route 123 Corridor Study; Route 139 Corridor Study; Stoughton Square By-Pass Study; Stoughton Square Origin - Destination Study; Bridgewater Center Circulation Study; Bourne Road Corridor Study; 2013 participation in development Regional Intelligent Transportation System Architecture for the Metro Boston Area and Southeastern Massachusetts Area; 2007 Old Colony ITS Plan; Complete Streets Technical Assistance; Safe Route to School (SRTS) Technical Assistance; South Coast Rail Technical Assistance; Climate Change Transportation Impact Study; Climate Change Roadway Drainage and Runoff Program; and Avon and Halifax Stormwater Management System Mapping and Database.

PROCEDURES:
1. The following is a list of potential projects, among others, that could be undertaken as part of this task:
   - Before and After Route 44 Study
   - Bicycle and Pedestrian Planning, Levels of Service, Technical Assistance, and Education
   - Brockton Area Transit Planning and Technical Assistance
   - Brockton Main Street Corridor Study
• City/town center circulation studies
• Climate change adaptation strategies to enable the region to implement improvements
• Complete Streets Technical Assistance
• Crash and Safety Studies
• Development knowledge and skills, regarding the integration of goods movement
• Follow-up studies to the Congestion, Land Use, Pavement, and Safety Management Systems
• Freight Plan and Related Analyses
• Meetings with stakeholders representing the freight community, in order to understand inefficiencies
• Geographic analyses and attribute analysis of drainage facilities that includes capacity and adequacy structures with regard to extreme weather events and climate change
• Identification and demarcation of roadway drainage and stormwater management systems
• Identify transportation connectivity gaps in accessing essential services
• Intermodal Connector Analysis (Intermodal interfaces examined for identification of necessary improvements
• Inventory of critical infrastructure vulnerable to extreme weather events and climate change
• Inventory of gaps within the regional bicycle network
• Intersection Sub-area Studies
• Public Health Assessments
• Regional Casino/Gaming Impact Study
• Regional Intersection Study
• Regional ITS Architecture Plan
• Safe Routes to School (SRTS) Technical Assistance
• Various corridor-wide traffic studies and Sub-area Traffic Studies

2. Efforts will include undertaking transportation studies at locations and developing specific reports as products for intermodal connectors as requested by local communities, FHWA, FTA, and/or MassDOT. Staff will work with community officials, MassDOT, and MassDOT District 5, and stakeholders to develop a scope of service for the proposed study.

3. For each corridor study, staff will prepare a draft report, which outlines the Study's findings and recommendations. This report will be circulated for review and comment. Comments will be incorporated into a final report. The findings and recommendations contained in the final report will serve as the basis for including projects in the region's TIP and LRTP.

4. For ITS, activities to include: Promote the implementation of Intelligent Transportation System solutions to regional transportation problems; Work with MassDOT, SRPEDD, BAT, MBTA, and Cape Cod on implementing and refining Intelligent Transportation System Architectures for Southeastern Massachusetts and the Metro Boston Area; Maintain Old Colony Intelligent Transportation System Plan; and Compile available information, studies and reports on Intelligent Transportation System strategies for the Old Colony Region.

5. Conduct public health assessments and consider public health outcomes as part of ongoing planning and performance measures planning; and Assist communities in advancing bicycle and pedestrian projects into the MassDOT Highway Division project development process.
6. Promote bicycle and pedestrian initiatives in the region; Develop bikeability measures and/or quality of service metrics; and Coordinate activities within the MassDOT’s bicycle and pedestrian planning efforts.

PRODUCTS:
Bicycle and Pedestrian Planning and Technical Assistance; Inventory of gaps within the regional bicycle network; Brockton Area Transit Planning and Technical Assistance; Complete Streets Technical Assistance; South Coast Rail Technical Assistance; Studies to identify solutions to traffic congestion and safety deficiencies on roadways within the region; Livability Measures; Performance Measures; Walk to Transit Analysis; Regional ITS Architecture Plan; Safe Routes to School Technical Assistance; Bicycle and Pedestrian Planning, Levels of Service and Education; Participation in updates to Regional Intelligent Transportation System Architectures; Climate Change Roadway Drainage and Runoff Report with recommendations for consideration for future implementation; Inventory of critical infrastructure vulnerable to extreme weather events and climate change; Stormwater management system mapping; Bikeability measures and/or quality of service metrics; and Climate Change Adaptation.

SCHEDULE:
To be carried out throughout the year.

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Prepared By Old Colony Planning Council (OCPC)
OBJECTIVE:
To provide a rapid and effective response mechanism to address special, short-term transportation issues and/or projects as they arise. This will include the development, upon request from communities, regional authorities, state agencies, and federal agencies, of detail technical data, analyses, and reports that will assist in improving the region's transportation infrastructure.

PREVIOUS WORK:
Numerous Vehicle and Speed Classification Studies requested by communities; Route 123/ Linwood/ Lorraine/ VA Hospital/ and Manley Streets Intersection analysis in Brockton; Washington Street (Route 138) and Elm Street Intersection Study in Easton; Route 138 and Route 106 Intersection Study in Easton; Foundry Street (Route 106) and Prospect Street Intersection Traffic Study in Easton; Heavy Vehicle Exclusion Study in Pembroke; Elm Street and Furnace Street in Halifax; Long Pond Road Speed Study in Plymouth; Kingston Pembroke Street School Zone Analyses; Plymouth Chiltonville Traffic Calming Study; Esta and Kristin Road in Plymouth; West Bridgewater Route 106 at Howard Street Traffic Study; Brockton Main Street RSA; Kingston Cranberry Road Traffic Study; Kingston Smith’s Lane Traffic Study; Kingston Landing Road RSA; Pembroke Mattakesett Traffic Study; Pembroke and Duxbury Heavy Vehicle Pattern Study; Halifax Route 36 at Oak Street Safety Study; West Bridgewater South Street Safety Study; Plymouth Complete Streets Policy; Plymouth Safe Routes to School Study; Stoughton Hansen School Circulation Study; East Bridgewater Summer Street at Belmont Street RSA; Pembroke Route 53 at Route 139 Traffic Study; Samoset Street Plymouth RSA, Nelson Street and Water Street Plymouth RSA; Route 27 Hanson RSA; Bay Road at Boulder Lane Stoughton/ Sharon RSA; Summer Street Easton Study; Pembroke Plain Street and Lake Street Study; Plymouth Standish at Alden Street Study; Plymouth Standish at Cherry Street Study; Abington Hancock Street at Chestnut Street RSA; and Numerous other intersections warrant analysis, sight distance and crash analysis, traffic impact studies of land use, speed and vehicle classification studies.

PROCEDURES:
1. Provide technical planning analysis assistance to communities on highway, pedestrian, and bicycle transportation planning related matters in the form of meetings, data, analyses, and reports to communities, MassDOT, and other local, state and federal agencies as the need arises. The staff shall perform work on specific short-range highway planning tasks including but not limited to: Intersection and capacity analysis; Road Safety Audits; SYNCHRO analysis; Walk to transit analysis; Crash analysis; Air quality analysis, both commuter and municipal parking analysis; Carpool/ vanpool analysis; Trip generation estimation analysis; Sight distance analysis; Traffic impact analysis of proposed developments; Traffic analysis studies; GIS and GPS applications; and Other short-range studies to determine the need for traffic signals, traffic signs, traffic markings and the use of one-way streets.

2. Maintain an up-to-date file of the Crash Data for communities and continue the collecting and reporting of crash statistics for communities.

PRODUCTS:
Local Technical Assistance Reports/ documents will be prepared. Included in these reports/ documents will be data, analyses and improvement recommendations (location improvements, speed zoning, heavy vehicle exclusions, etc.) for implementation, and inclusion in MassDOT Project Information Forms, as appropriate; and Technical assistance to member communities and crash reporting for participating communities will be provided.
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SCHEDULE:
To be carried out throughout the program year.

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TASK 3300 - MAIN STREET/ NORTH MAIN STREET BROCKTON CORRIDOR STUDY

OBJECTIVE:
To study in depth, the Main Street/ North Main Street Corridor (approximately 5.2 miles) in Brockton, and develop short term and long-term recommendations and strategies that seek to enhance circulation, mobility, and traffic flow efficiency, improve safety, and improve bicycle and pedestrian accommodation. The corridor begins in the south on Main Street at the Brockton City Line/ West Bridgewater Town Line, and concludes on North Main Street at the Brockton City Line/ Avon Town Line. Addressing and alleviating congestion and improving safety in this area would enhance the mobility of all users. Staff will review volume to capacity ratios, level of services, crash analyses, bus routes, and include public participation as part of the process. In addition, staff will utilize the congestion management process and safety management system to assist the identification and the development of the short and long-term recommendations.

PREVIOUS WORK:
Congestion Management Process; Regional Traffic Count Program; Level of Service Analyses; Regional Corridor Studies; Access Management Plan; Long Range Transportation Plans; 2011 Major Bottleneck Identification Study; 2011 Major Bottleneck In Depth Analysis Study; and, 2012 Major Bottleneck In Depth Analysis Study; 2013 Major Bottleneck In Depth Analysis Study; Route 123 Corridor Study; and Route 28 Corridor Study.

PROCEDURES:
1. Documentation of Existing Conditions: Develop documentation of existing conditions though in depth analysis for study area. Conduct public health assessments and consider public health outcomes as part of ongoing planning and performance measures planning. The process shall utilize the CMP, SMS, LUMS, the 2020 LRTP, Regional Travel Demand Models, Travel Time Studies, and Corridor Studies. All relevant and attainable data will be collected and reported during this phase of the project. Data, such as, average daily traffic, peak period volumes, and levels of service, crashes rates, trip generators, land uses, bus routes, will be catalogued, summarized, and ranked. The data compiled for the existing conditions will be tested to document the deficiencies along the facilities, and to identify their causes and their impact on traffic flow, and accessibility. This section will validate or disprove current perceived problems within the study area.

2. Short Term and Long Term Improvements Development: Various alternatives for mitigation or alleviation will be developed specific to problems identified in the critical areas. Conduct review of and provide consideration for potential bicycle and pedestrian improvements to ready the project recommendations for compliance with the Healthy Transportation Policy Directive. Alternatives will include recommendations that are cost effective as well as recommendations that will produce the closest to ideal conditions. Consideration will be given to operations and maintenance techniques, the incidental and routine causes of congestion, and access management. The promotion of efficient system management and operations is one of the FAST Act planning factors seeking to integrate this concept in the existing planning process.

3. Prepare Conclusions and Recommendations: The product of this Task is a study that provides a framework for the alleviation traffic congestion and improve safety throughout the corridor, and to provide the necessary information for the stakeholders to move projects forward in the initiation phases. OCPC will prepare a final study, which will include an implementation program that will outline how and when recommendations of the study will be implemented and identify potential
funding sources. A short-range plan will be recommended for immediate implementation, and a long-range plan will serve as the basis for including projects in the region’s TIPs, and LRTPs, and beyond.

4. Public Participation: conduct public meetings, workshops, surveys, and coordinate with City of Brockton, Brockton Area Transit Authority, Old Colony Joint Transportation Committee, Old Colony Planning Council, and Old Colony Metropolitan Planning Organization. Obtain stakeholder input from citizens, community based organizations, business community, special interest groups, and local officials, etc. on the transportation issues facing the region. Expansive and inclusive public outreach will be in accordance with Old Colony’s Public Participation Plan.

PRODUCT:
Preparation of the Main Street/ North Main Street Brockton Corridor Study, which will include conclusions and recommendations. Included in study will be data, analysis, traffic flow and safety improvement recommendations (location improvements, speed zoning, heavy vehicle exclusions, etc.) for implementation, and inclusion in MassDOT Project Information Form Data for MaPIT, as appropriate.

SCHEDULE:
To be carried out throughout the year and completed by the end of September 2020.

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OBJECTIVE:
To study in depth, the Route 139 Corridor (approximately 4.5 miles) in Hanover, and develop short term and long-term recommendations and strategies that seek to enhance circulation, mobility, and traffic flow efficiency, improve safety, and improve bicycle and pedestrian accommodations. The corridor extends along Route 139 from the Rockland Town Line to the Pembroke Town Line. Addressing and alleviating congestion and improving safety in this area would enhance the mobility of all users. Staff will review volume to capacity ratios, levels of service, crash analyses, and include public participation as part of the process. In addition, staff will utilize the congestion management process and safety management system to assist the identification and the development of the short and long-term recommendations.

PREVIOUS WORK:
Congestion Management Process; Regional Traffic Count Program; Level of Service Analyses; Regional Corridor Studies; Access Management Plan; Long Range Transportation Plans; 2011 Major Bottleneck Identification Study; 2011 Major Bottleneck In Depth Analysis Study; and, 2012 Major Bottleneck In Depth Analysis Study; 2013 Major Bottleneck In Depth Analysis Study; Route 53 Corridor Study; and Route 28 Corridor Study.

PROCEDURES:
1. Documentation of Existing Conditions: Develop documentation of existing conditions though in depth analysis for study area. Conduct public health assessments and consider public health outcomes as part of ongoing planning and performance measures planning. The process shall utilize the CMP, SMS, LUMS, the 2020 LRTP, Regional Travel Demand Models, Travel Time Studies, and Corridor Studies. All relevant and attainable data will be collected and reported during this phase of the project. Data, such as, average daily traffic, peak period volumes, and levels of service, crashes rates, trip generators, land uses, bus routes, will be catalogued, summarized, and ranked. The data compiled for the existing conditions will be tested to document the deficiencies along the facilities, and to identify their causes and their impact on traffic flow, and accessibility. This section will validate or disprove current perceived problems within the study area.

2. Short Term and Long Term Improvements Development: Various alternatives for mitigation or alleviation will be developed specific to problems identified in the critical areas. Conduct review of and provide consideration for potential bicycle and pedestrian improvements to ready the project recommendations for compliance with the Healthy Transportation Policy Directive. Alternatives will include recommendations that are cost effective as well as recommendations that will produce the closest to ideal conditions. Consideration will be given to operations and maintenance techniques, the incidental and routine causes of congestion, and access management. The promotion of efficient system management and operations is one of the FAST Act planning factors seeking to integrate this concept in the existing planning process.

3. Prepare Conclusions and Recommendations: The product of this Task is a Study that provides a framework for the alleviation traffic congestion and improve safety throughout the corridor, and to provide the necessary information for the stakeholders to move projects forward in the initiation phases. OCPC will prepare a final study, which will include an implementation program that will outline how and when recommendations of the study will be implemented and identify potential funding sources. A short-range plan will be recommended for immediate implementation, and a long-range plan will serve as the basis for including projects in the region’s TIPs, and LRTPs, and beyond.
4. Public Participation: conduct public meetings, workshops, surveys, and coordinate with Town of Hanover, Greater Attleboro Taunton Regional Transit Authority, Old Colony Joint Transportation Committee, Old Colony Planning Council, and Old Colony Metropolitan Planning Organization. Obtain stakeholder input from citizens, community based organizations, business community, special interest groups, and local officials, etc. on the transportation issues facing the region. Expansive and inclusive public outreach will be in accordance with Old Colony’s Public Participation Plan.

**PRODUCT:**
Preparation of the Route 139 Hanover Corridor Study, which will include conclusions and recommendations. Included in study will be data, analysis, traffic flow and safety improvement recommendations (location improvements, speed zoning, heavy vehicle exclusions, etc.) for implementation, and inclusion in MassDOT Project Information Form Data for MaPIT, as appropriate.

**SCHEDULE:**
To be carried out throughout the year and completed by the end of September 2020.

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The cornerstone of the Federal transportation program transformation is the transition to a performance based outcome program. States and regions will invest in projects to achieve individual targets that collectively will make progress towards national goals. Therefore, the objective is to develop performance measures and targets for the Old Colony Region for utilization in the planning process and inclusion in the Long Range Transportation Plan. Projects and service implemented through the TIP will help to achieve the performance targets for Safety (PM1), Bridge and Pavement Condition (PM2), System Performance Measures (PM3), and Transit Asset Management State of Good Repair.

Performance based planning and management increases the accountability and transparency of the Federal-aid highway program and provides for a framework to support improved investment decision making through a focus on performance outcomes for key national transportation goals. A significant part of the reforms made by MAP-21 included transitioning to a performance-based program, including establishing national performance goals for Federal-aid highway programs. The FAST Act supports and continues this overall performance management approach, within which states invest resources in projects that collectively will make progress toward national goals.

The national performance goals for the Federal highway program include:

- Safety - To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
- Infrastructure condition (pavement, bridge, and transit) - To maintain a highway and transit infrastructure asset system in a state of good repair.
- Congestion reduction - To achieve a significant reduction in congestion on the NHS.
- System reliability - To improve the efficiency of the surface transportation system.
- Freight movement and economic vitality - To improve the nation freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
- Environmental sustainability - To enhance the performance of the transportation system while protecting and enhancing the natural environment.
- Reduced project delivery delays - To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies’ work practices.
- Resiliency and Reliability of the Transportation System - improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation.
- Travel and Tourism - Enhance travel and tourism.

In March 2016, FHWA published rules on safety performance measures and integration of performance management into the Highway Safety Improvement Program (HSIP). In May 2016, FHWA and the FTA published a rule implementing changes to the planning process.

In January 2017, FHWA published the final rules for the last two national performance management measure regulations. One rule establishes regulations to assess the condition and performance of bridges on the NHS and of pavements on the Interstate and non-Interstate NHS. The other establishes regulations to assess the performance of the NHS, Freight Movement on the Interstate System, and the Congestion Mitigation and Air Quality Improvement Program.
Performance based planning will include working with BAT, FHWA, FTA, and MassDOT, and to establish thresholds for performance measures or goals that meet state and national criteria. The objective of performance measures is to insure that investments in future transportation improvements effectively address transportation issues in a cost effective and timely manner. The ultimate goal will be to develop projects that relieve congestion, improve safety, provide efficient alternative travel choices, preserve and maintain the existing system, promote economic development and protect the environment. This effort will coordinate information and studies developed in other planning tasks such as, but not limited to Congestion Management, Safety Management, Pavement Management, and ITS/ Freight/ Intermodal Planning. The effort will also include MEPA reviews, gaming reviews and technical assistance, coordination of transportation planning activities with other local and state agencies, and other MPOs.

Pavement and Bridge Condition Performance Measures Final Rule

The Pavement and Bridge Condition Performance Measures Final Rule establishes measures for State DOTs to use to carry out the National Highway Performance Program (NHPP) and to assess the condition of the following: Pavements on the NHS (excluding the Interstate System), bridges carrying the NHS that includes on-and off-ramps connected to the NHS, and pavements on the Interstate System. This final rule:

- Requires State DOTs to maintain their bridges and pavements at or above a minimum condition level.
- Provides for greater consistency in the reporting of condition and performance.
- Requires the establishment of targets that can be aggregated at the national level.
- Improves transparency by requiring consistent reporting on progress through a public reporting system.
- Requires State DOTs to make significant progress toward meeting their targets.
- Establishes requirements for State DOTs that have not met or made significant progress toward meeting their targets.

State DOTs and MPOs will be expected to use the information and data generated because of the new regulations to inform their transportation planning and programming decisions.

System Performance/ Freight/ CMAQ Performance Measures Final Rule

The System Performance/ Freight/ CMAQ Performance Measures Final Rule establishes a set of performance measures for State DOTs and MPOs to use as required by the MAP-21 and the FAST Act. The measures in this final rule will be used by State DOTs and MPOs to assess the performance of the Interstate and non-Interstate NHS for the purpose of carrying out the National Highway Performance Program (NHPP); to assess freight movement on the Interstate System; and to assess traffic congestion and on-road mobile source emissions for the purpose of carrying out the CMAQ Program. This final rule:

- Provides for greater consistency in the reporting of condition and performance.
- Established specific national performance measures to be used to assess performance of the NHS, freight movement on the Interstate and CMAQ traffic congestion and on-road mobile source emissions.
- Required the establishment of targets that can be aggregated at the national level.
- Improved transparency by requiring consistent reporting on progress through a public reporting system.
- Required State DOTs to make significant progress toward meeting their targets.
Establishes requirements for State DOTs that have not met or made significant progress toward achieving their NHPP and NHFP targets.

State DOTs and MPOs will be expected to use the information and data generated because of the new regulations to inform their transportation planning and programming decisions.

**HSIP and Safety Performance Management Measures Final Rule**

The HSIP and Safety Performance Management Measures Final Rules adds Part 490 to title 23 of the Code of Federal Regulations to implement the performance management requirements under 23 U.S.C. 150, including the specific safety performance measure requirements for the purpose of carrying out the HSIP to assess serious injuries and fatalities on all public roads. The Safety PM Final Rule establishes the process for State DOTs and MPOs to establish and report their safety targets, and the process that FHWA will use to assess whether State DOTs have met or made significant progress toward meeting their safety targets. The Safety PM Final Rule also establishes a common national definition for serious injuries.

**Planning Final Rule**

The transition to a performance-driven, outcome-based program that provides for a greater level of transparency and accountability, improved project decision-making, and more efficient investment of Federal transportation funds. As part of this new performance-based approach, recipients of Federal-aid highway program funds and Federal transit funds are required to link the investment priorities contained in the STIP and TIP to achievement of performance targets. In a series of rulemakings, FHWA and FTA established national performance measures in key areas, including safety, infrastructure condition, congestion, system reliability, emissions, and freight movement.

States, MPOs, and operators of public transportation must use these measures to establish targets in the key national performance areas to document expectations for future performance. The final rule further establishes that States and MPOs must coordinate their respective targets with each other to ensure consistency to the maximum extent practicable. The final rule requires that for transit-related targets, States and MPOs must coordinate their selection of targets relating to transit safety and transit state of good repair to the maximum extent practicable with operators of public transportation to ensure consistency with other performance-based provisions applicable to operators of public transportation.

MPOs must identify how they will cooperatively implement these performance-based planning provisions with States and operators of public transportation. The final rule provides the option documenting it either as part of the metropolitan planning agreements, or documenting it in some other means outside of the metropolitan planning agreements as determined cooperatively by the MPO(s), State(s), and providers of public transportation. Whichever option is selected, the MPO(s), the State(s), and the providers of public transportation must jointly agree upon and document in writing the coordinated processes for the collection of performance data, the selection of performance targets for the metropolitan area, the reporting of metropolitan area targets, and the reporting of actual system performance related to those targets. The documentation must also describe the roles and responsibilities for the collection of data for the NHS.

In the final rule, once performance targets are selected by MPOs, MPOs must reflect those targets in their MTPs. Accordingly, in their transportation plans, MPOs need to describe these performance targets, evaluate the condition and performance of the transportation system, and report on progress toward the
achievement of their performance targets. States must include similar information in their transportation plans.

Asset Management Plan Final Rule

Asset management is defined as “a strategic and systematic process of operating, maintaining, and improving physical assets, with a focus on both engineering and economic analysis based on quality information, to identify a structured sequence of maintenance, preservation, repair, rehabilitation, and replacement actions that will achieve and sustain a desired state of good repair over the life cycle of the assets at minimum practicable cost.”

Transit Asset Management Final Rule

The FTA published a final rule to define the term state of good repair and to establish minimum Federal requirements for transit asset management that will apply to all recipients and sub recipients that own, operate, or manage public transportation capital assets. This final rule requires public transportation providers to develop and implement out transit asset management plans. TAM plans must include an asset inventory, condition assessments of inventoried assets, and a prioritized list of investments to improve the state of good repair of their capital assets. This final rule also establishes state good repair standards and four state of good repair performance measures. Transit providers are required to set performance targets for their capital assets based on the SGR measures and report their targets, as well as information related to the condition of their capital assets, to the National Transit Database.

Public Transportation Safety Program Final Rule

The Public Transportation Safety Program Final Rule final rule to establish substantive and procedural rules for FTA's administration of a comprehensive safety program to improve the safety of the Nation's public transportation systems. This final rule provides the framework for FTA to monitor, oversee, and enforce transit safety, based on the methods and principles of Safety Management Systems.

PREVIOUS WORK:
Performance Measures and Targets; Long Range Transportation Plan; Regional Policy Plan; Congestion Management Process; Land Use Management System; Safety Management System; Pavement Management Systems; Road Safety Audits; and Reviews, comments, and site visits relating to Environmental Notification Forms and MEPA Environmental Impact Reports/ Environmental Impact Statements.

PROCEDURES:
1. Establish and refine performance measures and thresholds for pavement conditions and performance of the federal aid network, bridge conditions, injuries, and fatalities, traffic congestion. The federal rulemaking process will establish performance measures for each of these items. As such, this does not preclude the region from establishing additional measures for use locally, and the Old Colony MPO will continue to review the supplement the performance measures developed and included in the 2020 Long Range Transportation Plan. Using information collected annually through other tasks outlined in this document, implement, and maintain a comprehensive strategy to evaluate the effectiveness of transportation improvements throughout the region.
2. Determine and set performance measures and thresholds in support of the performance measures framework and describe how program and project selection will help achieve the targets. With acceptable thresholds or targets for performance measures, staff will continue to maintain relevant data for safety, pavement, and congestion management and provide comparison analyses before and after the implementation of projects.

3. Review and comment on traffic studies submitted to member municipalities by developers under the Massachusetts Environmental Protection Agency (MEPA) process or as needed/requested for local permits. Review projects for consistency with the regional transportation goals and objectives, program consistency, etc.

4. Consider utilizing INVEST TOOL - Projects will also be potentially evaluated on their sustainability through the FHWA web-based tool known as Infrastructure Voluntary Evaluation Sustainability Tool. Although voluntary, this information will be useful to determine the long-term effectiveness of improvement projects.

5. Conduct public health assessments and consider public health outcomes as part of ongoing planning and performance measures planning.

PRODUCTS:
Development and refinement of Performance Measures and Targets for the Old Colony Region; Review and comment on traffic studies submitted to member municipalities by developers under the Massachusetts Environmental Protection Agency; and Public Health Assessments.

SCHEDULE:
To be carried out throughout the year and completed by the end of September 2020.

FUNDING:

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<th>FTA 5303</th>
<th>MassDOT</th>
<th>BAT</th>
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### 4000 - OTHER TRANSPORTATION TECHNICAL ACTIVITIES, PLANNING STAFF, FUNDING SOURCES, BUDGETS, AND TASKS

In the course of conducting transportation and transportation related planning activities, it is often the case that certain activities are called for which do not fit into the existing work program elements. When this is the case, those activities are programmed under the element heading of Other Transportation Technical Activities, Planning Staff, Funding Sources, Budgets, and Tasks.

- 4100 - Transit Technical Assistance, and Seniors and Individuals with Disabilities Support
- 4200 - BAT Planning and Technical Studies
## TASK 4100 - TRANSIT TECHNICAL ASSISTANCE, AND SENIOR AND INDIVIDUALS WITH DISABILITIES SUPPORT AND ASSISTANCE

### OBJECTIVE:
To respond to short-range transit planning needs upon request from communities, BAT, GATRA, MassDOT, and MBTA. To maintain an understanding of the region's transit system in order to provide an accurate basis for future forecasting, planning and program analysis, and project evaluation.

To maintain and update the Coordinated Public Transit - Human Service Transportation Plan.

To ensure the accessibility to public transit services for seniors and individuals with disabilities; Attend meetings of the senior and disability committees; Provide technical assistance to BAT, GATRA, region's municipalities, human service agencies, Councils on Aging, private non-profit agencies, and other parties involved in meeting special transportation needs.

To conduct Community Transit Grant reviews, rankings, and related coordination.

To maintain and operate a Congestion Management Process.

### PREVIOUS WORK:
**BAT** - Aging in Place Studies; Comprehensive Regional Transit Plan; Fare Elasticity and Equity Study; Fixed Route Ridership Analyses; Service Change Equity Analysis; Title VI Studies; Air quality analysis for CMAQ and Transportation Demand Management proposals; Rockland Transit Feasibility Study; System Time Study; Route 2A Analysis; Abington Transportation Study; Paratransit Expansion; Regional Coordinating Committee participation; and Human Services Coordination Plan.

**GATRA** - Ridership analysis; Human Services Coordination Plan.

**Other** - Assisted Communities, COAs and other public and private agencies with the Section 5310, 5317, and MAP; Transit Directories; RTA Fare Comparison; Queset Commons Transit Study; Rockland Transit Study; Senior and Individuals with Disabilities Neighborhood Sourcebook; Technical assistance to public and private non-profit organizations in preparing Federal Transit Administration applications for Section 5310, and Mobility Assistance; Regional map showing the locations with high density of senior population (60+); Compilation of US Census data of senior population; Air quality analysis for CMAQ proposals; Abington Transportation Study; Human Services Coordination Plan; and Community Transit Grant solicitations, reviews, rankings, and related coordination.

### PROCEDURES:
1. Provide technical planning assistance to transit providers and member communities on transit matters. This assistance may take the form of assistance in meeting federal reporting requirements and in assessing and evaluating routes; Title VI update; Fare change and service change equity analyses; Schedule and fare changes; Assessing manpower and equipment needs; Access-to-jobs; 2010 census update; Provide and improve BAT’s analytical and forecasting capabilities; Assist BAT with the Americans with Disabilities Act Plan update; Title VI Trend Analysis; and Service Area Demographic Trend Profiles.

2. Provide technical planning assistance to area communities outside the transit authority service areas, on transit matters. This assistance can take the form of helping the communities in: Assessing
potential membership in a transit authority; Assisting the communities in providing for private carrier service; Identifying and assessing park-and-ride lots; Assessing commuter rail lots; Encouraging private enterprise participation; Encouraging minority business participation; and 2010 Census and journey-to-work update, etc.

3. Prepare information as needed for FTA reports, State Implementation Plan submissions, MassDOT reports, and other routine reporting.

4. Provide transit input into regional transit and transportation modeling efforts, and conduct air quality analysis as needed for transit projects.

5. Continue to provide assistance and guidance to applicants for Community Transit Grant Program in preparing applications and coordinating service.

6. Provide technical assistance to public and private non-profit agencies in the development, maintenance, and expansion of senior and/or individuals with disabilities services in the region.

7. Continue to provide support for the replacement of Section 5310 and Mobility Assistance Program vehicles, which have outlived their usual life.

8. Develop updates for the Coordinated Public Transit Human Service Coordination Plan in coordination with communities, transit providers, and regional coordination committees, as appropriate. Plan shall be reflective of the FAST Act.


10. Conduct public health assessments and consider public health outcomes as part of ongoing planning and performance measures planning.

PRODUCTS:
Provide technical assistance to BAT, GATRA, MBTA, SSCAC, and to area communities as needed; Develop information for compliance with federal and state requirements for the TIP; BAT/GATRA (Brockton/Taunton) Intercity Feasibility Study; Coordinated Public Transit - Human Service Coordination Plan Updates; Community Transit Grant Program Education, Reviews and related Rankings; and Travel Demand Model, and LRTP updates, as appropriate.

SCHEDULE:
To be carried out throughout the year.

FUNDING:
<table>
<thead>
<tr>
<th>FHWA PL</th>
<th>MassDOT</th>
<th>FTA 5303</th>
<th>MassDOT</th>
<th>BAT</th>
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TASK 4200 - BAT PLANNING, TECHNICAL ASSISTANCE, AND STUDIES

OBJECTIVE:
To provide transit-planning services, prepare technical studies, comprehensive service assessments, and provide assistance in other planning related activities that are called for during the year which presently are not specifically identified in work program.

PREVIOUS WORK:
BAT Aging in Place Studies; BAT Comprehensive Regional Transit Plan (CRTP); BAT fixed-route ridership analyses; Brockton Area Transit Farebox Analyses; Title VI Reports; BAT Service Change Equity Study: BAT Fare Equity and Elasticity Study; Air quality analysis for CMAQ and Transportation Demand Management proposals; Route 2A Study; Rockland Transit Feasibility Study; System Time Study; Abington Transportation Study; and Human Services Coordination Plan.

PROCEDURES:
1. Develop a detail study(s) design/estimated work time effort and cost for planning tasks requested by Brockton Area Transit. The following is a list of planning/projects that could be undertaken as part of this task: Americans with Disabilities Act Plan Update; Route Evaluation Study/Survey; Fare Increase Analysis; Title VI Report Update; Title VI Trend Analysis; Transfer Study; Financial Plan Update; Demographic/Urban Area Analysis; Manley Street Industrial Park Route Analyses; Technical assistance to BAT, as needed, on the Intermodal Facility; BAT/GATRA (Brockton/Taunton) Intercity Feasibility Study; Avon/Stoughton Route extension planning; Fare Modeling Study; Massasoit Study; Comprehensive Regional Transit Plan (CRTP); Planning assistance and alternatives analyses as identified in the CRTP; and Stoughton Fixed Route Study.

2. Undertake planning, studies, and comprehensive service assessments in accordance with study requirements and available funding.

3. Prepare analyses, reports, maps, charts, as appropriate.

PRODUCTS:
Fixed Route Evaluation Study; Fixed Route Ridership Report; Fare Change Equity Study; Service Change Equity Study; South Shore Medical Transportation Options Study; Avon/Stoughton Route Extension Planning Study; Bridgewater State University Transit Route Expansion Study; Massasoit Reverse Commute Study; BAT/GATRA (Brockton/Taunton) Intercity Feasibility Study; BAT Comprehensive Regional Transit Plan (CRTP), and Provision of planning assistance and alternatives analyses as identified in the CRTP.

SCHEDULE:
To be carried out throughout the year. Schedules are contract dependent and vary throughout the year.

FUNDING:

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The following OCPC staff members will be working on the FFY 2020 Unified Planning Work Program. The percent effort represents the approximate time devoted to the 3C Transportation Planning Tasks.

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<th>Name</th>
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<tr>
<td>Charles Kilmer, AICP</td>
<td>Assistant Director/ Transportation Program Manager</td>
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<td>Shawn Bailey</td>
<td>Transportation Planner</td>
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<td>Paul Chenard</td>
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<td>Raymond Guarino</td>
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<tr>
<td>Bruce Hughes</td>
<td>Economic Development/ Community Planner</td>
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<td>William McNulty</td>
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<td>Kyle Mowatt</td>
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<td>Laurie Muncy, AICP</td>
<td>Principal Comprehensive Planner</td>
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<td>Jimmy Pereira</td>
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<tr>
<td>Andrew Vidal</td>
<td>GIS Manager/ Communications Specialist</td>
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APPENDICES

Appendix A
FFY 2020 Old Colony Unified Planning Work Program (UPWP) Endorsement

Appendix B
§450.336 - Self-Certification Compliance Statement - 3C Process

Appendix C
Estimates of Other Funding Sources, and Other Transportation Planning Activities

Appendix D
Glossary/ Acronyms

Appendix E
Public Review Period and Public Comments
OLD COLONY METROPOLITAN PLANNING ORGANIZATION (MPO)

ENDORSEMENT OF
FFY 2020 OLD COLONY UNIFIED PLANNING WORK PROGRAM (UPWP)

This is to certify that the Signatories of the Old Colony Metropolitan Planning Organization, at their Old Colony MPO meeting on July 16, 2019 hereby approve and endorse the FFY 2020 Old Colony Unified Planning Work Program in its entirety for the Old Colony Region, in accordance with the certified 3C Transportation Planning Process.

Stephanie Pollack, Secretary and CEO
Massachusetts Department of Transportation

The Honorable Bill Carpenter, Mayor
City of Brockton

Jonathan Gulliver, Highway Administrator
Massachusetts Department of Transportation

Kenneth Tavares, Chairman
Plymouth, Board of Selectmen

Michael Lambert, Administrator
Brockton Area Transit Authority

Eldon Moreira, Chairman
West Bridgewater, Board of Selectmen

Christine Joy, President
Old Colony Planning Council

Daniel Salvucci, Vice-Chairman
Whitman, Board of Selectmen

Ex-Officio Non-Voting Members

Noreen O’Toole, Chairperson
Old Colony Joint Transportation Committee (JTC)

Jeff McEwen, Massachusetts Division Administrator
Federal Highway Administration (FHWA)

Peter Butler, Acting Region 1 Administrator
Federal Transit Administration (FTA)
§450.336 - Old Colony MPO Self Certification Compliance Statement

This will certify that the Continuing, Cooperative, and Comprehensive performance-based multimodal transportation planning process for the Old Colony Metropolitan Planning Organization is addressing major issues facing the region and certifies that the metropolitan transportation planning process is being carried out in accordance with all applicable requirements including:

1. 23 U.S.C. 134, 49 U.S.C. 5303, and this subpart;
2. In nonattainment and maintenance areas, sections 174 and 176 (c) and (d) of the Clean Air Act, as amended (42 U.S.C. 7504, 7506 (c) and (d)) and 40 CFR part 93;
3. Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d-1) and 49 CFR part 21;
4. 49 U.S.C. 5332, prohibiting discrimination on the basis of race, color, creed, national origin, sex, or age in employment or business opportunity;
5. Section 1101(b) of the FAST Act (Pub. L. 114-357) and 49 CFR part 26 regarding the involvement of disadvantaged business enterprises in USDOT funded projects;
6. 23 CFR part 230, regarding the implementation of an equal employment opportunity program on Federal and Federal-aid highway construction contracts;
8. The Older Americans Act, as amended (42 U.S.C. 6101), prohibiting discrimination on the basis of age in programs or activities receiving Federal financial assistance;
9. Section 324 of title 23 U.S.C. regarding the prohibition of discrimination based on gender; and

Stephanie Pollack, Secretary and CEO
Massachusetts Department of Transportation

Robert L. Woolf, Jr.
Highway Administrator
Massachusetts Department of Transportation

FOR MICHAEL LAMBERT

Michael Lambert, Administrator
Brockton Area Transit

Frank Staffieri, President
Old Colony Planning Council

The Honorable Bill Carpenter, Mayor
City of Brockton

Kenneth Tavares, Chairman
Plymouth, Board of Selectmen

Eldon Moreira, Chairman
West Bridgewater, Board of Selectmen

Daniel Salvucci, Vice-Chairman
Whitman, Board of Selectmen

Appendix B: Page 1 of 1
The OCPC is a comprehensive planning agency serving communities located in Southeastern Massachusetts. In addition to the range of transportation planning studies and activities described in this report, OCPC performs land use, economic development, elder services, environmental, and comprehensive planning.

Estimates of Other OCPC Funding Sources

1. Economic Development Administration (EDA) $70,000
2. Executive Of Elder Affairs (EOEA)
   a. Administration $147,500
   b. Ombudsman Program $135,000
3. District Local Technical Assistance (DLTA) $194,932
4. Municipal Energy Technical Assistance (META) $ 52,000
5. Septic Repair Program $ 25,000

Listing of Other Transportation Planning Activities

The following is a listing of other transportation planning activities underway in the region that are not being funded with FHWA and/or FTA funds included in the FFY 2020 Old Colony Unified Planning Work Program.

1. MassDOT Cape Cod Canal Area Transportation Study
2. MassDOT Route 3 Integrated Corridor Management Study
3. MassDOT South Coast Rail Project Design and Environmental Permitting
4. MassDOT State Bicycle Plan
5. MassDOT State Freight Plan
6. MassDOT State Pedestrian Plan
7. MassDOT State Rail Plan
APPENDIX D - GLOSSARY/ACRONYMS

List of Acronyms

3C: Comprehensive, Cooperative, and Continuing Planning Process
ADA: Americans with Disabilities Act
BAT: Brockton Area Transit Authority
CAAA: Clean Air Act Amendments of 1990
CIP: Capital Investment Plan
CMAQ: Congestion Mitigation and Air Quality Improvement Program
CMP: Congestion Management Process
CTGP: Community Transit Grant Program
DEP: Department of Environmental Protection
EIR: Environmental Impact Report
EJ: Environmental Justice
ENF: Environmental Notification Form
EPA: Environmental Protection Agency
FHWA: Federal Highway Administration
FTA: Federal Transit Administration
GATRA: Greater Attleboro-Taunton Regional Transit Authority
GHG: Greenhouse Gases
GWSA: Global Warming Solutions Act
HPMS: Highway Performance Monitoring System
HSIP: Highway Safety Improvement Program
IRI: International Roughness Index
JTC: Joint Transportation Committee
LAP: Language Access Plan
LEP: Limited English Proficient
LOS: Level of Service
LRTP: Long Range Transportation Plan
MAP: Mobility Assistance Program
MARPA: Massachusetts Association of Regional Planning Agencies
MassDOT: Massachusetts Department of Transportation
MBTA: Massachusetts Bay Transportation Authority
MOU: Memorandum of Understanding
MPO: Metropolitan Planning Organization
NAAQS: National Ambient Air Quality Standards
NBIS: National Bridge Inventory Standards
NFA: Non-Federal Aid
NFP: National Freight Program
NHPP: National Highway Performance Program
NHS: National Highway System
NOx: Nitrogen Oxides
PM10: Safety Performance Measures
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM2:</td>
<td>System Preservation Performance Measures</td>
</tr>
<tr>
<td>PM3:</td>
<td>System Performance Measures (Congestion, Reliability, and Emissions)</td>
</tr>
<tr>
<td>PMS:</td>
<td>Pavement Management System</td>
</tr>
<tr>
<td>PPP:</td>
<td>Public Participation Plan</td>
</tr>
<tr>
<td>PRC:</td>
<td>Project Review Committee</td>
</tr>
<tr>
<td>PSI:</td>
<td>Pavement Serviceability Index</td>
</tr>
<tr>
<td>SGR:</td>
<td>State of Good Repair</td>
</tr>
<tr>
<td>SIP:</td>
<td>State Implementation Plan</td>
</tr>
<tr>
<td>SMS:</td>
<td>Safety Management System</td>
</tr>
<tr>
<td>SSCAC:</td>
<td>South Shore Community Action Council</td>
</tr>
<tr>
<td>STBG:</td>
<td>Surface Transportation Block Grant Program</td>
</tr>
<tr>
<td>TAM:</td>
<td>Transit Asset Management</td>
</tr>
<tr>
<td>TAMP:</td>
<td>Transportation Asset Management Plan</td>
</tr>
<tr>
<td>TAN:</td>
<td>Transportation Advisory Network</td>
</tr>
<tr>
<td>TAP:</td>
<td>Transportation Alternatives Program</td>
</tr>
<tr>
<td>TCM:</td>
<td>Transportation Control Measure</td>
</tr>
<tr>
<td>TERM:</td>
<td>Transit Economic Requirements Model</td>
</tr>
<tr>
<td>TIP:</td>
<td>Transportation Improvement Program</td>
</tr>
<tr>
<td>TMA:</td>
<td>Transportation Management Area</td>
</tr>
<tr>
<td>ULB:</td>
<td>Useful Life Benchmark</td>
</tr>
<tr>
<td>VMT:</td>
<td>Vehicle Miles Traveled</td>
</tr>
<tr>
<td>VOCs:</td>
<td>Volatile Organic Compounds</td>
</tr>
</tbody>
</table>
June 18, 2019

NOTICE OF PUBLIC REVIEW AND COMMENT PERIOD

- FFY 2020-2040 LONG RANGE TRANSPORTATION PLAN (LRTP)
- FFY 2020 UNIFIED PLANNING WORK PROGRAM (UPWP)

In accordance with the Public Participation Process developed by the Old Colony Metropolitan Planning Organization (MPO), Old Colony Planning Council (OCPC) is making the FFY 2020-2040 LRTP, and the FFY 2020 UPWP available for public review and comment. Copies of these documents are available for review at the OCPC Offices (8:30 a.m. to 4:00 p.m.), at http://www.ocpcrpa.org/, and/or upon request. This notice will initiate a 21-Day Public Review and Comment Period. This process will also be used as Brockton Area Transit Authority’s (BAT) public participation process. BAT, the Federal Transit Administration (FTA) Section 5307(c) applicant, has consulted with the Old Colony MPO and concurs that the public involvement process adopted by the Old Colony MPO for development of the TIP satisfies the public hearing requirements that pertain to the development of the Program of Projects for the regular Section 5307, Urbanized Area Formula Program, grant applications including the provisions for public notice and the time established for public review and comment. Public notice of public involvement activities and time established for public review and comments on the TIP will satisfy the program of projects (POP) requirements. The public discussion of the TIP at Old Colony JTC, Old Colony MPO, and transportation meetings satisfies the Program of Projects (POP) public hearing requirements of the FTA. A public meeting of the OCPC and Old Colony MPO advisory committee, the Old Colony Joint Transportation Committee (JTC), is scheduled for July 11, 2019 at 12 PM. Furthermore, a public meeting of the Old Colony MPO is scheduled for July 16, 2019 at 10 AM to hear additional public comments and consider endorsement. Please contact Charles Kilmer at 508-583-1833 Extension 206 for further information.

Please send written comments to:

Charles Kilmer
Old Colony Planning Council (OCPC)
70 School Street
Brockton, MA 02301
The Old Colony MPO fully complies with Title VI of the Civil Rights Act of 1964 and related statutes and regulations in all programs and activities. The Old Colony MPO operates without regard to race, color, or national origin (including limited English proficiency), age, sex, disability, ancestry, ethnicity, gender, gender identity or expression, sexual orientation, religion, creed, veteran's status, or background. Any person who believes him/herself or any specific class of persons, to be subject to discrimination prohibited by Title VI may by him/herself or by representative file a written complaint with the Old Colony MPO. Complaints are to be filed no later than 180 days from the date of the alleged discrimination. Please contact Pat Ciaramella at 508-583-1833 Extension 202 for more information.
LEGAL ADVERTISEMENTS

Notice of Twenty-One Day Public Review and Comment Period appeared in the following:

- The Brockton Enterprise - June 18, 2019
- The Ojornal - June 21, 2019
- The Patriot Ledger - June 18, 2019
June 18, 2019 Old Colony MPO Meeting
Agenda Item 8
2020 Old Colony Long Range Transportation Plan (LRTP)
-Review and Potential Release to Review and Public Comment Period

Summary

Through the FFY 2019 Unified Planning Work Program, the Old Colony Planning Council has prepared a Draft 2020 Old Colony MPO Long Range Transportation Plan (LRTP). The Draft LRTP is being presented to the Old Colony Metropolitan Planning Organization on June 18, 2019 with a request to release to a public review and comment period.

Tables 1, 2, and 3 contain the recommended preferred set of highway improvement projects as presented in the Old Colony Long Range Transportation Plan. These projects are anticipated to assist the region and the state in satisfying performance metric goals in PM1, PM2, and PM3.

Table 1 contains recommended projects for federal fiscal years 2020 through 2024. These projects compose the current the Draft FFY 2020 through 2024 Old Colony Transportation Improvement Program. These projects have identified funding program years, and have a high level of confidence in project readiness and advancement within the timeframe of this TIP.

Table 2 contains recommended projects for federal fiscal years 2025 through 2029. Anticipated funding levels have been projected by MassDOT, and the Old Colony Planning Council has reasonable confidence that many of these projects will be ready to advance in the FFY 2025 through 2029 time frame.

Table 3 contains recommended projects that do not have identified funding, are large in scope, and are regionally significant for mobility and economic vitality of the region. Most of these projects are in concept form only at this point, and are considered illustrative in the Long Range Transportation Plan. Table 4 contains recommended illustrative regionally significant transit projects.

The Old Colony Planning Council is also working with the Brockton Area Transit Authority to determine fleet replacement needs for a system wide state of good repair through 2040. Vehicle procurement needs through 2024 have been identified and programmed. South Coast Rail expansion is also included in the Long Range Transportation Plan. Funding has been identified for Phase 1, while cost estimates and funding sources still need to be identified for Phase 2.
<table>
<thead>
<tr>
<th>FFY</th>
<th>ID#</th>
<th>PROJECT DESCRIPTION</th>
<th>Cost Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>608088</td>
<td>BROCKTON - CORRIDOR IMPROVEMENTS ON ROUTE 123 (BELMONT STREET), FROM ANGUS BEATON</td>
<td>$7,350,265</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DRIVE TO WEST STREET</td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>608266</td>
<td>PEMBROKE - RESURFACING AND RELATED WORK ON ROUTE 53</td>
<td>$2,725,075</td>
</tr>
<tr>
<td>2020</td>
<td>608820</td>
<td>BRIDGEWATER - BROCKTON - PAVEMENT PRESERVATION AND RELATED WORK ON ROUTE 24</td>
<td>$17,851,040</td>
</tr>
<tr>
<td>2021</td>
<td>607217</td>
<td>EASTON - ROUTE 123 (DEPOT STREET) RECONSTRUCTION FROM NEWELL CIRCLE TO ROUTE 138</td>
<td>$10,066,911</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(old price was 7743189)</td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td>608086</td>
<td>AVON - INTERSECTION IMPROVEMENTS AT HARRISON BOULEVARD AND POND STREET</td>
<td>$3,521,954</td>
</tr>
<tr>
<td>2021</td>
<td>608496</td>
<td>AVON - STOUGHTON - PAVEMENT PRESERVATION AND RELATED WORK ON ROUTE 24</td>
<td>$6,312,800</td>
</tr>
<tr>
<td>2021</td>
<td>60829</td>
<td>STOUGHTON - IMPROVEMENTS AT WILKINS ELEMENTARY SCHOOL (SRTS)</td>
<td>$2,982,944</td>
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<tr>
<td>2022</td>
<td>606143</td>
<td>BROCKTON - INTERSECTION IMPROVEMENTS @ CRESCENT STREET (ROUTE 27)/ QUINCY STREET/</td>
<td>$5,520,744</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MASSASOIT BOULEVARD</td>
<td></td>
</tr>
<tr>
<td>2022</td>
<td>608279</td>
<td>STOUGHTON - INTERSECTION IMPROVEMENTS AND RELATED WORK AT CENTRAL STREET, CANTON</td>
<td>$3,347,449</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STREET AND TOSCA DRIVE</td>
<td></td>
</tr>
<tr>
<td>2023</td>
<td>609052</td>
<td>BROCKTON - ROUTE 123 (CENTRE STREET) AT PLYMOUTH STREET SIGNALIZATION AND GEOMETRIC</td>
<td>$1,680,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IMPROVEMENTS</td>
<td></td>
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<tr>
<td>2023</td>
<td>600380</td>
<td>PEMBROKE - REHABILITATION OF ROUTE 36 (CENTER STREET) FROM ROUTE 27 TO ROUTE 14</td>
<td>$8,902,501</td>
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<tr>
<td>2024</td>
<td>607403</td>
<td>STOUGHTON - CORRIDOR IMPROVEMENTS ON ROUTE 138</td>
<td>$9,155,544</td>
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<tr>
<td>2024</td>
<td>609435</td>
<td>PLYMPTON-BRIDGE REPLACEMENT, WINNETUXET ROAD OVER WINNETUXET RIVER</td>
<td>$2,223,024</td>
</tr>
</tbody>
</table>

**TOTAL PROGRAMMED IN YEAR OF EXPENDITURE DOLLARS (ESTIMATED):** $81,640,251

**TOTAL REGIONAL FUNDING AVAILABLE (INCLUDES $35 M IN PROJECT SPECIFIC STATEWIDE FUNDING):** $107,754,099
<table>
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<tr>
<th>FFY</th>
<th>PROJECT ID#</th>
<th>PROJECT DESCRIPTION</th>
<th>COST ESTIMATE</th>
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<tbody>
<tr>
<td>2025-2029</td>
<td>609440</td>
<td>ABINGTON - HANCOCK STREET AT CHESTNUT STREET SIGNALIZATION AND GEOMETRIC IMPROVEMENTS</td>
<td>$3,500,280</td>
</tr>
<tr>
<td>2025-2029</td>
<td>PRE - PRC</td>
<td>BROCKTON - DOWNTOWN BROCKTON TWO-WAY TRAFFIC CIRCULATION</td>
<td>$35,000,000</td>
</tr>
<tr>
<td>2025-2029</td>
<td>PRE - PRC</td>
<td>BROCKTON - FOREST AVENUE CORRIDOR (MAIN STREET TO BELMONT STREET)</td>
<td>$11,200,000</td>
</tr>
<tr>
<td>2025-2029</td>
<td>607818</td>
<td>BROCKTON - IMPROVEMENTS AND RELATED WORK ON CRESCENT STREET (ROUTE 27), INCLUDING REPLACEMENT OF GROVE STREET BRIDGE, B-25-005, OVER SALISBURY PLAIN RIVER</td>
<td>$7,098,728</td>
</tr>
<tr>
<td>2025-2029</td>
<td>609410</td>
<td>BROCKTON - INTERSECTION IMPROVEMENTS AND RELATED WORK AT CENTRE STREET (ROUTE 123), CARY STREET AND LYMAN STREET</td>
<td>$3,528,000</td>
</tr>
<tr>
<td>2025-2029</td>
<td>606002</td>
<td>DUXBURY - SIGNAL INSTALLATION @ ROUTE 3 (NB &amp; SB RAMPS &amp; ROUTE 3A (TREMONT STREET)</td>
<td>$3,360,000</td>
</tr>
<tr>
<td>2025-2029</td>
<td>608195</td>
<td>EASTON - CORRIDOR IMPROVEMENTS ON ROUTE 138 INCLUDING INTERSECTION IMPROVEMENTS AT ROUTE 138 (WASHINGTON STREET) AND ELM STREET</td>
<td>$7,193,085</td>
</tr>
<tr>
<td>2025-2029</td>
<td>608585</td>
<td>EASTON - RESURFACING AND RELATED WORK ON ROUTE 138 (ROOSEVELT CIRCLE TO STOUGHTON TOWN LINE (EXCLUDING THE SECTION FROM ELM STREET TO UNION STREET))</td>
<td>$6,125,000</td>
</tr>
<tr>
<td>2025-2029</td>
<td>604098</td>
<td>EASTON - ROUTE 138 &amp; TURNPIKE STREET INTERSECTION SIGNALIZATION AND GEOMETRIC IMPROVEMENTS</td>
<td>$2,016,000</td>
</tr>
<tr>
<td>2025-2029</td>
<td>607715</td>
<td>HANOVER - RESURFACING &amp; RELATED WORK ROUTE 53</td>
<td>$2,450,000</td>
</tr>
<tr>
<td>2025-2029</td>
<td>608506</td>
<td>HANSON - CORRIDOR IMPROVEMENTS ON ROUTE 14 (MAQUAN STREET), FROM THE PEMBROKE T.L. TO INDIAN HEAD STREET AND RELATED WORK</td>
<td>$8,680,718</td>
</tr>
<tr>
<td>2025-2029</td>
<td>PRE - PRC</td>
<td>PLYMOUTH - WATER STREET RECONSTRUCTION (SOUTH PARK AVENUE TO ROUTE 3A)</td>
<td>$8,400,000</td>
</tr>
<tr>
<td>2025-2029</td>
<td>PRE - PRC</td>
<td>STOUGHTON - CANTON STREET (ROUTE 27) &amp; SCHOOL STREET SIGNALIZATION AND GEOMETRIC IMPROVEMENTS</td>
<td>$2,100,000</td>
</tr>
<tr>
<td>2025-2029</td>
<td>607214</td>
<td>STOUGHTON - RECONSTRUCTION OF TURNPIKE STREET</td>
<td>$17,530,800</td>
</tr>
</tbody>
</table>

TOTAL PROGRAMMED IN YEAR OF EXPENDITURE DOLLARS (ESTIMATED): $118,182,611

TOTAL REGIONAL FUNDING TARGET (FORECAST): $122,381,541
Table 3: Regionally Significant Illustrative Highway Projects

<table>
<thead>
<tr>
<th>Project</th>
<th>Cost Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bridgewater - Route 24 Northbound On Ramp From Route 104 Westbound</td>
<td>$7,500,000</td>
</tr>
<tr>
<td>Plymouth - Route 3/ Route 3A Exit 2 State Road and Herring Pond Road</td>
<td>$10,000,000</td>
</tr>
<tr>
<td>Plymouth - Route 3 Exit 5 Interchange Improvements and Long Pond Road</td>
<td>$30,000,000</td>
</tr>
<tr>
<td>Plymouth - Route 3 Northbound Exit 4 Off-ramp to Plimouth Plantation</td>
<td>$7,500,000</td>
</tr>
<tr>
<td>Plymouth - Route 3 Exit 3 Full Interchange</td>
<td>$30,000,000</td>
</tr>
<tr>
<td>Plymouth - Route 25 Interchange at Bourne Road</td>
<td>$25,000,000</td>
</tr>
<tr>
<td>West Bridgewater - Route 106 Capacity Enhancement (Route 24 to Route 28)</td>
<td>$15,000,000</td>
</tr>
<tr>
<td>Region - Route 3 Capacity Enhancement from Route 18 (Weymouth) to Long Pond Road (Plymouth)</td>
<td>To be determined</td>
</tr>
<tr>
<td>Region - Route 24 Capacity Enhancement and Upgrade to Interstate Standards</td>
<td>To be determined</td>
</tr>
</tbody>
</table>

Table 4: Regionally Significant Illustrative Transit Projects

| Region - South Coast Rail Project Phase 1                              | $1.047 billion |
| Region - South Coast Rail Project Phase 2                              | TBD           |

The Draft Old Colony Long Range Transportation Plan is complete and available on the Old Colony Planning Council’s website (www.ocpcrpa.org) for download and review. Staff will present the Draft Plan to stakeholders and the general public at a series of meetings and forums over the next month, including:

- Public Forum at the Brocton Public Library (Main Branch) June 24, 2019
- Public Forum at the Plymouth Public Library, June 26, 2019
- Old Colony Planning Council, June 26, 2019
- Old Colony Joint Transportation Committee (JTC), July 11, 2019

For information about the Old Colony Long Range Transportation Plan (LRTP), please direct inquiries to Bill McNulty (wmcnulty@ocpcrpa.org) at 508.583.1833 extension 207.
The 2020 Old Colony MPO Long Range Transportation Plan (LRTP)

Release To Public Review and Comment Period

Presentation to Old Colony Metropolitan Planning Organization
June 18, 2019
The 2020 Old Colony Long Range Transportation Plan – Outline of Plan

- Chapter 1 - Introduction and the Continuing, Comprehensive, and Cooperative (3C) Planning Process
- Chapter 2 – Regional Goals, Objectives, and Performance Measures
- Chapter 3 – Regional Profile and Livability
- Chapter 4 – The Regional Highway System
- Chapter 5 - The Regional Transit System
- Chapter 6 – Bicycle and Pedestrian Transportation
- Chapter 7 – Environmental Quality, Climate Change, and Hazards
- Chapter 8 – Safety and Security
- Chapter 9 – Finance
- Chapter 10 – Conclusion and Recommendations
Public Outreach – Comments Received

• Reconstruct Route 24 Interchanges 17 (Route 123) and 18 (Route 27) to Interstate Standard to support Brockton area’s economic vitality

• Double Track Old Colony Commuter Rail line between Bridgewater and Braintree to support Rail Vision’s 15 minute service interval goal

• Add parking decks to existing Commuter Rail surface parking lots

• Enhanced transit connections
  • Connections between BAT, GATRA, and MBTA
  • South Station to North Station Connector
Public Outreach – Comments Received, Continued

- Local opposition to electrification of commuter rail system through local towns
  - Visual pollution and large footprint of catenaries
- More sidewalks needed
- Fix high crash intersections
- Fix potholes and pavement (System Preservation)
- Need to plan for climate change
- Need to replace and modernize outdated traffic signal systems
- Potential Planning Scenarios Well Received
Investing In The Future

• ~ $200 million in surface transportation investment FFY 2020-2029
  • System Preservation
    • Route 24 Resurfacing
    • Arterial Corridor Reconstructions
  • Safety Improvements
    • Intersection Improvements at High Crash Locations

• Transit Investment
  • Brockton Area Transit Fleet Replacement Schedule
  • Human Services (South Shore Community Action Council and Councils on Aging)

• Additional Identified Regional Highway and Transit Needs, Currently Non Fiscally Constrained
Planning Scenarios
The 2020 Old Colony Long Range Transportation Plan – Planning Scenarios

• Scenario 1: High Level of Investment in All Modes
  • Assumes New and Innovative Investment in Transportation Funding
  • Expansion / Modernization of All Modes

• Scenario 2: Arterial Focused
  • Focus is placed on improving congestion and safety on arterial routes
  • Intersection Improvements
  • Signal Coordination / Modernization
  • Focus on existing transit level of service vs. system expansion
  • Implementation of Bicycle and Pedestrian Plan
The 2020 Old Colony Long Range Transportation Plan – Planning Scenarios

• Scenario 3: Transit, Mode Shift, and Ride Share Focused
  • Limited investment in surface transportation network
  • High levels of investment in transit
  • Heavy consideration of creative transit, bicycle and pedestrian, and ride sharing improvements

• Scenario 4: Limited Levels of Investment
  • Highly limited resources vs. system needs
  • Priority placed on maintenance of existing network, and state of good repair
  • Only highest priority bicycle, pedestrian, and mode shift projects considered
Overview of Findings
Strategies for Improving Livability and Creating Vibrant Communities

• Encourage investment in wide range of housing options
• Expand local transit services
• Ensure access to quality public facilities and health care for all residents
  • Plan for better accessibility in low income, high minority, and vulnerable populations
• Plan for upgrades of infrastructure in older and substandard areas
• Healthy Communities
  • Infrastructure facilitates active lifestyle
  • Reduce exposure to toxins
  • Public Safety
• Support Livable and Green Community Centers
Strategies for Improving Regional Highway Network

- Direct Unified Planning Work Program activities to studying congestion and identifying potential improvements at identified bottle necks on the arterial system and congested economic centers

- Support capacity enhancements to Routes 3 and Route 24

- Prioritize projects in areas with “Fair” or “Poor” infrastructure conditions to support system preservation goals, and particularly on National Highway System to achieve PM2 targets

- Work with municipalities and MassDOT to ensure design of projects progress, and projects are ready for advertisement in their program year

- Encourage access management strategies with new developments

- Continued monitoring of pavement conditions on federal aid eligible roadway network, and particularly National Highway System
Strategies for Improving Regional Transit Network

- Continue to support and plan for additional transit service to unserved or underserved areas and populations
- Continue to work with Brockton Area Transit to support their efforts to reach their performance targets
- Support and plan for expanded use of signal priority systems for transit to better level of service
- Support expanded geographic reach of demand service (Paratransit)
- Continue to study and support linkages between regional transit systems (BAT, GATRA, MBTA)
- Continue semi annual utilization studies of park and ride facilities
Strategies for Improving Bicycle and Pedestrian Transportation

• Support continued application of Complete Streets policies

• Support participation in Safe Routes To School by all eligible schools in Old Colony region

• Study and plan for eliminating gaps in regional bicycle and pedestrian connections

• Plan for upgrade of older traffic signal systems to include better bicycle and pedestrian controls

• Work with municipalities to encourage healthy lifestyles, including healthy transportation choices
Strategies for Improving Environment and Planning for Climate Change

- Continue to identify transportation infrastructure and assets vulnerable to climate change
- Program 100 percent of available Congestion Management and Air Quality (CMAQ) funding each program year
- Plan for and promote sustainable communities
- Calculate air quality benefits (or burdens) with all programmed Transportation Improvement Program
- Plan for each project to improve local environment
- Support continued application of Complete Streets policies
Strategies for Improving Safety and Security

• Continue to update regional Top 100 Most Hazardous Intersections inventory annually or as data becomes available

• Prioritize projects at high crash locations that will have greater effect in reduction of fatalities and incapacitating injuries to assist regional and State in region PM1 performance targets

• Support participation in Safe Routes To School by all eligible schools in Old Colony region

• Incorporate Massachusetts Strategic Highway Safety Plan (SHSP) strategies into planning efforts

• Incorporate emergency response and evacuation planning (where applicable) into planning efforts
2020 Old Colony LRTP Development Timeline
2020 Old Colony LRTP Timeline – Next Steps

- Draft Plan available online now (www.ocpcrpa.org), and 21 Day Public Review Period to commence June 18, 2019
- Presentation to Public (Brockton and Plymouth) June 24 and June 26, 2019
- Presentation to Old Colony Planning Council June 26, 2019
- Presentation to Old Colony Joint Transportation Committee – July 11, 2019
- Final Presentation to MPO, presentation of comments received and respective responses, and request for MPO Endorsement on July 16, 2019
Questions?

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June 18, 2019 Old Colony MPO Meeting
Agenda Item 9
Administrative Matters, Other Business, and Date and Time of Next Meeting(s)

Summary

Administrative Matters and Other Business to be discussed.

Date and Time of Next Meeting(s)

The Old Colony MPO members are respectfully requested to schedule the date and time of their next meeting(s).

- July 16, 2019 at 10:00 AM
- August 20, 2019 at 10:00 AM