FFY2017 Unified Planning Work Program (UPWP) Amendment

Amendment – Scope of Work Changes to Task 3.3 Management Systems

SRPEDD respectfully requests an amendment to the UPWP to modify the procedures related to this task with a scope of work for study of the Route 1 Corridor in Attleboro and North Attleborough.

The city of Attleboro and the town of North Attleborough have expressed concerns with growing traffic congestion along this corridor specifically near the border between these communities. The Route 1 corridor study was anticipated for the FFY2016 UPWP, but was postponed due to the development activity along the Route 1 corridor that interrupted common daily traffic flows.

As detailed in the attached scope of work, the study intends to examine the existing condition and operation of the Route 1 Corridor between a point north of the Route 1/1A/123 intersection in Attleboro to the interchange with Interstate 295 in North Attleborough. Upon completion of the existing operations/conditions within the FFY2017 UPWP, staff will commence an examination of the development potential and future operations of the Route 1 corridor and provide alternatives for improvement for consideration by the communities and MassDOT. That future work shall be completed in the FFY 2018 UPWP.

The work scope anticipates the data collection and analysis of the existing transportation network following the procedures listed under the Management Systems Task 3.3.3 Intersection / Corridor Studies.

With this in mind, SRPEDD staff respectfully requests amending Task 3.3 Management Systems to complete an analysis of the Route 1 Corridor under its existing conditions with the remaining effort (future development potential and analysis) to be completed in the FFY 2018 UPWP.
Scope of Work: Route 1 Corridor Transportation Study – Attleboro and North Attleborough

Objective:

The city of Attleboro and the town of North Attleborough requested a study of the Route 1 Corridor. The area of concern includes Route 1 north of the intersection with Route 1A in South Attleboro up to the interchange with Interstate 295 in North Attleborough by the Emerald Square Mall. There are congestion and safety concerns at various intersections along the corridor and it is anticipated that development or redevelopment of commercial properties might exacerbate any existing problems.

An effort to examine this corridor will be split between the FY2017 and FY2018 Unified Planning Work Programs (UPWP). The first phase will include the collection of transportation and land use data for an assessment of the existing conditions. Phase two will focus on the analysis and mitigation based on the existing conditions and transportation problems resulting from anticipated development along the corridor. Recommendations shall include, but not be limited to improvements to intersections and segments along the corridor, public and alternative modes of transportation, and changes to existing land use and transportation policies to minimize impacts to the transportation network.

Procedures:

Phase 1 – Data Collection and Analysis under existing Conditions (April 2017 – September 2017)

1. The Public Participation Process. SRPEDD will conduct an active public participation process as defined by SRPEDD’s Public Participation Program (PPP) for the duration of the study. The public process will identify issues, collect information to substantiate these issues, consider measures to address them, and seek support for recommendations leading to implementation. This process will include, but not be limited to the following:

   A. Prepare and distribute a press release on the study in conformance with SRPEDD’s PPP. The press release shall include a request for information and opinions on the issues from local residents, business owners, public officials (including the Police and Fire Departments) and the general public;

   B. Engage populations within the communities that are difficult to reach in order to receive as much input as possible from a diverse set of individuals and business owners;
C. Host an initial or series of meetings to garner input from all interested parties including community officials, regional agencies, state agencies, and the general public on all potential issues in existence along the corridor.

D. Establish a goal for the study on what the communities and the state envision for the future of the Route 1 corridor;

E. The study shall also review and include work previously completed or scheduled for implementation for the corridor;

F. Establish a base year for data collection and for the assessment of the existing transportation operations of the corridor (typically the year of the study).

II. **Land Use Information.** Staff will utilize available state, regional and community GIS resources to establish base maps of the current land use. Staff will obtain and utilize information collected from each community as part of the assessment of the existing conditions as well as for projecting future development. This process will include, but not be limited to the following:

   A. Collect assessor’s information from MassGIS or the participating communities to determine property boundaries, land ownership, and proximity of structures to the Right-of-Way of the corridor;
   B. Staff will work with each community to refine the accuracy of the existing base maps and gather additional information on development potential for Phase 2 of this study;
   C. Utilize this information to assist in analysis and public presentation of the issues.

III. **Transportation Data Collection.** Collect information to assist in the analysis of the study area and address any transportation issues specifically identified as part of the public outreach process. Information collected through this process will also be essential with any proposed mitigation that would utilize state or federal funds such as the Transportation Improvement Program (TIP). Pending input from the public outreach process, information collected will include, but not limited to the following:

   A. SRPEDD staff will collect existing geometric data, signal phasing and timings, and photograph various characteristics of the corridor for analysis and presentation;
   B. In conjunction with MassDOT, staff will collect 24-hour traffic count data at various locations along the corridor as well as Turning Movement Counts (TMCs) at key intersections identified through public outreach. TMCs will be collected during AM and PM Peak hours identified through the 24-hour traffic count data. Additional TMCs may be collected to account for traffic issues identified through the public outreach process. Pedestrian and bicycle counts will be included as part of the TMC data collection efforts;
C. In conjunction with the traffic count data, identify the movement of freight and trucks within and through the corridor and identify businesses that generate this type of traffic;

D. Staff will utilize the current MassDOT GIS crash data in conjunction with public outreach to identify locations with a significant crash history and to identify potential crash trends throughout the study area. Once the crash trends are identified, staff will collect crash reports for these locations from each communities’ police departments for the previous three years of the study’s established base year;

E. Identify and collect information on public transportation provided to the study area as well as facilities that accommodate pedestrian and bicycle activities. If warranted, additional bicycle and pedestrian counts will be collected beyond the TMC effort as described in Section III.B.

IV. **Transportation Analysis** - SRPEDD will analyze the base year operational transportation characteristics of the corridor. This analysis will assist in the identification of potential improvement alternatives under existing. This will include, but not be limited to the following:

A. Analyze existing (base year) traffic operations of the corridor and intersections. Identify bottlenecks and congested locations for the corridor through a Level of Service analysis and establish a base line analysis of emission calculations through accepted MassDOT software programs. Identify and provide detailed information on the cause of any congestion issues;

B. Examine and prioritize locations within the corridor with significant safety problems based on crash data analysis. This procedure will include, but not be limited to the following:
   1. Examination of crash data to rank intersections within the study area based on crash severity and locations exceeding the state threshold crash rate for consideration as a safety problem;
   2. Through the public process and data collected from state and local sources, identify pedestrian movements, traffic controls, physical obstructions, and other issues that potentially contribute to safety problems;
   3. Conduct Road Safety Audits (RSA) for high crash locations to identify specific issues based on crash analysis and potentially provide short term/low cost improvements. RSA teams will be assembled to include officials from each community in addition to state and regional agencies.

C. Provide analysis of the existing bicycle and pedestrian movements throughout the corridor using accepted MassDOT analysis programs. Identify limitations to existing movements including physical barriers, current layout and design deficiencies, and safety concerns, to name a few;
D. Documentation and presentation of the existing conditions.
   1. Staff will document the existing conditions of the corridor, highlighting
      the specific congestion and safety problems identified during this phase
      of the study;
   2. Staff will present the results of the existing conditions and analysis in a
      public meeting forum addressing the issues identified during the initial
      public meeting;
   3. Staff will generate a report for public review and comment.

Phase 2 (October 2017 to March 2018)

V. Future Traffic Analysis – Working with community officials, staff will examine future
   development/redevelopment scenarios surrounding the study area that impact the
   future transportation operations through the corridor.

   A. Through information provided by the communities and as part of Phase 1 of the
      study, staff will work with the communities to determine land use build out
      potential and establish future threshold years for build out analysis. Staff will
      develop a no build and various build scenarios, if applicable, based on
      community input anticipated for those future years;

   B. Based on the size and type of developments, staff will calculate the potential trips
      generated by those developments for each build scenario. As part of these scenarios,
      staff will consider and recommend changes to current land use policies that promotes
      development while reducing a reliance on automobiles as a principal mode of transport.
      This effort will establish a focus on current land use policies and how changes to these
      policies can be one of many potential mitigation factors to resolve transportation issues
      while promoting the use of public transportation, bicycling and walking;

   C. Using SRPEDD’s Regional Travel Demand Model, staff will use existing and future
      regional travel patterns for the distribution of potential trips generated by the
      build and no build scenarios that will impact the existing and future
      transportation operations through the corridor;

   D. Analyze the future transportation impacts to the corridor from the projected
      trips for the no build scenario. Provide assessments and identify locations of
      potential bottlenecks.

VI. Develop Alternative Improvements and Evaluation

   A. As part of the public process and with MassDOT District 5 office, staff will
      identify, develop and test improvement alternatives under the build scenarios
      for the study area. This will include alternatives proposed to address the existing
(base year) problems identified in Phase 1. The alternatives will examine potential infrastructure improvements to the corridor and evaluate possible improvement alternatives such as:

- revised signal timing at signalized intersections;
- improved pavement markings;
- enhancement or implementation of pedestrian and bicycle accommodations;
- the use of alternative modes of transportation;

B. Staff will develop and recommend improvement alternatives to address safety issues identified during the RSA process. These recommendations shall coincide with traffic operation improvement alternatives;

C. Staff will host a public meeting or a series of meetings during this phase of the study that will include MassDOT, community officials, and other interested parties to present the anticipated problems and present solutions for mitigation and improvement. The public effort will assist with review of improvement alternatives;

D. Staff will develop final recommendations for improvements based on the analysis and input from public meetings. Recommended improvements will include costs for implementation and identify potential funding sources for consideration including, but not limited to the SMMPO Transportation Improvement Program (TIP).

VII. **Draft Report.** Prepare a draft report on the results of the study with conclusions and recommendations for review by Federal, state and local officials as well as the general public.

VIII. **Public Meeting.** Host a general public meeting to present the study and recommendations for improvement. Present results at meetings of the Joint Transportation Planning Group and the Southeastern Massachusetts Metropolitan Planning Organization. This effort will be in conformance with SRPEDD’s Public Participation Process (PPP).

IX. **Final Report.** Prepare a final report and distribute to local, state and federal officials in addition to the general public.
Task No.: **4.3**  
Task Title: **SHRP2 Planworks**

**Objective:**

To provide resources to SRPEDD staff to evaluate PlanWorks under FHWA guidance and to conduct a systematic and comprehensive evaluation of our existing Evaluation Criteria (EC) within the Transportation Improvement Program (TIP). PlanWorks is a set of tools developed under the Strategic Highway Research Program (Part 2) that will build upon and formalize internal improvements that began with our Round 4 EconWorks award completed in 2016. EconWorks allowed SRPEDD to build in-house analytical capacity by adding quantitative analysis (of both standard traveler benefits and wider economic benefits) to our project evaluation. PlanWorks will allow SRPEDD to further adopt best practices with regards to programming and to update and streamline the process by which TIP projects are prioritized and selected. SRPEDD’s goal is to apply our TIP EC utilizing PlanWorks to more projects including those within the Future Element of the TIP and with more efficient use of staff resources.

The main PlanWorks component to be used in SRPEDD’s work will be the Programming Decision Guide. SRPEDD will systematically cross-reference all Decision Guide features with our existing TIP EC in order to identify areas for improvement. The end deliverable will be an updated TIP EC that will adopt PlanWorks best practices to reorganize, standardize, and expand the above Evaluation Criteria review categories, wherever applicable, feasible, and appropriate.

**Procedures:**

1. SRPEDD will examine the Partner and Stakeholder Collaboration Assessments to evaluate improvements to our stakeholder and partner outreach, which currently focuses on residents and business owners, federal, state, or local elected officials, environmental justice (EJ) populations, and designated representatives of the town where a project is being considered.

2. SRPEDD’s PlanWorks Database: This will be documentation of SRPEDD’s thorough tour of all PlanWorks Components, but specifically with the Programming Decision Guide. Staff will catalogue how we anticipate using specific PlanWorks features to improve our TIP EC. This will likely take the form of a spreadsheet database and be organized by specific PlanWorks Components. Questions asked as part of the PlanWorks Components will utilize existing data and studies completed by SRPEDD.
3. Draft Update to SRPEDD’s Existing TIP Evaluation Criteria: SRPEDD will apply select PlanWorks components (identified in Procedure 2) to specific projects and to processes outlined in the existing TIP EC to test the means SRPEDD currently evaluates projects. The result will be a draft update to our TIP EC in the form of a user-friendly guide that will cite PlanWorks to reorganize, standardize, and expand the TIP EC wherever applicable, feasible, and appropriate. SRPEDD will present this work to the JTPG and the SMMPO. SRPEDD will also circulate the proposed changes for comment in accordance with the Public Participation Plan (PPP).

4. Final Update of TIP Evaluation Criteria: Update to the TIP EC that incorporates FHWA and stakeholder feedback on the draft. SRPEDD intends to provide, but is not limited to the following:
   
   a. Produce an improved evaluation form to facilitate staff screening of projects with the new guidance document. This form will incorporate updated TIP EC procedures/questions, scoring, data sources, and responsible staff;
   
   b. Update GIS base map(s) to organize data layers by TIP EC questions to streamline staff’s ability to answer various questions on proposed projects.

**Product:**

The end deliverable will be an updated TIP EC document that adopts PlanWorks best practices to reorganize, standardize, and expand the above review categories, wherever applicable, feasible, and appropriate.

Presentations to Share Experiences through FHWA upon request during webinars, expert panels, workshops, peer exchanges, or other instances. This may occur while the project is underway or after its completion, as needed.

**Previous Work:**

SHRP 2 – EconWorks, 2016

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