TASK 3500 - ROUTES 53/139 CORRIDOR STUDY (PEMBROKE)

OBJECTIVE:

To study the Route 53/139 Corridor (Route 53/ 139 at the Hanover Town Line to Route 139 at the Marshfield Town Line), approximately 2.5 miles, in the town of Pembroke.

To develop short-term and long-term recommendations and strategies that focus on transportation access, improved circulation, improved mobility, reduced congestion, reduced collisions, improvements in air quality, traffic flow efficiency, and improved safety for all transportation modes, including bicycle, pedestrian, and transit accommodation.

The corridor study area includes Route 53/139 from the Hanover Town Line to Route 139 at the Marshfield Town Line. Staff will review volume to capacity ratios, levels-of-service, crash analyses, bus routes and transit access, and include public participation as part of the process. The Route 53/139 Corridor Study will align with industry standards based on Federal and State guidelines and practices, with the consideration of local ordinance and statutes. The study will determine system needs and identify operational deficiencies and will coordinate improvements that support regional objectives, adjacent land use, and future land use development. The study will consolidate and formalize driveway access, improve intersection design, improve air quality, and reduce emissions. Suggested further evaluation, such as intersection Road Safety Audits, Site Impact Analysis, housing demand and supply analysis, before and after analysis, Origin and Destination survey etc. will be discussed.

PREVIOUS WORK:

Congestion Management Process; 2050 Long Range Transportation Plan; Route 139 Corridor Study (2010); Pembroke RSA for Route 139 Corridor between Water Street and Marshfield Townline; High Priority Corridor Screening Assessment; Local Technical Assistance; Road Safety Audits; Access Management Plan; Regional Traffic Count Program

PROCEDURES:

1. Documentation of Existing Conditions: Gather and compile existing transportation data along Route 53/139 within the study area. Data, such as, average daily traffic, peak period volumes and levels-of-service, truck, and heavy vehicle volumes, MassDOT truck exclusions, MassDOT speed permits, traffic signal timing and phasing designs/plans, crashes rates, trip generators, land uses, housing, culverts, stormwater management systems, bus routes (transit and passenger rail), will be compiled. The data and analyses compiled for the existing conditions will be assessed to document the deficiencies along the corridor and vicinity area, 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. The study will consider public health outcomes as part of ongoing planning and performance measures planning. Consider the anticipated housing needs such as transit-oriented development and affordable housing and provide suggestions for recommendations if applicable. The process shall utilize the CMP, SMS, the 2050 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. RITIS, Replica, Google Traffic, GeoDOT, IMPACT and other resources will be utilized to verify and support analyses. Photos of key locations will be recorded by camera or Small Unmanned Aircraft (Drone) will be deployed as appropriate. Information on Land use, business, and landmark locations will be gathered and compiled. Comprehensive existing condition map layers including but not limited to network, land use, business, physical environments etc., by using GIS software will be compiled and developed.

2. Short-Term and Long-Term Improvements Development: Conduct traffic modeling and simulation analysis with proposed alternatives for mitigation or congestion alleviation developed specific to problems identified in the critical areas. Provide consideration for potential bicycle and pedestrian improvements to ready the project recommendations for compliance with the Healthy Transportation Policy Directive and alignment with municipal future land use and transportation plans. 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 Transportation Systems Management Operations (TSMO) and maintenance, the incidental and routine causes of congestion, Complete Streets, and access management. The promotion of efficient system management and operations is one of the Bipartisan Infrastructure Law (BIL) planning factors seeking to integrate this concept in the planning process. Consider project improvement air quality impact and environmental impact.

3. Prepare Conclusions and Recommendations: The product of this Task is a report that provides a framework for the alleviation of traffic congestion and the improvement of safety throughout the corridor, and to provide the necessary information for stakeholders to move projects forward in the project funding and implementation phases. OCPC will prepare a final report, which will include an outline for implementation and identifies potential funding sources. Short-term and long-term recommendations will be discussed with MassDOT and including projects in the region's TIPs, LRTPs, and beyond.

4. Public Participation: Staff will be presenting at public meetings and workshops, developing surveys, and coordinating with the town of Pembroke, Greater Attleboro-Taunton Regional Transit Authority (GATRA), Old Colony Joint Transportation Committee, Old Colony Planning Council, MassDOT, and adjacent RPAs as applicable. Staff will obtain stakeholder input from citizens, community-based organizations, business community, special interest groups, state, 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 53/139 Corridor Study, which will include conclusions and recommendations. Included in study will be data, congestion and safety analysis, traffic flow and safety improvement recommendations (intersection geometric improvement, signal upgrade, bicycle and pedestrian accommodation, transit planning improvement, access management plan, location improvements, speed zoning, heavy vehicle exclusions, etc.) for implementation, and inclusion in MassDOT Project Initiation Form Data for MaPIT, as appropriate.

SCHEDULE:
To be conducted throughout the year and completed by the end of September 2026.

FUNDING:

FHWA PL	MassDOT	TOTAL
$76,000	$19,000	$95,000