

**Purpose:**

The purpose of this project is to provide an efficient roadway with an acceptable level of service and improved safety for NH 101A and the intersections along the corridor from Celina Avenue to Somerset Parkway with a minimum of cost to the public while improving the pedestrian and bicycle facilities, esthetics, and without adversely affecting environmental, cultural, economic, and social resources.

**Need:**

NH 101A within Nashua provides a transportation link to Amherst, Milford, and other areas to the west while also providing access to several intersecting roadways along the corridor. The roadway provides a route for commuters to access the F.E. Everett Turnpike and downtown Nashua. It also provides access to retail establishments, as well as residential, commercial, and industrial properties and developments. The roadway is a State Highway and is classified as an urban arterial. This project is identified in the state's Ten Year Transportation Improvement Plan.

The need for the project is due to the road's position as a vital east-west regional traffic corridor connecting Nashua, Amherst, and Milford. The absence of other east-west arterials in southern New Hampshire magnifies the significance of the roadway's deficiencies. The study area, located between Celina Avenue and Somerset Parkway also provides access to numerous retail, commercial, and industrial businesses, as well as residential developments. The performance of NH 101A is considered deficient based on insufficient highway capacity and poor levels of service along the roadway and at intersections, limited bus transit accessibility, inadequate pedestrian and bicycle access, and insufficient access management. These deficiencies are described in more detail below.

**Highway Capacity**

NH 101A from Celina Avenue to Somerset Parkway currently operates at level of service (LOS) F at the intersection of Thornton/Deerwood Street during the PM peak hour and LOS D at the intersection of Sunapee/Townsend West Street during the AM Peak hour . In addition, the unsignalized intersections at Capitol and State Streets currently operate at LOS F during the AM, PM and Saturday peaks. By the year 2027, the LOS E and F is expected to be common at many intersections along the corridor if no changes are made. The City of Nashua would like to maintain a LOS D on this portion of roadway through the year 2027 due to the many functions that the roadway provides. The current configuration of the roadway consists of two lanes in each direction with left turn lanes provided at many of the intersections. The current roadway layout does not provide LOS D in the design year along the roadway or at the intersections, making modifications necessary.

#### Bus Transit Accessibility

The Nashua Citybus System currently travels along NH 101A with twelve bus stops located within the study area and provides twelve round trips per day. Currently, stopping busses either use the shoulder to exit the traffic stream or, if the shoulder does not exist, disrupt the flow of traffic during stops. As traffic volume increases along the roadway, proper bus pullouts and the proper location of bus stops in reference to intersections will be needed to ensure that the transit system does not disrupt the flow of other vehicular traffic.

#### Pedestrian/ Bicycle Access

Pedestrian and bicycle access along NH 101A within the study area is hindered due to lack of sidewalks in some areas and limited protected crossings at signalized intersections. Currently, sidewalks do not exist along some segments of the roadway. In these areas, pedestrians have worn paths in the grassed areas. The sidewalks also have limited width and are not adequate for safe multi-modal use by both pedestrians and bicycles. In most areas, the sidewalk is located adjacent to the roadway rather than offset from the curb line. A lack of clearly delineated crosswalks and pedestrian phases at some of the signalized intersections is another deficiency requiring improvements to the corridor.

#### Access Management

Some access points along NH 101A within the study area are currently located within the functional area of the intersection which can lead to vehicular conflict and congestion. There are also inadequate transition areas between the higher speed arterial and the local driveway locations. Wherever possible, the access points along the roadway should be eliminated, consolidated, or modified to maximize safety throughout the corridor.