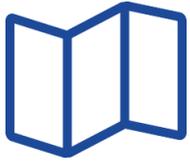


Corridor Spotlight: US 4 East

KEY METRICS OF THE TRAFFIC SHED



Two
Communities



Merrimack
County



9.4 miles
of corridor route



7,402 residents
in 2018



2,970 households
in 2018

US 4, US 202 and NH 9 run concurrently in the Central NH Region through Pembroke, Chichester, and Epsom as part of three distinct east-west routes in southern and central NH. Although these routes all overlap, this corridor is most commonly referred to as US 4, which runs from New York, through Vermont and New Hampshire to the seacoast. This section of US 4 was NH's first turnpike and continues to serve as the primary east-west route between destinations on the seacoast and Concord, and connects the cities of Rochester and Portsmouth to Concord as well as the University of New Hampshire.

Although this route serves as the primary route for travel across the region and state, it is also vital for local travel and the local economy. These conflicting interests have been discussed for many years but most notably during the "East-West Highway Study," which attempted to identify alternative routes for an arterial highway to bypass the current US 4 corridor. This study, also known as the Concord to Spaulding Turnpike Study, was terminated in 1993 by the Federal Highway Administration. At that time, the controversial proposals for alternatives had many known and unknown impacts.

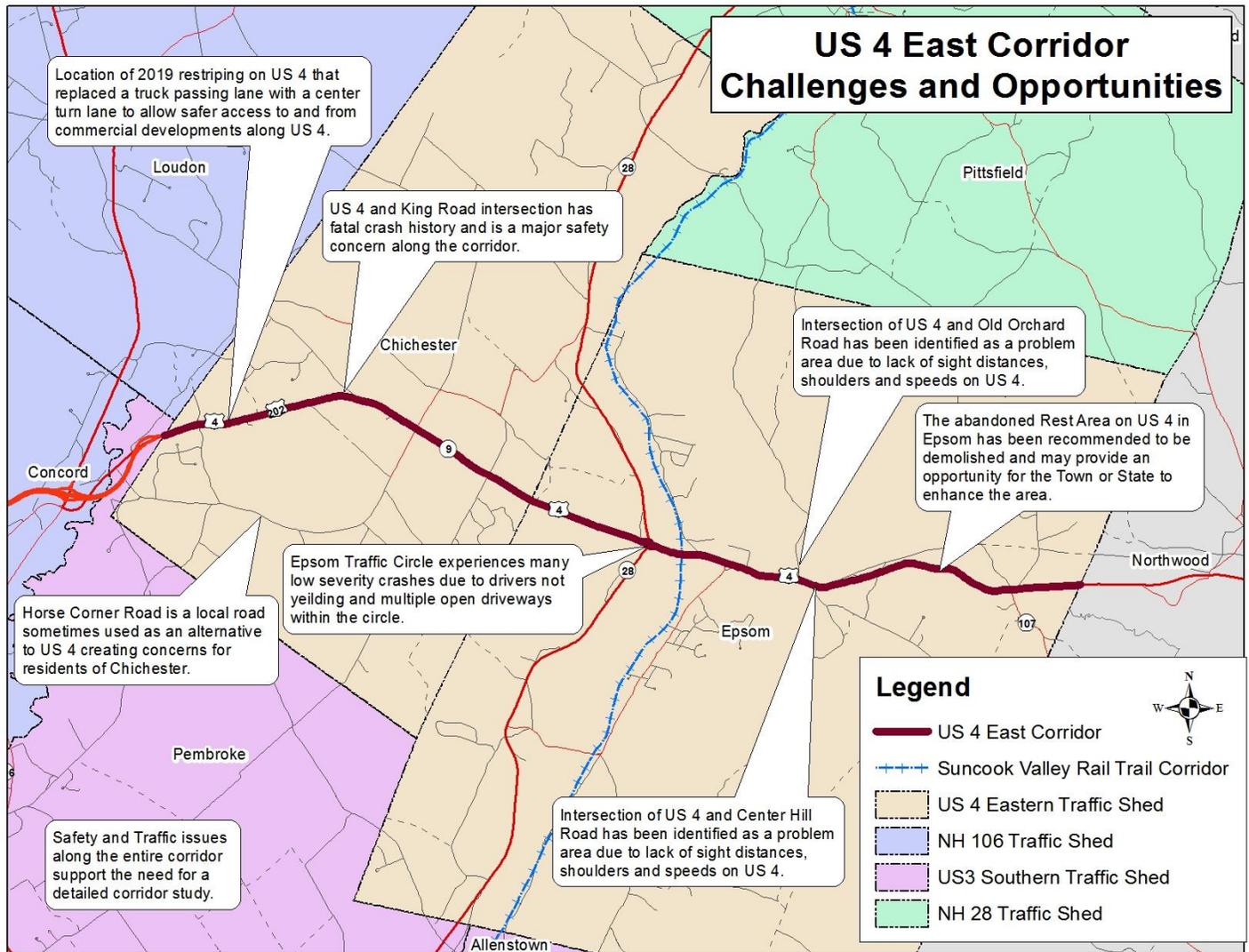
In Chichester, US 4 is part of the Town's core commercial and industrial base. As this stretch of corridor develops over time, it will be important to take careful consideration of the impacts to traffic on US 4 as a result of land use changes. In 2019, the restriping of a truck passing lane to a center turn lane was an effort to improve safety and access while potentially impacting the overall mobility of the corridor. The recent changes were implemented swiftly which may affect the community's ability to evaluate true impacts on local roads, such as Horse Corner Road, which has been known to be used as a detour during incidents on US 4. Just to the east, a similar restriping was completed a few years prior, where a thru lane was converted to a

left turn lane at the intersection of US 4 and King Road. The fatal crash history at this intersection led to \$200,000 in funding to be included in the TYP to study the intersections operations and review alternatives.

At the junction of US 4 and NH 28 is the Epsom traffic circle. Built in the 1940s, this circle is one of few left in the state. Traffic circles often have greater safety concerns than roundabouts due to the higher speeds which can affect decision making when yielding. Crashes at the circle are known to mostly be minor sideswipes and rear-end type crashes. There are three commercial driveways at the circle which add to confusion and create additional conflict points within the circle. Furthermore, peak hour delays cause traffic entering the circle to back up, the worst of which is eastbound traffic in the afternoon. This back up often goes up and over the hill just west of the circle and can be a surprise to high speed approaching traffic. Just east of the traffic circle is the Epsom rest area, which was built in 1966, adjacent to the roadway. The facility was closed in July 2011. An NHDOT study completed in 2016 recommended demolishing the existing building due to its current condition. The property provides an opportunity for future development by the state or town.

NHDOT's Statewide Strategic Transit Assessment, completed in 2019, identified a proposed commuter route between Rochester and Concord. The identified route utilizes the US 4 corridor through Chichester and Epsom. It was estimated, based on demographics, that this route could generate 23,000 trips with a cost of \$312,000. As traffic and development continue to grow along the corridor, the potential for transit may become more viable as a means to reduce congestion.

The combination of safety and traffic issues highlight the need for a comprehensive analysis of the overall corridor, including a study of the Epsom traffic circle.



CONNECTING THE REGIONAL GOALS WITHIN EACH CORRIDOR



CONNECTIVITY

- Abandoned Suncook Valley Rail Corridor
- Potential for east west transit along US 4
- Volunteer Driver Program for seniors and disabled
- Potential transit expansion connecting Concord to Rochester

SAFETY

- Crash hotspots at US 4 and King Road Intersection as well as traffic turning in and out of businesses along US 4
- Safety concerns at the Epsom traffic circle, intersection of US 4 and Old Orchard Road, and the intersection of US 4 and Center Hill Road

SYSTEM PRESERVATION

- 0 red listed bridges
- 4 Bridges in fair Condition
- 18 Bridges in Good Condition
- Closed/abandoned Epsom Rest Area

SUSTAINABILITY

- Zoning permits residential, commercial, and industrial uses
- 205 acres of conservation land
- 1,129 acres of aquifers
- 2,116 acres of highest ranked habitat in NH

KEY TRAFFIC GENERATORS

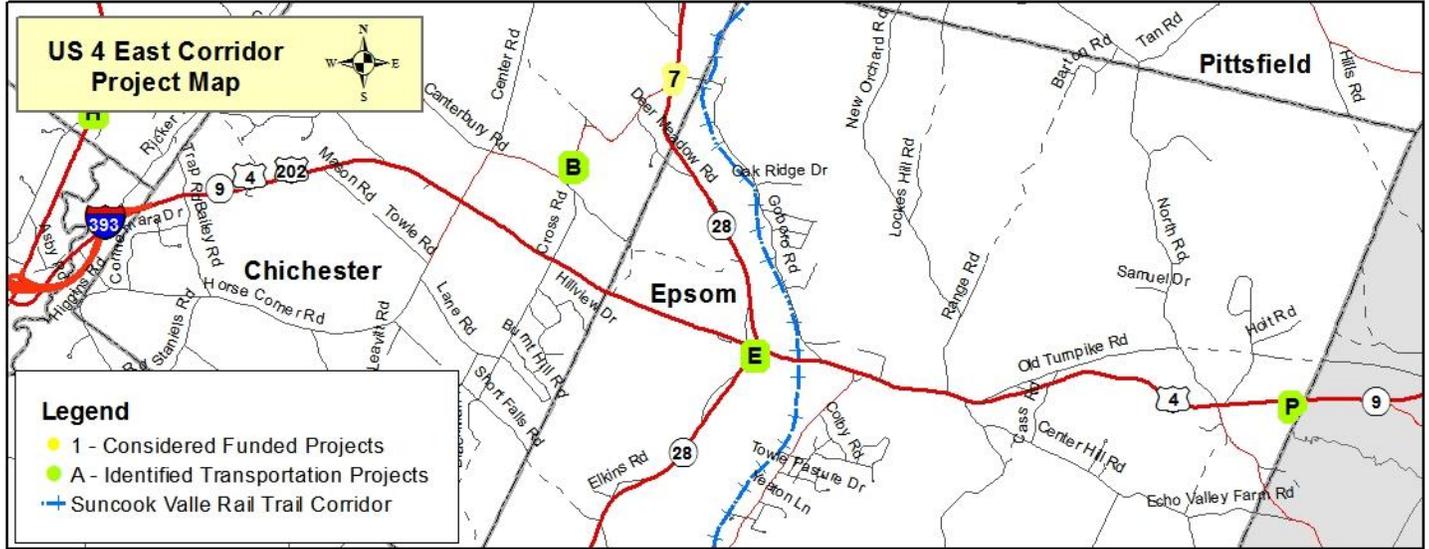
- US 4 commercial and industrial area
- Traffic commuting between the seacoast (Portsmouth, Durham, Dover, Rochester) and Concord

OPERATION & CONGESTION

- This section of US 4 AADT ranges from 10k-20k vehicles
- Common places of resident employment include Concord, Manchester, Epsom and Hooksett.
- There are no Park and Ride lots along the corridor.
- Congestion and backups at the Epsom Circle and near the I-393 and NH 9 merge happen regularly during peak commuting hours

CORRIDOR PROJECTS & LOCATION MAP

The following projects include those that are currently contained in the 2021-2030 Ten Year Plan and other projects that have been identified through a variety of local, regional and statewide planning processes including local master plans, the regional Transportation Improvement Program (TIP) development process, the 2018 State owned bridge rehabilitation and replacement priority list, and the Statewide Transit Assessment. The projects, both planned and proposed, address a number of the corridor’s issues as identified in the US 4 Corridor Challenges and Opportunities Map.



NHDOT State Ten Year Plan 2021-2030 Projects – Considered Funded

Map ID	Project Name	State #	Project Location	Project scope	Phase	Year(s)	Total Cost
7	Chichester	40631	NH 28 and Main Street	Intersection Improvements	CON	2025	\$1,320,961
					PE	2022	\$145,308
					ROW	2022	\$71,491

IDENTIFIED TRANSPORTATION PROJECTS

Map ID	Project Name	Location	Current Situation	Scope of Work	Cost (millions)
B	Chichester Main Street Improvements	Main Street	Main Street currently has alignment and topography issues which cause major concerns for pedestrians and bicycles.	Study the possibility of adding shoulders, sidewalks and crosswalks along Main Street where appropriate.	N/A
E	Epsom Traffic Circle/US 4 Corridor Study	Concord-Epsom	Epsom Circle experiences a high number of crashes, but the severity is generally low. The yield conditions, open driveways, and sight distance issues west of the circle all contribute to the safety issues. Study funds (\$200,000) for the US 4/King Road Intersection are in current TYP.	Conduct a formal study of the traffic and operations at the circle to determine the best solution to improve the level of service and safety. Address short and long term safety and traffic issues along US4 corridor from I-393 terminus to Epsom/Northwood town line.	\$.500
P	Rochester to Concord Intercity Transit Service	Rochester-Concord	The NHDOT’s Statewide Transit Assessment identified the US 4 Corridor from Rochester to Concord as a candidate for a new transit service.	It was recommended that the route also consider local connections in Durham and Epsom.	\$.312/yr