Transportation

05 | Mobility, Access, Safety

Epsom's transportation system and its connection to the regional and state network provides access to goods and services required by residents and commerce. Transportation encompasses vehicular traffic on town roads and state highways, as well as trail development, public transit, volunteer driver programs, and transportation demand management issues such as Park and Ride lots.

This chapter will document the existing conditions and trends of the transportation network, identify how maintenance and improvements are funded, and describe basic principles for planning a transportation network that meets the needs of residents, visitors, and businesses in Epsom.

Including:

A review of Epom's Transportation System

Summary of Transportation Challenges and Reccomendations

Transportation Data and Trends

Epsom Transportation

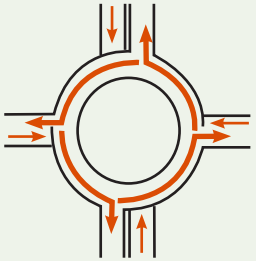
A Town Served by NH 9/US 202/US 4

The Town of Epsom is served primarily by NH 9/US 202/US 4 (referred to as US Route 4). Much of the layout of US 4 is atop New Hampshire's First Turnpike, which connected the seacoast to Concord. Many sections of the road have been realigned but historic sections of New Hampshire's First Turnpike remain local roads in Epsom. This corridor has played a vital role in New Hampshire's economy for hundreds of years and continues to attract new commercial and industrial development.

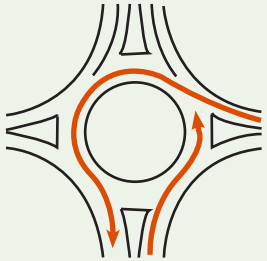
Epsom's major economic activity is characterized by commercial development along US 4 and NH 28 immediately north and south of the Epsom traffic circle. Conflicts between commuter traffic, through traffic and local traffic have raised concerns as traffic increases and development expands.

Epsom's traffic circle was built in the 1940's and is one of only a few remaining in the state. As traffic and development has grown along US 4 and NH 28, the traffic circle's safety and mobility functions have declined. Traffic circles pose greater safety risks than roundabouts, their geometry allows for higher speeds which can affect decision making when yielding, commonly resulting in sideswipe and rear-end collisions. Commercial driveways increase conflict points within the circle. Recently more concerns have arisen due to peak hour delays that cause backups at the traffic circle.

Traffic Circle



Roundabout



"Traffic circles pose greater safety risks than roundabouts, their geometry allows for higher speeds, commonly resulting in sideswipe and rear-end collisions."

Vision Statement

To provide a well-maintained and safe transportation system that meets Epsom's needs, encourage a transportation system that will meet the mobility needs of all residents by providing for the safe and efficient movement of people, goods, and services within Epsom and throughout the region; continue to develop trails for transportation and recreation; and support planning for future improvements to the US 4/ NH 28 Traffic Circle.

Key Findings:

- The US 4 corridor from the junction of I-393 to Northwood should be included on the list of future Ten-Year Plan statewide corridor studies. The study should assess safety issues related to the Traffic Circle and the lords mill and North Road/NH 107 intersections, as well as a need for a Park and Ride lot in the vicinity of the Traffic Circle.
- A balance between enhancing local access, safety, and capacity of US 4 and NH 28 while preserving local historic character will be key as Epsom grows and pressure on the roads intensifies.
- Forming a Trails Committee to develop future trail connections as outlined in the Suncook Valley Trails Plan will help enhance Epsom's quality of life.
- In certain cases, low-cost traffic calming measures such as narrowing lane widths can lead to safer local roads.

The Town's Thoughts

Results from the 2020 Community Survey

One focus of the Community Survey was to learn about residents' concerns related to road segments and intersections. The most frequently mentioned concerns related to the speed and amount of traffic on US 4 and NH 28, and accidents on US 4.

There were numerous concerns with intersections along US 4 including the traffic circle and intersections with Goboro Rd, Black Hall Rd, New Orchard Rd, and Center Hill. Some respondents included concerns about the US 4 and Lords Mill Rd intersection citing its proximity to the NH 107 and North Rd intersection as a cause for safety concern. Other specific concerns were related to the conflicts between the through traffic and local traffic, and access to developments. Respondents mentioned realigning intersections, adding turn lanes, widening shoulders and prohibiting left turns as potential improvements along US 4.

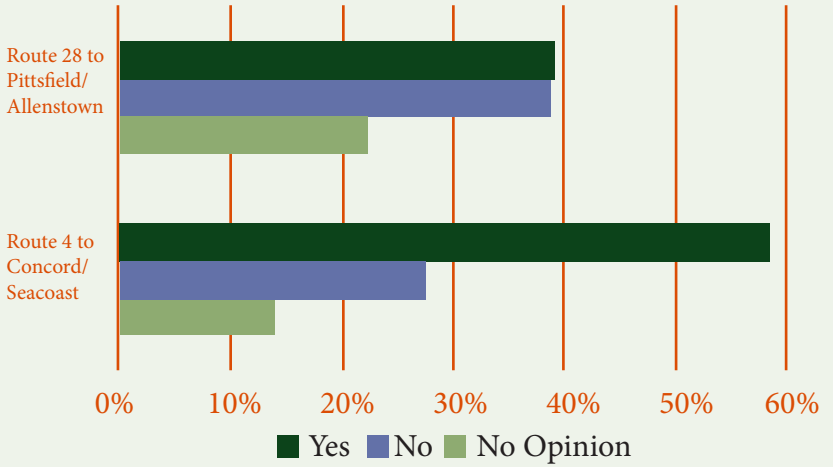
Several residents outlined concerns with NH 28, including intersections with Short Falls Rd and Jug City Rd, noise from the rumble strips, truck traffic, and conflicts with bicycle traffic. However, most comments regarding NH 28 raised concerns about speeding.

North and Black Hall Roads were also a focus of speed and safety concerns. Multiple comments suggested a yellow centerline on North Rd. Pedestrian safety on Black Hall Rd was also of concern for some respondents. Respondents identified a need for sidewalks along Black Hall Rd, even suggesting sidewalks be included all the way down Short Falls Rd to Webster Park. There were also two comments from the 2020 survey in support of sidewalks on Goboro Rd. Additional speed and safety concerns were mentioned on New Orchard Rd, New Rye Rd, Swamp Rd and Mt. Delight Rd.

Multiple respondents expressed concerns with Chestnut Pond Road, noting the condition of the road and the need for grading and improving the crown. Lords Mill Rd and Hoit Rd were also cited for their poor condition. Off-highway Recreational Vehicle (OHRV) enforcement, salt spreaders killing lawns, and access to transit along US 4 were other identified concerns.

As part of the survey, 84.1% were in support of development of additional trails, sidewalks, and pathways in Epsom. Development of trails for recreation were highly encouraged, as well as sidewalks on Goboro Road. In addition, strong support was given for connection to public transportation, especially for links to Concord and the seacoast.

Figure 4-1: hShould the Town encourage development of links to public transportation to other communities



Comments

From the 2020 Community Survey

"It would be nice to have paved bike/walking paths on the old railroad right of way."

"Let's get the rail trail section upgraded so kids can bike to school."

"In general, roads seem well cared for."

"Sidwalks should be considered in the Epsom Circle Area."

"Epsom should have sidewalks so kids can walk to school."

"The intersection of Short Falls, New Rye, River and Black Hall Rd is sometimes confusing."

"Traffic on North Road has been growing and should have a yellow centerline."

"Epsom circle area is getting very busy and will likely be a challenge in the future."

"There are some amazing trails in Epsom."

Transportation Network

Existing Network Inventory

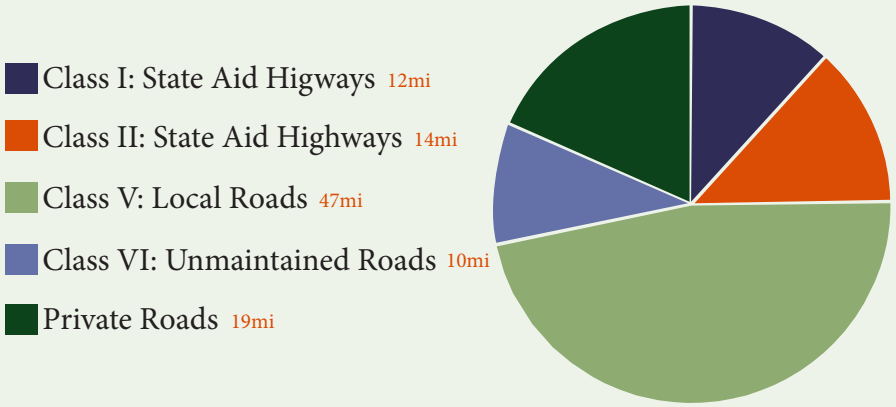
A key component in planning for future transportation improvements in a community is to complete an inventory of the existing transportation infrastructure serving the town. Epsom's transportation network is dominated by NH 9/US 202/ NH 4 and NH 28. Other state-maintained roads are also important to the network, including Black Hall Road, Short Falls Road, and NH 107. Several lower volume local roads including North Road, North Pembroke Road, New Rye Road, and Swamp Road connect Epsom to surrounding towns.

State Highway Classification and Funding

The State Aid classification system, which is identified by NH RSA 229:5 and 229:231, establishes responsibility for construction, reconstruction, and maintenance as well as eligibility for use of State Aid funds.

Epsom's roads fall into five classes: Class I, Class II, Class V, Class VI and private roads. Most mileage in Tow is accounted for by Class V roads which is typical of most New Hampshire towns. Figure 4-2 below displays roadway mileage by classification, and is also shown in the Legislative Classification Map.

Figure 4-2: State Legislative Classification



Class I State Aid Primary Highways

Consists of all existing or proposed highways on the primary state highway system, except portions of the highways within the compact sections of cities and towns. The state assumes full control of reconstruction and maintenance of its sections. US 4 and NH 28 are Class 1 State Aid Primary highways.

Class II State Aid Secondary Highways

Includes state aid secondary highways and secondary highways owned and maintained by municipalities. NH 107, Black Hall Road and Short Falls Road are Class II highways.

Class V Local Roads and Block Grant Aid

Consist of all traveled highways that the town has the duty to maintain regularly. The state provides funding to towns for road maintenance on Class V roads in the form of Highway Block Grant Aid. Figure 4-3 shows the Block Grant Aid Epsom has received over the last five State Fiscal Years (SFY). These funds are distributed by the State of New Hampshire on a yearly basis with partial disbursements made four times a year. The payments are made as follows: 30% in July, 30% in October, 20% in January and 20% in April with unused balances carrying over. The funds come from a portion of the total road toll and motor vehicle registration fees collected by the State. The funds can be used to fund or match funding for constructing, reconstructing, or maintaining Class V (town maintained) highways. Additionally, equipment for maintaining local roads is eligible for purchase.

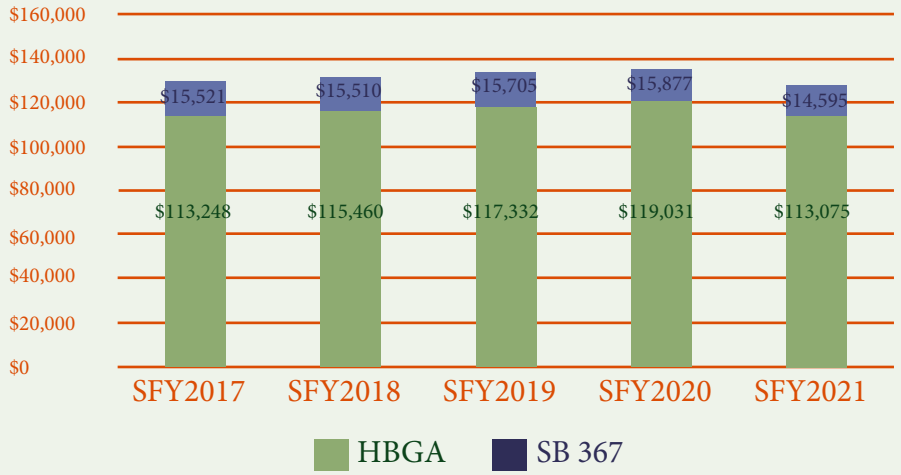
Block Grant Aid Funding

The funds are allocated from an annual apportionment (State Fiscal Year) of not less than twelve percent (12%) of the total highway revenues collected from the preceding year. Half of that total apportionment is distributed based on population and the other half is distributed based on Class IV and V road mileage. This comes out to approximately $1,200 for each mile of Class IV and V highway and about $11 per person.

It is crucial to provide accurate information regarding Class V Road mileage to NH Department of Transportation (NHDOT) to ensure Epsom receives proper allotment. Highway Block Grant Aid (HBGA) distribution formulas do not take into consideration the condition of roads or the traffic on municipal roads.

Senate Bill (SB) 367, approved in 2014, raised revenue dedicated to increased highway block grant funding to municipalities, increased municipal bridge aid, resurfacing and reconstruction of secondary roads, and completion of the I-93 expansion. Additional funding due to SB 367 is shown in the table below.

Figure 4-3: Highway Block Grant Aid Payments



Data for Graphics: New Hampshire Department of Transportation

Class VI Unmaintained Highways

Class VI roads are roads that are not maintained by the Town and may be subject to gates and bars. A Class V Road can become a Class VI Road if the Town has not maintained it for five or more years. Under RSA 674:41, I(c), Town Selectmen upon review and comment from the Planning board may authorize or deny building on any lot with street access (frontage) on a Class VI Road

Even if the Board of Selectmen does authorize building, the municipality does not become responsible for road maintenance or for any damages resulting from the road's use. The purpose of RSA 674:41, I(c) is to prevent scattered and premature development.

Federal Functional Classification System

The functional classification system identifies roads by the type of service provided and by the role of each highway within the state system based on standards developed by the US Department of Transportation. While the state aid classification system outlined above is the primary basis for determining jurisdiction, the following system is important for determining eligibility for federal funds. Please also see the Federal Functional Classification Map.

Figure 4-4: Federal Functional Classification Mileage

Principal Arterials

These highways consist of high volume and high speed routes that form the basic framework of the State roadway system. They primarily function as the link major geographic and urban areas in the State. Controlled Access is a designation adopted by NHDOT, the effect of which is to minimize the frequency of curb cuts, thereby controlling the amount of traffic crossing lanes and stopping on the road. **US 4** is a Principal Arterial and is eligible for Federal Aid.

Minor Arterials

These roadways provide service for trips of moderate length, serve geographic areas that are smaller than their higher Arterial counterpart. **NH 28** is a minor arterial and is eligible for federal aid.

Major Collectors

These roadways differ from arterial roadways due to size and general service area. Major Collectors serve traffic in a specific area, whereas arterials generally serve traffic moving through an area. Major Collectors are eligible for federal aid funding. **NH 107** is the only major collector in Epsom.

Minor Collectors

These roads are not eligible for federal aid funding and typically provide access to smaller communities within a geographic area or economic region. They may link locally important trip generators, such as shopping centers, to surrounding rural areas. **Black Hall Road, Short Falls Road** and **North Road** are minor collectors.

Local Roads

These roads and streets are used primarily to provide access to adjacent properties. This includes the **vast majority of streets** in Epsom.

Bridge Network

Bridges are the most expensive part of the surface transportation network. NHDOT inspects all the state's municipal and state-owned bridges. Inspections typically occur biannually with some bridges known to have deficiencies being inspected more frequently. NHDOT reports inspection results directly to the town and in their own database where bridges are scored based on National Bridge Inspection Standards (NBIS).

NHDOT manages three bridge aid programs including: State Aid Bridge and SB 367 which are state funded, as well as the Municipal Off-System Bridge Rehabilitation and Replacement which is federally funded. Projects begin by the town applying for a preliminary estimate or hiring an approved consultant to do the estimate. NHDOT determines a potential program and year of funds for construction, this process can take several months.

The following page's table shows the bridges in Epsom as listed on the 2021 NHDOT Bridge Summary. Locations are also shown in the Bridge and Stream Crossing Condition Map. NHDOT maintains an inventory of all bridges in New Hampshire using Federal Sufficiency Ratings (FSR), a nationally accepted method for evaluating bridges. FSR represents the relative effectiveness of a bridge. The ratings are based on modern federally accepted standards that historic bridges often do not meet.

FSR Rating Scale

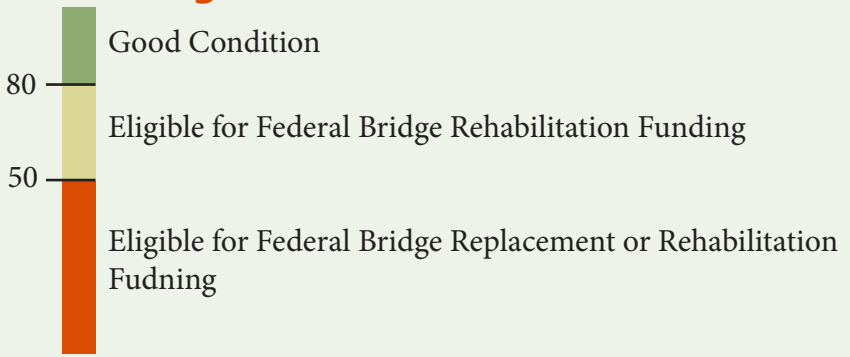


Table 4-1:Bridges in Epsom, NH

Bridge/Road	Location	FSR	Status	Owner	AADT	Inspection Date	Build/Rebuilt
Short Falls Road	Suncook River	76.5	Not Deficient	NHDOT	1,226	May 2020	1950/1992
US 4/US 202/NH 9	Suncook River	85	Not Deficient	NHDOT	12,119	May 2020	1971/1996
US 4/US 202/NH 9	Suncook River Overflow	85	Not Deficient	NHDOT	12,119	May 2020	1996
Black Hall Road	Little Suncook River	77	Not Deficient	NHDOT	2,035	May 2020	1924
US 4/US 202/NH 9	Lockes Brook	90.8	Not Deficient	NHDOT	12,119	May 2020	1941
Center Hill Road	Little Suncook River	90.8	Not Deficient	Town	81	Aug 2020	1978/2008
Center Hill Road	Blakes Brook	100	Not Deficient	Town	725	Aug 2020	2008
Cass Road	Little Suncook River	-2	Closed	Town	0	Aug 2020	1940/1984
Cass Road	Little Suncook River	-2	Closed	Town	0	Aug 2020	1940/1984
US 4/US 202/NH 9	Gulf Brook	90.4	Not Deficient	NHDOT	12,120	May 2020	1941
Old Turnpike Road	Gulf Brook	-2	Closed	Town	0	Aug 2020	1930
Mountain Road	Blakes Brook	94.4	Not Deficient	Town	8	Aug 2020	2007
US 4/US 202/NH 9	Little Bear Brook	81.4	Not Deficient	NHDOT	12,120	May 2020	1933
North Road	Little Bear Brook	99.3	Not Deficient	Town	1,098	Aug 2020	2009
Griffin Road	Griffin Brook	100	Not Deficient	Town	81	Aug 2020	2008
NH 107	Little Suncook River	79.8	Not Deficient	NHDOT	3,072	May 2020	1933
Echo Valley Road	Griffin Brook	98	Not Deficient	Town	81	Aug 2020	2017
NH 107	Griffin Brook	82.7	Not Deficient	NHDOT	3,072	May 2020	2010

Traffic Volumes

The Central New Hampshire Regional Planning Commission (CNHRPC) maintains an ongoing traffic count program for monitoring the region's transportation network. Each year CNHRPC offers to collect traffic data at up to ten locations for each municipality. In addition, CNHRPC collects traffic count data for NHDOT in accordance with federal guidelines for the Highway Performance Monitoring System (HPMS).

NHDOT uses Average Annual Daily Traffic (AADT) to measure traffic demand for a roadway. AADT is defined by NHDOT as the total two-way volume of traffic at a given location during a 24 hour period representing an average day of the year. When CNHRPC provides data to NHDOT, they calculate AADT by applying the raw data with correction factors to account for weekday and seasonal variations in traffic volumes. NHDOT uses permanent traffic counters installed in the roadway to assist with these calculations.

Average Annual Daily Traffic Data

Based on data from nine locations throughout Epsom regularly monitored for traffic, traffic volumes increased each year until 2019 and 2020. Then another positive percent change was observed in 2021 again. This is in line with growth rates observed throughout the Central New Hampshire region.

A permanent traffic counter, located on US 4 in Chichester, just west of the Epsom Town line is a useful indicator of traffic volumes on US 4 in Epsom. Traffic growth along US 4 has leveled off over the last 20 years at that location. This data helps to demonstrate that traffic growth may not be as significant a factor in contributing to congestion and safety concerns as is the increase in development and turning traffic. Traffic count locations and data can be found in the Traffic Counts Map.

Data for Graphics: NHDOT Transportation Data Management System

Figure 4-5:
Annual Traffic Percent Change Each Year

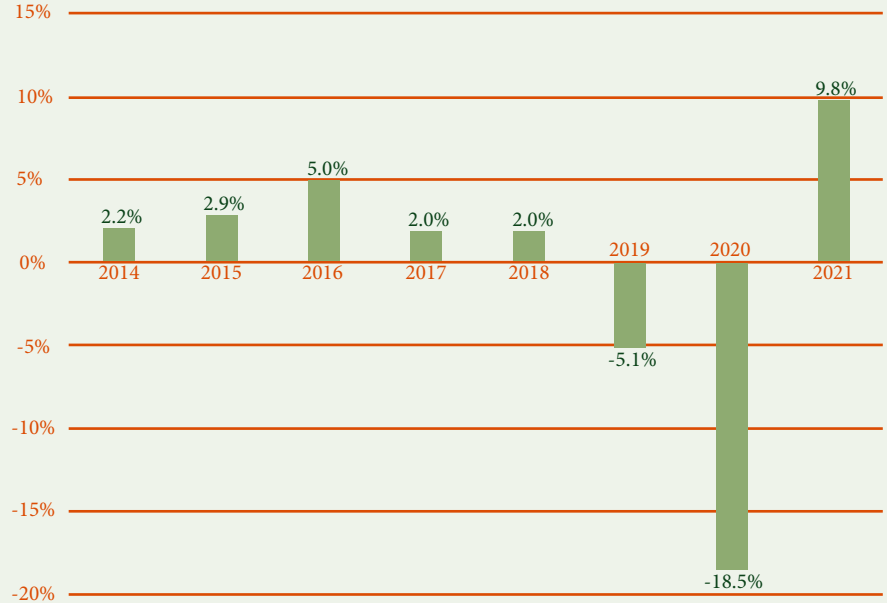
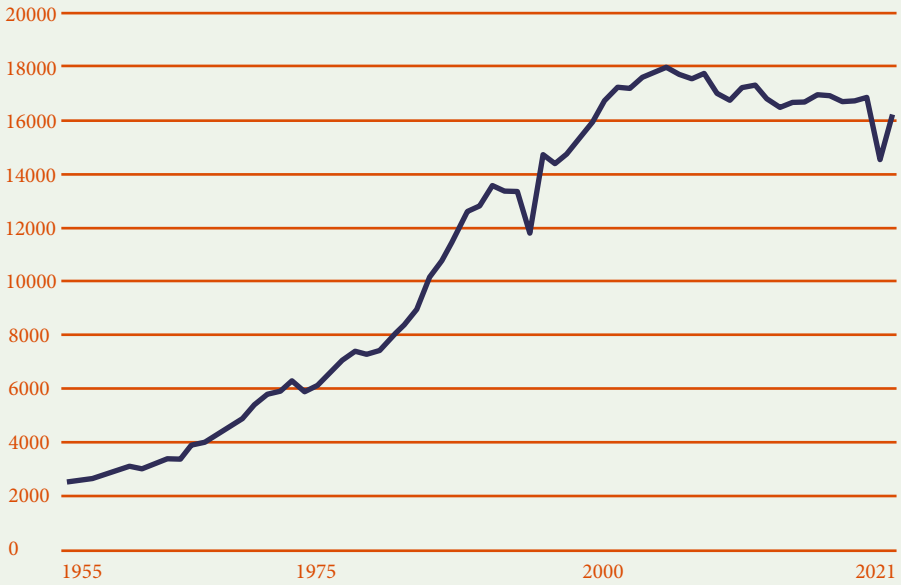


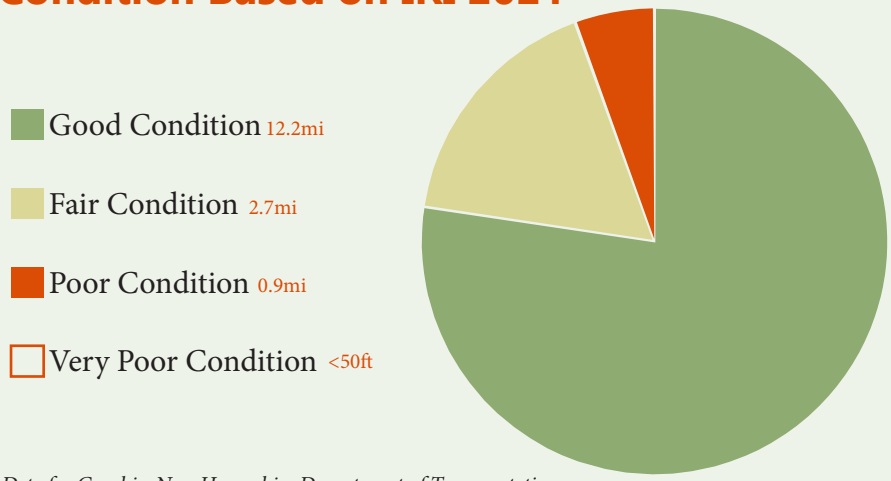
Figure 4-6: Traffic Growth
US4/US202/NH9 East of Main St (1955-2021)



Roadway Conditions

Pavement condition data from 2021 were obtained from the NHDOT's Pavement Management Section for state-maintained (Class I and II) roads. The pavement condition is based on the International Roughness Index (IRI), which is calculated from the average pavement roughness measured in the left and right wheel paths of roadways. The IRI is further categorized into good, fair, poor and very poor condition. In Epsom, data indicates the State Maintained roads are well maintained. Most road sections in poor condition were at intersections or around the traffic circle where slow rolling and stopped vehicles cause the greatest damage to roadways.

Figure 4-7: State Maintained Roadway Condition Based on IRI 2021



Data for Graphic: New Hampshire Department of Transportation

Statewide Asset Data Exchange System (SADES)

SADES establishes an inventory of transportation assets including a maintainable condition assessment process for many state and local agencies. Its unique approach to statewide asset management efficiently utilizes modern technology and joins state, local and regional efforts for the common goal of developing accurate and sustainable data collection.

In 2015 NHDOT, the University of NH's (UNH) Technology Transfer Center (T2) and all nine of NH's Regional Planning Commissions (RPCs) initiated a new Road Surface Management System utilizing SADES. The updated RSMS includes many changes to improve the quality, consistency, and efficiency of data collection and the overall value of the product to better guide municipalities with road maintenance. SADES has also developed a separate program for collection of roadside drainage assets known as Closed Culvert and Drainage System (CCDS). It includes collection of inlets, outlets, pipes, and drainage structures. The objective for CCDS is to have universally collected assets based on common standards that are easily accessible online. Epsom is eligible for both programs and would need to work with CNHRPC to implement them.

Motor Vehicle Crashes

429 Total

206 (50%) located on or related to intersections along US Route 4

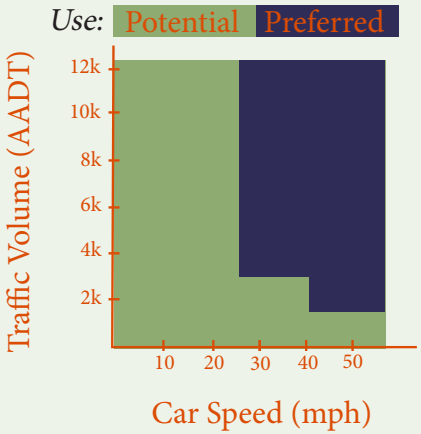
25 at the Epsom Traffic Circle Alone

118 (28%) occured on or related to intersections along NH Route 28

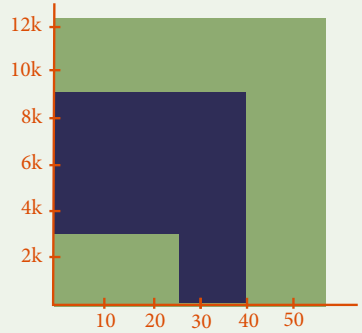
16 reported on North Road, higher than any other local road in Epsom

Motor vehicle crash data from 2015 - 2019 was obtained from NHDOT, who receives the data from the Department of Safety for crashes with over $1,000 in damage. Roughly 20% of crashes are not locatable based on the information contained in the crash reports and it is assumed that a number of smaller crashes may also have occurred during this time period which were not reported. All crashes in Epsom are a cause for concern and should be monitored to determine locations where infrastructure improvements may mitigate crashes.

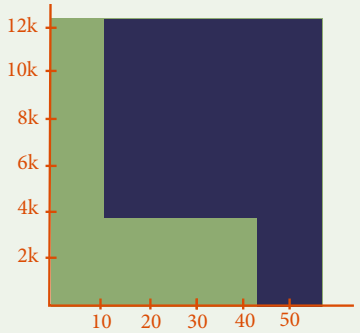
Paved Shoulder:
Functional space along roadway for bicyclists and pedestrians to travel



Bike Lane:
Space exclusive for bicyclists on roadway designated by pavement markings



Separated Path:
Bidirectional shared use path directly adacent and parallel but separate from the roadway



Data and Style for Graphics: Rural deisgn guide

Bicycle & Pedestrian Infrastructure

Pedestrian facilities, such as paved sidewalks and gravel walking paths are valuable features for roadways with high volumes of traffic or speeds. Sidewalks and side paths improve safety for pedestrians by separating them from travel lanes of roadways. Bike lanes are meant to provide adequate space for vehicles to safely pass cyclists, but separated paths offer even greater safety.

Sidewalks and pathways can promote recreation and non-motorized travel, while beautifying an area and stimulating economic activity in rural and village settings. Similar to the town's road network, the sidewalk and bicycle networks in Epsom should be preserved, enhanced and maintained year around.

Epsom's historic railroad corridor offers the potential to provide important links as part of the regional and statewide rail trail network. Approximately seven miles of the abandoned Suncook Valley Railroad line are in Epsom. The corridor roughly follows the Suncook River beginning in Allenstown continuing northward towards Barnstead. When the railroad was reverted to landowners in the 1950's the corridor was broken into segments. Currently, the Town and State own sections while others are owned privately, and sections of town roads like River Road and Goboro Road have been constructed on top of parts of the old rail bed alignment. Other sections of the corridor in Epsom are currently used formally as snowmobile trails, and informally as walking and biking paths.

In the 2019 Community Survey conducted as part of the Master Plan update, 84% of respondents were in support of developing additional trails including the potential projects outlined in the Suncook Valley Trails Plan. Many people commented in support of improving and formalizing the town owned section of railroad bed along Black Hall Road connecting to the school.

Bike, Pedestrian, and Trail Funding

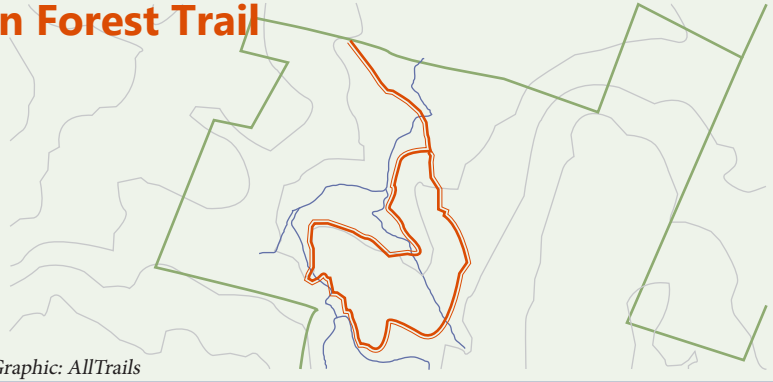
The NHDOT currently oversees a competitive selection round for pedestrian and bicycling infrastructure projects under the federally funded Transportation Alternatives Program (TAP) and Congestion Mitigation and Air Quality (CMAQ) program. The overall purpose of TAP is to foster non-motorized transportation infrastructure that is safe, in good physical condition, and accessible. CMAQ provides a funding source for ocal governments to help meet the requirements of the Clean Air Act. The programs require a minimum of 20% local match and projects are solicited by NHDOT on a four-year cycle. The Recreational Trails Program (RTP) offers funding for quality public trails throughout New Hampshire. For these three programs, Epsom's eligible projects range from rail trails, to upgrades and construction of missing sidewalk connections throughout town, to general transit improvements.

Class A Trails

Across the State, many communities are beginning to look at Class VI roads as candidates for Class A Trail designation. These roads have little, or no development associated with them, are scenic, have no inherent liability concerns, allow public access, and serve to connect large areas of open space, conservation, or agricultural lands. By reclassifying certain roadways that meet these criteria to Class A Trails, the community would take a step towards creating a community-wide system of greenway trails. Unlike Class VI roads Towns may undertake maintenance (at their option) on Class A Trails.

Reclassification of Class VI roads to Class A Trails does not inhibit the access rights of landowners along the roadways. Landowners can continue to use the trail for vehicular access for forestry, agriculture, and access to existing buildings. However, under such classification, new building development as well as expansion, enlargement, or increased intensity of use of any existing building or structure is prohibited by New Hampshire Statute.

Town Forest Trail



Data for Graphic: AllTrails

Suncook Valley Trails Plan

The Suncook Valley Trails Plan (2019) documents a vision for a regional multi-use trail system along the Suncook Valley Railroad bed in the five communities of Allenstown, Chichester, Epsom, Pembroke and Pittsfield. The Suncook Valley Trails Plan identifies two types of potential shared and multi-use trails: 1) trails separated from roads and designated for use by pedestrians and bicyclists in the more urban areas and 2) trails which offer recreational opportunities such as hiking, bicycling, horseback riding and snowmobiling. Both types of trails are found on the former railbeds and could connect communities to each other and to open spaces such as designated conservation lands.

Several recommended trail connection projects for the Town-owned railroad bed (Epsom Rail Trail) arose from the Suncook Valley Trails visioning session in 2019. Improving the rail trail, constructing a bridge over the Little Suncook River, creating a crossing under US 4, connecting to the privately owned railbed in Pittsfield, connecting to the Epsom Town Forest, and rerouting the US 4 trail around Goboro Road were identified as priorities.

Public Transportation

The closest public transit service to Epsom is the Concord Area Transit (CAT) System in Concord. There are no stops near Epsom or existing plans to extend transit services to Epsom. Regional and interstate bus services are available at the Concord Bus Station on Stickney Avenue between I-93 Exits 14 & 15. The Durham Station offers nearby access to the Amtrak Downeaster which provides public rail service between Brunswick, Maine and Boston.

NHDOT's Statewide Strategic Transit Assessment, completed in 2019, identified a proposed commuter route between Rochester and Concord. Census data demonstrated a strong commuting market along US 4, including 496 people from Epsom. The proposed route along US Route 4 & 202 would provide a direct connection from downtown Rochester and Park & Ride lots along the way to downtown Concord and Concord Hospital.

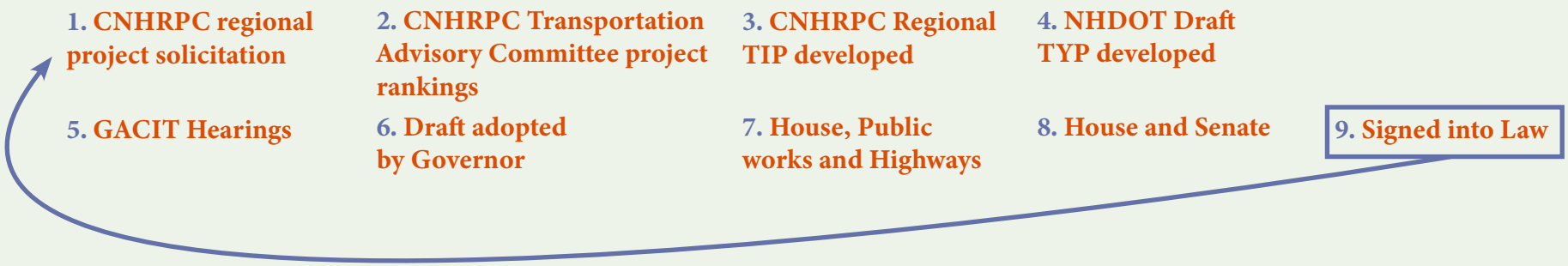
The Mid-State Regional Coordinating Council (RCC) in coordination with the Community Action program Belknap-Merrimack Counties Inc. (CAPBMCI) operates rural transit services and a volunteer driver program that serves the region's elderly and disabled populations. Pittsfield Senior Center (Community Action Program) provides transportation in Epsom for people with disabilities and individuals 60 and over. The primary purpose or these trips are for essential social services and medical appointments (including long distance medical). Currently, there is no charge for both of these systems although donations are accepted.

The Transportation Planning Process

The long range transportation planning process in New Hampshire follows a two year cycle, beginning with the preparation of a Regional Transportation Improvement Program (TIP) by each of New Hampshire's nine regional planning commissions. The most recent CNHRPC TIP covers the period of 2023 to 2032. The TIP lists regional project priorities that have been included, and considered funded, within the NH Ten Year Transportation Improvement Plan (TYP). The TIP also identifies a prioritized list of federal aid eligible transportation projects based on input gathered directly from CNHRPC's municipalities and the Transportation Advisory Committee (TAC). As part of this two-year cycle RPC's submit new project priorities to NH Department of Transportation and the highest ranked regional projects are considered for incorporation into the next Ten-Year Plan (TYP) update.

Like the regional TIP, the Ten-Year Plan identifies and prioritizes critical transportation projects across the state. The TYP goes through multiple review processes by the Governor's Advisory Committee on Intermodal Transportation (GACIT), the Governor, and then by the New Hampshire Legislature, undergoing numerous public hearings to gather public comment. The TYP is then approved by the Legislature until the plan is subsequently reviewed and modified in the next two-year cycle.

Ten Year Plan Process



Future Measures

Improving Epsom's Transportation System

Beyond continued maintenance and improvements on local roads, potential enhancements to Epsom's transportation system include improvements to US 4 (beginning with a corridor study), the continued development of a trail system that links to the Town Forest and provides connections to neighboring towns, and other transportation improvements such as future transit links, low cost traffic calming measures, and participation in transportation demand management programs such as CommuteSmart New Hampshire.

US 4 Corridor Study / Epsom Traffic Circle Improvements

- There are safety concerns regarding the entire US 4 corridor especially the Traffic Circle, Lords Mill Road and NH 107/North Road Intersections.
- Peak hours backups on US 4 especially eastbound traffic in the afternoon can cause safety issues due to the hill west of the Traffic Circle obstructing the view of slowing vehicles.
- The approved 2021-2030 TYP included funding for corridor studies - the entire length of US 4 should be included in the statewide corridor study program, whith an emphasis on improvements to the Traffic Circle.

Suncook Valley Rail Trail Implementation

- The Suncook Valley Trails Plan 2019 serves as the basis for a regional shared use and multi-use trail system.
- To accomplish long-term trail development projects establish a regional trails committee comprised of trail user groups and agencies, such as NH Trail Dawgs, Suncook Valley Sno-Riders, Fort Mountain Trail Winders, Bee Hole Beavers, NH Horse and Trail Association, equestrian associations, the State of New Hampshire Division of Forests and Lands, and the Central NH Regional Planning Commission along with a local Trails Committee in Epsom.
- Obtaining community support, seeking recreational trail landowner agreements and easements, and applying for grant funding through the Transportation Alternatives Program (TAP), congrestion Mitigation and Air Quality (CMAQ) program, Recreational Trails Program (RTP), and Rails to Trails Conservancy will help Epsom implement projects related to improving and expanding the Town-owned railroad bed (Epsom Rail Trail).

Specific Trail Recommendations

- Improve the existing Town-owned railroad bed along Black Hall Road from south of Webster Park to US 4, and construct safe crossings of Little Suncook River US 4.
- Pursue a connection from the Epsom Rail Trail near the Lazy River Campground to Goboro Road (Depot Road in Chichester) to the privately owned Webster Mills railbed in Pittsfield.
- Connect the Epsom Rail Trail along Black Hall Road to the Epsom Town Forest on Tarleton Road.
- Reroute a multi-use trail from US 4 around Goboro Road where homes are located within the former railroad right of way.
- Consider working with NH Forests and Lands, Bear Brook State Park, private landowners, and conservation land holders to expand the Bear Brook multi-use trails (including equestrian and snowmobile) into Epsom.

Concord to Rochester Transit Service

- NHDOT's Statewide Strategic Transit Assessment, completed in 2019, identified a proposed commuter route between Rochester and Concord utilizing US 4, with the conceptual design including stops in Epsom.
- Preliminary estimates based on demographics and travel patterns estimated the route could generate 23,000 trips with an annual operating cost of $312,000.
- As traffic and development continue to grow, the potential for transit may become more viable as a means to reduce congestion.

Traffic Demand Management / Carpooling

- CommuteSmart New Hampshire (CSNH) is a partnership between the state's nine regional planning commissions and transit agencies (partners) dedicated to encouraging and assisting people in finding sustainable transportation options in place of driving single occupancy vehicles.
- Epsom residents and employers can utilize CSNH's offerings including its Trip Planner to find transit offerings and carpool matches.
- Effective Transportation Demand Management programs such as CSNH can help reduce demands on transportation infrastructure, parking, congestion, emissions, and increase access to transportation.
- Park and Ride lots can be a tool to facilitate carpooling and future transit services, Epsom could benefit from a lot in the area of the Traffic Circle.

Traffic Calming

- Traffic calming involves roadway design or other physical solutions to reduce traffic speeds with a goal of making streets safer and more accessible to motorists, bicyclists, and pedestrians.
- Physical controls such as curves, bumps, or barriers, and passive controls such as signage and streetscape elements can send cues to drivers to slow down, mitigate traffic from new development, or to reduce cut-through traffic on residential streets.
- Lowering speeds is a well-established method of improving safety and comfort on a roadway, but if a roadway is conducive to higher than posted speed limits, voluntary compliance with the posted speed is unlikely.
- Roads such as North Road and Black Hall Road, could reduce speeds by narrowing the roadway lane using edge lines and centerlines to create 9 to 10-foot-wide lanes - narrow lanes cause drivers to operate their vehicles closer to each other resulting in lower speeds and add the benefit of creating a shoulder for walking and bicycling.
- Speed humps, speed tables, and raised crosswalks elevate the height of the pavement in a way that allows vehicles to pass over them at the intended speed of the road, while still preventing excessive speeds and makings pedestrians more readibly visible - these are potential approaches to traffic calming for neighborhood streets in Epsom.

Objectives & Recommendations

1 Preserve and maintain the existing conditions of the transportation system

→ **Regularly monitor data on existing roads, sidewalks and paths including surface conditions and drainage.**

→ **Review NHDOT bridge inspection reports regularly to monitor bridge conditions and ensure that municipal bridges are maintained, repaired or replaced when needed.**

→ **Work with CNHRPC to implement asset management strategies.**

→ **Promote and support the existing services offered to Epsom residents by the Community Action Program Belknap-Merrimack Counties Inc. to maintain and enhance their transportation programs.**

2 Address capital improvement projects and studies strategically important to Epsom's transportation network

- Work with NHDOT to prioritize the US 4 corridor and study the entire corridor from Chichester to Northwood for potential safety and mobility improvements.
- Utilize available traffic count data from NHDOT & CNHRPC to evaluate highways and roads that may be adversely impacted by future development trends.
- Work with the CNHRPC and NHDOT to ensure that capital improvement projects that are eligible for Federal-Aid funding are adequately represented in the Regional TIP and considered for inclusion in the State Ten-Year Plan.
- Work to establish a shared use or multi-use trail system connecting to conservation lands and regional trails using the Town-owned railroad bed (Epsom Rail Trail).

3 Prioritize safety for all modes of transportation

- Work with CNHRPC and NHDOT to determine enhancements that could be made to improve safety. Review crash data on an annual basis.
- Consider traffic calming measures on local roads as necessary, notably Black Hall Road and North Road.
- Consider applying to the Highway Safety Improvement Program (HSIP) to address safety concerns at the Traffic Circle and NH 107/North Road and Lords Mill intersections on US 4 if the entire US 4 corridor is not added to the statewide list of corridor studies in the near future.
- Expand the existing sidewalk network in Epsom.