Corridor Spotlight: I-89 South

KEY METRICS OF THE TRAFFIC SHED





County



of corridor route





in 2018

25,937 households in 2018

The section of I-89 from the Bow Junction to US 202 in Hopkinton was one of the first sections of interstate to open in the region in 1959. This section, from the terminus in Bow at NH 3A, includes a trumpet style interchange at I-93, and two nearby full access interchanges at Exit 1 in Bow and Exit 2 in Concord. Further north, Exit 3 is an incomplete interchange at Hoit Road in Concord with a northbound exit and southbound onramp. Exit 4 is also an incomplete interchange with a northbound off ramp and southbound onramp providing access to the southern part of Hopkinton.

The planned, Bow-Concord I-93 widening project will drastically change the Bow Junction area, including the I-89 terminus with NH 3A, the I-89 and I-93 interchange, as well as Exit 1 on I-89. In 2018, NHDOT coordinated a Road Safety Audit at Exit 1 with a focus on the southbound on/off ramps. The major issues here include drivers exiting I-89 at Exit 1 thinking it's the on ramp to I-93 south. The high level of difficulty for Bow residents merging onto I-89 south from the onramp at Exit 1 was also an issue. Intermediate measures have been recommended including additional wayfinding signage to direct motorist to the I-93 southbound ramp.

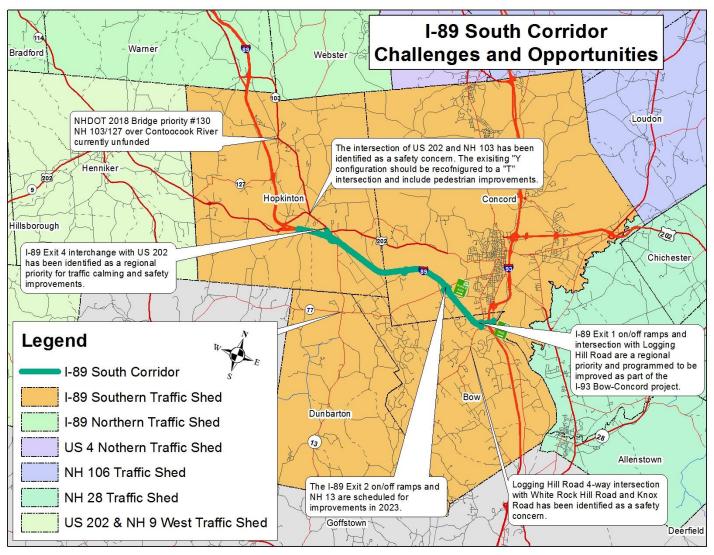
The direct access from NH 3A, a major collector, to the interstate system has influenced major commercial and industrial development along NH 3A in Bow. NH 3A is also used as an alternate route for drivers avoiding tolls on I-93 and regularly sees backups when I-93 is congested during peak tourism months.

The Exit 2 interchange with NH 13 provides access to the interstate system for Bow, Concord and Dunbarton residents within the CNHRPC region as well as the nearby towns of Weare and Goffstown within the Southern New Hampshire Planning Commission (SNHPC) region. The northbound off-ramp consistently

experiences backups during the peak evening hour due to the volume of people attempting to turn left and head west into the dense traffic on NH 13. NHDOT has funding programmed to construct improvements at this intersection in 2023 and the City of Concord has initially indicated that roundabouts are favorable. Further west in Dunbarton, NH 13 comes to a four legged intersection with three stop controlled legs including one with NH 77. This intersection is also a regional priority for improvements and likely a location for a potential roundabout due to the safety concerns. NH 13, a major collector continues south from that intersection to central Massachusetts providing a high level of mobility for this southern region of New Hampshire.

The Exit 4 interchange with I-89 is designed in a way that is conducive for high speeds. The nontraditional design of the intersection of US 202 and the off ramps is also known to be confusing, as well as having poor sight distances where the westbound traffic from US 202 merges with the traffic exiting the highway. US 202 west of the interchange or Main Street in Hopkinton, is a dense village area with a school, general store and Town Hall. The future reconstruction of the interchange to increase safety and calm traffic entering Hopkinton Village area was identified as a proposed project in the 2021-2030 CNHRPC Transportation Improvement Program (TIP).

The southern section of I-89 was also built with pedestrian and bicycle access in mind through two short multi-use paths that connect local road networks and St. Paul's School in east Concord. Also, within this corridor are two park and rides lots, one off NH 13 at Exit 2 and one on NH 3A at the I-89 terminus. The lot on NH 3A is often fully occupied or close to it and may also be reconstructed as part of the Bow-Concord I-93 project.





CONNECTING THE REGIONAL GOALS WITHIN EACH CORRIDOR



CONNECTIVITY

- I-89 multi-use Path in Bow and Concord
- Hopkinton and Contoocook have walkable villages
- Senior Transportation in Bow, Concord and Hopkinton
- Volunteer Driver Program for seniors and disabled

SAFETY

- Crash hotspots include the I-89 terminus, I-89 Exit 1 and 2 interchanges, NH 3A
- Safety concerns at the Pages corner intersection, the NH 103 and US 202 intersection and the Logging Hill Road and White Rock hill intersection on Bow

SYSTEM PRESERVATION

- 7 municipal red listed bridges
- 3 state red listed bridges
- 48 Bridges in fair Condition
- 27 Bridges in Good Condition

SUSTAINABILITY

- Zoning permits residential, commercial, and industrial uses
- 149 acres of conservation land
- 133 acres of aquifers
- 991 acres of highest ranked habitat in NH

KEY TRAFFIC GENERATORS

- NH 3A commercial and industrial area
- Commuter traffic from Bow, Concord, Dunbarton, Goffstown, Hooksett, Hopkinton and Weare
- Traffic commuting between north western NH, Concord, and points south

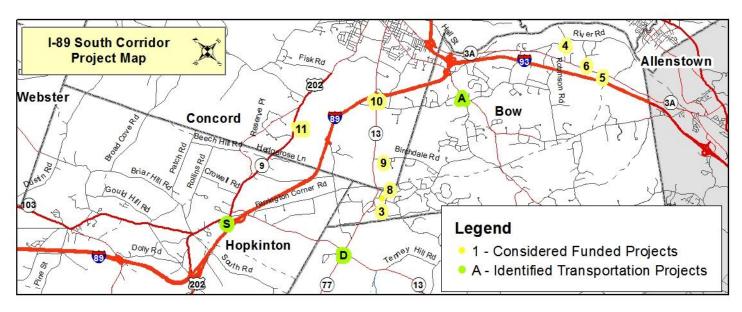
OPERATION & CONGESTION

- This section of I-89's AADT ranges from 40k-48k vehicles
- Common places of employment include Concord, Manchester, Bow and Hooksett
- Two Park and Ride lots along the corridor in Concord and Bow

Data sources for information include the NH Office of Strategic Initiatives; NH Department of Transportation; US Census Bureau American Community Survey 2014-2018; and NH GRANIT.

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 I-89 Southern 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
3	Bow	24223	Page Rd over Bela Brook	Bridge replacement – Page Rd over Bela Brook	CON	2024	\$362,265
					CON	2023	\$352,398
4	Bow	24224	River Road over Bow Bog Brook	Bridge replacement – River Rd over Bow Bog Brook	CON	2024	\$559,483
					CON	2023	\$544,244
					PE	2023	\$120,473
5	Bow	29641	NH 3A	NH 3A corridor safety improvements	CON	2022	\$3,272,018
6	Bow	40346	Dunklee Rd	Bridge rehabilitation - Dunklee Rd over Bow Bog Brook	CON	2021	\$451,199
8	Concord	15877	Hooksett Turnpike	Bridge Replacement – Hooksett Turnpike over Bela Brook	CON	2021	\$463,258
9	Concord	15878	Birchdale Rd	Bridge Replacement – Birchdale Rd over Bela Brook	CON	2021	\$463,258
10	Concord	29601	NH 13	Improvements at I-89 Exit 2 NB and SB Ramps	CON	2023	\$2,475,765
					ROW	2021	\$37,090
					PE	2021	\$346,760
11	Concord	42574	US 202 and NH 9	Address red list bridge carrying US 202 & NH 9 over Ash Brook in City of Concord	CON	2029	\$1,410,362
					ROW	2025	\$63,143
					PE	2025	\$252,574
					PE	2023	\$239,002

IDENTIFIED TRANSPORTATION PROJECTS

Map ID	Project Name	Location	Current Situation	Scope of Work	Cost (millions)
Α	Bow	Logging Hill Rd, Knox Rd, White Rock Hill Rd	This four legged intersection has two stop controlled approaches and concerns with high speeds on Logging Hill Rd.	Construct a roundabout to calm traffic and allow easier turning movements.	NA
D	Dunbarton – Pages Corner	NH 13, NH 77 and Jewett Rd	This four legged intersection has a 3 way stop which is often confusing and can cause serious accidents.	Construct a roundabout to calm traffic and allow easier turning movements.	\$1/mile
S	US 202 & I-89 exit 4 intersection improvements	Hopkinton I- 89 Exit 4 and US 202	The current intersection is just east of Hopkinton Village's Main Street and the intersection of US 202 and NH 103. The existing configuration of the Exit 4 SB off ramp sends traffic abruptly to a stop where it intersects US 202 eastbound traffic and then on to a yield controlled merge where it intersections US 202 westbound traffic. Not only is this confusing to drivers but it also allows drivers traveling east on US 202 to enter the Main Street corridor at high speeds.	The proposal will address the safety concerns with driver confusion and high speeds by constructing a roundabout. The project scope of work includes engineering, Right of Way and Construction of a three legged roundabout at the intersection of US 202 and Exit 4.	\$2.315