

Transportation Project Proposal Form

Contact Information
Full Name John C. Edgas Municipality Meredith
Email jedgar@meredithnh.org Affiliation Department Head
Phone Number 677-4217 Title/Position Community Dev. Direct
Transportation Project Information
Name/Title of Project Safety Improvements to N.H. Route 25
Please select the project type(s):
Highway Improvements (operational improvements, access management, intelligent transportation systems, widening, technology operation improvements) Asset Management (bridge rehabilitation, bridge replacement, pavement repair/replacement) Bicycle and Pedestrian Improvements (sidewalks, bike trails, multi-use paths, traffic calming improvements) Planning Studies (road diets, corridor studies, network studies, pedestrian/cyclist safety studies) Infrastructure-related Travel Demand Management (park & ride lots, transit or HOV lanes, priority signalization, bus shelters, intermodal transportation centers)
Where is this project located? (road names, nearby facilities/landmarks) N. H. Roule 25, Meredith NH
What is the scale of this project? (please provide approximate measurements in feet; you can use
Google Maps measuring tool to estimate distances) $ \qquad \qquad \qquad \qquad $
Purpose, Need, and Scope
Please provide the Purpose Statement for this project.
ex: "The purpose of this project is to support increased non-motorized activity by addressing safety issues resulting from unsafe vehicle speeds and inadequate protections for pedestrians on Main Street between 1st and 2nd Street." See attached.

Please provide the Need Statement for this project.	
ex: "The section of Main St between 1st Street and 2nd Street is unsafe for pedestrians. This section is in the cente the city's commercial district concentrated with jobs and small businesses. In the past 5 years there have 15 crash this section of Main St: two resulted in serious injuries to pedestrians and one resulted in a pedestrian fatality. Cor ued local economic development depends on increased walkability and safety for pedestrians." See attached.	es in
See attached.	
Please outline the project scope.	
ex: "Install pedestrian crossings on Main Street at 1st and 2nd street intersections and at mid-block, including ped an refuge medians, other streetscaping and traffic calming infrastructure."	estri-
See attached.	
Please provide any additional information about this project. (local knowledge/insight, releving studies/data, infrastructure needs, etc.)	ant
Supplementary Information	
Please note that these questions are not required to make an initial submission. If you are able to provide answers to some or all of these questions at this time, please leave the question(s) blank and Jess or Susan will reach out to provide assistance. If you have quest please call Jess at (603) 279-8171 or Susan at (603) 279-5337; or email jbighinatti@lakesrpc.org or sslack@lakesrpc.org.	
How involved has the public been in this project proposal so far?	
(please make note of any dates, agenda items, minutes from public meetings, and decisions influenced b	V
public involvement)See. attached.	

· ·	es for further public discussion o	f this project in the near future?
<u>See</u>	attached	
Will the project be ma	anaged locally?	
See	attached	
What alternative opti	ons or methods have been consid	dered to address this need and what
	pposal the best option?	
See	attached	\(\text{\text{\$\exitt{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\exitt{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\exitt{\$\text{\$\exittit{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\}\$\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{
=	ce supporting this project, includ letters of support, data sources, plans,	• • • • • • • • • • • • • • • • • • • •
		guidance, maps, etc. that will serve as at and where you are referencing from)
	attached	
		α.
His contraction of the second		
Submission		
03253, FAX:603-279-0200,	EMAIL: jbighinatti@lakesrpc.org or ssl	ADDRESS: 103 Main Street, Meredith NH, ack@lakesrpc.org. If you have questions
	9-8171 or Susan at (603) 279-5337. Plodata to this project along with the form	
Local Plans/Maste	r Plans Maps	Bike/Pedestrian Survey
Cost Estimate	Transit Operator D	ata Project Scope
Local Police Crash	Data Development Stud	lies Conceptual Designs

Transportation Project Proposal

Town of Meredith, NH



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 Project Location Map Site Photographs Project Cost Estimate Five-Year Crash Analysis (January 1, 2015 to August 5, 2020)- Meredith Police Departments Excerpts from: Meredith US 3/ NH 25 Improvements Transportation Planning Study, 200 Excerpts from: Lakes Region Plan 2015-2020- Transportation Chapter Excerpts from: Lakes Region Tour Scenic Byway- Corridor Management Plan, 2015 Excerpts from: NHDOT Statewide Freight Plan-Final Report, 2019 Excerpts from: Town of Meredith Community Plan, 2002 NHDOT Bureau of Planning, Traffic Section Traffic Report, 2-18-16 LRPC TAC TYP Scoring Summary- 2019 Unsignalized Intersection Safety Strategies- Provide Bypass Lanes on Shoulders at T-Intersections, NCHRP Report 500, Volume 5, FHWA, February 2008 		
Letters of Support:	10	

- a. Select Board
- b. Meredith Police Department
- c. NHDOT District 3
- d. Inter-Lakes School District
- e. Planning Board
- f. Meredith Conservation Commission
- g. Moulton Farm

Transportation Project Proposal Town of Meredith, NH Application Narrative

PURPOSE STATEMENT

NH Route 25 in Meredith is a high volume, east-west component of the National Highway System corridor in central NH. There are a total of (12) roadway intersections on NH Route 25 easterly of the village core to the Center Harbor town line. The segment is further characterized by (A) considerable left turn movements, (B) significant truck traffic, (C) inadequate sight distances that do not meet criteria for posted speed limits, (D) inadequate shoulders, and (E) crash history that confirms a prevelance of rear end collisions. The purpose of this project is to address documented safety issues on a high volume segment of the National Highway System (NH Route 25) in Meredith, NH.

NEED STATEMENT

The need for this project can be best illustrated by the relevant context and history associated with safety concerns along the rural portion of NH Route 25.

National Highway System. The National Highway System (NHS) is a network of strategic highways within the United States.. Individual states are encouraged to focus federal funds on improving the efficiency and safety of this network. According to the Federal Highway Administration, the 160,000-mile National Highway System includes roads important to the United States' economy, defense, and mobility. There are 150 miles of the National Highway System in the Lakes Region of New Hampshire, 14 of which are in located in Meredith. NH Route 25 is a high volume, east-west component of the NHS in central New Hampashire; connecting I-93 to the west with NH Route 16 to the east. This corridor supports travel and commerce connectivity at many levels, i.e. between states, regions, witin the Lakes Region and travel within the local area.

<u>The NHDOT Statewide Freight Plan- Final Report</u>, January 1019 notes: In describing the statewide freight infrastructure, the plan notes,

The "The National Highway System is critical for public safety, emergency preparedness and statwide connectivity to ensure continuous travel within New Hampshire as well as to neighboring states." (p. 36).

Based on outreach efforts involving the public and other stakeholders, many overarching issues and concerns were identified. Among them were the general need for east-west corridors and safety concerns at identified locations. (p. 77)

NH 25 in Meredith is identified as a "Critical Rural Freight Corridor Candidate" (p. 159, 160).

NH Route 25 in Meredith. The NH Route 25 segment of the NHS in Meredith is subject to some of the highest traffic volumes in the Lakes Region which are documented in multiple sources including the NHDOT Bureau of Planning, Traffic Section Traffic Report dated 2-18-16. Summer daily traffic volumes are even higher. There are a total of (12) roadway intersections on NH Route 25 easterly of the village core to the Center Harbor town line. The total length of this segment is approximately 2.4 miles. The segment is further charactrized by (A) considerable left turn movements, (B) inadequate sight distances that do not meet criteria for posted speed limits, (C) inadequate shoulders, and (D) crash history that confirms a history of rear end collissions.

<u>2002 Community Plan</u> (aka Master Plan). Although the <u>2002 Community Plan</u> (aka master Plan) is currently under review, there are several statements from that plan which remain relevant to the current proposal:

- Our long range planning_is based on shared values and vision. The plan notes, "Transportation to, through and within our community is vital to our economic and personal wellbeing (p. 10).
- "Transportation Goal: Promote a safe, integrated transportation system that effectively moves goods and people while balancing the needs of transportation users with the values of the community." (p. 44)
- "Transportation Objective A: Improve traffic flow, efficiency and safety throughout the highway networks. Advance transportation improvement projects where a need has been identified," (p. 44)
- "Transportation and Community Economic Development: community Economic Development opportunities are in part dependent on a safe and

accessible transportation system. Improvement to the transportation system can facilitate additional economic opportunity." (p. 47)

<u>Improvements Transportation Planning Study</u>. In 2009 the <u>Meredith US 3/ NH 25</u> Improvements Transportation Planning Study (NHDOT Project 10430) was completed. This study (PART A) examined the corridor from the US Route 3/ NH Route 104 intersection, northerly on US Route 3 to the US Route 3/ NH Route 25 intersection <u>and easterly on NH Route 25 to the Center Harbor town line</u>. The easterly portion of NH Route 25 to the Center Harbor town line is referred to as "the rural portion of NH Route 25". A comprehensive public participation program is well documented (pp.15-17). In the (PART B) phase of the project (i.e. the determination of a preferred alternative) NHDOT reduced both geographic scope of the project and associated Ten-Year-Plan funding to include improvements <u>only within the village core area</u>. The village core area improvements were completed in 2019.

The reduction in geographic scope and funding excluded further consideration of the (6) intersection "sites" along "the rural portion of NH Route 25" notwithstanding that numerous safety isues were identified in the 2009 planning study (pp. 72-85). This section of the study notes the 2009 safety evaluations give subsequent efforts a place to start (p. 75). Amongst the six interesection sites several common contributing factors were identified:

- Many safety issues along the rural portion of NH Route 25 may be mitigated if the speed were reduced.
- Inadequate sight distances due to vertical alignmanet (crests) and other visual obstructions.
- A nine year crash history was reviewed for each site. A considerable number of rear end collosions were documented at numerous intersections indicative of crashes where vehicles on the main road collide with vehicles waiting to turn.

2013 LRPC TAC Scoring. In 2013 the Lakes Region Pllanning Commission ranked existing Ten Year Plan projects and secondary projects (projects submitted for inclusion in the TYP). One of the 13 secondary projects identified was a submisssion by the Town of Meredith to address inersection safety improvements

on the rural portion of NH 25 to the Center Harbor town line. The scope of this proposal included a planning element to help priotize road improvements as well as design and construction funding. That submittal was ranked by the Lakes Region Planning Commission as the No. 2 secondary project for the region but was not included in subsequent Ten-Year Plans.

The Lakes Region Plan 2015-2020 Transportation Chapter. This plan documents the 2013 history mentioned and above and further notes that improving existing infrastructure and improved safety are the primary areas of NHDOT focus. NHDOT's highest priority is the National Highway System givne the need for a healthy economy and for mobility (p. 10, 12). The plan identifies NH Route 25 as a "Lifeline Corridor" reinforcing its critical importance to the region (p. 13,14).

Lakes Region Tour Scenic Byway- Corridor Management Plan, 2015. NH Route 25 in Meredith is part of the 111 mile, Lakes Region Tour Scenic Byway that circles Lake Winnipesaukee. The plan affirms the byway's role in supporting tourism and associated local and regional economic opportunities (p. 1, 2, 4 & 8). Safety improvements along the byway will enhance the travel experience.

2019 LRPC Scoring. More recenlty, in 2019 the Lales Region Planning Commission re-submitted the same project for review by the TAC as part of the 2020-2030 TYP round. The NH 25 East project was ranked #3. Even though the project wasn't yet "engineered" it did score ahead of several "engineered" projects.

Crash History. The 2009 planning study looked at crash data from 1998 to 2007. Of the four segments examined, NH 25 from US 3/NH 25 intersection to the Center harbor town line had the highest number of crashes, highest number of injuries and the highest number of rear end collissions over a nine year period (p.7). As noted in the 2009 study, rear end collisions are indicative of crashes where vehicles on the main road collide with vehicles waiting to turn.

Recently, 5-year crash history data was provided by the Meredith Police Department for four specific intersecitons. This information does confirm a high percentage of rear end collisions at 3 of the 4 subject intersections.

Bottom Line. The need to improve public safety along the rural portion of NH Route 25 has been previously identified by NHDOT, successive efforts by the

Lakes Region Planning Commission and the Town of Meredth. The need for this project is well established.

PROJECT SCOPE

The scope of **2020** proposal builds upon the work of the past but is significantly different than prior submittals in terms of scope and approach.

- The current proposal does not include a planning element.
- The current proposal does <u>not</u> include the construction of a new roadway nor does it expand highway capacity.
- The current proposal does <u>not</u> include the re-location of town roads.
- The current proposal <u>does</u> seek to maximize use of existing right-of-way in order to minimize impacts to private property owners and reduce project costs.
- The current proposal <u>is</u> consistent with stated NH DOT focus areas and priorities (i.e. safety improvement on the National Highway System).
- The corridor was recently reviewed by Kevin Morrow, Police Chief, Mike Faller, Public Works Director, John Edgar, Community Development Director and Phil Warren, Town Manager. Together these four senior staff members have a combined 97 years of experience in Meredith. Their preliminary review identified intersection priorites and possible counter measures that will materially improve public safety.
- The current proposal is well supported including support from NH DOT District 3 and the Inter-lakes School District.
- Our collective review has resulted in a refined project scope that inlcudes a package of modest, on- corridor safety counter measures at four intersections:

Location No. 1: NH Route 25 & Laker Lane. Laker Lane is the western most and primary entrance to the Inter-Lakes Middle-High School and the Inter-Lakes Elementary School. The approach from to this intersection from the west has an 11% grade that ends just short of this intersection. Left turns into the campus face considerable oncoming traffic often resulting in stopped traffic with que lengths extending down the hill. Inadequate shoulders do not readily permit

traffic to safely bypass the left turn movements. This is particularly problematic during winter conditions.

<u>Safety Counter Measures</u>: Limited widening of the shoulder on the Eastbound lane to accommodate a *by-pass shoulder* to avoid conflicts with left turn movements into the school campus at Laker Lane and to improve mobility/traffic flow for through traffic.

Location No. 2: NH Route 25 & True Road. True Road intersects NH 25 just north of Laker Lane and is the sole means of access to the 126 site Interlakes Mobile Home Park. The 2009 study noted that the primary safety issue at this intersection is inadequate sight distance and grading can be modified to increase the sight distance from 50 feet to 200 feet. The posted speed limit in this area is 35 mph. The required sight distance for 35 mph design speed is 250 feet.

Safety Counter Measures: Improved sight distance facing east (north side of NH Route 25) to benefit (A) traffic exiting and entering True Road; and (B) visibility by eastbound thru traffic not having sufficient view of the intersection. Limited widening of the shoulder on the Eastbound lane to accommodate a by-pass shoulder to avoid conflicts with left turn movements onto True Road and to improve mobility/traffic flow for through traffic.

Location No. 3: NH Route 25 & Quarry Road. As noted in the 2009 study the issues at this intersection are sight distance and turning movements compounded by road alignment and travel speeds. The popular Moulton Farm and a trail head for the Page Pond Community Forest trail head are both located on Quarry Road. Both the Page Pond Community Forest and Moulton Farm (conserved via easement) are both identified as resource attributes along the Lakes Region Tour Scenic Byway. The posted speed limit in this area is 45 mph.

Safety Counter Measures: Limited widening of the shoulder on the westbound lane to accommodate a *by-pass shoulder* to avoid conflicts with left turn movements onto Quarry Road and to improve mobility/traffic flow for through traffic. Improved sight distance for exiting traffic facing east and west.

<u>Location No. 4</u>: NH Route 25 & Patrician Shores Circle. This intersection located on the south side on NH 25 provides access to an 83-home development know as

Patrician Shores. The posted speed limit changes from 55 mph (Center Harbor) to 45 mph (Meredith) at the town limits.

<u>Safety Counter Measures</u>: Improve sight distance for traffic exiting onto NH Route 25 facing east through tree removal and grading on the north side of the road. Also on the north side, limited widening of the shoulder to accommodate a *bypass shoulder* to avoid conflicts with left turn movements onto Patrician Shores Circle and to improve mobility/traffic flow for through traffic.

This proposal recognizes that: (1) the NHDOT TYP is fiscally constrained, (2) the TYP allocation to the Lakes Region projects (approx. \$4.4 mil. total) is likewise severely constrained, (3) the proposed safety counter measures, although modest, will materially improve public safety in the corridor, and (4) maximum use of existing right-of-way for relatively modest improvements can lessen impacts to private property owners and reduce project costs.

Actual safety countermeasures and locations would be finalized by NHDOT with town input through the Meredith Select Board at the onset of the conceptual design phase of the project. This process would be similar in concept to the Select Board/NHDOT partnership that resulted in the 2016 intersection upgrade at NH Route 104 and Meredith Center Road that was accomplished through the Highway Safety Improvement Program. Note: the scope of the NH Route 104 project included a by-pass shouler on the National Hioghway System highway at Chase Road.

SUPPLEMENTAL INFORMATION

How involved has the public been in this project so far? Extensive public participation is well documented in Section 1.4 of Meredith US 3/ NH 25 Improvements Transportation Planning Study (NHDOT Project 10430), 2009 (pages 8-15). This study serves as the impetus for the current proposal.

Are there opportunities for further public discussion of this project in the near future? None are anticipated at this time.

Will the project be managed locally? No.

What alternative options or methods have been considered to address this need and what makes this project proposal the best option?

Alternatives Considered.

<u>No build</u>. We could simply ignore the safety issues, however as public officials we are obligated to ensure the safety of our citizenry and the public as a whole. Doing nothing fails to address these significant safety issues and is not an option.

<u>Highway Re-alignment and Reconstruction</u>. Existing vertical and horizontal highway alignments do contribute to sight distance issues. However re-alignment and reconstruction of major portions of NH Route 25 would be extremely costly, trigger extensive environmental reviews and may not represent the best costbenefit outcome.

<u>Re-location of Town Roads</u>. Existing town roads could be realigned to address sight distance issues however this is not favored as also being too costly and too impacting.

<u>Enhanced Signage to Reduce Travel Speeds</u>. As noted in the 2009 study, travel speeds above posted speed limits is a contributing factor. Signage in of itself may not solve the problems, however improved signage could be a component of the overall safety countermeasure package.

The Best Option. Therefore, it is the town's view that modest safety counter measures at up to four prioritized intersections along NH 25 represents the best, practical and most realistic option to finally address the safety issues acknowledged by NH DOT, LRPC and the Town of Meredith.

<u>Flexibility</u>. As a practical matter the proposed improvements mentioned previously have not been engineered recognizing that they wouldn't likely be implemented for at least 10-12 years. Therefore, the town anticipates the need for flexibility in finalizing the final scope (type, location and number of improvements) based upon NHDOT review as we proceed through the TYP process and on towards the conceptual design phase.

<u>Timing</u>. On July 24, 2020 the 2021-2030 TYP was signed into law. Typically, new projects are added to the end of the plan. The limited scope of the proposed improvements may justify NHDOT consideration for project acceleration. Deferral

to 2031 or 2032 is not desirable. As was noted by NHDOT when addressing the question of accelerating project scheduling, "The budgets that are set up of the regions are not hard and fast budgets, they are guidelines for the addition of proposed new projects (or increases to existing projects) in the last 2 years of the TYP. Additionally, financial constraint in all years is also dependent on the scope, schedule and budget of all the projects, and so there was give and take in the schedule of projects in the years that these projects were moved into. Projects were either delayed because of constraint, were not expected to be ready based on progress, cash flow, or some combination of things." (reference personal communication form Susan Slack, Principal Planner, Lakes Region Planning Commission to John Edgar, Community Development Director dated July 17, 2020). We believe that this project is a good candidate for the "give and take" discretion referred to above.

ATTACHMENTS

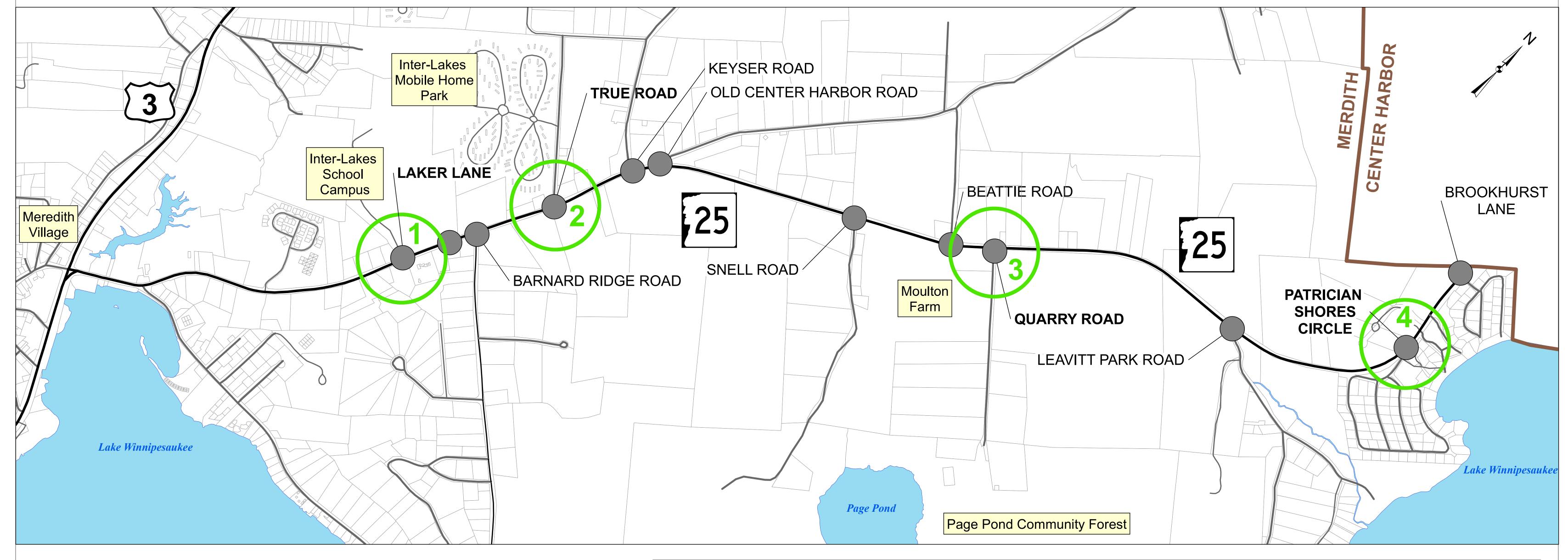
The following documents are submitted as part of this application:

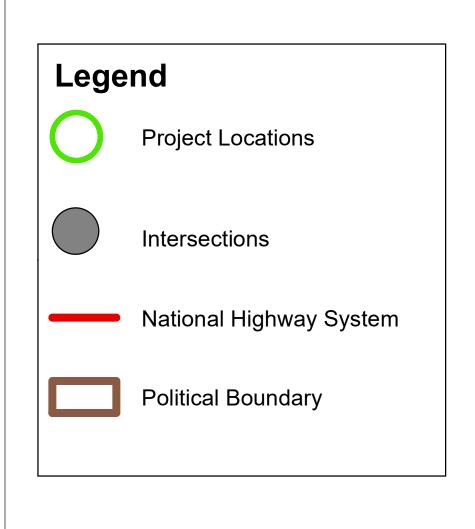
- 1. Project Location Map
- 2. Site Photographs
- 3. Project Cost Estimate
- 4. Five-Year Crash Analysis (January 1, 2015 to August 5, 2020)- Meredith Police Department
- 5. Excerpts from: Meredith US 3/ NH 25 Improvements Transportation Planning Study, 2009
- 6. Excerpts from: Lakes Region Plan 2015-2020- Transportation Chapter
- 7. Excerpts from: <u>Lakes Region Tour Scenic Byway- Corridor Management</u> Plan, 2015
- 8. Excerpts from: NHDOT Statewide Freight Plan-Final Report, 2019
- 9. Excerpts from: Town of Meredith Community Plan, 2002
- 10.NHDOT Bureau of Planning, Traffic Section Traffic Report, 2-18-16
- 11.LRPC TAC TYP Scoring Summary- 2019
- 12. <u>Unsignalized Intersection Safety Strategies- Provide Bypass Lanes on Shoulders at T-Intersections</u>, NCHRP Report 500, Volume 5, FHWA, February 2008

Letters of Support:

- a. Select Board
- b. Meredith Police Department
- c. NHDOT District 3
- d. Inter-Lakes School District
- e. Planning Board
- f. Meredith Conservation Commission
- g. Moulton Farm

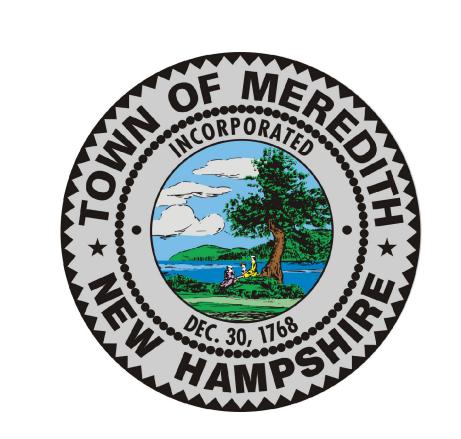
Transportation Project Proposal Town of Meredith, NH PROJECT LOCATION MAP

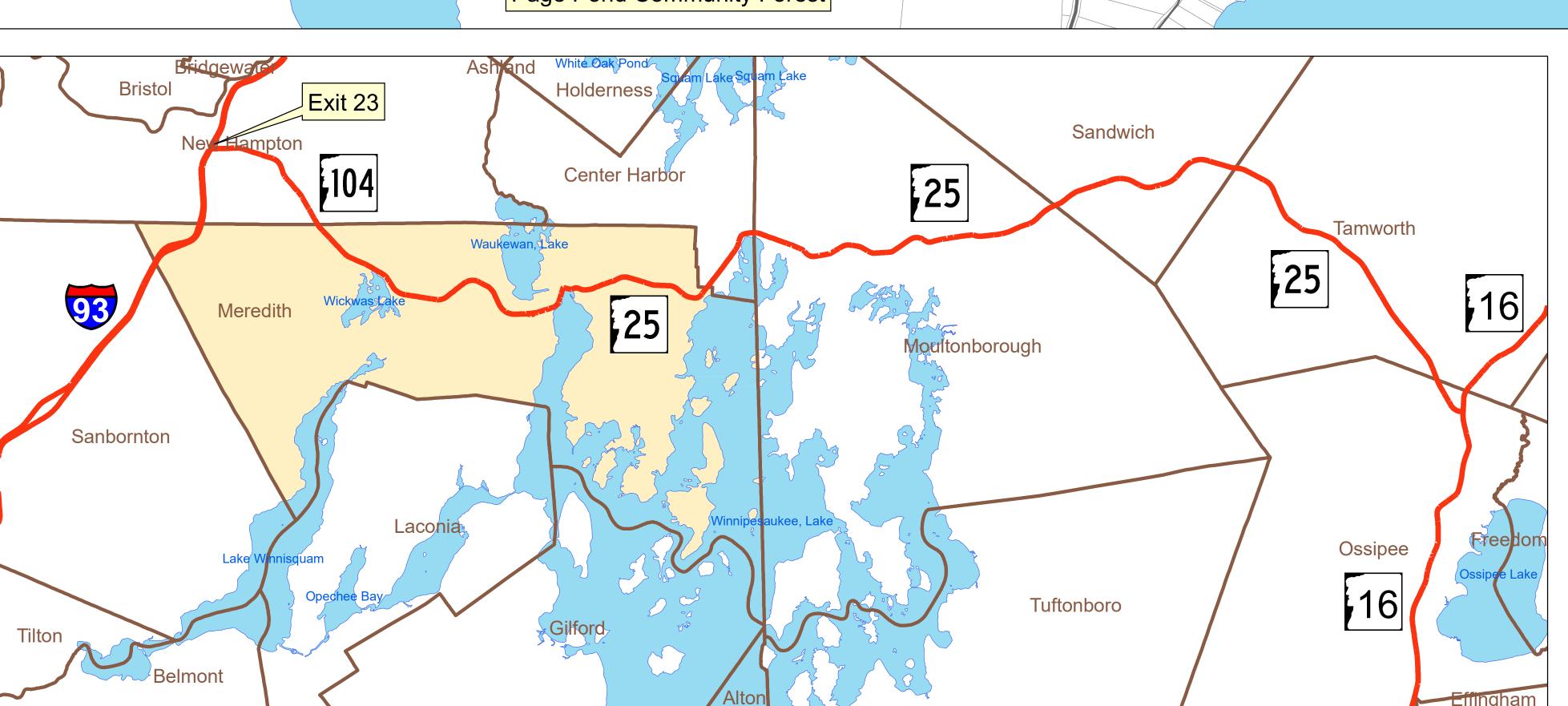




NOTE:

This map has been compiled, arranged, and formatted by the Town of Meredith for informational and planning purposes only.





Location No. 1- Laker Lane and NH Route 25



1-A NH Route 25 at Laker Lane facing west towards "High School Hill" incline



NH Route 25 at Laker Lane (Blinking Signal) facing east

Location No. 2- True Road and NH Route 25



NH Route 25/ True Road intersection facing west towards. Note inadequate shoulder



NH Route 25 from True Road facing west towards inadequate sight distance/crest





3-A NH Route 25 at Quarry Road facing east. Note inadequate shoulder.



NH Route 25 at Quarry Road facing west. Note inadequate shoulder.

Location No. 4- Patrician Shores Circle/ Sorensen Road and NH Route 25



4-A NH Route 25 facing east towards Patrician Shores intersection. Note poor sight distance and inadequate shoulders.



NH Route 25 from patrician Shores intersection. Note poor sight distance facing east. Note sharp horizontal curve.

Transportation Project Proposal Town of Meredith

COST ESTIMATE

Location No. 1- Laker Lane and NH Route 25	\$300,000.
Location No. 2- True Road and NH Route 25	\$500,000.
Location No. 3- Quarry Road and NH Route 25	\$700,000.
Location No. 4- Patrician Shores Circle and NH Route 25	\$500,000.
Estimated Cost:	\$2,000,000.
Adjusted Cost for Inflation (2.8%/yr. compounded)	\$2,636,095.
Adjusted Cost Plus Indirect Costs (10%)	\$2,899,705.

Note: This is an order-of-magnitude estimate. It is understood that this estimate will be reviewed by NHDOT and subject to further adjustment.

MEREDITH POLICE DEPARTMENT

Accident Analysis Contribution To Meredith Community Development Regarding NHDOT Ten Year Plan Submittal

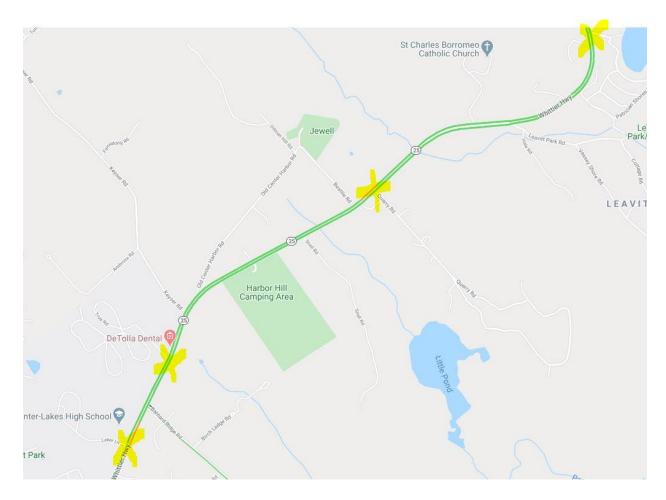
At the request of the Meredith Community Development Office, a 5-year Crash Analysis for the target specific intersections of:

NH Route 25 @ Laker Lane;

NH Route 25 @True Road;

NH Route 25 @Quarry Road; and

NH Route 25 @Patrician Shores Circle,



was completed.

The crash analysis includes the following data between January 1, 2015 to today, August 5, 2020:

Intersection Location	#of Reported Accidents	# of Reported Accidents w/Rear-End Impacts	
NH RT 25/Laker Lane	6	6	**
NH RT 25/True Road	6	4	**
NH RT 25/Quarry Road	9	7	**
NH RT 25/Patrician Shores	1	0	**

^{**} The above numbers reported were from accidents that, according to placement and Nodal Map plotting, were directly at the listed intersections. Other contributing factors to the above listed accidents included, but were not limited to Driver Inattentiveness, Weather-related road conditions and Deer strikes.

It must also be noted that there were multiple accidents that occurred **near** the intersection areas listed above, which contributed to different end-result of numbers. For example, there were a higher number of reported accidents in the areas to the immediate East and West of the NH RT 25/Laker Lane intersection, the Laker Lane to include extending down to the Elementary School at 21 Laker Lane, and the ILHS/ILES Parking Lots, which may or may not have been the immediate result of stopped traffic at the aforementioned intersection. As example, there were a total of 39 reported Accidents in the intersection of and in the aforementioned areas of Laker Lane, but only 6 of those were directly plotted as NH RT 25 at Laker Lane.

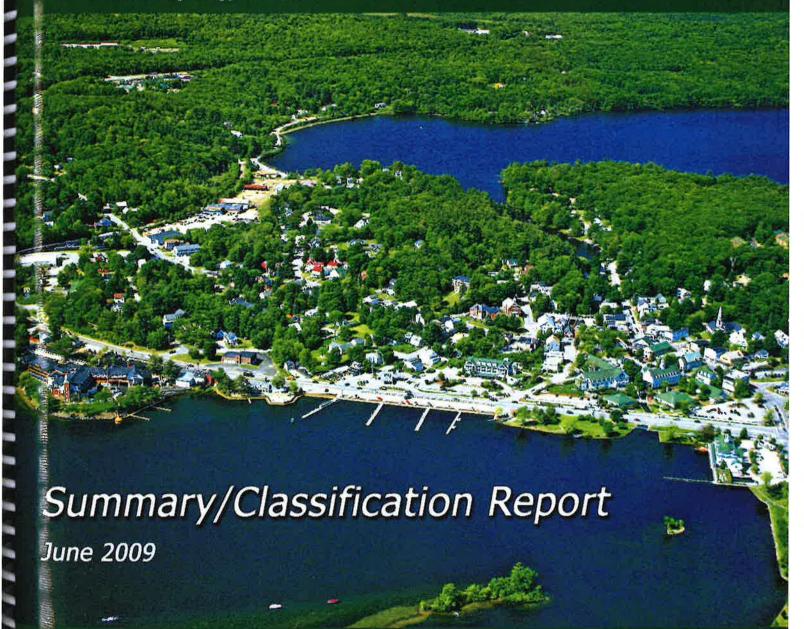
Respectfully submitted,

Tonia L. True

MPD Administrative Assistant/TAC Officer

Meredith US 3/NH 25 Improvements Transportation Planning Study

STP-F-X-0241(014), 10430



Prepared for:

Men Kampshire

John O. Morton Building 7 Hazen Drive Concord, NH 03302

Prepared by:



McFarland Johnson

53 Regional Drive | Concord, NH 03301 www.mjinc.com

In Association with:

Alternate Street Design, PA
Applied Economic Researach
Carol R. Johnson Associates, Inc.
Elizabeth Durfee Hengen
Project for Public Spaces
Resource Systems Group, Inc.
Victoria Bunker, Inc.

Part B involves the scoping portion, where preliminary design of the reasonable alternatives is conducted, a preferred alternative is identified, an environmental document is prepared, and a selected alternative is determined. Part B is scheduled to be completed by the end of 2009.

Part C involves final design, right-of-way acquisition, and construction advertisement. Part C is scheduled to be completed by the end of 2010 with construction beginning in 2011.

This Summary/Classification Report documents the findings of Part A and recommends the type of environmental document to prepared in Part B.

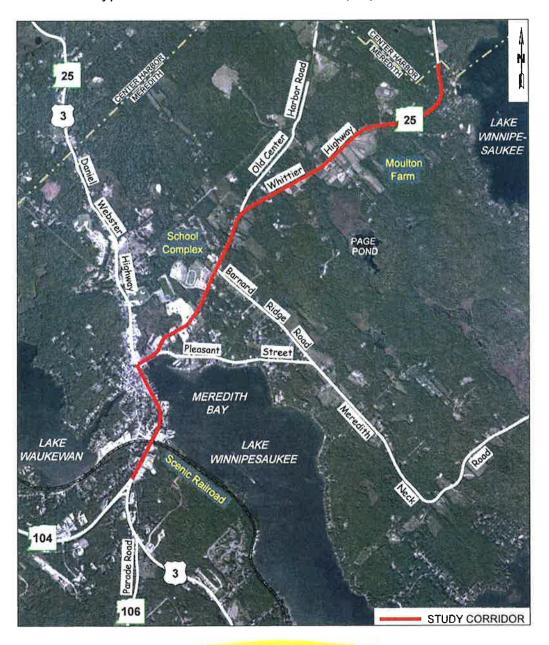


Figure 1.2 – Project Limits



of injuries indicates the crashes occurred at lower speeds where injuries are less likely. Table 1.2 depicts the crash data described above.

NH 25 between the US 3/NH 25 Intersection and the Centre Harbor town line is approximately 3.2 mile in length with many side streets and driveways. There were 310 crashes reported for this roadway of which 77 resulted in 118 injuries. Most (78%) of the crashes had no cause reported. There were 53 rear end collisions. The high percentage (25%) of injury crashes is indicative of collisions along a higher speed roadway. Many of the crashes involved other vehicles (75%), were under normal road conditions (94%), were during daylight hours (75%), and were under dry conditions (76%).

Segment	Number of Crashes	Injury Crashes	Number of Injuries	Number of Rear End Collisions
NH 104/US 3 Intersection area	34	8	10	10
US 3 between NH 104 and NH 25	91	31	55	31
US 3/NH 25 Intersection area	54	7	10	25
NH 25 from US 3/NH 25 Intersection to the Centre Harbor town line	310	77	118	53

Table 1.2 Crashes within Study Limits 1998 to 2007 (excluding 2005)

1.4.5 Public Participation Activities

A fundamental aspect of a planning study is a comprehensive public participation program. The CSS process promotes the role of stakeholders, but it also emphasizes the need to bring a project to the people and the users. There were several opportunities and mechanisms used during Part A of the Meredith US 3/NH 25 Study for the public to participate. These activities corresponded to key milestones in the project where public comment beyond that provided by the PAC was needed. The public participation opportunities include a Placemaking Workshop, the project website, a booth at the Summerfest Fair in 2006, a cable access show, two project newsletters, and a public information meeting. These are discussed in more detail below.

Placemaking Workshop

A Placemaking Workshop was held at the Meredith Community Center on Saturday, May 6, 2006. The objective of the workshop was to engage the public to determine how they think the corridor performs and identify opportunities that exist along the corridors. A brief presentation was given and then the participants broke into groups and visited seven sites along the two corridors to conduct a Place Audit. A Place Audit is a tool used to help participants evaluate a site in terms of four key areas:

- Access and Linkages
- Uses and Activities
- Comfort and Image
- Sociability

THE REPORT OF THE PROPERTY OF

After the site visit, the participants reconvened at the Community Center to develop a problem statement and discuss the opportunities that exist at each site. Each site was then discussed in the overall group. The results of the Placemaking Workshop are documented in a memorandum that is included in Appendix D.

Project Website

To ensure that all information was available to PAC members, project team members, and the public, a project website was created. The website, www.meredith3-25.com, contains a description of the project, meeting information (including minutes and presentations), project plans, project documents, and contact information. There is also a comment sheet where the public can send the project team a comment or idea. The home page of the website is shown below in Figure 1.7.



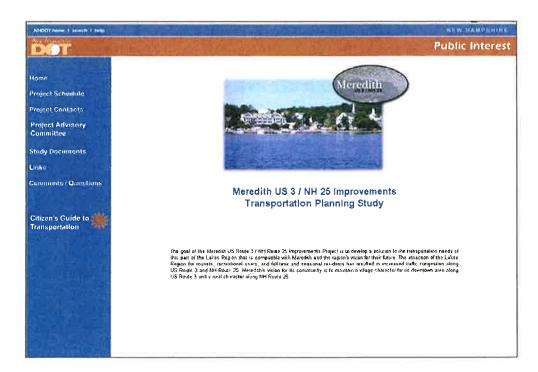


Figure 1.7 - Project Website

Summerfest

Nancy Mayville, NHDOT Project Manager from 2005 to Summer 2007, attended a Summerfest Event at St. Charles Church on July 29, 2006. Project materials were displayed for citizens to review. Copies of the first project newsletter were handed out and Nancy spoke to many citizens about the project.

Cable Access TV

In July 2006, Meredith Town Manager Carol Granfield used her weekly cable access television show to present the project to her viewers. Nancy Mayville (the NHDOT Project Manager), Gene McCarthy (the consultant team Project Manager), and Frank Michele (the Meredith Board of Selectmen representative on the PAC), were interviewed by Carol. The discussion focused on the CSS process and the steps that would be taken to reach a solution.

Newsletters

Two Project Newsletters were developed during Part A. Project Newsletter 1 was developed in Summer 2006. It presented the project limits, the CSS process, the Project Problem Statement, the Project Vision Statement, an overview of the Placemaking Workshop, and ways the public could stay involved. Another important purpose of Newsletter 1 was to identify the PAC and give project contact information, including the project website. Project Newsletter 2 was developed in Summer 2008. This newsletter focused on the alternatives that were developed for



the project. Several of the key corridor concepts were presented as well as concepts for the US 3/25 Intersection and the NH 104/3 Intersection. Copies of both Project Newsletters are included in Appendix D.

Public Informational Meetings

The Project Public Informational Meetings were the final public participation events for Part A. These meetings were held on August 16 and 19, 2008, but three sessions were held. In an effort to ensure all interested parties had the opportunity to attend, a session was held on Saturday morning (August 16), Tuesday morning (August 19), and Tuesday afternoon (August 19). The meetings were held in the summer to ensure that all residents, full time and part time, had the opportunity to attend. For the three sessions, over 60 citizens attended. The meeting notification is shown in Figure 1.8.

The main objective of these Public Informational Meetings was to hear the public's opinion on the range of reasonable alternatives. Each session of the Public Informational Meeting began with a presentation on the CSS Steps and evolved into a group discussion on the merits of alternatives under consideration.

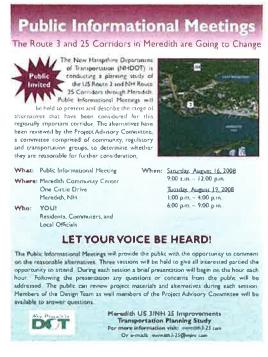


Figure 1.8 – Public Informational Meetings Notice

During each session the advantages and disadvantages of each alternative and the results of the alternative screening were presented and discussed. It should be noted that not all of the screening had been completed when the meetings were held. Public opinion was gathered from polls taken during the meetings and from an Alternatives Questionnaire that they were asked to complete. In most cases the feedback from the public confirmed the screening that had been conducted by the PAC. The results of the Alternatives Questionnaire are shown in Figure 1.9. The values under each color circle indicate the number of votes received.



High School Hill

"High School Hill" is the steep grade along NH 25 that begins near the Meredith Bay Village driveway and ends near Laker Lane, the main entrance to the school complex. The grade is 11% and runs for about 14 of a mile. The steep grade creates issues for all users. Trucks and other heavy vehicles have a difficult time climbing the 11% grade and often travel well below the speed limit. These slow vehicles cause congestion and delay along NH 25 because it has only one lane in each direction. It is worse winter months during when the

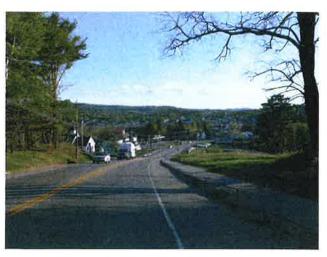


Figure 3.40-- High School Hill

pavement is slippery. NHDOT maintenance crews must place extra sand and salt on the grade to ensure vehicles have traction to climb the hill. The extra maintenance is often inadequate and vehicles lose traction and stop on the hill. Figure 3.40 is a photo looking down the hill.

The steep grade also makes it difficult for pedestrians and bicyclists. An 11% grade is beyond the acceptable grade for wheelchairs and precludes their use. Only avid bicycle riders are able to climb the grade. Sidewalks are present on the west side of the road but they are in poor shape, partly due to the storm water runoff from the hill.

During the study, specific solutions for High School Hill were not explored. The School Bypass component offers some relief because it is a new corridor to the school complex and requires only an 8% grade. Roundabouts proposed at the NH 25/Barnard Ridge Road Intersection could provide access relief to the schools. In past studies, constructing a truck climbing lane has been discussed as a way to reduce the delay associated with trucks climbing the hill.

The High School Hill area is the transition between the Village Core and Rural NH 25. Because of the school complex the area could be considered part of the Village Core. NH 25 in this area is more rural in nature. During Part B this area needs to be evaluated as the transition and a solution to the issues described above will depend on the selected alternatives for the Village Core and Rural NH 25.



3.5 Rural NH Route 25 Corridor Alternatives

The portion of NH 25 beginning near the school complex and extending to the Centre Harbor town line has a distinctive rural character. Driving through this corridor a person will see farmland, woods, and isolated homes. The development of alternatives for this area focused more on character and safety than traffic capacity. Traffic volumes are lower here than in the Village Core and pedestrians are few. Two basic alternatives are envisioned for this corridor, to maintain it as a rural highway or to redefine it as a village roadway. The following sections describe the two alternatives developed for Rural NH 25 as depicted below in Figure 3.41. The components presented in Section 3.6 (Page 74) could be part of either alternative. The specifics of the components may be different when added to either alternative because the safety issues could be different.

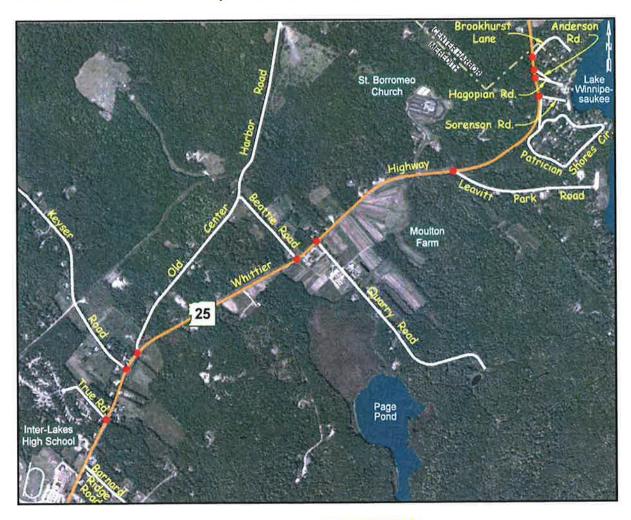


Figure 3.41 - Rural NH 25

3.5.1 NH 25 as Rural Highway Alternative

As described in Section 1.3.2 (Page 4), this portion of NH 25 is a rural highway with a speed limit of 45 mph. Under this alternative, NH 25 would remain a highway. Elements of the corridor would be altered to improve safety in some key areas. Also, other improvements, like bike lanes, could be made to meet the project vision.

The safety improvements along Rural NH 25 focus on several intersections where congestion, sight distance, and excessive speed create less than desirable conditions. These improvements are discussed in detail in Section 3.6 (Page 75).

3.5.2 NH 25 as Village Road Alternative

The NH 25 as a Village Road Alternative proposes changing the character of NH 25 through this portion of Meredith. NH 25 would be a 30 to 35 mph roadway that has a village character rather than a highway character. This change in character would accomplished with not changes to the geometry of the road, but with changes to the roadside features. Long, flat stretches of road may have curvature introduced to slow vehicles. It is proven that a 35 mph speed limit sign alone will not slow drivers. Curbing could



Figure 3.42 - Rural NH 25 as Village Road

be introduced to confine vehicles to the road. Trees, rock walls, sidewalks and other elements could also be added to achieve the change in character. Figure 3.42 is a rendering of NH 25 as a Village Road.

It is worth mentioning that many of the safety issues that exist along the rural portion of NH 25 may be mitigated or even eliminated if the speed were reduced. At some locations improvements would be required regardless of the speed limit. The components described in the following section may apply to the Village Roadway Alternative and some may not if the speed is reduced to a point where the safety issue no longer exists.



3.6 Rural NH Route 25 Corridor Components

The components developed for the rural portion of NH 25 focused on safety issues that exist at various intersections. Some of the intersections were evaluated by themselves while others were evaluated together because of their close proximity to one another. For each site the safety issue was determined and options developed to address the problem. The following intersection sites were evaluated and are discussed in more detail in the following sections.

- True Road
- Keyser Road/Old Center Harbor Road
- Beattie Road/Quarry Road
- Leavitt Park Road
- Patrician Shores Circle/Sorenson Road/Hagopian Road/Anderson Road
- Brookhurst Lane

No screening was conducted for the Rural NH 25 components. During the development of alternatives it became clear that the PAC felt these components should be screened once the corridor alternative was selected. At that time the appropriate safety improvements could be evaluated. The information provided in the following sections is meant to document the evaluations conducted as part of this study and give following studies a place to start.

3.6.1 True Road

True Road intersects NH 25 just north of Inter-Lakes High School and is the primary access for the Interlakes Mobile Home Park. The park has approximately 125 units. Access to NH 25 also exists at Keyser Road but this intersection has its own safety issues as described in the next section.

The primary safety issue at the NH 25/True Road Intersection is inadequate sight distance. The deficient sight distance affects vehicles attempting to access NH 25 from True Road. The view to the north for vehicles stopped at the True Road stop sign is obscured by a crest vertical curve on NH 25 and the grading in the yard of a private residence on the corner. There were 11 crashes reported at this intersection over nine years. Six of these were rear end collisions. Most alarming is that 3 of the crashes resulted in 9 injuries. Figure 3.43 is a photo of this view and Figure 3.44 is a plan view.









Figure 3.43 - True Road Sight Distance

Figure 3.44 - True Road Intersection

The School Bypass discussed in Section 3.4.7 (Page 65) provided an alternate access point for True Road. This would substantially address the existing safety issue. Modifications to the existing intersection can be made to improve the sight distance. However, without addressing the travel speed or vertical profile of NH 25 the deficient sight distance cannot be completely corrected. The grading on the corner property can be modified to increase the sight distance from about 50 feet to 200 feet. This is below the required 250 feet of sight distance required for a 35 mph design speed. Discussions with residents suggest that many motorists drive over the speed limit at this location as the speed limit changes to 45 mph just 800 feet to the north.

3.6.2 Keyser Road/Old Center Harbor Road

The Keyser Road and Old Center Harbor Road intersections with NH 25 have many of the same safety issues because they are only 350 feet apart. These include the following and are shown on Figure 3.45:

- Speed limit changes from 45 mph to 35 mph at the Keyser Road Intersection
- NH 25 is on a horizontal curve throughout the area
- The profile of NH 25 is on a crest vertical curve through the area
- The vertical high point is located between the two intersections





Figure 3.45 – Keyser/Old Center Harbor Road Intersections

These factors all contribute to inadequate sight distance for both intersections. The speed limit change compounds the issue because many drivers are not reducing their speed as they approach this area. Figure 3.46 is a photo of the view from Keyser Road looking northeast. Drivers from this vantage point have about 380 feet of sight distance. This is adequate for a 45 mph speed. However, because many are traveling faster, a left turn from this intersection is challenging. Figure 3.47 is a photo of the view from Old Center Harbor Road looking southwest. Drivers from this position have about 350 feet of sight distance. This is adequate for a 35 mph speed, but is not sufficient for a 45 mph speed. The speed limit changes within the sight line from this intersection, so many vehicles are travelling at a speed that makes entering the roadway unsafe.



<u>Figure 3.46 – Keyser Road</u> <u>Sight Distance</u>



<u>Figure 3.47 – Old Center Harbor Road</u> <u>Sight Distance</u>



 $N \leq N$

There were a total of 21 crashes reported at these two intersections over a 9 year period. Of these, 9 were rear end collisions. There were 6 injury crashes with 11 injuries. There were no reports of sideswipe crashes that would occur should a vehicle exiting either intersection be hit by a vehicle traveling on NH 25.

The first improvement concept addressed the sight distance issue at Old Center Harbor Road only. This concept proposes shifting the intersection about 200 feet to the east to increase the sight distance from the high point. This increases the sight distance to over 400 feet, which is sufficient for the 45 mph speed. The shifted intersection bisects a small parcel of undeveloped private land. This concept requires only about 250 feet of new roadway. Figure 3.48 depicts the shifted intersection.

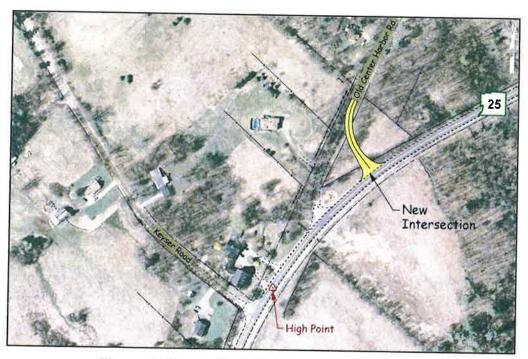


Figure 3.48 - Shifted Old Center Harbor Road

Another concept was developed to address the safety issues at both Keyser and Old Center Harbor Road. The challenge with the Keyser Road intersection is that there is no simple solution. This concept builds upon the previous concept and creates one new intersection to replace the two deficient intersections. The concept proposes a new 1,200-foot roadway connecting Keyser Road and Old Center Harbor Road. The new intersection provides the same sight distance as the previous option, over 400 feet, but for both Keyser Road and Old Center Harbor Road. Figure 3.49 depicts this new connection.



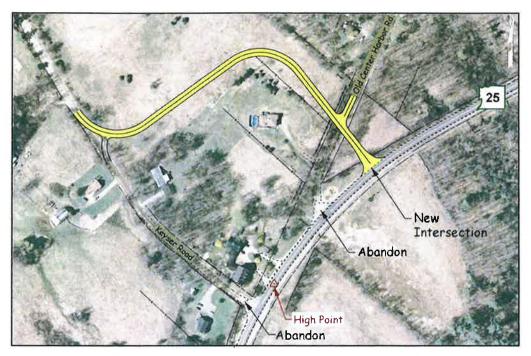


Figure 3.49 – New Keyser/Old Center Harbor Road Connection

3.6.3 Beattie Road/Quarry Road

The Beattie Road and Quarry Road intersections with NH 25 have many of the same safety issues as the Keyser Road/Old Center Harbor Road area because they are only 500 feet apart. Figure 3.50 shows the two intersections. The issues for these two intersections are sight distance and turning vehicles. As with other safety areas, this area has a combination of horizontal curvature, vertical curvature, and speed. There is a horizontal curve at Beattie Road and the vertical high point lies just southwest of Beattie Road. The area between the two intersections lies completely within a crest vertical curve. The speed limit in this area is 45 mph, but vehicles routinely travel at higher speeds because the geometry of NH 25 accommodates it. The horizontal and vertical sight distances are sufficient for the speed limit, but not for the higher speeds that are common. Since Beattie Road and Quarry Road intersect NH 25 on opposite sides, the conflicts with turning vehicles are also a concern.



There were a total of 35 crashes reported at the two intersections over a 9 year period. Most of the crashes occurred at the Quarry Street intersection. About a third of the crashes were rear end collisions that are indicative of crashes where vehicles on the main road collide with vehicles waiting to turn.





Figure 3.50 - Beattie Road/Quarry Road Intersections

Several concepts were developed to address the safety issues at these two intersections. Two of the concepts propose re-aligning roads to eliminate one of the intersections. The re-alignment of Quarry Road was developed first because it would not impact any structures, this can be seen in Figure 3.51. There are some concerns with this concept because it places the intersection where the horizontal and vertical curvature exists. It should be noted that left turn lanes are included to provide a safe refuge for turning vehicles. Right turn lanes are not shown but could be considered.

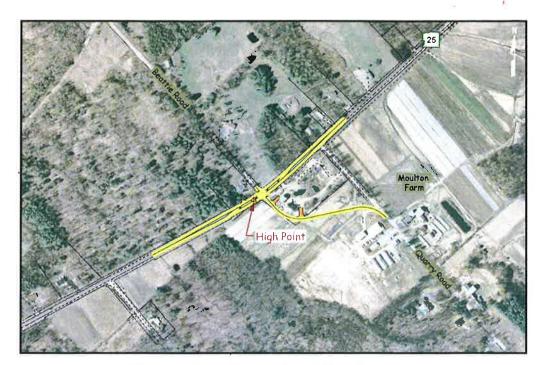


Figure 3.51 - Quarry Road Re-alignment

Because of the concerns over sight distance as a result of the horizontal and vertical curvature, the re-alignment of Beattie Road was developed as depicted in Figure 3.52. This places the single intersection where the road is straight and there is minimal vertical curvature. One single family home is impacted by this concept. Left turn lanes are provided as before.

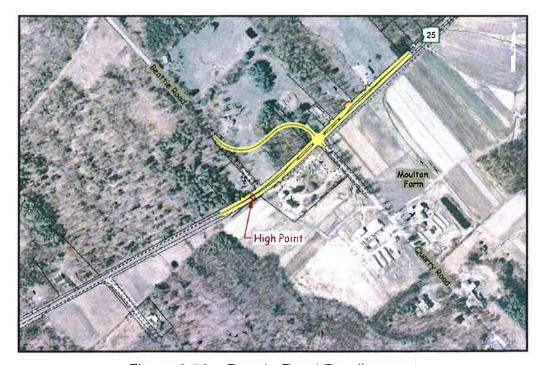


Figure 3.52 – Beattie Road Re-alignment



REFERENCES

The final concept developed for Beattie and Quarry Roads focuses on the impact turning vehicles have on the safety of both intersections. For this concept NH 25 is improved to provide both left and right turn lanes for vehicles entering and leaving the corridor at both locations. Turning vehicles have a safe place to decelerate when leaving the corridor and vehicles making a left turn to enter the corridor have a safe refuge to accelerate, if needed. This corridor upgrade concept is depicted in Figure 3.53.



Figure 3.53 - Beattie Road/Quarry Road Corridor Upgrade

3.6.4 Patrician Shores Access

Patrician Shores is a residential area at the northeast end of the study limits along NH 25. In one 450-foot stretch of the corridor, there are three intersections accessing NH 25. In the last half mile stretch of NH 25 in Meredith there are five roads that intersect NH 25. This section covers five of these intersections, which include the following roads:

- Leavitt Park Road
- Patrician Shores Circle
- Sorenson Road
- Hagopian Road
- Anderson Road.

One of the safety concerns with the area is the number of access points in a short distance. Figure 3.54 shows this area.



Other safety concerns include:

- Speed limit changes from 55 mph to 45 mph at the town limits
- NH 25 is partially on a horizontal curve through the area
- An advisory 40 mph speed limit is set for the horizontal curve
- The vertical high point is located along the horizontal curve.

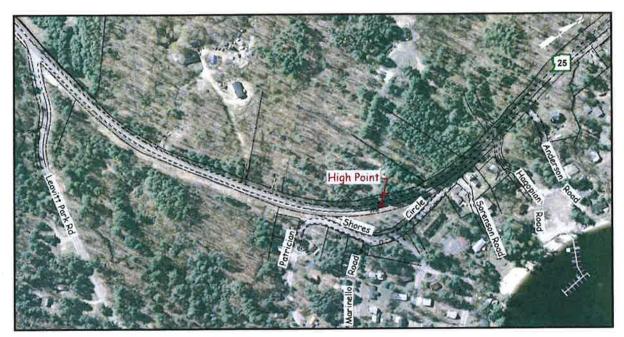


Figure 3.54 - Patrician Shores Area

There were a total of 29 crashes reported at the five intersections over a 9 year period. Of these, 11 occurred at Leavitt Park Road and 15 at Patrician Shores Circle. Over 40% of the crashes were rear end collisions that are indicative of crashes where vehicles on the main road collide with vehicles waiting to turn. There were 9 injury crashes resulting in 16 injuries. Of note, there were two crashes that each resulted in 4 injuries. This indicates a collision at a high speed.

Several concepts were developed to address these safety concerns. To start with, it was believed that some of the intersections should be closed with the understanding that other locations could be improved or created. Hagopian Road currently is closed during the winter because its steep grade precludes it from plowing. Closing the Hagopian Road intersection permanently was proposed.

Closing the intersection of NH 25/Patrician Shores Circle/Sorenson Road was also proposed with the understanding that another, safer intersection, would be provided. The best option for this access was to connect Patrician Shores Circle to Leavitt Park Road. The new connection would parallel NH 25 and use land owned by the Town of Meredith. No buildings would be impacted as a narrow strip of land is available between NH 25 and the homes along Patrician Shores Circle to

accommodate the new road. Figure 3.55 depicts the new connection along with the intersections that would be closed.



Figure 3.55 - New Connection to Leavitt Park Road

One last concept was developed to consolidate all access along this portion of NH 25 to one intersection. The new intersection at St Borromeo Church would provide all access to and from NH 25. This intersection was chosen because it already has left and right-turn lanes and has excellent sight distance. As part of this concept all of the access points along NH 25 would be eliminated with all traffic using the St Borromeo Church Intersection. Figure 3.56 depicts the new frontage road.

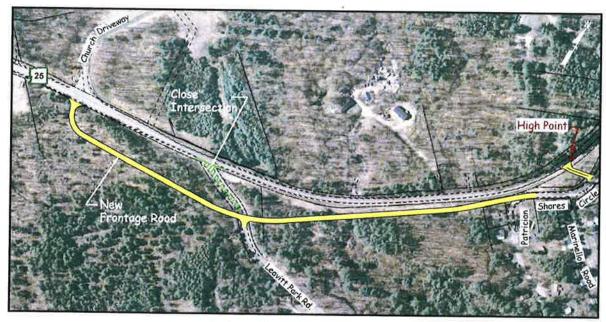


Figure 3.56 - New NH 25 Frontage Road



3.6.5 Brookhurst Lane

Brookhurst Lane is the last intersection on NH 25 in Meredith. The street is only 150 feet from the town limits. The main concern at this intersection is the speed of traffic on NH 25 and the difficulty its makes for access to and from Brookhurst Lane. The speed limit changes from 45 mph to 55 mph at the town boundary and because the road is long, straight, and wide at Brookhurst Lane, vehicles are already accelerating near the intersection.

The two left turn movements are difficult and unsafe due to the speed issue. These are the vehicles on Brookhurst Lane wishing to head south/west on NH 25 and southbound/Westbound NH 25 traffic wishing to make a left turn onto Brookhurst Lane. There were only 2 crashes reported at this intersection over a 9 year period. However, one of these involved three vehicles and resulted in one injury.

The concept developed makes the intersection more formal with a left turn lane on NH 25. This provides a safe refuge for this turning traffic. The existing wide shoulders on NH 25 would be made narrower to slow traffic. Much of this could be accommodated with the existing pavement with some minor widening. However, other than slowing traffic on NH 25, this concept does not address the concern for vehicles leaving Brookhurst Lane. Figure 3.57 depicts the upgraded intersection.



Figure 3.57 - Brookhurst Lane Upgrade

6.6 Recommended NEPA Classification

Because the Range of Reasonable Alternatives are not expected to cause significant impacts to resources, it is recommended that the best course of action is to prepare a Categorical Exclusion (CE) for the environmental documentation part of the project in Part B. This recommendation is based upon past experience with similar projects and impacts as well coordination with the Bureau of Environment at NHDOT.

6.7 Next Steps

With the completion of Part A of the Meredith US 3 / NH 25 corridor improvement project, Part B will commence with the refinement and evaluation of reasonable alternatives in preparation to determine the preferred alternative with the assistance of the PAC group from Part A. Part B of the project will develop a corridor plan describing the preferred alternative for the entire corridor. Due to funding constraints it is unlikely that the entire alternative could be fully implemented as part of this project. Therefore, Part B will prepare an affordable portion of the corridor plan for implementation by completing the environmental documentation, preliminary engineering, and public hearing process. Finally, Part C will design and construct a portion of the preferred alternative that is possible with the funding available at the time. The corridor plan will continue to serve the NHDOT and Town of Meredith as the basis for future improvements to the US 3 and NH 25 corridors as funding opportunities arise and private development occurs.

Economic Opportunity, Environmental Quality





LAKES REGION PLANNING COMMISSION 103 Main Street • Humiston Building Meredith, NH 03253 603-279-8171 • www.lakesrpc.org

As illustrated in Figure 2, the effect on the Lakes Region was the removal and reduction of approximately \$88.5 million (construction cost) worth of non-programmatic projects from the TYP over the course of several updates. In addition to non-programmatic or discretionary projects the TYP also contains programmatic projects where funding is specified according to program goals and objectives. For example, the State Aid Bridge (SAB) program has a specific amount of funding, requires a 20 percent local match, etc. The most recent TYP update, which began in 2012, was the first update since 2006 when additional projects were added.

Accompanying the financial shortfalls to make needed transportation improvements was the re-evaluation and prioritization of focus areas of greatest concern. The NHDOT has stated that maintaining existing infrastructure (in favor of building new roads or expanding capacity) and improved safety are the primary areas of focus. The maintenance of existing infrastructure is further prioritized as:

- Highest Priority National Highway System; needed for healthy economy and mobility.
- Second Priority Remaining US routes and State numbered routes; maintained at a less than desirable level.
- Last Priority State unnumbered routes; not being properly maintained due to lack of funding.5

Map 1 illustrates the hierarchy of state route maintenance priorities in the Lakes Region as they relate to regional corridors of importance and recent annual average daily traffic. It is estimated that the current backlog to repair all state maintained highways and bridges that are in poor condition is \$1.3 billion. Snow removal and ice control represent approximately 40 percent of the annual state

Figure 2: Lakes Region Projects Ten Year Plan Comparison - Lakes Region Projects 2007 - 2016 TYP through 2011 - 2020 TYP

	,	TYP 2007-2016	TYP 2009-2018	TYP 2011-2020
PROJECT NAME	PROJECT #	Proposed Construction Cost (SM)	Proposed Construction Cost (\$M)	Proposed Construction Cost (SM)
BARNSTEAD - ALTON Rte. 28 Reconstruction	14121	9 600	5 000	4 125
BELMONT - LACONIA Improve 106/107 Access	2787	11 000	1 500	1 500
MEREDITH Reconstruct Rt 25	10430	12 500	5 000	5 000
OSSIPEE Rte 28 Recort 3.36 miles	10431	6,75C	3 000	3 000
OSSPEE 16/25/41 Intersection	13910	1.590	1,590	1 590
OSSIPEE Bridges Reconstruction	14749	9 000	5 000	9 000
ALTON - GILFORD Rie 11 Bypass	10606	6 350	×	- 5
ANDOVER NH Rte 11 Reconstruction	14172	1 235	A	*1
ANDOVER US Rte. 4 Flooding	2754	3 500	8	*
BELMONT 140 Safety Improvements	12792	7 00C	8	*
DANBURY Rt 4/104 Intersection	3268	3 000	=	*
FRANKLIN - NORTHFIELD Connector Study	1813	1.061	*	*
LACONIA - MEREDITH US 3 Meredith to Weirs	2768	4.500	×	
MEREDITH Reconstruct Rt 106	3527	3 500	~	
MOULTONBOROUGH 25 and 25/109 Intersection	2737	6 000		*
NEW HAMPTON - MEREDITH NH Rte 104	3267	8.500		
NORTHFIELD Full Interchange Exit 19	13596	7 500	.2	
WOLFEBORO RI28 Intersection/drainage	13954	7 000		
TOTAL CONSTRUCTION COSTS (\$M)		109.59	21.09	24.22
Change from Previous TIP (\$MM)			-88,50	3, 13

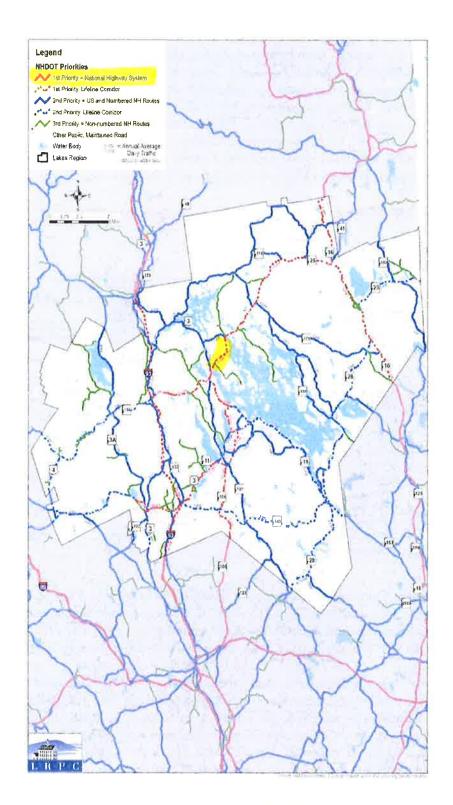
⁵ NHDOT, The Road to New Hampshire's Future, Presented at Lakes Region Transportation Workshop, November 12, 2013

⁶ TRIP, New Hampshire Transportation by the Numbers: Meeting the State's Need for Safe and Efficient Mobility, February 2013.

highway maintenance budget (\$32 million in Fiscal Year 2012). Figure 3 outlines the miles of highway in each Lakes Region community by local and state ownership and according to the NHDOT maintenance priority categories for state highways.

Figure 3: Miles of Highway in Lakes Region Communities by NHDOT Maintenance Categories

Municipality	State Highway Miles	Highest Priority - National Highway System	Second Priority - Remaining US Routes and State Numbered Routes	Last Priority - State Unnumbered Routes	Municipally Maintained (Class V) Road Miles	Total Road Miles (State and Cls V)
Alexandría	12.4	0.0	4.4	8.0	43.1	55.5
Alton	38.6	0.0	38.5	0.1	82.2	120.8
Andover	16.3	0.0	16.1	0.2	47.4	63.7
Ashland	17.0	9.0	6.3	1.7	20.3	37.3
Barnstead	13.6	0.0	13.4	0.2	80.5	94.0
Belmont	17.9	8.6	9.1	0.2	67.0	85.0
Bridgewater	10.5	0.0	4.0	6.5	26.3	36.7
Bristol	17.0	0.0	11,1	5.9	36.6	53.6
Center Harbor	11.4	1.6	5.5	4.4	17.5	28.9
Danbury	13,6	0.0	11.4	2.3	49.9	63,5
Effingham	10.8	0.0	10.8	0.0	42.1	52.9
Franklin	27.2	4.2	18.0	4.9	57.2	84.3
Freedom	14.1	0.0	7.0	7.1	43.1	57.2
Gilford	27.4	4.2	23.0	0.2	90.1	117.5
Gilmanton	22.6	1.8	20.4	0.5	71.9	94.5
Hebron	10.2	0.0	3.7	6.5	13.6	23.8
Hill	8.2	0.0	4.7	3,5	25.8	34.0
Holderness	21.7	2.5	19.2	0.0	30.5	52.2
Laconia	30.9	7.7	17.3	6.0	75.3	106.3
Meredith	30.1	14.3	4.9	10.8	89.0	119.0
Moultonborough	31.9	6.7	11.3	13.9	64.8	96.7
New Hampton	31.3	16.5	9.9	5,0	51.0	82.3
Northfield	21.9	11.8	7.2	3.0	42.6	64.5
Ossipee	36.9	16.6	13.0	7.3	83.2	120.1
Sanbornton	35.8	14.9	12.2	8.8	55.8	91.7
Sandwich	30.2	4,1	20.2	5.9	65.1	95.3
Tamworth	30.3	13.9	16.3	0.2	62.6	93.0
Tilton	27.0	12.1	4.3	10.6	11.2	38.2
Tuftonboro	19.0	0.0	19.0	0.0	35.6	54.6
Wolfeboro	25.5	0.0	22.0	3.5	64.0	89.4
Lakes Region Total	661.4	150.3	384.1	126.9	1,545.3	2,206.6



Regional Transportation Priorities

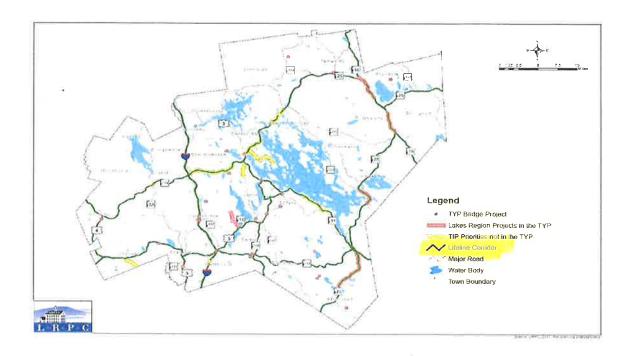
The process to prepare the Lakes Region Transportation Improvement Plan (TIP) usually begins with the LRPC soliciting project requests from local communities, followed by an evaluation process by the Lakes Region Transportation Technical Advisory Committee (TAC) where new and existing projects are prioritized. The prioritized projects are presented to the LRPC Commissioners for adoption. After LRPC approval, they are submitted to NHDOT for consideration in the statewide TYP. Following a series of public hearings held by the Governor's Advisory Commission on Intermodal Transportation (GACIT), and potential modifications of the plan by GACIT and the Governor, the Ten Year Plan is submitted to the Legislature where it may be again amended before adoption. Figure 4 shows ranked primary and secondary TIP projects for the Lakes Region.

Figure 4: Lakes Region TIP 2013: Ranked Priority and Secondary Priority Projects

Priority States	Construction Cost (millions)	Rank	Project Location	Project Type		
	\$4.63	1	Meredith US3	Floadway and intersection improvements		
the manual their sales and	59 00	2	Ossipee NH16/NH23	Replace three Red List bridges and resurfacing		
Regional Priorities Existing Ten-Year	\$1.59	3	Ossipee NH16, NH25, NH41	Intersection improvements		
Plan Projects	\$3.00	-1	Ossipee NH16 at NH28	Payement rehabilitation and intersection improvements		
	\$1.38	5	NH Route 28 (Alton Traffic Circle 7 miles south)	Intersection Improvement (recommend North North Barristead Roads at NFCB)		
	\$7.44	1	Walfebora Niri28	Base and pavement, drainage, traffic flow, sight distance		
Print Projects Frioritized projects for inclusion in Ten-Year Plan as funding	\$5.72	2	Meredith - Pleasant Street to Center Horbor town line	Safety Improvements - priority Intersections.		
	\$6,35	3	Alton/Gilford NH11	Roadway reconstruction and shoulders		
	\$1.48	4	Bristol NH104	Roadway reconstruction and alignment.		
	\$5 00	5	Mouttonborough NH25 - Mouttonborough Neck to NH109S	Roadway reconstruction		
	\$1.93	6	Meredith NH104	intersection safety improvements		
	760	7	New Hampton/Meredith NH104	Roadway reconstruction		
	\$4.13	9	Meredith NH106	Intersection safety and sight distance improvements		
	\$3.50	9	Andover US4	Resolve potential flooding		
	\$0.15	10	Moutonborough NH25 at Sheridan Road	Intersection safety		
	\$2.68	11	Meredith - Barnard Fødge & Meredith Neck	Full reconstruction		
	\$7.50	12	NorthReld - Completion of 1-93	Construct full Interchange.		
	\$0.08	13	Moultonborough NH25 at Saw Mill Roard	intersection safety		

While the state transportation funding debate continues, additional projects have been identified by Lakes Region communities for consideration in the regional Transportation Improvement Plan. Secondary regional transportation priorities include projects previously removed from the TYP and new projects for consideration in the regional TIP. Map 2 illustrates the TIP priorities in relationship to regional "lifeline corridors" or a primary corridor of critical importance to the region. Noteworthy, is that both non-programmatic and programmatic projects are included. The programmatic projects consist mainly of bridge projects, many of which are Red List bridges, which are either functionally or structurally deficient. An exception is Upper Bay Road in Sanbornton which is in the category of preservation and maintenance and required a 33 percent local match for the project to be funded. The lifeline corridors serve the majority of the traffic flow through and within the region, many of which also provide vital connectivity to other regions.

Map 2: Lakes Region Lifeline Corridors, Ten Year Plan and TIP Projects



Structurally Deficient means a highway bridge is classified as structurally deficient if the deck, superstructure, substructure, or culvert is rated in "poor" condition. A bridge can also be classified as structurally deficient if its load carrying capacity is significantly below current design standards or if a waterway below frequently overtops the bridge during floods. Functionally Obsolete means the highway bridge design is outdated -which may have lower load carrying capacity, narrower shoulders or less clearance underneath than bridges built to the current standard.

In preparation for the 2012 TIP update, the LRPC hosted a TAC subcommittee workshop to assess regional focus areas of concern. The process was aided by Decision Lens software which facilitated evaluating a host of factors to determine which are of highest priority. The results for the Lakes Region mirrored the priorities identified by NHDOT. The maintenance and rehabilitation of roadways to reduce long-term costs and safety ranked as the first and third priority focus areas (the leading priorities for NHDOT). In addition, the expansion of other modes of transportation (i.e. transit, pedestrian, and bicycle) was the second highest priority for the region.



Lakes Region Tour Scenic Byway

September 30,

2015

This plan articulates the vision for the Lakes Region Tour Scenic Byway and identifies implementation strategies that corridor communities can use to retain and enhance characteristics of the byway that make it attractive to visitors and residents.

Corridor Management Plan

1. INTRODUCTION

The purpose of a Scenic and Cultural Byway Corridor Management Plan (CMP) is to outline a byway's important features, and provide guidance for their protection and future enhancement. The New Hampshire Scenic and Cultural Byways Program was established in 1992 by state statute (RSA 238:19) to provide residents and visitors opportunity to travel on existing highways that represent unique elements of the state's beauty, culture and history. The Lakes Region Tour Scenic Byway (Lakes Tour) was formally designated in 1994 by the Scenic Byway Council as a result of local and regional interest in the program. A Lakes Tour CMP was established in 1999 through guidance provided by the Lakes Region Planning Commission.

The need for an updated Lakes Tour CMP was initially explored by the Lakes Region Transportation Technical Advisory Committee (TAC). The enthusiasm of TAC members led to the creation of an Exploratory Committee that ultimately assisted Lakes Region Planning Commission staff in the development of a successful application for funding through the Federal Highway Administration's National Scenic Byway Program. Lakes Tour communities with professional planning staff have dedicated a portion of their time to assist in the development of this CMP.

Today, the CMP is one of two important prerequisites for maintaining byway designation. The other requirement to maintain designation status is an active corridor advisory committee comprised of representatives from each byway community with the responsibility of adopting the CMP. An expected outcome of the CMP is an implementation schedule for recommendations designed to enhance the travel experience. For the Lakes Tour, the Scenic Byway Advisory Committee (SBAC) is currently comprised of community representatives appointed by their Board of Selectmen to serve as a subcommittee of the TAC.

This plan represents a unique opportunity to boost and strengthen community connections centered on encouraging tourism, historic preservation, arts, culture and local economy, and natural resource protection. This plan addresses the required federal criteria for nominating a byway for national recognition through the National Scenic Byway Program. For state-designated byways, the federal criteria provide useful guidance to local byway committees for a comprehensive approach to planning a byway's future. A description of the 14 Federal Highway Administration (FHWA) elements that must be in a corridor management plan seeking national recognition is in Appendix A.¹ The 14 points are cross referenced with this plan.

Over-time a host of organizations have shared and distributed information about the state's 16 cultural and scenic byways.² For the Lakes Region, this information in its various forms has limited cohesion and in some cases contains conflicting figures and facts about the Lakes Tour. As this document was prepared with the assistance of byway community representatives, it is hoped the information contained within is viewed as the definitive source of information about the Lakes Tour. As such, a goal

¹ Adapted from: National Scenic Byways Program, Federal Register, Vol. 60, No. 96, Thursday, May 18, 1995

² Source: http://www.nh.gov/dot/programs/scbp/tours/index.htm, viewed July 2, 2015.

of the Corridor Advisory Committee to engage others in marketing the Lakes Tour should begin with outreach to area organizations that currently display dated information about the byway.

2. BYWAY VISION

An enhanced travel experience resulting from: community character and prized resources preservation; shared stewardship values with users; and increased awareness of the byway and its role in local and regional economic opportunity.

3. HISTORY OF BYWAY PROGRAM and LAKES TOUR BYWAY

The National Scenic Byways Program was created 1991 as a federal law outlined in the Intermodal Surface Transportation Equity Act (ISTEA – pronounced Ice-Tea). This federal legislation authorized both the designation of national scenic byways and competitive funding for eligible projects involving designated byways. The national program spurred the start of the NH Scenic & Cultural Byways program in 1992. From the start of the state program until 2012, NH benefitted from an annual average of approximately \$550,000 awarded for byway projects or approximately \$11 million in total.

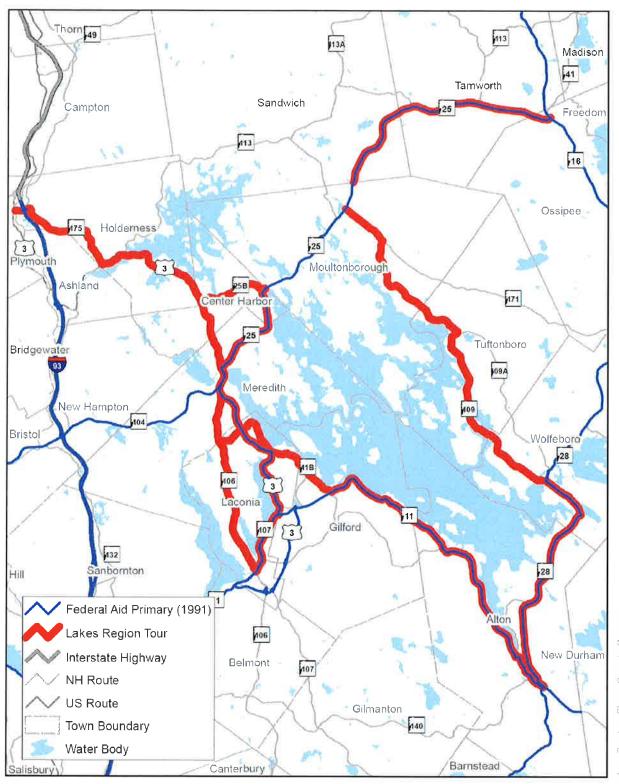
The most recent federal transportation legislation, Moving Ahead for Progress in the 21st Century or MAP-21, has largely ended the Scenic Byways program. Byways and several other programs such as Safe Routes to Schools and Transportation Enhancements now compete, at the discretion of each state, as part of the newly created Transportation Alternatives Program (TAP). In New Hampshire, the Department of Transportation (NHDOT) has determined that scenic byways activities, along with several other federally eligible activities under the TAP, will not be considered for funding in favor of promoting and funding non-motorized transportation improvements. The Federal Highway Administration (FHWA) guidance does not speak to the issue of whether the use of TAP funds for planning projects such as Corridor Management Plans remains an eligible activity for funding. However, it is important to note that the New Hampshire Department of Transportation's TAP program will focus on infrastructure improvements only.

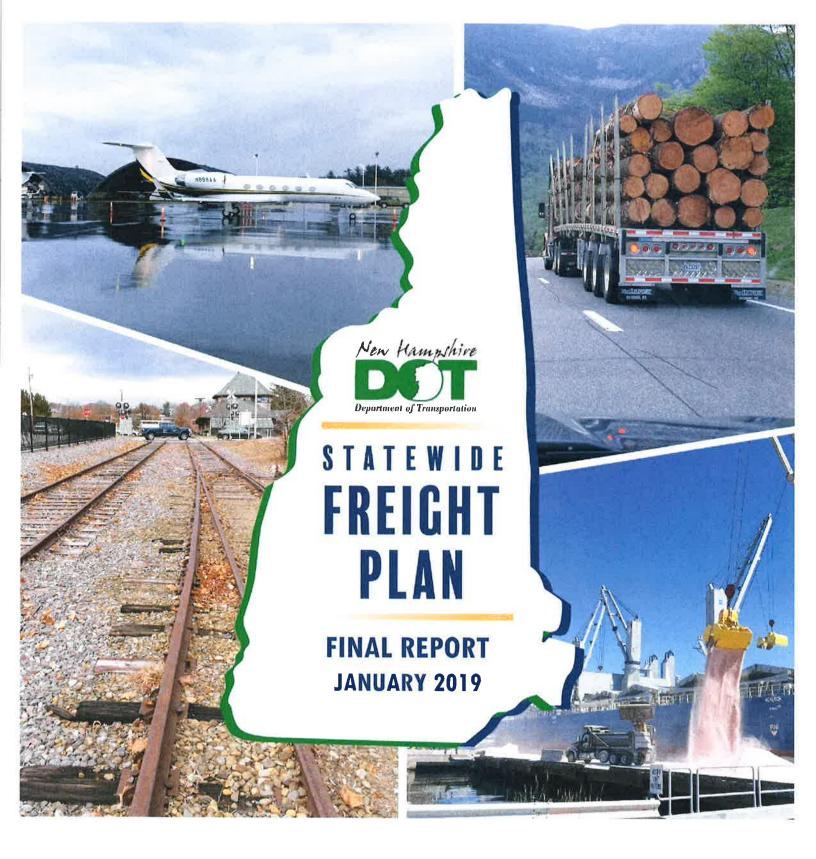
Historic records and supporting documentation about the designation of the Lakes Region Tour Scenic Byway is challenging to find. Typically, designations result from a community request for formal designation which is confirmed through a public hearing and ultimately acknowledged by the state byway committee. Where not all sections of the Lake Tour could be substantiated through documentation and where fewer than thirteen of the byway communities participated in the development of a 1999 Corridor Management Plan, the Lakes Region Planning Commission and NH Byway Program reached out to Selectmen in non-participating communities to inquire about interest in engaging representatives in the development of this Corridor Management Plan. The result of this outreach was that five of the thirteen communities on the Lakes Tour Byway: Ashland, Holderness, Moultonborough, Ossipee and Sandwich opted not to participate in the development of this Plan due to timing and lack of available representatives.

	Resource Name	Byway Proximity	Characteristics	Description
	Interlakes Summer Theatre	on byway	С	
	Leavitt Park	off byway (2,371')	R, S	Located on Lake Winnipesaukee - Leavitt Park Road. off Route 25. Beach, picnic area, barbeque grills, playground, public restrooms
	Meredith Bay Public Waterfront	on byway	C, R, S	Continuous 2,800' public waterfront includes: Hesky, Scenic, and Clough Parks, POW/MIA memorial, town docks, and boardwalk
	Meredith Community Center	on byway	R	Recreational programs, climbing wall, connected with Prescott Park
	Meredith Community Forest	off byway (2,226')	R	185 acre conservation land, 5 miles of recreational trails, map
	Meredith Public Library	off byway (530')	С, Н	National Register building, site also includes: All-America Selections (AAS) Display Flower Garden, Civil War Monument
(pen)	Moulton Farm	on byway	C, N, R	Working agricultural landscape, farm stand, conservation easement, on Lakes Region Farm Tour
(contin	Page Pond and Forest	off byway (2,212')	H, N, R	600 acre conservation land, 7 miles of trails, mill site, Leavitt Cemetery, pond frontage, map
Meredith (continued)	Picnic Rock Farm	on byway	с, н, s	Formerly Longridge Farm, working agricultural landscape, farm stand, conservation easement, on Lakes Region Farm Tour
Me	Prescott Park	on byway	R	Ball fields, skate park, tennis courts, playground, restrooms
	Storer Memorial Forest	on byway	R	88 acre conservation land (New England Forestry Foundation)
	Swasey Park	off byway (1,465')	R	Waterfront park on Waukewan canal, side street off Main Street
	The Winnipesaukee Playhouse	off byway (2,628')	С	Non-profit performing arts venue, year round
	Visitor Information Center	on byway	С	Information about Winnipesaukee, Squam and Newfound Regions of NH provided by Meredith Area Chamber of Commerce
	Waterfall	on byway	H, S	Located at Mill Falls Marketplace
	Waukewan Highlands Park	on byway	R, S	190 acre conservation land, 3 miles of recreational trails, map
	Bearcamp Covered Bridge	,10 mile	Н	AKA Whittier Bridge, c. 1879, NH covered bridge 46, World Guide of Covered bridges #29-02-08, 2008 - present restoration
	Remick Farm Museum	2 miles	С, Н	Historic working farm and museum
	Ordination Rock	2.10 miles	Н	Glacial bolder, c.1792 Samuel Hidden ordained as first settled minister of Tamworth, monument on rock c.1862
	Grover Cleveland Summer Home	off byway (2 miles)	н	Private residence, viewable from Cleveland Hill Road.
Tamworth	Barnstormers Summer Theatre	off byway (2 miles)	с, н	Longest-running professional summer theatres in the country, 282 seats, air-conditioning, non-profit operated, community events
Tamwo	Cook Memorial Library	2 miles	С, Н	Founded by Parson Samuel Hidden 1796, current building in 1895, two-story clock tower, National Register of Historic Places
	Tamworth Town House	2 miles	Н	Historic site of town business c.1794
	Tamworth Village	2 miles	A, C, H	Historic village center with services and gathering spaces.
	Tamworth Village School	2 miles	нс	Now the site of the Unitarian Church - weekly, local Farmer's Market.
	Chocorua Public Library	4 miles	н	c. 1897, founded by Boston educators and businessmen, one of few private funded libraries for public use, new construction 1968

 $A = Architectural; \ C = Cultural; \ H = Historic; \ N = Natural; \ R = Recreational; \ S = Scenic; \ V = Views$

Map 2: The Lakes Region Tour Scenic Byway - 2002





Prepared by: Whitman, Requardt & Associates, LLP

In Association With: IHS Global Insight (IHS)

IBI Group (IBI)

Regina Villa Associates, Inc. (RVA)





1.2.2 Statewide Freight Infrastructure - Highway Network

New Hampshire's freight infrastructure consists of the highway network, railways, airports, marine, and pipeline transportation.

Highways

Based on 2017 roadway data²¹, New Hampshire's Roadway System includes approximately 16,622 miles of roadway. Approximately 28% of these roadways (statewide/regional corridors and local connectors) are maintained by the State, and the remaining 72% (town and compact roads) are maintained by local municipalities.

The NH Turnpike System currently consists of 167 miles of limited access highway, with 71 miles being part of the Interstate Highway System. The Turnpike System is comprised of three limited-access highways: the Blue Star Turnpike (I-95) and the Spaulding Turnpike make up the Eastern Turnpike, while the F.E. Everett Turnpike is also known as the Central Turnpike.

Roadways provide critical first and last mile connections, provide access to the NHFN for long haul truck trips and provide access from businesses, warehouses, and distribution centers to railroads, ports, and airports. The vast majority of freight in New Hampshire relies on trucks for at least a portion of its supply chain.

The National Highway System (NHS) (Exhibit 1-12) includes 1,256 miles of the State's highway system, including Turnpikes, Interstates, and other priority highways (US/State Routes, Traffic Circles, Local Roads, and Ramps). The NHS is critical for public safety, emergency preparedness and statewide connectivity to ensure continuous travel within New Hampshire as well as to neighboring states.



Most shipments are transferred to trucks and delivered to their final destinations. These vehicles come in a variety of sizes and types and are regulated by size and weight limitations. Single unit vehicles are vehicles traveling without a trailer. while combination vehicles include a truck and one or more trailers. A third category has been designated for certified vehicles. which additional registration requirements for either specific weight limits or in excess of maximum load limits. Special permitting is required for oversize/overweight loads.

 $^{^{21}}$ 2017 Roads and Highways Facts and Figures, NHDOT Planning – GIS Section, Jan 2017



1.3.5 Overarching Themes

After completing a series of outreach efforts involving the public, regional planning commission, and NHDOT staff, reoccurring comments related to New Hampshire's infrastructure system, freight opportunities, and areas of traffic and congestion problems were noted. The main issues and concerns included:

- Truck driver shortage and poor driver retention rates
- Truck parking
- Bottleneck locations (I-93, Spaulding Turnpike, I-95)
- General need for east-west corridors
- New intermodal facility in NH
- Weight restrictions on bridges
- Lack of double stack clearance bridges
- Lack of 286k rail load capacity
- Potential freight development opportunities
- Implementation of adaptive signal control to help mitigate congestion
- Rail freight carrier coordination to develop new customers
- · Better rail facilities for intermodal freight use
- Port upgrades to enable larger shipments
- Inter-regional and intra-regional coordination among municipalities, MPO, and state
- Traffic congestion and safety concerns at identified locations throughout the state
- Planning for autonomous trucking and CAV technology
- Impacts of changes to electronic logging device (ELD) rules for commercial vehicles



Highways

New Hampshire puts an emphasis on maintaining a state of good repair for its infrastructure system, including roadways and bridges. Pavement conditions, red list bridges, and height/weight restricted bridges are reevaluated and updated on a periodic basis. The state's Ten Year Plan is an extensive process dedicated addressing roadway and infrastructure needs in the most efficient manner with available federal and state funding. Areas of traffic congestion and safety concerns are also noted and prioritized accordingly.

Since Interstates carry the highest traffic volumes, both passenger cars and trucks, measures have been taken to ensure that the Interstates operate at acceptable levels of service and provide a safe and reliable route for the movement of freight and goods.



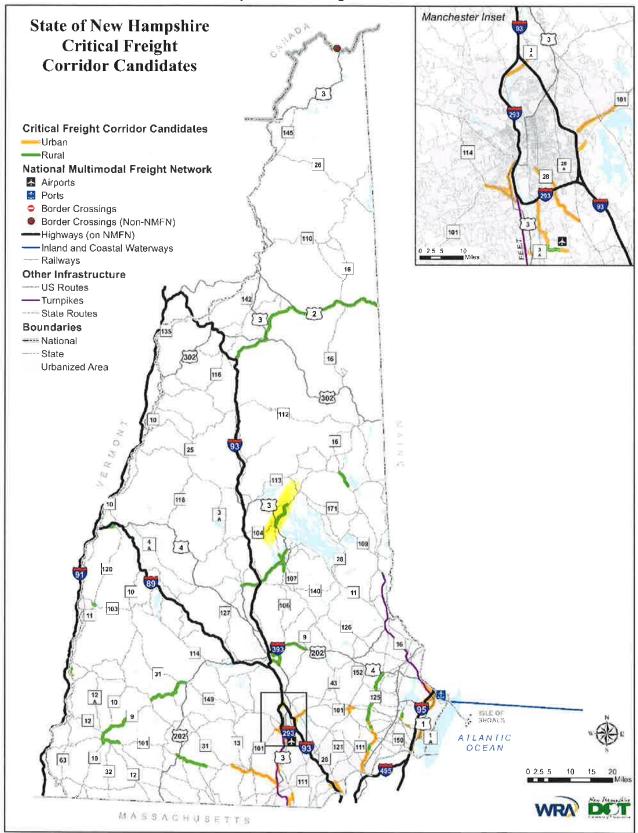
Exhibit 3-8: Critical Rural Freight Corridors (CRFCs) for Consideration

lD.	MAIN ROUTE	LOCATION	LENGTH (MILES)
951	MANCHESTER-BOSTON AIRPORT AREA	RAYMOND WIECZOREK DR, PETTENGILL RD, BROWN AVE, US 3A. MANCHESTER, LONDONDERRY, AND LITCHFIELD	1.2
952	NH 101	KEENE	6.2
953	NH 101	PETERBOROUGH AND TEMPLE	8.0
954	NH 103 / NH 11 / MAIN ST	CLAREMONT	0.5
955	NH 106	LACONIA	4.3
956	NH 106	US 3 TO I-393 IN CONCORD AND PEMBROKE	4.2
957	NH 108	STRATHAM (RURAL AREA)	1.2
958	NH 12	WALPOLE	2.1
959	NH 125	US 4 TO NH 111A IN LEE, EPPING AND BRENTWOOD	12.8
960	NH 125	KINGSTON (RURAL AREA)	1.4
961	NH 125	BRENTWOOD (RURAL AREA)	1.4
962	NH 16	AT NH 25 AND NH 41 IN OSSIPEE	4.0
963	NH 25	US 3 IN MEREDITH TO MOULTONBOROUGH*	5.6
964	NH 9	US 202 TO NH 123 IN HILLSBOROUGH, ANTRIM AND STODDARD	11.1
965	NH 9	SULLIVAN, ROXBURY AND KEENE	5.6
966	NH 9 / 10 / 12	KEENE	4.3
967	NH 9 / LOUDON RD	AIRPORT ROAD/HAZEN DRIVE TO NH 106	2.8
968	REGIONAL DRIVE	AIRPORT ROAD TO NH 106 IN CONCORD	1.6
969	US 2	NH 115 TO ME BORDER IN JEFFERSON, RANDOLPH, GORHAM AND SHELBURNE	23.0
970	US 202 / US 4 / NH 9	I-393 IN CONCORD TO NH 9 IN EPSOM	4.8
971	US 3	NH 106 IN LACONIA TO NH 11 IN FRANKLIN	13.0
972	US 3	NH 25 TO NH 106 IN MEREDITH	1.4
973	US 3	I-93 TO SOUTH OF NH 106 IN CONCORD	2.6
974	US 3 / NH 115	I-93 TO US 2 IN BETHLEHEM, CARROLL, JEFFERSON AND FRANCONIA	21.2
975	US 3 BUSINESS	LACONIA	4.1
976	US 4	LEBANON	1.4
		TOTAL (CRFC LIMIT = 150 MILES)	150.0

^{*}Note: Moultonborough has expressed concerns regarding critical freight corridor designations within their town. These concerns will be taken into consideration.



Exhibit 3-9: Map of Critical Freight Corridor Candidates



Town of MEREDITH

New Hampshire

COMMUNITY PLAN

2002



The abundance and quality of our natural resources contributes to our quality of life in many different ways. Open spaces reinforce our rural, community character. Our lakes, ponds, and forests provide valuable wildlife habitat and recreational opportunities. The pleasing, simple beauty of our views and vistas complement a chosen, more relaxed life style. The quality of the air we breathe and the water we drink contributes to the overall health of the community.



Transportation to, through and within our community is vital to our economic and personal well being. We value the necessity of managing vehicular traffic to the greatest level of community benefit. However, transportation is not limited to automobiles. Various alternative modes of transportation such as pedestrian, bicycle, bus, boat and rail all play a part in making Meredith an accessible community.

Investments in community facilities are statements about what we value. Our churches, the library, the park system, the recycling center, our schools, the community auditorium, waterfront access and a planned community center are all intended to meet the varied needs of our diverse population.

OUR VISION

Meredith will continue to grow and evolve in many different ways. We will choose to manage that growth in order to promote a healthy, prosperous and successful community that reflects our common values. We share, and will continue to share, a vision that reflects what we as a community are committed to achieve. When one experiences Meredith twenty years from now, the fruits of our labor will be obvious.

Our people will continue to be the very heart and soul of the community. Avenues of communication will be abundant. Collaboration will be the norm, not the exception. Personal growth, cooperation, trust and responsible political dialogue will prevail. Each and every citizen will want to connect with their community in some constructive fashion and be recognized for their contributions. We will maintain closeness with one another, demonstrating a strong sense of community well-being and spirit.

All members of the community will articulate a special awareness about our local culture and our unique New England heritage. Our small town character and village setting will be cherished and protected to a degree that is the envy of the region. Historical architecture will be well maintained and will encourage additional investment and serves as a guide for future development.

The long standing environmental preservation and conservation ethic within the community will progress to an unparalleled level. Critical natural resources such as significant wetlands, undeveloped shoreline areas, scenic vistas, wildlife corridors, groundwater supplies, large forested

Pedestrian and bicycle traffic must be considered as a necessary condition whenever transportation and land use decisions are made. All future road work and other improvements should include provisions for enhanced pedestrian and bicycle access and safety.

Bus/Transit. Two transit operators provide service to Meredith; Concord Trailways and the Greater Laconia Transit Agency (GLTA). Concord Trailways, a private for-profit business, provides a scheduled route from Berlin, through Meredith to Laconia, to Concord, Manchester, Boston, and Logan Airport with stops in Meredith two times per day, each direction.

The Greater Laconia Transit Agency (GLTA), a locally based, non-profit corporation, was founded in 1994 - principally to provide transportation services for people with disabilities or handicaps. Today the service has expanded significantly to include both on-demand service and scheduled routes including service to Manchester Airport and a scheduled Plymouth to Laconia route that passes through Meredith. GLTA also operates a seasonal trolley service with several stops around the Lake Winnipesaukee area including stops in Meredith. The seasonal trolley is primarily geared towards tourism.

Rail. The Concord to Lincoln rail line dates back to 1848, and has been owned by NHDOT since 1975. Limited freight service was provided up to 1986. The line and rail yard in Meredith are leased by the state to Winnipesaukee Railroad Incorporated, which operates a seasonal, scenic passenger train service between Tilton, downtown Laconia, Weirs Beach, Meredith and Lincoln. In the winter months, the rail line functions as a major snowmobile corridor. The future of rail in relation to our overall transportation system in Meredith is unclear. However it is important to keep the line active and the right-of-way accessible to the public so that future options are preserved. Similarly, public access to the line via the rail yard (former train station site) should also be maintained.

PART 3. GOALS, OBJECTIVES, AND RECOMMENDATIONS

In order to achieve our vision for the future, we have identified the following general transportation goal:

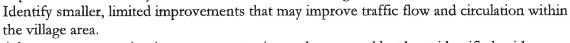


Promote a safe, integrated transportation system that effectively moves goods and people while balancing the needs of transportation users with the values of the community.

To fulfill this goal, several objectives and recommendations have been developed to guide future planning policies and initiatives:

Objective A. Improve traffic flow, efficiency, and safety throughout the highway networks.

Support the Meredith Citizens Advisory Task Force (CATF) regarding corridor improvements currently in the NHDOT Ten Year Program.



Advance transportation improvement projects where a need has been identified, with particular emphasis on projects previously submitted as part of the Lakes Region

- the status of proposed or pending transportation projects including both print and electronic media.
- 3. Maintain an effective working relationship with NH DOT District 3 regarding highway maintenance, driveway permitting, and district-level projects.

4. Encourage public participation in the Lakes Region Transportation Improvement Program (TIP) and the Meredith Capital Improvement Program (CIP) processes.

5. Build working relationships with neighboring communities and encourage the involvement of other communities in regional transportation planning.

PART 4. RELATIONSHIPS TO OTHER CHAPTERS

- TRANSPORTATION AND PEOPLE. The transportation system should be designed to meet the varied needs of the community. Citizen participation should be encouraged at all levels of the decision-making process.
- TRANSPORTATION AND NATURAL RESOURCES. The transportation system exists within the context of the natural environment. Transportation-related decisions need to reflect a sensitivity towards Meredith's conservation priorities.
- TRANSPORTATION AND COMMUNITY RECREATION. The transportation system can provide access to, and opportunities for, recreation. Recreation and leisure opportunities can be enhanced through transportation improvements and policies.
- TRANSPORTATION AND COMMUNITY ECONOMIC DEVELOPMENT.

 Community economic opportunities are in part dependent on a safe and accessible transportation system. Improvements to the transportation system can facilitate additional economic opportunity.
- TRANSPORTATION AND LAND USE. A transportation network connects people to their needs. Improvements to the network may result in additional development pressure that may or may not be intended. Decisions affecting our transportation facilities need to consider the consequences they have on influencing the nature and location of future land use and the preservation of community character as expressed in Chapter 3: Values and Vision.

PART 5. REFERENCES

- American Associating of State Highway and Transportation Officials. 2001. Guidelines for Geometric Design of Very Low-Volume Roads.
- Burden, D. 2000. Streets and Sidewalks, People and Cars-The citizens' Guide to Traffic Calming. Local Government Commission Center for Livable Communities.
- Lakes Region Planning Commission. 1999. Lakes Region Tour Scenic Byway Corridor Management Plan. Meredith, NH.

STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC

Rurea	= 0f	Bureau of Planning, Traffic Section, Traffic Reports	orts								18-Feb-16	
STAT.	TYPE	LOCATION	FC	2008	2009	2010	2011	2012	2013	2014	2015	
Town: EFFINGHAM	FING	HAM										
141050	62	NH 25 (OSSIPEE TRAIL) AT OSSIPEE TL (EB- WB) (61141010-61141011)	06	4300	*	*	4600	*	*	4400	*	
141055	82	NH 25 OVER OSSIPEE RIVER AT FREEDOM TL (EB-WB) (81141018-81141019)	06	2900	*	*	2800	*	*	2900	*	
Town: FREEDOM	EEDC	MC										
165051	62	NH 25 (PORTER RD) AT MAINE SL (EB-WB) (61165010-61165011)	06	*	*	2700	*	*	2700	*	*	
Town: HAVERHILL	VER	HILL										
209014	82	NH 25 (MOUNT MOOSILAUKE HWY) EAST OF NH 10	06	1100	*	*	960	*	*	1500	*	
209054	62	NH 25 (MOUNT MOOSILAUKE HWY) AT BENTON TL	06	*	*	1100	*	%:	1100	*	*	
Town: MEREDITH	RED	TH .										
295047	82	NH 25 (WHITTIER HWY) WEST OF PLEASANT ST	06	*	21000	*	*	15000	*	*	21000	
295051	62	NH 25 (WHITTIER HWY) AT CENTER HARBOR TL (SB-NB) (61295016-61295017)	06	*	*	12000	*	*	12000	*	*	
Town: MO	DULT	Town: MOULTONBOROUGH										
313054	62	NH 25 (WHITTIER HWY) AT SANDWICH TL (EB-WB) (61313064-61313065)	06	*	4000	*	*	4600	*	*	5000	
313055	62	NH 25 (WHITTIER HWY) EAST OF SHERIDAN RD	06	*	10000	*	*	10000	*	*	11000	
313057	82	NH 25 (WHITTIER HWY) WEST OF MOULTONBORO NECK RD	06	12000	*	*	13000	*	*	12000	*	
Town: PIERMONT	RMC	TNC										
365072	62	NH 25 AT VERMONT SL	07	*	*	2400	*	*	2300	*	*	

Ten-Year Plan Project Scoring

Engineered

No Engineering

TAC Member	Tilton Main St.	M'boro NH 25 at Redding Ln	Tamworth NH 16 at Choc. Lk Rd	Tamworth NH 16 at Depot Rd	Gilmanton NH 107 at NH 140	New Hampton NH 104	Meredith US 3 at NH 104	Tilton East Main St (US 3)	Tilton West Main St (US #)	25 east to CH	Plymouth US 3 Warren St. to River St	Bristol Lake St NH 3A
Alexandria	71.22	71.33	60.48	56.66	52.01	62.8	47.98	51.12	58.72	51.64	50.4	57.9
Barnstead	81.31	71.28	73.8	74.03	59.68	77.96	82.46	60.45	40.55	85.66	71.81	60.75
Bristol	42.4	42.74	41.73	34.97	49.21	42.06	48.69	47.63	48.82	43.31	42.21	0
Center Harbor	31.23	73.21	66.45	57.47	63.1	49.06	57.61	54.65	48.09	68.45	61.61	62.11
Gilford	70.9	66.91	63.25	57.21	63.99	69.61	62.7	53.63	53.63	46.61	39.37	33.83
Holderness	49.55	65.94	54.25	39.23	58.99	43.91	28.68	56.48	51.72	54.47	58.3	50.97
Meredith	36.55	39.81	26.32	29.81	34.21	36.99	0	27.12	25.94	0	21.83	31.04
New Hampton	73.6	66.36	61.6	67.72	80.78	0	77.15	62.15	59.39	72.38	71.77	60.75
Tamworth	47.49	34.6	0	0	54.25	45.21	53.11	47.96	45.04	39.7	46.65	39.64
Tilton	0	51.59	39.82	45.77	62.59	46.73	43.53	0	0	52.47	33.61	67
Wolfeboro	41.53	34.49	29.25	26.41	35.27	29.83	35.52	19.17	16.41	32.72	24.84	20.61

	Tilton Main Sť.		Tamworth NH 16 at Choc. Lk Rd	Tamworth NH 16 at Depot Rd	Gilmanton NH 107 at NH 140	New Hampton NH 104	Meredith US 3 at NH 104	Tilton East Main St (US 3)	Tilton West	25 east to CH	Plymouth US 3 Warren St. to River St	l Bristol Lake St I
Average Score:	54.578	56.205	51.695	48.928	55.825	50.416	53.743	48.036	44.831	54.741	47.491	48.460
Overall Rank	4	1	6	8	2	7	5	10	12	3	11	9

UNSIGNALIZED INTERSECTION SAFETY STRATEGIES



Provide Bypass Lanes on Shoulders at T-Intersections

WHERE TO USE

At three-legged unsignalized intersections on two-lane highways with moderate through and turning volumes, especially intersections that have a pattern of rear-end collisions involving vehicles waiting to turn left from the highway.



DETAILS

At three-legged intersections on two-lane highways, shoulder bypass lanes can provide an effective substitute for a left-turn lane on the major road where provision of a left-turn lane is economically infeasible. Instead of providing a left-turn lane for drivers turning left from the major road, part of the shoulder may be marked as a travel lane to encourage following through drivers to use this shoulder lane to bypass vehicles waiting to turn left. This treatment involves substantially less cost than providing a conventional left-turn lane, and, at low-volume intersections, it may be just as effective.

KEY TO SUCCESS

Provide a shoulder area for the bypass lane that has sufficient structural strength to withstand repeated usage, even by trucks.



ISSUES

There may be an upper limit of traffic volumes above which shoulder bypass lanes should not be used. No such limit has been quantified, but highway agencies should still carefully consider the appropriateness of shoulder bypass lanes on high-volume two-lane roads.

Shoulder bypass lanes should not be viewed as a substitute for conventional left-turn lanes as part of a reconstruction or major redesign project where right-of-way is available and construction is feasible.

TIME FRAME OOO

This strategy can be implemented within 3 months at locations with an existing paved shoulder. Some locations may need only pavement marking and signing changes. Paving an unpaved shoulder or strengthening a paved shoulder may take longer. In rare cases where acquisition of right-of-way is needed, a project development process of up to 4 years may be required.

COSTS OOOO

Costs should be relatively low since little to no additional right-of-way is necessary for this strategy. Construction involves paving and marking a portion of the existing shoulder.

EFFECTIVENESS

TRIED: Minnesota evaluated the operational and safety effects of using bypass lanes at rural intersections by comparing the operational and safety characteristics of rural intersections without turning lanes, with bypass lanes, and with left-turn lanes. Based upon a comparative crash analysis and a before-after evaluation, Minnesota was unable to conclude that the use of a bypass lane provides a greater degree of safety when compared to intersections without a bypass lane or a left-turn lane. However, Nebraska has reported a marked decrease in rear-end collisions at shoulder bypass lanes, and other states have reported relatively few crashes occurring at shoulder bypass lane installations. A Florida study concluded that left-turn injury crashes were reduced up to 36% and rear-end injury crashes were reduced 24%. Property damage only crashes were also reduced up to 28% and 53% for left-turn and rear-end crashes, respectively.

COMPATIBILITY

This strategy can be used in conjunction with most others for improving safety at unsignalized intersections. It is, however, an alternative to providing a left-turn lane.

For more details on this and other countermeasures: http://safety.transportation.org

For more information contact:

FHWA Office of Safety Design Washington, D.C. 20590 (202) 366-9064

http://safety.fhwa.dot.gov

FHWA Resource Center - Safety and Design Team E71, 1200 New Jersey Avenue SE 19900 Governor's Drive, Suite 301 Olympia Fields, IL 60461 (708) 283-3545 http://www.fhwa.dot.gov/resourcecenter



U.S.Department of Transportation



Town of Meredith OFFICE OF THE TOWN MANAGER

41 Main Street, Meredith, NH 03253

pwarren@meredithnh.org

August 18, 2020

Susan Slack, Principal Planner Lakes Region Planning Commission 103 Main Street, Unit 3 Meredith, NH 03253

RE: NHDOT Ten-Year-Plan Transportation Project Proposal

The Meredith Select Board, at its August 17, 2020 meeting received a briefing from the Town Manager on the upcoming cycle to amend the State's Ten Year Plan and the focus of a Transportation Project Proposal by the Town of Meredith. After said briefing, the Board endorsed the Project Proposal and instructed this office to send a letter of support.

The need for safety improvements at intersections along the rural portion of NH 25 east of Meredith Village to the Center Harbor town line were identified as far back at 2009 when the US Route 3/ NH 25 Transportation Planning Study was completed. The Town's proposal seeks to implement modest improvements to NH Route 25 at up to four intersections locations recognizing:

- 1. The need to enhance safety along this important corridor;
- 2. The fiscal constraints of the Ten-Year-Plan; and
- 3. The need for flexibility regarding final project scope and timing.

The Town looks forward to building on the positive working relationship with NH DOT that resulted in similar safety measures being completed on NH Route 104 in 2016 and improvements to US 3/ NH 25 completed in 2019.

Please contact this office with any questions.

Thank you for your consideration.

Phillip L. Warren, Gr.

Sincerely,

Phillip L. Warren, Jr.

Town Manager



TOWN OF MEREDITH POLICE DEPARTMENT

P.O. BOX 1366 400 DANIEL WEBSTER HIGHWAY MEREDITH, NH 03253-1366 603-279-4561

FAX 603-279-6636

KEVIN A. MORROW Chief

August 18, 2020

To:

DOT

Re:

Town of Meredith 10 year plan for NH Route 25

This letter is written on behalf of

Town of Meredith, NH

I have reviewed and sent in my safety concerns to John Edgar the Town Planner. I agree with his recommendations for any safety improvements that DOT can make for the following intersections:

NH Route 25 and Laker Lane NH Route 25 and True Road NH Route 25 and Quarry Road

NH Route 25 and Patrician Shores Road

Thank you for your time.

Please do not hesitate to call on me if you have any further questions.

Respectfully,

MEREDITH POLICE DEPARTMENT

Kevin A. Morrow

Chief

John Edgar

From: Hanscom, Alan < Alan.Hanscom@dot.nh.gov>

Sent: Monday, August 17, 2020 9:34 PM

To: John Edgar

Cc: Rollins, William; WatsonJr, Bill; Susan Slack (sslack@lakesrpc.org)

Subject: RE: LETTER OF SUPPORT- NH Route 25 Safety Improvements

Hi John,

District 3 would certainly be supportive of spot improvements at select intersections that would improve safety concerns and capacity along the NH 25 corridor. Minimal right-of-way exists along much of the corridor, so larger projects will quickly become bogged down in scope and costs. Modest, incremental improvements can be economical as well as acceptable to neighbors and the general public. Improvements associated with morning and afternoon traffic at the school entrances would be especially welcome.

Thank you for providing the background information and seeking our input.

Alan

Alan G. Hanscom, PE District Engineer NHDOT Highway District Three 2 Sawmill Road Gilford NH 03249

603.524.6667 office 603.524.8027 fax

From: John Edgar <jedgar@meredithnh.org>
Sent: Monday, August 10, 2020 10:42 AM
To: Hanssom, Alan Alan Hanssom@dot.ph.g

To: Hanscom, Alan <Alan.Hanscom@dot.nh.gov>

Subject: LETTER OF SUPPORT- NH Route 25 Safety Improvements

EXTERNAL: Do not open attachments or click on links unless you recognize and trust the sender.

Hi Alan,

Thankyou for your input last week. As I mentioned,

- The town of Meredith will be submitting a Transportation Project Proposal to the Lakes Region Planning Commission for consideration in the next Ten-Year-Plan cycle.
- The focus of our proposal is the rural portion of NH Route 25 east of Meredith Village to the Center Harbor town line.
- We are proposing a package of modest safety counter measures at 4 locations along the corridor.
 - o Laker Lane/Inter-lakes School Campus main entrance
 - True Road

- Quarry Road
- o Patrician Shores Circle
- Please see attached location map.
- At this early juncture, we envision limited widening to accommodate bypass shoulders and improved sight distances however the specifics will be finalized in concert with NH DOT should the project move forward in the review process.
- I would welcome a general letter of support if you may be so inclined at your earliest convenience.

Please address it to:

Town of Meredith, NH
41 Main Street
Meredith, NH 03253
Attn: John Edgar, Community Development Director

Please feel free to send the letter via email to

jedgar@meredithnh.org

THANK YOU FOR YOUR CONSIDERATION!

John Edgar, Community Development Director Town of Meredith, NH 03253 Direct: 603 677-4217 jedgar@meredithnh.org

This message contains confidential information and is intended only for the individual named. If you are not the named addressee you should not disseminate distribute or copy this e-mail. Please notify the sender immediately by e-mail if you have received this e-mail by mistake and delete this e-mail from your system. E-mail transmission cannot be guaranteed to be secure or error-free as information could be intercepted, corrupted, lost, destroyed, arrive late or incomplete, or contain virtuses. The sender therefore does not accept liability for any errors or omissions in the contents of this message, which arise as a result of e-mail transmission. If verification is required please request a hard-copy version.

SCHOOL ADMINISTRATIVE UNIT #2

Ashland School District

Inter-Lakes School District

Humiston Building • 103 Main Street Suite 2 • Meredith, New Hampshire 03253

Main Office Tel: (603) 279-7947 • Special Education Tel: (603) 279-3144 • Fax: (603) 279-3044

Mary A. Moriarty
Superintendent of Schools
Patricia Temperino
Assistant Superintendent

Elaine Dodge
Director of Student Services
Ashley Dolloff
Human Resources Director

August 11, 2020

Town of Meredith, NH Attn: John Edgar, Community Development Director 41 Main Street Meredith, NH 03253

Dear Mr. Edgar:

On behalf of the Inter-Lakes School District, please accept this letter of support for the Town of Meredith's Transportation Project Proposal to provide safety measures along the rural portion of NH Route 25 to the Lakes Region Planning Commission for consideration.

We believe greater safety measures at the entrance to the Inter-Lakes School Campus main entrance along with the other three locations outlined in the proposal is critical to ensure safety for our families and students. The addition of bypass shoulders will enhance traffic flow and driving conditions along a highly populated route.

If there is any further information I may provide to support the forward progress of the project proposal for inclusion in the next NHDOT Ten-Year-Plan cycle please contact me.

Respectfully,

Mary A. Moriarty

Superintendent of Schools

Mary a. Mouarty

MAM/mgm



TOWN OF MEREDITH PLANNING BOARD

41 Main Street Meredith, NH 03253

August 25, 2020

Town of Meredith
Community Development Department
41 Main Street
Meredith, NH 03253

Attn: John Edgar, Community Development Director

Re: Town of Meredith Proposal to Advance Safety Measures on NH Route 25

Dear John,

On behalf of the Meredith Planning Board I would like to express the Board's support of the Ten-Year-Plan submittal to the Lakes Region Planning Commission to advance safety measures on NH Route 25. NH Route 25 in Meredith serves critical local, regional and interstate interests and is characterized by safety concerns documented in the 2009 US Route 3/ NH Route 25 transportation planning study. The Planning Board was an active participant on the Project Advisory Committee that guided the study.

As you know, the <u>2002 Community Plan</u> (aka master Plan) is currently under review. However, there are several fundamentals from that plan which remain relevant and are consistent with the current proposal. These are well articulated in the town's submittal and afford a local planning context.

Thank you for your efforts!

Sincerely,

Bill Bayard, Acting Chairman Meredith Planning Board

XWilliam Bayard



MEREDITH CONSERVATION COMMISSION

Mark Billings
Chairman

August 13, 2020

As Chair of the Meredith Conservation Commission, I am writing this letter in support of the safety improvements submitted by John Edgar, Community Development Director for the Town of Meredith.

The four modest safety counter measures proposed by the town are all important, but I would like to speak about one of the proposals, the Quarry Road location. As the map shows, Quarry Road has a relatively small number of residences, the Moulton Farm Stand and serves as the primary trailhead to the Page Pond Community Forest. The last two locations generate significant traffic both entering and exiting Quarry Road from NH route #25. I cannot speak specifically to the traffic flow attributed to Moulton Farm, but it is the largest factor in the traffic flow. I can speak to the amount of traffic attributed to the Page Pond Community Forest. The Conservation Commission attempts to measure the number of people that hike the 15+/-miles of trails on this 800 acres town forest by counting the number of trail maps taken by hikers. That number is measured in the thousands in any given year. Additionally, members of the Conservation Committee are typically on the property multiple times in any given week. The left turn onto Quarry Road by autos traveling west on route #25 as well as the left turn onto route #25 by autos exiting Quarry Road are the key areas of problem and accidents. Adding a by-pass lane for autos traveling west on route #25 would address the largest cause of accidents.

Respectfully,

Mark Billings, Chair-Meredith Conservation Commission

Meredith Farm Growers, LLC Moulton Farm 18 Quarry Road Meredith NH 03253 603-279-3915 info@moultonfarm.com

August 18, 2020

Mr. John C. Edgar Community Development Director Town of Meredith 41 Main Street Meredith NH 03253

RE: Improvement Planning for Route 25 and Quarry Road Intersection.

Having been a resident and farm operator all my life, exiting and entering Route 25 and Quarry Road I feel qualified to attest to the difficulty of this transition.

I fully support the Town's effort to improve the safety of this intersection. With short sight distances, grade changes, and 45 MPH traffic many of my customers have commented on the difficulty of entering or exiting Route 25.

Every year there are a number of accidents, even during dry, clear, weather that result in property damage and bodily injury. One of our own trucks was rear ended simply while waiting to make a left turn!

Thank you for your efforts to bring improvements.

ohn E. Moulton

Owner, Moulton Farm