

2021 – 2030 Ten Year Plan: Preliminary Project Prioritization

North Country Council Transportation Advisory
Committee

November 15th, 2018

Ten Year Plan Overview

- Ten-year project list and budget, updated every 2 years
- Current TYP is for 2019 – 2028, currently soliciting projects for 2021 – 2030
- New projects are typically added to the last 2 years of the TYP

Ten Year Plan Overview

- Each 2 year-cycle
 - RPC's are given a regional allocation for new projects (\$6.1 million for NCC region)
 - Projects submitted by communities to RPC's for consideration
 - RPC's rank and submit initial list of regional projects to NHDOT
 - NHDOT develops planning-level engineering cost estimates, provide feedback to RPC's
 - RPC's incorporate feedback and submit final project list
 - GACIT develops draft TYP and conducts public hearings
 - GACIT submits draft TYP to Governor and Council
 - G & C submits draft TYP to legislature
 - Governor signs TYP

Initial Project Prioritization Process

- Regional project rankings submitted by RPC's
 - Criteria developed by NHDOT; weighted by NCC & TAC
 - NCC staff develop draft rankings
 - TAC reviews – *no formal vote for initial submission*
- NHDOT has requested the following preliminary submission:
 - A ranked list of project estimated to fit within regional funding allocation (\$6.1 million) + 1-2 additional priority projects

Proposed Criteria Weights

Criteria Weights	
Criteria	Weight
Mobility	
Reduce Congestion	4%
Freight Mobility	7%
Alternative Modes	8%
Network Significance	
Traffic Volume	5%
Facility Importance	18%
Safety	
Safety Measures	15%
Safety Performance	8%
State of Repair	
Roadway Surface Life	8%
Bridge Asset Condition	0%
Support	12%
Resiliency	15%

Berlin:

NH 16 Reconstruction & Sidewalk Improvements

- Purpose & Need:
 - Poor pavement condition
 - Aging drainage infrastructure
 - Poor sidewalk condition and loss of grade separation in some areas (ADA concerns)
 - Nearly 40 years since last construction in some areas
 - Significant commuter, travel, and freight corridor



Berlin:

NH 16 Reconstruction & Sidewalk Improvements

- Total project cost: \$3,885,000
- Reconstruct NH 16 from Cleveland Bridge to Exchange St
- Rehabilitate NH 16 from Gorham Town Line to Cleveland Bridge
- Replace sidewalks

Berlin:

NH 16 Reconstruction & Sidewalk Improvements

- Project Notes

- Significant regional corridor in terms of commuting, freight, economic development
- High traffic volumes
- Poor pavement condition between Cleveland Bridge and Exchange Street
- Sidewalk in need of replacement – current condition may encourage limited-mobility users to walk in the road
- Some crash history in corridor (but no clusters), difficult to tie any crashes to roadway condition

Berlin:

NH 16 Reconstruction & Sidewalk Improvements

Criteria	Weight	Score (1-10)	Weighted Score
Mobility			7.0
Reduce Congestion	4%	5	
Freight Mobility	7%	6.5	
Alternative Modes			
	8%	7.5	
Network Significance			
Traffic Volume	5%	8	
Facility Importance	18%	9	
Safety			
Safety Measures	15%	6.5	
Safety Performance	8%	5	
State of Repair			
Roadway Surface Life	8%	9	
Bridge Asset Condition	0%	0	
Support			
	12%	5	
Resiliency			
	15%	6.5	

Berlin:

NH 110 Reconstruction & Sidewalk Improvements

- Purpose & Need:
 - City would like to take control over NH 110, want improvements done to the road first
 - Significant increase in ATV/OHRV activity along corridor
 - City is eyeing increased development along NH 110
 - Some areas of poor pavement condition and aging drainage infrastructure
 - Needed sidewalk improvements

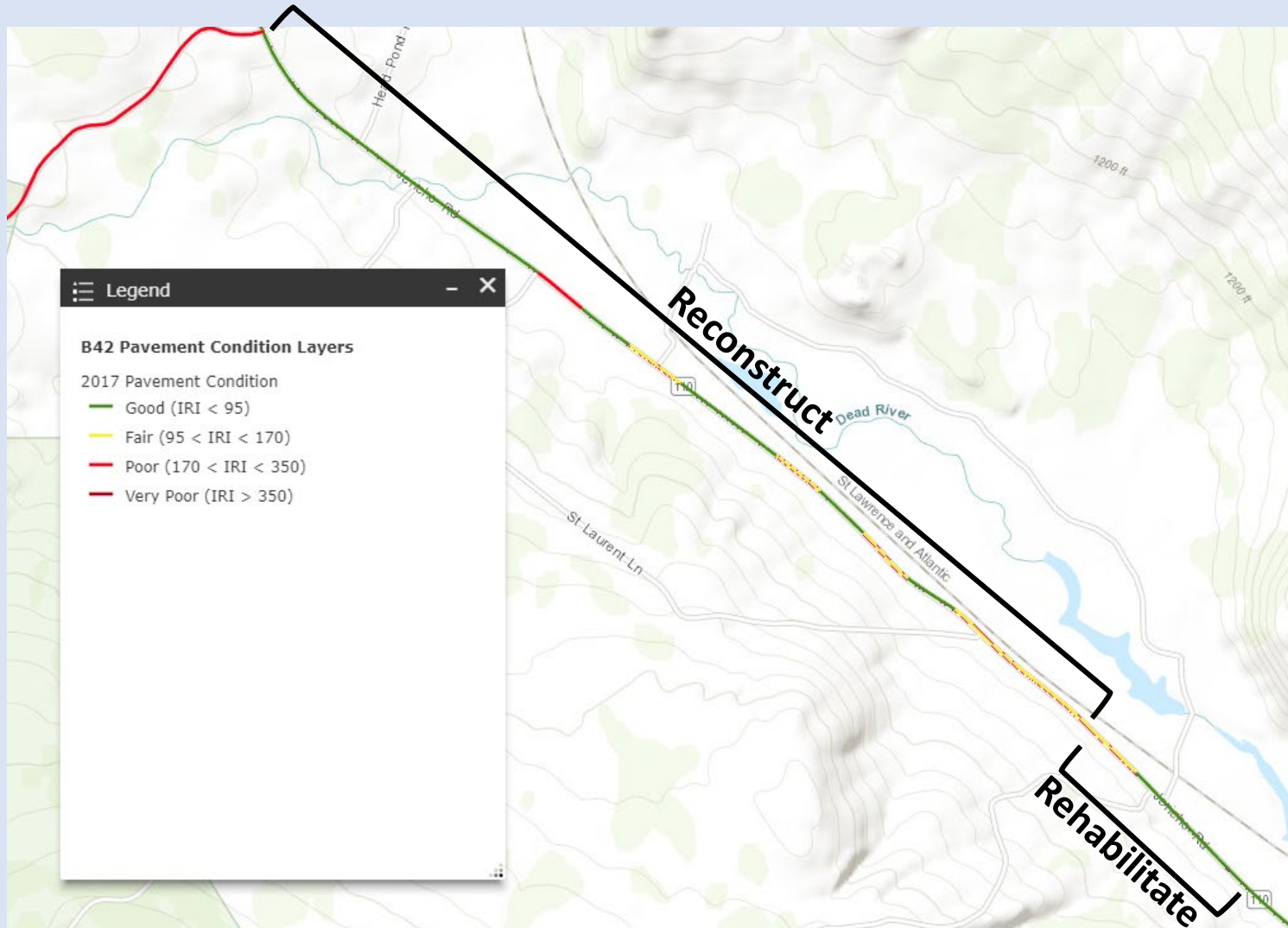


Berlin:

NH 110 Reconstruction & Sidewalk Improvements

- Total project cost: \$4,665,000
- Rehabilitate NH 110 from end of NH 110 Phase II project (near Public Works Garage) to urban compact line
- Reconstruct NH 110 from urban compact line to Jericho Mountain Road
- ADA improvements to sidewalks

Berlin: *NH 110 Reconstruction & Sidewalk Improvements*



Berlin:

NH 110 Reconstruction & Sidewalk Improvements

• Project Notes

- Important regional travel corridor but not in the “top tier”
- Relatively low traffic volumes
- Pavement condition generally in “fair” to “good” condition – want to “keep good roads good”
- Reconstructing the road would be beneficial to the City in future management of the corridor
- No significant crash history
- City indicated that NH 16 project is the higher priority
- Timing of project may not fit with City’s needs

Berlin:

NH 110 Reconstruction & Sidewalk Improvements

Criteria	Weight	Score (1-10)	Weighted Score
Mobility			5.7
Reduce Congestion	4%	5	
Freight Mobility	7%	5	
Alternative Modes	8%	6.5	
Network Significance			
Traffic Volume	5%	4	
Facility Importance	18%	6.5	
Safety			
Safety Measures	15%	6	
Safety Performance	8%	5	
State of Repair			
Roadway Surface Life	8%	6	
Bridge Asset Condition	0%	0	
Support	12%	5	
Resiliency	15%	6	

Gorham:

NH 16 Retaining Wall, Road Re-alignment, and Culvert Replacement

- Purpose & Need:
 - Failing retaining wall has drainage issues causing icy roadway conditions around sharp bend
 - Crash history at sharp bend coming down from Pinkham Notch
 - Culvert with substandard design and geomorphic compatibility could be addressed as part of the project

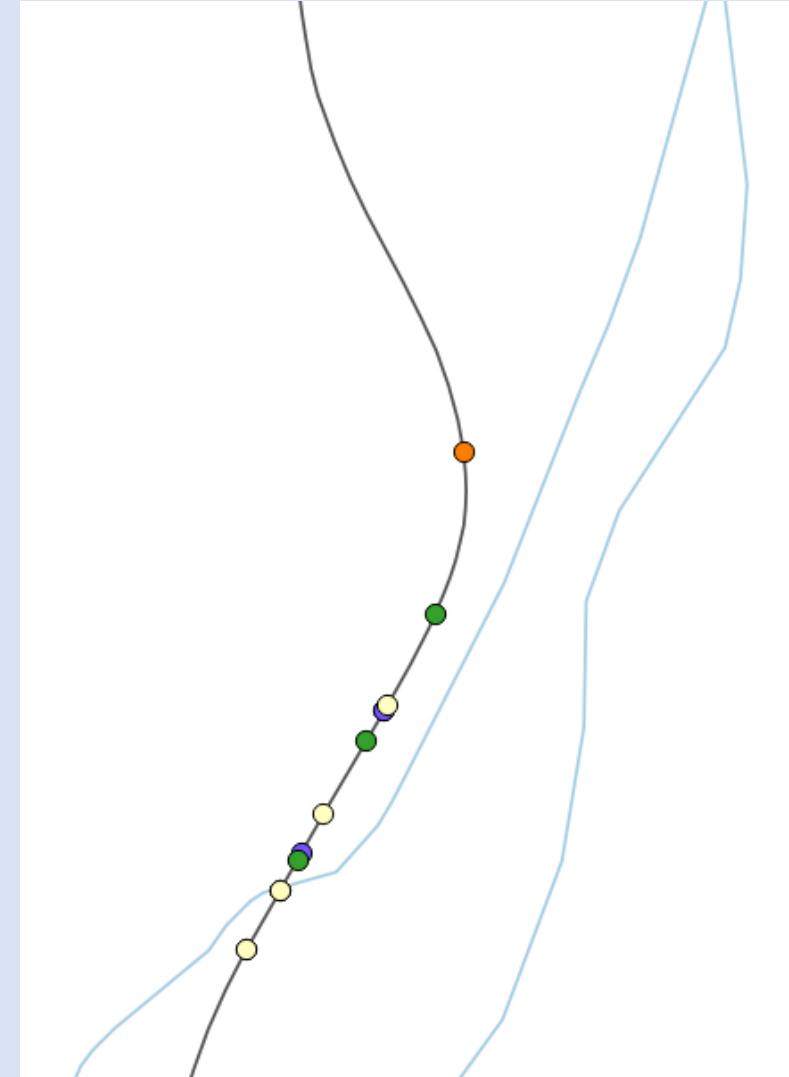
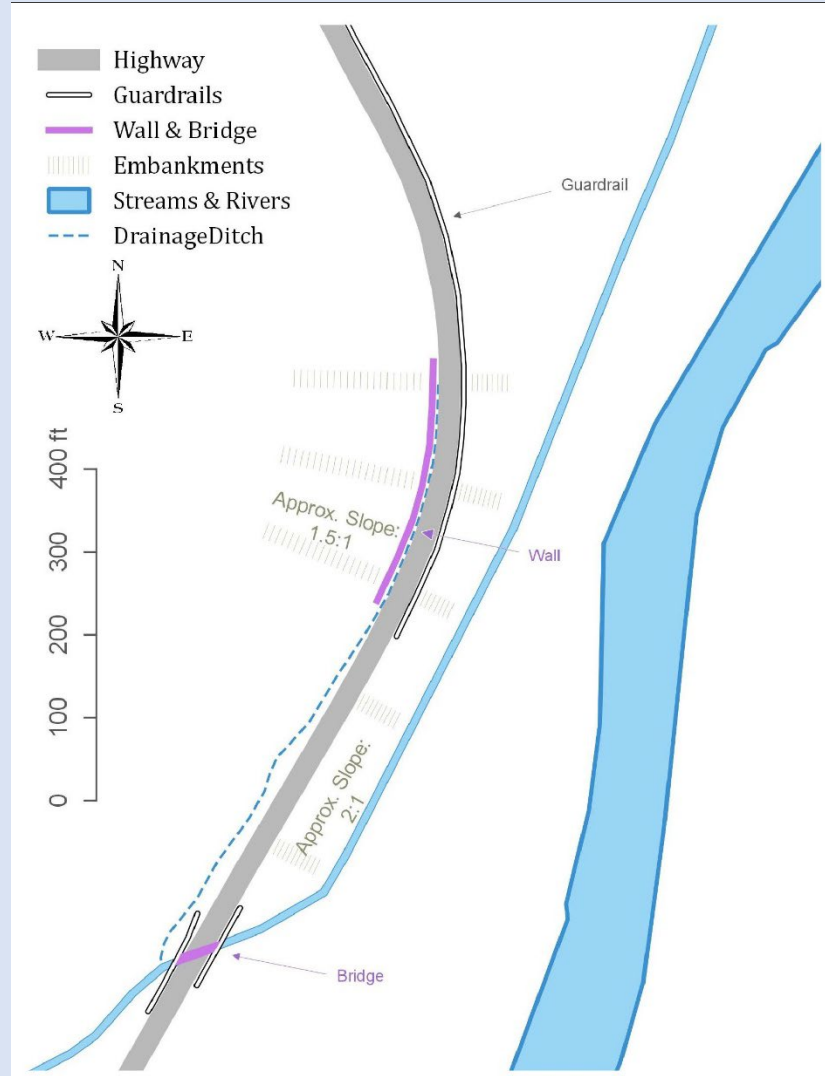
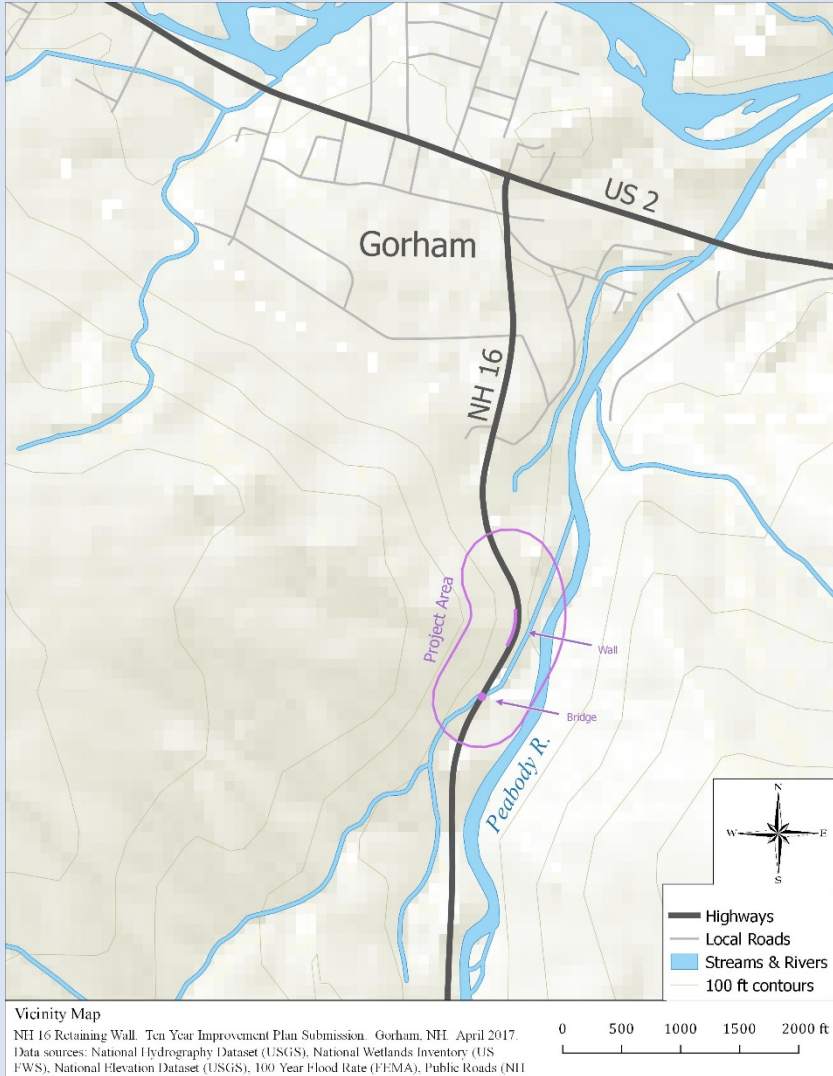


Gorham:

NH 16 Retaining Wall, Road Re-alignment, and Culvert Replacement

- Total project cost: \$1,200,000
- Realign roadway to reduce angle of the curve
- Construct 30-foot retaining wall and improve drainage
- Upgrade culvert to match bankfull width of the stream, stream angle, and stream orientation

Gorham: NH 16 Retaining Wall, Road Re-alignment, and Culvert Replacement



Gorham:

NH 16 Retaining Wall, Road Re-alignment, and Culvert Replacement



Gorham:

NH 16 Retaining Wall, Road Re-alignment, and Culvert Replacement

• Project Notes

- Important regional travel corridor with no reasonable alternative routes
- Moderately high traffic volumes
- Demonstrated crash history
- Resiliency concerns after October 2017 storm caused significant flood damage in Pinkham Notch
- Culvert upgrades noted as a priority in the NCC 2015 Regional Transportation Plan
- Retaining wall recommendations based on geotechnical study performed by District 1
- District 1 is supportive of project due to significant maintenance demands

Gorham:

NH 16 Retaining Wall, Road Re-alignment, and Culvert Replacement

Criteria	Weight	Score (1-10)	Weighted Score
Mobility			7.5
Reduce Congestion	4%	5	
Freight Mobility	7%	7	
Alternative Modes			
	8%	6	
Network Significance			
Traffic Volume	5%	7	
Facility Importance	18%	9	
Safety			
Safety Measures	15%	8.5	
Safety Performance	8%	7.5	
State of Repair			
Roadway Surface Life	8%	7	
Bridge Asset Condition	0%	0	
Support			
	12%	8	
Resiliency			
	15%	6.5	

Littleton:

Main Street Phase II – Road Reconstruction, Pedestrian Improvements, Intersection Improvements

- Purpose & Need:
 - Poor road condition on Main Street and Meadow Street
 - Town is pursuing funds to replace storm and sanitary sewer under Main Street
 - Long pedestrian crossings on western end of Main Street
 - Sharp intersection angle with Meadow Street and Saranac Street
 - Pedestrian facilities and curbing in need of improvement



Littleton

Main Street Phase II – Road Reconstruction, Pedestrian Improvements, Intersection Improvements

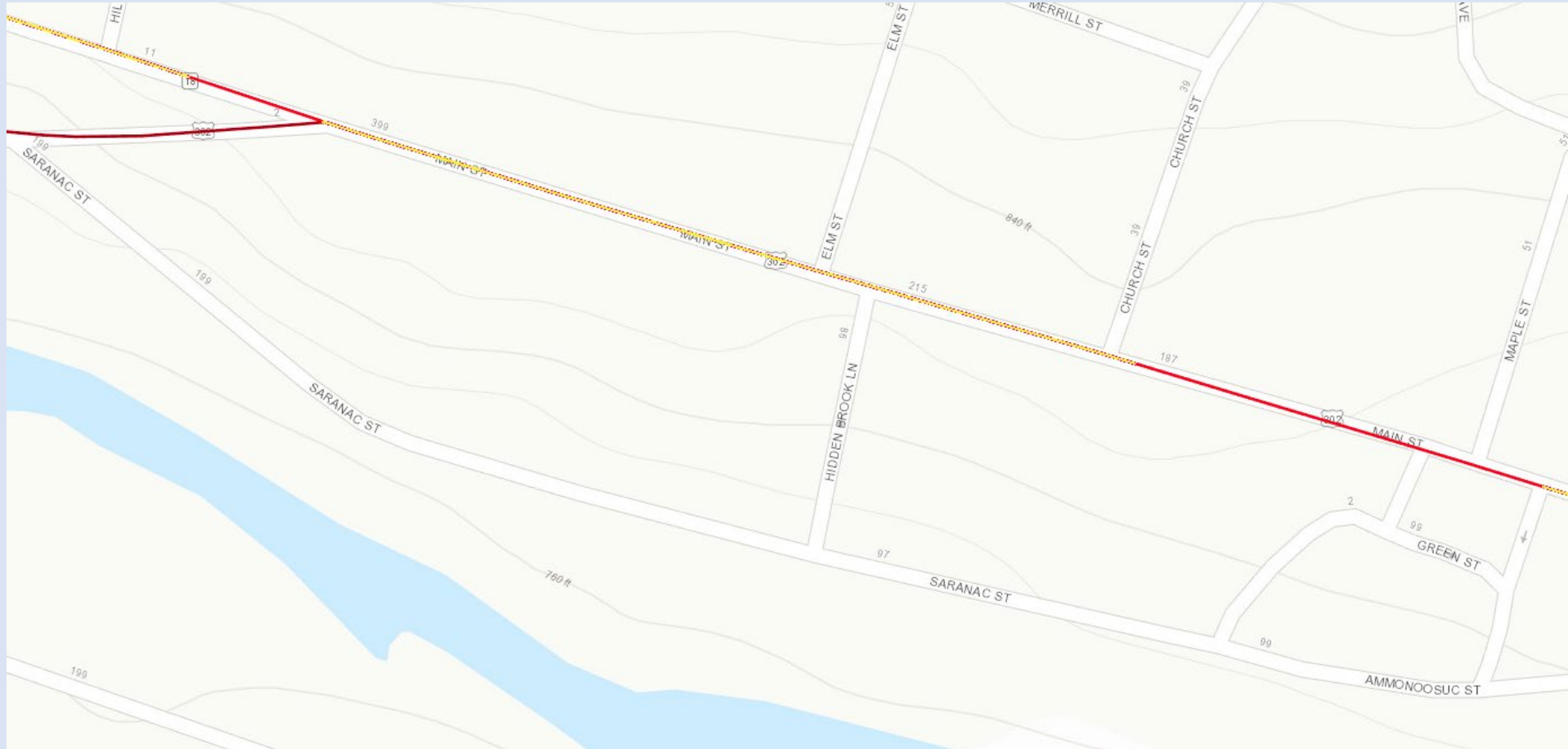
- Total project cost: \$3,200,000
- Reconstruct west end of Main Street and Meadow Street
- Replace sidewalk and add bumpouts to reduce crossing distances
- Re-route Saranac Street to Bridge Street
- Time with sub-area II sewer project

Littleton: Main Street Phase II – Road Reconstruction, Pedestrian Improvements, Intersection Improvements



Littleton:

Main Street Phase II – Road Reconstruction, Pedestrian Improvements, Intersection Improvements



Littleton:

Main Street Phase II – Road Reconstruction, Pedestrian Improvements, Intersection Improvements

• Project Notes

- Important regional travel corridor, but also part of busy, walkable town center
- High traffic volumes
- Poor pavement condition
- Some crash history – pedestrian fatality in September 2018
- Town will have to dig up portions of Main Street for sewer replacement (if approved)
- Difficult to predict if sewer project could be timed with road reconstruction at this stage
- Have not acquired ROW for Saranac Street realignment
- Double right angle turns could be difficult for delivery trucks (though there are alternate routes)
- Have not received selectboard support at this time

Littleton:

Main Street Phase II – Road Reconstruction, Pedestrian Improvements, Intersection Improvements

Criteria	Weight	Score (1-10)	Weighted Score
Mobility			6.9
Reduce Congestion	4%	5	
Freight Mobility	7%	5	
Alternative Modes	8%	8.5	
Network Significance			
Traffic Volume	5%	9	
Facility Importance	18%	9	
Safety			
Safety Measures	15%	8	
Safety Performance	8%	7.5	
State of Repair			
Roadway Surface Life	8%	9	
Bridge Asset Condition	0%	0	
Support	12%	3	
Resiliency	15%	5	

Shelburne:

US 2 Culvert Upgrades

- Purpose & Need:
 - US 2 heavily impacted during October 2017 storm
 - Periodic flooding and overtopping of the road at Kidder Brook crossing
 - Geomorphic compatibility issues at Josh Brook crossing
 - Vertical alignment/sightline issues at Kidder Brook crossing

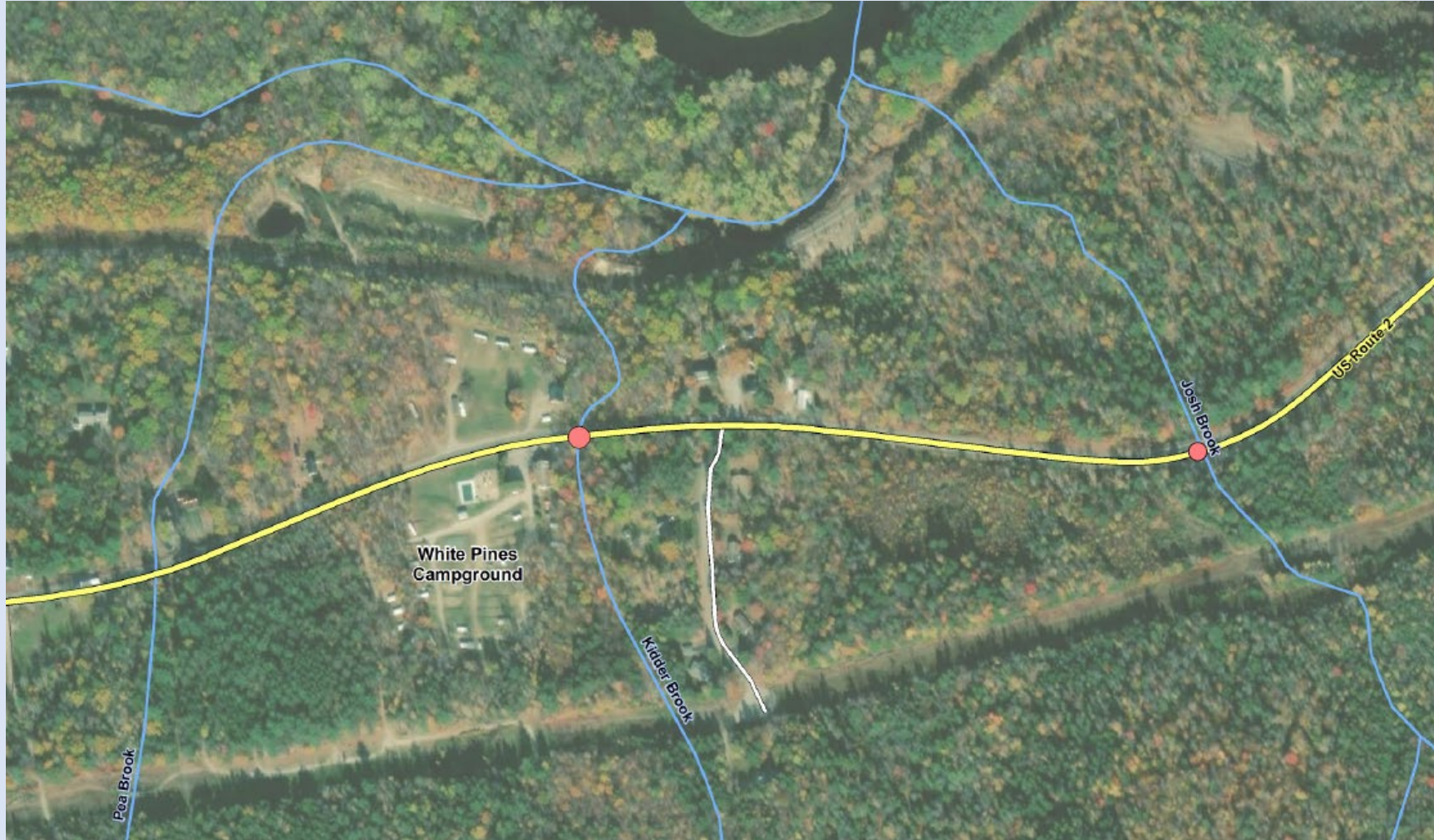


Shelburne

US 2 Culvert Upgrades

- Total project cost: \$1,485,000
- Replace undersized round culverts at Kidder Brook and Josh Brook crossings with box culverts that span bankfull width of the stream and match the stream angle and orientation
- Raise roadway at Kidder Brook to improve vertical alignment and sightline

Shelburne: *US 2 Culvert Upgrades*



Shelburne:

US 2 Culvert Upgrades

Kidder Brook

- 2001 Corridor Study identifies flooding issues
- 2014 assessment
 - Structure condition: poor
 - Partial geomorphic compatibility
 - Directly upstream bankfull widths: 13-16 feet
 - Channel bankfull width: 9 – 12 feet
 - Culvert width: 5 feet
 - No aquatic organism passage
 - No wingwalls to direct water



Shelburne:

US 2 Culvert Upgrades

Josh Brook

- 2018 assessment
 - Structure condition: good
 - Geomorphic compatibility: mostly incompatible
 - Directly upstream bankfull widths: 17 - 45 feet
 - Channel bankfull width: 19 – 29 feet
 - Culvert width: 6 feet
 - Evidence of significant flood damage downstream



Shelburne:

US 2 Culvert Upgrades

- Project Notes

- Important regional freight corridor with no alternate routes
- Moderate traffic volumes
- “Fair” pavement condition at Kidder Brook crossing – could be paired with roadway repaving or rehabilitation
- Need identified in a corridor study
- Culvert upgrades identified as a priority in 2015 NCC Regional Transportation Plan

Shelburne:

US 2 Culvert Upgrades

Criteria	Weight	Score (1-10)	Weighted Score
Mobility			7.5
Reduce Congestion	4%	5	
Freight Mobility	7%	7.5	
Alternative Modes	8%	5	
Network Significance			
Traffic Volume	5%	4	
Facility Importance	18%	9.5	
Safety			
Safety Measures	15%	7.5	
Safety Performance	8%	5	
State of Repair			
Roadway Surface Life	8%	7.5	
Bridge Asset Condition	0%	0	
Support	12%	8	
Resiliency	15%	9	

Preliminary Project Rankings from NCC

What do you think?

Rank	Municipality - Project	Score (out of 10)	Project Cost
1	Gorham – NH 16 Realignment, Retaining Wall & Culvert Upgrade	7.5	\$1.2 million
1	Shelburne – US 2 Culvert Upgrades	7.5	\$1.5 million
3	Berlin – NH 16 Roadway Reconstruction & Sidewalk Improvements	8.55	\$3.5 million
4	Littleton – Main Street Phase II	8.46	\$3.2 million
5	Berlin – NH 110 Roadway Reconstruction & Sidewalk Improvements	8.37	\$4.6 million

Regional funding allocation: \$6.1 million



Next Steps

- **December 3rd:** NCC submits preliminary rankings and project proposal materials to NHDOT
- **December 2018 – January 2019:** NHDOT performs review and engineering cost estimates of submitted projects
- **February or March 2019:** NCC meets with NHDOT to discuss review of proposed projects
- **April 2019:** TAC review and vote on final project prioritization list
- **May 2019:** Deadline for NCC to submit project rankings
- **June 2019:** Draft TYP prepared by NHDOT
- **July 2019:** Beginning of GACIT process