

February 28, 2012

**STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY DESIGN**

CONFERENCE REPORT

PROJECT: BARRINGTON
X-A001(173)
16178
US 202 / NH 9 Intersection Safety Improvements (HSIP)

DATE OF CONFERENCE: February 23, 2012

LOCATION OF CONFERENCE: Early Childhood Learning Center, Barrington

ATTENDED BY: **NHDOT**
Bill Oldenburg
John Butler

OTHERS
See attached sign-in sheet.

SUBJECT: Public Officials/Public Informational Meeting

NOTES ON CONFERENCE:

Bill Oldenburg introduced this intersection safety improvement project at the intersection of US Route 202 and NH Route 9. He explained that the intersection had been identified for improvements through the work of the Highway Safety Improvement Program (HSIP). The current Federal highway funding law, known by its acronym of SAFETEA-LU, created the Highway Safety Improvement Program to identify highway safety issues and provide for modest safety improvements that would achieve a significant reduction in traffic fatalities and serious injury accidents. New Hampshire receives \$5.5 million per year to implement modest safety improvements in locations where crash data indicates safety deficiencies. Crash data available for the intersection showed that there were 12 accidents between 2002 to 2009, including 1 fatal accident and 3 severe injury accidents.

In March of 2011 the Department met with the Board of Selectmen to get an understanding of the perceived deficiencies at the intersection, and to gain their support to investigate possible solutions to improve safety. Based on that input and an engineering study by the Department, two conceptual alternatives have been developed. Several important issues were considered as the designs were developed, including safety, efficient operation, property impacts, historic resources, and natural resources.

John Butler described the existing intersection conditions and the two conceptual alternatives for improvements. The existing intersection has a 'Y' configuration, with all legs having two-directional traffic. Both roadways are approximately 24' wide, with little to no shoulders, and were last reconstructed in the 1930s. The existing right-of-way varies in width, generally following old stone walls. Posted speed limit is 45 mph on US 202 and 40 mph on NH 9. Environmental issues include a historic property in one quadrant, a cemetery adjacent to the US 202/NH 9 leg, extensive stone walls, and several wetland areas including a prime wetland. Current average daily traffic volumes are 7100 vehicles on the US 202/NH 9 leg, 4200 vehicles on the US 202 leg, and 3200 vehicles on the NH 9 leg.

Concerns expressed by town officials and the public at the March 2011 meeting included confusion over which vehicles have the right-of-way, failure to yield, and poor sight distance. Recommendations included changing the intersection layout to a more conventional 'T' configuration, providing an eastbound left turn lane, and improving sight distances.

Two alternatives have been developed. Both involve consolidating the southbound US 202 approach into a single leg, resulting in a conventional 'T' intersection with the east/west NH 9 roadway having the free-flow movement. The layout includes a short slip ramp for US 202 southbound traffic turning right onto US 202/NH 9. Signal warrants are not met at the intersection, therefore, signalization is not proposed.

The first alternative would make modest improvements to the NH 9 horizontal alignment, shifting southerly to avoid impacting the cemetery and the historic property. The profile would be smoothed out to a modest degree. A left turn lane would be provided on US 202/NH 9 eastbound. The layout would provide for 50 mph intersection sight distance at the intersection. Six properties would be impacted by the layout, with acquisition required from three, and slope and/or drainage easements required on the other three properties. Environmental issues include a temporary driveway easement on the historic property, approximately 900 linear feet of stone wall impacts, and minor wetland impacts. The prime wetland would not be directly impacted, however, there would be work within the 100' prime wetland buffer zone. Several utility poles would require relocation. The construction cost estimate for this alternative is \$1,000,000.

The second alternative would retain the existing alignment and profile along the east/west NH 9 roadway. An eastbound bypass shoulder would be provided instead of a left turn lane. In order to provide 50 mph intersection sight distance with this alternative, a sight line easement and additional clearing would be required on one property. No property acquisition is required, however, slope, drainage and/or sight line easements are required on two properties. Environmental issues include approximately 300 linear feet of stone wall impacts, and minor wetland impacts. No work is within the prime wetland buffer zone. Two or three utility poles would require relocation. The construction cost estimate for this alternative is \$400,000.

It was noted that the Department's preference at this point is to pursue Alternative #2, however, we are looking for local input at this meeting before making a final decision. Alternative #2 has substantially lower cost and less impacts to private property, while still addressing the primary safety concerns at the intersection.

Bill Oldenburg noted that an environmental document will be prepared for the project which will describe all known environmental resources in the project area, and the anticipated impacts to those resources. Bill noted that owners of historic properties directly affected by the

project or agencies that possess a direct interest in historical resources can become more involved in an advisory role during project development by becoming a “Consulting Party” to the Section 106 process.

Bill noted that if a decision is made relatively soon on which alternative to pursue, a public hearing would be held later this year and, if approved, the project would most likely be constructed in 2014.

Discussion:

Several people recommended eliminating the proposed right turn slip lane on the US 202 southbound approach. It was felt that this essentially perpetuates the existing condition, and that currently the southbound traffic often doesn't stop or yield to the westbound NH 9 traffic in spite of having a stop sign. It was also noted that eastbound traffic on US 202/NH 9 that is used to the existing traffic pattern might mistakenly turn left into the slip ramp (going the wrong way).

Mr. Landry (intersection abutter) recommended that the intersection be redesigned to make US 202 the through movement with NH 9 westbound being “T”ed in with a stop sign. He felt that the predominant traffic movement through the intersection is on US 202, therefore, that movement should have the free flow. He recognized that this might require additional impacts to his property. John Butler responded that this idea had been considered and makes sense operationally, but noted that the horizontal curve on US 202 is much sharper than the curve on NH 9. The curve would need to be flattened considerably to make it acceptable for the posted speed limit, resulting in significant roadway reconstruction and cost. Based on a traffic analysis, the currently proposed configuration will operate at a good level-of-service.

A few people commented that they ideally favor the left turn lane alternative, but there was a recognition that it requires additional impacts and cost. There were comments that even the bypass shoulder alternative would be a significant improvement over the existing condition. A suggestion was made that if the bypass shoulder alternative is pursued, the right-of-way should still be purchased now to be able to do the left turn lane alternative in the future.

Several people noted that the property on the inside on the NH 9 curve (tax map 231/lot 3) is held in common ownership among 12 property owners in the Swain Road subdivision, and is intended to remain as open space.

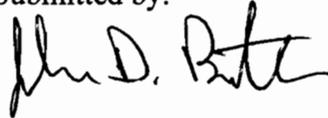
A suggestion was made to provide flashing warning lights along the three roadway approaches to the intersection. The fire chief recommended at least having a flashing red light for the US 202 southbound approach as he is afraid that those vehicles won't recognize the upcoming intersection in time to stop. Another person suggested transverse rumble strips on the roadway approaches. The police chief noted that there needs to be some way to control vehicle speeds on the NH 9 westbound approach to reduce the potential for collisions with eastbound left turning traffic (particularly slow moving tractor trailers turning left). Bill Oldenburg responded that the Department generally doesn't install flashing warning lights where a physical intersection improvement is done. The proposed improvements should address the safety concerns. Transverse rumble strips are rarely used due to the noise concern for residents in the area.

Mr. Langevin (abutter) noted that there is no lighting at the intersection, and he has had vehicles turn around in his driveway after going through the intersection without realizing it.

It was asked if the impacted stone walls would be reconstructed. Bill Oldenburg responded that the Department has a policy regarding stone wall reconstruction. The walls on this project will be evaluated in accordance with that policy to determine if they will be reconstructed or not.

One person recommended that sight line easements be obtained and tree clearing be done now as a short-term measure to improve sight distances at the existing intersection.

Submitted by:



John D. Butler, PE
Preliminary Design Supervisor

NOTED BY: W. Oldenburg

cc: W. Cass D. DePorter
W. Oldenburg C. Perron
W. Lambert M. Dugas
Barrington Selectmen

BARRINGTON 16178

US 202/NH 9 Intersection Safety Improvements

Public Officials / Public Informational Meeting
February 23, 2012

Sign-In Sheet

Name	Organization or Address	Comments
Peter Cook	Road Agent town of Barrington	
JOHN HUCKINS	PLANNING BOARD	
JOHN & MARLENE ALWARD	107 SWAIN ROAD	
RICHARD CONWAY	POLICE CHIEF	
Joel Sherburne	Historical Society	
SARAH GIER	JONES & BEACH ENGINEERS	
MARC AMBROSIO	STAFFORD REGIONAL PLANNING COMMISSION	
RICK WALKER	FIRE CHIEF	
Jeffrey Langerin	Abutter	
Jin Rowley	LAND OWNER	RECALL?
CONSTANCE BRANDERS	TOWN PLANNER	