

July 29, 2010

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

**CONFERENCE REPORT**

**PROJECT:** LEE  
X-A000(885)  
15692  
US 4 & NH 125 Safety Improvements

**DATE OF CONFERENCE:** July 21, 2010

**LOCATION OF CONFERENCE:** Lee Safety Complex

**ATTENDED BY:** NHDOT  
Craig Green  
Michael Dugas  
Steven Babalis  
Douglas DePorter

(See Attached Attendees List)

**SUBJECT:** Public Informational Meeting

**NOTES ON CONFERENCE:**

C. Green explained that this intersection had come to the Department's attention through studies undertaken as part of the Highway Safety Improvement Program (HSIP). He also mentioned that the City has been studying improvement alternatives for several years. He explained that the current Federal highway funding law, known by its acronym of SAFETEA-LU, created the HSIP to identify highway safety issues and provide for modest safety improvements that would achieve a significant reduction in traffic fatalities and serious injuries. New Hampshire receives \$5.5 million per year to implement modest safety improvements in locations where crash data indicates safety deficiencies. He stressed that the HSIP is intended to be data driven; locations identified to use these funds must have a crash history that demonstrates there is a safety need. The traffic circle located at the intersection of US Route 4 and NH Route 125 was identified as one of the 35 locations eligible for HSIP funding. He noted that 65 crashes were recorded within 300' of the traffic circle between February 2005 and May 2008. Fifty-five of the crashes were rear-end collisions.

A meeting was held in September 2009 with town officials. Numerous issues and concerns were identified to be considered with this project, including the following:

- US 4 and NH 125 are critical east-west and north-south routes.

- The traffic circle experiences heavy congestion and long queues during the peak hours, especially during the PM for vehicles traveling west on US 4. Westbound queues commonly extend several thousand feet.
- Surrounding routes experience heavy traffic from vehicles attempting to circumvent the circle.
- Left turns out of the driveway of surrounding businesses can be difficult and hazardous due to the heavy traffic and high speeds.
- The Mobil and McDonalds drives create additional conflict points near the circle.
- Wide entries into the circle promote side-by-side vehicle maneuvers.
- The large dimensions of the circle promote high speeds.
- Narrow Right-of-Way on the approaches.

Since the last meeting, the Department has collected survey, environmental resources information, approximate Right-of-Way, utility locations, and traffic data.

Mike Dugas explained the two alternatives that have been developed. Alternative one proposes converting the existing traffic circle into a modified single lane roundabout. This alternative would utilize the existing circulating roadway and reconstruct the approaches to incorporate features of a single lane roundabout. Access to the McDonalds and Mobil drives would remain unchanged. The McDonalds drive is shifted south to better separate the intersection from the drive. Alternative one would reduce the speeds entering and exiting the circle and address the sideswipe crashes by no longer allowing side by side entry. Capacity would not be improved and could potentially decrease from the existing conditions. Alternative one's estimated construction cost is \$440,000.

Alternative two proposes reconstructing and reconfiguring the circle to a two-lane roundabout. The roundabout would be constructed within the infield of the existing traffic circle. All four approaches would be reconstructed and widened to provide two approach and departure lanes. The McDonalds access would remain unchanged. The Mobil drives are proposed to be reconstructed and converted into three quarter drives, allowing for vehicles to turn left and right in, and right out. The northern drive to the Mobil would be accessible to westbound traffic on US 3 by a two-way left turn lane. Minor Right-of-Way impacts are anticipated. Alternative two would improve safety and capacity of the intersection but would not entirely address the capacity deficiencies<sup>1</sup>. The estimated construction cost is approximately \$1,100,000.

*Discussion:*

Question: A resident inquired if the Department had a preference to any particular alternative.

Answer: C. Green responded the Department is impartial to either option but does recognize that Alternative two has advantages and offers more but at a greater cost.

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<sup>1</sup> Some backups would still be likely on US 4 westbound in the PM peak hour.

A planning board member added that Alternative one, although it would improve safety of the actual intersection, would reduce its capacity and more rear end crashes could occur within the longer queues.

Comment: A resident felt that if money is to be spent on an improvement, it should address both safety and capacity.

Comment: A town selectman commented that he felt there would be issues with emergency vehicles maneuvering through Alternative one during peak hours. He inquired whether it would be beneficial to make the right lane in alternative two right turn only. He also noted that he is aware of many accidents beyond the limits of the crash study that were caused by the poor operations of this intersection.

Mike Dugas commented the lane designation suggested by the selectman had been reviewed. It was determined that reconfiguring the circle to a single lane roundabout with right turn lanes would not provide adequate capacity. Through and left turn maneuvers are the predominant movements at the traffic circle. The proposed lane use will provide the best operations for Alternative two. However, this suggestion will be reevaluated to determine if it is beneficial.

Comment: A resident felt that Alternative two will need a thorough sign package.

Comment: John McGowan Esq., representing Dunkin' Donuts, noted the town of Lee does seem to have growth potential. He felt if Alternative two is not pursued then potential town growth may be inhibited. He then inquired if nothing were constructed, when would the DOT return to reconstruct the corridor.

C. Green responded that in order for the DOT to return to improve the corridor it would have to be submitted by the Regional Planning Commission and then added to the Ten-Year Plan.

Question: It was inquired what was the time line for the two alternatives.

C. Green responded that due to the property impacts, Alternative Two would need to go to a public hearing that would occur in approximately 4-5 months followed by a year of final design and property acquisition. Alternative one could be developed more quickly. Either option would take approximately one construction season to construct.

M. Dugas added the construction time line could be impacted by the construction traffic control plan. It is important to minimize impacts to the traveling public, which would influence the construction time line.

Question: A resident asked if further growth were to occur in the limits of the intersection, what areas would want to be avoided for driveway access.

M. Dugas responded that it would be best to avoid having drives within the departure merge areas. He also noted that where the merge areas are being proposed, most if not all of the buildable land has already been developed.

The town planner added the area around the intersection was mainly man made. The area was initially wetlands. There is not much buildable vacant land in the vicinity of the project.

Question: It was inquired if it would be possible to add a slip ramp for right turn movements like the Keene multilane roundabout.

M. Dugas responded saying that it was not possible to construct slip ramps within the existing Right-of-Way. He added much of the abutting land is either wetlands or has already been developed. Impacting that land would add significant construction and property acquisition costs to the project. This suggestion will be studied further to determine its consequences.

Question: A Mobil Station representative asked how did the Lee traffic circle compare in standing to the other intersections in the HSIP funding list.

C. Green responded that the circle ranks approximately 6<sup>th</sup> out of 35.

Comment: Chester Murch, Lee's chief of police, commented that many accidents go unreported due to their minor severity. He added that when his department strictly enforces single vehicle entry to the traffic circle, capacity significantly reduces. He felt the drivers' adjustment to Alternative two would occur relatively quickly since US 4 and NH 125 are mainly commuter routes.

Question: The Mobil representative asked about the safety benefits of the changes to their north drive in alternative two.

C. Green answer that the two-way left turn lane on US 4 will provide a refuge for westbound vehicles turning into the site. The roundabout's geometry is designed to slow traffic entering and exiting the intersection, because of this vehicles will not be traveling at a high speed by the Mobil drive. The two 'three-quarter' drives allow patrons to access the Mobil from US 4 or NH 125.

Question: It was asked when the next informational meeting would occur.

C. Green responded that the Department could return for an additional informational meeting before the public hearing if requested or go straight to a public hearing in approximately five months.

Question: A resident asked if lighting had been evaluated yet.

C. Green responded that this project is still in the preliminary phase so a lighting plan has not yet been designed. Roundabouts are traditionally illuminated.

Question: It was asked if winter maintenance would be more difficult with a multilane roundabout.

Douglas DePorter responded that the maintenance crews would be able to perform winter maintenance.

Another resident added since the two-lane roundabout has less pavement area than the existing condition, would that mean less salt and sand would be used.

M. Dugas responded potentially that could be the case.

Question: Marc Ambrosi, of the Strafford Regional Planning Commission, asked if the proposed improvements are consistent with the recommendations of the recent NH 125 corridor study.

M. Dugas responded that he would review the corridor study.

Question: A resident inquired if the roundabout lighting would be directed downward to reduce potential light pollution.

C. Green responded that we are not yet at that phase in the design but the Department does have established guidelines that address light pollution. These concerns should be brought up at the public hearing.

Question: It was inquired who was responsible for making the final decision to go through with this project.

C. Green responded that the Governor and Executive Council would select a three-person commission to preside over the public hearing. That commission will ultimately determine whether the project will proceed.

Submitted by:

/S/ ON FILE

Steven J. Babalis  
Preliminary Design Section

SJB

cc: W. Cass, D. DePorter, C. Green

**MEETING ATTENDANCE**

**PROJECT** Lee: US 4 / NH 125 (Lee Traffic Circle) Safety Improvements Study

**LOCATION** Lee Public Safety Complex

**PROJECT NO.** X-A000(885)

Federal

15692

State

Name	Agency or Address	Comments
Douglas DeBock	NH DOT Dist 6	
JAMIN MEYER	51 Birch Hill Rd. Lee	
Charles Cox	59 Randall Rd. Lee	
FRANK DEROCCHI	14 ALLAS AVE TOWN OF LEE	
Tim Horng	with State House of Reps. - 7A Ferryway, Durham	
Brittany Weaver	SENATOR McNeill	
Bill Hyman	LEE Cons. Comm.	
Dick Weyrick	25 Old Concord Tpk.	
Karey Cox	Town of Lee 15 Randall Rd.	
PAUC FANWEY	ARBINO OIC 557 N STATST CONCORD, NH	
RANDY STEVENY	28 Tuttle Rd, Lee	
Phyl Sausser	11 Lee Lane, Lee	
Deana Klend	48 Ractland Rd, Lee	
Naida Kaen (State Rep)	32 Tison Lane Lee	
John McGovern, Esq	225 Water Street Derry, NH 03833	
CHRISTOPHER BAKER	WEEDS -> TWIN CREEK PROPERTIES -> 95 CREEF HICKORY	
John Matthews	Market Basket - RMD Inc.	
Leslie Modica	FOSTERS - DOWEL, NH	
Alton Dennis	Town of Lee Planning/ zoning/ code Enforcement	
Deborah Scharda	18 Hale Farm Rd Lee NH	
Roger Rice	LEE TOWNERS STR. MEET	PLEASE INCREASE CAPACITY
JAMES D'ANGELO	ORIG - 71 PENNINGTON RD. W. ANDOVER, MA	
KENNY WONG	LEE Police Dept. Lee NH	
Caren Rossi	Town of Lee PLZCED	
Donna Eisenhard	258 North River Rd, Lee	

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Date 7/21/2010

