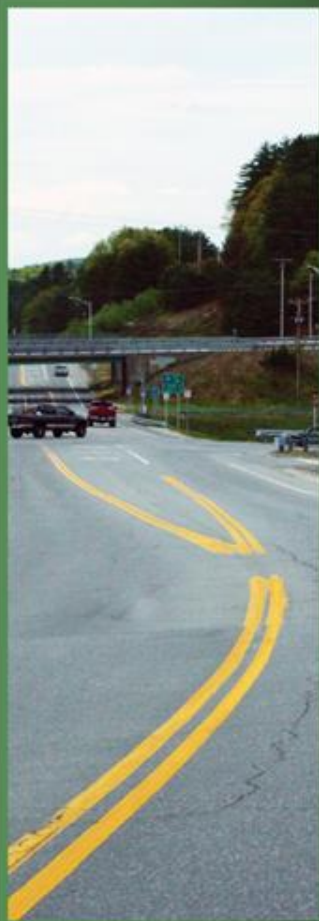


ALTERNATIVES WORKSHOP - JANUARY 22, 2013



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

TOWN OF WARNER NH ROUTE 103 TRAFFIC CALMING

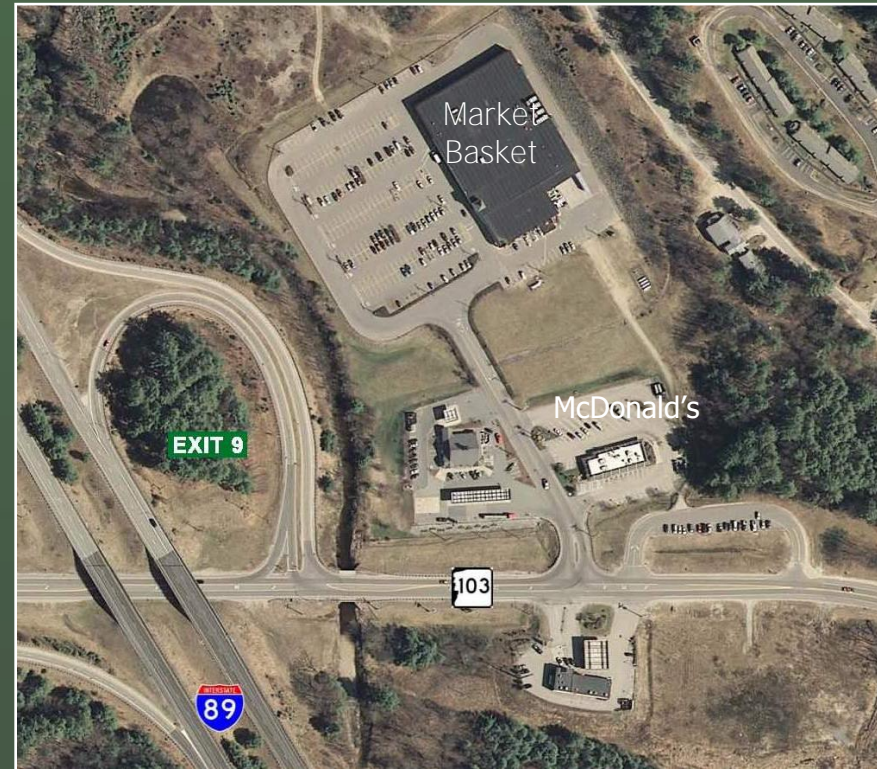
Presented By

- Gene McCarthy, P.E. – Project Manager
- Brian Colburn, P.E. – Project Engineer
- Jeff Santacruce, P.E. – Traffic Engineer



Meeting Agenda

- Welcome/Introductions
- Project Overview
- Purpose and Need
- Resources
- Alternatives
- Questions/Comments



Project Overview



Project Overview

- Previous Studies
 - Plan NH Charrette (2004)
 - CNHRPC Access Management Plan (2005)
 - Alternatives Evaluation Report (2008)
- Funding (State Aid Highway)
- Three Phase Process
 - Phase I – Conceptual Design (Feb. 2013)
 - Phase II – Final Design (Complete Fall 2014)
 - Phase III – Construction (2015)

Project Overview

Phase I – Conceptual Design

- Information Gathering/Base Maps
- Resource Identification
- Public Involvement
- Alternatives Development

Listening Session

What works well and what does not work at the I-89 Ramps?

How does the Market Basket and Gas Station driveway work?

Is it easy to access the Park and Ride Lot?

Is the Park and Ride lot large enough?

What is your Vision for the Route 103 Corridor?

PROJECT PURPOSE AND NEED STATEMENT

Purpose

The project's purpose is to calm traffic for all users along NH Route 103 between Interstate 89 Exit 9 and North Road to provide a safer, more efficient and aesthetically pleasing gateway for the Town of Warner.

Need

- Vehicles currently travel at high speed through the corridor.
- The high volume of turning traffic into and out of the adjoining businesses creates a safety issue.
- Sight distance restrictions contribute to the safety issues for turning vehicles.
- The number of driveways in close proximity creates confusion for those entering and exiting the corridor.
- The extended delays for turning vehicles create driver frustration.
- There are no pedestrian or bicycle facilities in the corridor.
- The Park and Ride is difficult to access.
- Exit 9 is a gateway into Warner and should be visually appealing.
- Vehicles need to transition from highway speed to village speed within the project area.

Purpose and Need



TOWN OF WARNER
NH ROUTE 103
TRAFFIC CALMING



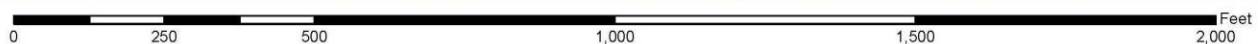
Project Purpose

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Project Need

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- Sight distance restrictions contribute to the safety issues for turning vehicles.
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Resources



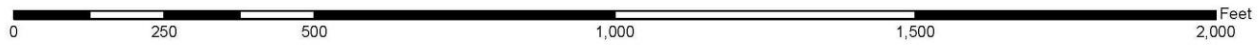
-  100-Year FEMA Floodplain
-  500-Year FEMA Floodplain




 Floodway - The channel of the stream and that portion of the adjoining floodplain that is necessary to contain and discharge the 100-year flood flow without increasing the base flood elevation more than one foot.


WARNER
ROUTE 103 TRAFFIC CALMING
FLOODPLAINS

SCALE: 1:2,400	DATE: NOVEMBER 2012	FIGURE: X
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Resources



-  Emergent wetland
-  Scrub-shrub wetland
-  Forested / scrub-shrub wetland

WARNER ROUTE 103 TRAFFIC CALMING		
WETLANDS		
1:2,400	DATE: NOVEMBER 2012	FIGURE: X
 McFarland Johnson		

Resources



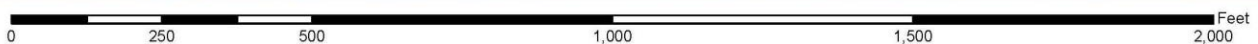
Kearsarge Sawmill
Leaking Underground Storage Tank.
Site remediated and file closed in 1994.

Warner Town Garage
Leaking Underground Storage Tank.
Site remediated and file closed in 1994.

Motor vehicle accident and fuel spill.
Site remediated and closed in 2007.

Residential Oil Spill
Site remediated, file closed in 2000.

Legend



- Registered Hazardous Waste Generator
- Hazmat Remediation Site
- Underground Storage Tank

WARNER
ROUTE 103 TRAFFIC CALMING

HAZARDOUS MATER.

SCALE: 1:2,400	DATE: NOVEMBER 2012	FIGURE: X
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Alternatives Development



Traffic

- New Intersection Counts (AM/PM) - October 2012
- Four (4) Route 103 Intersections
- New Tube Counts on Route 103 (CNHRPC)
- Determine AM & PM Peak Design Hour Volumes
- Project to Design Year 2032
- Evaluate based on Level of Service (LOS)
- LOS Graded A to F (No Delay to Serious Delay)
- LOS AM/PM

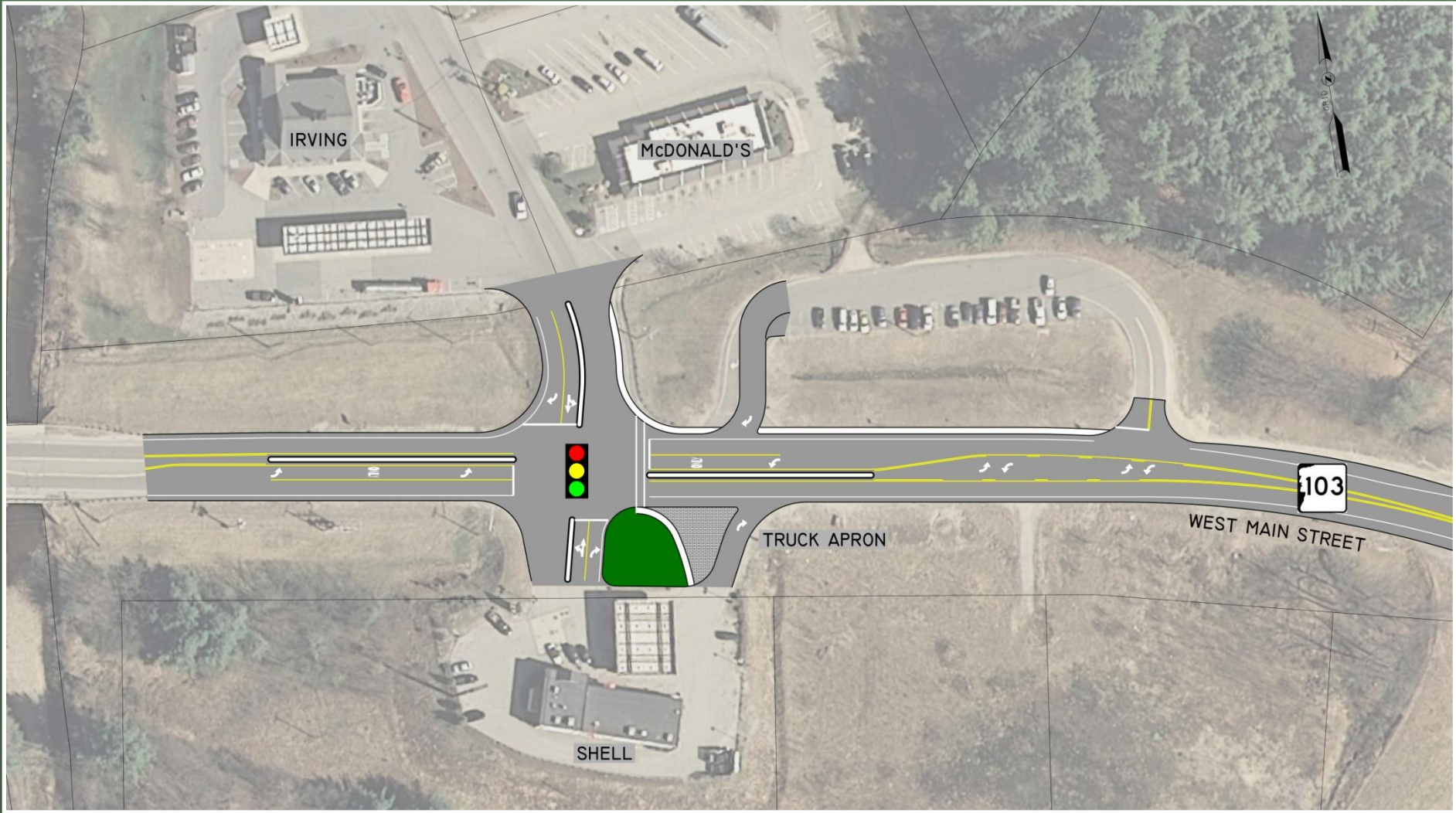


Traffic



- Existing Driveways = LOS E/F (2012)
- Meets Signal Warrants (Barely)
- Do Nothing = LOS F/F (2032)

Traffic Signal



Traffic Signal = LOS B/C

Roundabout



Roundabout = LOS A/B

Cost Comparison

Traffic Signal

Design/Permitting: \$150,000

Construction Cost: \$450,000

Right of Way: \$0

Constr. Engineering: \$75,000

Total Project: \$675,000

Town Share: \$225,000

Roundabout

Design/Permitting: \$165,000

Construction Cost: \$500,000

Right of Way \$0

Constr. Engineering: \$100,000

Total Project: \$765,000

Town Share: \$255,000

Comparison

Traffic Signal

Pros:

Less Expensive

Quicker to Construct

Driver Understanding

Cons:

Limited Calming

Long Term O&M Costs

Would be First Signal in Warner

Roundabout

Pros:

Calms Traffic/Safer

Better LOS (Less Peak Delay)

Better Off Peak Performance

Aesthetics

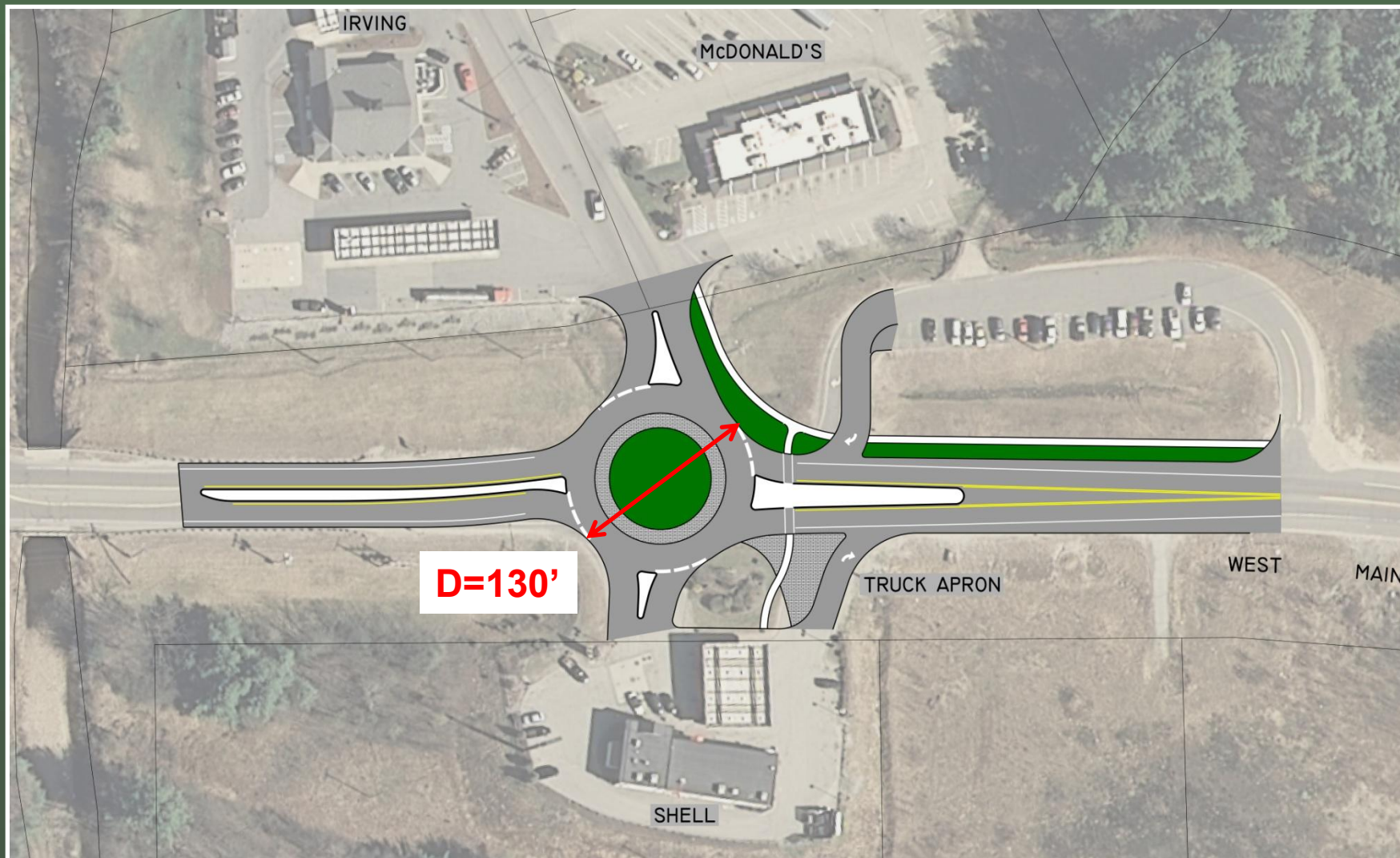
Cons:

More Expensive

Longer to Construct

Driver Education

Roundabout



Similar Roundabouts



New London

Newport and County Roads

Built 2009

Diameter = 120 feet



Meredith

US Route 3 and NH Route 106

Built 2007

Diameter = 130 feet



Peterborough

NH Route 101 and Shaw's Driveway

Built 2009

Diameter = 120 feet



TOWN OF WARNER

NH ROUTE 103
TRAFFIC CALMING



McFarland Johnson

Next Steps

- Prepare Executive Summary
- Present Preferred Alternative to Board of Selectmen
- Town Meeting for approval



Questions and Comments

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gmccarthy@mjinc.com*