



Nottingham 40612 – Bridge 141/127 – NH Route 152 over North River

Public Officials/Public Informational Meeting

January 22, 2024

Project Team

- **Jason Tremblay, PE**
 - NHDOT Bureau of Bridge Design
 - Project Manager
- **Ron Kleiner, PE**
 - NHDOT Bureau of Bridge Design
 - Senior Project Engineer
- **Josh Brown**
 - NHDOT Bureau of Environment
 - Environmental Manager
- **Tom Levins, PE**
 - GM2
 - Project Consultant
- **Brandon Loiselle**
 - GM2
 - Project Consultant

Project Location Map



NOTTINGHAM-NH RT. 152 OVER NORTH RIVER



Existing Bridge Details

- Constructed in 1925; Widened in 1970
- 17' Clear Span: steel beams with concrete jack arch deck on faced masonry abutment (original); steel beams with conventional concrete deck on piles (widened section)
- 29'-0" roadway width (3'-6" shoulders on each side)
- 3,300 vehicles per day, 7% trucks
- Added to Red List in 2012

Site Photos



Looking South Along NH Rt.152



Looking North Along NH Rt.152

Site Photos



Looking Downstream



Looking Upstream

Bridge Condition



Bridge Downstream Elevation



Bridge Upstream Elevation

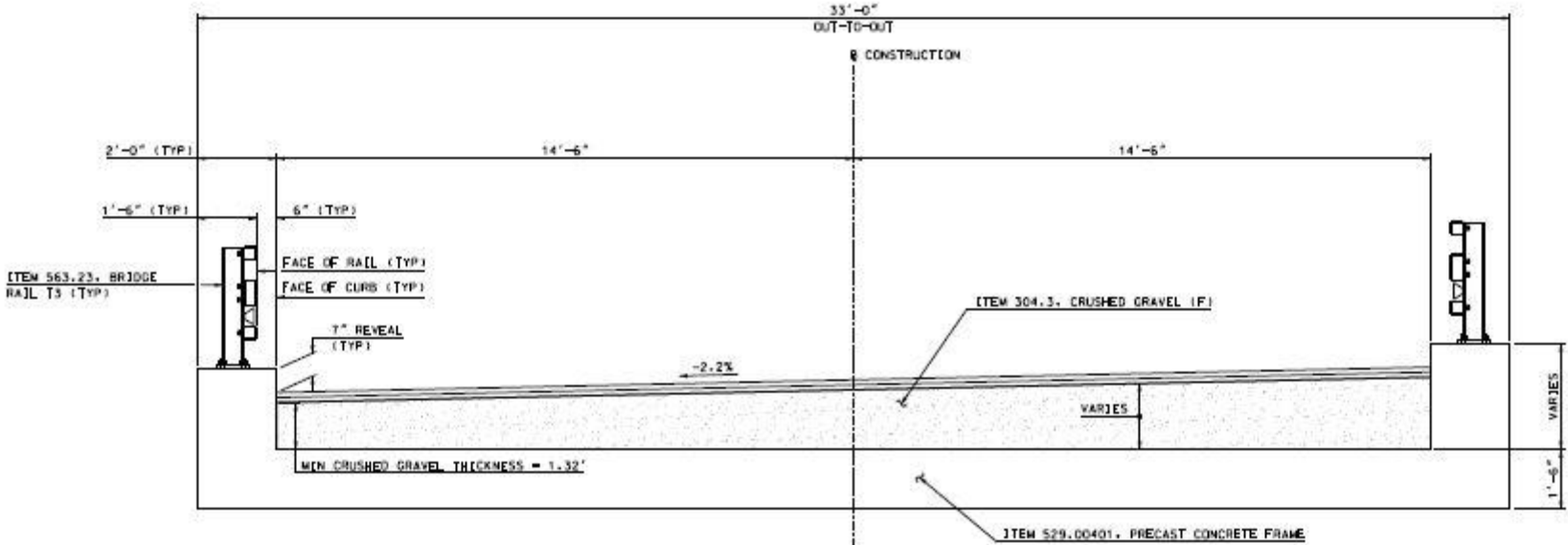
Issues to Address

- Deterioration of Bridge Substructure
 - Bridge is on State Red List
 - Substructure is in Condition State 3 (Serious)
- Hydraulic opening

Bridge Replacement

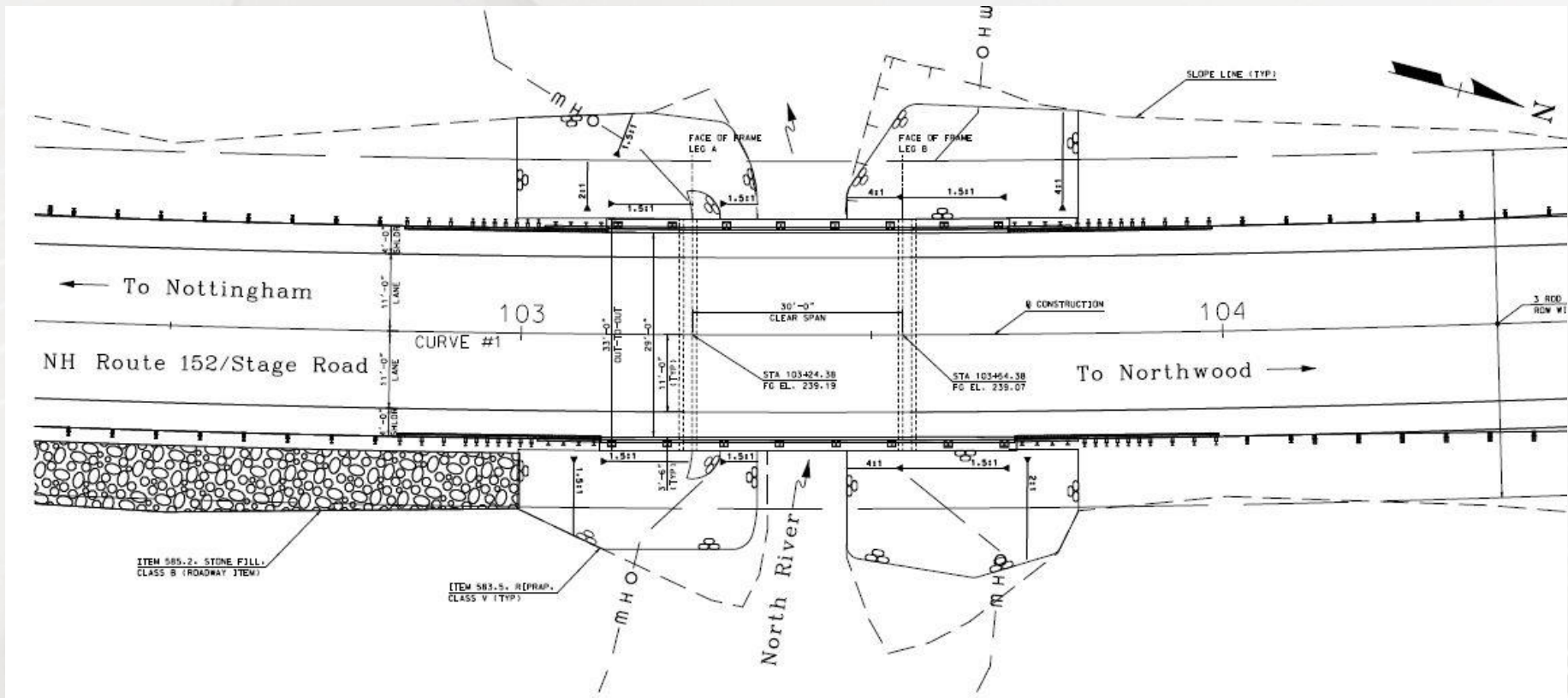
- Proposed bridge to be a single span (30-foot clear opening).
 - Precast Concrete Rigid Frame supported on precast concrete pedestal walls and spread footings
- Bridge span will address hydraulic opening deficiencies and provide a wildlife path through the structure
 - The proposed span does not satisfy the stream crossing rules (Alternative Design process required)
 - Compliant span length = 66'-0" clear
- Bridge width to be 33'-0" wide
 - 11'-0" travel lanes and 4'-0" shoulders
 - 3-bar steel rail

Bridge Replacement



TYPICAL DECK SECTION
SCALE: 1/2" = 1'-0"

Bridge Span



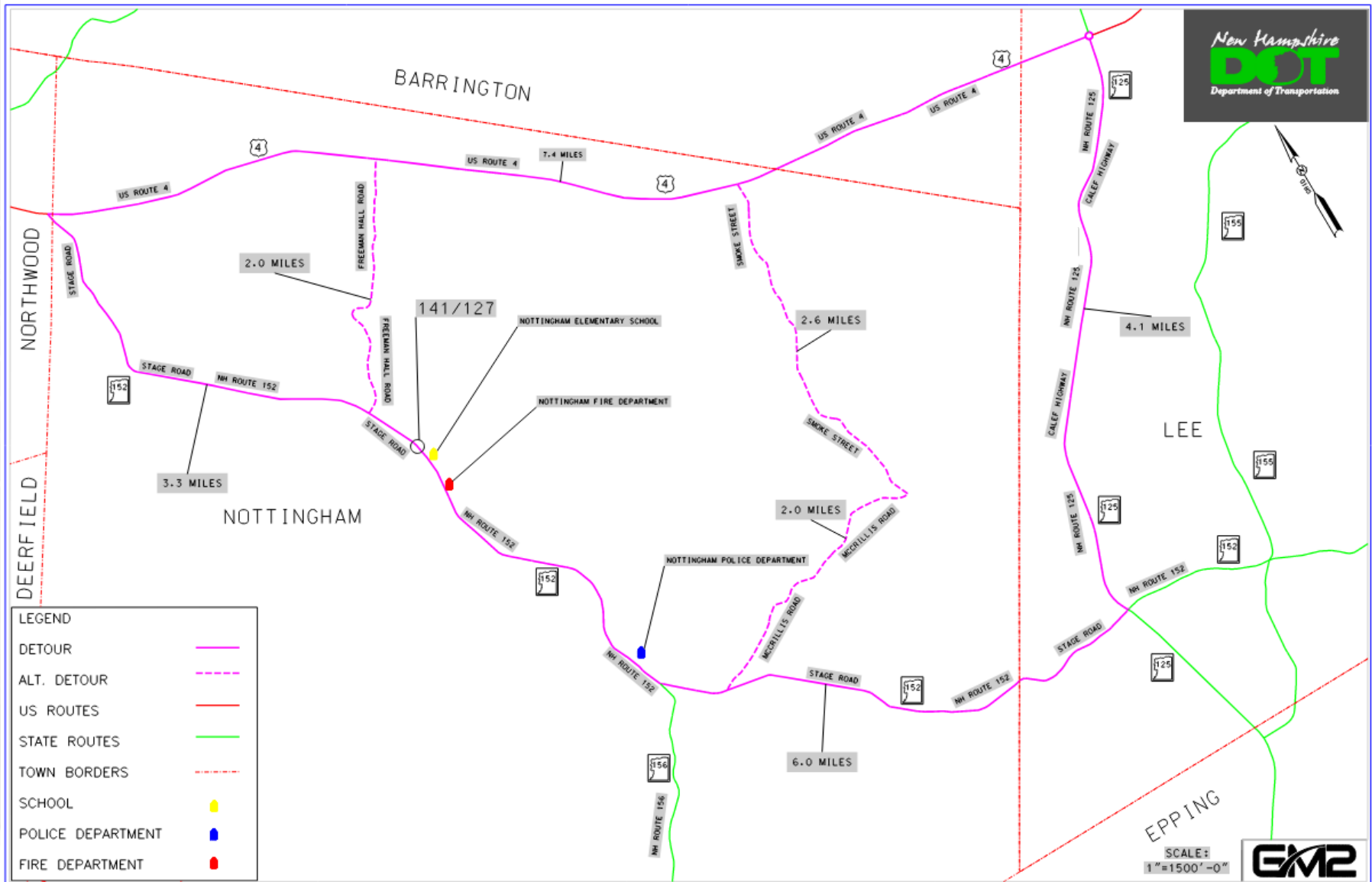
Permanent and Temporary Easements will be required for construction and slope/stonework.

Maintenance of Traffic

Selected Alternative:

- Accelerated Bridge Construction (ABC) with bridge closure
 - Detour traffic using NH Rt 152, NH Rt 125, and US Route 4
 - Approximate closure duration of NH Rt 152 = 28 days
 - Anticipated construction duration = 1 construction season

Detour Traffic Control for ABC Alternative



Rte. 4 to Rte. 125

21 miles on state routes. ~4 miles on local roads

Cultural Resources: Section 106 Review

No Historic Properties Affected Memo. Jan 2023

- Bridge: not eligible
 - Constructed in 1925 and rebuilt in 1970
- Archeological survey
 - Survey complete- no further survey recommended



FIGURE 10: Photo of Nottingham Bridge 141/127 on bridge card dated May 7, 1941, showing east elevation before 1970 widening.

Wetland and Stream Resources

- North River
 - Tier 3 stream crossing (watershed >1 sq mile)
 - Designated river
- Priority Resource Area- Floodplain wetlands (FEMA 100 Year)
 - Wetland permit- standard dredge & fill
 - ARM Fund: Mitigation Payment
- Protected shoreland
 - Shoreland Permit



Natural Resources

- Federally listed species- NLEB: no effect
- State listed species- turtles, snake & fish
- Wildlife Corridor- wildlife shelf proposed
- Conservation Land in the project area



Cost Estimate

- Funded by SB 367
 - Construction Cost: \$1,600,000

Next Steps

- Public Hearing
- Advertise for bids 10/22/2024
- Construction scheduled to begin in 2024-2025

Questions?

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www.dot.nh.gov/projects-plans-and-programs/project-center/nottingham-40612

NHDOT>Project Center>Project Specific Information>Nottingham 40612

