

PUBLIC INFORMATION MEETING

State Project No. 84-105

Replacement of Bridge No. 02629

Monroe Turnpike (Route 111)

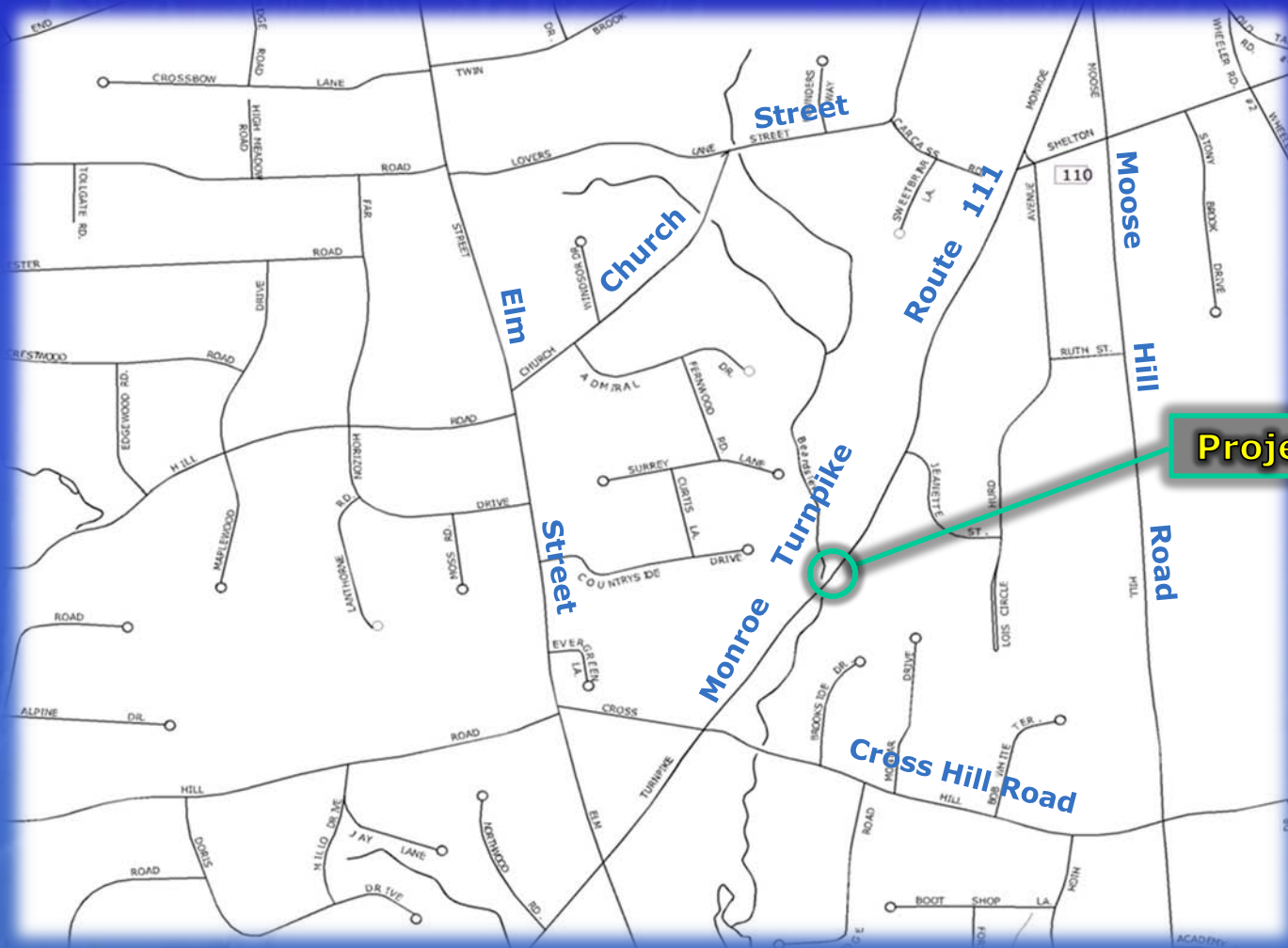
over

Beardsley Brook

Monroe, Connecticut

Project Location

Route 111 Over Beardsley Brook



Project Location

ConnDOT Role and Mission

Bureau of Engineering and Construction

- Responsible for engineering design, Construction, and inspection of transportation projects

Contact: Mr. David Cutler, PE
(Project Manager)

WMC Consulting Engineers

ConnDOT has retained the firm of WMC Consulting Engineers (WMC) to provide the design of this bridge project.

**Contacts: Mr. Dennis Garceau, PE
(Project Manager)**

**Mr. Jay Costello, PE
(Vice President)**

Reasons for Project

Structure recommended for full replacement under the List 19S Bridge Program.

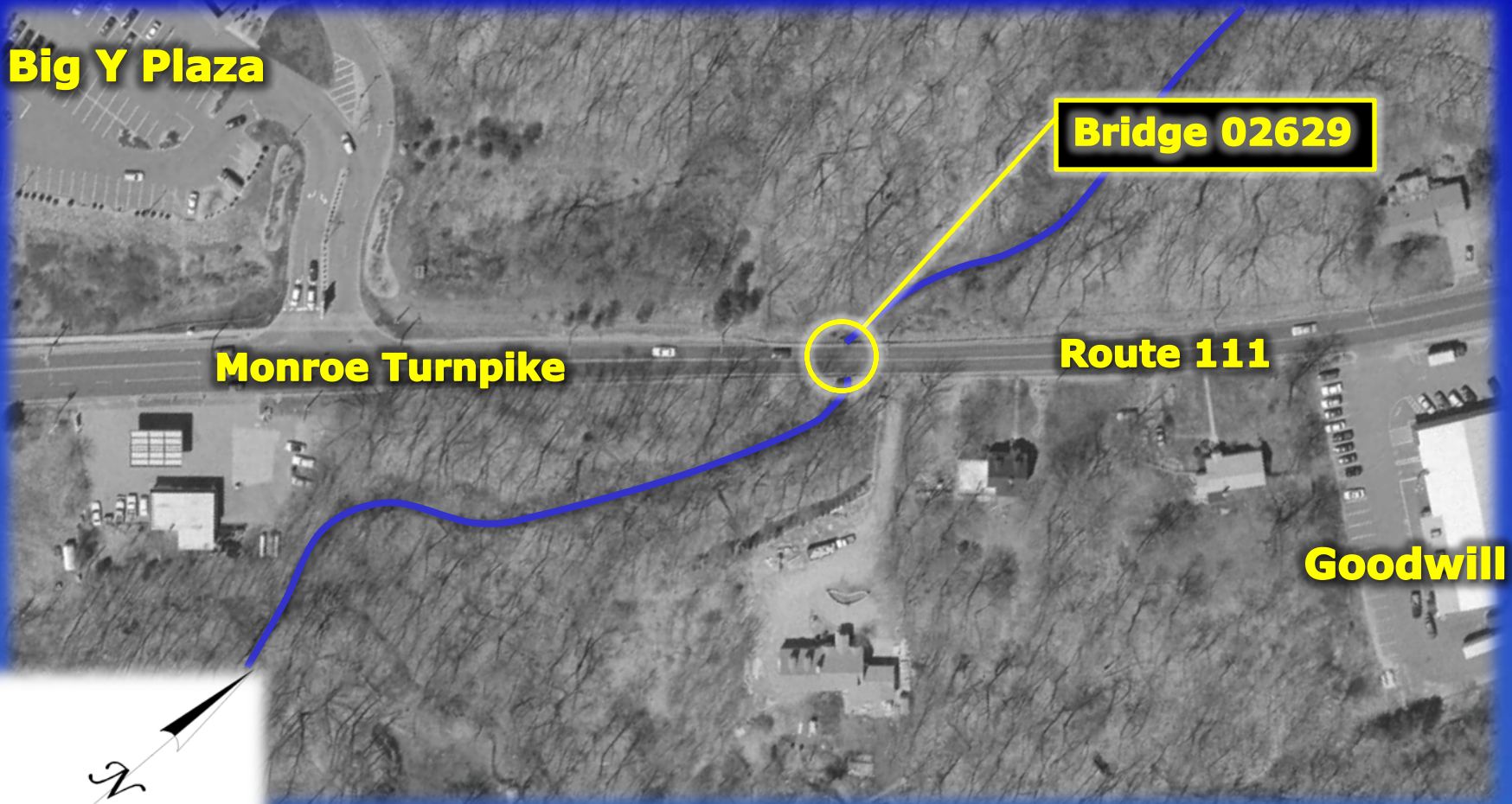
Reasons include:

- Structurally Deficient Superstructure
- Structurally Deficient Substructure
- "Serious" Condition Overall
- Bridge Width Inadequate
- Hydraulically Inadequate

Project Goals

- **Reconstruct Bridge No. 02629**
- **Minimize disturbance to the public**
- **Complete construction in a timely manner**
- **Effective use of funds**

Aerial View of Bridge No. 02629



Existing Bridge

- **Single span structure built in 1914**
- **Structure Dimensions**
 - Total Length = 12 ft
 - Clear span = 6 ft
 - Curb-to-Curb Width = 23 ft
- **Straight horizontal alignment**
- **Slight downgrade to the south**
- **Carries one lane of traffic in each direction**
 - Estimated Average Daily Traffic (ADT) ~ 15,400 vehicles (2010)

Existing Bridge

- Superstructure consists of:
 - Reinforced concrete slab with bituminous overlay



- Substructure consists of:
 - Stone masonry abutments and wingwalls

Existing Bridge



Downstream Face

Existing Bridge



Upstream Face

Existing Roadway



Looking North on Monroe Turnpike

Existing Roadway



Looking South on Monroe Turnpike

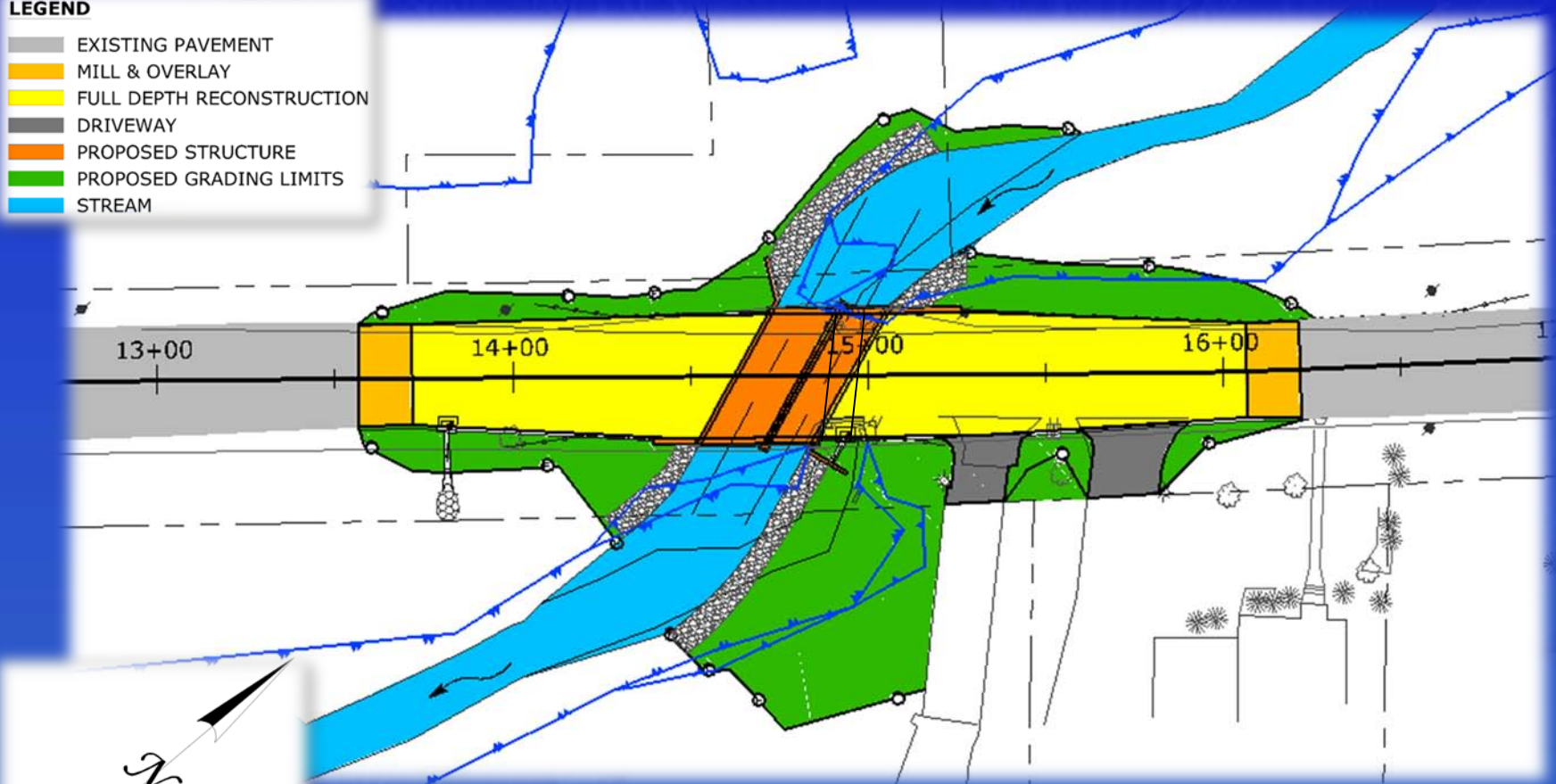
Proposed Roadway

- Horizontal & Vertical geometry maintained
- Roadway widened to 34'
- Approximately 240' of full depth roadway reconstruction
- Minor improvements to drainage
- Upgrades to Guiderail

Proposed Roadway

LEGEND

- EXISTING PAVEMENT
- MILL & OVERLAY
- FULL DEPTH RECONSTRUCTION
- DRIVEWAY
- PROPOSED STRUCTURE
- PROPOSED GRADING LIMITS
- STREAM

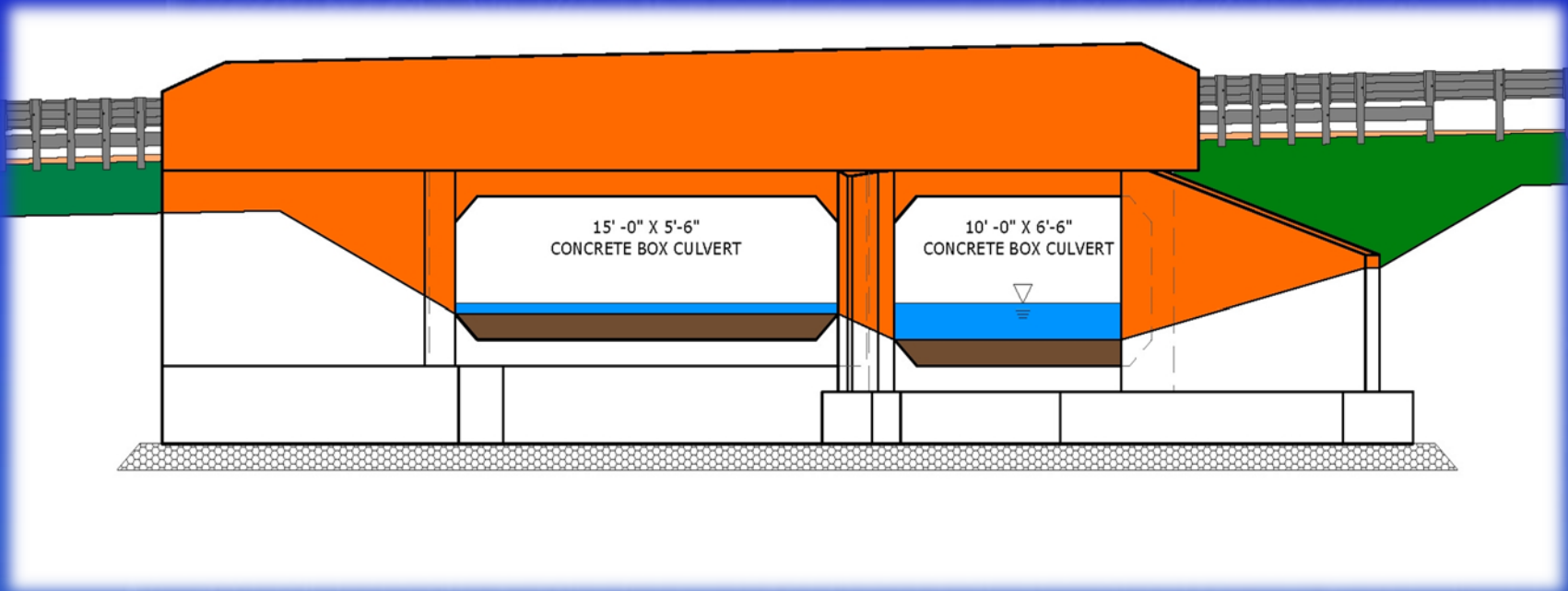


Roadway Plan

Proposed Bridge

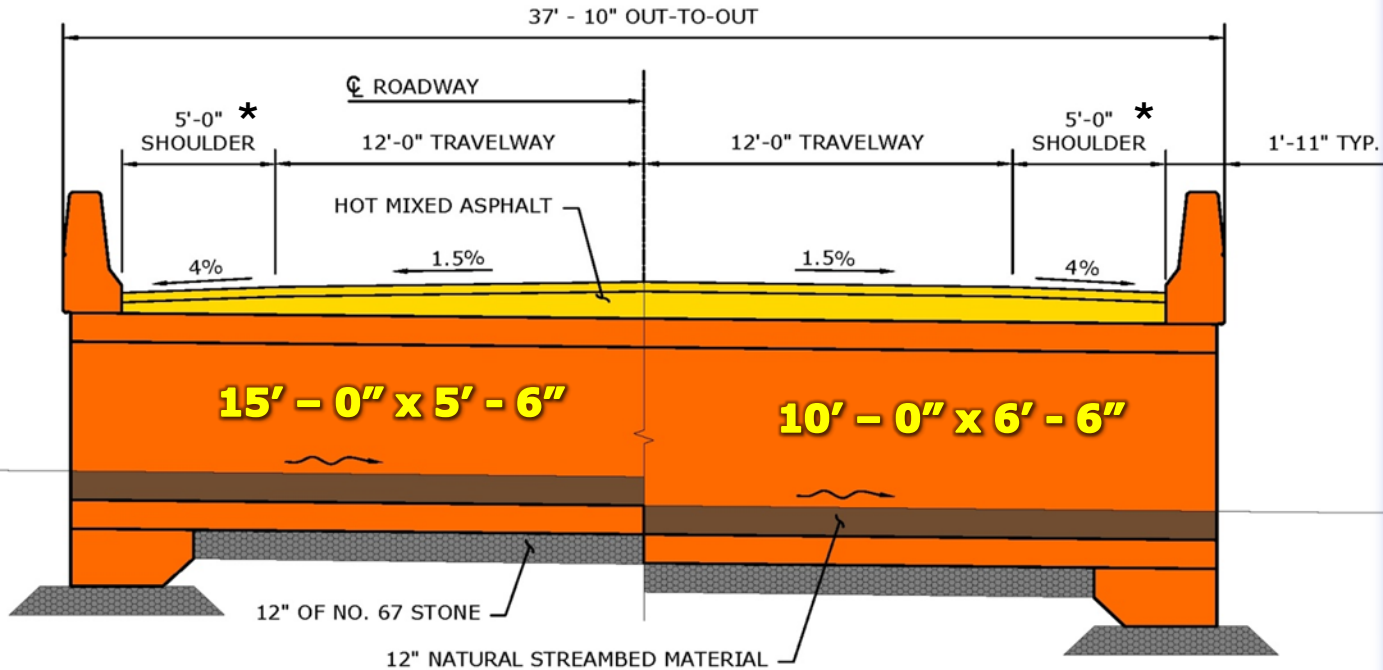
- New double precast concrete box culverts
- New precast concrete wingwalls
- Improved hydraulic capacity
- Re-establish / Realign stream channel

Proposed Bridge



Bridge Elevation (Downstream)

Proposed Bridge



* Recommended state bike route

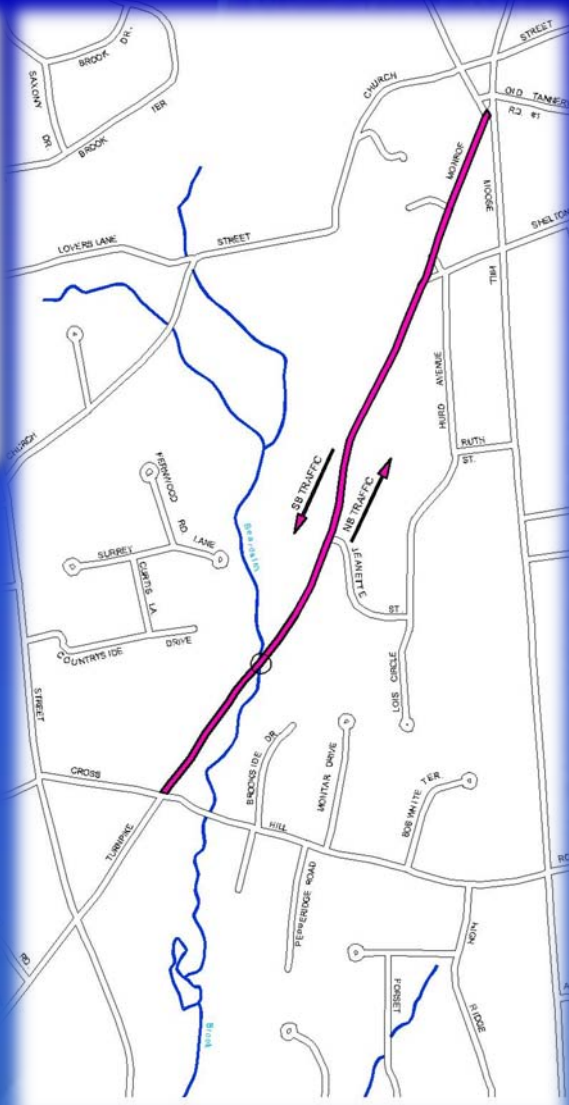
Typical Bridge Cross Section

M & P of Traffic

Alternatives

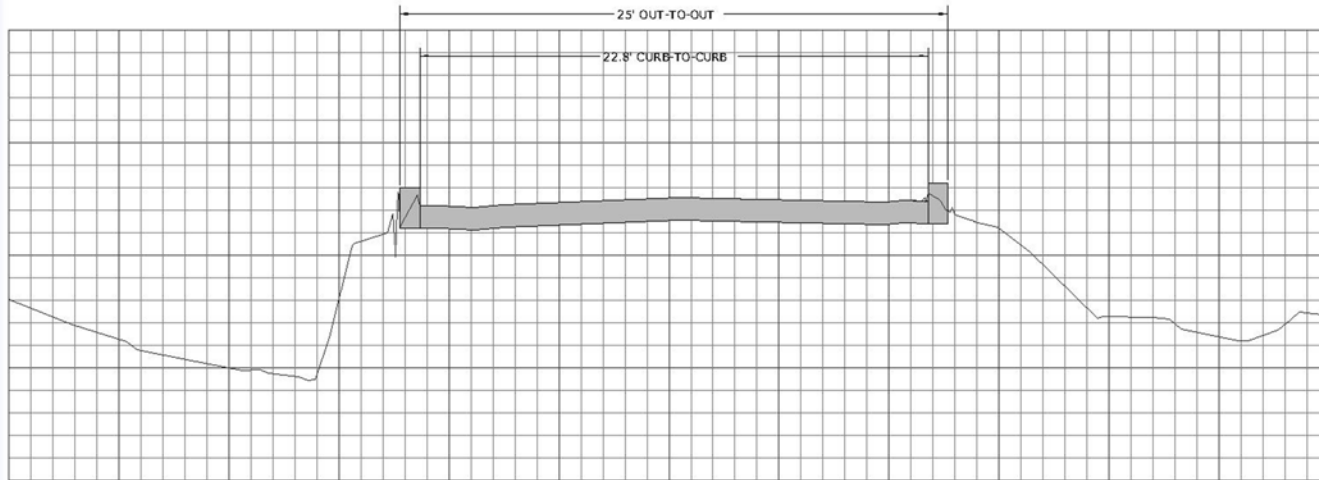
- I. Alternating one-way traffic (signalized)
- II. Maintain southbound traffic / detour northbound traffic
- III. Full roadway closure – detour northbound and southbound traffic separately

Alt. I - Alternating One-Way



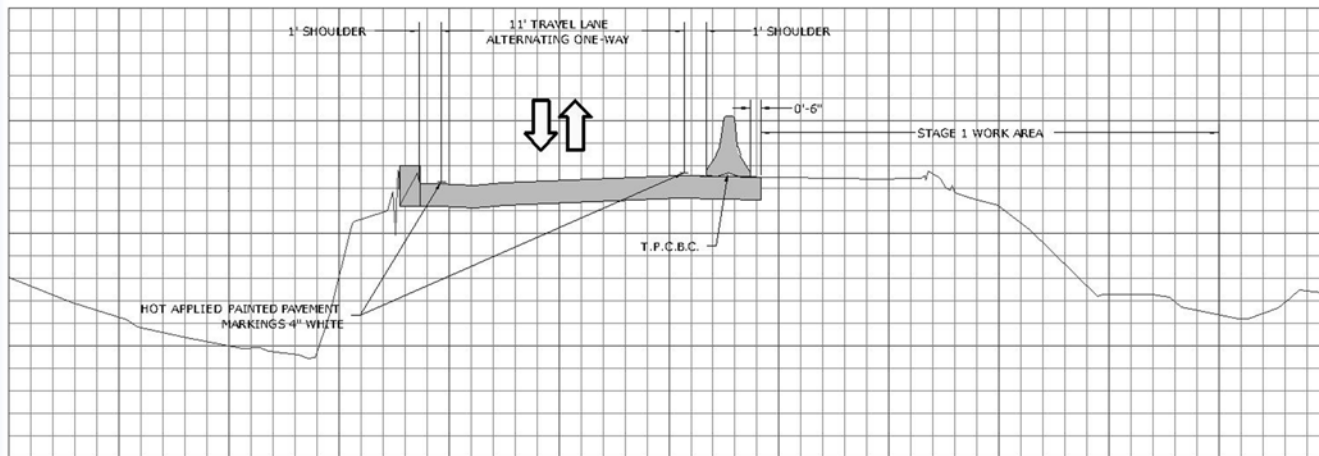
- Queuing lengths / delay
 - Blocking driveways / business access
 - Constructability – old abutments
 - Staged construction
 - Longer construction time (6 months)
 - Increased construction cost
 - Safety – workers vs. traffic
-
- Less traffic on local roads

Alt. I - Alternating One-Way



EXISTING BRIDGE SECTION

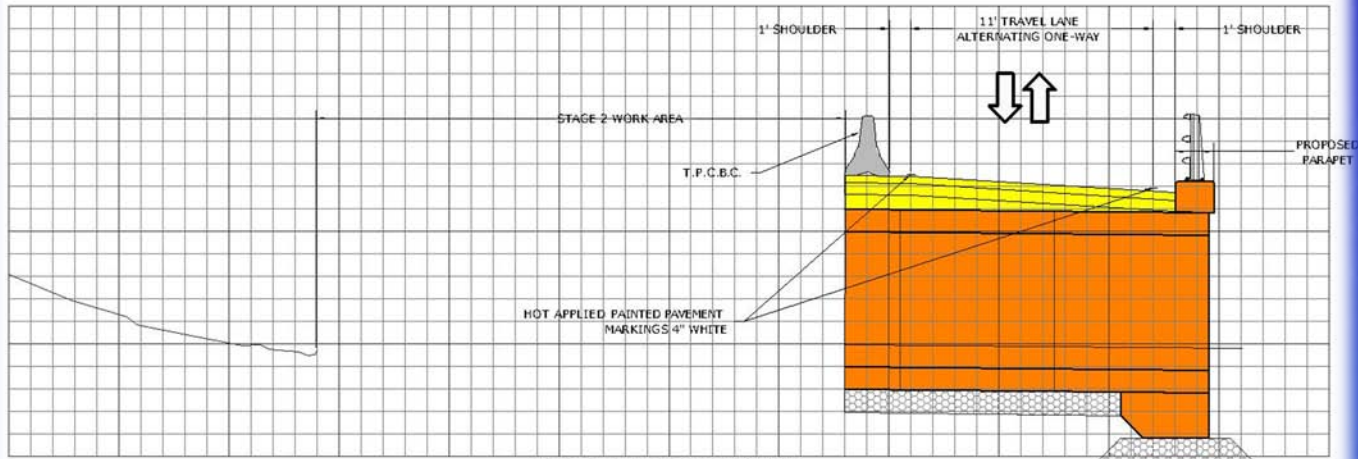
SCALE: 1" = 2'



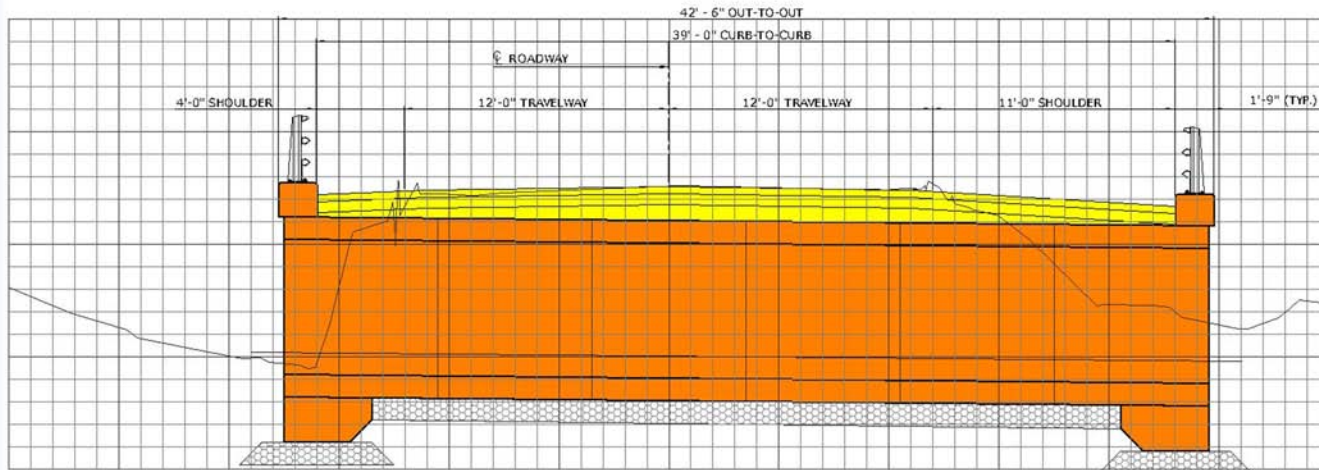
STAGE I BRIDGE SECTION

(ALT. ONE WAY)

Alt. I - Alternating One-Way

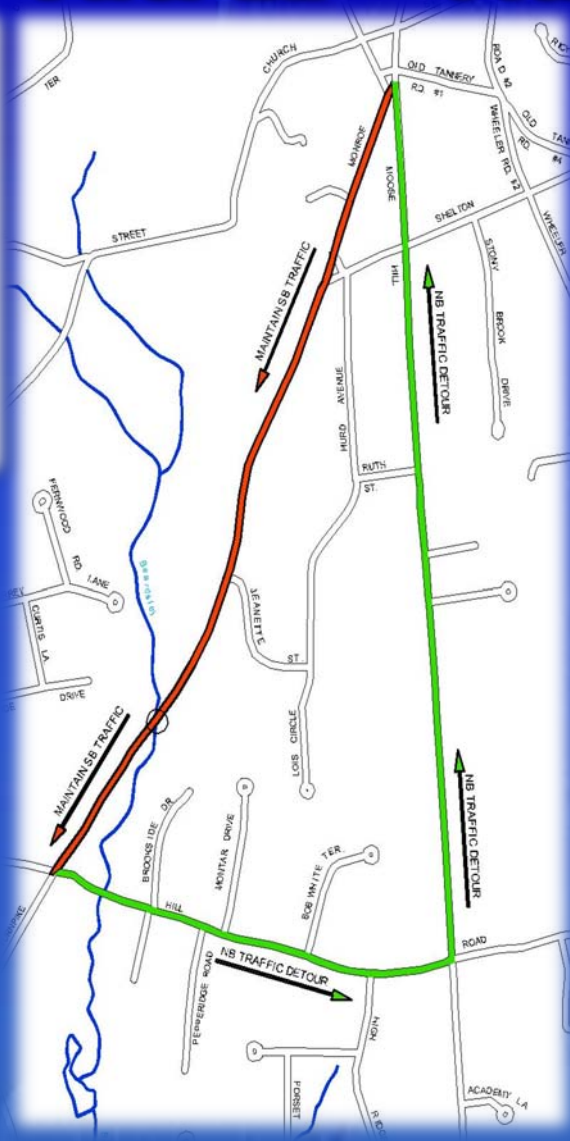


STAGE II BRIDGE SECTION
(ALT. ONE WAY)
SCALE: 1" = 2'



PROPOSED BRIDGE SECTION
SCALE: 1" = 2'

Alt. II – Maintain SB / Detour NB



- Constructability – old abutments
- Staged construction
- Longer construction time (6 months)
- Increased construction cost
- Safety – workers vs. traffic
- NB detour = more traffic on local roads than Alt. I

- No signal = no queuing
- Better access to driveways
- less traffic on local roads than Alt. III

Alt. III – Full Road Closure

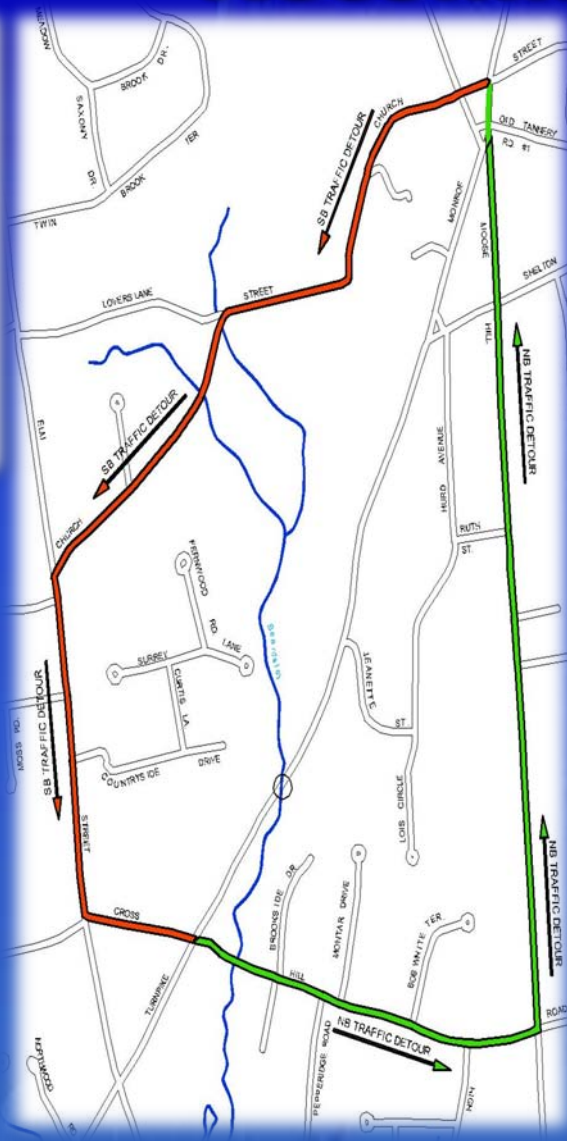


- Short construction (4-6 weeks)
 - Safety – no workers vs. traffic
 - Less Cost
 - Maintain access to driveways
 - Split detour = less traffic on one route
-
- All traffic on local roads

Recommended Alternative

Alt. 3 - Reasons Why?

- Short construction (4-6 weeks)
- Safety – no workers vs. traffic
- Less Cost
- Maintain access to driveways
- Split detour = less traffic on one route



Public Utilities

- AT&T conduits along east side
- 8" Gas Main along the west side
- Overhead wires along the west
- Utilities to be relocated prior to bridge construction
- Night time work likely
- Detour may required

Rights-of-Way

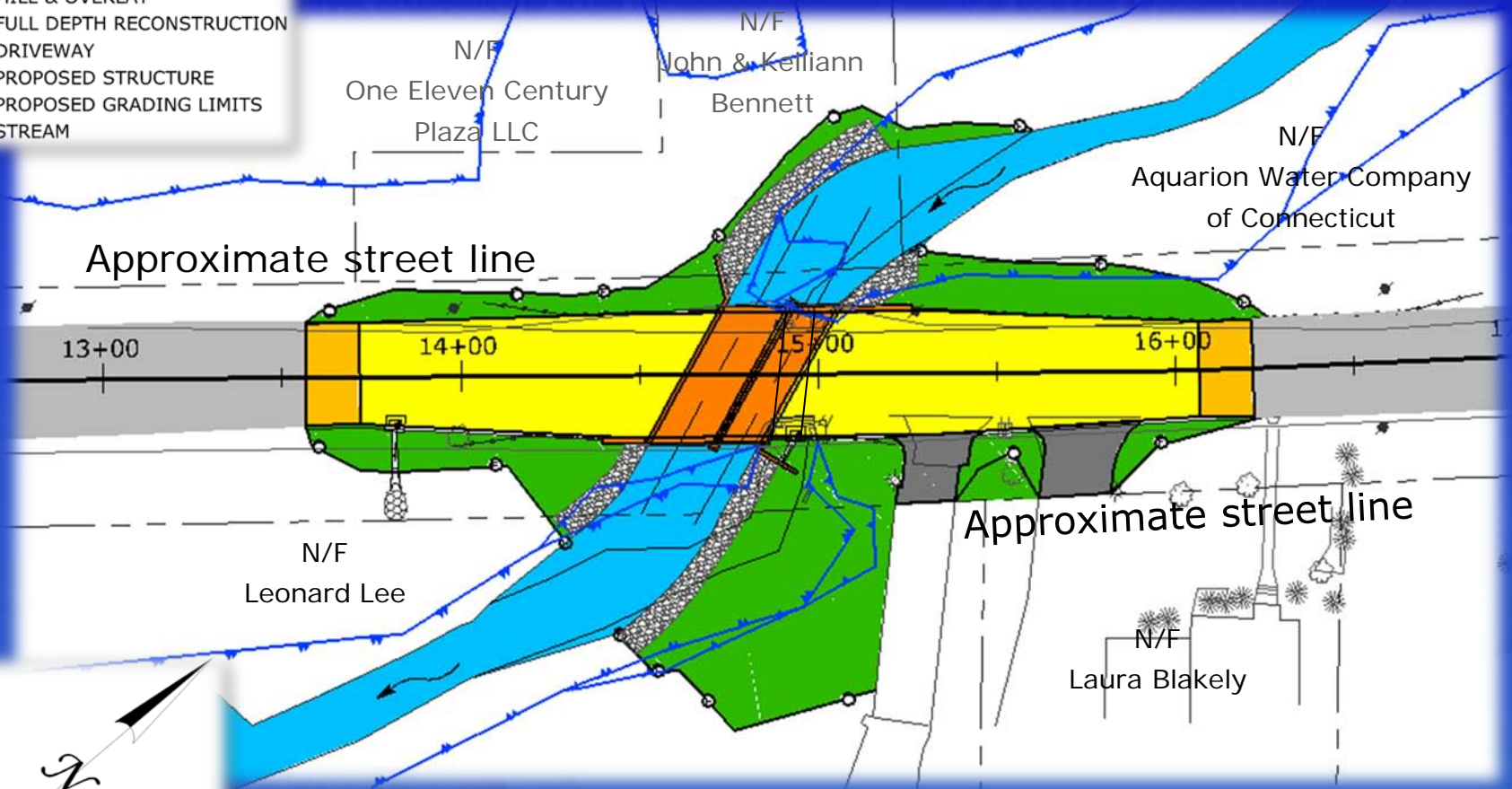


- Proposed construction substantially within existing R.O.W.
- Easements anticipated -
 - Easements to slope for support of highway
 - Easements to install and maintain riprap for channel
 - Drainage right-of-way
 - Temporary construction easements

Rights-of-Way

LEGEND

- EXISTING PAVEMENT
- MILL & OVERLAY
- FULL DEPTH RECONSTRUCTION
- DRIVEWAY
- PROPOSED STRUCTURE
- PROPOSED GRADING LIMITS
- STREAM



Roadway Plan

Project Cost

The estimated construction cost for the entire project is approximately \$1,800,000.

This project is anticipated to be paid for using State and Federal funds.

No cost to the Town.

Project Schedule

The project is anticipated to be constructed starting in Spring 2014.

Project duration estimated to be 4 – 6 weeks.

The schedule is preliminary and is predicated upon the availability of funding, scheduling and the receipt of all required permits and property acquisitions / easements.

Contact Information

- **ConnDOT**

Mr. David Cutler, PE

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860-594-3210

- **WMC Consulting Engineers**

Mr. Dennis Garceau, PE

Mr. Jay A. Costello, PE, VP

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Newington, CT 06111

860-667-9624



THANK YOU...

**FOR YOUR TIME AND
ATTENTION**

Connecticut Department of Transportation
And
WMC Consulting Engineers



Project Location