

# **Public Information Meeting**

## **Darien, CT – December 2, 2014**

- **U.S. Route 1 over Noroton River**
  - **Replacement of Bridge No. 00315**  
**State Project No. 135-307**



Connecticut Department of Transportation



# CT DOT & Consultant Engineers

## **CT DOT**

*Division of Bridges*



## **BL Companies**

*Consultant Liaison Engineer*

**Nicholas Giardina, P.E.**



## **Anchor Engineering Services**

*Design Consultant - Bridge No. 00315*

*State Project No. 0135-307*

**Matt Brown, P.E.**



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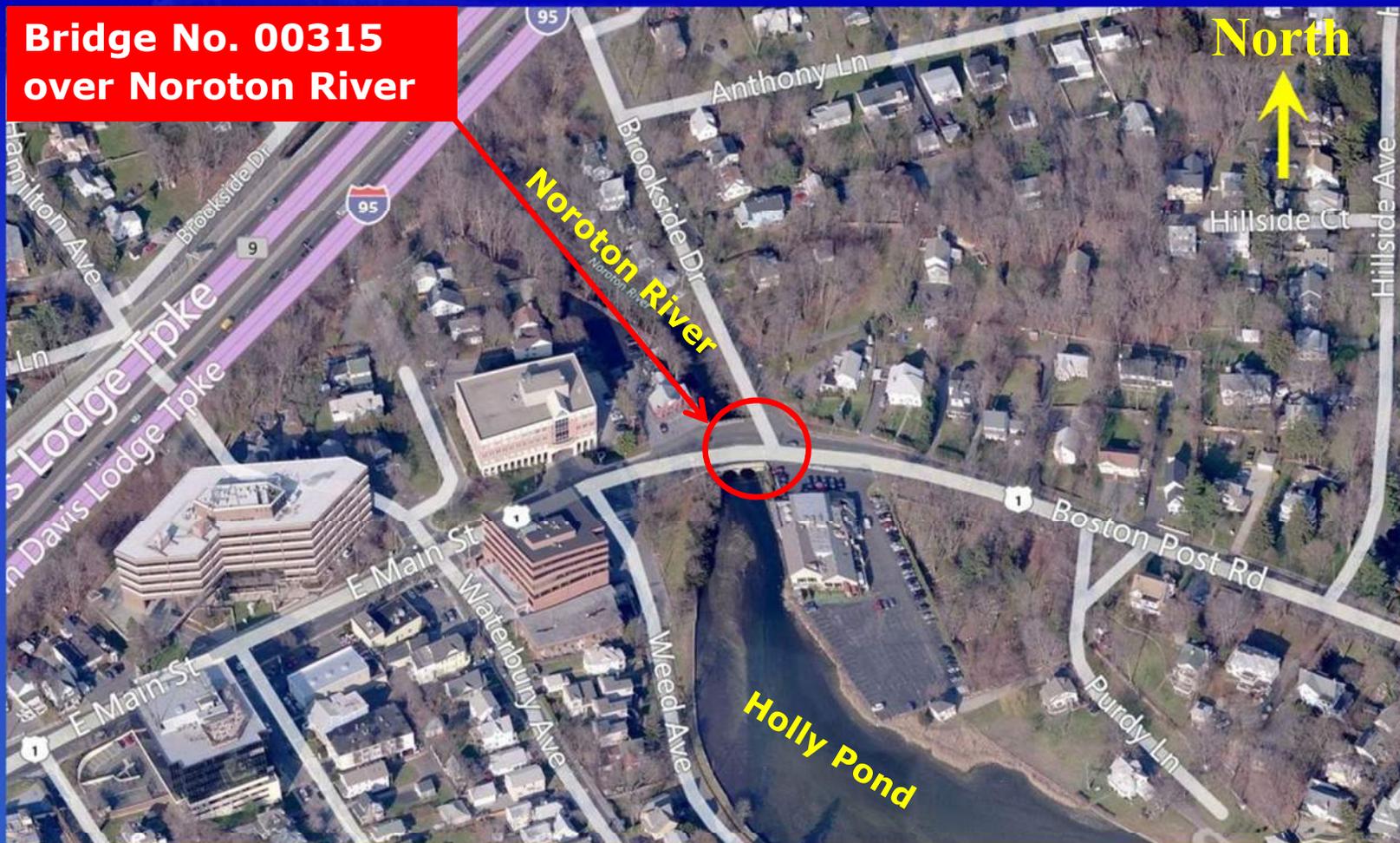


# CT DOT Bridge Program Goals

- **Rehabilitate bridges on State transportation network to a state of good repair**
- **Efficient use of Federal and State funds**
- **Design solution beneficial to all**



**Bridge No. 00315  
over Noroton River**



## Aerial View of Bridge 00315

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# Existing Bridge Description

*Bridge No. 00315*

- **Built in 1913, rehabilitated in 1956**
- **Structure Dimensions**
  - Bridge Length = 50-feet**
  - Two Spans**
  - Curb-to-Curb Width = 70-feet**
- **Bridge carries two lanes of traffic in each direction with a painted median**
  - **Estimated Average Daily Traffic (ADT) on U.S. Route 1 at this site ~ 10,600 vehicles (2013)**



# Existing Bridge Description

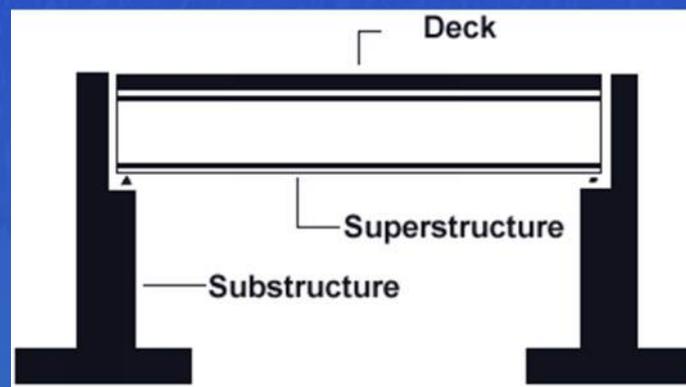
*Bridge No. 00315*

## Superstructure

- The existing two-span superstructure consists of:
  - Northern (upstream) portion: Pre-stressed concrete deck units
  - Southern (downstream) portion: Concrete encased steel beams & reinforced concrete "T" beams

## Substructure

- The existing substructure consists of concrete abutments, pier, and wingwalls.



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**Looking East**  
***Bridge No. 00315***

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**Looking West**  
***Bridge No. 00315***

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**Looking North**  
***Bridge No. 00315***

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**Looking South**  
***Bridge No. 00315***

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## Upstream Channel

*Bridge No. 00315*

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## Downstream Channel

*Bridge No. 00315*

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# **Reasons for Project**

*Bridge No. 00315*

**Structure is recommended for replacement under the State Bridge Program.**

## **Reasons include:**

- **Scour Critical**
  - **Exposed footings**
  - **Risk of undermining foundations**
- **Structure Condition**
  - **South parapet exhibits impact damage**
  - **Areas of deteriorated concrete with cracks and spalls**
  - **Corroded reinforcing steel and steel beams**





## Substructure Deterioration

*Bridge No. 00315*

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## Substructure Deterioration

*Bridge No. 00315*

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## Impact Damage *Bridge No. 00315*

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**Exposed Footings**  
*Bridge No. 00315*

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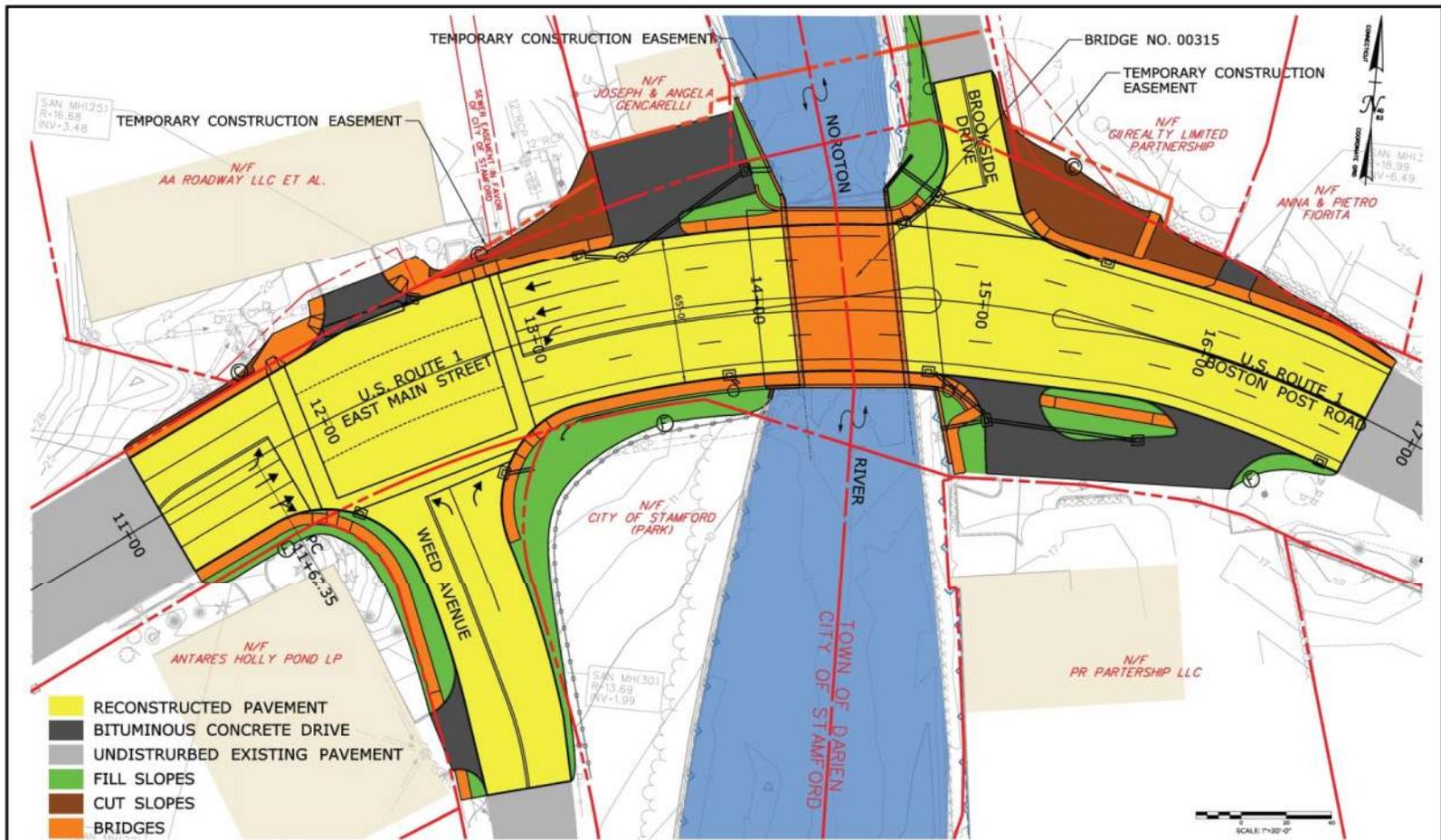


# **Proposed Construction**

*Bridge No. 00315*

- **New single-span New England Extreme Tee (NEXT) prestressed concrete multi-girder structure with a concrete deck**
- **Cast in place concrete abutments supported on piles**
- **2.5-foot profile raise to meet minimum hydraulic opening requirements**
- **Three lanes of traffic to be maintained during construction**
  - **Temporary bridge to the north**





**U.S. ROUTE 1 PLAN**

PRELIMINARY DESIGN REVIEW

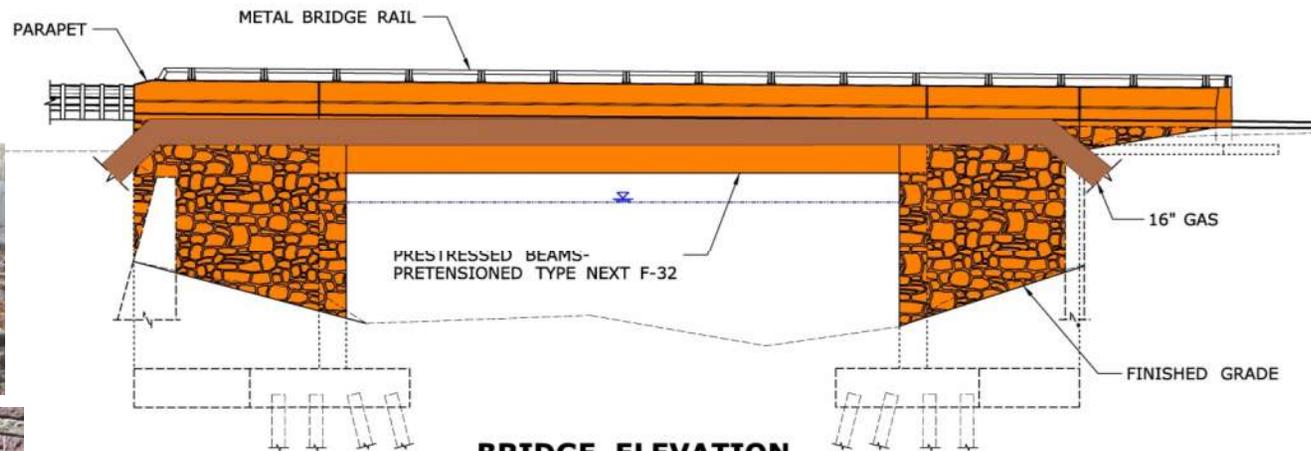
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| PREPARED BY:<br>K. BORST<br>J. CUTLER | CHECKED BY:<br>STATE OF CONNECTICUT<br>DEPARTMENT OF TRANSPORTATION | PROJECT TITLE:<br>REPLACEMENT OF<br>BRIDGE NO. 00315 U.S. ROUTE 1<br>OVER NOROTON RIVER | DRAWING TITLE:<br>STAMFORD<br>ROADWAY PLAN | PROJECT NO.:<br>135-307<br>SHEET NO.:<br>3-1 |
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# Proposed Roadway Plan

## Bridge No. 00315

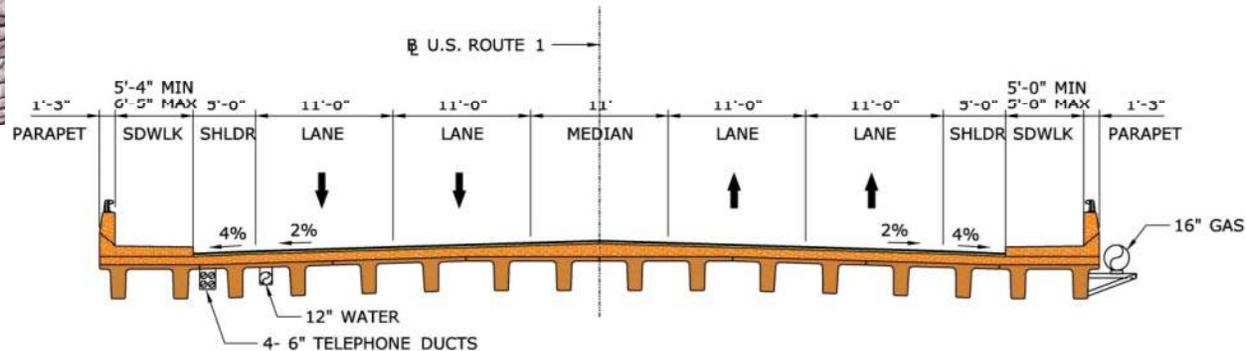
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**BRIDGE ELEVATION**

SCALE: 1/4" = 1'-0"



**U.S. ROUTE 1 SECTION**

SCALE: 1/4" = 1'-0"

- BRIDGES
- SIDEWALKS
- RECONSTRUCTED PAVEMENT

PRELIMINARY DESIGN REVIEW

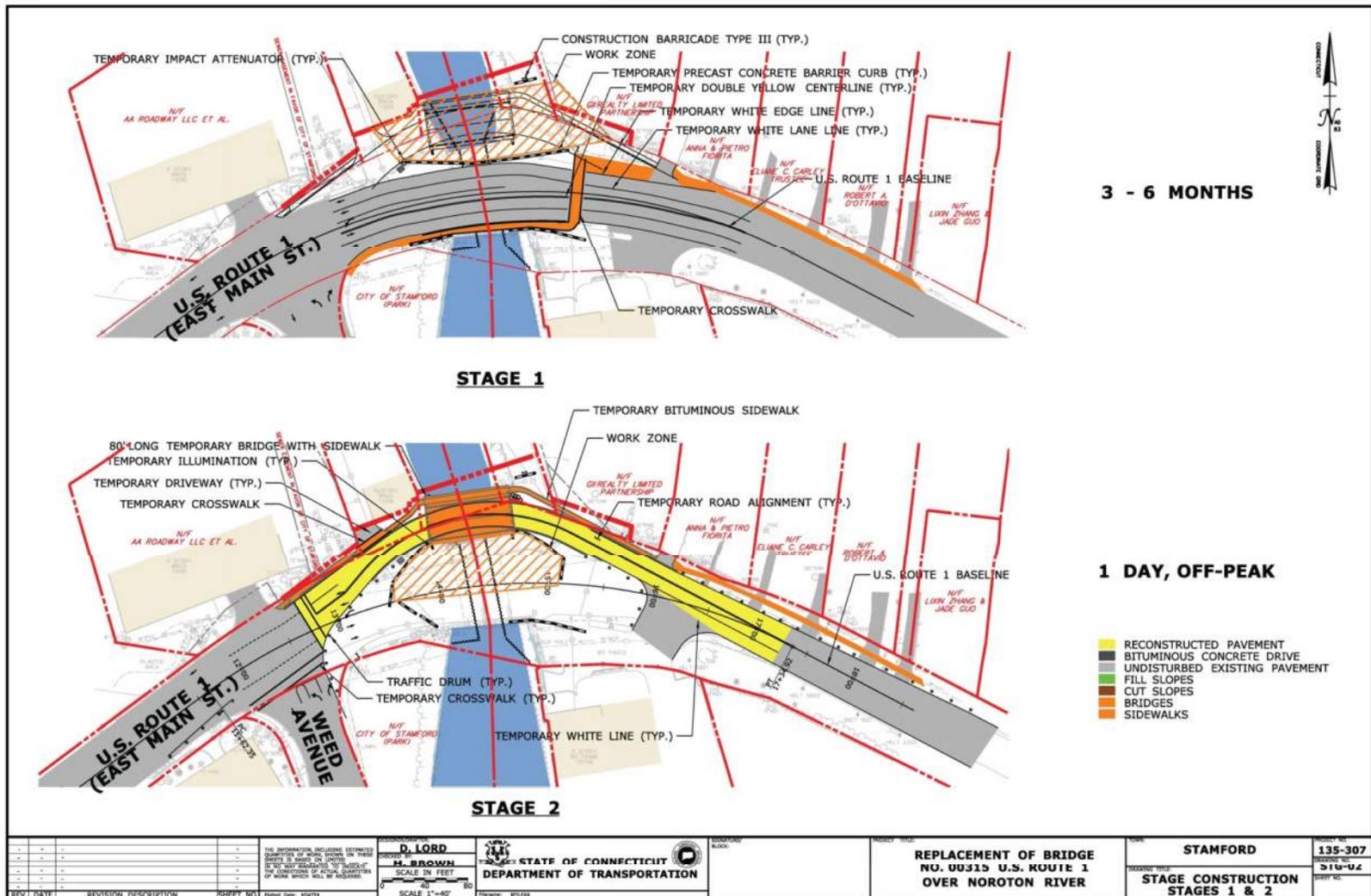
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# Proposed Bridge Plan

## Bridge No. 00315

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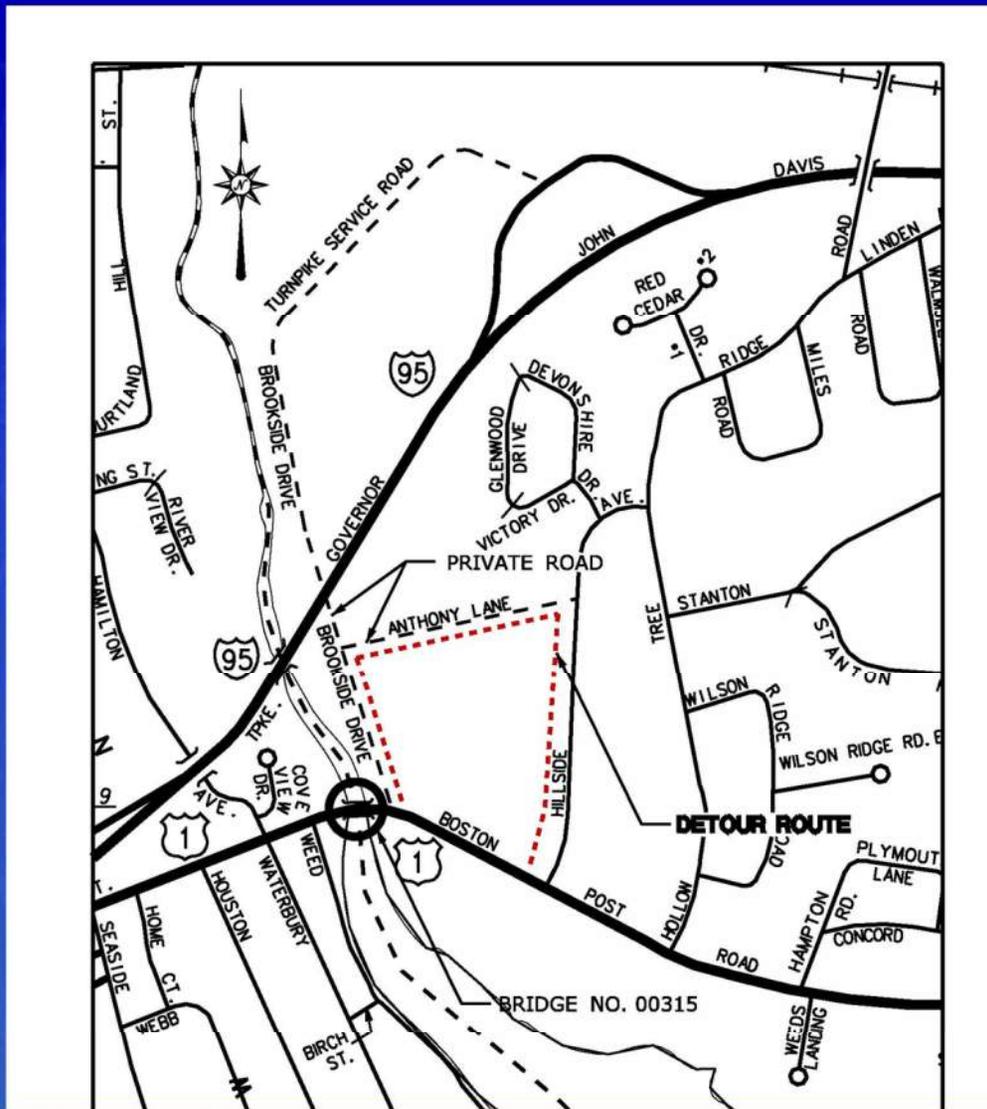
# Construction Stages

## Bridge No. 00315

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# Brookside Drive *Bridge No. 00315*

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# **Anticipated Environmental Permits**

*Bridge No. 00315*

**The proposed construction will impact approximately 5,000 square feet of inland wetlands.**

**The following environmental permits will be required:**

- **CT DEEP – Inland Wetlands and Watercourses**
- **CT DEEP – Flood Management Certification**
- **CT DEEP – Structures, Dredging and Fill Permit**
- **CT DEEP – Stormwater Discharge Permit**
- **ACOE General Permit (Category 2)**



# **Public Utilities**

*Bridge No. 00315*

## **Overhead utilities at the bridge site:**

- **SNET and CL&P utility poles (with illumination)**

## **Underground utilities at the bridge site:**

- **Telecommunication ducts, 12" water main, sanitary sewer and 16" gas main (attached to bridge face)**

## **Anticipated utility impacts:**

- **Relocate/ support conduits, water main and gas main**
- **Temporary relocation of approximately three utility poles**
- **Temporary street lighting to be provided during construction**





## Gas Main - South Side

*Bridge No. 00315*

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## Overhead Utilities

*Bridge No. 00315*

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# **Rights-of-Way**

*Bridge No. 00315*

- **Based upon the State boundary map, the width of the U.S. Route 1 Right-of-Way in the vicinity of the bridge is approximately 130-feet.**
- **Impacts to private property**
  - **Five temporary construction easements**
  - **Four sidewalk easements**
  - **Two guiderail installation/maintenance Easements**
  - **One slope easement**
  - **One traffic control equipment easement**



# **Project Costs & Schedule**

*Bridge No. 00315*

**Estimated cost: \$7 Million - \$8 Million**

**The project is anticipated to be funded using Federal (80%) and State (20%) capital**

**Construction is anticipated to begin in the spring of 2017.**

**Anticipated construction time = 24 months**

**The schedule is preliminary and is predicated upon the availability of funding, the issuance of the requested environmental permits and the resolution of all property impacts.**



**THANK YOU...**

**FOR YOUR TIME AND  
ATTENTION**

Connecticut Department of Transportation



# Contact Information

- **CT DOT**

**Ms. Mary Baker**  
**2800 Berlin Turnpike, P.O. Box 317546**  
**Newington, Connecticut 06131-7546**  
**(860) 594-3402**  
**[mary.baker@ct.gov](mailto:mary.baker@ct.gov)**

- **BL Companies**

**Mr. Nicholas Giardina, P.E.**  
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**Hartford, Connecticut 06103**  
**(860) 249-2200**  
**[ngiardina@blcompanies.com](mailto:ngiardina@blcompanies.com)**



# Comments



# Comments



# Comments

**Will a ramp (additional slope/steeper grade) be needed between Brookside and Route 1?**

**Snow removal along Anthony Lane?**

**Truck traffic along Anthony Lane?**

**Has the south side been reviewed for construction of the temporary bridge?**

**Bus route?**

**Emergency vehicle access?**



# Comments

**Winter shutdown**

**Hours of operation**

**Flood elevation – is it lowered by increase opening?**

**No intermediate structure/pier in proposed condition?**

**Fish ladders?**

**Any narrowing of river in site as part of project?**

**Any staging area identified?**

**Where do construction vehicles leave to/from project area?**

**Plantings done by neighborhood association (stamford side)  
close to park impact?**

**Will state restore what is there/impacted**

**Submit comment to state regarding tpolantings**

**Dredging?**



# Comments

**Residents on anthony – hill steep in winter – will access to state maintenance road during winter?**

**How will roads be plowed?**

**Contaminates in river from runoff/erosion – any remediation/control during construction?**

**Trapped/collected sediments**

**Traffic study performed to see impact of reducing lanes to 3**

**Effect of grade change height of raise at weed avenue?**

**Replacement of US Route 1 over I-95 coordination**

**Widening route 124 – portland ave. coordination?**

**Urban transitway connection?**

**Communication with property owners about project**

**Holly pond plaza impact?**

**Provide PP to Darien PW office**



# Comments

**PP to neighborhood association – email**

**Submit 30% design to City + Town**

