

Legislative FY17 Budget Presentation Structures Section

February 5, 2016

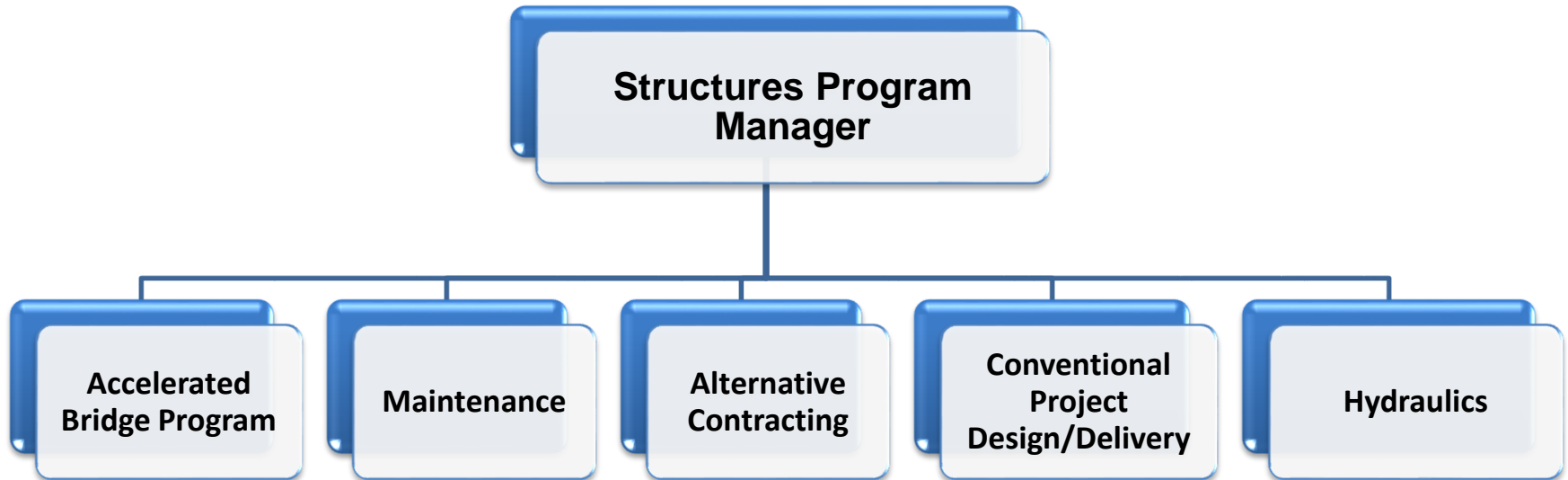
**Wayne Symonds, PE
Structures Program Manager**

**Kristin Higgins, PE
ABP Sr. Project Manager**

**Pam Thurber, PE
Bridge Management Engineer**

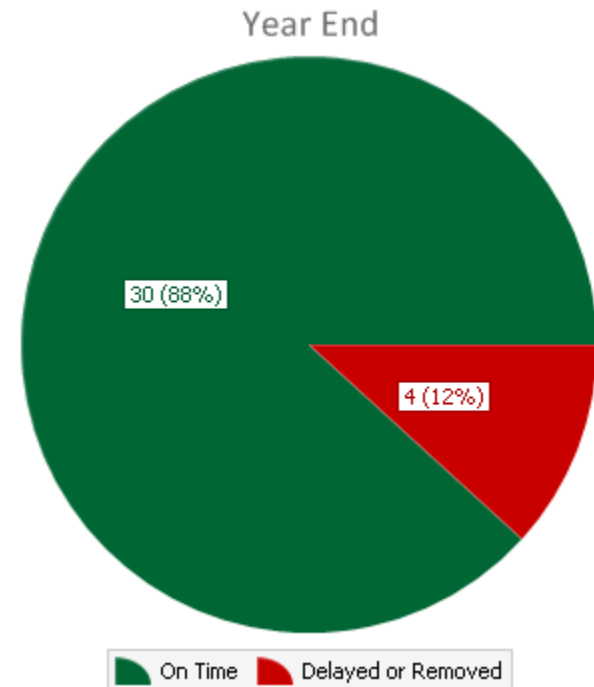


Structures Organizational Chart



2015 Project Statistics

Program	On-Time	Delayed	% On - Time
Interstate Bridges	2	1	67%
State Highway Bridges	16	2	89%
Town Highway Bridges	12	1	92%
Structures Program Totals	30	4	88%



2012 Project Delivery Goal

- In 2012 when ABP was Created
 - 128 Projects had construction funding in capital Program
 - Structures Program Goal advance all to bid ad by 2017
 - Included many “Legacy” projects
 - Intended Result by 2017 oldest projects are 5 years
- To date 122 of 128 projects have been Advertised (95%)
- 4 on schedule for bid ad in 2016
- 2 projects scheduled to be advertised in 2017

Customer Satisfaction Surveys

- **Surveyed 6 Accelerated Construction Projects**
 - Burke BRF 0269(13)
 - Castleton BRF 015-2(10)
 - Hartford IM 091-2(79)
 - Stowe BRF 029-1(17)
 - Walden BRF 030-2(5)
 - Rochester/Middlebury/Warren
- **356 Total Respondents**
 - 85% were very satisfied with ABC ; 9% somewhat satisfied.
 - 79% are very satisfied with the new bridge; 11% somewhat satisfied.
 - 75% were very satisfied with project information; 16% somewhat satisfied.
 - 97% found that the project information was very helpful in preparing for construction.

Project Factsheets

Project Factsheet May 2014

I-91 Hartford
BRIDGES PROJECT



HARTFORD (WHITE RIVER JUNCTION) I-91 BRIDGES (Hartford IM 091-2(79) project)

Project Location: Town of Hartford in Windsor County on Interstate 91 over Route 5 in White River Junction approximately one half mile north of the junction of I-91 and I-89.

Project Purpose: The purpose of this project is to replace the existing bridges that carry Interstate 91 north and southbound over US Route 5 in Hartford, safely, efficiently and with the least possible impact to road users and the surrounding community. The structures were built in 1966. Age, weather and use have taken a toll on the concrete deck, beams and abutments of the two bridges. Two new bridges will be built during the 2015 construction season.

Accelerated Bridge Program (ABP): The Hartford I-91 Bridges Project has been assigned to the Vermont Agency of Transportation (VTrans) Accelerated Bridge Program, an approach that delivers projects faster, often using innovative techniques and always in collaboration with local communities. Typically, fast track bridge projects are completed in approximately half the time that it would take by conventional construction, often in just one construction season.

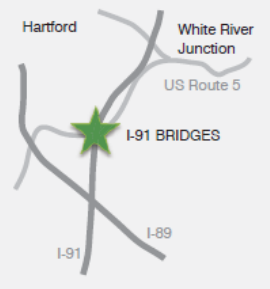
By reducing the time it takes to construct a new bridge, VTrans has been able to save money spent on design, utility and ROW impacts, and road closures as well as minimize disruption to travelers and commerce. The ABP encourages streamlining, standardizing design and plan preparation while exploring innovative contracting and construction techniques.

Partnership is a hallmark of the ABP program – with contractors, innovators from other states and local communities. To date, 12 bridges have been rebuilt using the ABP since the program was established in 2012, with 13 planned in 2014.

www.i91wrj.vtransprojects.vermont.gov

- Fact sheets for all projects
 - Public Facing to provide transparency
 - Project delivery schedule
 - Project Contact Information
 - Targeted Construction Date
 - Road Closure Information

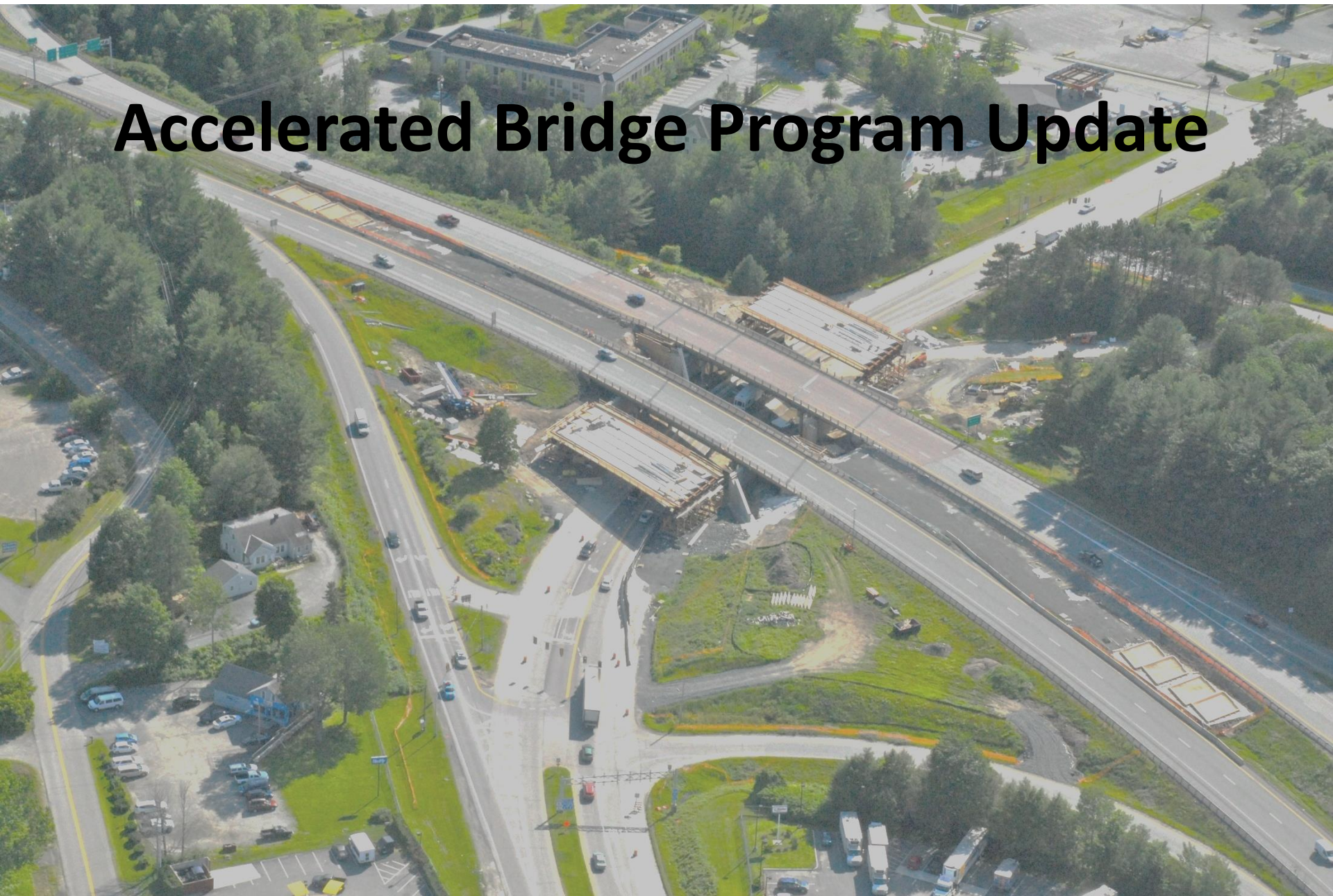
- Project External Website for all projects
 - Public Facing website
 - All milestone submittals uploaded for public viewing
 - Letter with link sent to stakeholders



- ### PROJECT MILESTONES
- Preliminary Plans
April 2014
 - Permitting
August 2014
 - Right-of-Way Complete
August 2014
 - Final Design
October 2014
 - Contract Award
March 2015
 - Target Construction Schedule
2015



Accelerated Bridge Program Update



ABP Goals and Objectives

- Be a leader for deployment of Innovation at VTrans & Nationally
 - Maximize use of technology
 - Maximize flexibility for project delivery
 - Create a culture that values new ideas
 - Document successful innovations
 - Be an early adopter of research
- Be transparent to Stakeholders & Customers
 - Develop website with real time information on Performance
 - Implement best practices on Public Outreach
 - Lead among in developing and maintaining validated and credible project schedules
 - Partner with internal stakeholders and other Governmental stakeholders
 - Partner with Contractors and Fabricators to deliver best value to traveling public

State Fiscal Year 2016 (Summer 2015 Construction)

- 20% of all Structures projects delivered through the ABP
- 6 Projects totaling \$16.8 million
 - Burke – Bridge 13 on VT 114
 - Castleton – Bridge 93 on VT 30
 - Fairfield Bridge 46 on Elm Brook Rd
 - Fairfield – Bridge 14 on South Rd
 - Cambridge – Bridge 28 on Irish Settlement Rd
 - Hartford – Bridges 43N/S on I91
- All projects utilized short term road closures
- 43% of all Structures projects constructed utilized ABC

Burke Before

Burke After

Belden Hill Rd

Castleton Before

Castleton After

Fairfield(1) Before

Fairfield(1) After



Fairfield(2) Before

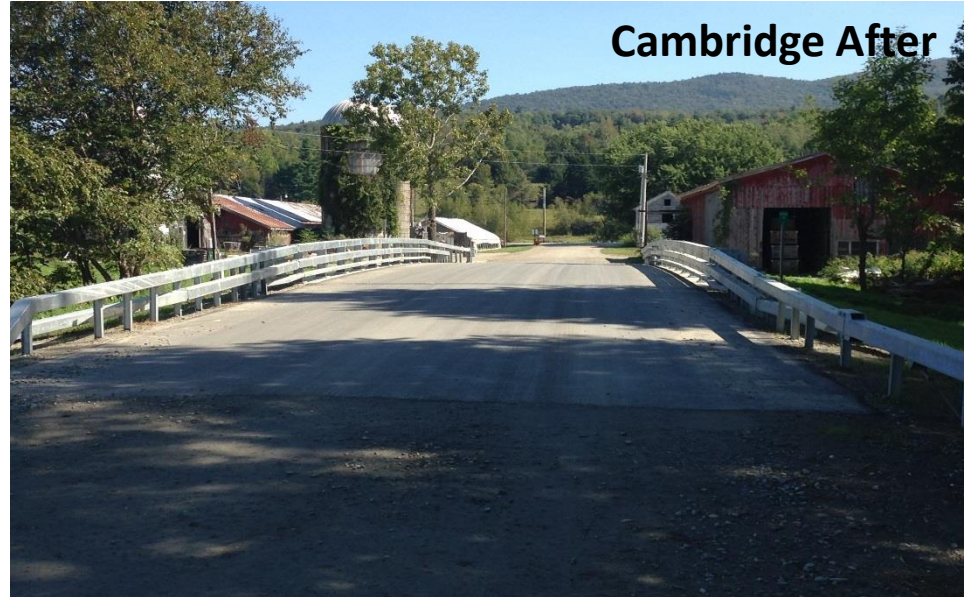
Fairfield(2) After



Cambridge Before



Cambridge After



Hartford Before



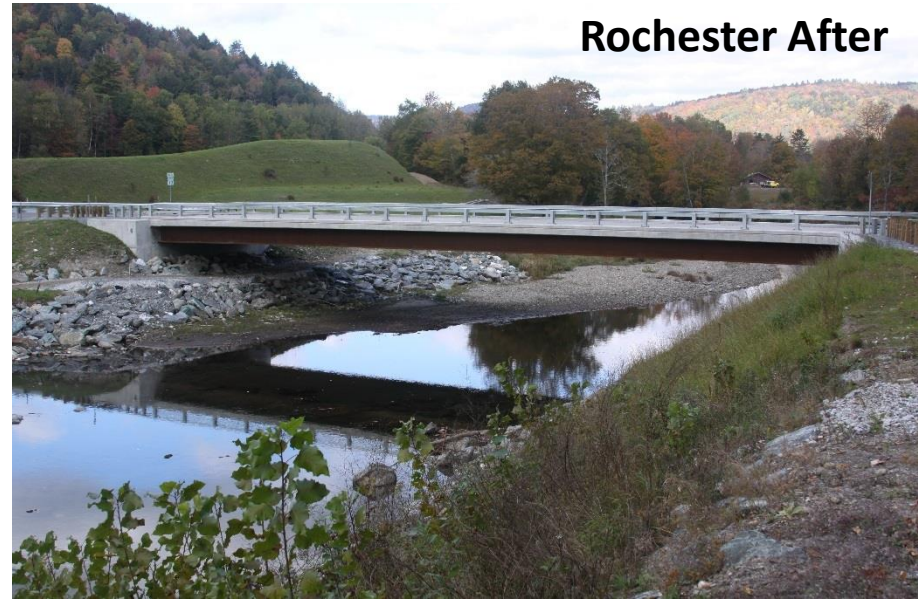
Hartford After



Rochester Before



Rochester After



Rutland Before



Rutland After

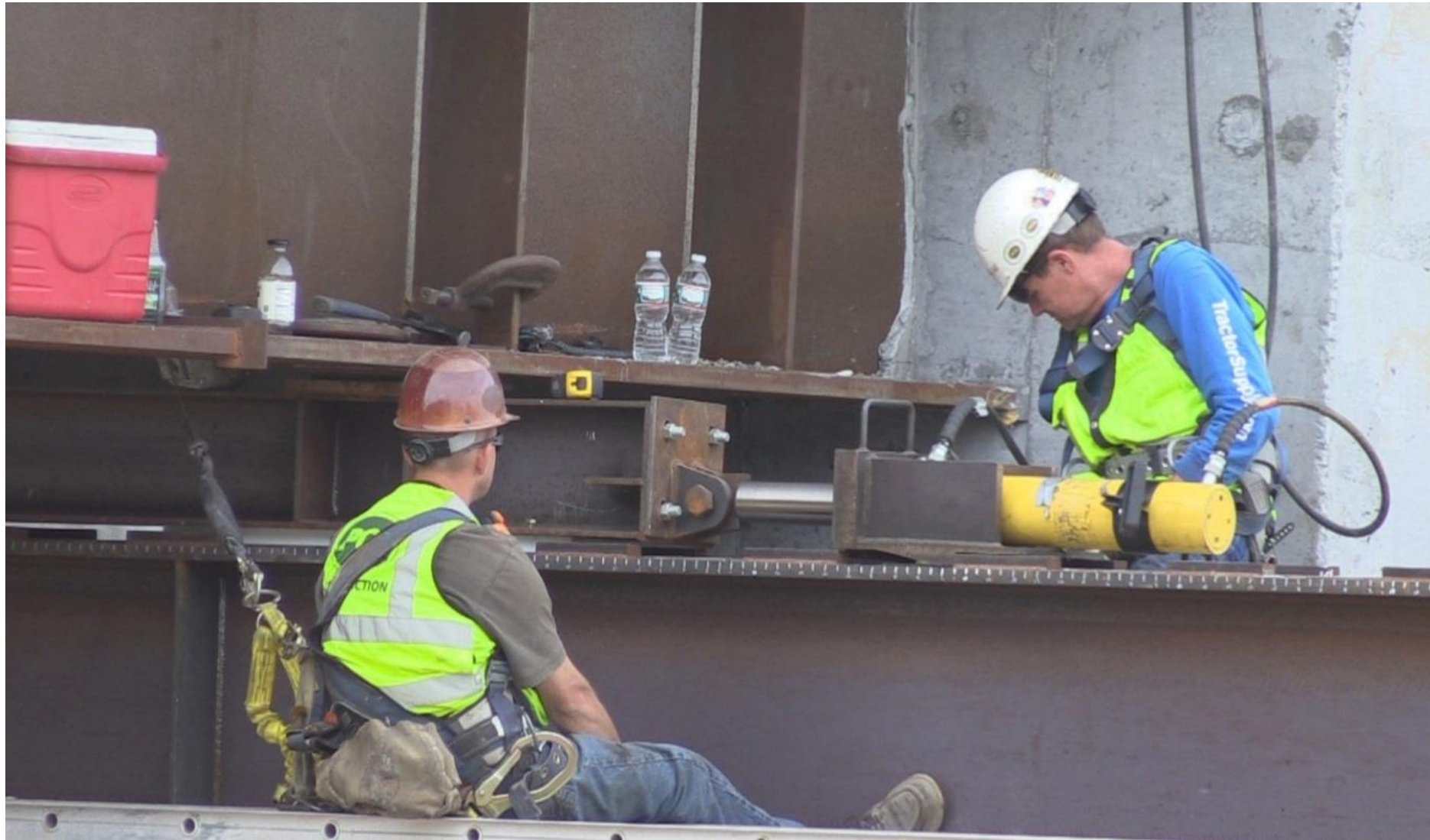




2015 ABC Innovation

- Hartford IM091-2(79) Bridges 43N and 43S
 - Designed using the Construction Manager/General Contractor (CM/GC) contracting model
 - Construction Innovation = Slide in Bridge Construction
 - 2 Successful 60 hour Bridge closures
 - Aggressive Project Outreach
 - Dedicated Project Outreach Coordinator
 - High public satisfaction (via post construction survey)

Slide – In Bridge Construction

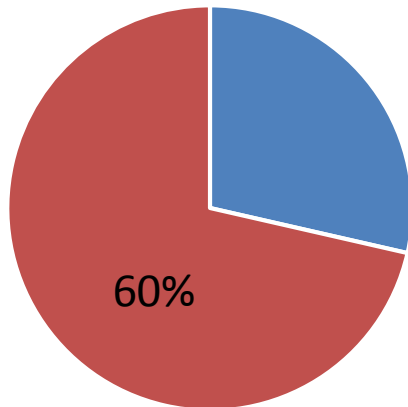


State Fiscal Year 2017 (Summer 2016 Construction)

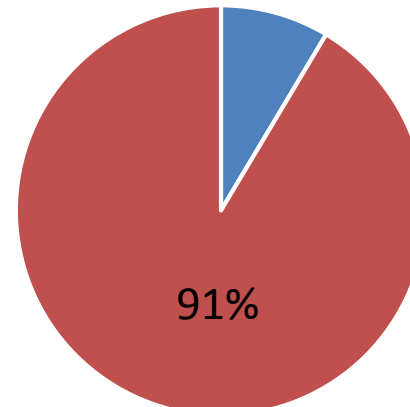
- 26% of all Structures projects delivered through the ABP
- 5 Projects totaling \$10.8 million
 - Waitsfield - Bridge 177 on VT 100
 - Woodstock - Bridge 24 on VT 106
 - Weston - Bridge 98 on VT 100
 - Clarendon - Bridge 11 on Walker Mountain Rd
 - Craftsbury – Bridge 4 on Creek Rd
 - Brattleboro – Bridge 31 on Elliott Rd (Deck Replacement)
- All projects utilized short term road closures
- 37% of all Structures projects constructed utilized ABC
- 47 short Term Road closure since 2011

ABP Project Delivery Performance Measure

- Goal - 80% projects delivered in 24 months
 - 100% SFY 2016 (Construction Summer 2015)
 - 60% SFY 2017 (Construction Summer 2016)
 - 2 of 5 projects took 26 and 28 months



SFY 2017 performance



Performance To Date

Accelerated Bridge Program Highlights

- 2015 National ABC conference in Miami
 - Three Travel Scholarships Awarded to ABP Project Managers
 - Three presentations by Project Managers
 - Hartford Bridge Replacement Project – Slide-In Bridge Construction
 - The Value of ABC: A Rural DOT Perspective
 - Warren 12 Day Bridge Replacement
- C19 Grant for Expedited Project Delivery
 - Awarded \$250,000.00 grant to develop and implement expedited project delivery strategies
- T2 Technology Grant
 - ABP website under development

Accelerated Bridge Program Highlights

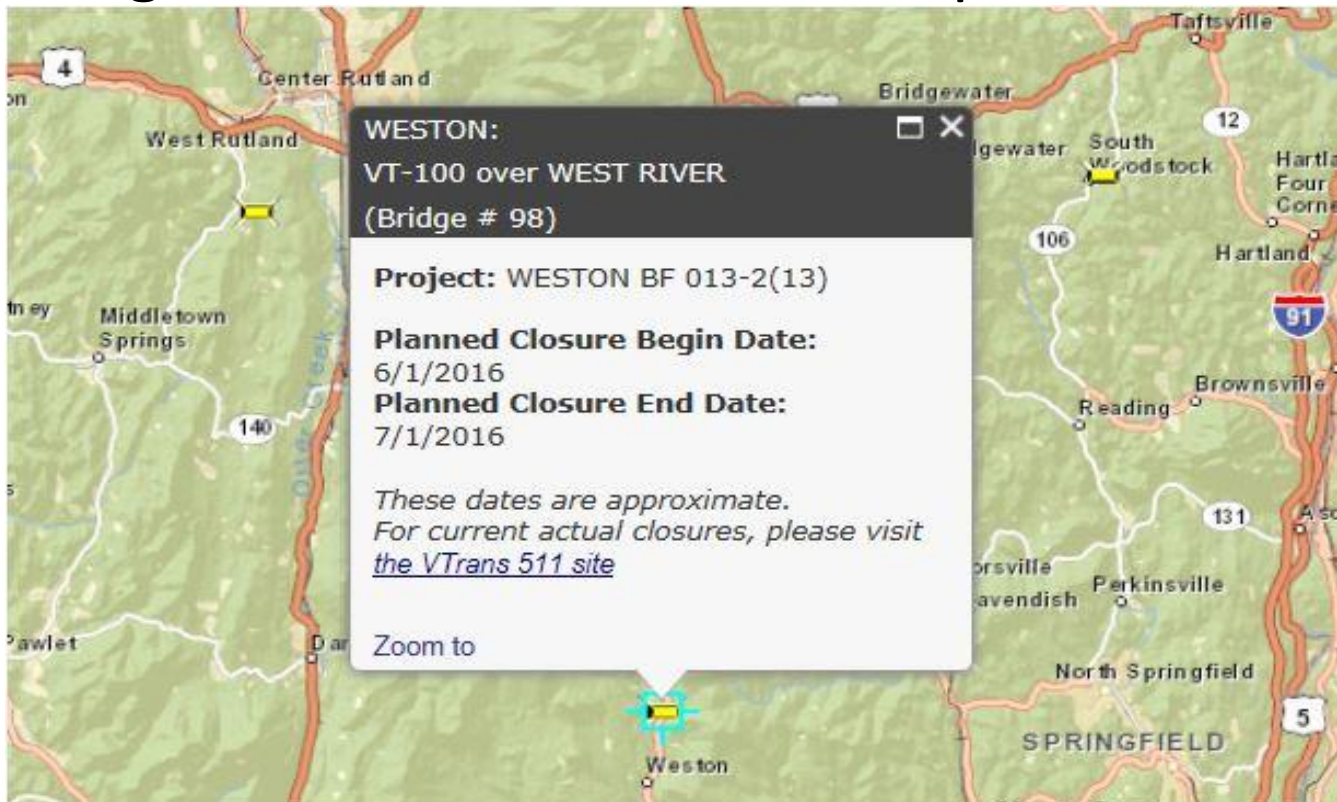
- Act 153
 - Local share reduced on town highway projects for bridge replacement projects that use road closures
 - Highly successful at propelling widespread adoption of ABC
 - 44 towns have elected to close roads to replace bridges
- ABP Promotional Videos
 - <https://www.youtube.com/user/VTransTV>

Accelerated Bridge Program Public Outreach

- Public Outreach
 - Outreach starting at Project Initiation and continues through construction
 - Identify and engage all stakeholders
 - Credible schedules
- Tailored public outreach plans
 - Project factsheets/websites
 - Dedicated outreach professionals
 - Pre-closure public information meetings
 - Weekly construction updates

Accelerated Bridge Program Public Outreach

- Bridge Closure Map
 - Bridge closures identified on an interactive map making it easier for customers to plan accordingly



Fun Facts about the Accelerated Bridge Program

- 30 Projects (\$55 Million) delivered through the Accelerated Bridge Program since 2012
- 14 Projects (\$27 Million) Delivered by the In-house Design team
- 16 Projects (\$28 Million) Delivered by Consultant firms
- In-House Engineering/Construction Costs = 12%
- Consultant Engineering/Construction Costs = 18%

Town Highway FY17 Overview

\$20,021,729

2	Construction funds for rehabilitation of 2 covered bridges
4	Construction funds for bi-state projects; 3 VT-NH Conn. River Bridges 1 VT-NY bridge
22	Funds Construction on 22 Projects
14	Funding Scoping/Design of programmed projects

State Highway FY17 Overview

\$32,639,048

1	Construction funding for International Bridge Rehab with Quebec
1	Construction funding for Construction Manager – General Contractor (CMGC) projects
1	Construction funding for Design Build Project to replace large culvert
26	Funds construction on 26 projects
37	Funding Scoping/Design of programmed projects

Interstate FY17 Overview

\$52,785,723

3	Large Design - Build Bridge Replacement Projects
2	Large Design – Build Culvert Replacement projects (6 culverts total)
9	Funds Construction on 9 Projects
3	Bridge and Deck Replacement Projects
16	Funding Scoping/Design of programmed projects

Important Links

Structures Web Page

<http://vtransengineering.vermont.gov/bureaus/pdb/structures>

Bridge Closure Map:

<Http://vtransmaps.vermont.gov/bridgeclosures/map.htm>

Accelerated Bridge Construction Videos:

<http://www.i91wrj.vtransprojects.vermont.gov/>

Public SharePoint Site (Project External Website)

<https://outside.vermont.gov/agency/vtrans/external/Projects/Structures/12J160>