

**COMPLETION OF CONTRACT 14633F** will finalize the reconstruction of **Exit 5**, tying into the completed ramps project and the new PNR. **Severino Construction Co, Inc. of Candia NH won the contract with a low bid of \$36.7M. \$35.5 is dedicated to contract 14633F, and \$1.2 M to 10418F (South Road Mitigation). The total project cost is \$38.5M. The project involves:**

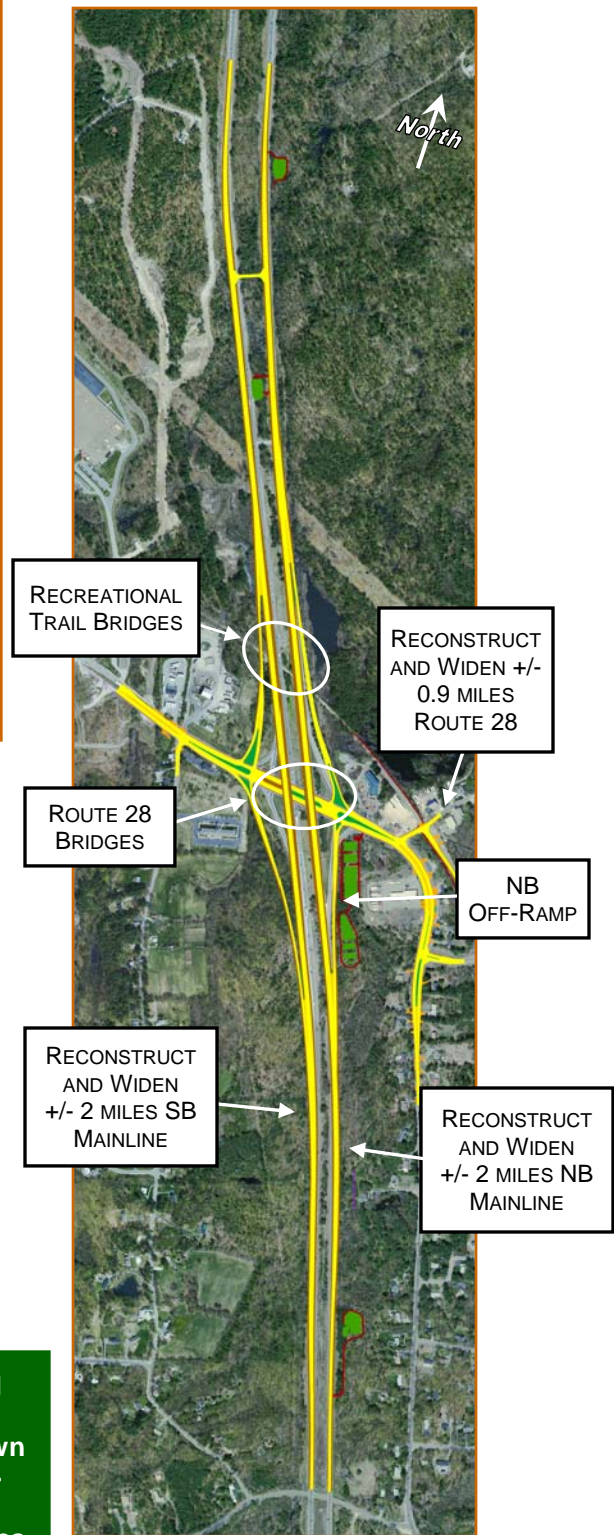
- Replacement of a total of four red-listed bridges over Route 28 and the Recreation Trail
- Reconstruction and widening of approximately two miles of I-93 NB & SB
- Reconstruction and widening of approximately 0.9 miles of Route 28
- Construction of a new NB off-ramp and connections to the NB on-ramp and SB on and off-ramps recently constructed under the previous Exit 5 ramps project
- Reconstruction of segments of Perkins and Auburn Roads, and Liberty and Independence Drives
- Construction will be facilitated through the use of temporary median crossovers, temporary widening and temporary ramps for traffic control.

**Work began in March 2011 and is expected to be complete by early summer 2014. The project is currently about 15% complete.**



Paved Northern Section of SB Mainline, October 2011

**Contract 10418F:** This project consists of constructing wetland mitigation on two sites that will be accessed from Gilcrest and South Roads, southwest of the I-93 Exit 4 interchange in the town of Londonderry. The sites provide 75.2 acres of mitigation consisting of 11.6 acres of created wetlands/habitat enhancement and 63.6 acres of upland preservation land. This project includes work to replace a culvert that carries South Road over a tributary to Beaver Brook. A new culvert box will improve wildlife connectivity between the two mitigation areas and improve flood conveyance. Also included in this project is the reconstruction of a segment of South Road in the vicinity of the culvert work.



EXIT 5 AREA



# CORRIDOR NEWS

I-93 Construction News and Highlights

Fall / Winter 2011 ~ Issue No. 10

## ~ I-93 Improvements ~ Moving Ahead ~

### I-93 HITS MAJOR MILESTONES

The summer of 2011 brought major construction activities along the 20-mile stretch of I-93 that makes up the Salem to Manchester I-93 Improvements Project. Five ongoing construction projects made progress from Exit 1 to Exit 2, at Exit 3, and at Exit 5. These activities allowed the project to reach two major milestones: the new Exit 3 SB off-ramp was opened and construction of the new I-93 NB lanes in the Exit 3 area was completed.

On October 25<sup>th</sup>, SB traffic was switched over to the new NB lanes in the area of Exit 3. The newly constructed NB lanes will serve as a temporary (two to three years) diversion route for the SB traffic. In the meantime, NB traffic will remain on the existing NB lanes and the existing SB lanes can be reconstructed and widened without disturbing traffic, expediting construction in the Exit 3 area. This major milestone also facilitates construction in the Exit 2 area. The shifting of traffic allows proper sequencing of construction activities so that DOT can complete the improvements between Exits 1 and 3. See page 7 for further explanation and a graphic.



NEW NB LANES - NOVEMBER 2011

While road and bridge construction activities continued throughout the summer, the NHDOT was also busy installing Intelligent Transportation Systems (ITS) and continuing to align financing that will allow the remaining construction to progress within the desired schedule.

Throughout the 20-mile corridor ITS devices including traffic sensors, message boards, and communications towers are being installed and tested. These devices relay information back to the NHDOT's Traffic Management Center (TMC) where technicians monitor traffic conditions and use message boards to alert the public of accidents and traffic slowdowns. This allows the traveling public to react by taking alternate routes, thus reducing congestion and secondary incidents.

**Project Funding Status:** The total construction cost estimate to complete improvements on the entire 20-mile segment is \$610 million. There is \$238M in construction (39% of the total) that is active or complete. Legislative authority to issue \$195M in bonds is currently in place. \$80M in GARVEE bonds were issued in November 2010 to fund construction at Exits 1 & 3, leaving \$115M in bonding authority. Legislative authority to issue an additional \$250M in bonds is required to complete construction. The debt service on GARVEE bonds will be paid with future Federal Highway funding. Expectations are that the NHDOT federal highway fund apportionment may be reduced by 33%, from \$150M annually to \$100M annually. Given the uncertainty with funding, the NHDOT is delaying future I-93 construction projects until a long-term federal funding reauthorization bill for highway construction is more certain or new state revenues are identified. All work on active construction is funded and will continue.

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New Hampshire Department of Transportation

John O. Morton Building

7 Hazen Drive

Concord, NH 03302-0483

For more information, phone

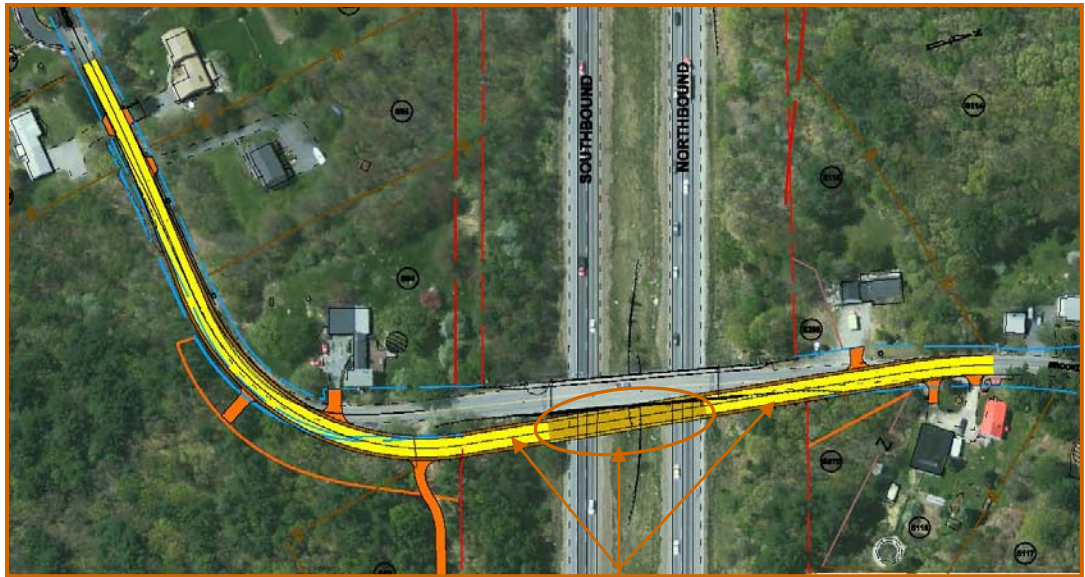
(603) 271-2171 or email

Contact@RebuildingI93.com

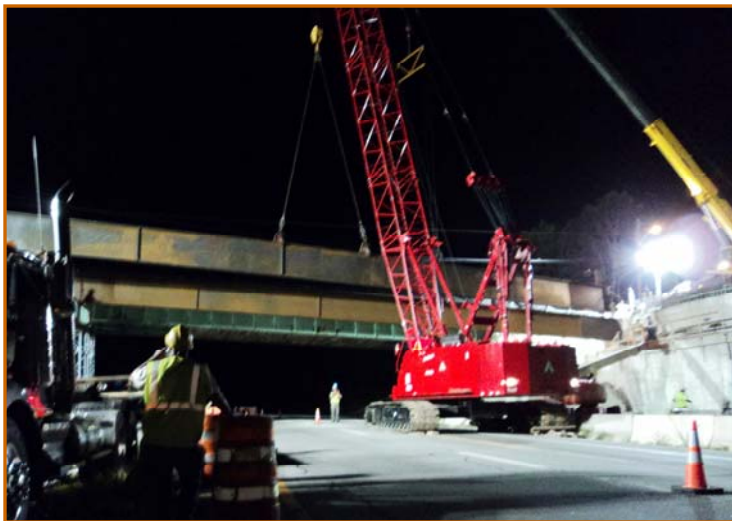




**CONTRACT 13933F** will replace the existing bridge carrying **Brookdale Road** over I-93 in Salem just north of the Exit 2 interchange. The new 310-foot long, two-span bridge will be two lanes wide and will accommodate the future reconstruction of the interstate. Approximately 1,000 linear feet of Brookdale Road will also be reconstructed as part of this project. This project was awarded to R. S. Audley Inc. on July 14, 2010 with a bid price of \$4.34M. **The project is approximately 85% complete, and is scheduled for completion in July, 2012.**



CONTRACT 13933F ~ BROOKDALE ROAD BRIDGE AND APPROACHES



Nighttime Structural Steel Setting, October 2011



Bridge Steel with Deck, October 2011

In the spring of 2011, the traffic pattern on Brookdale Road was changed to alternating one-way with signal control to facilitate construction of the new bridge. Two-way traffic will be restored, utilizing the new bridge, for the 2011-2012 winter.



**PROJECT OVERVIEW:** **Contract 13933N** involves reconstruction of the I-93 SB mainline bridges over NH Route 111 and NH Route 111A at Exit 3 in Windham. The new SB bridges will be constructed adjacent and look similar to the recently completed NB bridges over NH 111 and NH 111A. The two existing SB bridges have been determined to be structurally deficient and are designated as “Red List” bridges. This is the third of six projects required to complete improvements in the Exit 3 area.

**Traffic Implications:** I-93 NB traffic will remain on the existing NB highway and will not be disrupted. Facilitated by the completion of Contracts 13933K & 13933G, I-93 SB traffic was shifted to recently constructed highway lanes (future NB mainline). Placing the SB traffic on the new NB lanes, in a contra-flow direction, will allow the work on the SB lanes to be completed out of traffic. Therefore, work involved with the new SB bridges will generally be off-line with the exception of overhead work, hauling operations and material deliveries (Rtes 111 & 111A). This will allow the Exit 3 interchange to remain in its current configuration during bridge construction. Smart Work Zones are in place along the corridor to facilitate traffic management in the proposed work area for this project.

NH 111

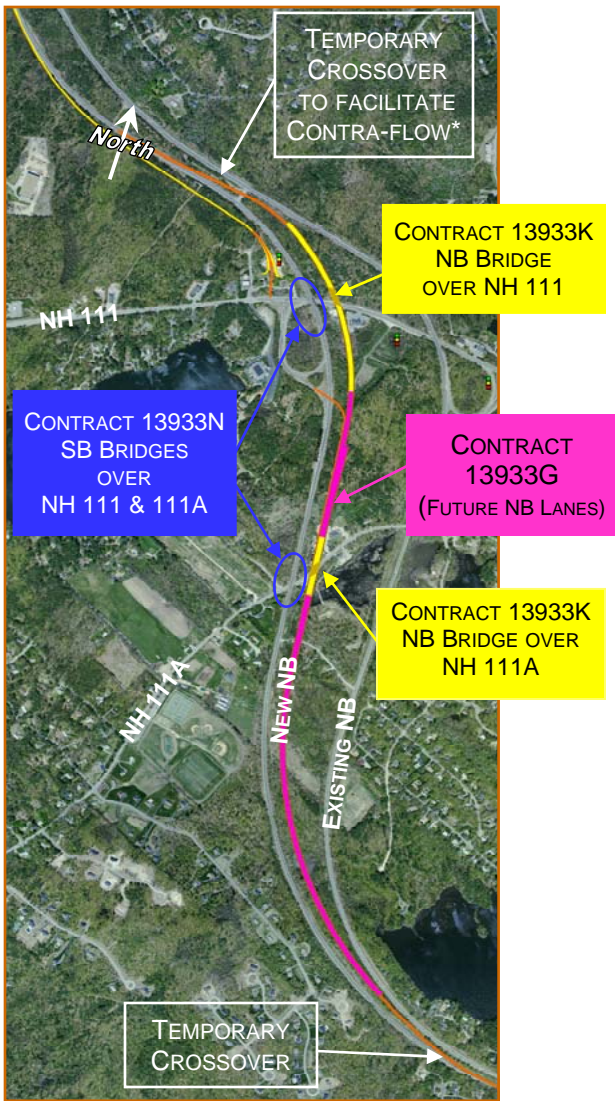
Two-way traffic will be maintained on NH Route 111 at all times between the hours of 6 AM and 7 PM. Alternating one-way traffic may occur outside this timeframe as allowed by the NHDOT.

NH 111A

One-way alternating traffic will be allowed on NH Route 111A as directed by the Contract Administrator and with the use of flaggers and/or uniformed officers.

PROJECT FACTS		CONTRACT: 13933N
Advertised Date (Est):	October 11, 2011	
Award Date (Est):	December 2011	
Start Construction Date (Est):	Spring 2012	
Completion Date (Est):	September 2013	
Bid Price:	TBD	
Total Construction Cost (Est):	\$14.5M	
Contractor:	TBD	

*\*Contra-flow refers to plans that reverse the normal flow of traffic, typically on a controlled-access highway (such as I-93) to either aid in an emergency evacuation, as part of routine maintenance activities, or, as in this case, to facilitate widening or reconstruction of a highway. In this instance, temporary crossovers are being used to place SB traffic on the recently constructed section of the future NB roadway.*



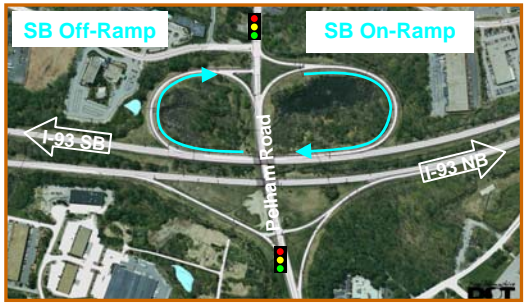
EXIT 3 AREA



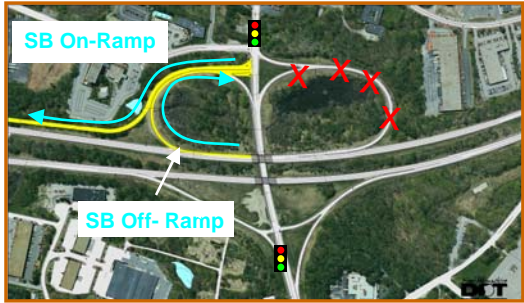


**EXIT 2  
INTERCHANGE RECONSTRUCTION**

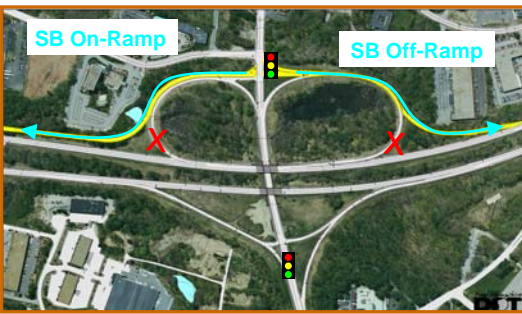
- PROJECT OVERVIEW:** **Contract 13933E** will finalize the reconstruction of Exit 2. With the completion of this project, three travel lanes in each direction will be operational from the State Line to the Windham/Salem Town Line near Brookdale Road overpass. This project will:
- Replace two red-listed bridges over Pelham Road.
  - Reconstruct/widen approximately 1.3 miles of I-93 NB and 1.8 miles of SB Mainline.
  - Reconstruct/widen Pelham Road between Stiles/Manor Parkway to Policy Street and rebuild I-93 bridges over Pelham Road to accommodate an eight-lane typical section through the interchange.
  - All (five) traffic signals along Pelham Road will be coordinated to improve traffic flow.
  - Construct a 1,950 linear foot sound wall along the NB mainline near South Shore Road.
  - Construct Haigh Avenue mitigation site, creating 7.6 acres and nine acre-feet of floodplain mitigation.
  - Move the NB lane drop over two miles north, and beyond the influence of the Exit 2 on-ramp.



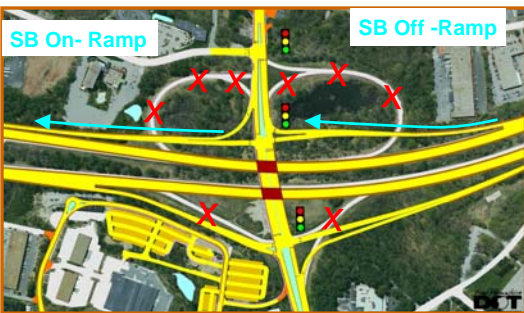
Existing Traffic Flow



Interim Condition # 1 ~  
Existing SB On-Ramp to be Closed\*



Interim Condition #2 \*



Final Ramp Configuration ~  
Existing SB Ramps to be Removed\*



\*Phasing to be Determined  
by Construction Start Date

**Contract 13933D** involves the **reconstruction and widening of NB and SB I-93 mainline** in Salem in the vicinity of Exit 1 to just south of Exit 2, **replacement of the NB and SB I-93 bridges over Lowell Road**, and **reconstruction of the Exit 1 NB and SB Ramps**. This project will tie into the previously completed 13933C project which improved the Exit 1 Ramps and Bridges.

Also included is approximately 1,600 linear feet of **sound wall** along the SB mainline in the vicinity of Lowell Road, and construction of the **Baggett Wetlands Mitigation Site**.

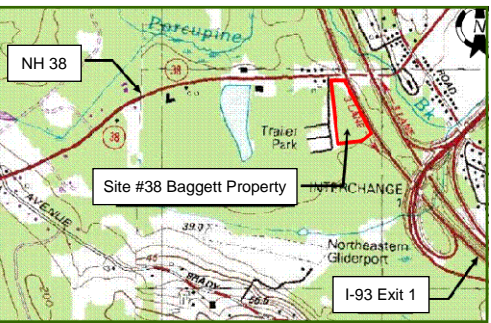
**The project was awarded to Middlesex Corporation of Littleton, MA with a low bid of \$30.6M.** Work began in the spring of 2011 and is expected to be complete by early summer, 2013. It is currently approximately 18% complete.

This project is removing two red-listed bridges from service and widening the interstate from Exit 2 southward to the MA border. The total estimated cost of construction for this project is \$32.0M.

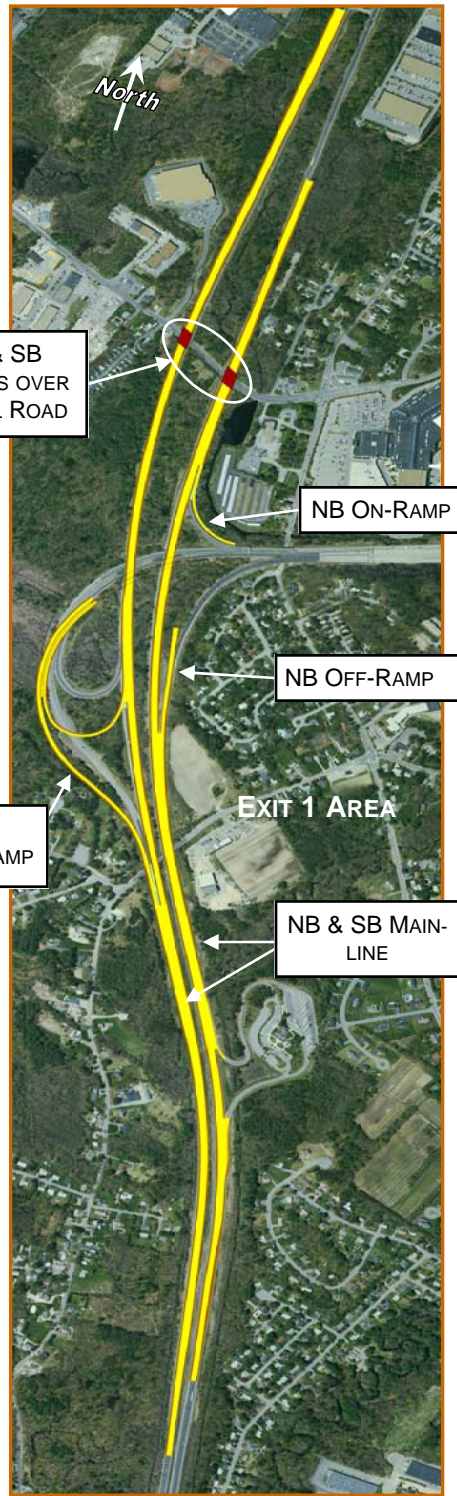
Construction of this project will be accomplished in multiple phases. The current NB lane configuration, three lanes transitioning to two lanes at Exit 1 off-ramp, will be in place through the end of the 2012 construction season. Traffic will be shifted onto the newly constructed roadway portions early in the 2012 construction season. This will provide a new work area for the next stage of work. Once completed, this project will extend the three-lane section north beyond the influence of the Exit 1 on-ramp.



SB Bridge Overlooking Lowell Road, October 2011



**WETLAND MITIGATION:** Contract 13933D includes the creation of the **Baggett Wetland Mitigation Site** located off NH 38 (Lowell Road) in Salem. The six-acre site is intended to provide critical flood storage and preserve wildlife habitat.



EXIT 1 AREA





EXIT 3, NORTHBOUND MAINLINE (CONTRACT 13933G)

Roadway construction on this ARRA funded project is 98% complete.

Construction nears completion on a new section of roadway to relocate the NB lanes closer to the existing SB lanes. This construction will tie in the two bridges constructed under 13933K, thus **eliminating two red-listed bridges**. This contract was awarded to George R. Cairns & Sons, Inc. on May 6, 2009.

In support of the DOT Incident Management initiatives, an **emergency access ramp** from North Lowell Road (just above Exit 3) was constructed to NB and SB I-93, thus reducing the amount of time required for incident response. New **mile marker signs** were posted along the entire 20-mile corridor, allowing emergency responders to more accurately locate accidents.

The project began in June 2009 and is targeted for completion by late spring, 2012.

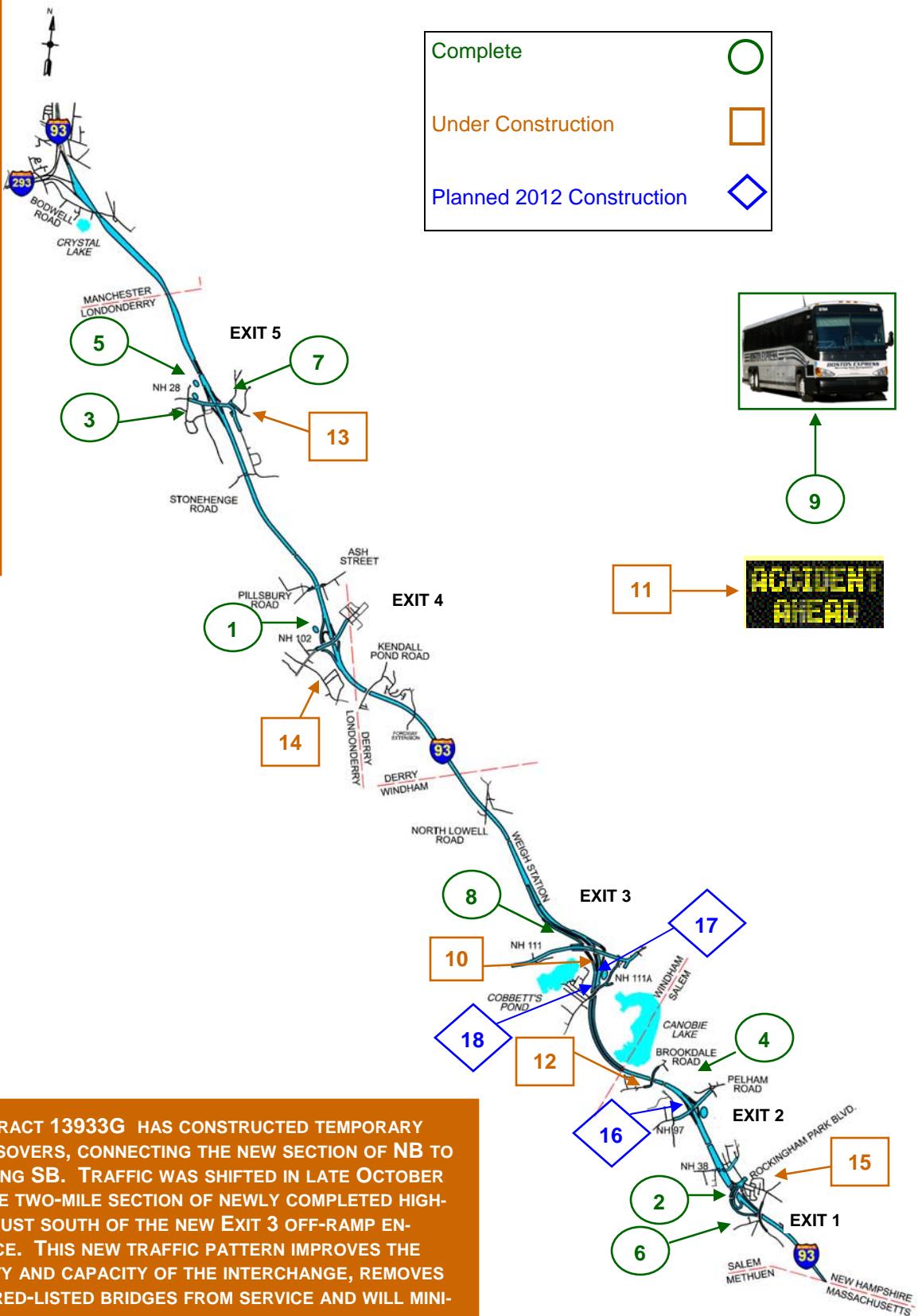


SB Off-Ramp, 10-25-11



SB Roadway, 10-25-11

CONTRACT 13933G HAS CONSTRUCTED TEMPORARY CROSSOVERS, CONNECTING THE NEW SECTION OF NB TO EXISTING SB. TRAFFIC WAS SHIFTED IN LATE OCTOBER TO THE TWO-MILE SECTION OF NEWLY COMPLETED HIGHWAY JUST SOUTH OF THE NEW EXIT 3 OFF-RAMP ENTRANCE. THIS NEW TRAFFIC PATTERN IMPROVES THE SAFETY AND CAPACITY OF THE INTERCHANGE, REMOVES TWO RED-LISTED BRIDGES FROM SERVICE AND WILL MINIMIZE RECURRING TRAFFIC BACKUPS DURING THE SOUTHBOUND MORNING COMMUTE. SEE "TRAFFIC IMPLICATIONS" ON PAGE 7.



I-93 PROJECT SUMMARY OF PROJECTS TO DATE					
	Status	Project Description	Contract Number	Constructed To/From	Cost (M)
1	Complete	Exit 4 Bus Terminal/PNR	10418M	01/06 - 05/07	\$1.4
2	Complete	Cross Street Bridge	13933B	11/06 - 10/08	\$6.9
3	Complete	Exit 5 PNR/Rockingham Road	10418I	12/06 - 10/08	\$7.8
4	Complete	Exit 2 Bus Terminal/PNR	10418G	03/07 - 10/08	\$7.1
5	Complete	Exit 5 Bus Terminal/Maintenance Facility	10418N	08/07 - 10/08	\$7.2
6	Complete	Exit 1 Ramps & Bridges	13933C	09/07 - 10/09	\$24.7
7	Complete	Exit 5 Ramps & Bridges	14633E	07/08 - 05/10	\$15.8
8	Complete	Exit 3 SB Off-Ramp & NB Bridges	13933K	09/08 - 11/10	\$27.6
9	Complete	Bus Procurement - Operation Costs for Expanded Service	10418L	Service Began 11/08	\$10.0
10	In Progress	Exit 3 NB Mainline	13933G	05/09 - 04/12	\$30.6
11	In Progress	Phase I Intelligent Transportation Systems (ITS)	10418Z	11/09 - 11/11	\$4.4
12	In Progress	Brookdale Road Bridge	13933F	06/10 - 07/12	\$4.6
13	In Progress	Exit 5/Route 28 Interchange	14633F	03/11 - 07/14	\$37.2
14	In Progress	South Road Mitigation	10418F	03/11 - 07/14	\$1.4
15	In Progress	Exit 1 Area, NB & SB Mainline	13933D	03/11 - 09/12	\$32.0
16	Start 2012	Exit 2 Interchange Reconstruction	13933E	TBD	\$42.0
17	Start 2012	Exit 3 SB Bridges over Rtes 111 & 111A	13933N	03/12 - 11/13	\$14.5
18	Start 2012	Exit 3 - SB Mainline, SB On-Ramp & NH 111	13933I	TBD	\$42.0
					Completed to date: \$108.5M In progress: \$110.2M Starting in 2012: \$98.5M Total: \$317.2M

