

Project Briefing: Whittier Bridge

MassDOT Highway Division
District 4 Highway Director Paul Stedman

Issue Overview



- In March, MassDOT inspectors discovered deficiencies in pier cap 1 of the southbound portion of the I-95 bridge now under construction.
- After careful review, MassDOT notified the Joint Venture Walsh/McCourt that they must reconstruct the pier cap in accordance with MassDOT's standards.
- While MassDOT is working to fully assess the schedule impacts associated with this matter:
 - There will be no cost impacts to MassDOT
 - This work will not change the existing configuration of 3 lanes of traffic in each direction on the bridge

Project Background

- Full replacement of the bridge that carries I-95 over the Merrimack River between Amesbury and Newburyport.
 - Includes 4 miles of I-95 roadway reconstruction/widening and 3 additional bridge replacements and 1 rehabilitation.
- Expands from a 6 lane bridge to 8 lanes to match the cross sections to the north and south
- Budget: \$328M | Project is 85% complete



Work Completed to Date

- Joint Venture of Walsh/McCourt was issued Notice to Proceed in Spring 2013; construction began in Summer 2013
- Northbound traffic was shifted onto the new bridge in November 2015; southbound traffic was shifted onto the new bridge in December 2015
- Demolition of the old bridge began in late 2015
- As of today, all substructure elements for new southbound bridge completed with the exception of pier 1



Whittier Bridge (looking east)



- The bridge is currently open to 3 lanes of traffic in each direction on the existing northbound bridge.

Whittier Bridge - Traffic

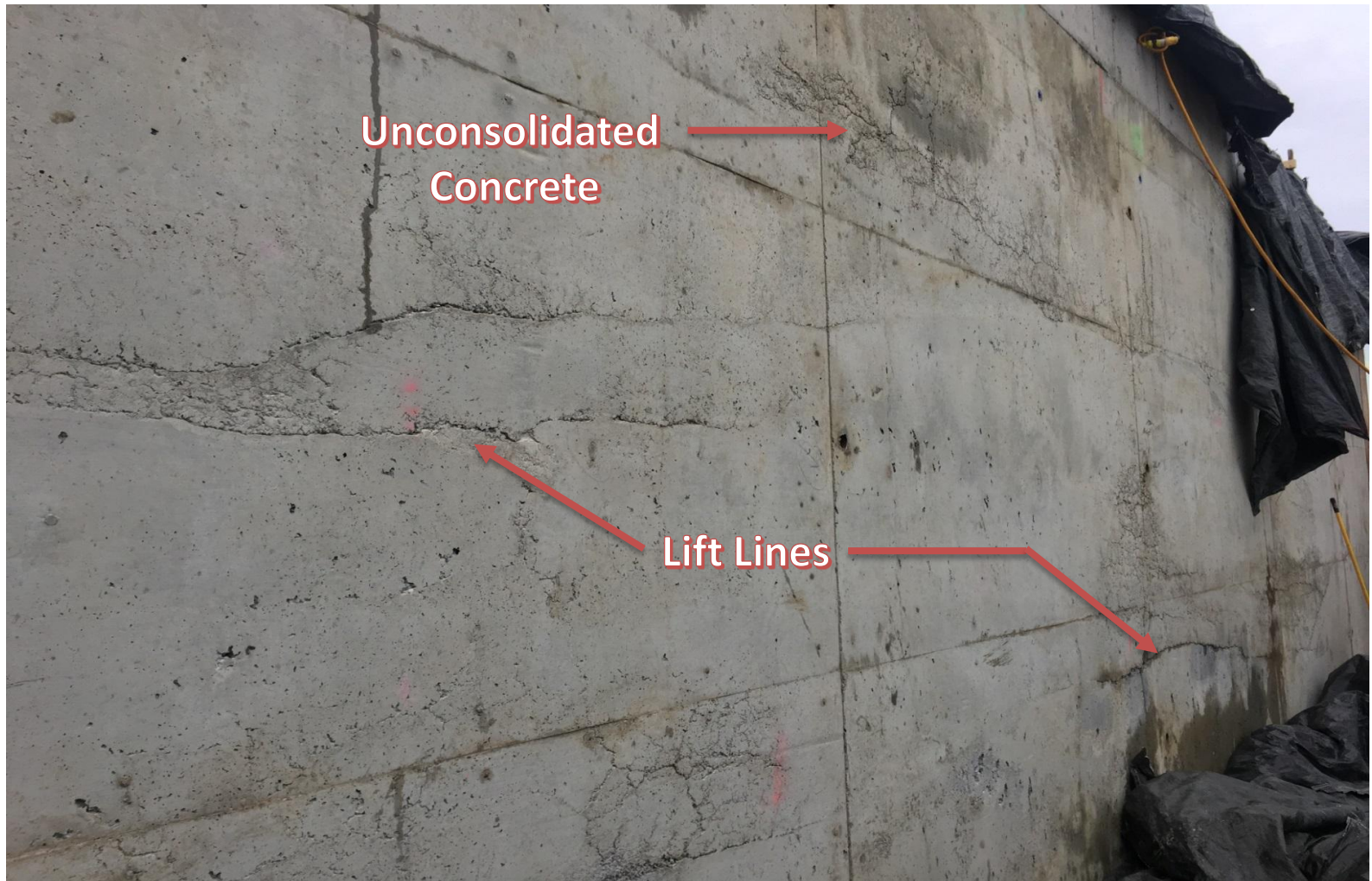
- There are currently 3 lanes of traffic on I-95 NB and SB from Route 113 in Newburyport to Route 110 in Amesbury. This includes 3 lanes of traffic on the bridge itself (the pre-project traffic alignment).
- This roadway opens up to 4 lanes of traffic from Route 110 in Amesbury to the New Hampshire state line.

Issue MassDOT found with Pier 1 Cap



- On February 23, 2017, contractor placed 260 cubic yards for the pier 1 southbound cap.
- On March 6, MassDOT observed deficiencies in the pier cap and reported these to the contractor. The pier cap exhibited extensive honeycombing due to improper consolidation (see slide 8).
- On March 8, MassDOT issued a Deficiency Report to the contractor and withheld \$827K until the deficiency is corrected.
- The Deficiency Report requires the contractor to examine the work further and suggest possible repair procedures

Example Defects MassDOT found in Pier 1 Cap



Example Pier with NO Defects



Pier 1 Southbound



Resolution

- On April 20, the contractor submitted three alternative concept repairs for review of varying scope and impact.
- After careful review, MassDOT notified the contractor that the proposed repair procedures were rejected and the contractor would need to reconstruct the pier cap in accordance with MassDOT's standards.
- This will ensure that MassDOT is not compromising on the quality of the contractor's work to ensure the tax payers are receiving what they ordered.
- MassDOT has met with senior leadership at the company to discuss this poor performance on the job and to ensure a strong working relationship going forward.

Impacts: Schedule and Traffic

A preliminary meeting was held with the contractor on May 3rd to discuss the schedule impacts of this work.

- Gantry system installed to support remaining bridge construction operations (May)
- Demolition of existing pier cap 1 (late May - late June)
- Reinstallation of the new pier cap (July - August)
 - At this point, work will resume on “pre-pier cap” operations, including installing structural steel, precast bridge deck panels, and ultimately paving of the new SB bridge
- MassDOT is working to fully assess the schedule impacts associated with this matter; however, there will be no cost impacts to MassDOT or change in the existing traffic configuration.

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Appendix

