Rocks Village Bridge, Haverhill, Mass. 18-Month Inspection Summary The Largest FRP Vehicle Deck to Date!



| Just the Facts |   |
|----------------|---|
| Deck Size      | 6 spans; 809 feet total                           |
| Deck Width     | Spans 1 – 3: 21.25 feet<br>Spans 4 – 6: 25.3 feet |
| Deck Area      | 18,776 square feet                                |
| Movable        | Swing span  |
| Loading        | HS-25 with L/500 deflection                       |
| Superstructure | Steel truss with longitudinal beams               |
| Guard Rail     | Attached to deck; side and top                    |
| Owner          | MassDOT   |

#### Swing Span #3 with Access Cover to Capstan and Mechanical Systems





#### Swing Span Operation





#### **Offset Between Spans**

- No dimensional change since installation (despite cold winters)
- Consistent across the bridge width



### Rail post attachments still solid.



Note the sand and chemicals leftover from the removal of heavy snows.

#### FiberSPAN<sup>™</sup> Panel-to-panel joints still well-sealed.



#### "No sign of water at bottom of joints – no leaks!





#### Joints are always important!

- Expansion joint at end of bridge remains tight
- Panel-to-panel joints have narrow reflective cracks in field-applied polymer concrete wear surface
- Polymer concrete system did not have enough elongation
- Cracks appeared shortly after application





#### Sealed Reflective Cracks

- Cracks sealed after installation
- Seal is solid; no opening over time



Side note: Newer polymer concrete with 3x the elongation is now available to overcome this issue, which is typical with any bridge deck material.

# Rehabilitation!

MassDOT says they have no complaints or issues.

#### **Good news in hectic DOT world!**



## Summary: Benefits of Working with FRP Decking

- Rehab time greatly reduced. No need for rebar-concrete and crews to perform work.
- Greater resistance to freeze-thaw that normally damages traditional roadways (potholes, cracking, etc.).
- Resistant to chemicals, salts, grease and oils that affect concrete.
- Many more! <u>Contact us</u> or visit <u>www.compositeadvantage.com</u> for more info!



#### Resources

### For more information, including installation photos and videos:

- <u>www.compositeadvantage.com</u>
- <a>www.youtube.com/CompositeAdvantage</a>
- Contact Scott Reeve, President sreeve@compositeadvantage.com
  937-723-9031



