

AccelBridge: Innovative Precast Deck Panel System

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Green International Affiliates

Agenda

- North Hero Project Location
- North Hero Project Scope
- AccelBridge Introduction
- AccelBridge Construction Method
- North Hero AccelBridge Application
- Questions and Comments

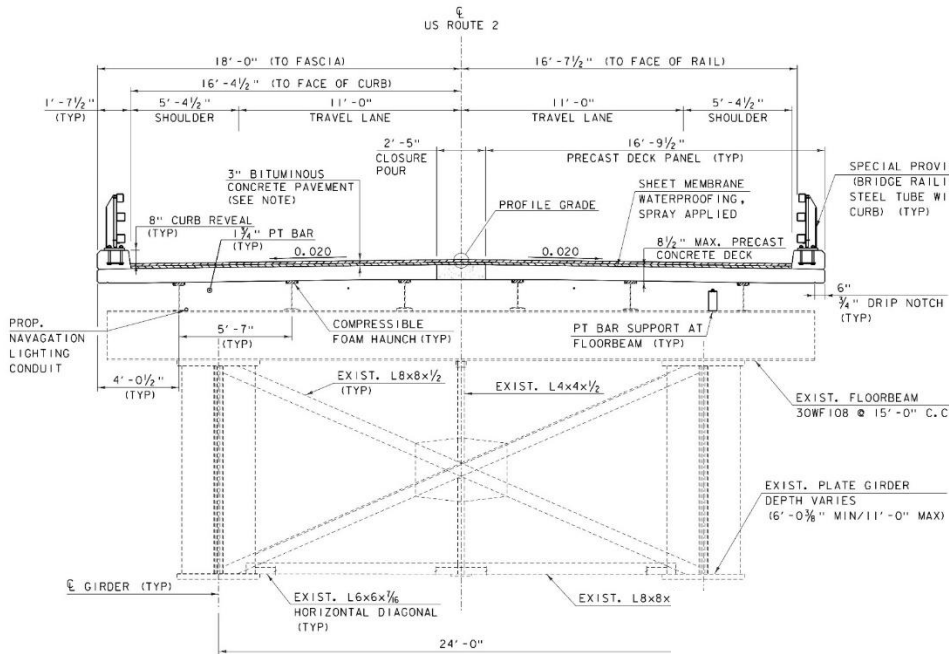
North Hero Project Location



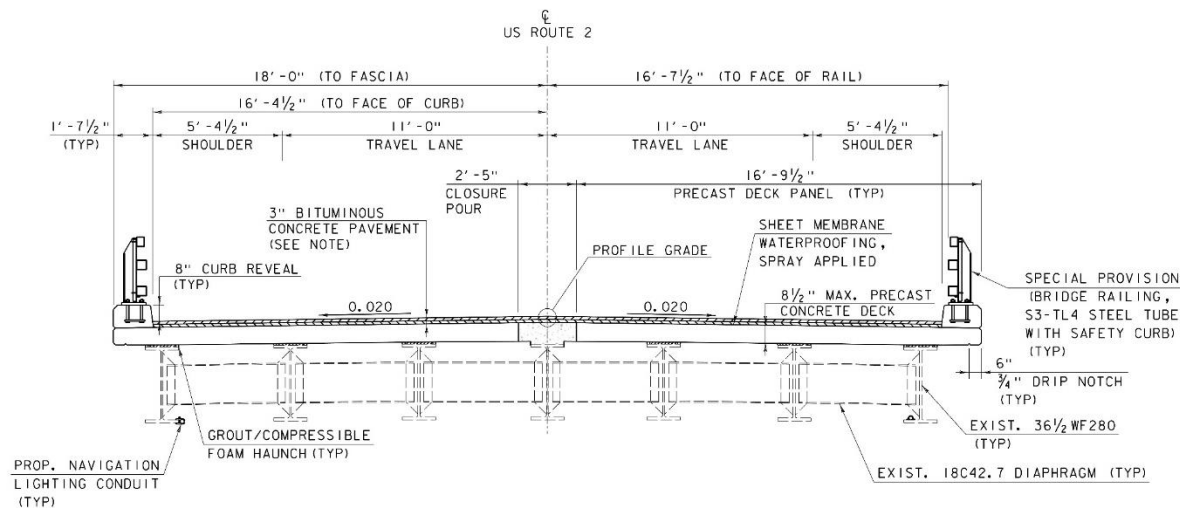
North Hero Project Scope



North Hero Project Scope

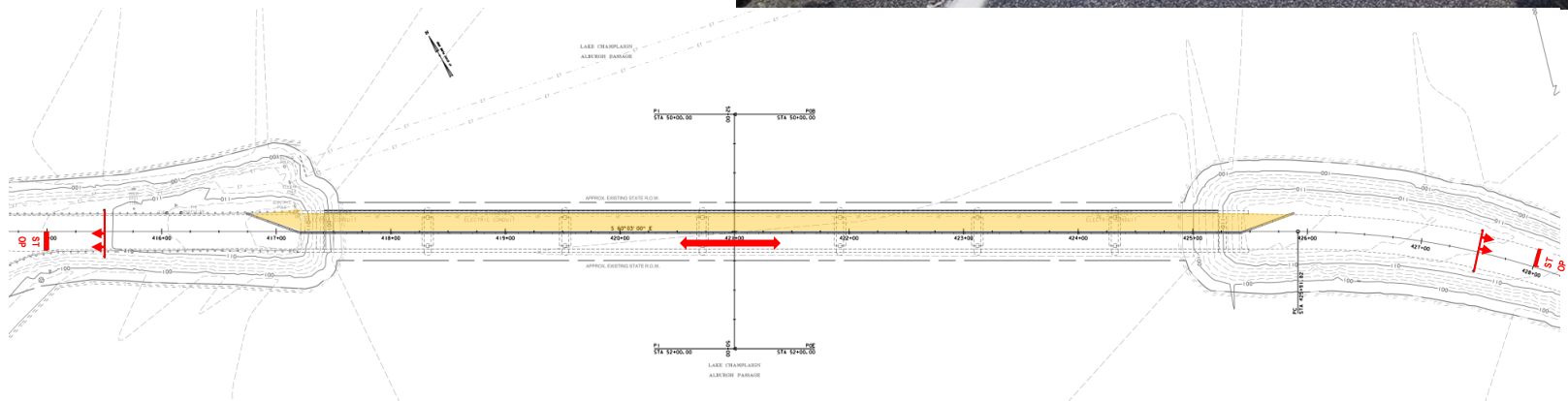


- Deck replacement using staged construction
- Superstructure and substructure repairs and partial reconstruction



North Hero Project Scope

- One lane alternating with temporary traffic signals
- Concerns about single lane condition over winter for snow removal, equipment, and overall quality

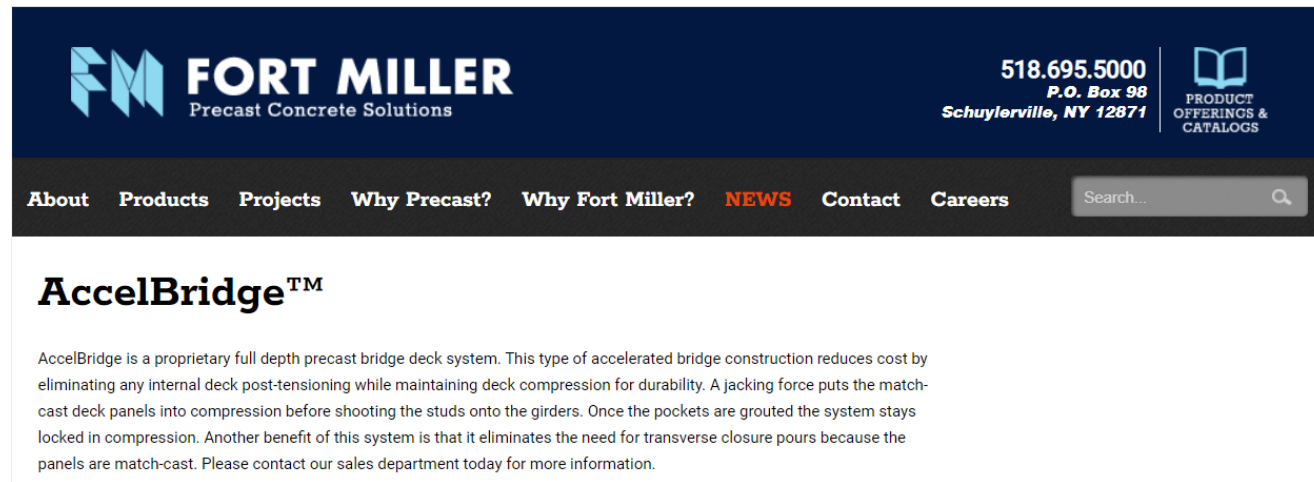


North Hero Project Scope

Can we accomplish this scope in one (1) northern Vermont construction season?

AccelBridge Introduction

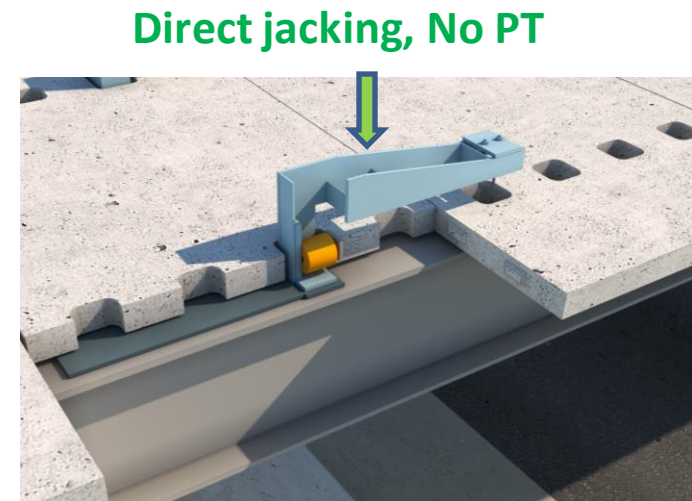
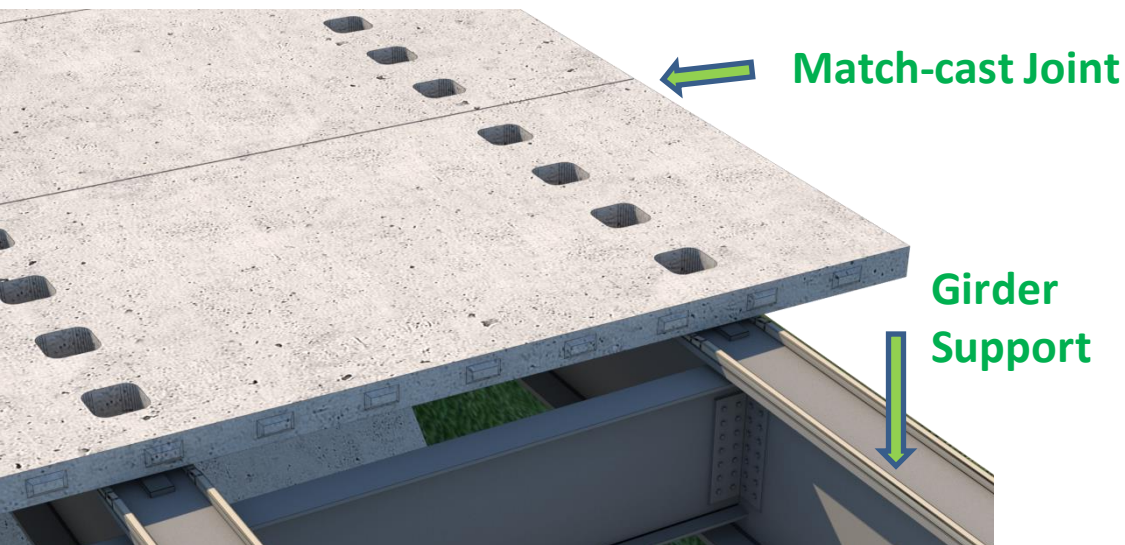
- Proprietary precast panel bridge deck system for accelerated construction
- Eddie He owner and designer of AccelBridge
- Exclusively fabricated and advertised by Fort Miller in New York
- Previous successful application in Vermont on I-89 bridge deck replacements



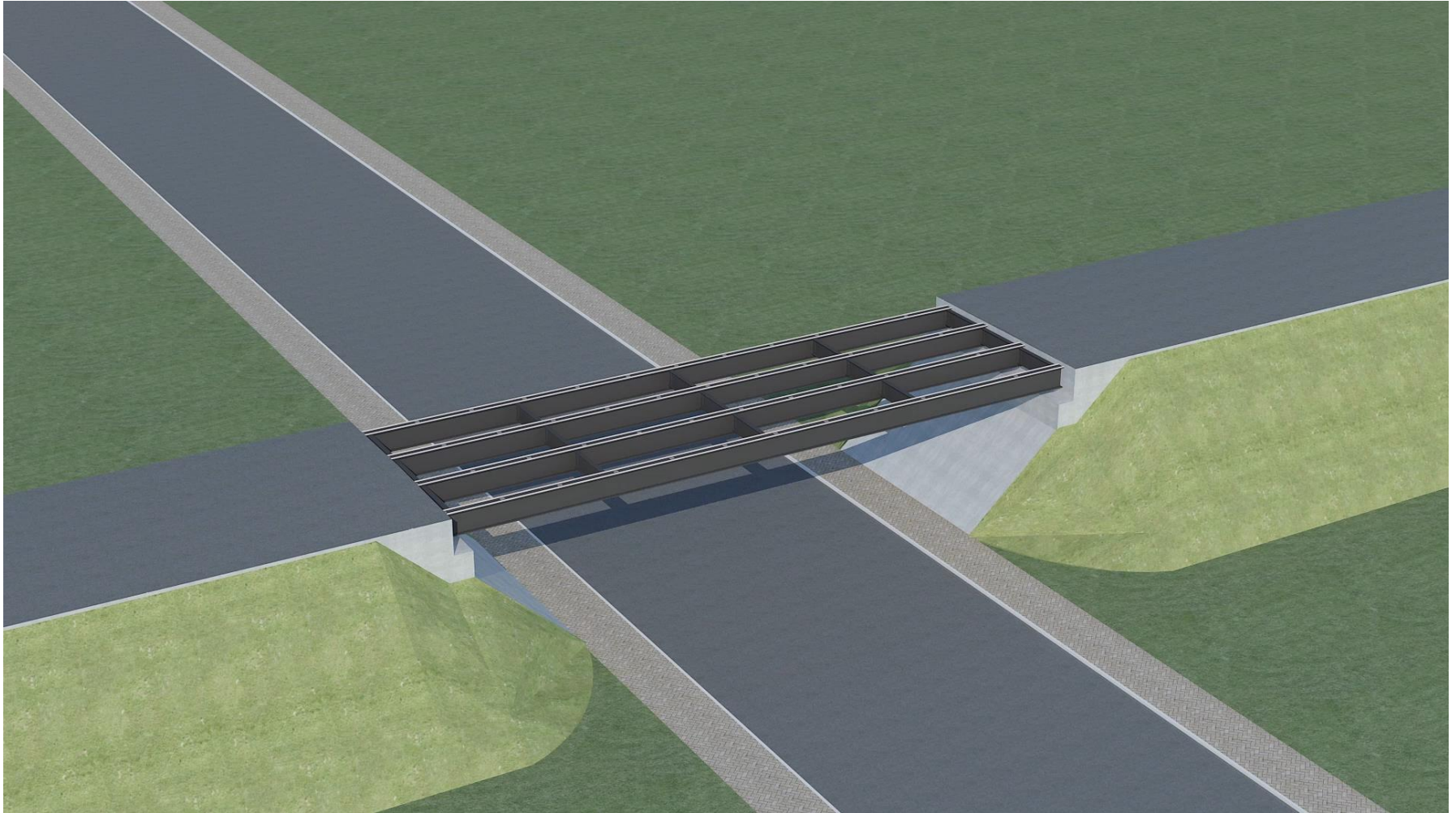
The screenshot shows the Fort Miller website header and main content area. The header is dark blue with the Fort Miller logo (a stylized 'FM' in blue and white) and the text 'FORT MILLER Precast Concrete Solutions'. To the right of the logo is the phone number '518.695.5000', 'P.O. Box 98', and 'Schuylerville, NY 12871'. Further right is a logo for 'PRODUCT OFFERINGS & CATALOGS' with an open book icon. Below the header is a navigation bar with links: 'About', 'Products', 'Projects', 'Why Precast?', 'Why Fort Miller?', 'NEWS' (highlighted in red), 'Contact', and 'Careers'. A search bar is located on the right side of the navigation bar. The main content area has a white background with the heading 'AccelBridge™' in bold. Below the heading is a paragraph of text: 'AccelBridge is a proprietary full depth precast bridge deck system. This type of accelerated bridge construction reduces cost by eliminating any internal deck post-tensioning while maintaining deck compression for durability. A jacking force puts the match-cast deck panels into compression before shooting the studs onto the girders. Once the pockets are grouted the system stays locked in compression. Another benefit of this system is that it eliminates the need for transverse closure pours because the panels are match-cast. Please contact our sales department today for more information.'

AccelBridge Construction Method

- Full depth precast panel system without post-tensioning or use of UHPC for joints
- Applies same techniques used for installation of precast segmental bridge construction:
 - Match Casting & Direct Jacking



AccelBridge Construction Method

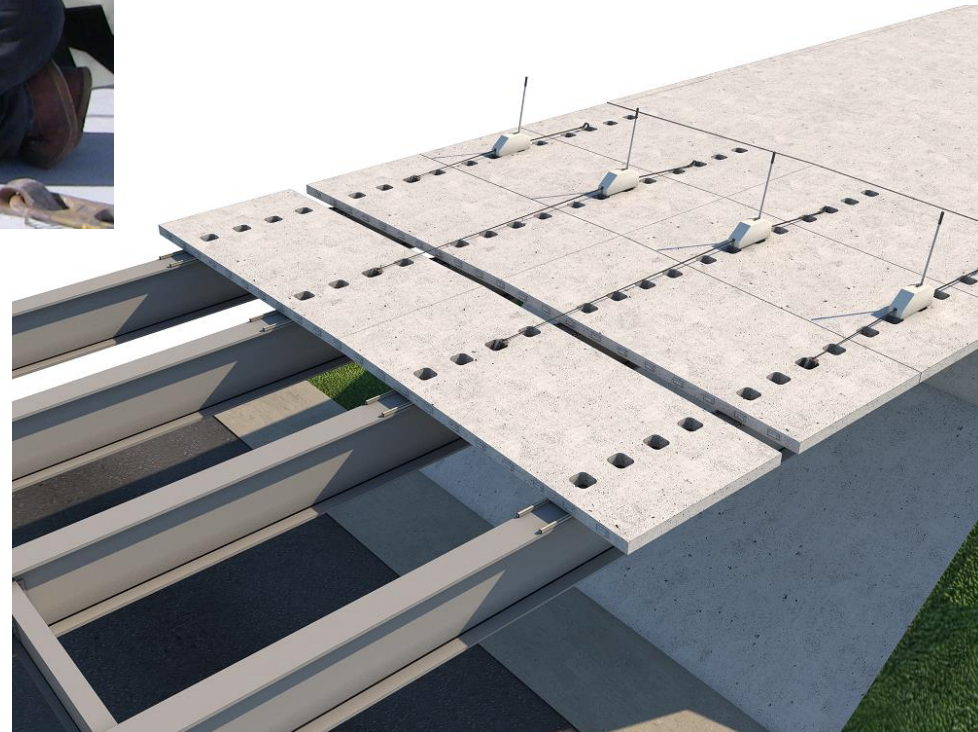


AccelBridge Construction Method

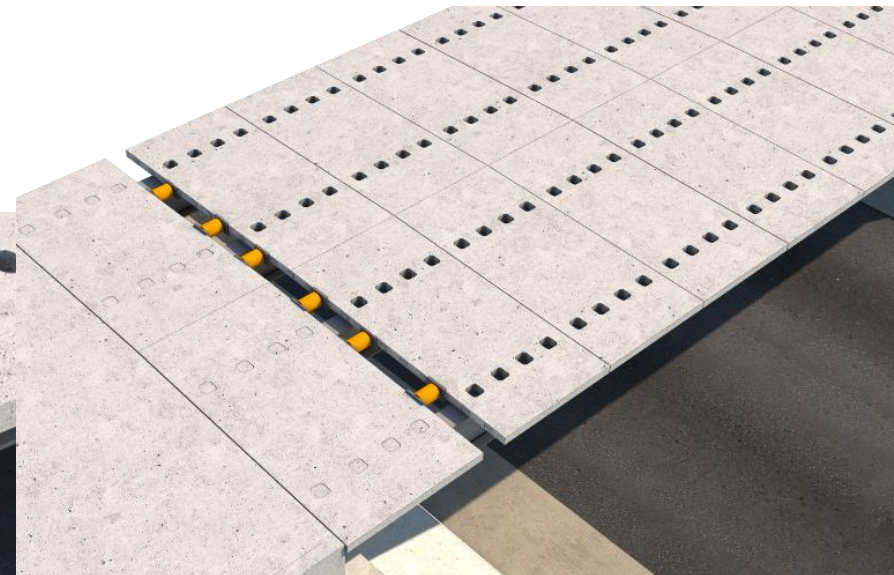
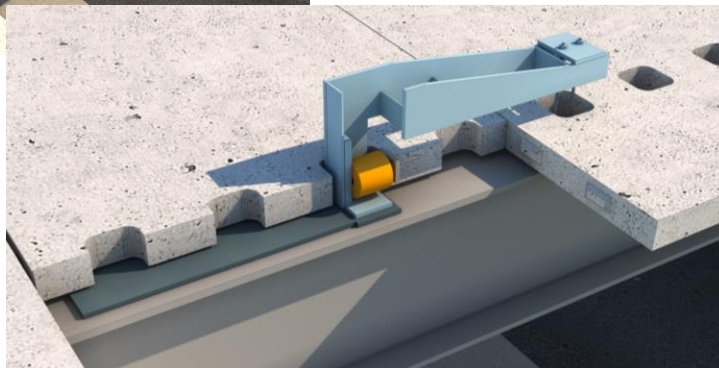
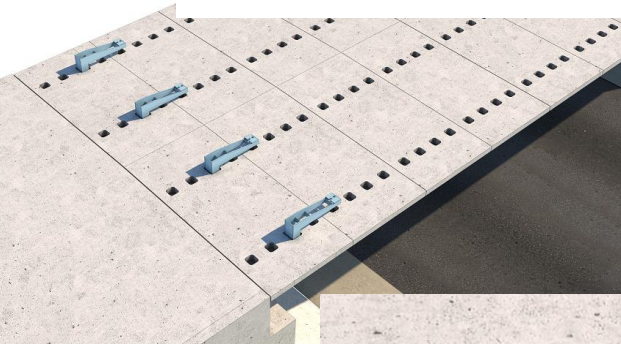
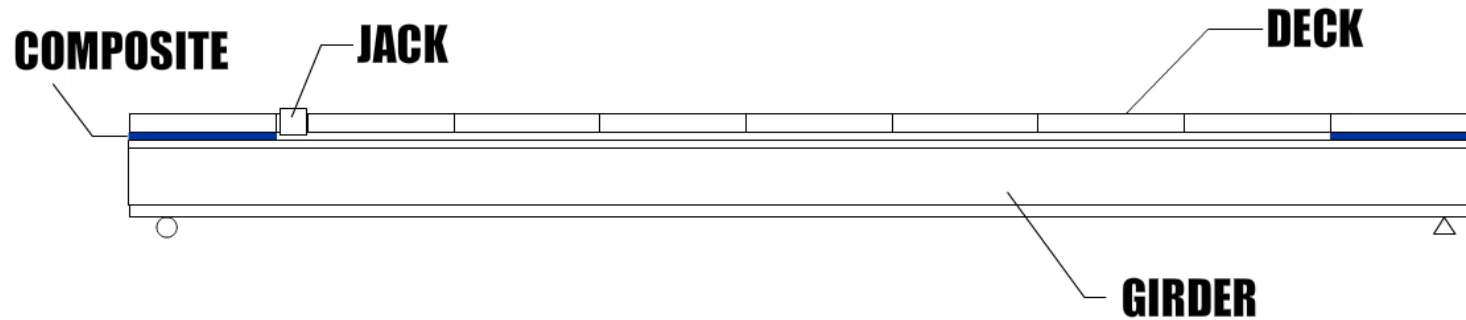


- 15 to 20 minutes per panel for installation

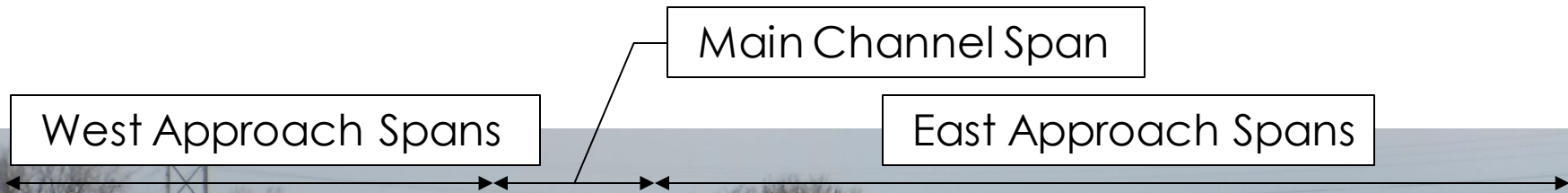
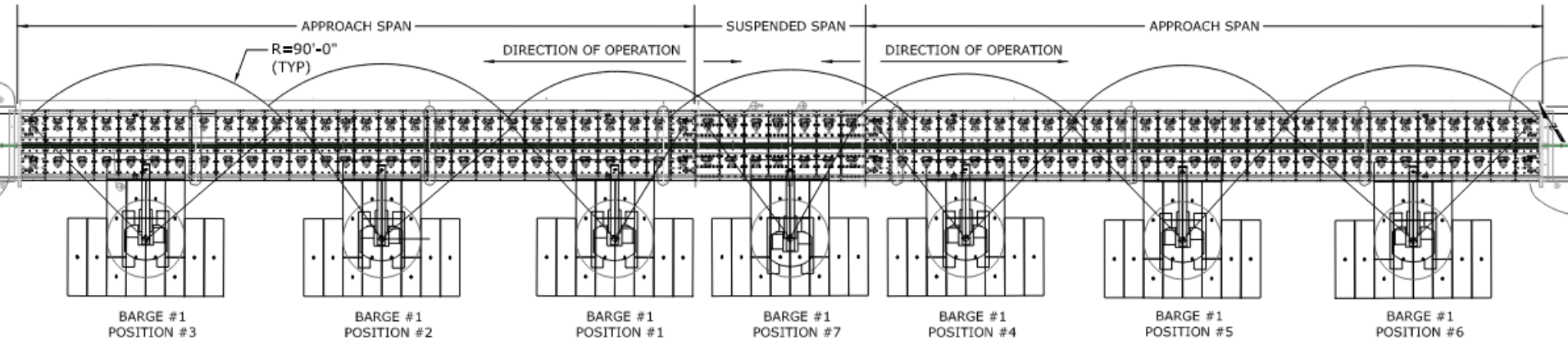
- Apply epoxy to match cast joint
- Use come-alongs to close the joint between panels



AccelBridge Construction Method

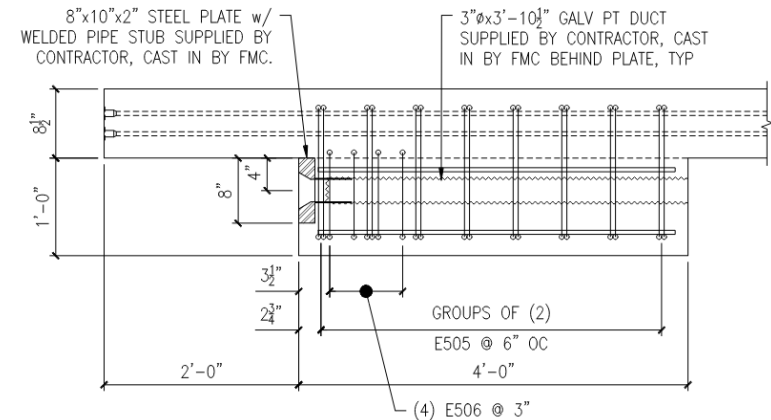
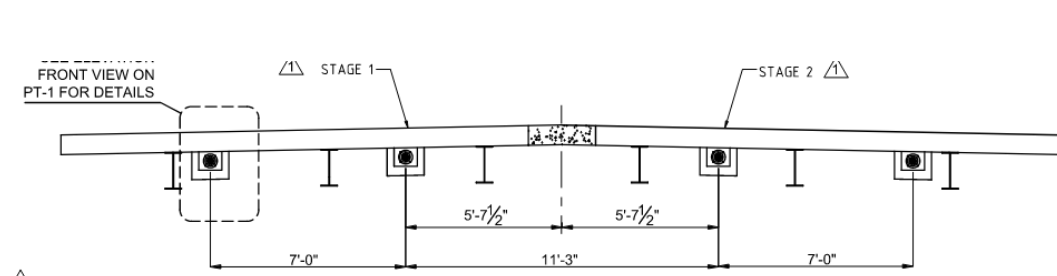
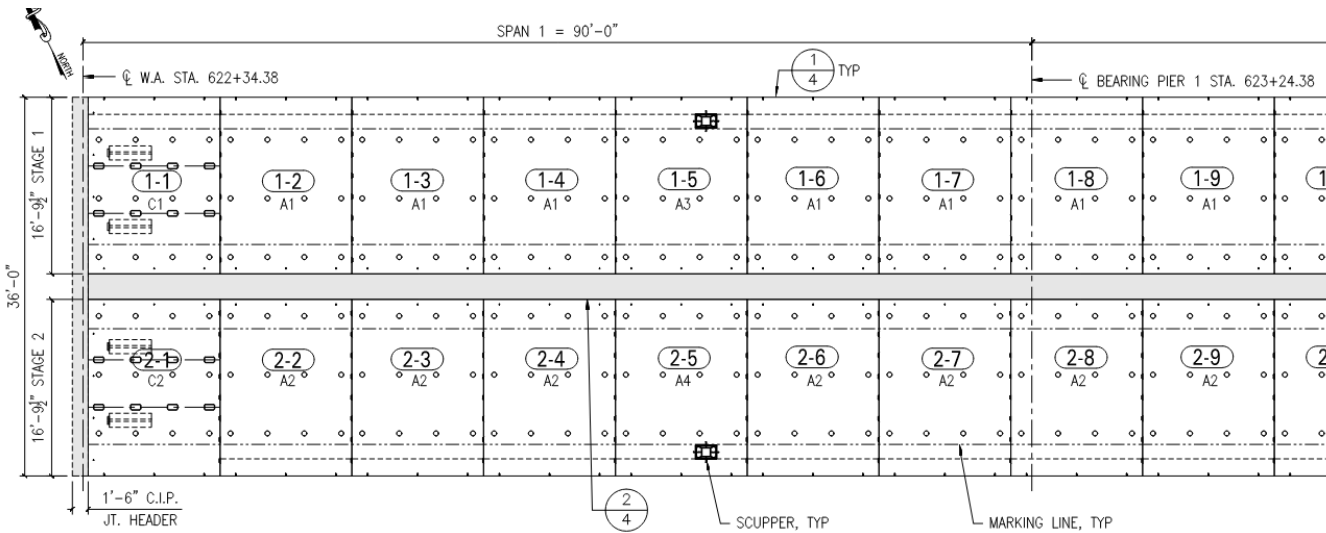


North Hero AccelBridge Application



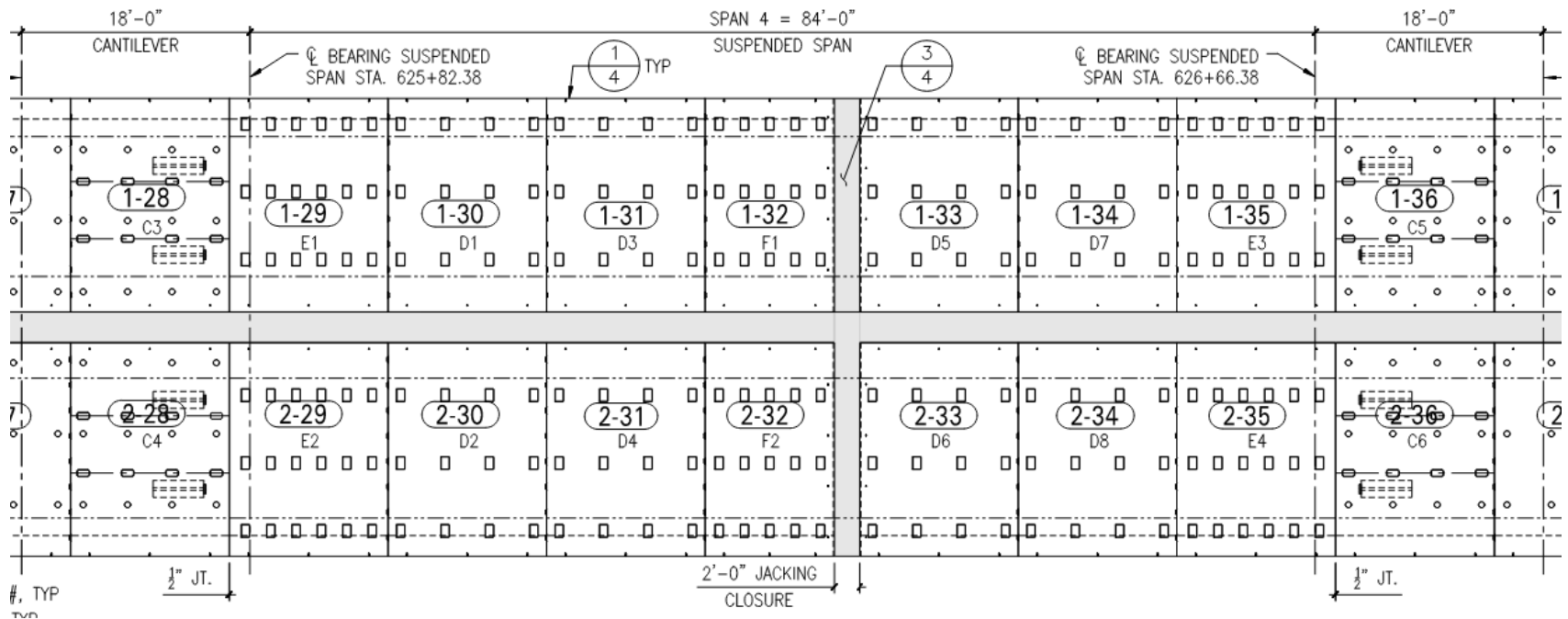
North Hero AccelBridge Application

- Approach Spans non-composite using external PT cables



North Hero AccelBridge Application

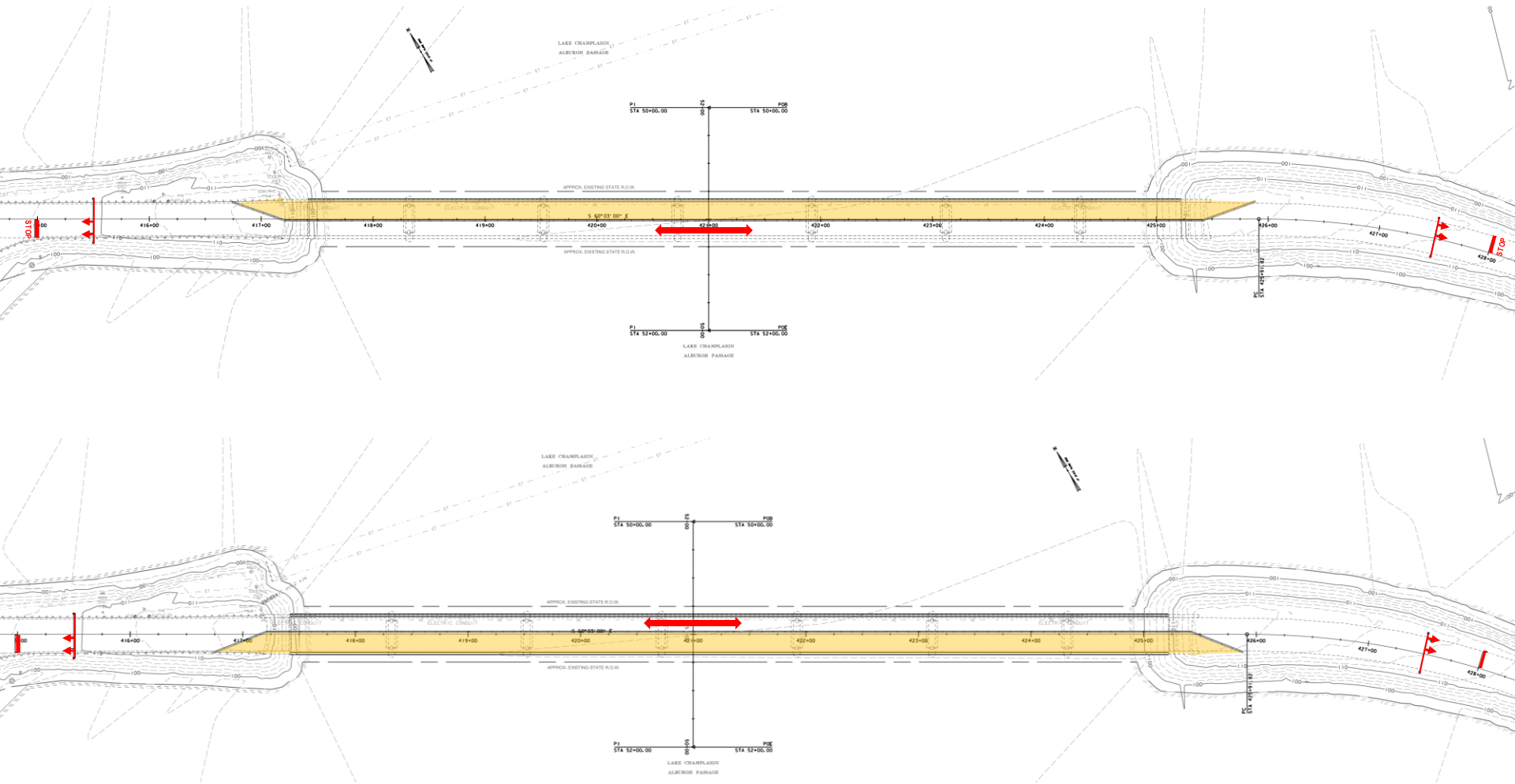
- Suspended Span fully composite using existing beams



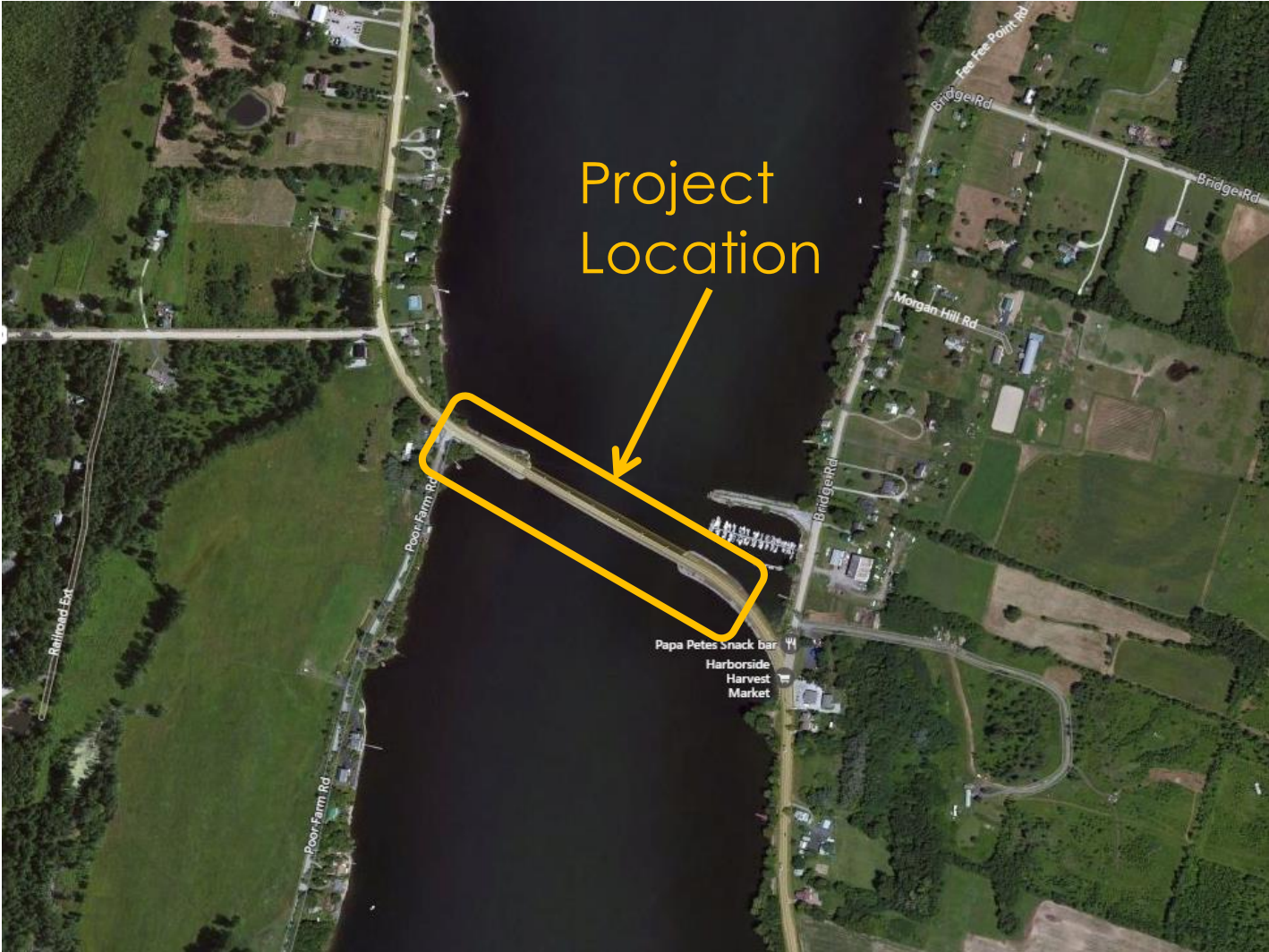
Questions and Comments



North Hero Project Scope



North Hero Project Location



AccelBridge Construction Method

- Match cast panels in the shop
- Match casting on site is also feasible

