2002 â?? US 26 Bridge over Mill Creek

Description

Meta Fields

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Project Location : US 26 at Milepost 92.68 over Mill Creek in Wasco County between Oregon Route 216 and the town of Warm Springs
Mobility Impact Time :

- ABC: 24 days
- Conventional: 9-12 months

Impact Category : Tier 4 (within 1 month)
Dimensions : 536-ft-long and 35-ft-wide five-span continuous steel deck truss bridge (20 ft - 165 ft - 165 ft - 265 ft - 20 ft)
Average Daily Traffic At Time Of Construction : 4200
Traffic Management : If constructed conventionally: extended use of 1.95-mile detour
Existing Bridge Description : The bridge has two 12-ft-wide traffic lanes and two 4.5-ft-wide shoulders. Built in 1948, it had a deteriorated deck that required replacement. The ExodermicTM steel-grid-and-concrete-filled deck replacement is the same width as the original deck.
Construction Method : The contractor detoured traffic and closed the bridge. Starting on the southeast end of the bridge, the contractor saw cut the edge of the bridge deck, removed the sidewalk at the abutment, formed the pocket where the new deck would overlap the abutment sidewalk, and constructed the drainage curb and guardrail transitions. The contractor transversely cut and removed a portion of the existing deck and installed a new deck panel. The stringer studs were welded and the panel was raised to grade. The closure concrete was cast. After concrete cured, the new bridge rail segments were placed and bolted and grouted into position. The process was repeated as closure time allowed. As work progressed, one floor beam was replaced at location U10. Asphaltic concrete was placed to transition the change in deck elevations. Temporary rail transitions and joint seals were installed, and the bridge was opened to traffic. The process was repeated until the replacement was completed. The bridge was paved with an asphalt overlay without waterproofing membrane. A total of 540 linear feet of deck was replaced in 24 days. A conventional deck replacement would have taken 9-12 months of road closure under a single-lane staged construction sequence.
Stakeholder Feedback : The Oregon DOT had the following observations: â?¢ A flexible schedule for work and traffic windows facilitated replacement progress. â?¢ The new deck is stiffer and stronger. â?¢ The superstructure is stiffer with the composite concrete-filled grid deck. â?¢ The replacement traffic rail is crash worthy. â?¢ The bridge has improved hydraulics (increased cross-slope and wider traveled way for drainage), which allowed removal of the deck drains.
Contacts : Bruce V. Johnson, P.E. State Bridge Engineer Oregon Department of Transportation bruce.v.johnson@odot.state.or.us 503-986-3344
Costs : The engineerâ??s estimate and bid information for the project are not available.
Funding Source : Federal and State
Contract Plans : 1
Other Related Url : 1
Year Abc Built : 2002
State : OR
Owner : State
Location : Rural
Spans : > Three-span
Beam Material : Steel
Max Span Length Ft : 265
Total Bridge Length Ft : 536
Construction Equipment : Conventional
State Id # : 1660
Nbi # : 1660
Latitude : 44.865069
Longitude : -121.4217
Decision Making Tools : State process

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