1997 â?? Imnaha Bridge over Little Sheep Creek

Description

Meta Fields

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Project Location :

Oregon Route 350 over Little Sheep Creek at Milepost 29.34, near the community of Imnaha in Wallowa County

Mobility Impact Time : ABC: Estimated 9 months ; Conventional: Estimated 12 months
Impact Category : Tier 6 (longer but reduced by months/years)
Dimensions : 110-ft-long and 30-ft-wide single-span steel curved girder bridge
Average Daily Traffic At Time Of Construction : 190
Traffic Management : Traffic management alternative, if constructed conventionally: Conventional construction would have required a temporary detour bridge for local traffic to reach a dead end forest highway, at some distance, serving a small rural community on the other side of the creek
Existing Bridge Description : The existing four-span wood decking on timber and steel stringer bridge was 20-ft wide with two 10-ft-wide traffic lanes and no shoulders. The existing bridge was deteriorated and required replacement.
Replacement Or New Bridge : The replacement bridge has two 12-ft-wide traffic lanes and one 5-ft-wide shoulder on the north side. The cross-section consists of four 4.75-ft-deep Grade 50W steel curved girders spaced at 8 ft with a 4.25-inch-thick concrete-filled steel-grid deck. The two halves were connected with a 3-ft-wide, 8-inch-thick cast-in-place reinforced concrete deck closure joint. The cast-in-place abutments are keyed into and founded on rock.
Construction Method : The contract required the bridge to remain open to traffic during construction. It also restricted construction activities in the creek due to salmon spawning beds.The new right half of the bridge was constructed slightly offset from the existing bridge while the existing bridge remained open to one lane of traffic. The contractor cast the abutments on rock foundations on the banks of the creek. Cranes were utilized to erect the steel curved girders onto elastomeric bearing pads on the abutments. The steel-grid deck was erected on the girders, and concrete was cast to complete the deck. The sidewalkâ??s 3.5-ft-high pedestrian rail consists of a 1.5-ft-high tube rail mounted on top of a 2-ft-high concrete parapet wall; the other side has regular side-mounted 2.67-ft-high steel tube rails on steel W6x25 posts. The one lane of traffic was diverted to the new half of the bridge. The existing bridge was demolished and the left half of the new bridge was built on the original alignment. Traffic was diverted to the left half of the bridge and the right half was skid laterally to connect with the new left half of the bridge using hydraulic jacks. Reinforcement was placed in the 3-ft-wide longitudinal closure joint, and the joint was filled with concrete. No overlay was applied. Other finish work was completed and all lanes were opened to traffic.There was no incentive/disincentive clause in the contract.
Contacts : Bruce V. Johnson, P.E. State Bridge Engineer Oregon Department of Transportation bruce.v.johnson@odot.state.or.us 503-986-3344
Costs : Not available.
Funding Source : Federal and State
Contract Plans : 1
Other Related Url : 1
Year Abc Built : 1997
State : OR
Owner : State
Location : Rural
Spans : One-span
Beam Material : Steel
Max Span Length Ft : 110
Total Bridge Length Ft : 110
Construction Equipment : Lateral Slide
State Id # : 18074
Nbi # : 18074
Latitude : 45.5593529

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