

SW Bridge- Nalley Valley I/C

Tacoma, WA

Project Description

Aiming to reduce congestion on I-5 through Tacoma, Washington, the Westbound Nalley Valley I/C was the first of three phases of bridge construction in the historic Nalley Valley. The project distributes traffic between I-5 and the Tacoma Narrows Bridge toward the Olympic Peninsula. An array of new structures replaced seismically obsolete bridges and provide a much needed increase in traffic capacity.

Owner

Washington State Department of Transportation (WSDOT)

Contractor

Atkinson Construction

Designer

CH2M Hill & WSDOT

Our Role

McNary Bergeron & Associates assisted the contractor in procuring the contract by redesigning two expensive steel bridges to more economical concrete structures. McNary Bergeron redesigned the SW Line Bridge from a steel tub-girder bridge to a precast segmental box girder bridge, a change that also suits the owner because of the extended design life and reduced maintenance. McNary Bergeron & Associates is currently providing construction engineering services for the redesigned structure through the casting and erection processes.

Total Contract Value

\$120 million

Timeline

January 2009 - February 2011

Construction Method and Specifications

SW Line

- Precast segmental bridge built using the balanced cantilever method with ground-based cranes.
- Segments constructed using the longline precasting method.
- Pier table shells were precast using match-cast methods, erected, and filled with a CIP diaphragm to fulfill stringent seismic requirements and eliminate closure pours near the piers
- Span lengths up to 295 ft

