

## TEB Bridge- Nalley Valley I/C

Tacoma, WA

### Project Description

The Temporary Eastbound (TEB) bridge carried eastbound traffic for approximately 5 years during phase 2 and 3 of the Nalley Valley I/C project. The temporary bridge was removed once traffic was placed into the final alignment.

### Owner

Washington State Department of Transportation (WSDOT)

### Contractor

Atkinson Construction

### Designer

McNary Bergeron & Assoc.

### Our Role

McNary Bergeron & Associates assisted the contractor in procuring the contract by redesigning two expensive steel bridges to more economical concrete structures. The original Temporary Eastbound (TEB) bridge design called for rolled steel girders with a composite deck. McNary Bergeron redesigned the bridge to be precast thin-flange bulb-tee girders with a 5" composite CIP deck, which saved the Contractor and Owner over \$1 million in material and labor costs. Additionally, the redesigned structure had a 3' wider roadway surface.

### Total Contract Value

\$5 million (for the temporary bridge)

### Timeline

2008 - 2009

### Construction Method and Specifications

TEB Bridge

- driven steel pipe pile substructure columns
- cast-in-place concrete pier caps
- precast thin-flange deck bulb-tee girders
- 5" CIP composite deck
- Unique longitudinal closures between girder flanges create fully composite deck with only 1 mat of deck reinforcing in CIP slab.
- Girder geometry was predetermined and optimized to minimize slab thickness

