

Recent Construction Highlights

Flatiron Constructors Intermountain continued installing the substructure, with construction of the columns at Pier 3 (WB and EB) and the footings at Pier 4 (WB and EB). Span 1 WB CIP Superstructure construction continued with form assembly and installation of the reinforcing and post-tensioning ducts for the webs, bottom slab, and diaphragms. The following is a summary of the construction progress for the last month.

Figure 1 – Pier 3 EB Column Construction – August 14, 2008:

Pier 3 EB Column reinforcing installation is complete and the remaining three sides of the forms will be installed next. The white tubes visible at both piers are the cooling tubes used to keep the concrete temperature below the allowable 160 degrees Fahrenheit. Span 1 WB CIP Superstructure construction continues in the background.



Figure 2 – Pier 4 Footing Construction – August 15, 2008:

Flatiron dewateres and cleans the cofferdam to begin forming Pier 4 EB footing. Workers strip the forms at Pier 4 WB footing in the background to transfer to Pier 4 EB.



Figure 3 – Span 1 WB CIP Superstructure Construction – August 18, 2008:
With all of the web and bottom slab reinforcing and post-tensioning installed, workers begin to assemble the interior web and diaphragm forms.

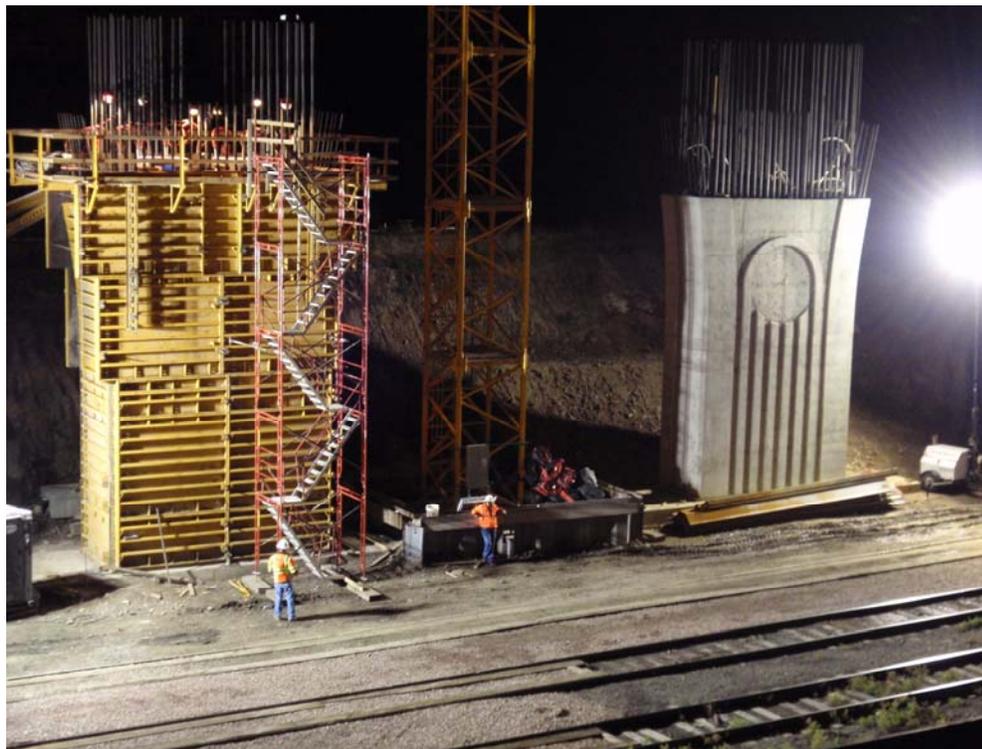


Figure 4 – Pier 3 EB Column Construction – August 19, 2008:
Flatiron has lighting staged to cast the column at Pier 3 EB. Similar to Pier 3 WB column, the concrete placement began at 1 am to provide lower concrete temperatures at delivery.

Figure 5 – Pier 4 EB Footing Construction – August 19, 2008:
The ironworkers lower the pre-tied footing cage over the drilled shaft dowels and into place.

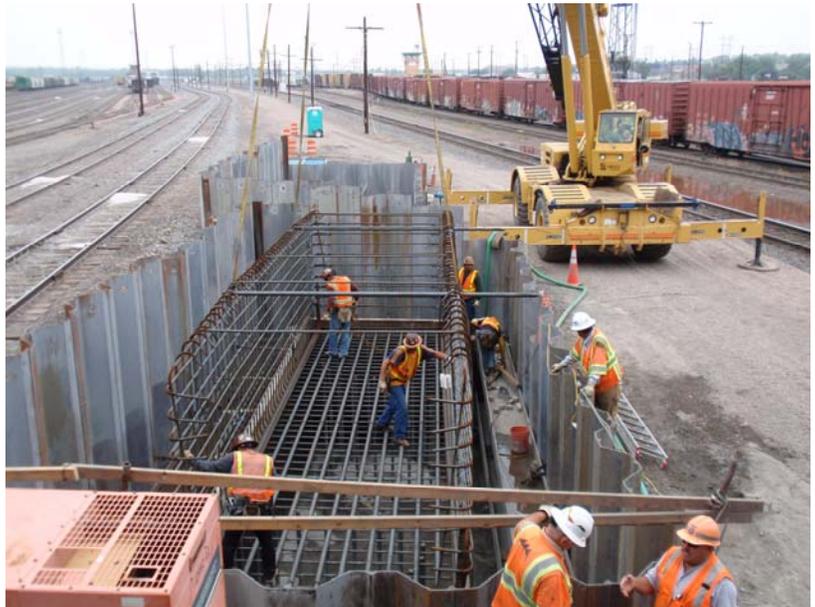


Figure 6 – Pier 4 EB Footing Construction – August 22, 2008:
Just three days after lowering the pre-tied cage, the footing at Pier 3 EB is complete.



Figure 7 – Span 1 WB CIP Superstructure Construction – August 26, 2008:
Looking downstation from Pier 2 WB diaphragm, the forms, reinforcing, and post-tensioning installation is completed.



Figure 8 – Span 1 WB CIP Superstructure Construction – August 29, 2008:

Light plants are up and running for casting the bottom slab, webs, and diaphragms for Span 1 WB CIP Superstructure. The pour began at 3 am to allow for cooler temperatures for concrete delivery, since the diaphragms are considered mass concrete elements. Both diaphragms have a cooling system, which is just visible at the abutment diaphragm in Figure 7.

Figure 9 – Span 1 WB CIP Superstructure Construction – August 29, 2008:
Two-42m concrete pump trucks work in tandem for placing concrete in the webs. One pump truck was staged adjacent to Pier 2 EB at the bottom of the slope to place the concrete from the end span tip located in Span 2 working toward the downstation direction. The second pump is visible behind Abutment 1 and took over when the first pump's reach was met.





Figure 10 – Pier 3 Falsework Shoring Construction – September 3, 2008:

After stripping the forms from Pier 3 EB Column, Flatiron installed sheet piling adjacent to the UPRR property and around the tower crane support. Flatiron plans to backfill behind the sheet piles to allow for drilling of the stability prop caissons and to provide a level platform to support the Pier Table falsework.



Figure 11 – Span 1 WB CIP Superstructure Construction – September 4, 2008:

The interior web and diaphragm forms are removed to begin forming of the top slab. The deviator diaphragms and anchor blocks are visible at mid-span, as well as the draped post-tensioning anchors and doghouse at Pier 2 WB diaphragm.



Substructure Construction	<u>To</u> <u>Date</u>		<u>Total</u>	<u>Unit</u>	<u>% Complete</u>
48" Diameter Drilled Shafts (Monuments)	3	of	4	Each	75%
48" Diameter Drilled Shafts (Abutments)	11	of	14	Each	79%
60" Diameter Drilled Shafts (Pier 2 & 5)	6	of	8	Each	75%
96" Diameter Drilled Shafts (Pier 3 & 4)	8	of	8	Each	100%
Type I Footings (Pier 2 & 5)	3	of	4	Each	75%
Type II Footings (Pier 3 & 4)	4	of	4	Each	100%
3'-6" Piers (Pier 2 & 5)	3	of	4	Each	75%
7'-1" Piers (Pier 3 & 4)	2	of	4	Each	50%
Abutments	3/4	of	2	Each	38%

Superstructure Construction	<u>To</u> <u>Date</u>		<u>Total</u>	<u>Unit</u>	<u>% Complete</u>
Westbound					
End Span CIP Westbound	1/2	of	2	Each	25%
Abutment Diaphragm Westbound	1/2	of	2	Each	25%
Pier Diaphragm Westbound	1/2	of	2	Each	25%
Pier Table Westbound	0	of	2	Each	0%
Cantilever 3 Segments Westbound	0	of	22	Each	0%
Cantilever 4 Segments Westbound	0	of	20	Each	0%
Closure Segments Westbound	0	of	3	Each	0%
Eastbound					
End Span CIP Eastbound	0	of	2	Each	0%
Abutment Diaphragm Eastbound	0	of	2	Each	0%
Pier Diaphragm Eastbound	0	of	2	Each	0%
Pier Table Eastbound	0	of	2	Each	0%
Cantilever 3 Segments Eastbound	0	of	22	Each	0%
Cantilever 4 Segments Eastbound	0	of	20	Each	0%
Closure Segments Eastbound	0	of	3	Each	0%



Project Summary:

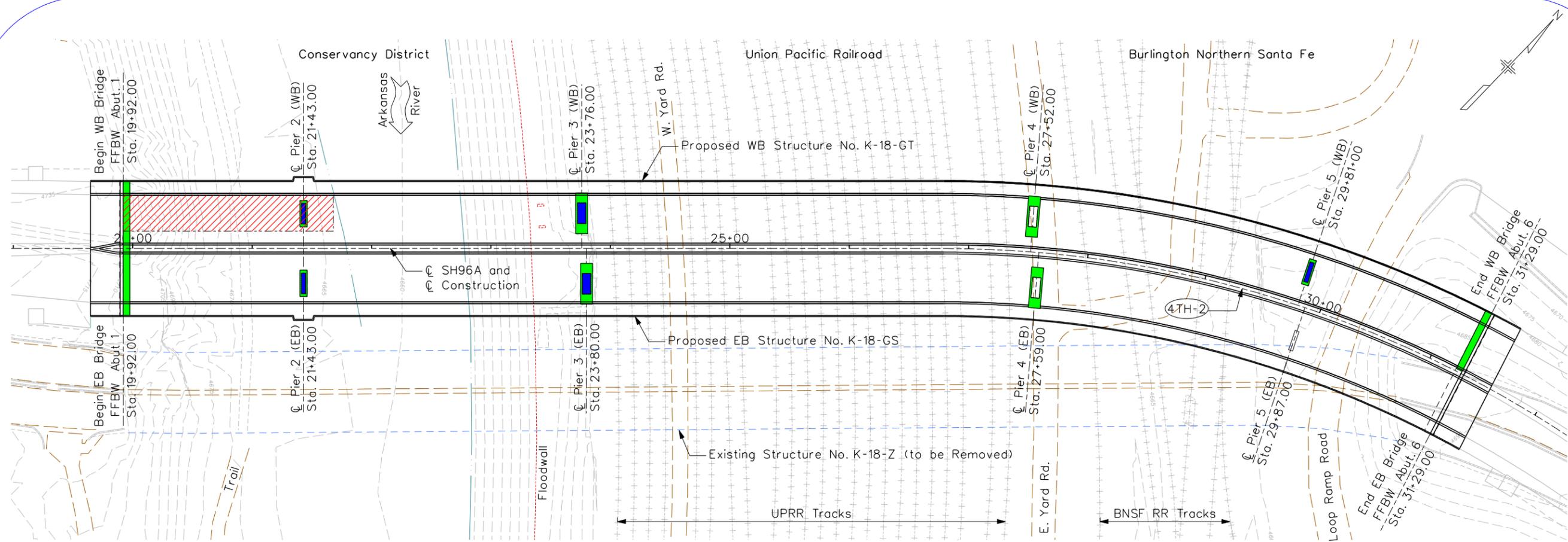
**September 8, 2008
Day 267 of 1278**

Project Milestone Dates
Milestone Event

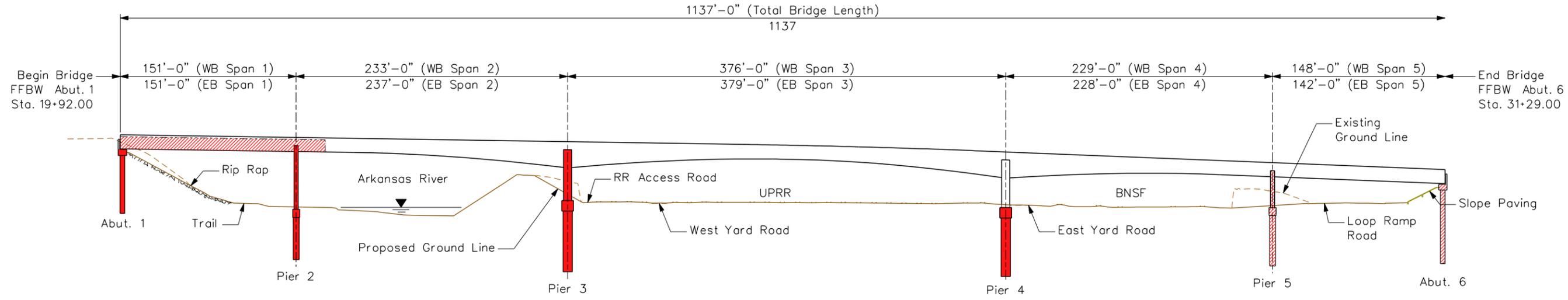
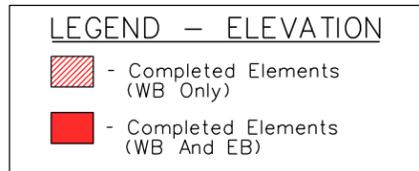
Milestone Event	Date	Actual
Project Award	October 18, 2007	October 18, 2007
Notice to Proceed	November 8, 2007	November 8, 2007
*Abutment 1 Drill Caissons	March 11, 2008	February 6, 2008
*Abutment 1 Cap Form/Rebar/Pour	April 1, 2008	March 6, 2008
*Pier 2 Drill Caissons	February 28, 2008	February 26, 2008
*Pier 2 Form/Rebar/Pour Footing	March 11, 2008	March 24, 2008
Pier 2 Column Form/Rebar/Pour	April 8, 2008	April 9, 2008
Pier 3 Drill Caissons	April 1, 2008	April 1, 2008
Pier 3 Form/Rebar/Pour Footing	May 27, 2008	May 27, 2008
Pier 3 Column Form/Rebar/Pour	July 24, 2008	July 25, 2008
Pier 4 Drill Caissons	June 2, 2008	June 3, 2008
Pier 4 Form/Rebar/Pour Footing	July 23, 2008	August 1, 2008
Pier 4 Column Form/Rebar/Pour	August 25, 2008	
Pier 5 WB Drill Caissons	May 27, 2008	May 27, 2008
Pier 5 WB Form/Rebar/Pour Footing	June 4, 2008	June 4, 2008
Pier 5 WB Column Form/Rebar/Pour	July 2, 2008	July 1, 2008
Abutment 6 Drill Caissons	April 16, 2008	April 17, 2008
Abutment 6 Cap Form/Rebar/Pour	April 30, 2008	April 30, 2008
Install Last Drilled Caissons – Abutment 6 (EB Only)	April 21, 2010	
Span 1 WB Form/Rebar/Pour Bottom Slab/Webs/Diaphragms	August 26, 2008 (Finish)	August 29, 2008
Span 1 WB Form/Rebar/Pour Deck	September 15, 2008 (Finish)	
Form and Pour First Pier Table – Cantilever 3 WB	December 5, 2008 (Finish)	
Form and Pour First Segment – Cantilever 3 WB	January 7, 2009	
Form and Pour First Closure – Span 2 WB	July 9, 2009 (Finish)	
Shift Traffic to New Structure	March 15, 2010	
Form and Pour Last Segment – Cantilever 4 EB	October 15, 2010	
Form and Pour Last Closure – Span 3 EB	November 1, 2010	
Complete Structure and Final Traffic Configuration	March 10, 2011 (Finish)	

**All items designated with an asterisk (*) are based on Rev 2 Baseline Schedule submitted February 25, 2008.
All remaining items are estimated based on August 19, 2008 updated project schedule.
All dates represent the “Start” of the activity, unless otherwise noted.**

The updated project schedule reflects milestone dates later than originally projected (in previous updates). This is mainly due to the drilled shaft subcontractor requiring more time for drilling the 8’ diameter shafts than originally anticipated. Flatiron plans to construct Span 5 WB CIP Superstructure simultaneous with Span 1 EB CIP Superstructure to improve the schedule. Drilling of the stability prop shaft and Pier 3 WB Pier Table Falsework erection is scheduled to begin the week of September 15th.



PLAN



ELEVATION

