

An aerial photograph of a river valley in Idaho. A river flows through the center, curving to the right. A bridge is under construction across the river, with several construction vehicles and equipment visible on the bridge deck. The surrounding hills are rugged and sparsely vegetated. The text "Accelerated Bridge Construction and Innovative Bridge Designs for Rapid Renewal in Idaho" is overlaid in large, bold, yellow font with a black outline.

Accelerated Bridge Construction and Innovative Bridge Designs for Rapid Renewal in Idaho

Accelerated Bridge Construction and Innovative Design Elements

- Precast Abutments (pile caps)
- Precast Pier Columns
- Precast Wing Walls
- Precast Full Depth Deck Panels
- Pile Driving Templates
- Spray Applied Urethane Waterproofing Membrane

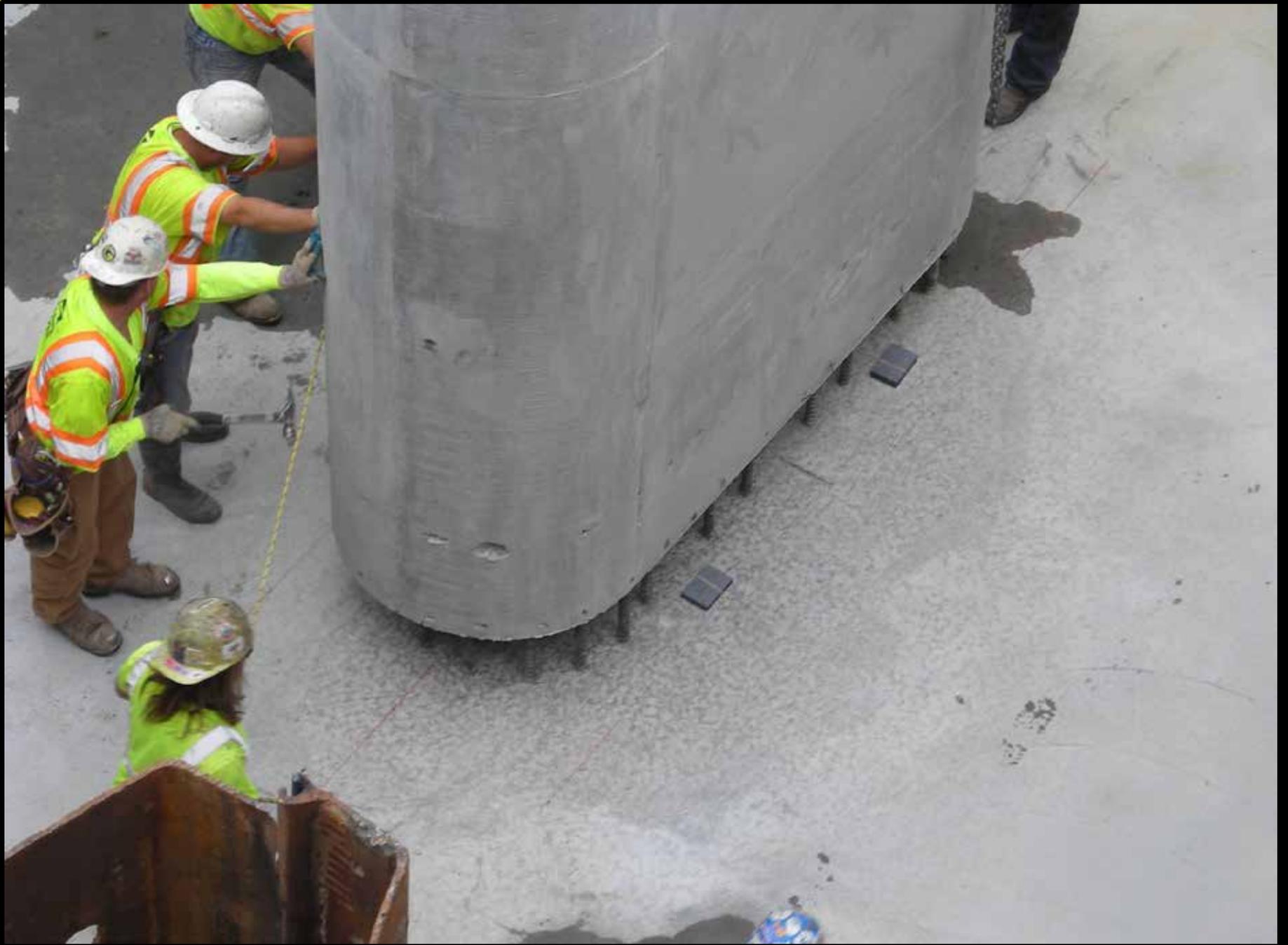






East Fork of Salmon River
Bridges
Camera 2
June 25, 2014 11:02 AM







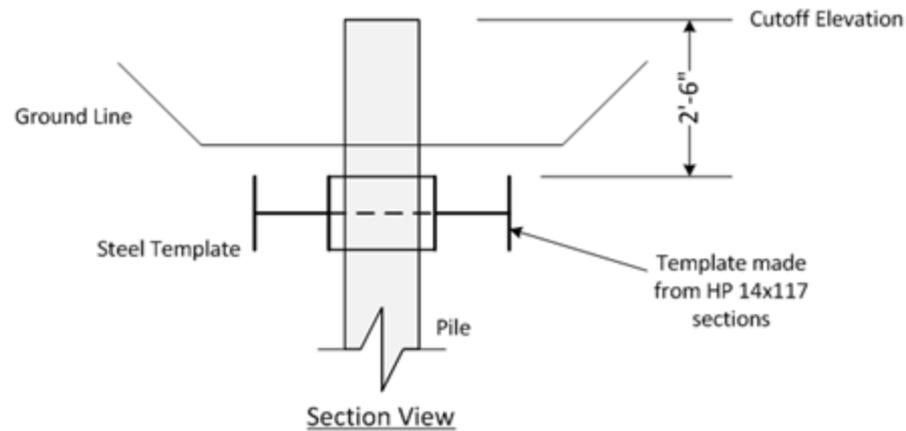
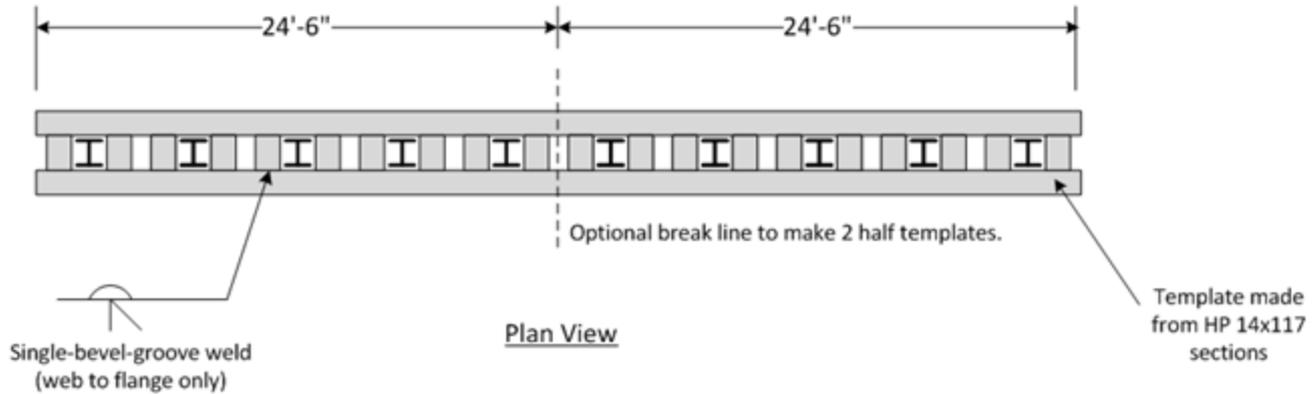






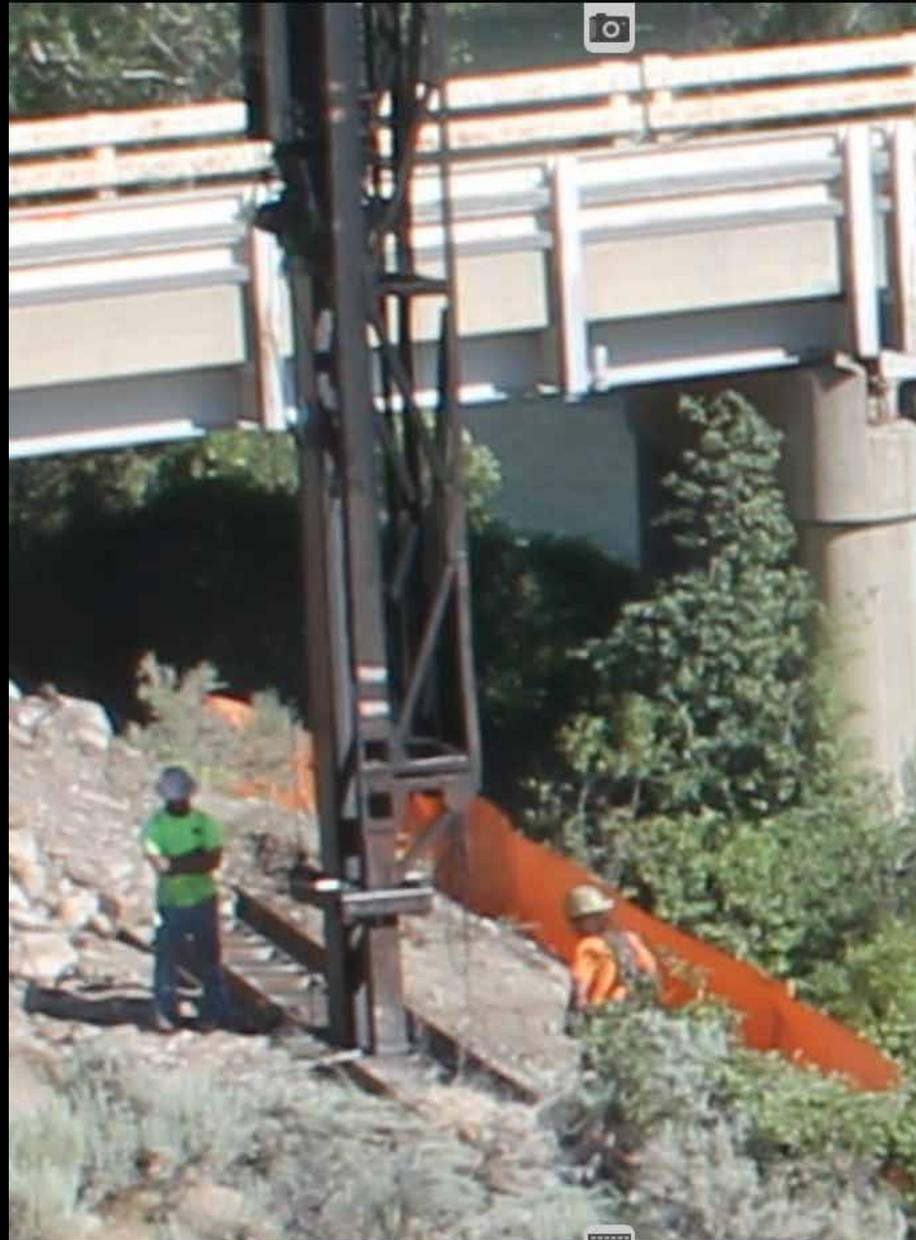
Detail of Pile Driving Template

Abutment 1, Salmon River Bridge





East Fork of Salmon River
Bridges
Camera 1
July 10, 2014 10:02 AM



East Fork of Salmon River
Bridges
Camera 1
July 14, 2014 10:02 AM



East Fork of Salmon River
Bridges
Camera 1
July 15, 2014 10:02 AM



PRECAST ABUTMENT IN PLACE



East Fork of Salmon River
Bridges

Camera 1

July 21, 2014 8:02 AM

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East Fork of Salmon River

Bridges

Camera 1

July 21, 2014 11:02 AM

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East Fork of Salmon River

Bridges

Camera 1

July 22, 2014 6:02 PM

[Home](#)





**East Fork of Salmon River
Bridges**
Camera 1
July 23, 2014 4:02 PM

[Home](#)







East Fork of Salmon River
Bridges
Camera 1
July 24, 2014 5:02 PM

[Home](#)



East Fork of Salmon River
Bridges
Camera 2
August 1, 2014 9:04 AM











**East Fork of Salmon River
Bridges**
Camera 1
August 18, 2014 12:03 PM

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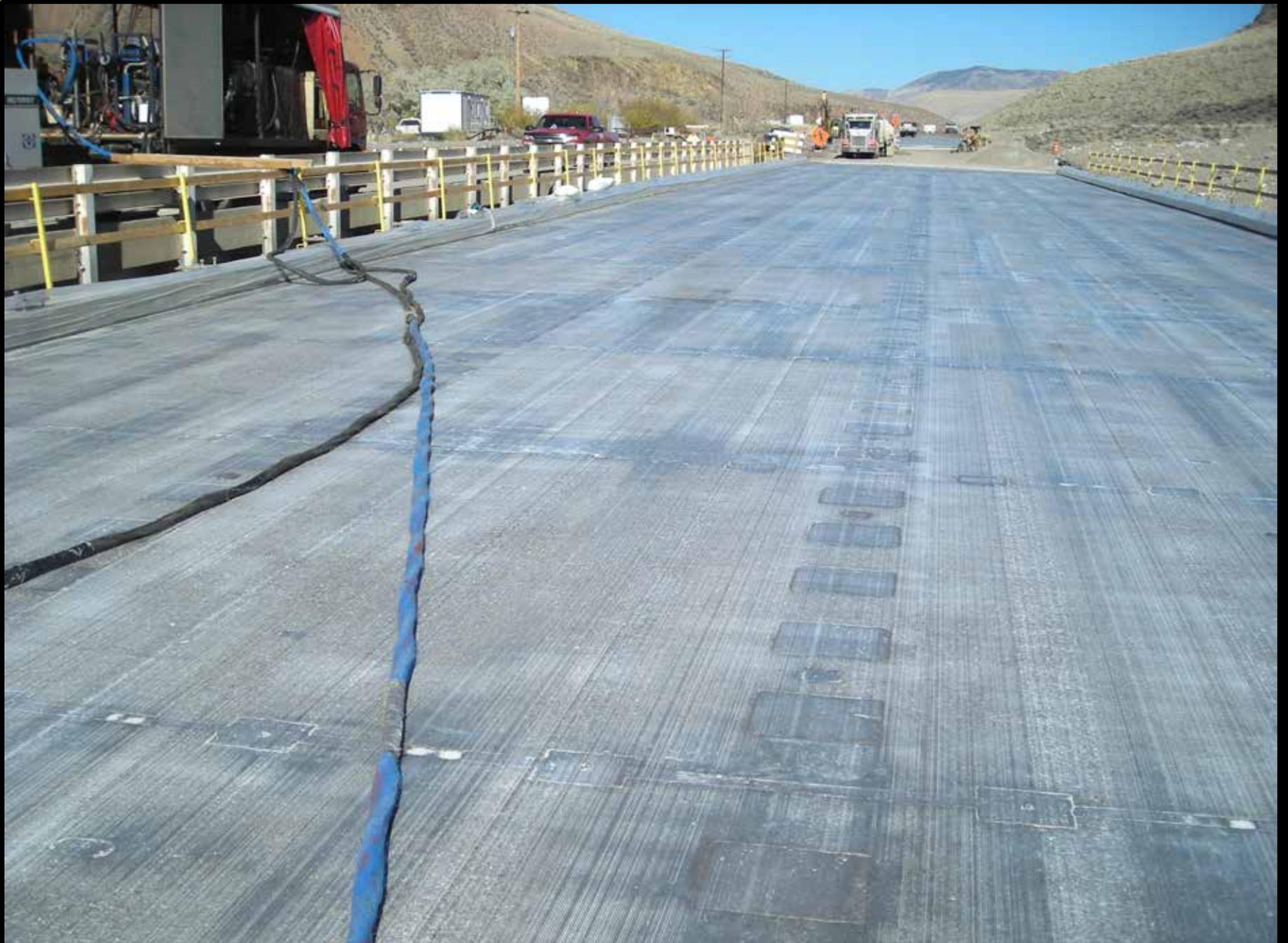


East Fork of Salmon River
Bridges
Camera 1
September 16, 2014 11:01 AM

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East Fork of Salmon River
Bridges
Camera 1
October 22, 2014 12:02 PM

[Home](#)





East Fork of Salmon River
Bridges
Camera 1
October 23, 2014 1:02 PM

[Home](#)





East Fork of Salmon River

Bridges

Camera 1

October 31, 2014 4:00 PM

[Home](#)





East Fork of Salmon River
Bridges
Camera 1
January 2, 2015 8:04 AM

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East Fork of Salmon River
Bridges
Camera 2
January 2, 2015 8:06 AM

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Cost of Conventional vs. ABC

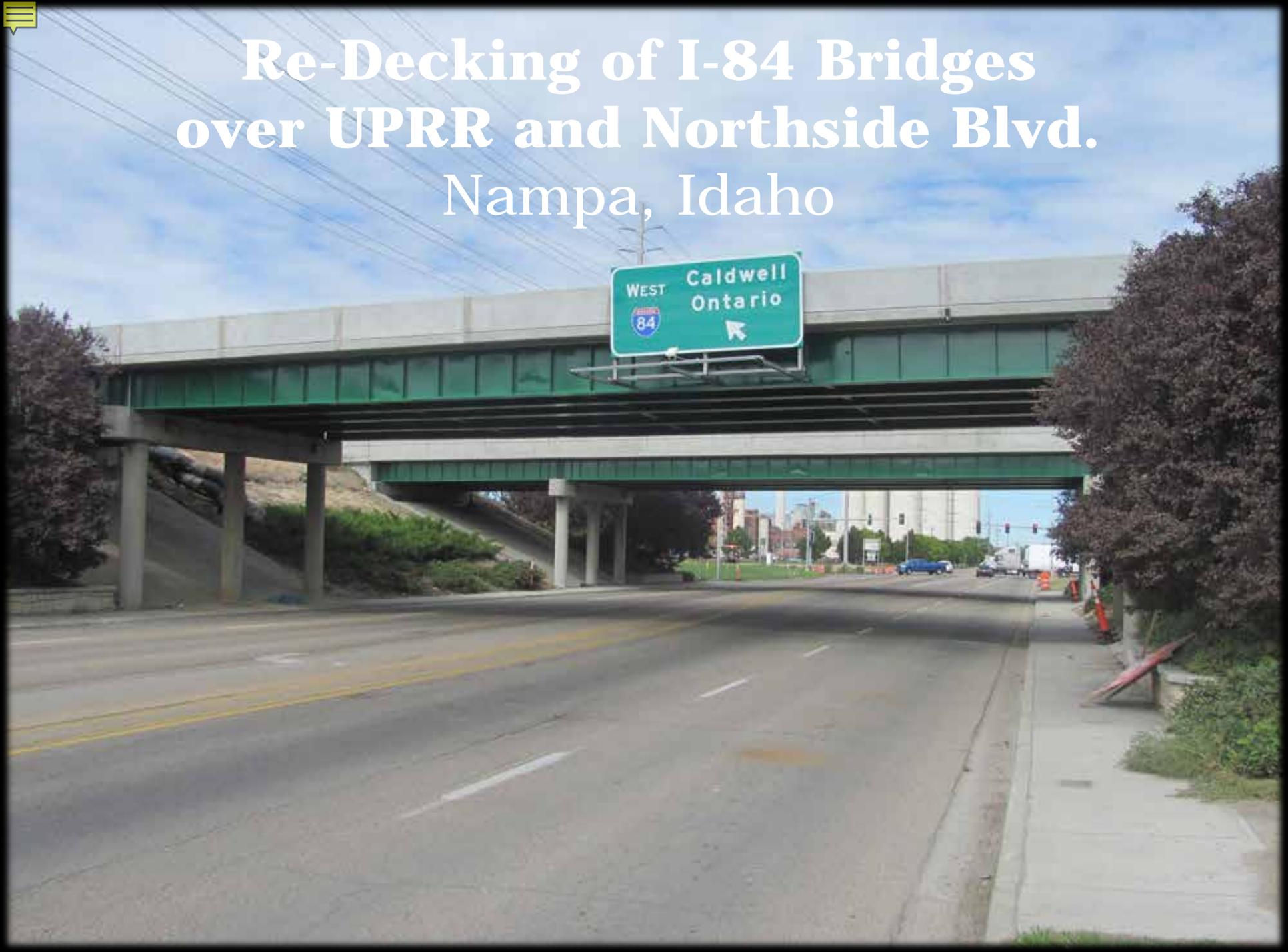
<u>Project</u>	<u>Conventional</u>	<u>ABC</u>
E. Frk. Salmon	\$160/SF	\$260/SF
Salmon River	\$220/SF	\$330/SF

Bids for bridges were about 15% higher than the engineers estimates.

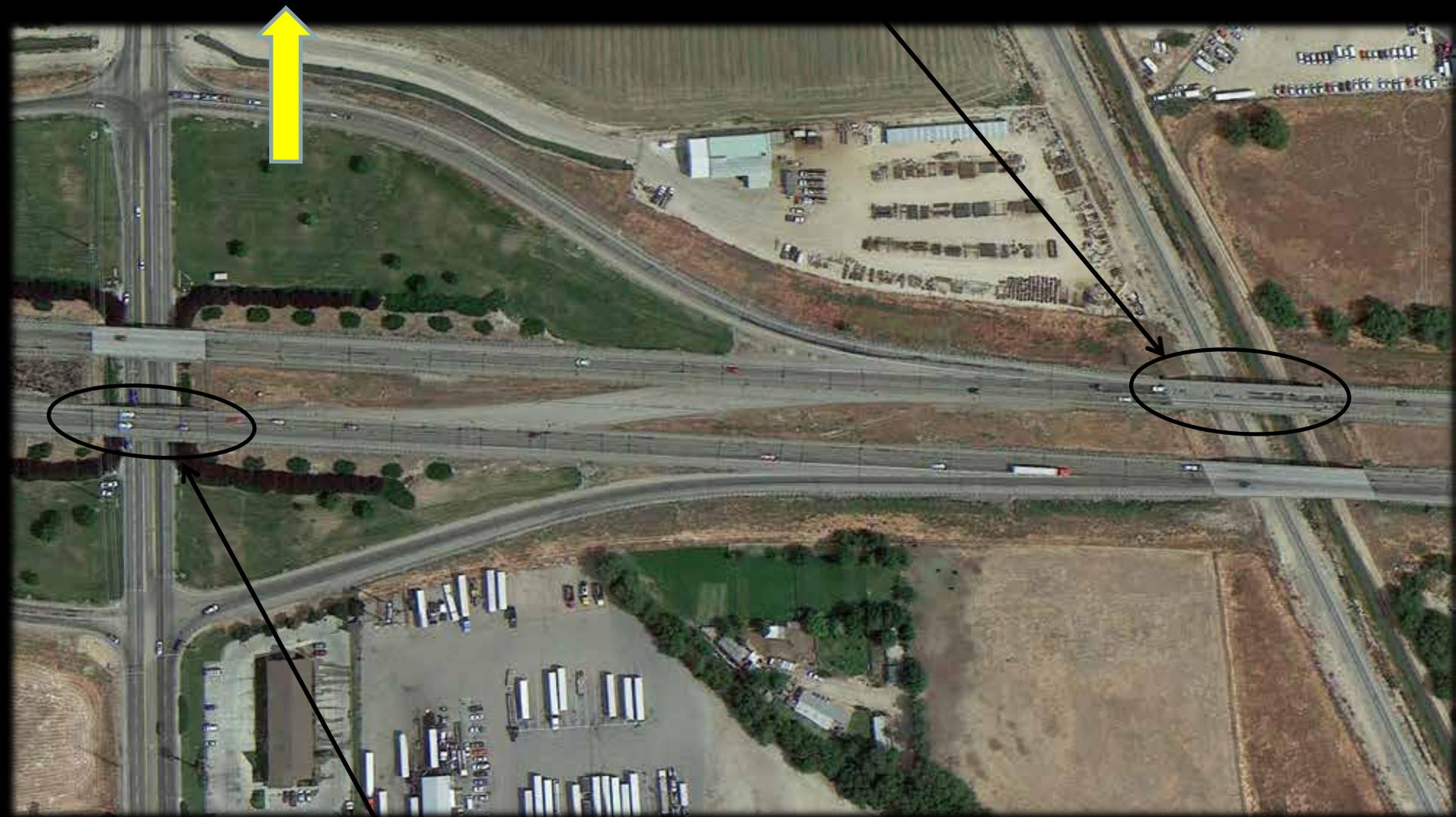
Other Cost of Conventional vs. ABC

<u>Item</u>	<u>Cost factor ABC (Pre-cast) vs. Conventional</u>
Wing Walls	3 times more
Pier Caps	1.5 to 3.5 times more
Pier Shafts	3 to 5 times more

Re-Decking of I-84 Bridges over UPRR and Northside Blvd. Nampa, Idaho









Stages 1 & 2



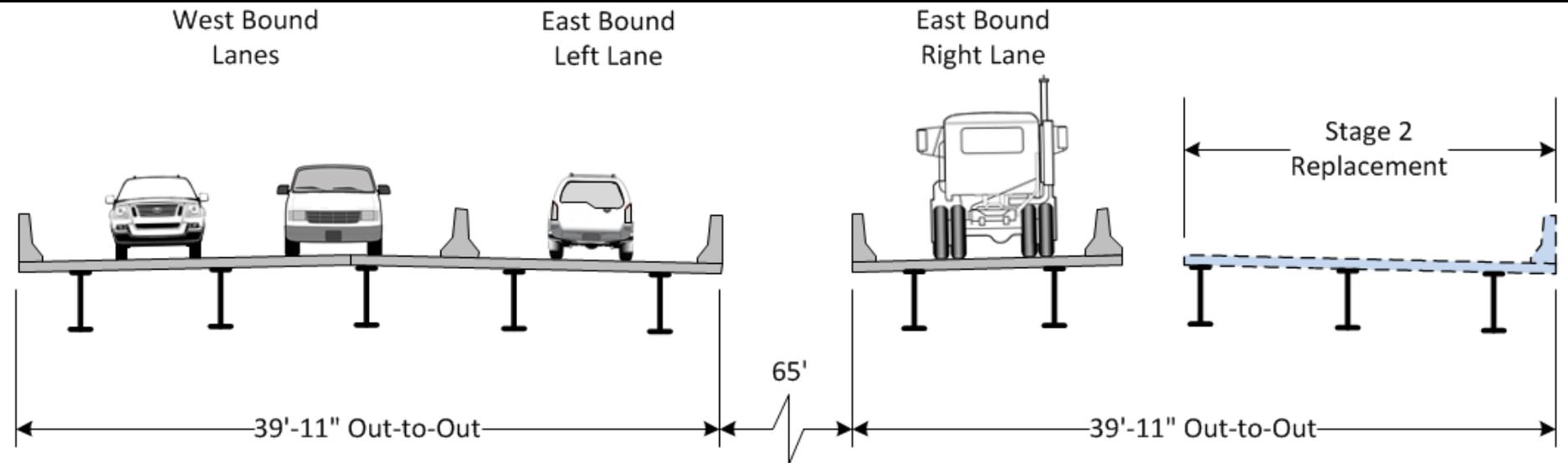
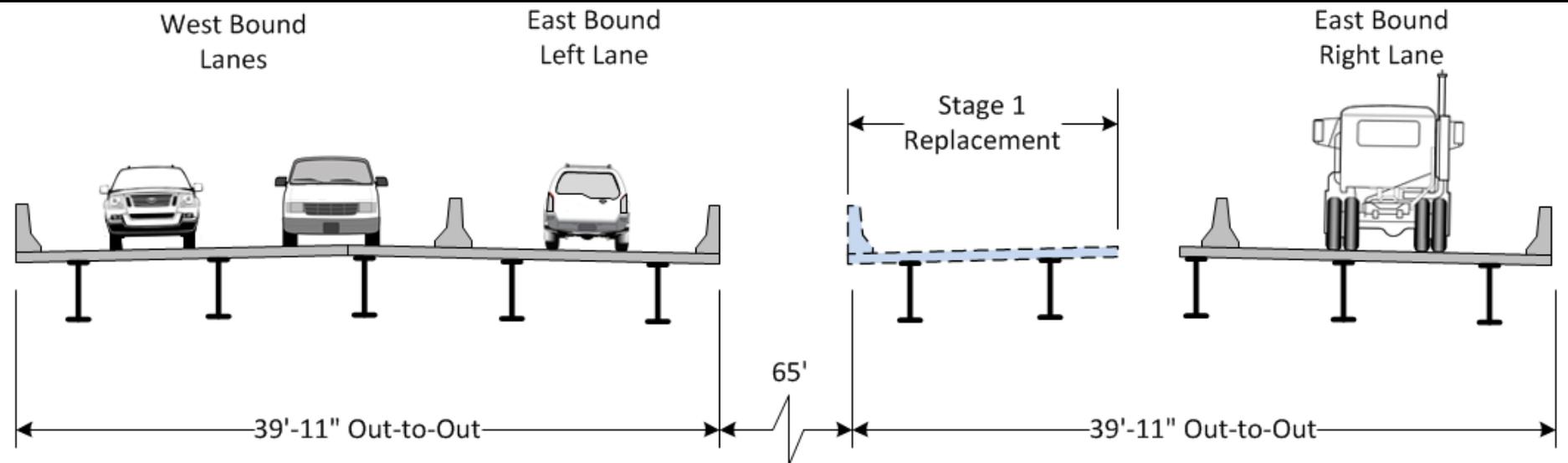
Northside
Overpass EB I-84

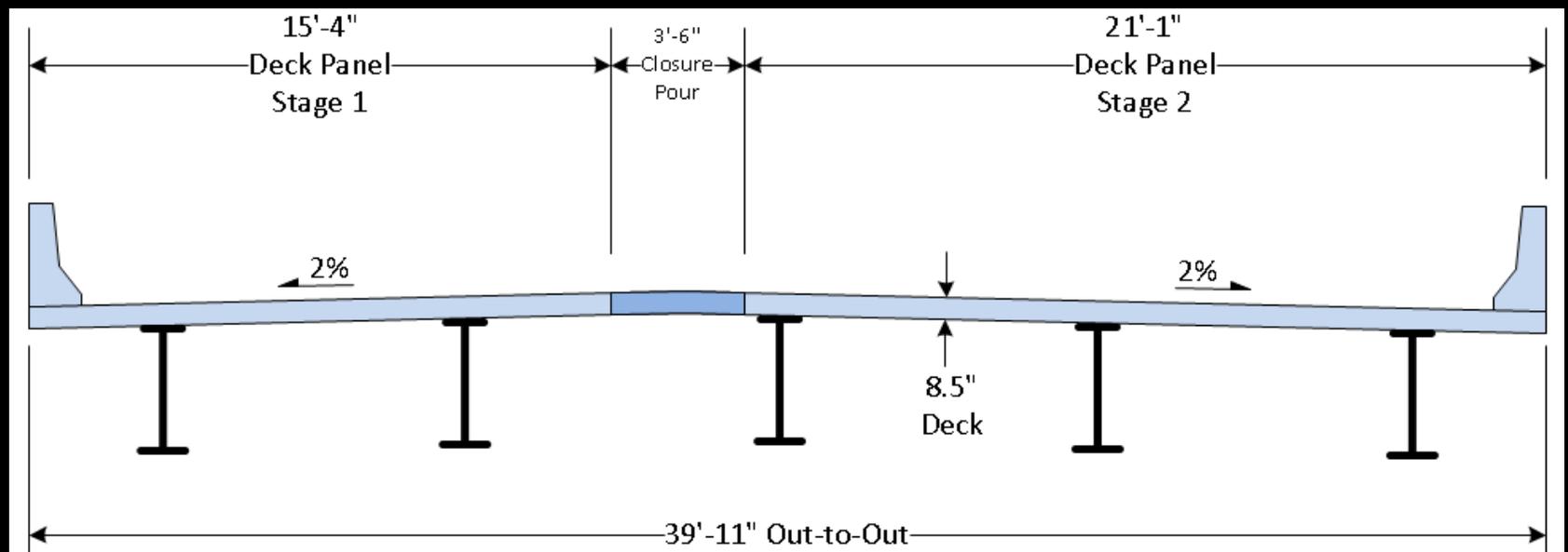
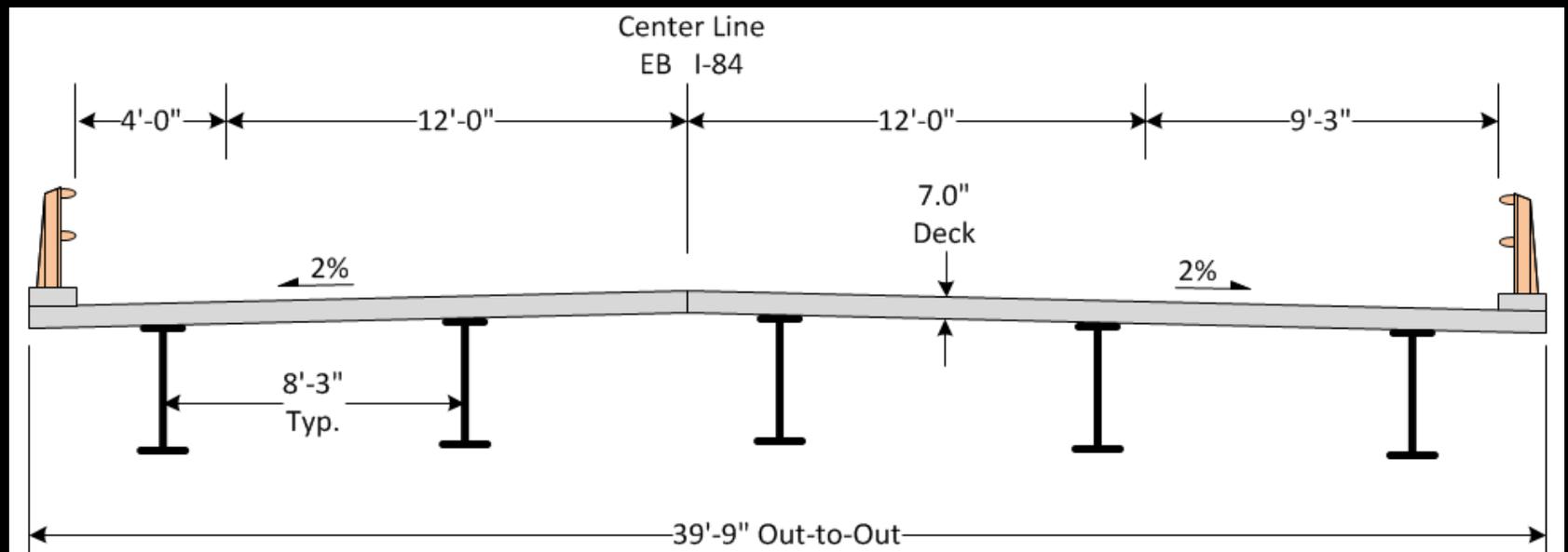
Stages 3 & 4



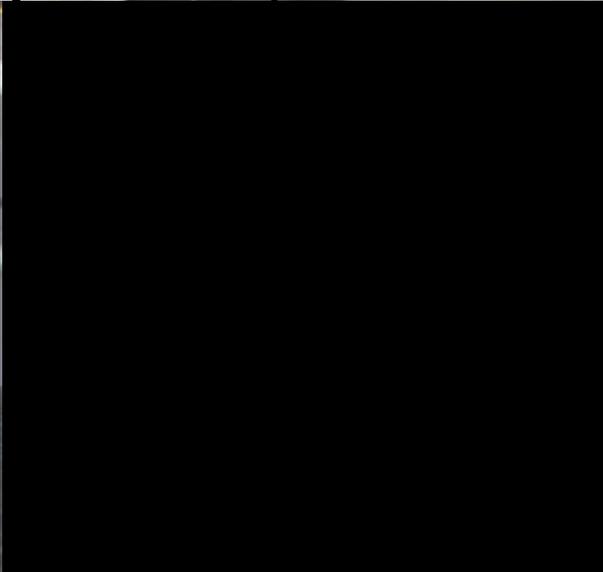
UPRR Overpass
WB I-84

I-84 carries 65,000 Vehicles per

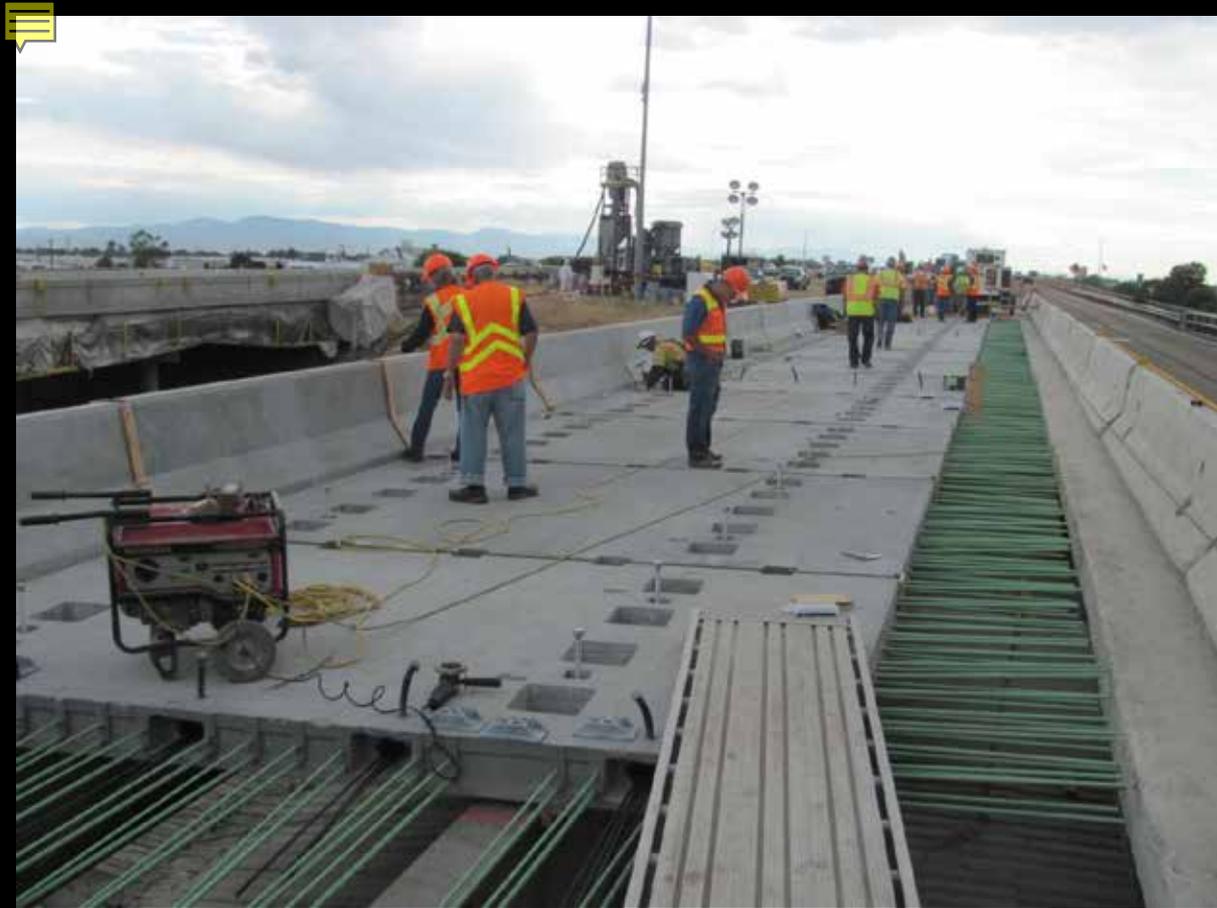












Shear Stud Blockout



P/T Duct Connection at Panel Joint



Concrete Rail Connection



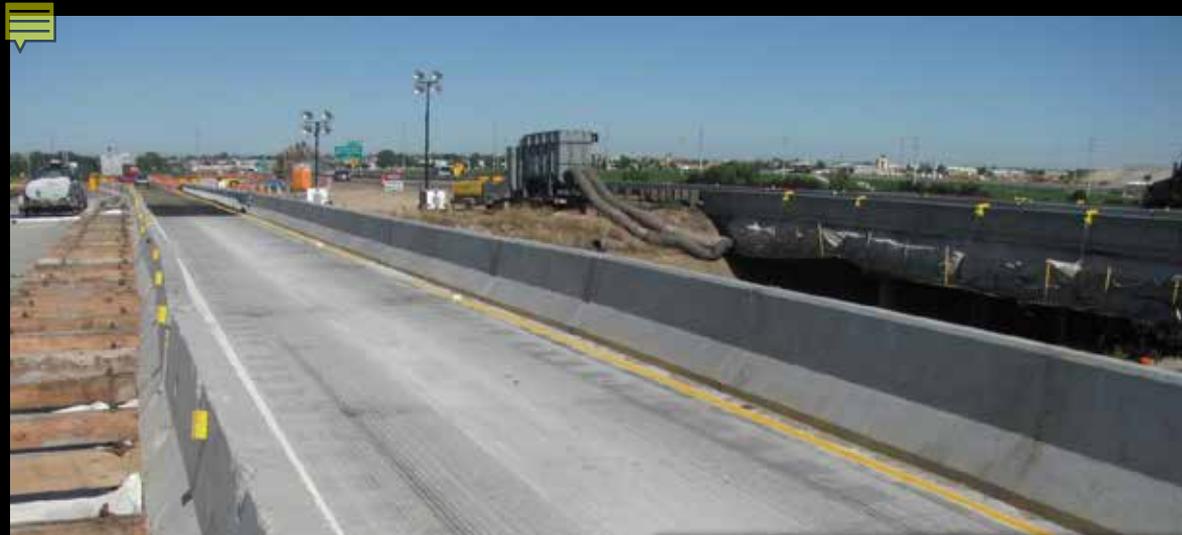
P/T Anchorage

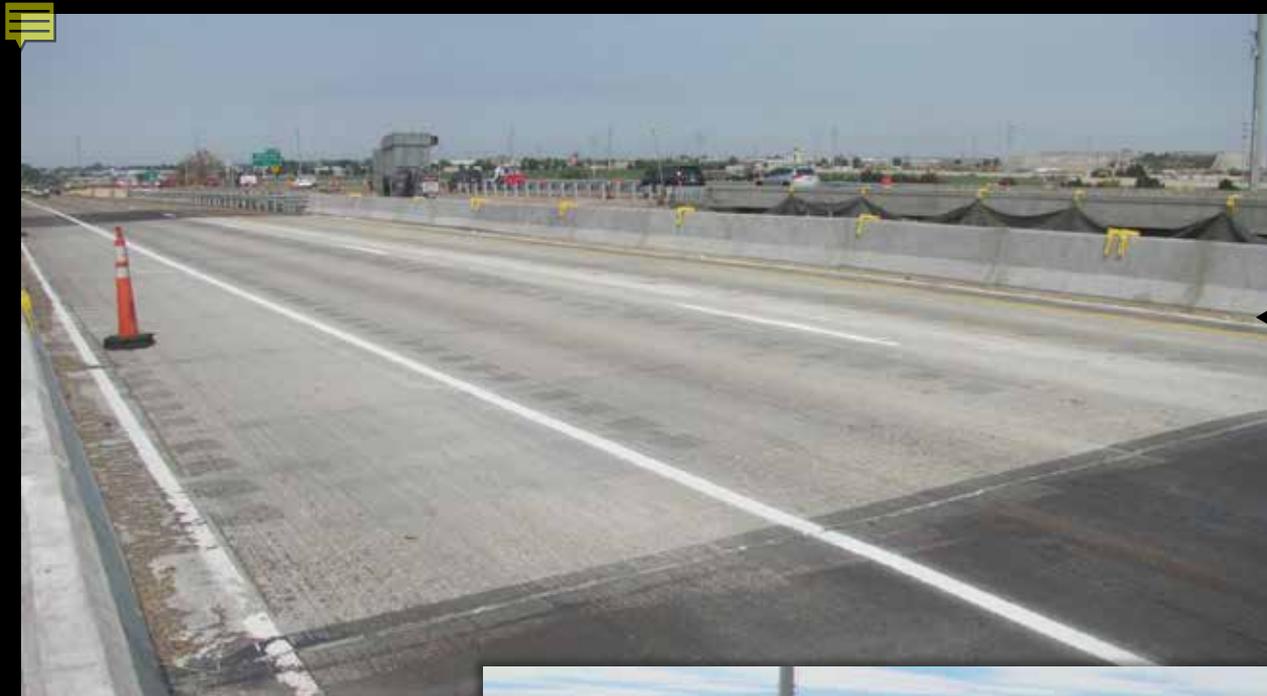


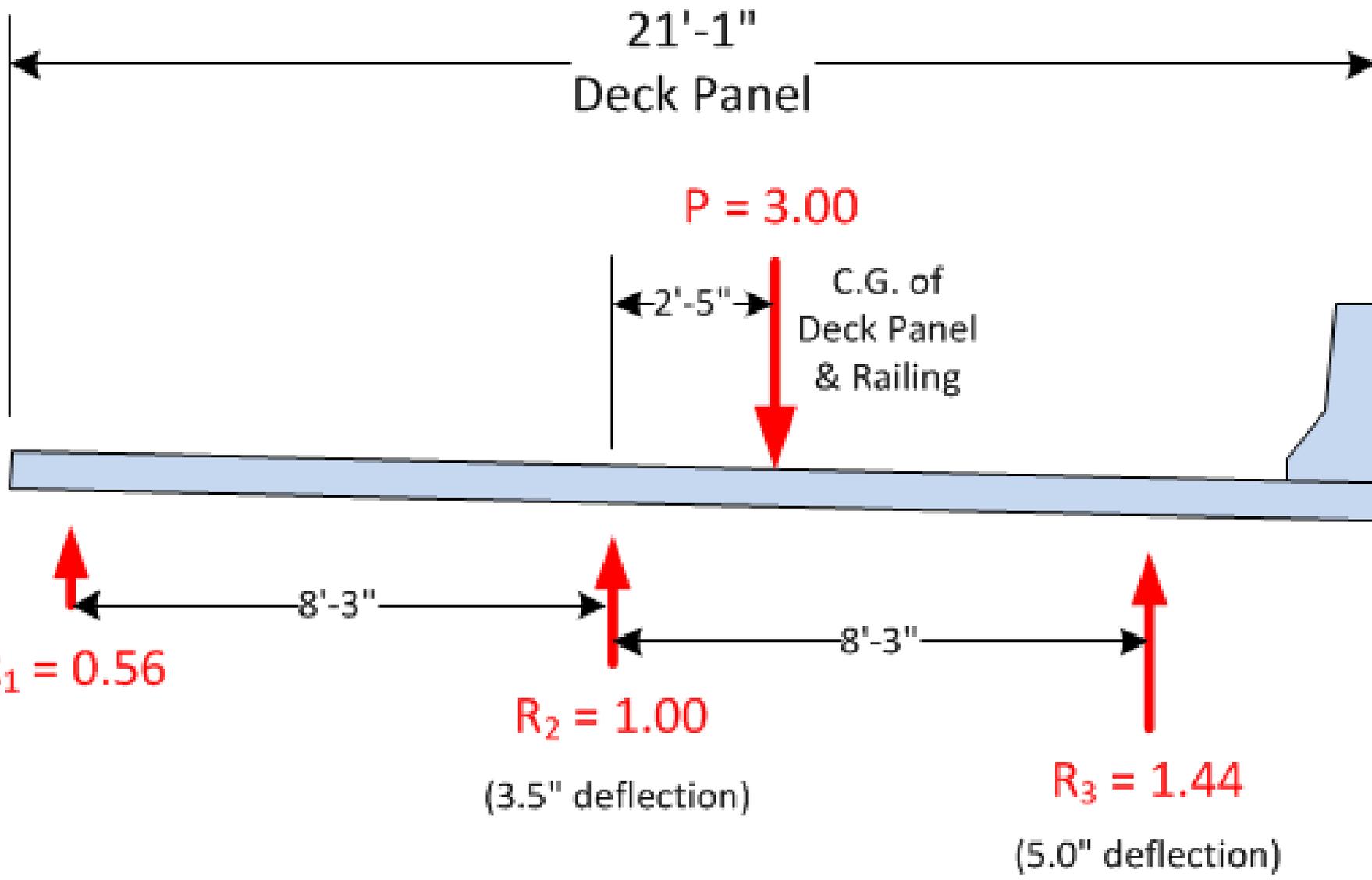














Idaho's First ABC Bridges

(before we knew what ABC was)

- 1974 – Palouse River on SH-6
 - » Precast Abutments (pile caps)
- 1980 – The Long Bridge near Sandpoint
 - » Precast Pile Caps at all Piers
- 1995 – Lightning Creek
 - » Precast Deck Panels
- 1998 – Dover Bridge over BNSF
 - » Precast Deck Panels





13 FT. 3 IN.
↓

LIGHTNING
CREEK





10/18/2007





Recent PBES Projects

- Blackcat Rd. over I-84, 2009
 - Precast Columns, Pier Caps, Girders
- Robinson Rd. over I-84, 2009
 - Precast Columns Pier Caps, Girders
- Vista I.C. over I-84, 2010
 - Precast Pier Caps, Girders
- Johnson Creek Bridge, 2012
 - Precast Abutments, Wings, & Girders w/Deck























NARROW
STEEP
ROAD

TRUCKS
USE LOWER
GEAR



ZILLAH
Hauling Service
SPOKANE, WASH.
CC-2557

8L



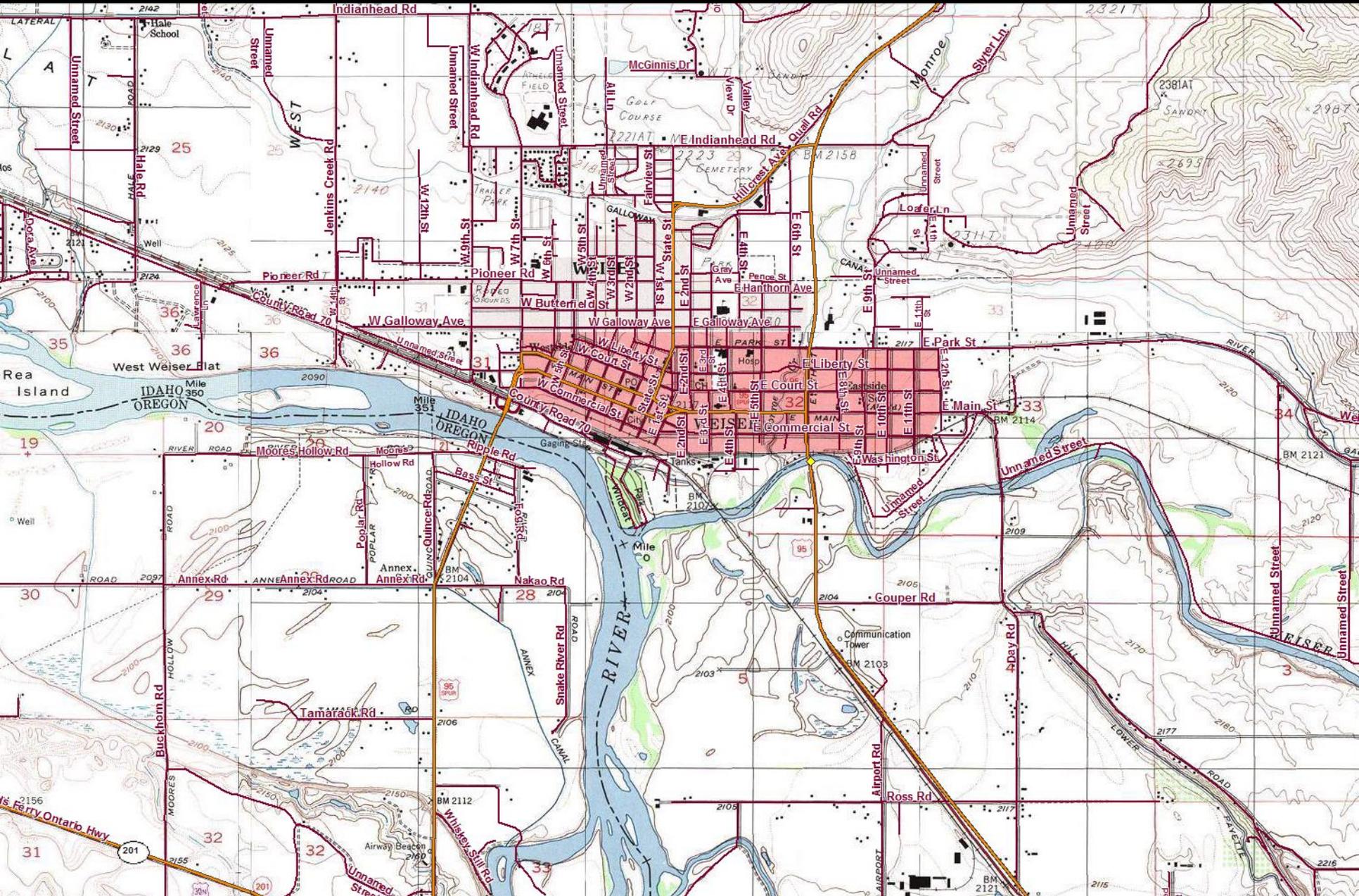




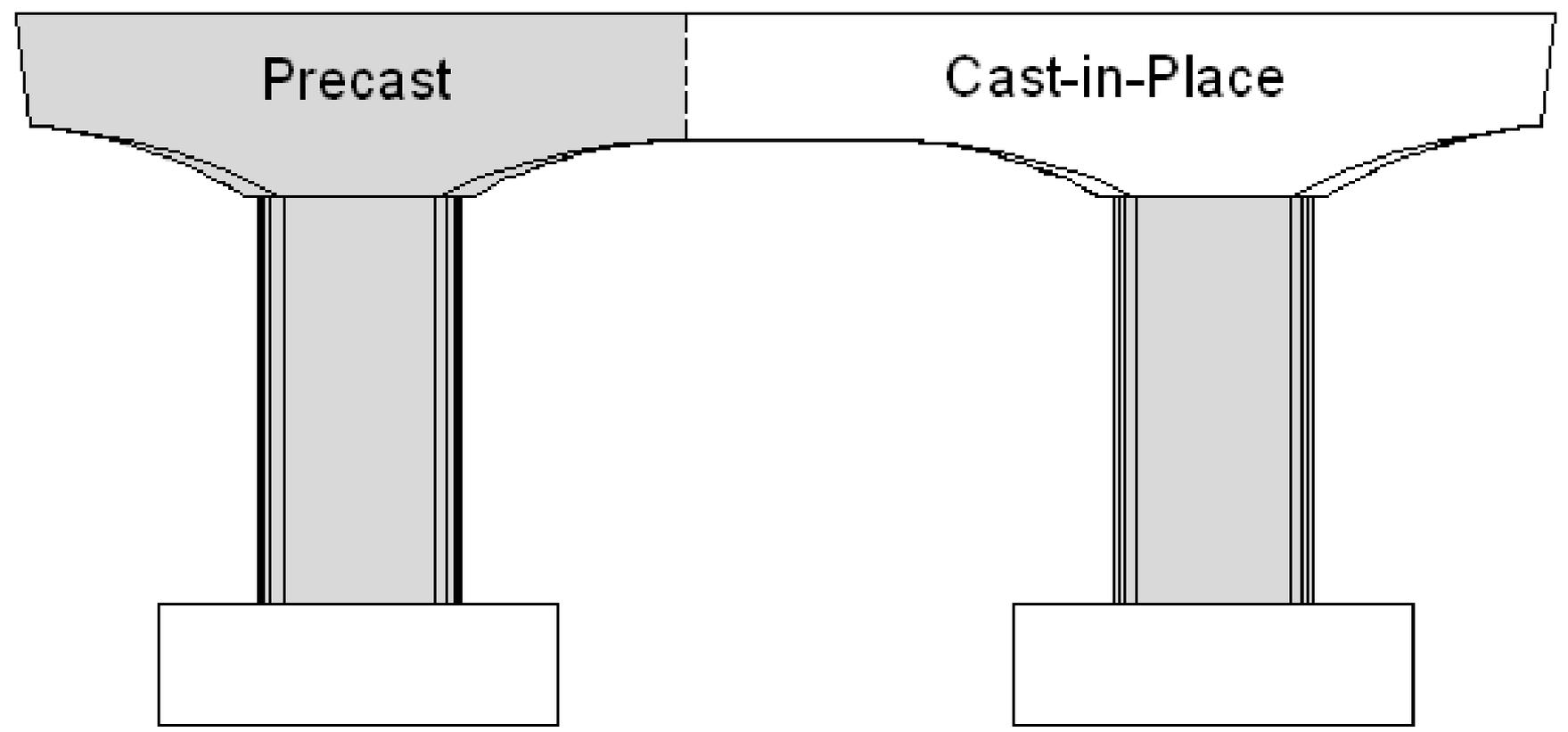


Projects Under Construction

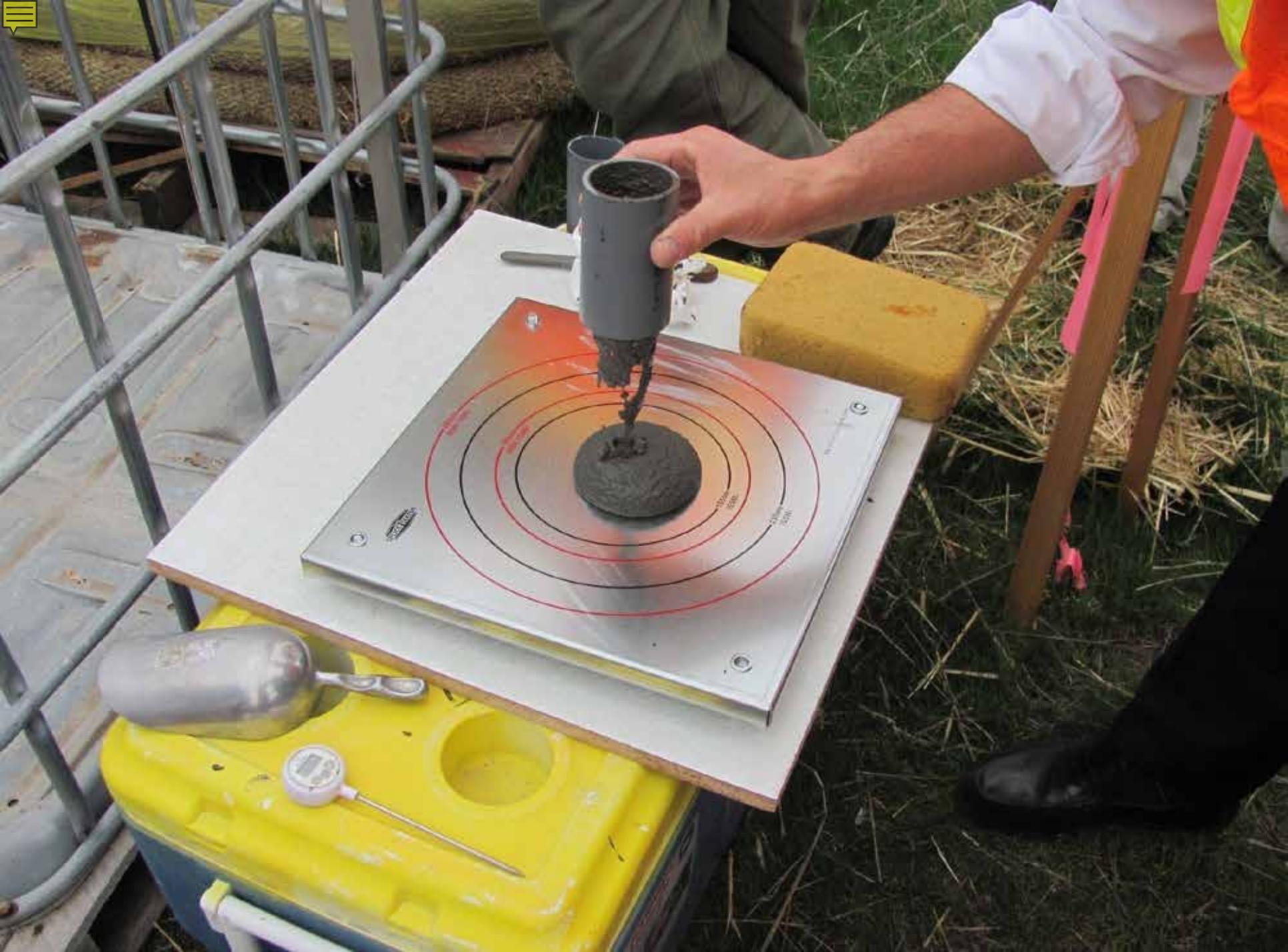
- Weiser River Bridge, US-95
 - Precast Columns and Pier Caps
- Trestle Creek Bridge, SH-200
 - Precast Abutments and Girders













SAFETY

285mm
(SSM 120M)

185mm
(SSM 120M)

235mm
(SSM)

SAFETY























ialoo



STR
A Professional
Trenching











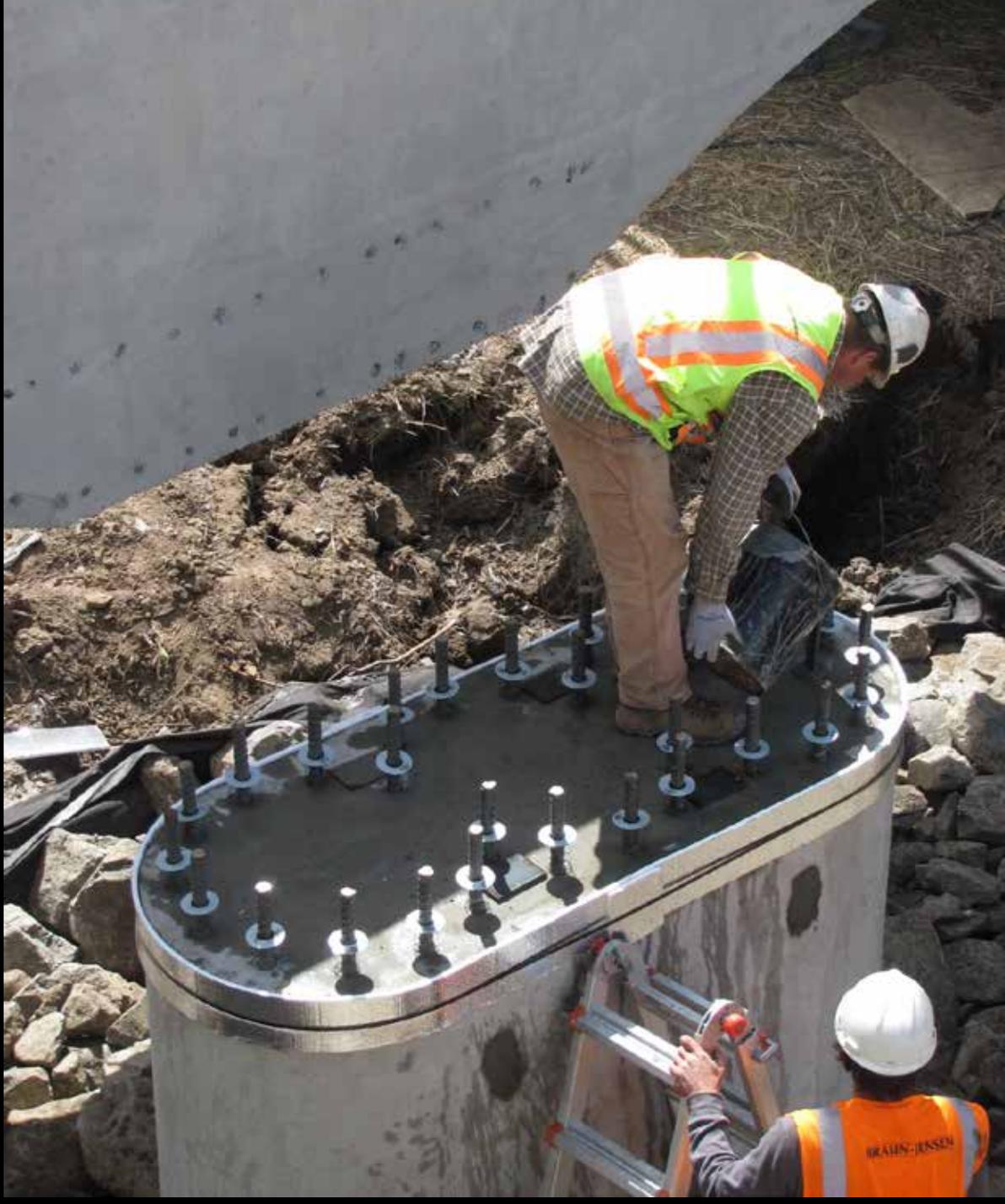
SEL STR

























TRESTLE
CREEK











07/22/2013 10:20



07/22/2013 10:59



07/22/2013 14:33



07/22/2013 11:24



07/23/2013 09:59



07/23/2013 13:12



07/23/2013 10:38



07/26/2013 13:51



07/26/2013 13:57



07/26/2013 15:49



07/26/2013 17:24



08/09/2013 07:39



08/29/2013 11:27

Cost of Cast-In-Place vs. Precast

<u>Project</u>	<u>CIP</u> <u>(includes rebar)</u>	<u>Precast Items</u>
Weiser Rv.	\$735/yd ³	\$2400/yd ³
Johnson Cr.	\$1300/yd ³	\$1300/yd ³
Trestle Cr.	\$650/yd ³	\$1500/yd ³
Swan Cr.	\$1300/yd ³	\$1500/yd ³