

Western Bridge Engineers' Seminar
September 3, 2015

Salt Creek Half Viaducts

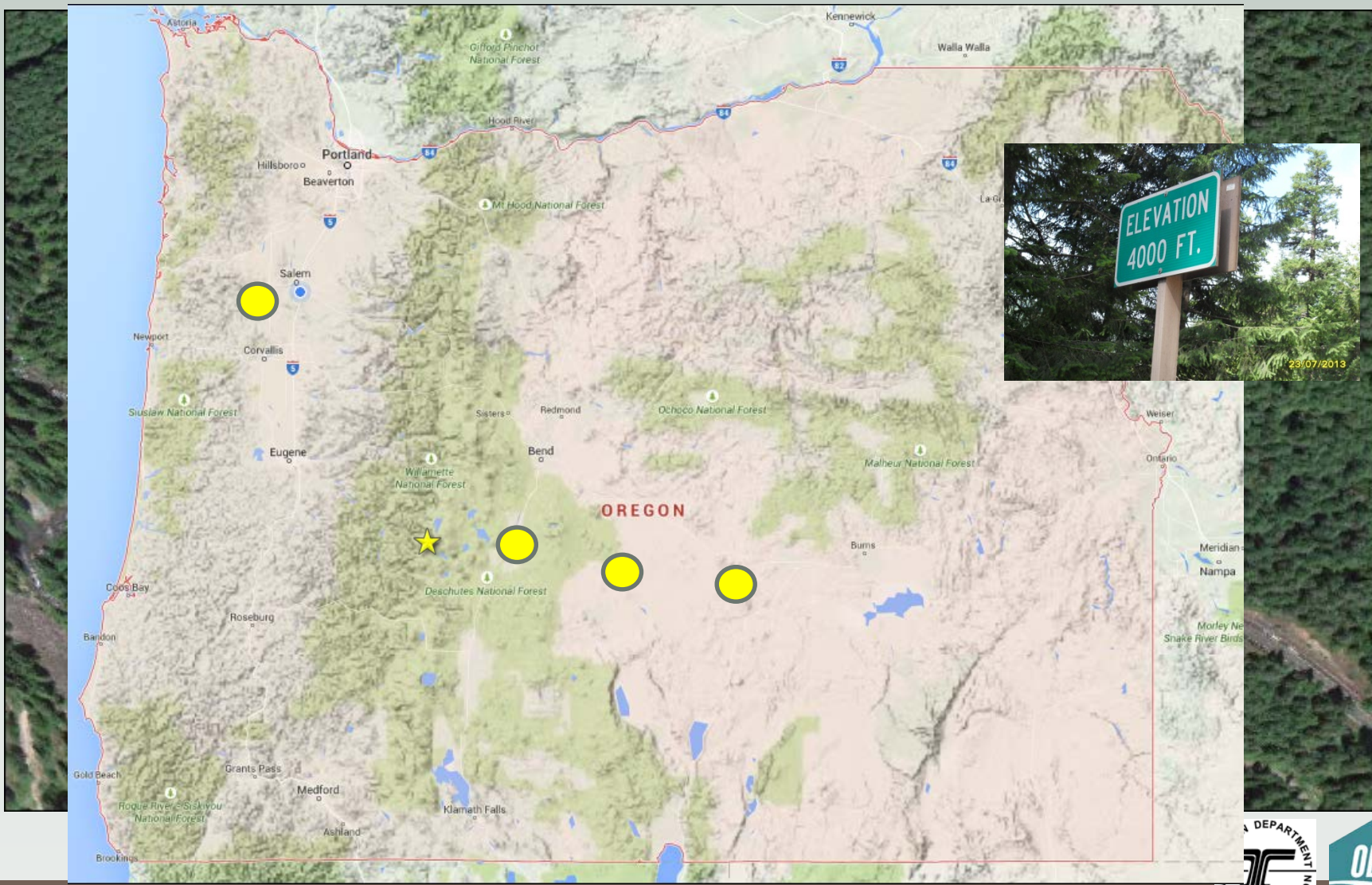


Bob Goodrich, PE
OBEC Consulting Engineers

Presentation Overview

- **Project Background**
- Phase 1 Design and Construction
- Phase 2 Design
- Phase 2 Construction

Project Background: Scope and Location



Project Background: Design Constraints

- Freight traffic
- Tunnel portals
- Limited access
- Snow zone
- Historic features



Presentation Overview

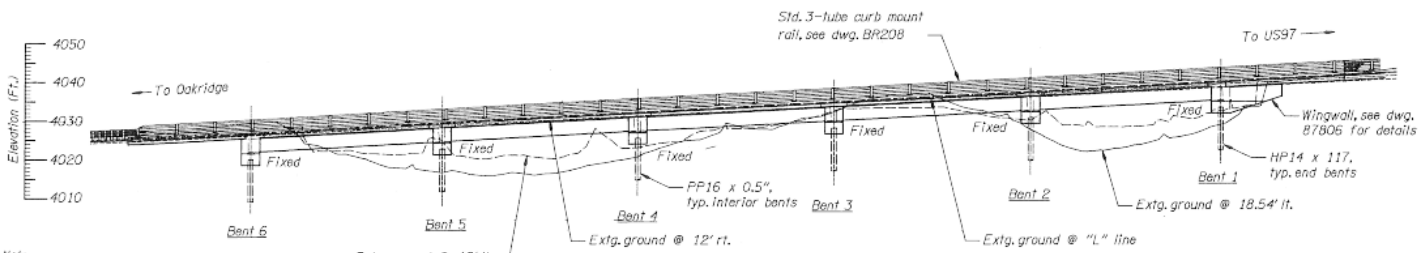
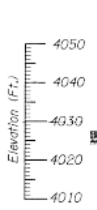
- Project Background
- **Phase 1 Design and Construction**
- Phase 2 Design
- Phase 2 Construction

Phase 1: Design Overview

- PS&E Completed by ODOT in 2011
- Low bid process for contractor selection
- Scope of improvements
 - Rebuild four half viaducts
 - Lower the tunnel floor
 - Repair and seal the tunnel liner
 - Install a new VMS
 - Repair tunnel lighting
 - Install new signs

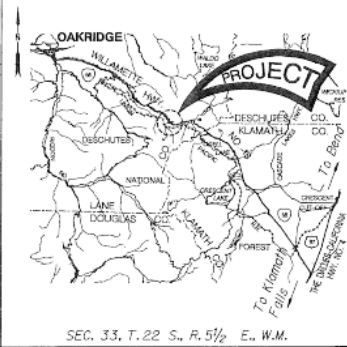


Phase 1: Design Overview

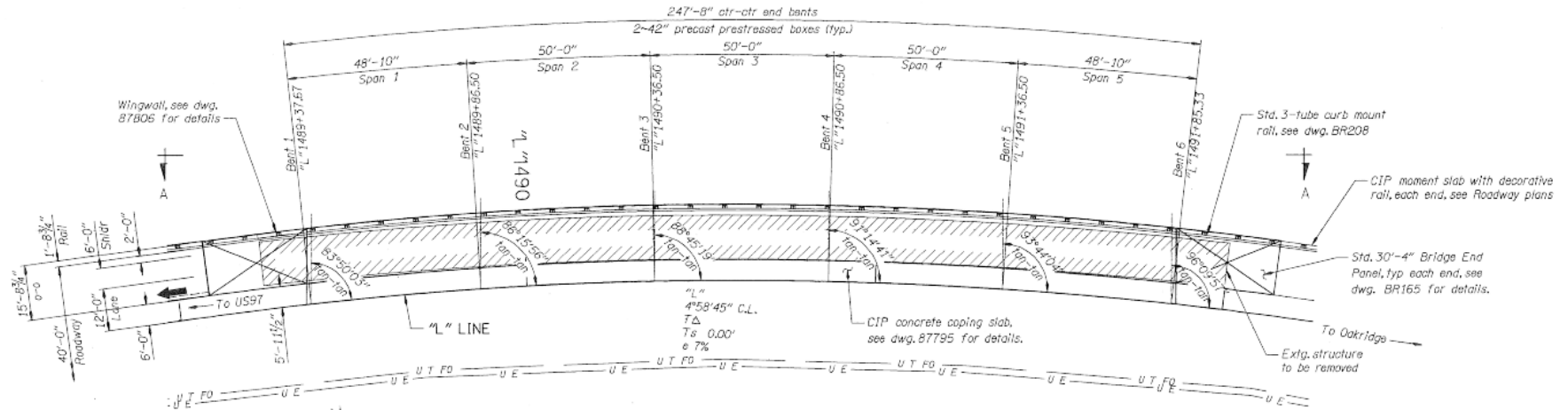


Notes:
Elevations shown are based on North American Vertical Datum, 1988.

VIEW A-A (Looking north)
Scale: 1"=15'



LOCATION MAP
No Scale



PLAN
Scale: 1"=15'

NOTES:
Bents are parallel.
For "General Notes", see dwg. 87792.

See dwgs. 68519, 68522, 68523 & 68524 for information only.

SCALE WARNING
If scale bar doesn't measure one inch, then drawing is not to scale

Replaces structure no. 07185

DATE	REVISION	BY

ACCOMPANIED BY DWGS. See dwg. 87770

DRAFTER: Sandra Gish DESIGNER: Richard E. Hart CHECKER: Hardy L. J. (Convergent Pacific) REVIEWER: Al H. Heyn
--



OREGON DEPARTMENT OF TRANSPORTATION

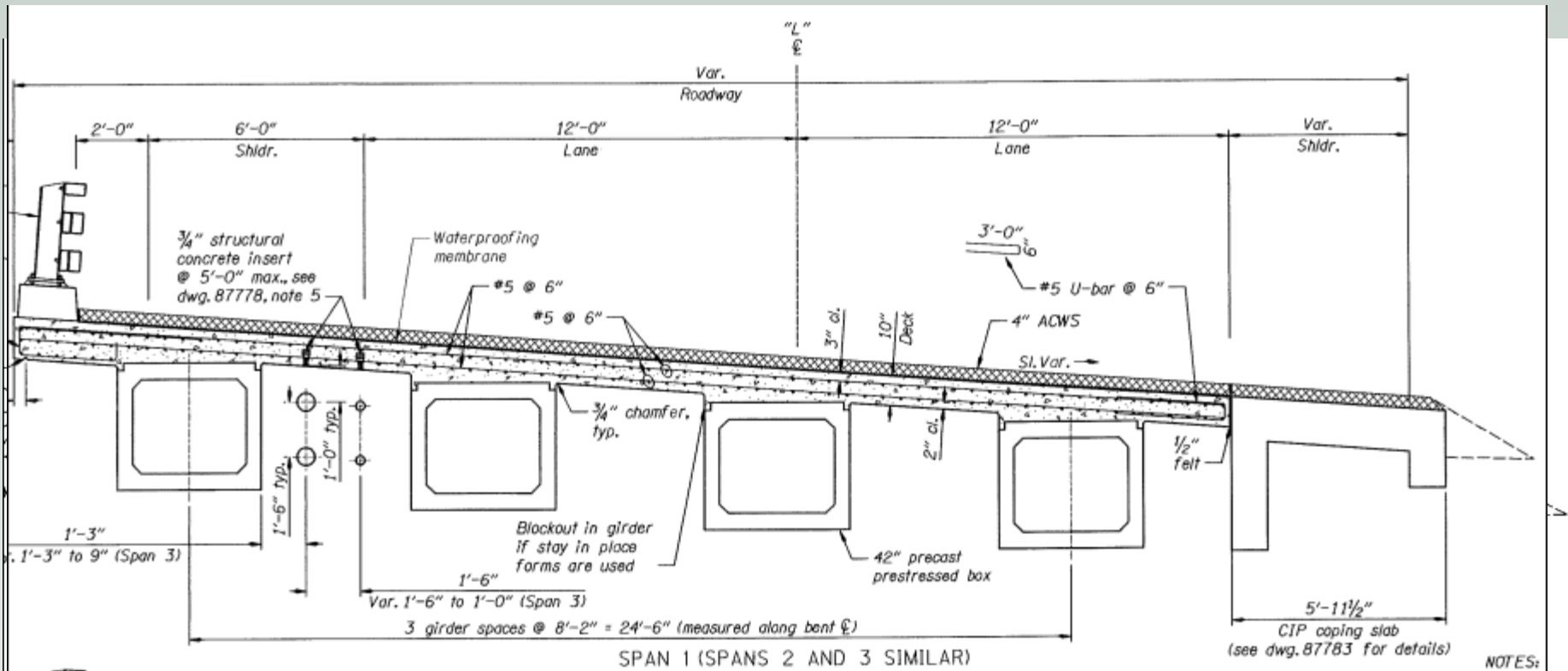
REGION 2 TECH CENTER

STRUCTURE NO. 21568
DATE Nov 2011
CALC. BOOK 6456

HALF VIADUCT, HWY 18 AT MP 56.23 OR58; SALT CREEK TUNNEL & HALF VIADUCTS - BUNDLE 257 SEC. WILLAMETTE HWY. (M.P. 56.23) LANE CO.	SHEET 1 OF 16
PLAN AND ELEVATION	DRAWING NO. 87791

Phase 1: Design Overview

- Typical configuration



Phase 1: Construction

2012 & 2013 summer construction

- Tunnel rehabilitation completed
- Bridge construction not completed



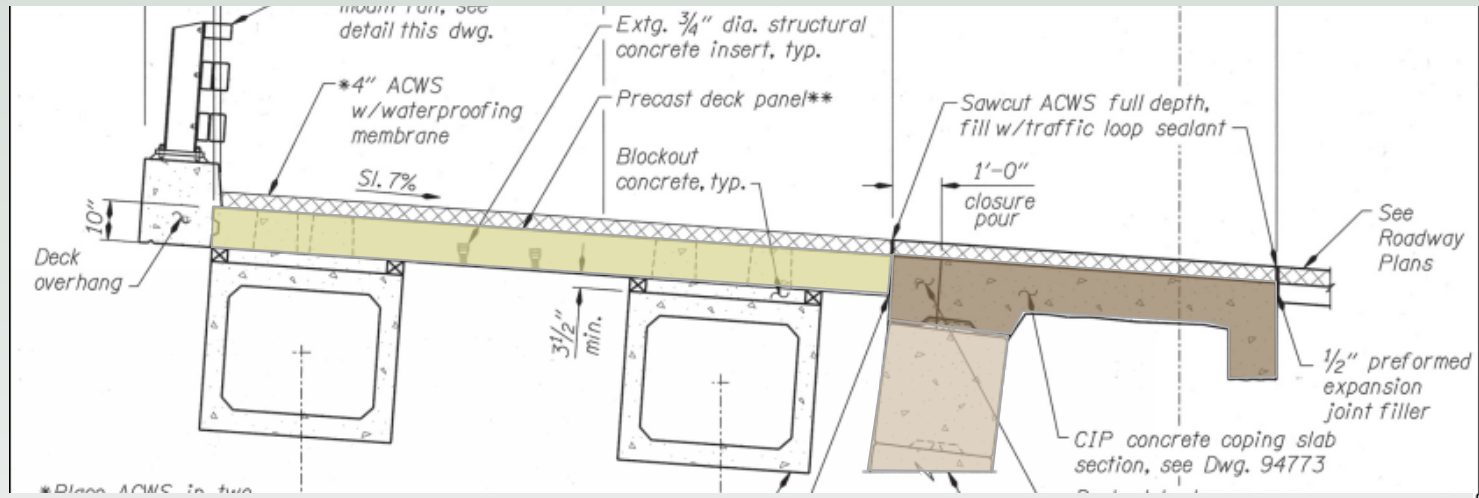
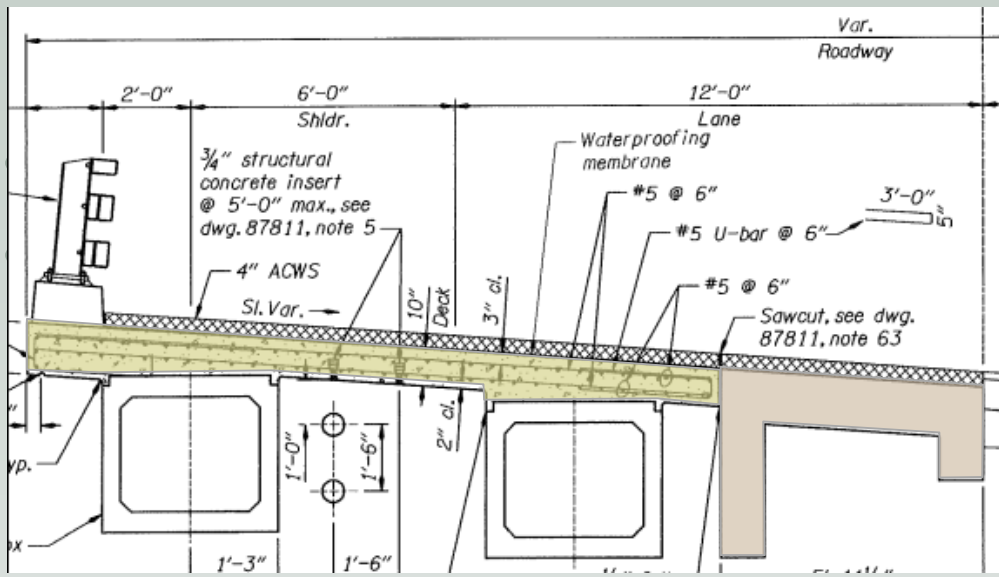
Phase 1: Construction

Contractor Redesign

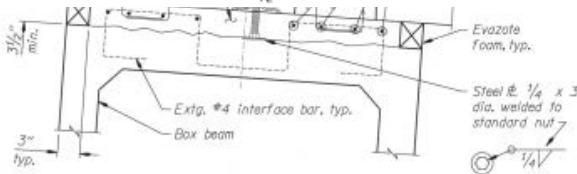
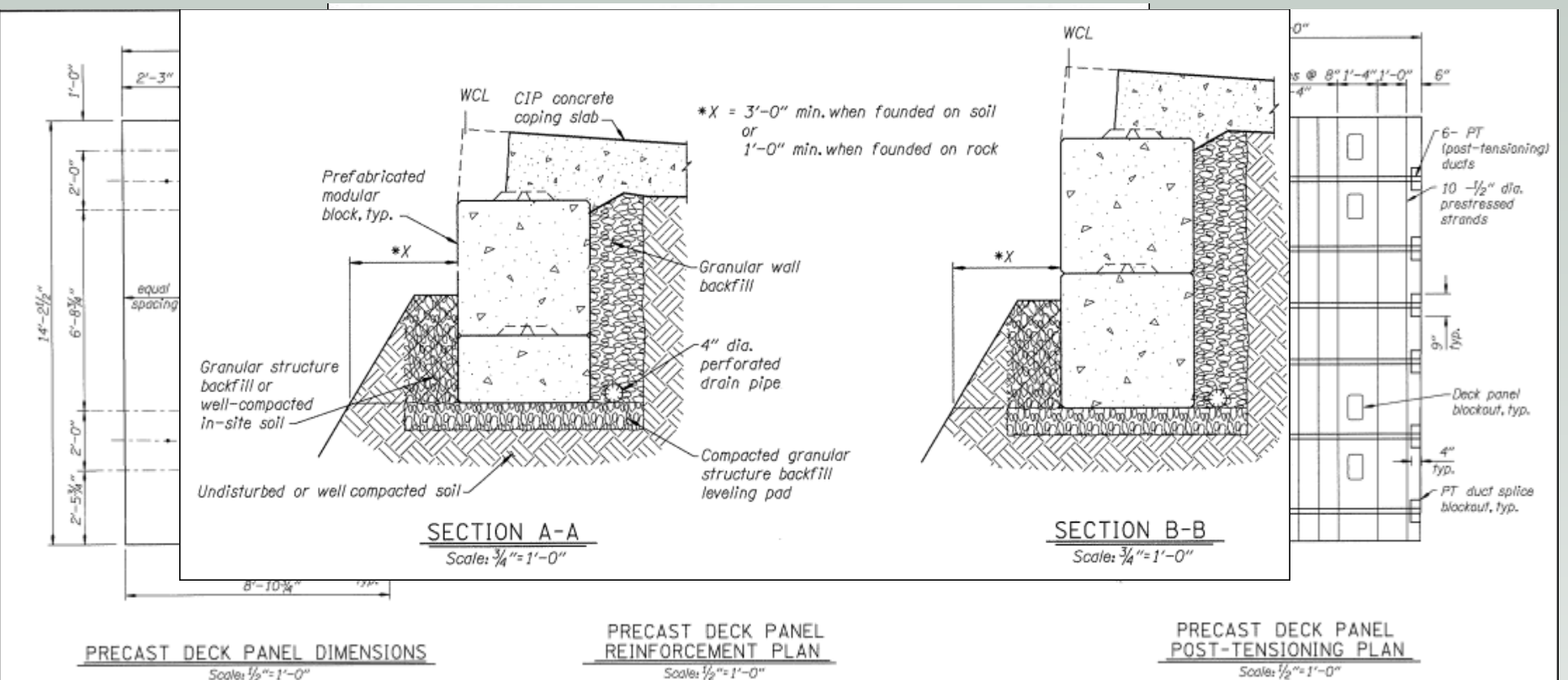
- Precast components
- Save time and reduce risk



Phase 1: Precast Elements



Phase 1: Precast Elements



WARNING:
 IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.



Phase 1: Construction



Presentation Overview

- Project Background
- Phase 1 Design and Construction
- **Phase 2 Design**
- Phase 2 Construction

Phase 2: The Intermission

- Fall 2011: PS&E Completed by ODOT
- Spring 2012: Construction starts
- Summer 2013: Project delayed one year
- Spring 2014: ODOT and Contractor negotiate contract termination
- Summer 2014: OBEC selected to repackage the PS&E

Phase 2: Design Elements

- Best Value Contracting
- Complete construction two bridges
- Replace two bridges



Phase 2: Design Elements

- Rehabilitate historic electrical power room
- New retaining wall
- Signing, paving and striping



Phase 2: Partially Completed Bridges



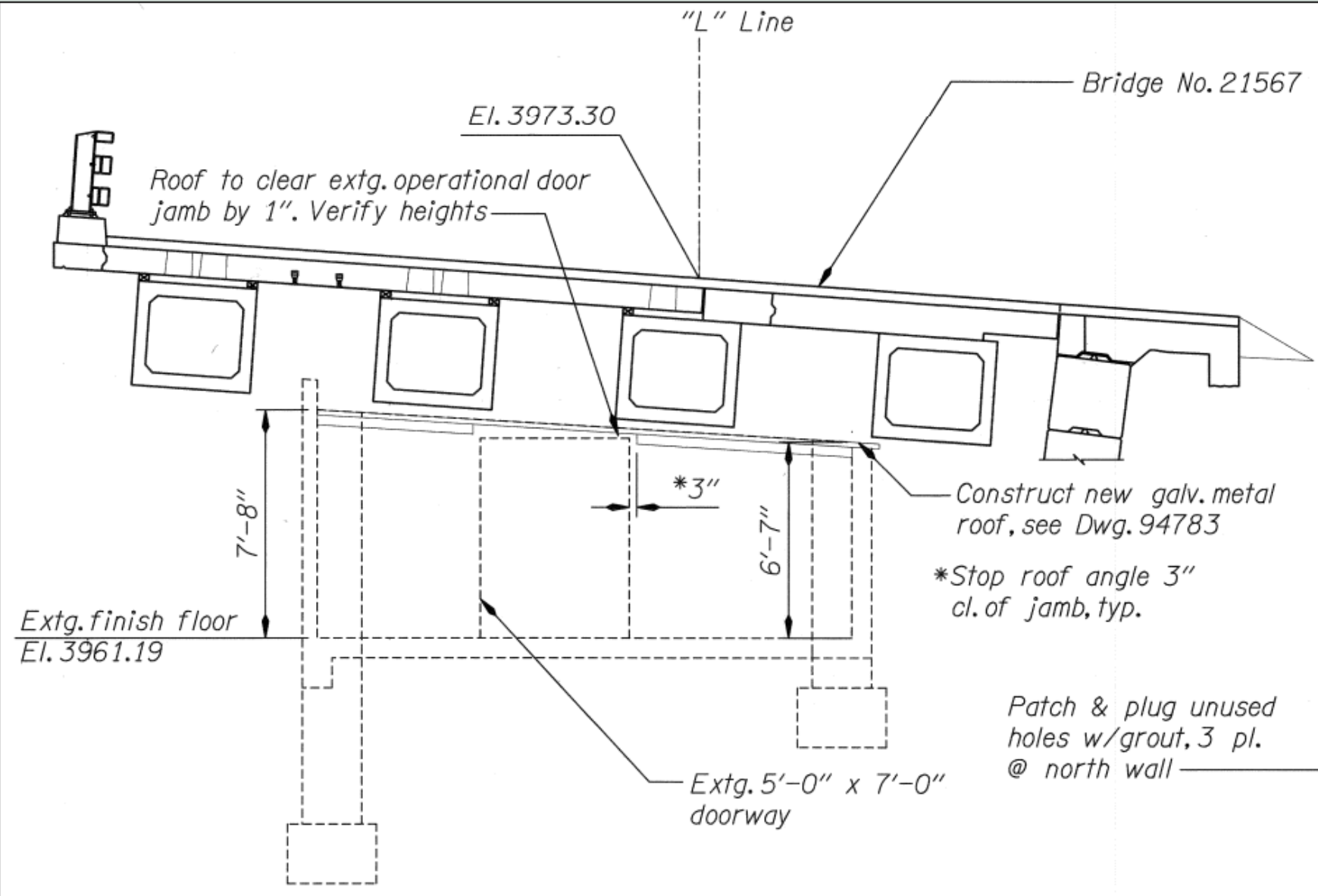
Phase 2: Replace Bridges



Phase 2: Historic Electrical Room



Phase 2: Design Elements



WARNING:
THIS BAR DOES
NOT MEASURE 1"
IN DRAWING IS
NOT TO SCALE.

of
Bent 2

2	SHEET OF 8
DRAWING NO. 94777	

Presentation Overview

- Project Background
- Phase 1 Design and Construction
- Phase 2 Design
- **Phase 2 Construction**

Phase 2: East Side Construction



Phase 2: West Side Construction





Questions

