

CHAMBERS COVERED RAILROAD BRIDGE

85-foot-long
single-span
Howe truss

Bridge Location:
Cottage Grove,
Oregon

Bridge Owner:
City of Cottage
Grove



International Conference on Timber Bridges, 2013

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OBEC Consulting Engineers



BUILT IN 1925 TO CARRY TRAINS ACROSS THE COAST FORK OF THE WILLAMETTE RIVER



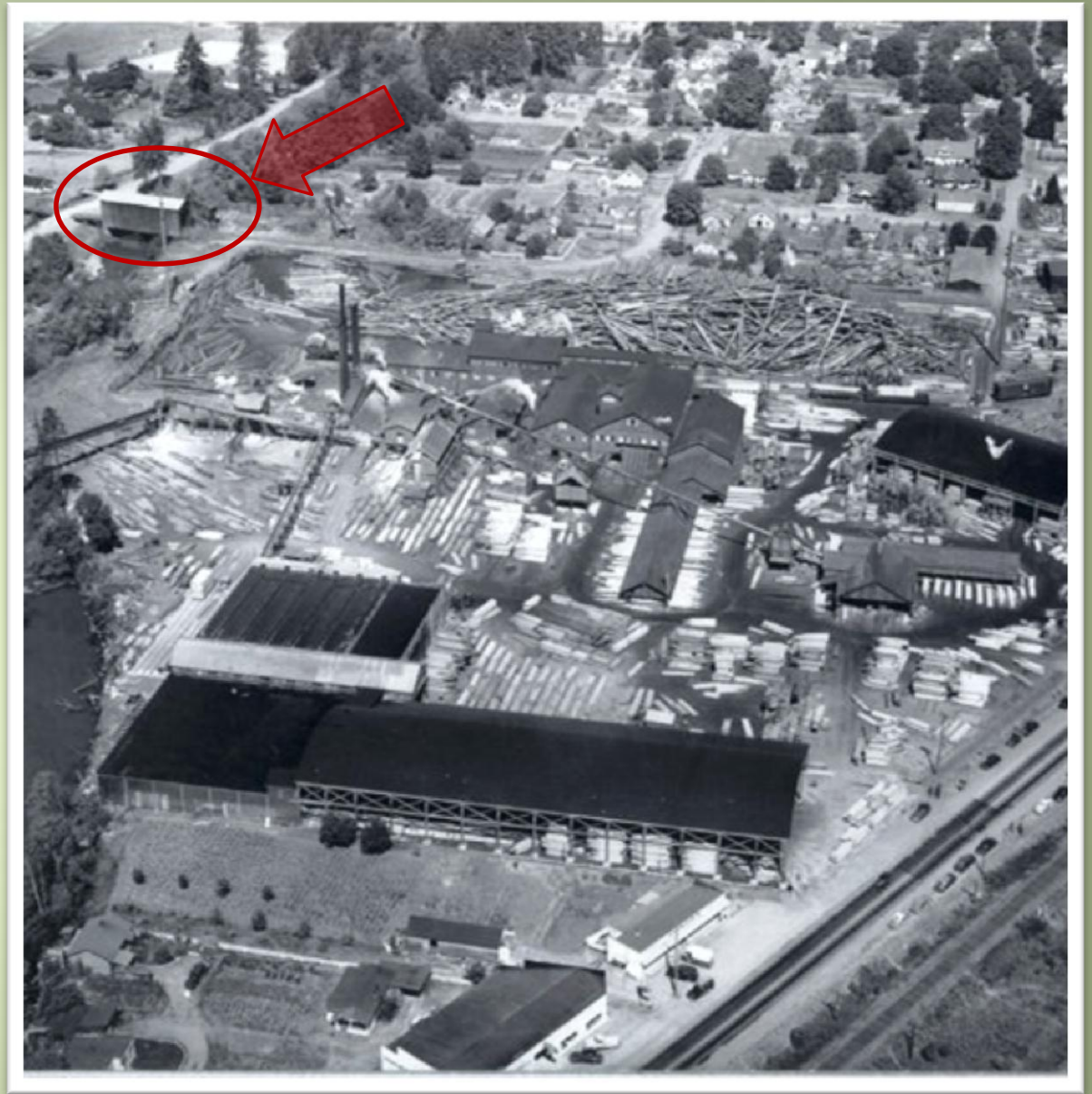
Note short smokestacks

SERVING THIS SAWMILL IN COTTAGE GROVE, OREGON



J.H. Chambers sawmill

Bridge shown at
upper left



MILL, ON EAST BANK, CLOSED IN 1951



Mill pond visible on left of this 2006 photo

TRESTLE FROM WEST REMOVED

bridge left standing but not maintained for 60 years



Rail bed about 8 feet above current road elevation

GAPING HOLES IN ROOF LED TO ADVANCED DECAY



FIRES WERE BUILT INSIDE BRIDGE AT LEAST TWICE



Fire on bottom chord near mid-span

EXTENSIVE DETERIORATION



Corbels upstream side rotted away completely



Bottom chord crushing at both ends

- 2006 City of Cottage Grove obtains ownership of bridge.
- 2007 OBEC Consulting Engineers inspects and documents bridge.
- 2009 Funding by FHWA through National Historic Covered Bridge Preservation program.
- 2009 Additional funding through American Recovery and Reinvestment Act.
- 2010 High winds almost destroy remaining structure.
Safe removal becomes an emergency.
- 2011 Rehabilitation construction Grand Opening, December 3, 2011



EMERGENCY REMOVAL WORK PLATFORM



Built adjacent to the bridge and rolled under

STRUCTURE STABILIZED WITH BRACING



First outside



then inside

SYSTEMATIC DISASSEMBLY



Using man lifts and large crane

STORAGE AND INVENTORY



Chord pieces kept in order



Splice assemblies kept together

INDOOR STORAGE

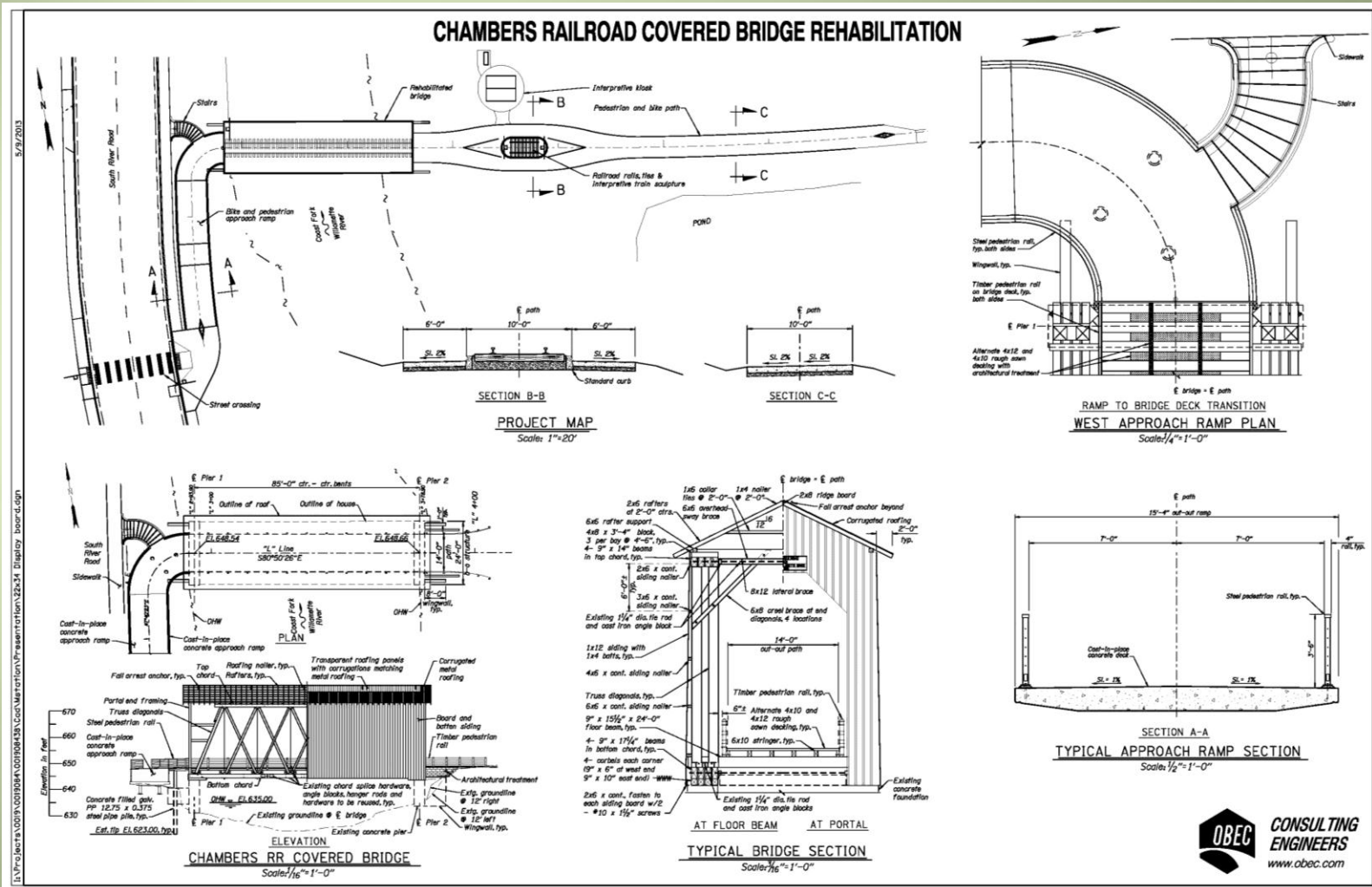


Hanger rods with upset threads

Potentially reusable material stored under cover



CHAMBERS COMPOSITE PLAN



REUSE OF HISTORIC FABRIC



All original hardware was shot-blast cleaned, painted and reused

Approximately 25% of wood in reconstructed bridge was resawn from sound sections of original members



RECONSTRUCTION ON TRACKS



Bridge rehabilitation construction done on dry land

COMPLETED BRIDGE ROLLED INTO PLACE



DEDICATION – DECEMBER 3, 2011



Chambers Covered Railroad Bridge

NOW PART OF BICYCLE/PEDESTRIAN TRAIL

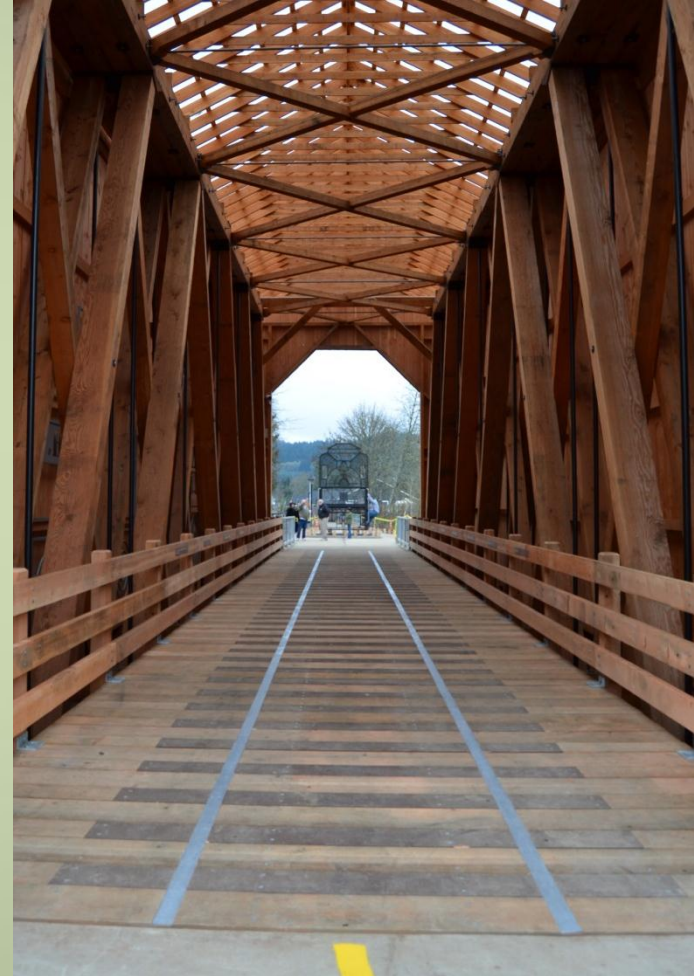


East approach

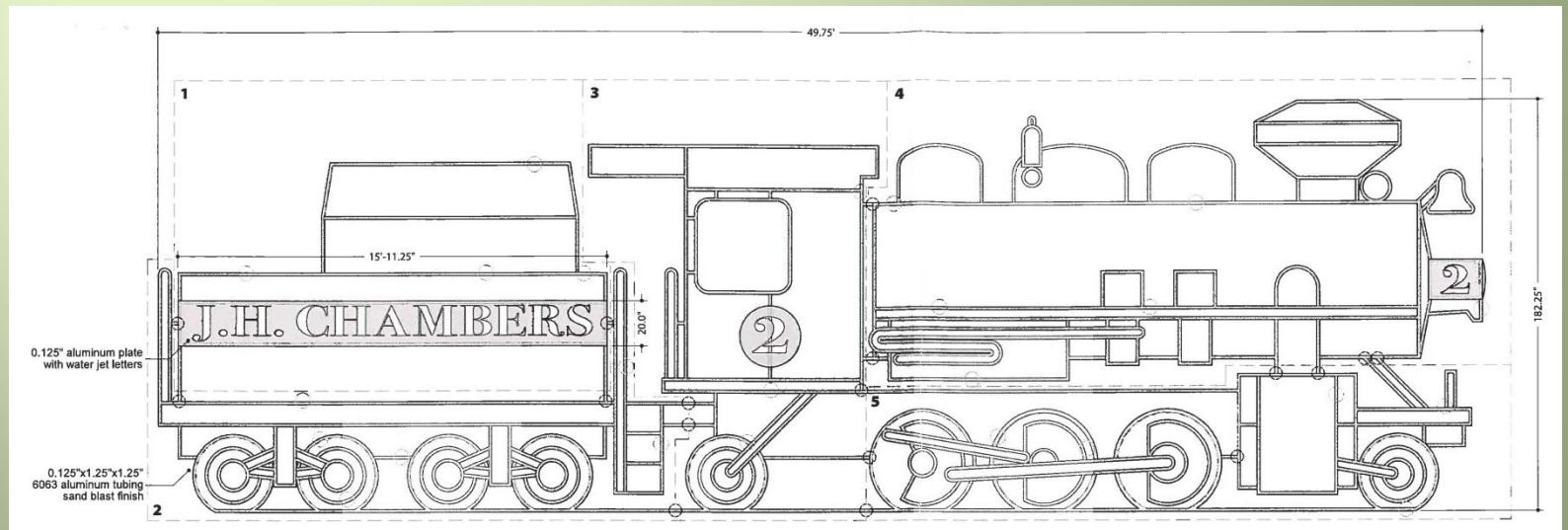
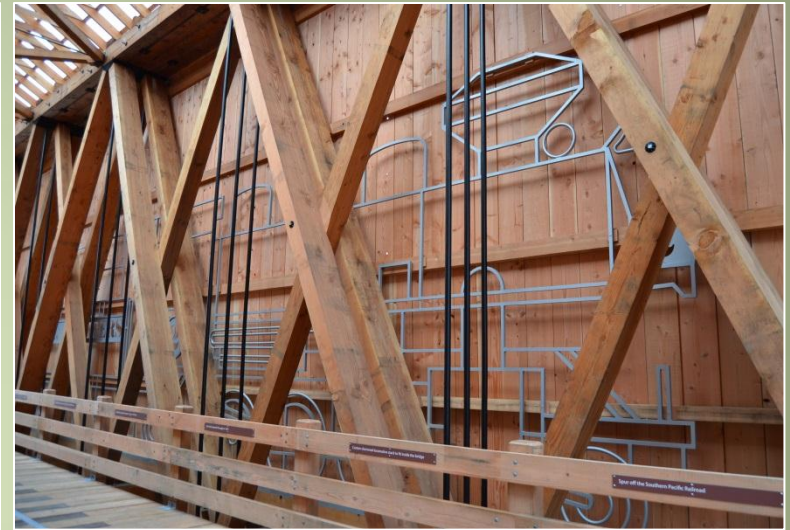


West approach

DECK PATTERNED TO MIMIC RAILS AND TIES



INTERPRETIVE DISPLAYS



INTERPRETIVE DISPLAYS



Chambers Covered Railroad Bridge

2012 Oregon Heritage Excellence Award

2012 Daily Journal of Commerce Oregon Top Projects, First Place Renovation Award

2013 ACEC Oregon Engineering Excellence Grand Award



Chambers Covered Railroad Bridge