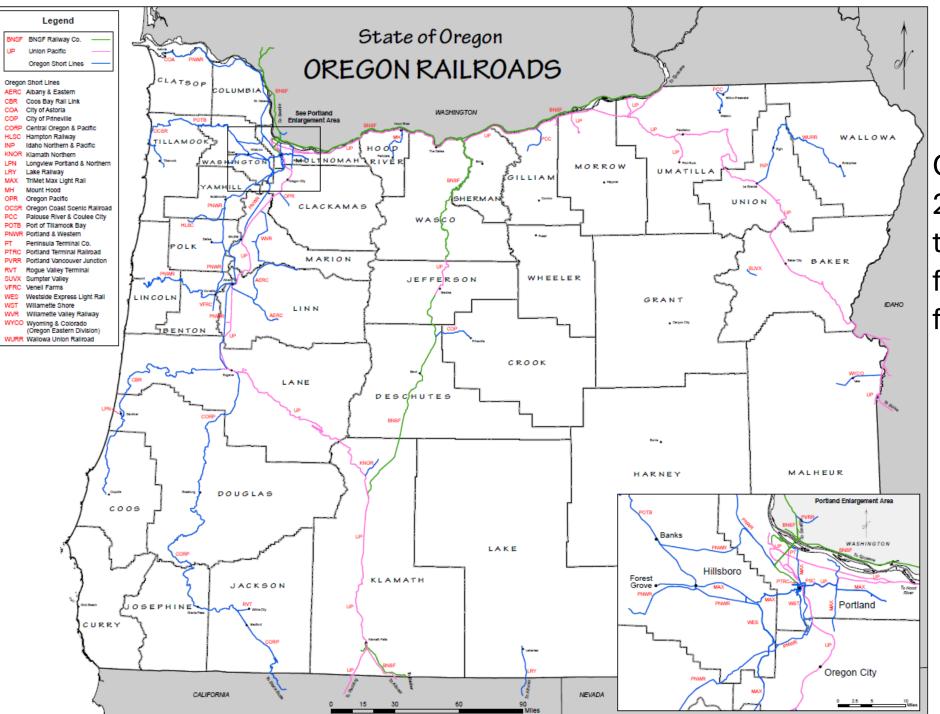
# Anzur Logistics LLC



### **David Anzur** – Owner – Anzur Logistics LLC

- 24-years railroad experience
  - 10 years transportation consultant, transload, rail operations
  - 14 years at Portland & Western Railroad in various roles including director of marketing & sales, director of finance & accounting, and other operating roles.
  - Chair, Oregon Freight Advisory Committee
  - Treasurer, Oregon Rail Users League (ORULE)
- M.B.A. with honors, Willamette University, 2008
- B.S. Business and Economics, University of Oregon, 2000



Oregon currently has 2,377 route miles of track and 23 federally franchised freight railroads.

## Evolution of the Boxcar (and most railcars)





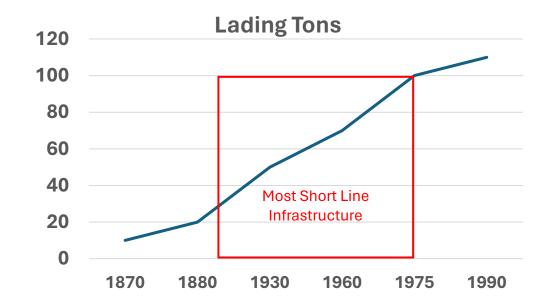






1870s 10-20 Ton 1930-1950 50 Ton

1960-1975 70 Ton 1975-1980 100 Ton 1990s-Today 110 Ton



### The 286k Railcar

- 286,000 Pound Gross Vehicle Weight
- 110 Ton Lading
- New Standard
- 4:1 Truck Ratio (13'H, 50' or 60' L, 9.5' W)

**NEXT: 315,000-pound GVW (115-125 tons)** 

Why is important?

## Rail Size

pounds per yard



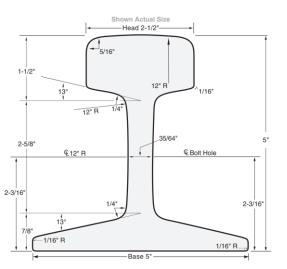
90-pound

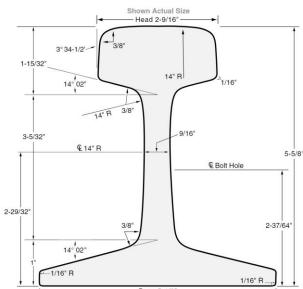
~1890-1930

### 80-pound

Comp Joint

~1880-1920

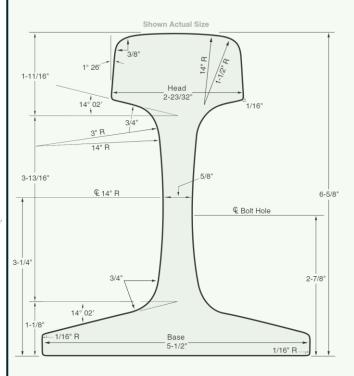






#### 115-pound

~1930-1970+
Branch/Siding/Yard
~1970-Present
Other 5-1/2" base variants:
110, 112, 113, 119

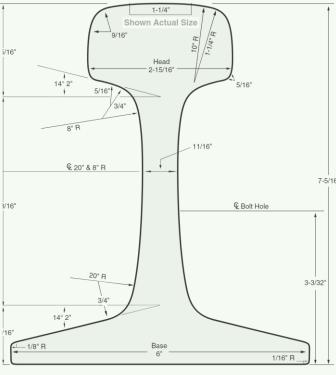


Ideal size but high demand low supply

#### 136-pound

~1950-present

Other 6" base variants: 130, 132, 133, 136, 141



239 tons per mile \$800-\$1,000/ton used \$1,500/ton new IQ

# Types of Rail Projects

### Highway/Railroad Crossing/ Congestion

- Grade Separation
- Queen Ave. Albany
- Hwy 34

### Safety – ADA

- Klamath Falls and Eugene
- Station Improvements and System Connections



Photo Greg Westergaard - ODOT



Photo Ron Reiring

### Oregon State Rail Plan Implementation Plan

https://www.oregon.gov/odot/rptd/pages/oregon-state-rail-plan-implementation.aspx

# **Project Types**

### **Preservation & Improvement**

- Coos Bay Rail Line bridges
- Lake County Railroad rail upgrade

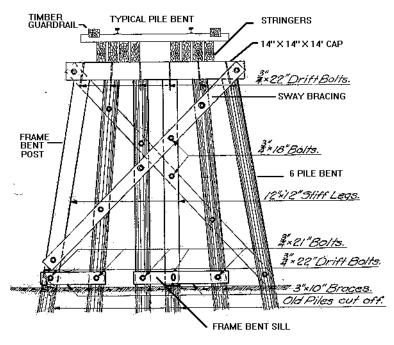




- Juanita's
- Marion Ag
- Greenhill Reload
- Pacific Recycling







# **Project Types**



### **Capacity**

- New Track
- Coos Bay Rail Line Tunnels
- 286k improvement
- Siding Capacity

### **Velocity**

- Steel bridge
- Judkins Siding other WV sidings –**Double Track**
- Sidings/power switches



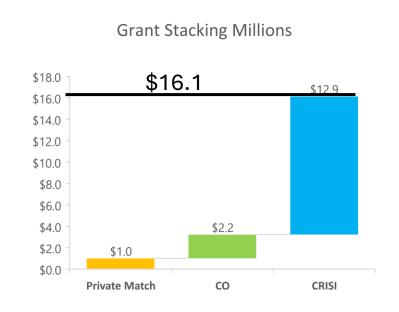
# Rail Funding Options

- Federal Consolidated Rail Infrastructure Safety
   Investment (CRISI) \$2.5 <u>Billion</u> applications due May 28, 2024
  - Requires 20% match stronger application for multiple matching –
  - Private sector short lines are eligible
  - Emissions reductions Zero Emissions project
- Other Federal funds BUILD, RAISE, ARA, TIGER

# **Grant Strategy**

- Private Match use private matching funds from stakeholders
- State of Oregon Connect Oregon Program
- Federal Consolidated Rail Infrastructure Safety Investment (CRISI) \$2.5
   Billion application expected mid 2024
  - Requires 20% match stronger application for multiple matching sources

A \$2.2m Connect Oregon grant + \$1 million in private match results in \$12.9 million in Federal Funding = \$16.1 million project!



### **Grant Stacking**

Use Connect Oregon
 Project to match
 Federal CRISI Grant

If successful it would result in 16x multiple from private match

Private Match Federal CRISI

> Use \$1 m private & \$2.2 CO as match e.g., 80% \$12.9m

**70**% e.g., \$2.2m

Oregon

Connect

## WE NEED YOUR HELP

Modernization of State Rail Rehabilitation Fund (SB 16): Senator Gorsek offered ORULE Senate Bill 16 as a vehicle for our priority legislation for 2023. SB 16 modernizes the State Rail Rehabilitation Fund to allow for future investments in rail projects that are consistent with the goals of the Oregon State Rail Plan. Eligible projects include: (1) capacity improvements, such as new or lengthened sidings and industrial spur rehabilitation or construction, and (2) capital investments that improve safety or reduce greenhouse gases. The bill also updates ORS 824.016 to allow applicants to apply for state matching funds to better compete for federal discretionary grants for rail projects. The bill becomes operative in January 2024 after ODOT rulemaking.

Final Outcome: After passing both the House and Senate, SB 16 has been signed by the Governor.

# Connect Oregon

Round	Largest Project	Total Projects	Total Cost	Average \$ per project
CO-I	\$7.5m (2 projects)	37	\$97m	\$2.6m
CO-II	\$8.9m	30	\$97m	\$3.2m
CO-III	\$7.8m	40	\$94m	\$2.3m
CO-IV	\$4.5m	37	\$38m	\$1.0m
CO-V	\$6.0m	39	\$43m	\$1.1m
CO-VI	\$8.3m	39	\$49m	\$1.3m
CO-VIII	\$13.9m	21	\$46m	\$2.3m

# FRA Track Safety Standards CFR 49 Part 213

### Wait- What? Confusing Classes:

- **FRA** Track Classification: Class 1-9
- STB Railroad Class I, II, III based on Revenue

	Class of Track	Max speed MPH freight trains	Max speed MPH for passenger trains
	Excepted track	10 (max of 5 hazmat cars/train)	N/A
Most Short Lines 🚽	Class 1 track	10	15
	Class 2 track	25	30
	Class 3 track	40	60
Class I & Amtrak	Class 4 track	60	80
	Class 5 track	80	90
High-Speed Rail →	Class 6-9 track		110, 125, 160, 220

## Switches/Turnouts

Standards are set by individual railroad.

Dark Territory - Track Class 3 and lower.

Most RRs require No. 11 on main No. 9 can be used internal turnouts

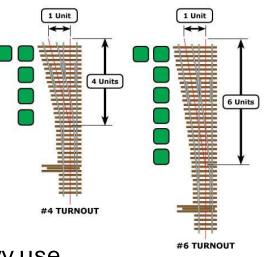


### Track Class 4 or higher

Min No. 11 Some high speed heavy use corridors require siding with larger turnout

Costs \$200k- \$700k + Signal ~\$2 million





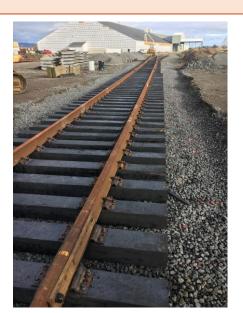
### **Cross Ties**

### **Wood Tie**

Common 7"x9" x8.5' Oak, Doug Fir, other

- Standard Tried & True
- Dynamic/Flex
- Sturdy
- OTM spike, plate, anchor
- 18-19" centers
  - (3200/mile)

**Most Common** 



### **Concrete Tie**

- Static/Rigid
  - Can't mix
- Requires clean ballast
- Long Lasting brittle
- OTM e-clips
- 20-24" (28") centers
  - 2600/mile

More Common for new construction High GTM lines

## **Composite**

Common 7"x9" x8.5' Recycled Plastic

- Dynamic/Flex
- Longevity?
- OTM spike, plate, anchor
- 18-19" centers
  - (3200/mile)

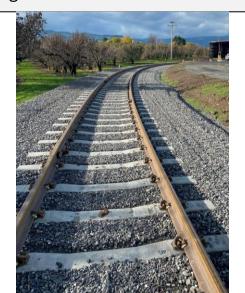
Not Common
Past issues with temperature

### Steel

Solid Steel hollow core

- Static/Rigid
  - Can mix
- Requires clean ballast
- Long Lasting
- OTM e-clips
- Conductor/Shunting

Sharp curves or tunnels







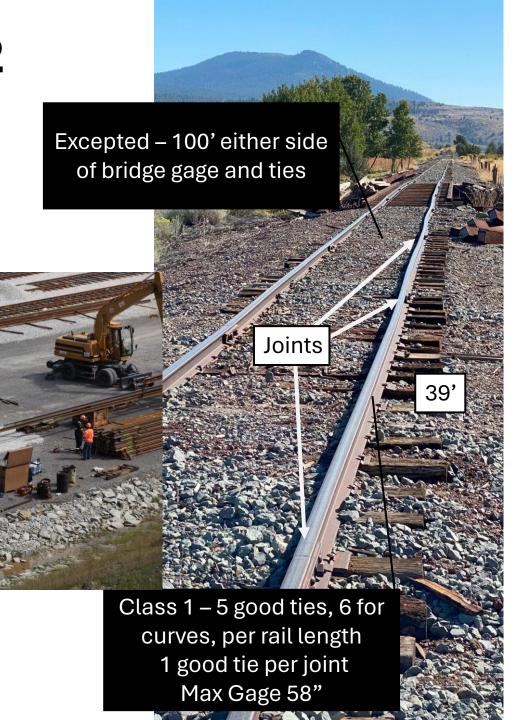
## **Excepted to Class 1 and Class 2**



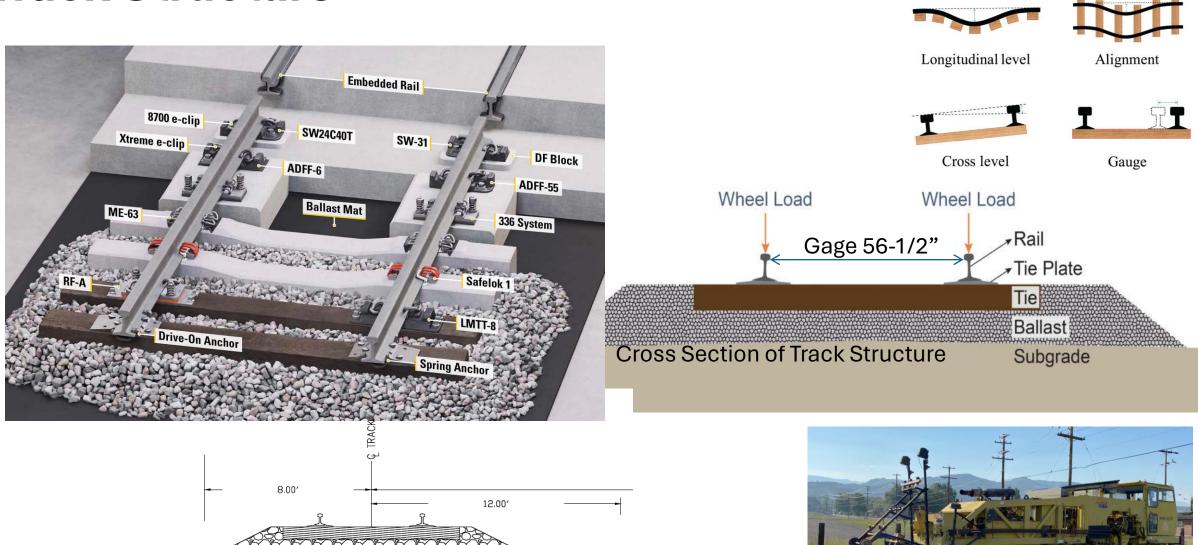
Jointed/Bolted Rail

Weld Thermite vs Flash Butt

Continuous Welded Rail (CWR)



## **Track Structure**



2% SLOPE

2% SLOPE

FILL SECTION