

## Region 2 : Woodburn Interchange

By: Carol Cartwright  
Region 2 Interim Tech Center Manager





**Safety**



**Corridor Context**



**Optimize the System**



**Public Support**



**Efficient Cost**

# Vertical Clearance and Practical Design



**Corridor Context**



**Efficient Cost**



# Overview of Woodburn projects



# Woodburn Interchange Scope

1.3 Miles

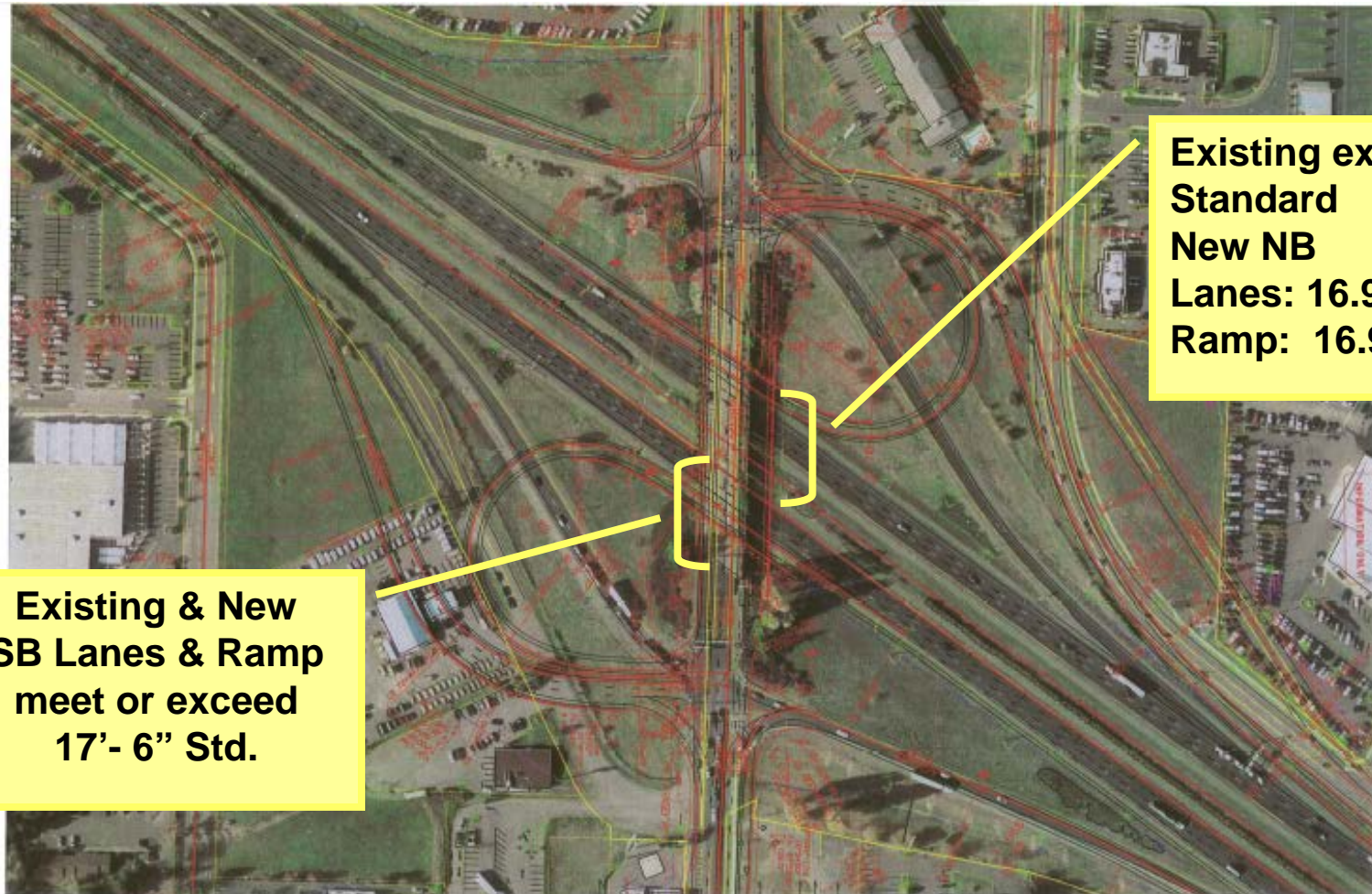


- two new loop ramps to the interchange to handle WB to SB and EB to NB moves
- OR 214 & existing bridge widened with two additional lanes between Woodland Drive and Oregon Way
- raise the bridge approaches ~ 6'

# Projected Budget

- **Estimated Inflated Cost (including Transit Facility):**  
**\$88 Million**
  - Current Available Funding:
    - STIP + JTA \$55 Million
    - Potential Fed Earmark: \$20 Million
    - Sub-total: \$75 Million
  - **May Need Additional: \$13 Million**

# Vertical Clearance Problem: Design Standard: 17' - 6"



**Existing exceeds  
Standard  
New NB  
Lanes: 16.98'  
Ramp: 16.9'**

**Existing & New  
SB Lanes & Ramp  
meet or exceed  
17'- 6" Std.**

# Options for Meeting Standard

- **Bridge can not be raised due to design**
- **Lower roadway under bridge by ~1'**
  - Additional Cost: \$3 – 4 Million
  - Risks: high ground water table  
staging complications  
high economic cost of travel delays
- **Total replacement of bridge**
  - Additional Cost: \$10-12 Million
  - Risks: budget & business impacts, time delay on project delivery



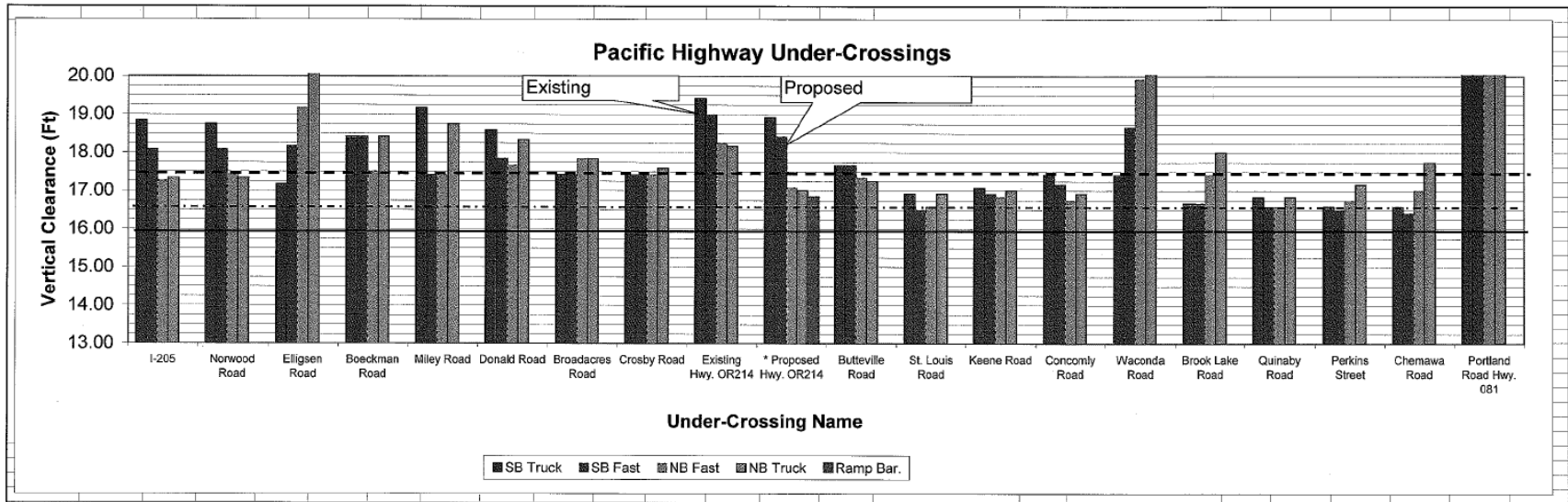
# Practical Design Proposal

## Optimize Performance in Salem – I-205 Corridor

- Reduce bridge widening cross slope from 2% to 1%
- Ramp gore cross slope of 3.0%
- Truck clearance in NB lanes = or > than 4 other NB undercrossings w/out available “up and over” detour
- NB 16.98’ clearance > 16.67’ std on 11 bridge projects btwn Salem & Cottage Grove
- Retrofit bridge for “up & over” detour



# Comparison of Vertical Clearance for 18 Existing Undercrossings on I-5 Salem to I-205



# Sequence of events

- Met with Freight Mobility Committee on May 19, 2010 and presented our proposal
- Committee had concerns about safety and the “up and over” option and we could not agree on the existing clearances. Committee initially not supportive of proposal and Region didn’t think we should appeal
- Based on additional information of the current under-crossing clearances along I-5 and the additional clearances constructed with the “De Fazio money”, we asked that Motor Carrier reconsider the current design proposal.
- A new meeting with FMC was scheduled for August 18, 2010
- Presented data and better explanation on De Fazio money used south of Salem.
- After the meeting, vertical clearance data and design of the “up and over” option had to be reconciled between Region 2 and Motor Carrier.

The clarification of the differing presentations of VC data has been a very useful development.

...[We] have just finished a meeting with Bob Russell from OTA and I think we have some good news to share with you...

based on this new information and analysis the freight industry has no objection to the design for the Woodburn interchange that you presented at our meeting on July 18.

You can check the box that you have reached agreement with the freight industry. MCTD concurs in the analysis and conclusion.

...you involved significant staff to make a complete presentation and I hope you find the positive outcome to have been worth the effort and investment of time!

Thank you. Gregg Dal Ponte, Sept. 14,2010

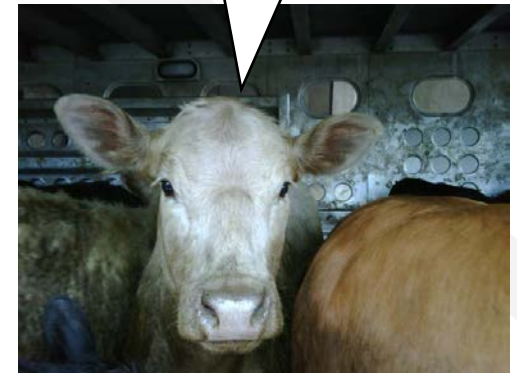


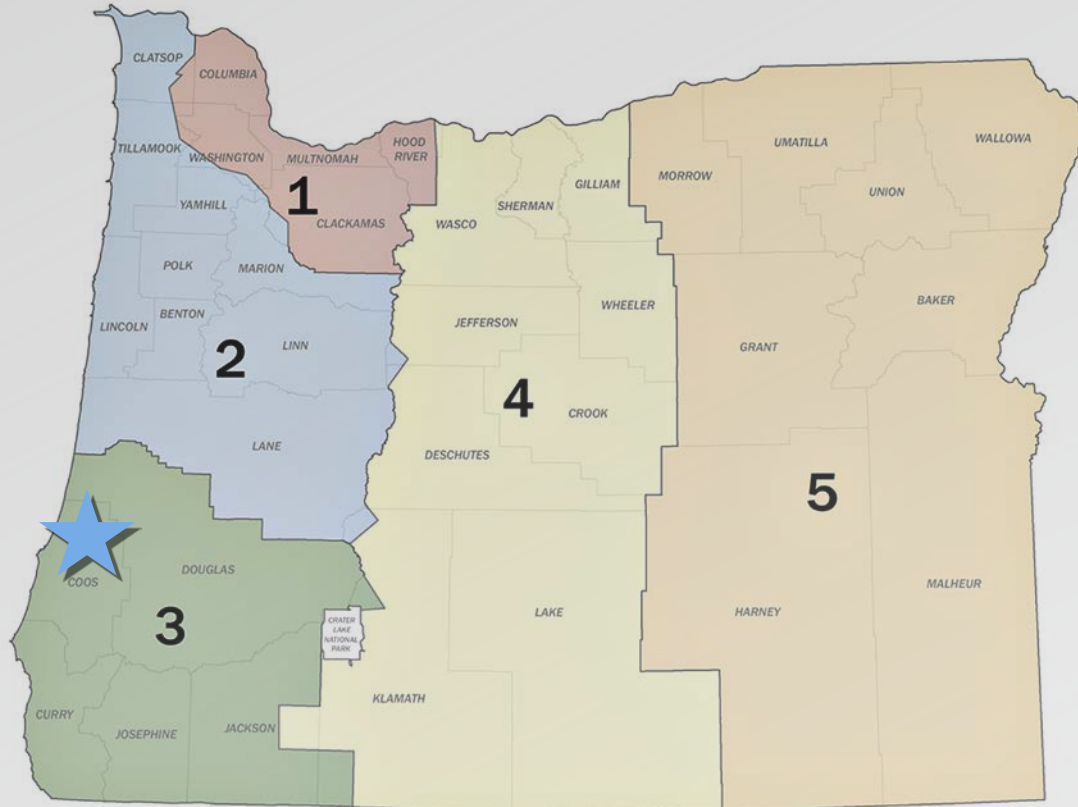
# Lessons Learned

- **Communicate with the Committee early.**
- **Confirm vertical clearance data early.**
- **Stay positive and keep working the issue, especially if offering new facts to consider.**
- **Cost should be cited, but don't expect it to carry the issue by itself.**
- **Offer a reasonable alternative that shows the exception will not reduce the existing clearance in the corridor.**
- **The practical design perspective can be a powerful tool.**



This is a fine  
mess you've  
gotten us into!





## Region 3 : Isthmus Slough Bridge

By: James Burford, PE

ODOT Region 3 Bridge and Roadway Engineering Manager

