

# Highway 213 Corridor Alternative Mobility Targets

CAG Meeting #3  
April 20, 2017



# Welcome

- Meeting Purpose
  - Understand future improvements identified based on conversations to date
  - Receive comments on the recommended alternative mobility targets
- Agenda
  - Overview of Technical Memorandum #3 6:10
  - Discussion 6:45
    - Comments on recommended alternative mobility target
    - Direction
  - Next Steps 7:45
  - Adjourn 8:00

## Recap of CAG Meeting #2

- City is unable to fund a major intersection improvement on its own
- City has an obligation to the State to develop alternative mobility targets
- Can implement alternative mobility target, financially feasible improvements, and identify long-term unfunded solution in the TSP
- Interest in the community in identifying a regional long-term solution for the OR213/Beavercreek Road intersection
- TSP has an unfunded solution for OR213/Redland Road

## Existing Mobility Targets

- Volume to Capacity (v/c) ratio compares demand (volumes) to supply (capacity)
- OR213/Beavercreek Road
  - A maximum v/c ratio of 0.99 shall be maintained during the first and second highest volume hours of the day
- OR213/Redland Road
  - A maximum v/c ratio of 1.10 shall be maintained during the first and 0.99 during the second highest volume hours of the day

# TAG/CAG Recommendations at Prior Meetings

- Improvements
  - Identify cost-feasible improvements to implement in tandem with alternative mobility targets.
  - Recognize community desire to identify long-term regional solution at OR213/Beavercreek Road.
- Safety
  - Evaluate predicted safety with improvements being considered
  - Consider safety in combination with capacity measurement
- Mobility Targets
  - OR213/Beavercreek Road - Maintain current target of a v/c ratio of 0.99, but allow the intersection to exceed this ratio for no more than a specific number of hours per day.
  - OR213/Redland Road – Develop target for this intersection as well.

# Projects Currently in Oregon City Transportation System Plan (TSP)

- OR213/Redland Road – 3-lanes northbound and southbound

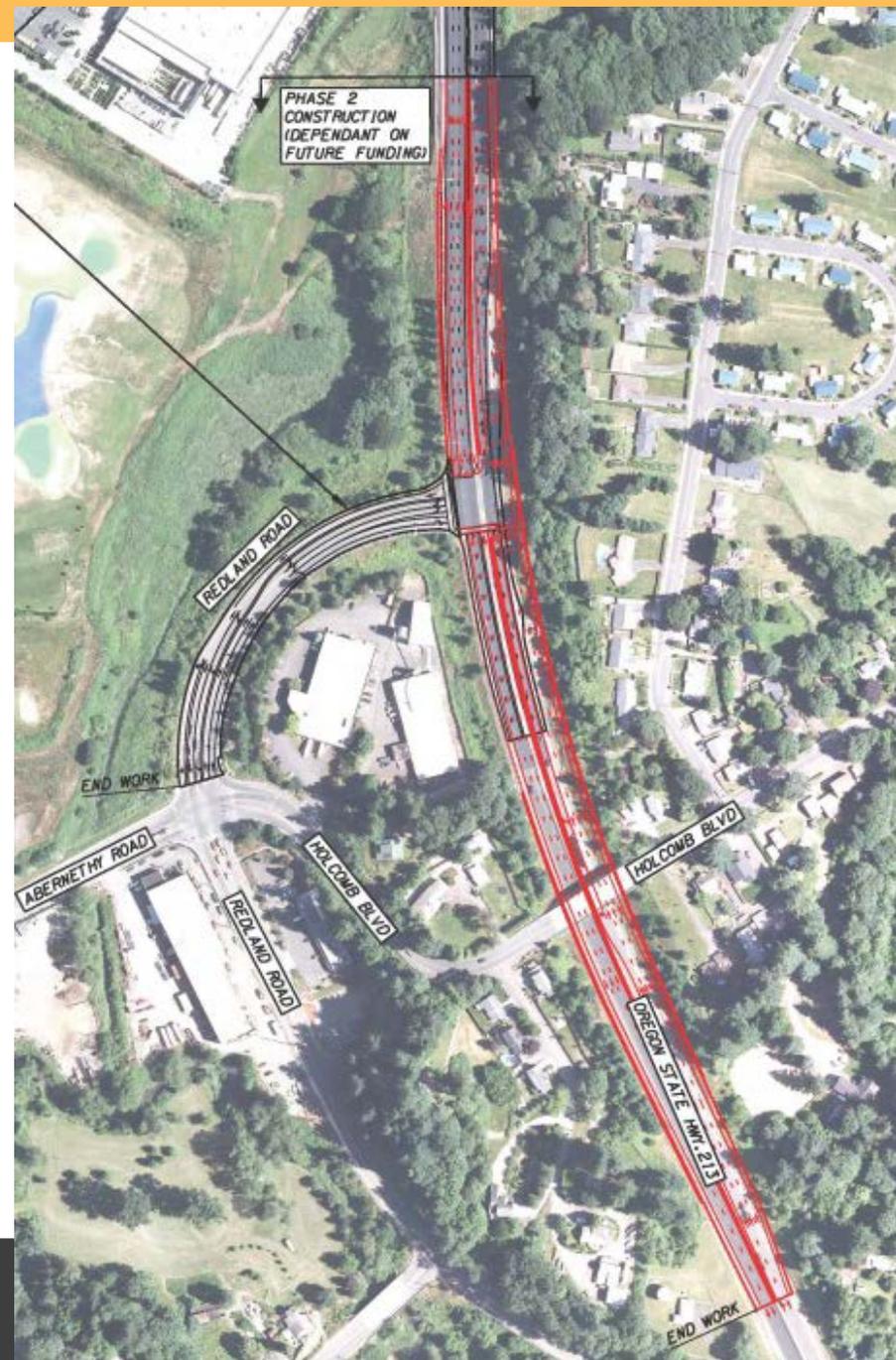
Project #	Project Description	Project Extent	Project Elements	Priority	Funded?
D79	OR 213/Redland Road Capacity Improvements	Redland Road to Redland Road Undercrossing	Add a third northbound and southbound travel lanes on OR 213 through the Redland Road intersection. Maintain separate southbound right-turn lane from OR 213 to Redland Road.	Long-term	Not Likely

- Beaver Creek Road – Safety enhancement

Project #	Project Description	Project Extent	Project Elements	Priority	Funded?
D14	Southbound OR 213 Advanced Warning System	Southbound OR 213, north of the Beaver Creek Road intersection	Install a queue warning system for southbound drivers on OR 213 to automatically detect queues and warn motorists in advance via a Variable Message Sign	Short-term	Likely

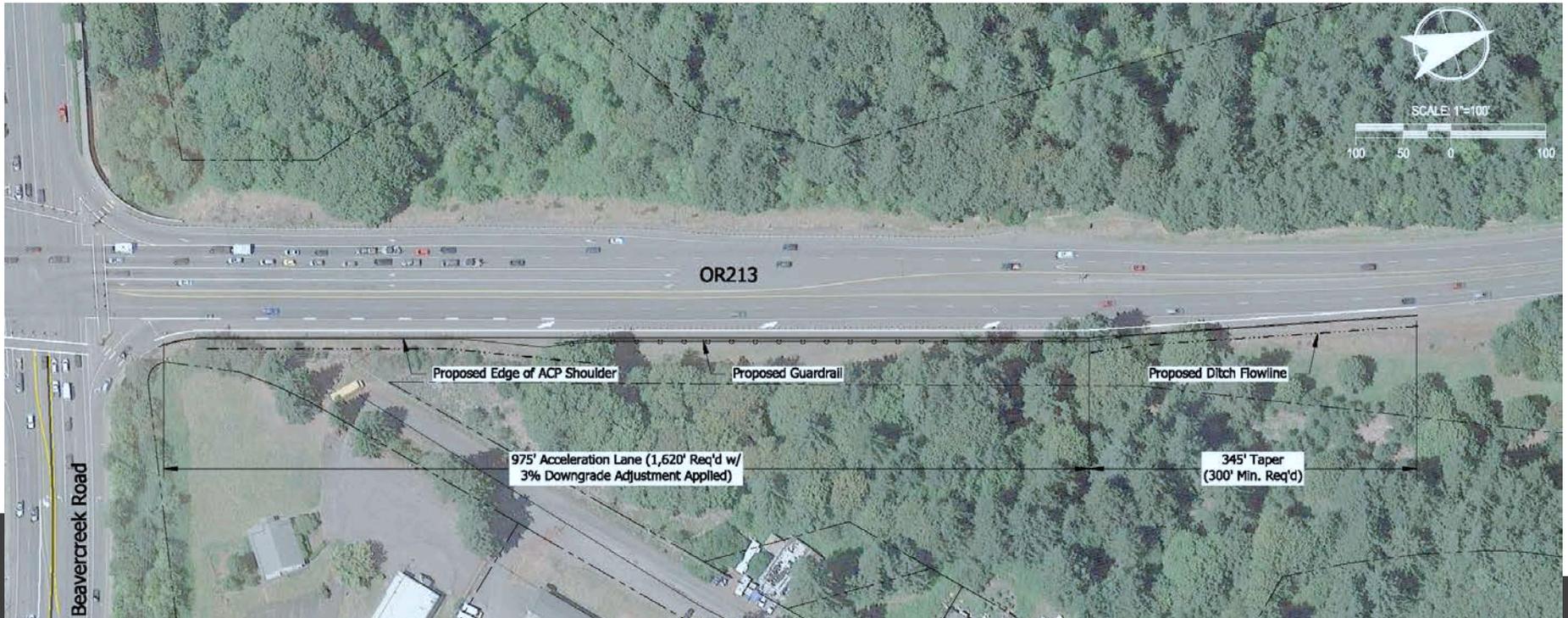
## D79 - OR213/Redland Road TSP Project (Phase 2 “Jughandle” Project)

- Almost \$10 million
- Not in financially constrained plan
- Potentially cost-feasible southbound through/right conversion (\$3-4 million+)
  - May not be feasible or compatible with long-term project
    - Will continue to evaluate this and work with ODOT.



# Potential New Improvement – OR213/Beavercreek Westbound Right-Turn Acceleration Lane

- Approximately \$1.5 million
  - ODOT indicated this lane may need to be longer and would therefore cost more
- Estimate includes eliminating the second westbound left-turn lane
  - Elimination of the second westbound left-turn lane to increase left-turn storage for turns onto Maple Lane Road, should be considered in tandem with improvements at Beavercreek/Maple Lane.



# Safety

- OR213/Beavercreek Road:

- Westbound right-turn acceleration lane and southbound advance warning system improvements are predicted to reduce crashes by almost 5%

Existing Configuration	With Westbound Right-Turn Acceleration Lane	With Southbound Advanced Queue Warning System (D14)	With Both Improvements
<b>26.39</b>	25.75	25.77	25.13
-	-2.4%	-2.3%	-4.8%

- OR213/Redland Road:

- TSP improvement is predicted to reduce crashes by more than 10%
- Partial improvement would reduce crashes by more than 6%

Existing Configuration	With 3rd Southbound Through/Right Lane	With 3 Northbound and 3 Southbound Through Lanes (D79)
<b>8.82</b>	8.24	7.92
-	-6.6%	-10.2%

# Operations – 2040

- OR213/Beavercreek Road:

OR213/Beavercreek Road Scenario	Peak Hour 4:00 pm	2nd Highest Hour 5:00 pm	3rd Highest Hour 3:00 pm	4th Highest Hour 2:00 pm	5th Highest Hour 7:00 am	6th Highest Hour 12:00 pm
<b>Total Entering Volume</b>	8,201	8,017	7,855	6,881	6,705	6,589
<b>Without Improvements (v/c)</b>	1.29	1.31	1.33	1.12	1.49	1.12
<b>With Westbound Right-Turn Acceleration Lane (v/c)</b>	1.13	1.13	1.10	1.01	1.02	0.96

- OR213/Redland Road:

OR213/Redland Road Scenario	Peak Hour 4:00 pm	2nd Highest Hour 5:00 pm	3rd Highest Hour 3:00 pm	4th Highest Hour 2:00 pm	5th Highest Hour 7:00 am
<b>Total Entering Volume</b>	7,054	6,920	6,764	6,085	5,933
<b>Without Improvements (v/c)</b>	1.19	1.19	1.08	0.98	0.96
<b>With Southbound Through/Right Lane (v/c)</b>	1.10	1.08	1.02	0.92	0.96
<b>With 6 Lanes (TSP Project D79) (v/c)</b>	0.91	0.90	0.83	0.75	0.73

# Summary

- OR213/Beavercreek Road and OR213/Redland Road will exceed current mobility target in TSP horizon year 2035
- Alternatives that will meet existing target are not currently cost-feasible
- Recommended targets and improvements:
  - OR213/Beavercreek Road
    - Mobility Target - v/c not to exceed 0.99 for more than five hours of the day
    - Improvements added to Cost-Constrained TSP
      - Westbound right-turn acceleration lane
  - OR213/Redland Road
    - Mobility Target - v/c not to exceed 0.99 for more than three hours of the day
    - Improvements added to TSP
      - Third southbound through lane (if cost-feasible)

# Discussion

## OR213/Beavercreek Road

1. Install a westbound right-turn acceleration lane, maintain the current target of a v/c ratio of 0.99, allow intersection to exceed this for no more than 5 hours per day.
2. Document alternatives considered and add policy to the TSP to recognize merits of a regional solution.

## OR213/Redland Road

1. Maintain current target of a v/c ratio of 0.99, allow intersection to exceed this for no more than 3 hours per day.

## City Next Steps

- Finalize alternative mobility target and preferred improvement(s).
- Prepare adoption package for TSP amendments.
- Schedule public hearings for Planning Commission and City Council to amend the TSP.
- Work with ODOT to advance the alternative mobility targets to the Oregon Transportation Commission (OTC).



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