

148th-150th Ave SE/Eastgate Interchange Traffic Analysis

Prepared By:

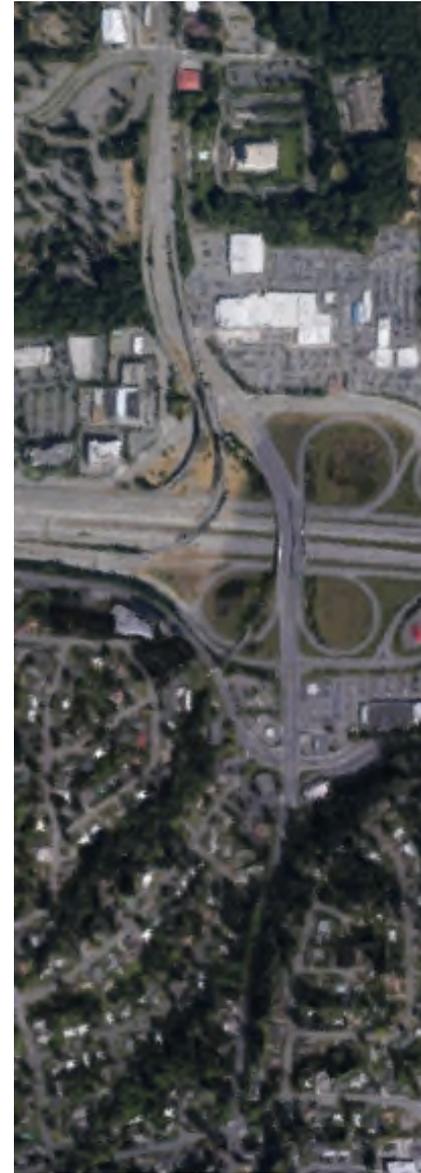
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Prepared For:

Transportation Commission

January 12, 2017



Presentation Outline

- Purpose of presentation
- Provide background from Eastgate/I-90 Land Use and Transportation Project (2012)
- Review Council direction
- Review staff project recommendations
- Next steps

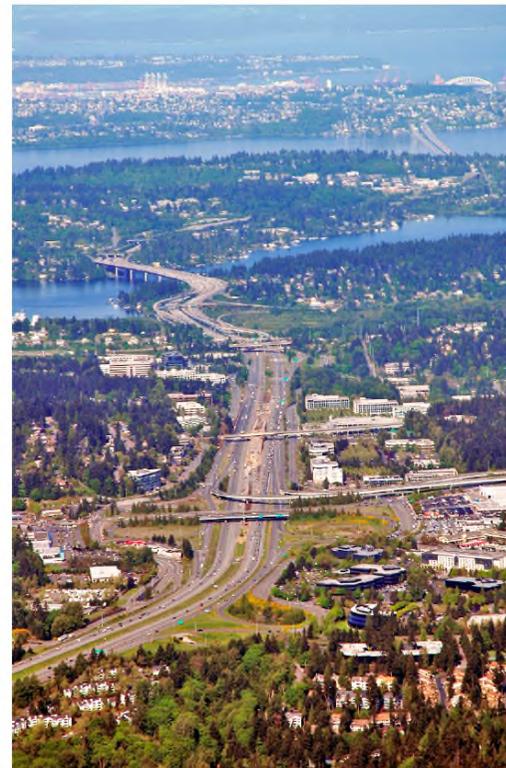
Purpose of Presentation

- Prepare for Eastgate Land Use Code Amendment (LUCA)
- Address Council's request to evaluate congestion relief on 150th Ave SE corridor

Traffic Study Background

Eastgate/I-90 Land Use & Transportation Project (2012)

- 2010 traffic data
- BKR macro-traffic simulation of 2030 preferred land use
- Developed three traffic capacity projects to support future land use (one existing TFP project)
- Confirmed Concurrency with and without improvements
- Reviewed WSDOT short & long term improvements
- Developed transit, ped and bike improvements



Eastgate/I-90
Land Use & Transportation Project

Citizen Advisory Committee
Final Report

CITY OF BELLEVUE
April 5, 2012

Traffic Study Background

Southbound 148th Ave SE at Eastgate Way

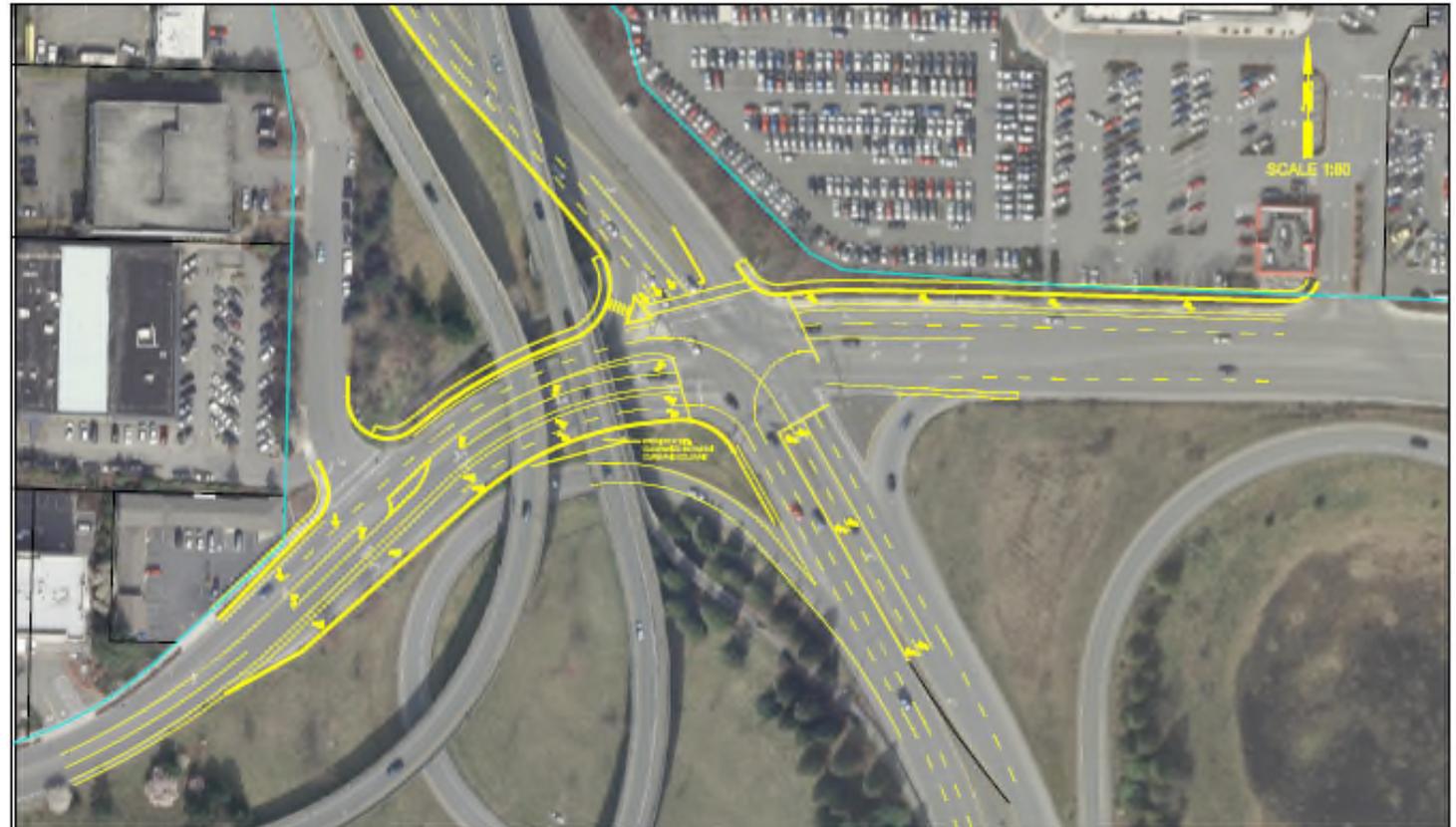
- TFP – 154: Third southbound lane from westbound I-90 on-ramp to SE 38th St
- Cost: \$2.19M



Traffic Study Background

148th Ave SE and Eastgate Way Intersection

- I-2 (Option A)/ TFP-253: Create dual northbound left turn lanes, dual eastbound right turn lanes and second westbound lane
- Cost: \$3.71M



Traffic Study Background

Westbound I-90 Off-Ramp to 156th Ave SE

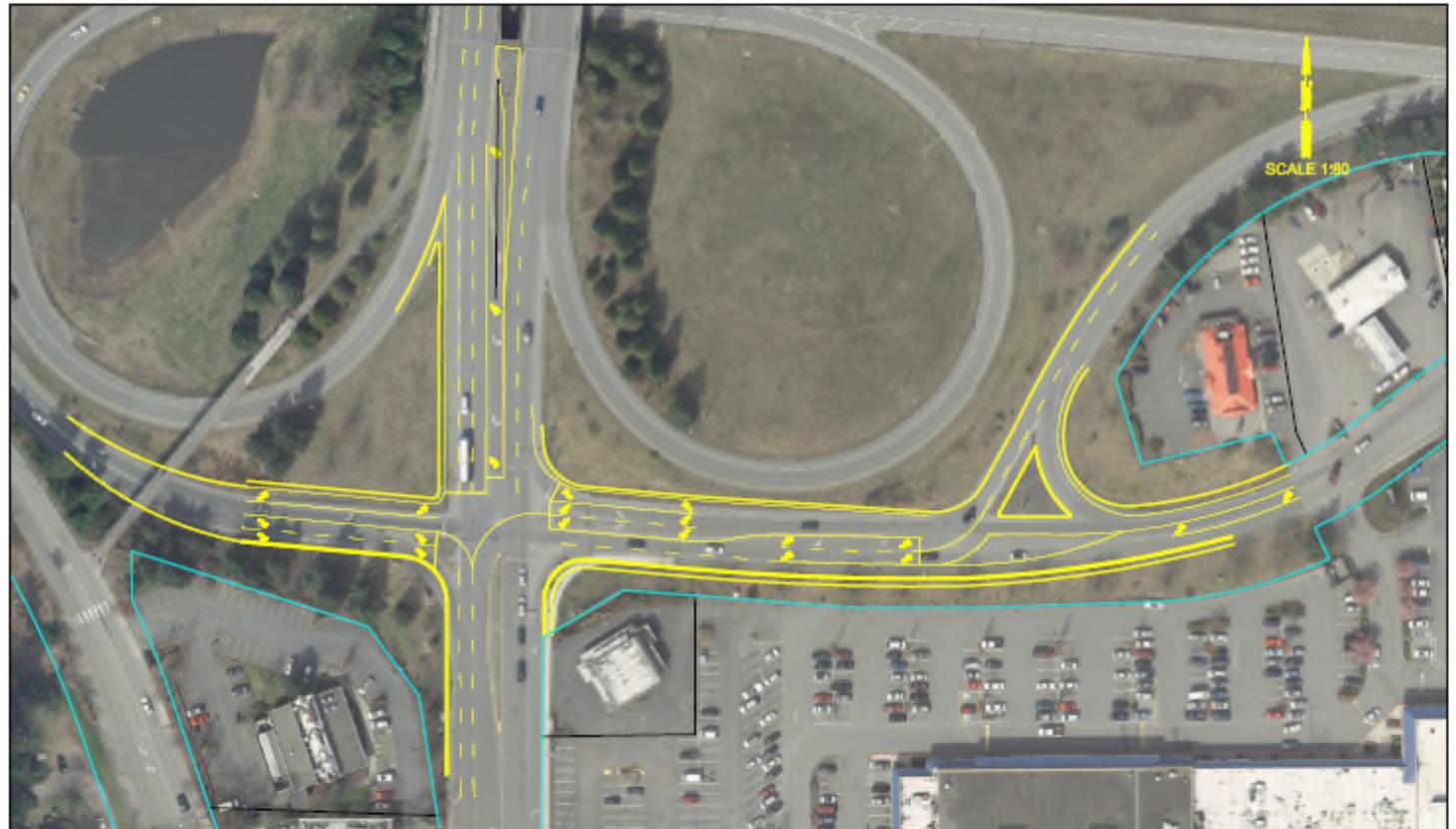
- I-3/TFP-162:
Create second left turn lane on off-ramp
- Cost: \$873,000



Traffic Study Background

150th Ave SE and SE 37th St Intersection

- I-4 Option A/
TFP-195: Create dual eastbound right turn lanes, dual left turn lanes on SE 37th St, and extend third southbound lane and southbound left turn pocket
- Cost: \$3.33M



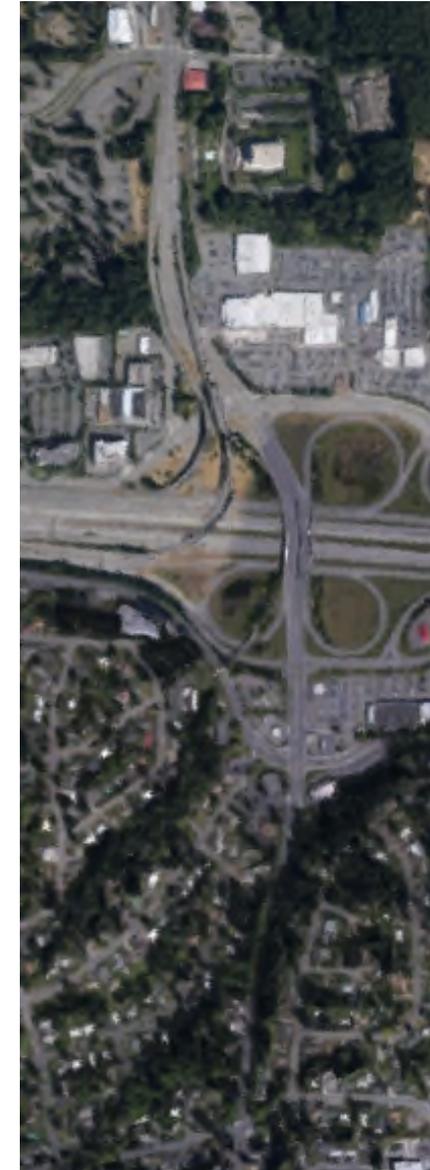
Migration from Eastgate/I-90 Study

- Eastgate/I-90 study provided high level validation of Land Use change and associated mitigations
- Elements of study have influenced direction of more detailed plans and projects
 - I-90 Peak Use Shoulder Project
 - Bellevue College Connector and Metro Transit Master Plan
 - Mountains to Sound Greenway
 - Pedestrian and Bicycle Implementation Initiative
- Provided framework of proposed congestion management projects

Scope of Work

Council Direction

- Identify low cost improvements for near to mid-term implementation
- Limit study to 148th-150th Ave SE from SE 28th St to Newport Way
- Evaluate PM peak only
- Perform micro-simulation in Synchro/SimTraffic
- Use 2016 traffic volumes
- Prepare concept level plans and estimates
- Projects should support transit, ped and bike priorities

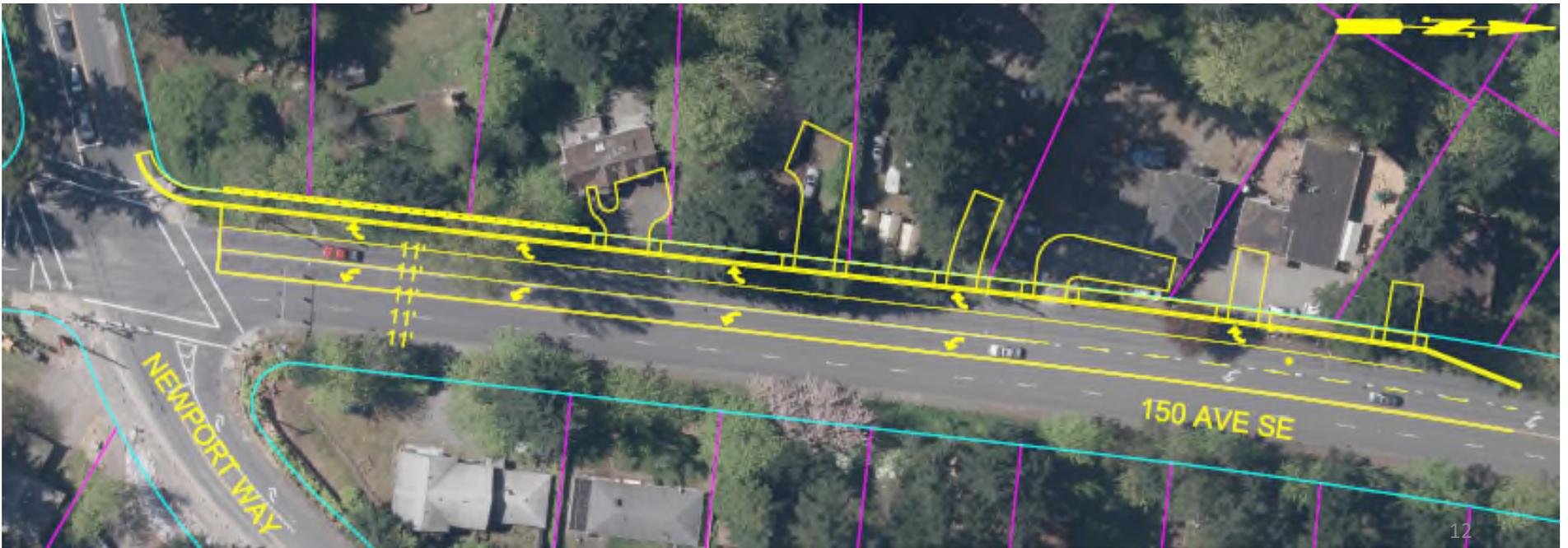




Project Recommendations

Improvement 1: 150th Ave SE at Newport Way

- Construct 600' southbound right turn pocket with new sidewalk
- SB Thru/SB RT Delay Change: 108/101 to 25/14 sec/veh
- Cost: \$2.6M



Project Recommendations

Improvement 2: East-West at SE 37th St

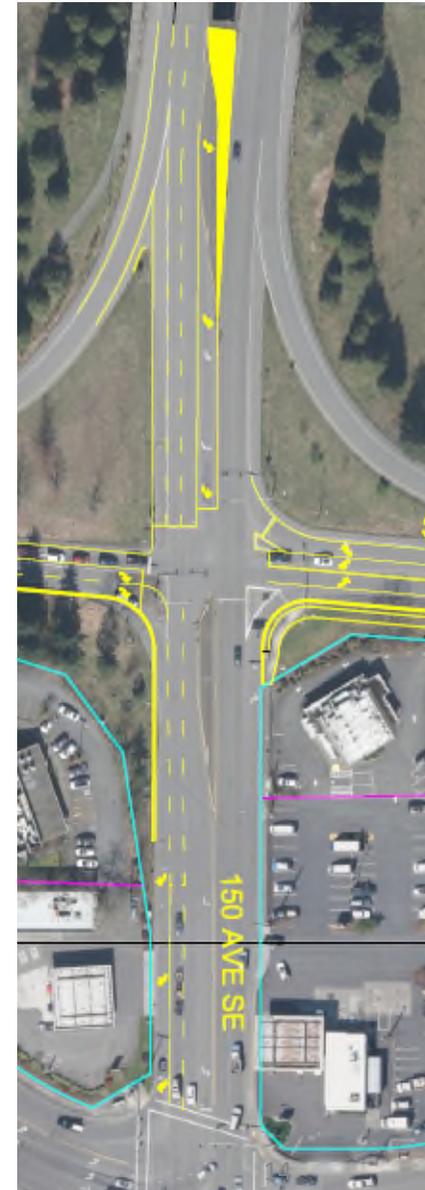
- Construct dual EB right turn lanes.
- Full block left turn pockets on SE 37th St
- EB Thru/EB RT Delay Change: 85/134 to 73/50 sec/veh (with Improvement 1)
- Cost: \$2.8M (includes Improv. 3)



Project Recommendations

Improvement 3: SB Right Turn and LT Lane Extensions

- Construct right turn drop lane at SE 38th St from 300ft north of SE 37th St
- Extend SB left turn lane at SE 37th St
- SE 37th St Intersection delay reduction from 53 to 36 sec/veh (with Improvements 1+2)
- Cost: \$2.8M (includes Improvement 2)





Project Recommendations

Estimated Travel Time Improvement

SE 28th St through Newport Way, Southbound

- *Improvement 1: 662 to 642 seconds*
- *Improvements 1+2: 662 to 598 seconds*
- *Improvements 1+2+3: 662 to 385 seconds*

ANY
QUESTIONS
?

Next Steps

Short Term Project

- Address Transportation Commission comments and present final results at February 9th meeting
- Transportation Commission review and approval of transmittal memo at February 23rd Commission meeting
- Transportation Commission prepare transmittal recommendation for presentation to Council at March 6th Study Session (tentative)

Next Steps

Proposed Neighborhood Congestion Relief Study

- Expanded study area
- Model AM and PM conditions
- Incorporate impacts from WSDOT's I-90 Peak Use Shoulder Lane project
- Use more refined modeling tool, Vissim
- Model existing and future conditions
- Prepare concept plans and cost estimates for transportation improvements

Thank You!

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