

**Downtown Transportation Plan
&
Downtown Livability Initiative**

Transportation Analyses Review

TRANSPORTATION COMMISSION

FEBRUARY 23, 2017

Shuming Yan, PE

Engineering Manager, Transportation Department



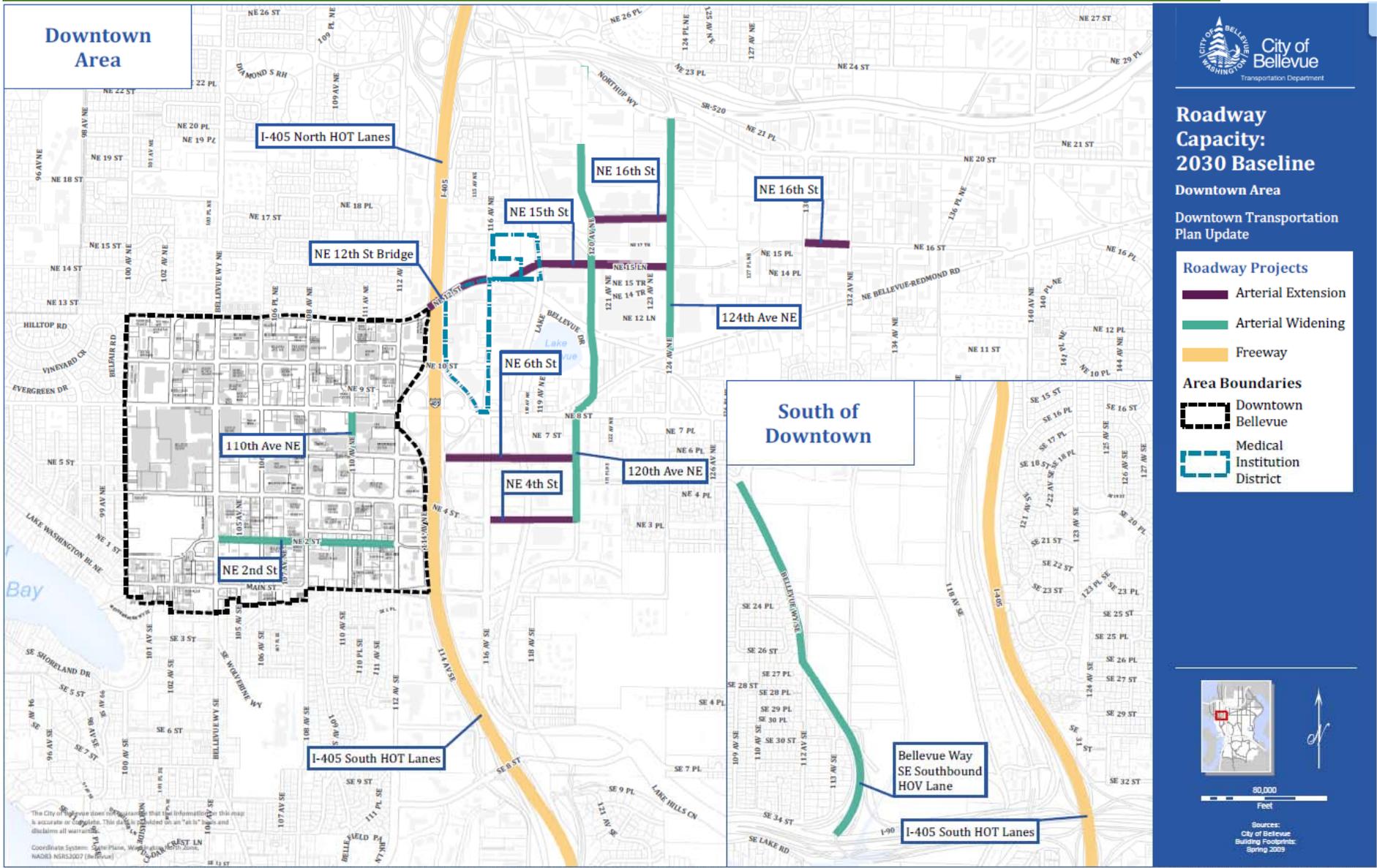
Background

- **DTP analysis was completed in 2013**
- **DLI analysis was completed in 2015**
- **DLI modeling was done to compare transportation performance relative to DTP**

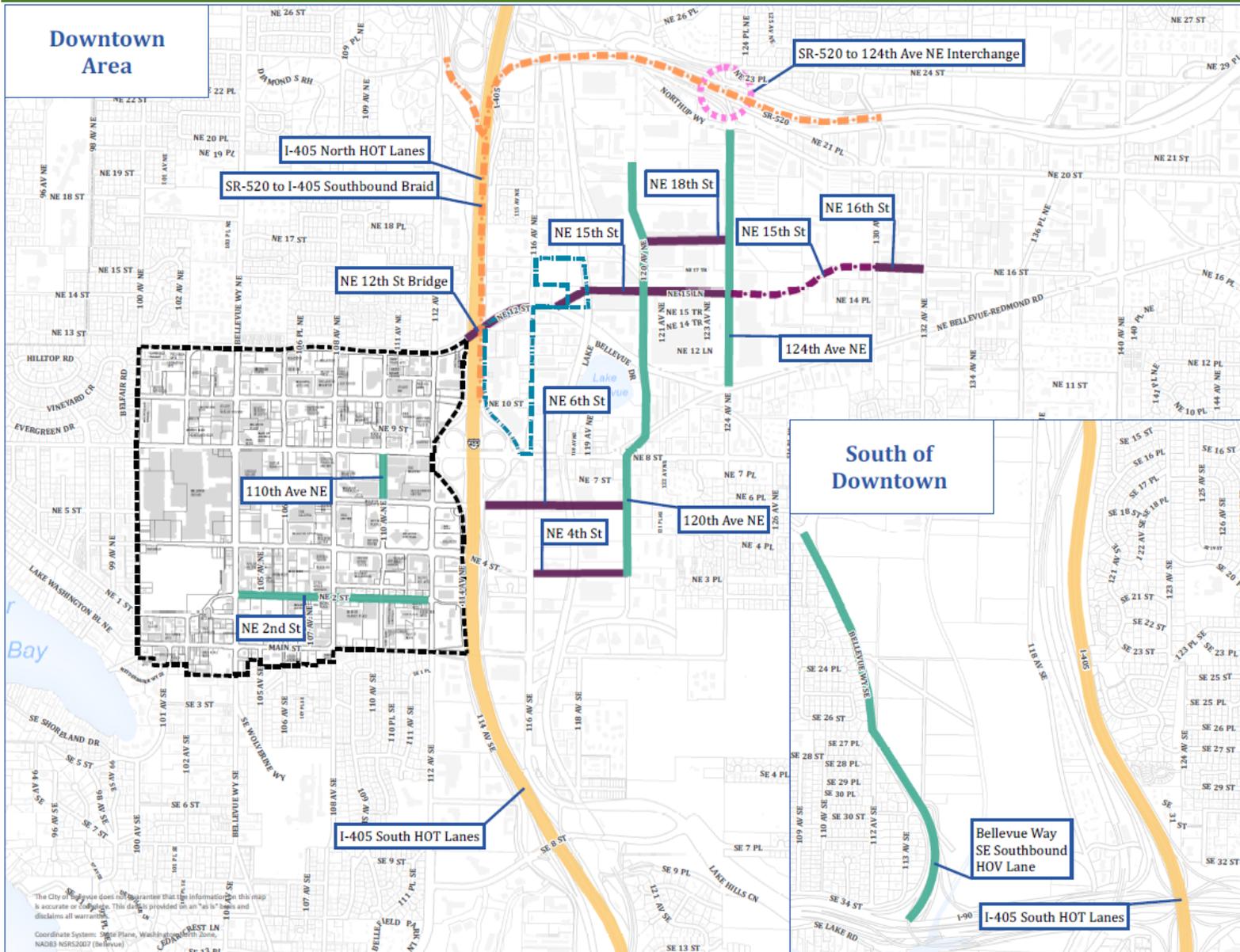
DTP 2030 Scenarios

- **Baseline Scenario included:**
 - 2013-2019 CIP projects
 - 2013-2024 TFP projects
 - ST and WSDOT funded projects
- **Build Scenario included additional, “reasonably foreseeable” projects:**
 - SR 520: 124th Avenue NE interchange completion
 - SR 520: Eastbound slip ramp under 148th Avenue NE to the Overlake Village area in Redmond
 - I-405: Southbound braid from SR 520 to NE 10th Street
 - I-405: One auxiliary lane (collector/distributor lane) each direction, between SE 8th Street and SR 520

DTP Baseline Scenario



DTP Build Scenario




City of Bellevue
 Transportation Department

Roadway Capacity: 2030 Baseline & "Build"
 Downtown Area
 Downtown Transportation Plan Update

Roadway Projects

Baseline

- Arterial Extension
- Arterial Widening
- Freeway

"Build"

- Arterial Extension
- Freeway
- Interchange

Area Boundaries

- Downtown Bellevue
- Medical Institution District




80,000
 Feet

Sources:
 City of Bellevue
 Building Footprints: Spring 2009

DLI Analysis: Purpose and Assumptions

- **To compare DLI's transportation performance relative to DTP**
- **To enable “apples to apples” comparison, the DLI assumed:**
 - Same network as DTP “Build” Scenario
 - Same total employment and population as DTP, but with slightly different distribution

Results Comparison (2030 PM Peak Period)

Compared to the DTP scenario, the DLI scenario would improve overall traffic operations in the Downtown area:

Downtown	2030 DTP Scenario	2030 DLI Scenario	Difference	%
Hourly Volume	118,000	117,000	-1000	-0.8%
Delay/Vehicle (sec)	49	45	-4	-8.0%
Total Vehicle Delay (hours)	1611	1,472	-139	-8.6%

Questions and Discussion

Thank You!

Shuming Yan, PE

425-452-7858

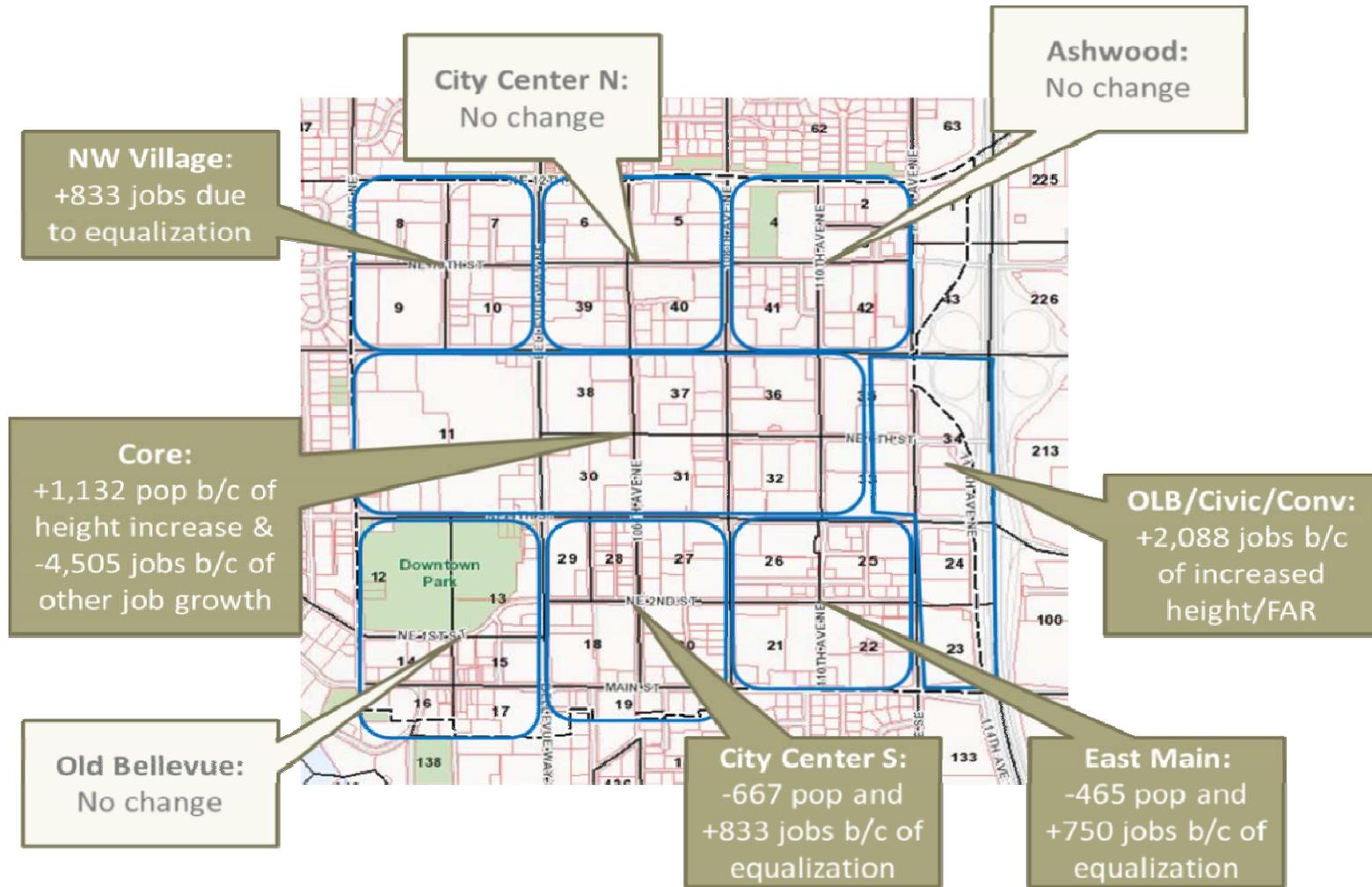




Backup slides



DLI Redistributed DTP Growth in Downtown

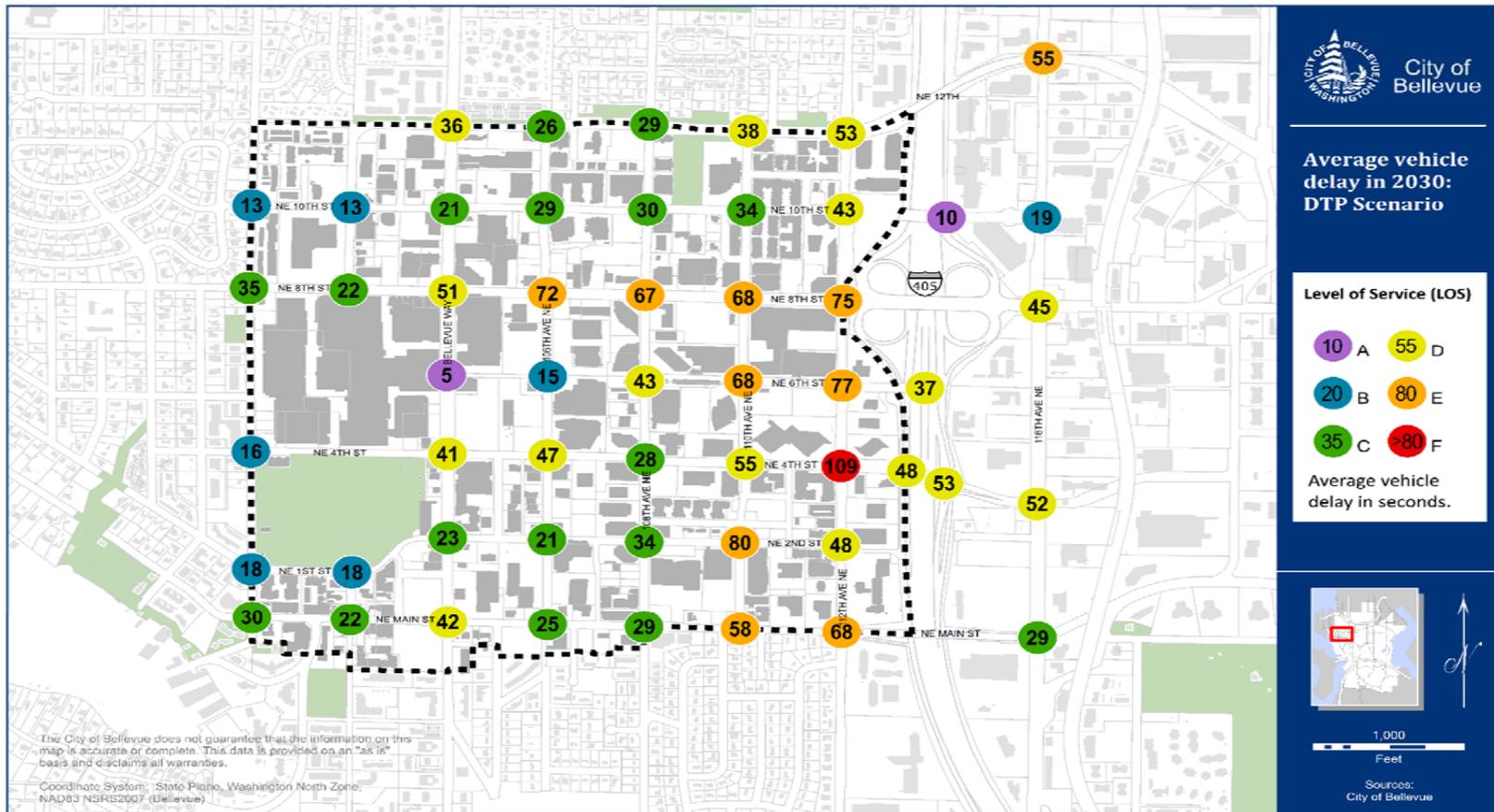


DTP Results Summary (2030 PM Peak Period)

Downtown	2010 Base Year	2030 Baseline Scenario	2030 “Build” Scenario
Hourly Volume	82,000	112,000	119,000
Delay/Vehicle (seconds)	27	56	48
Total Vehicle Delay (hours)	600	1,700	1,600

DTP Performance

2030 Average Vehicle Delay at Downtown Intersections Based on DTP Scenario



Date: 3/26/2015

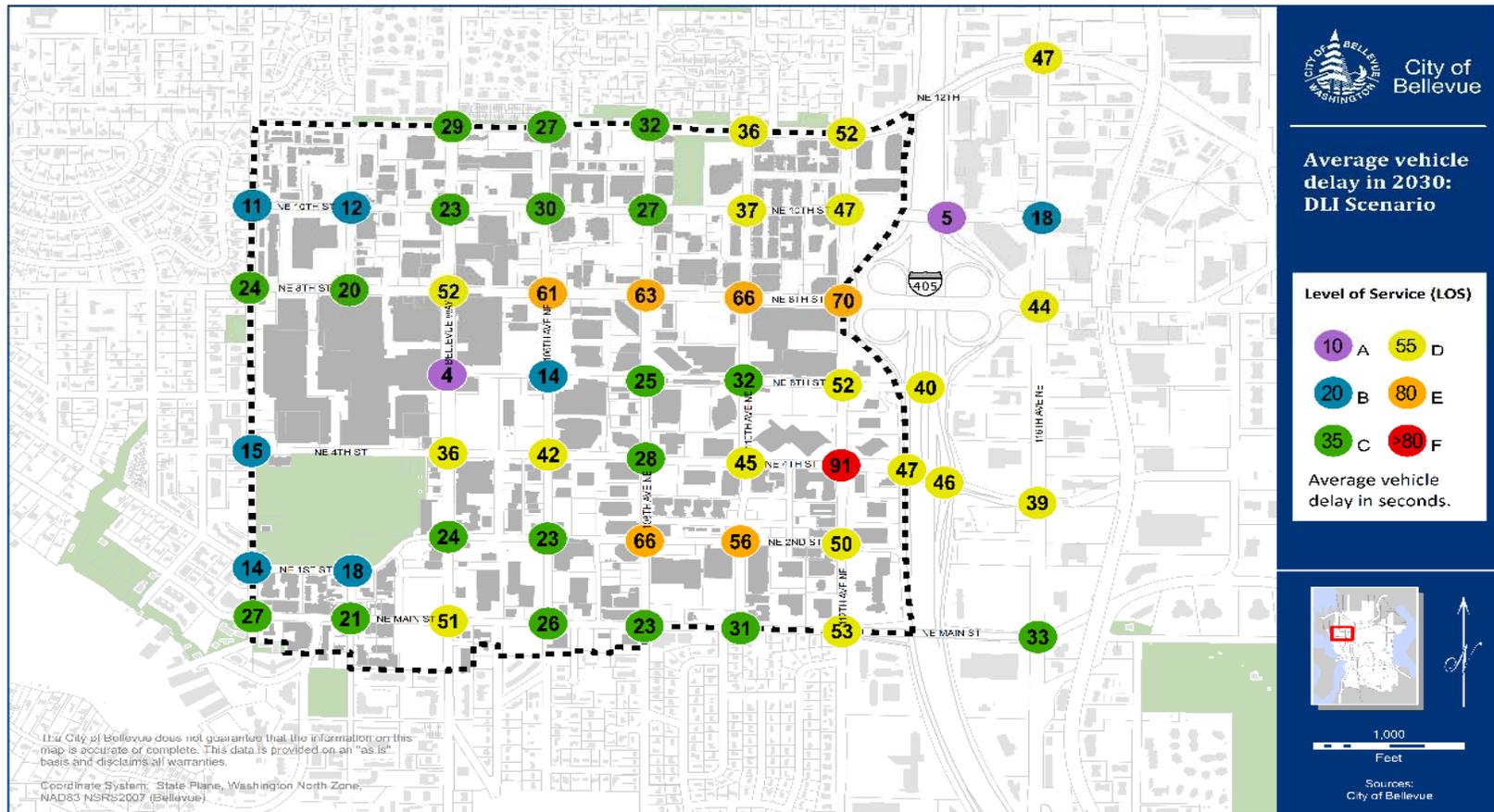
File Name: V:\pcdpldeptgis\ArcGIS\Requests\Transportation\2015_0212_DNTNIntersectionDelays\DNTNIntersectionDelays.mxd

PCD Department

Source: Transportation Department, City of Bellevue (March, 2015)

DLI Performance

2030 Average Vehicle Delay at Downtown Intersections Based on DLI Scenario



Date: 3/26/2015

File Name: V:\pcdp\deptgis\ArcGIS\Requests\Transportation\2015_0212_DNTNIntersectionDelays\DNTNIntersectionDelays.mxd

PCD Department

Source: Transportation Department, City of Bellevue (March, 2015)