



Downtown Transportation Plan Update

**DOWNTOWN BELLEVUE
TRANSPORTATION COMMISSION
MAY 9, 2013**

**TRANSIT SERVING DOWNTOWN
RESIDENTS, WORKERS, VISITORS**

DOWNTOWN BELLEVUE TRANSIT
Transportation Commission Agenda
May 9, 2013

- **Updated Modeling Results – Including Transit**
- **Downtown Transit – Passenger Comfort, Access and Information**
 - Transit Stop Typologies
 - Transit Stop Components

Downtown Transit Ridership - Updated

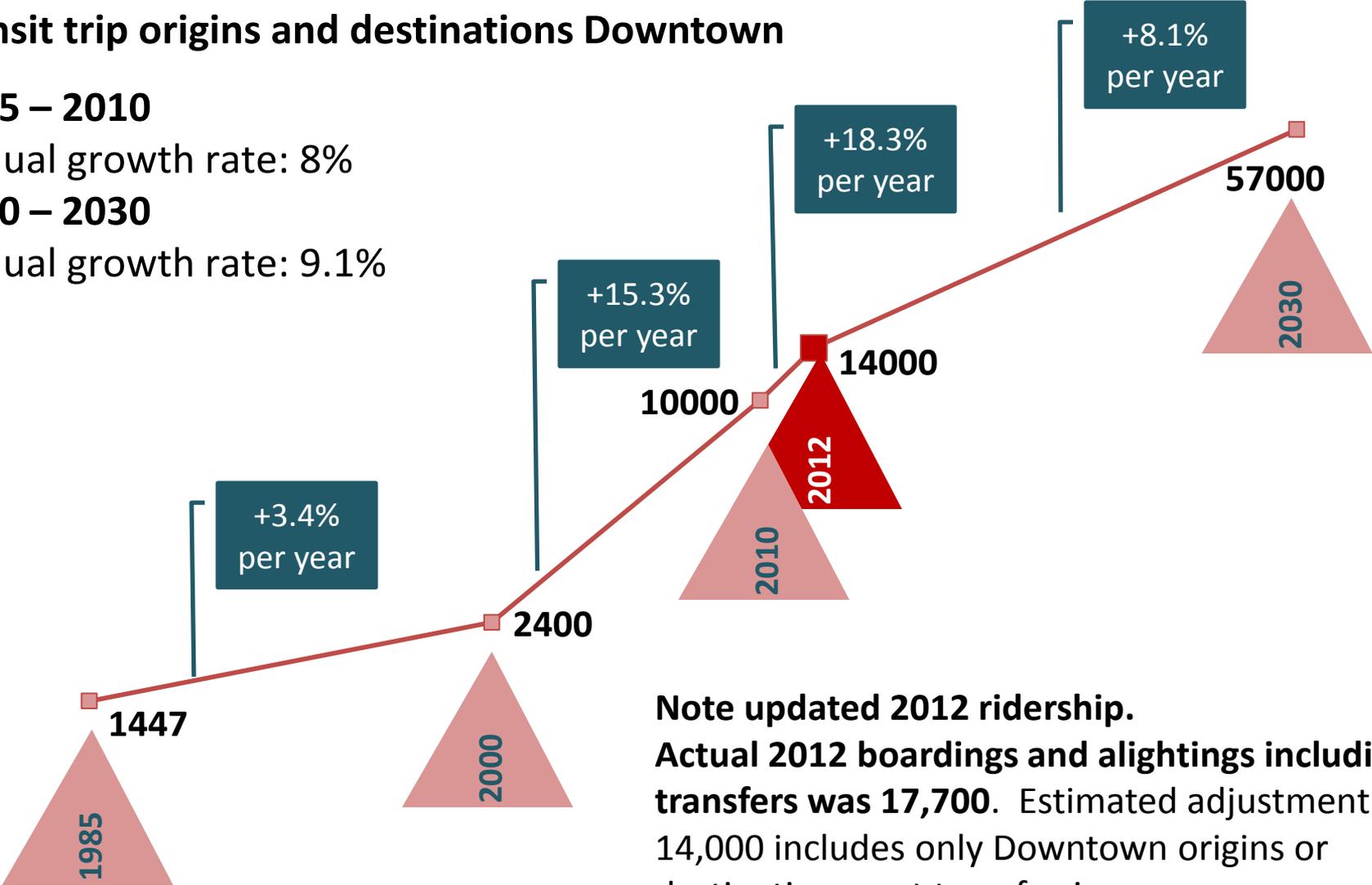
Transit trip origins and destinations Downtown

1985 – 2010

Annual growth rate: 8%

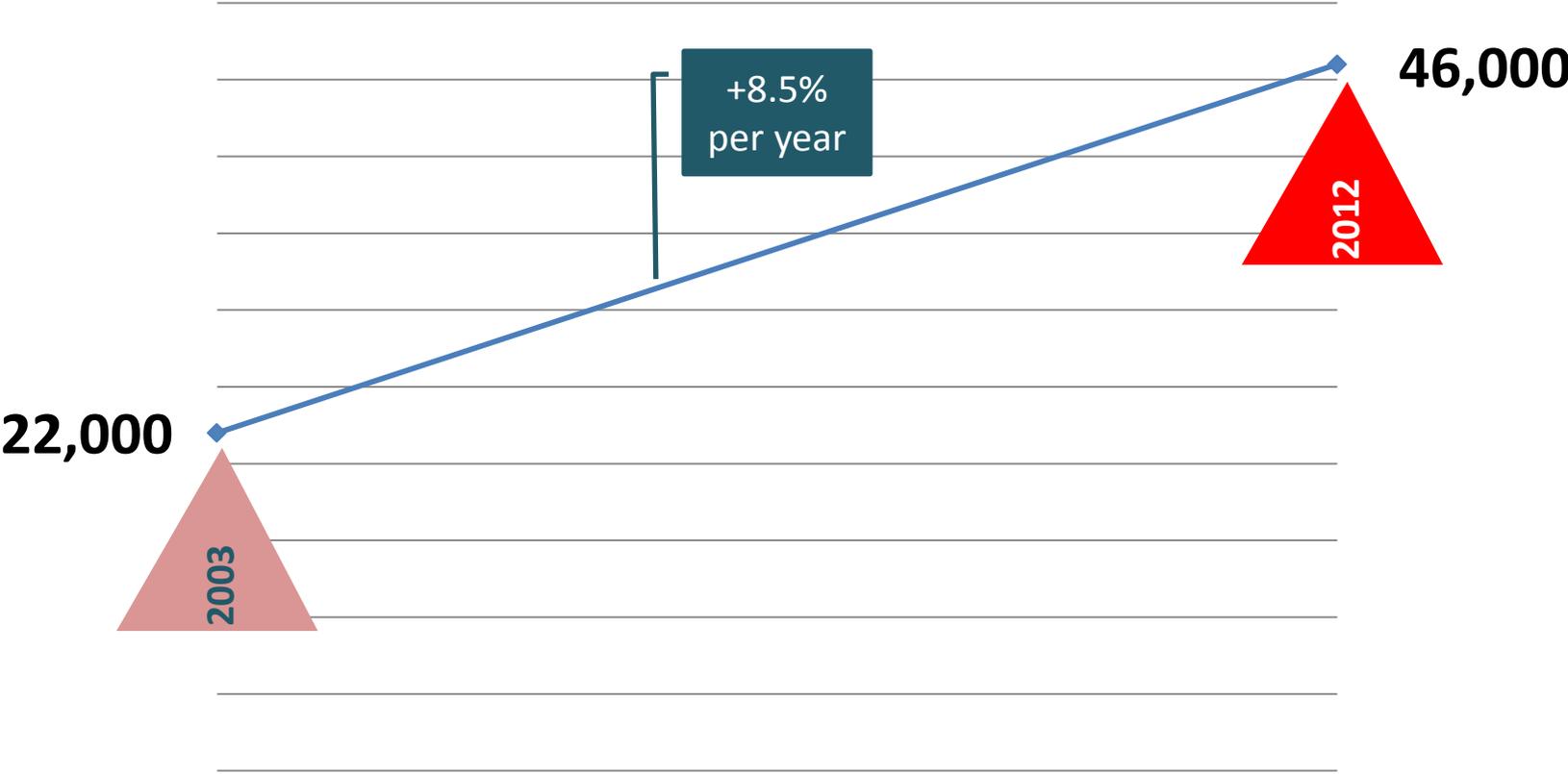
2010 – 2030

Annual growth rate: 9.1%

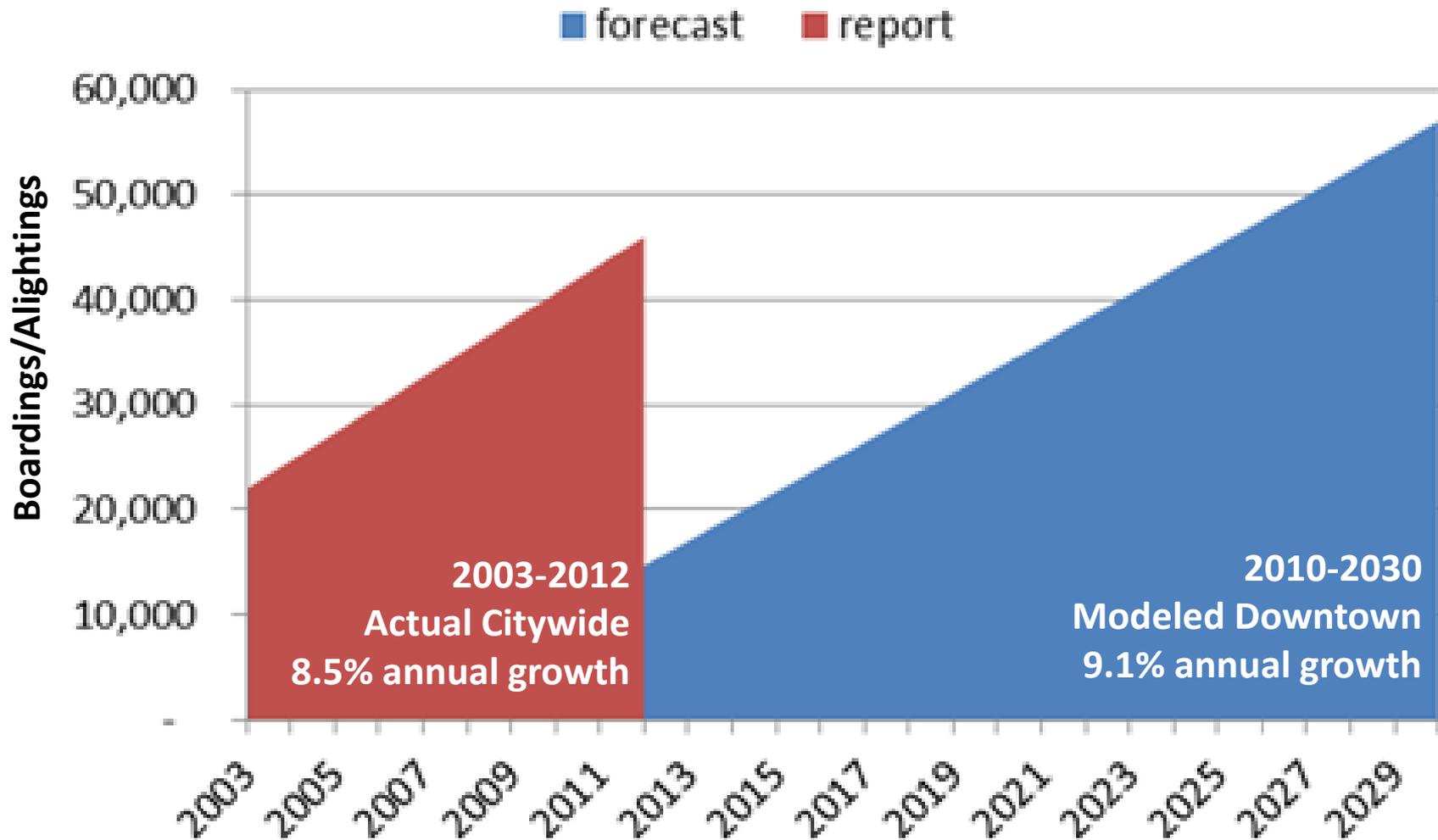


Note updated 2012 ridership. Actual 2012 boardings and alightings including transfers was 17,700. Estimated adjustment to 14,000 includes only Downtown origins or destinations, not transferring passengers.

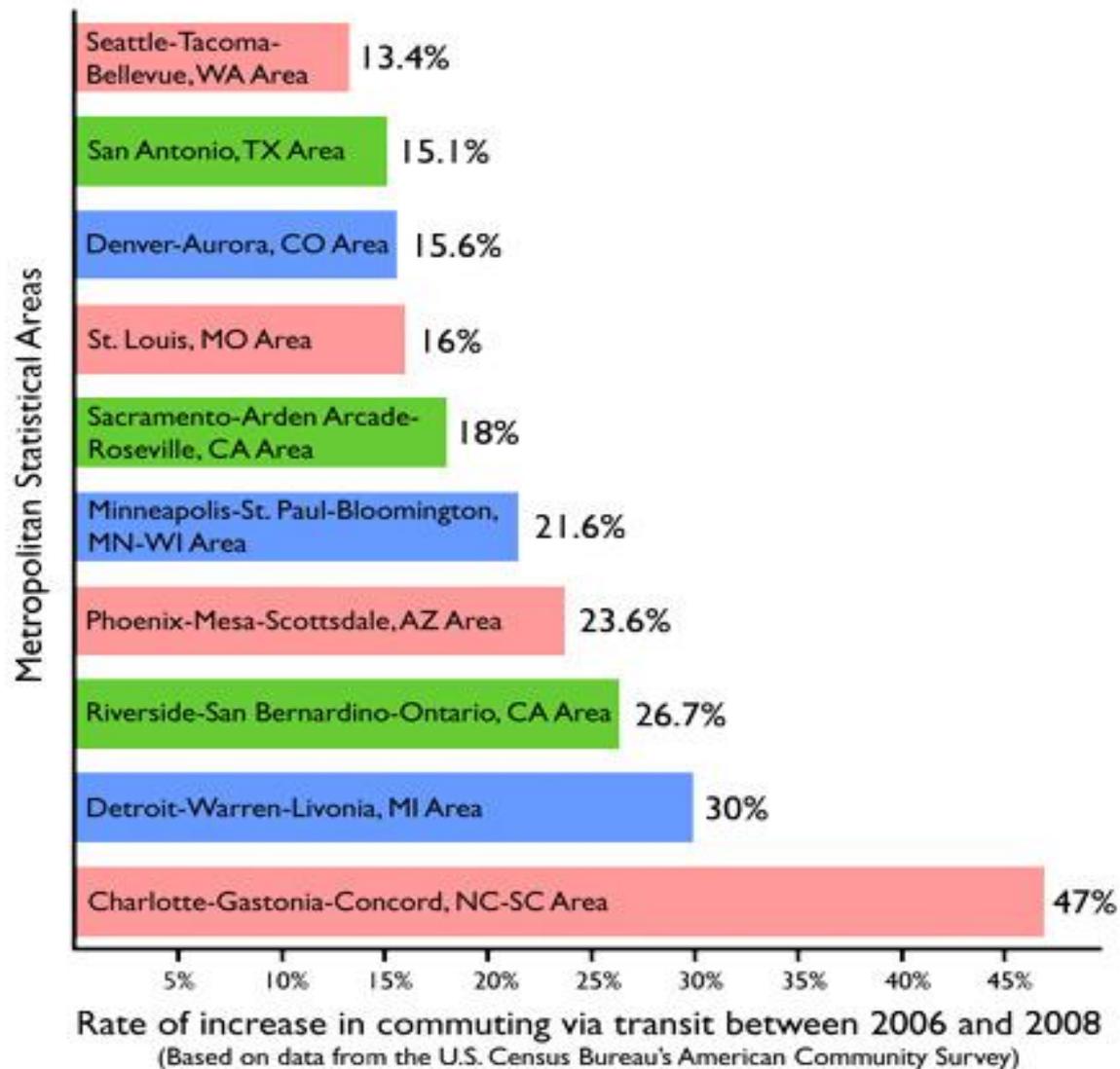
Bellevue Citywide Transit Ridership



Transit Ridership

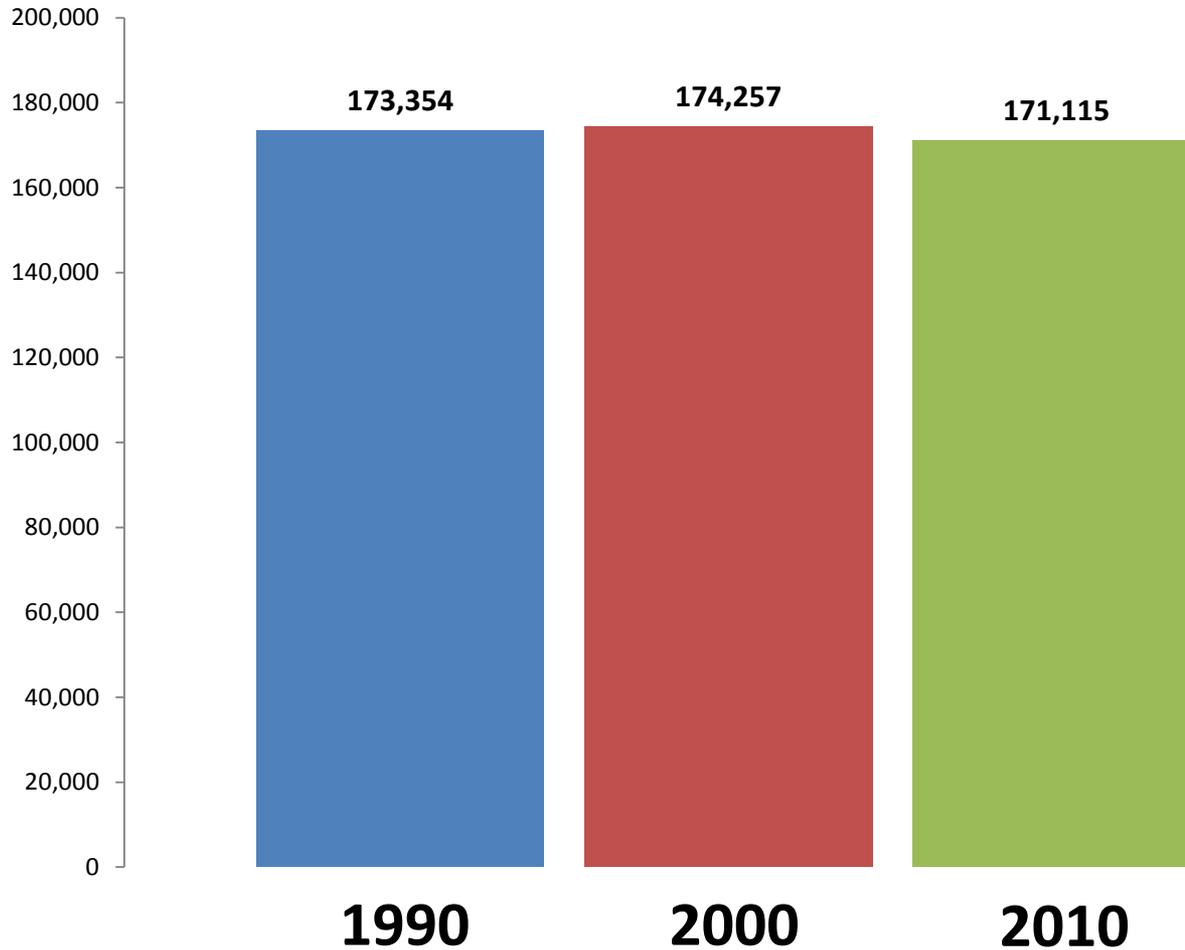


Transit Commuting Trends



Downtown Daily Vehicle Counts

Across Screenlines: Main, 100th, 12th, 112th



Average Weekday Traffic Counts: 1991-2010



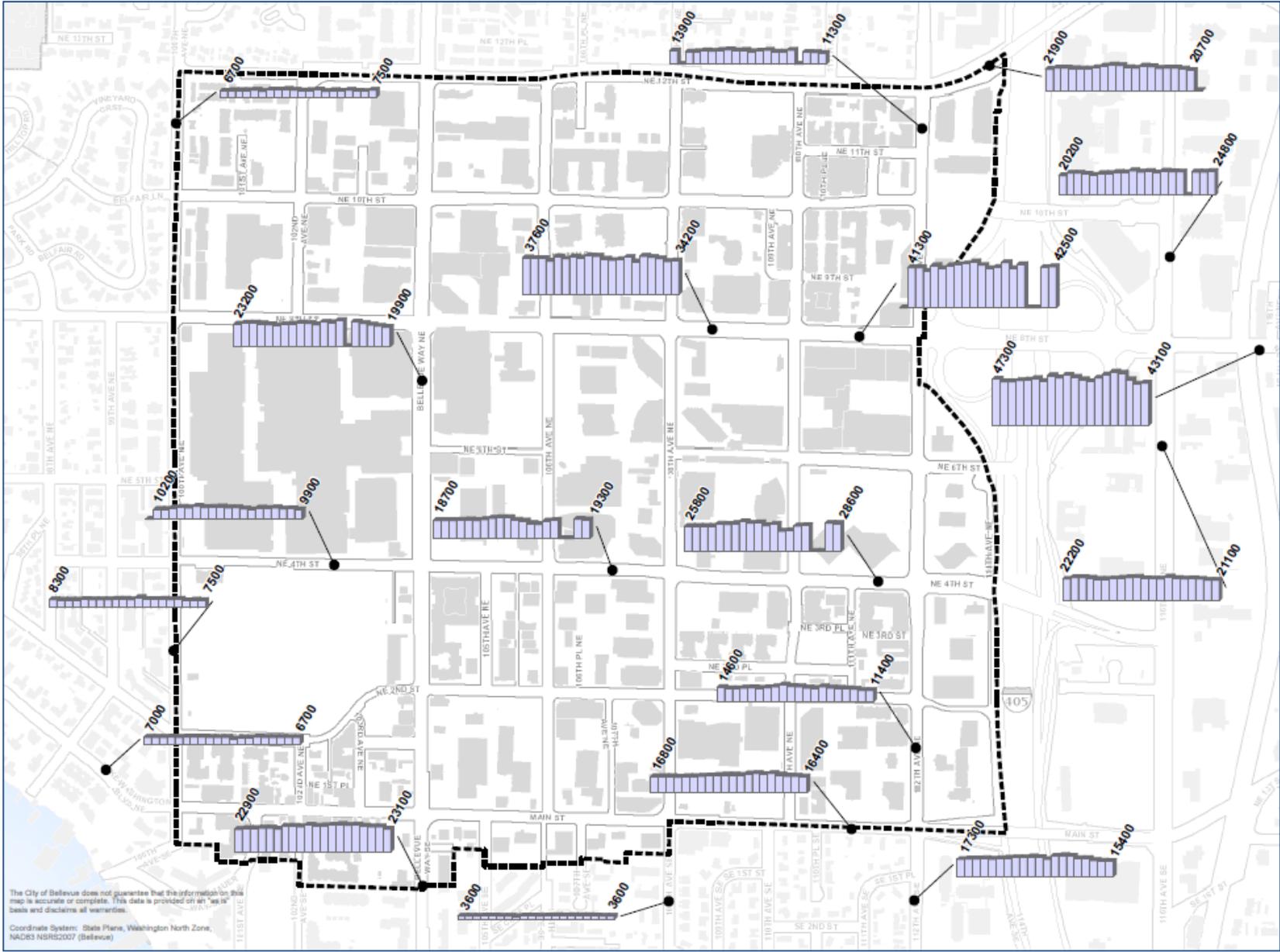
Average Annual Weekday Traffic Downtown Transportation Plan Update

Legend

Traffic counts for 1991 and 2010 to give reference

Year of traffic count (span of data is 20 yrs)

Note:
Data values at "0" on the graph are missing data or no-data for that particular year.



The City of Bellevue does not guarantee that the information on this map is accurate or complete. This data is provided on an "as is" basis and disclaims all warranties.

Coordinate System: State Plane, Washington North Zone, NAD83 NRSR2007 (Bellevue)

600 Feet

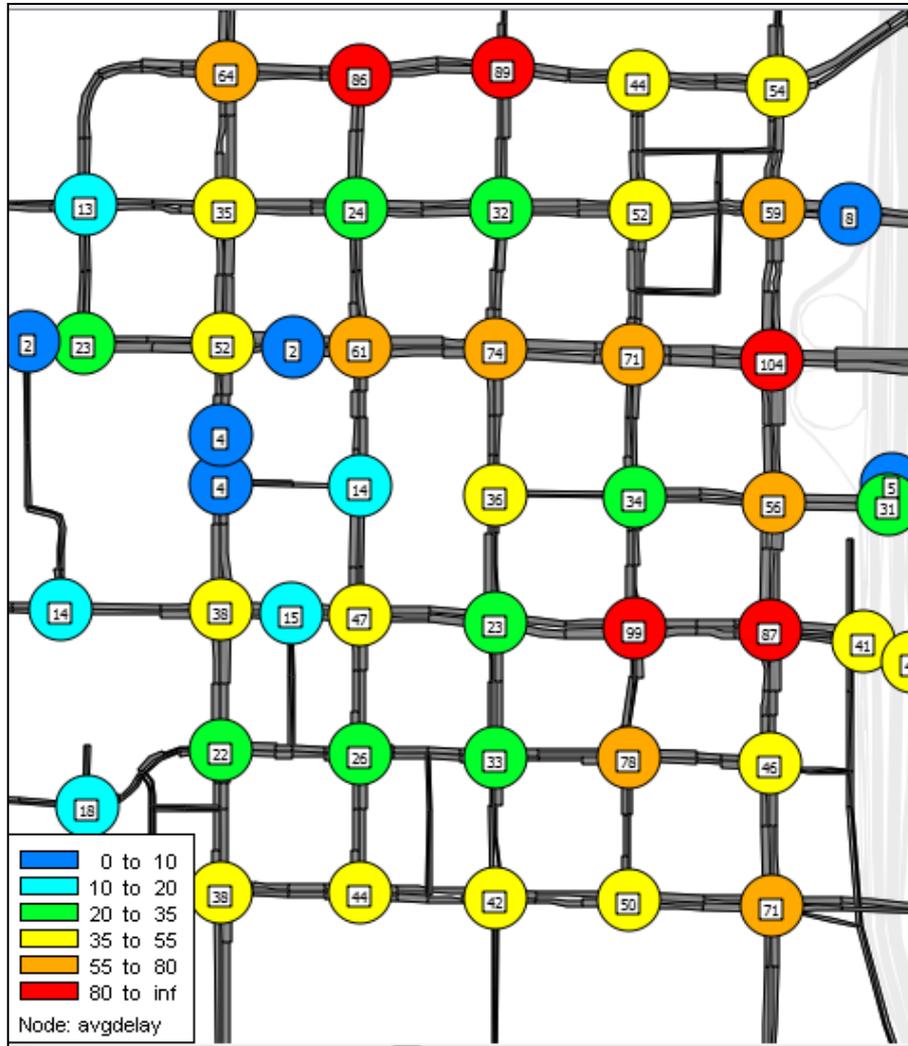
Source: City of Bellevue



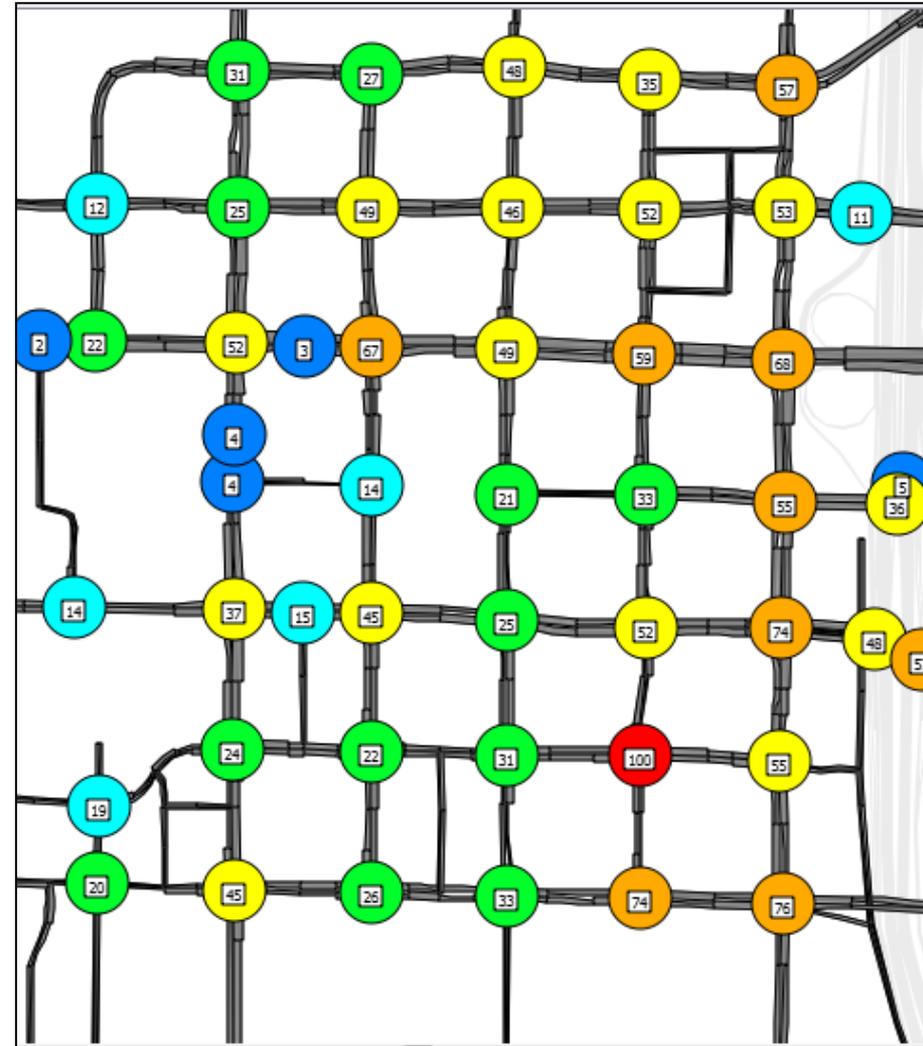
- **Updated Modeling Results – Including Transit**

PM Peak Average Intersection Vehicle Delay and LOS

Transit Vehicles Not Included (Dynameq)



2030 "Baseline" Vehicle Delay/LOS



2030 "Build" Vehicle Delay/LOS

PM Peak Average Intersection Vehicle Delay and LOS Transit Vehicles Included

Dynameq Transit Modeling Assumptions

- BKR origin/destination matrix

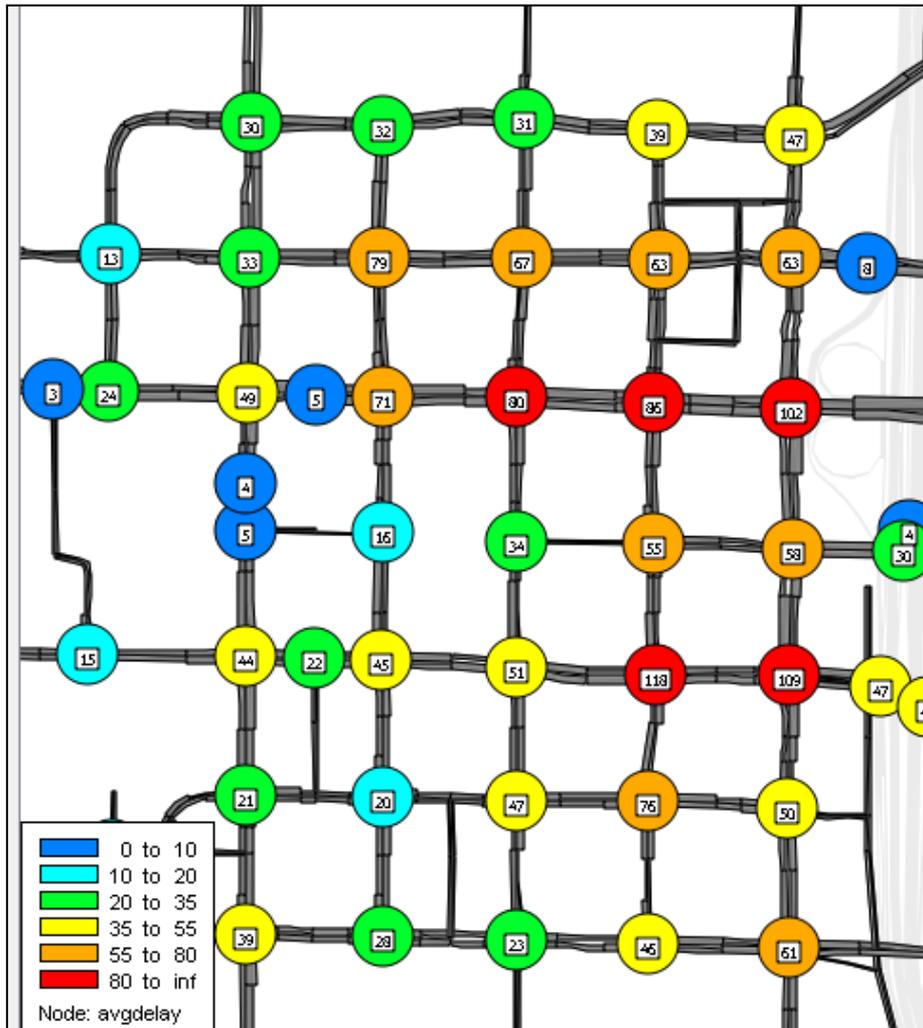
- Transit routes, headways per East Link transit integration plan

- Each bus stops at each existing bus stop

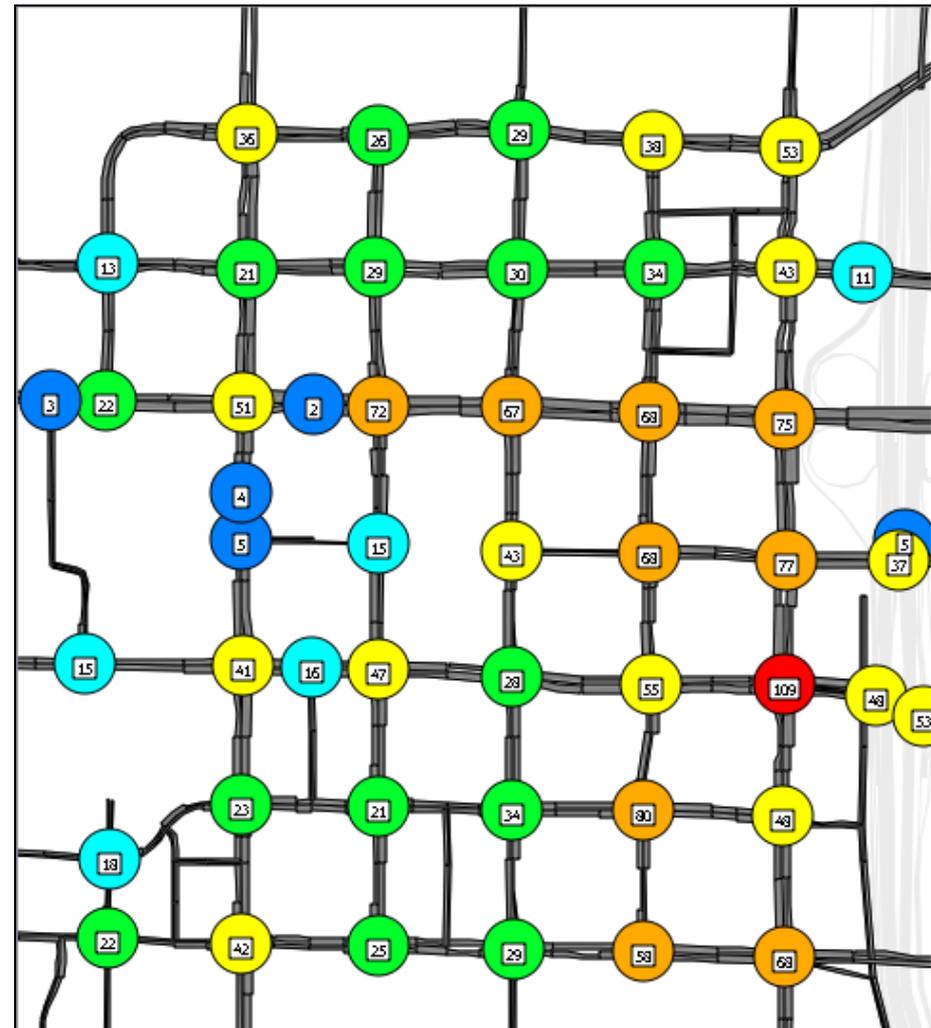
- In-lane bus stops

- 15-30 seconds per stop (dwell time)

PM Peak Average Intersection Vehicle Delay and LOS Transit Vehicles Included (Dynameq)

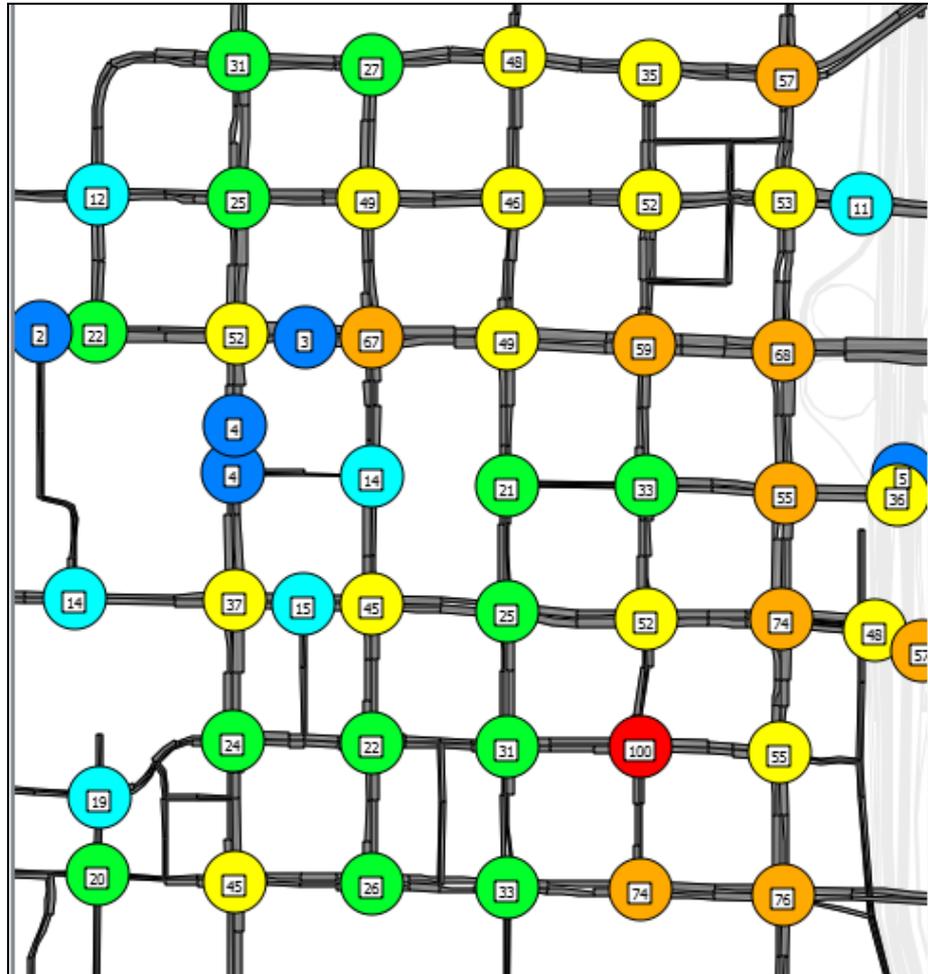


2030 "Baseline" Vehicle Delay/LOS

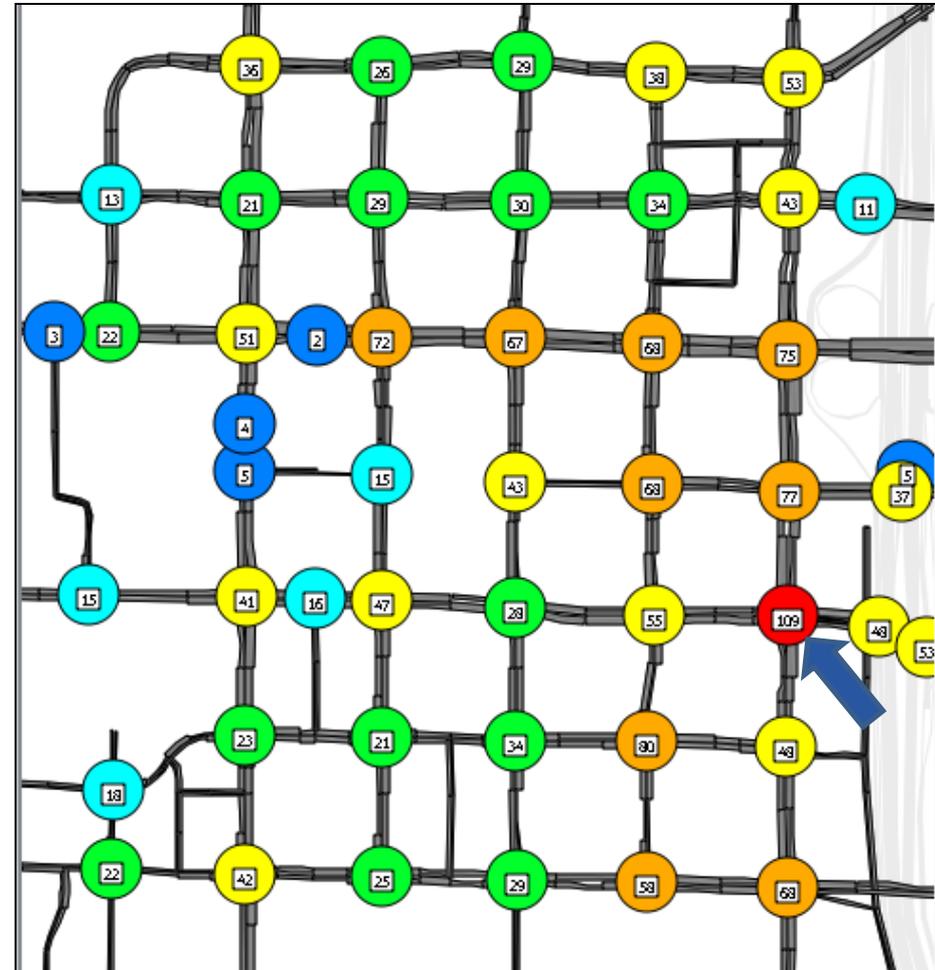


2030 "Build" Vehicle Delay/LOS

PM Peak Average Intersection Vehicle Delay and LOS 2030 Build No Transit vs Transit (Dynameq)



2030 "Build" LOS w/o Transit

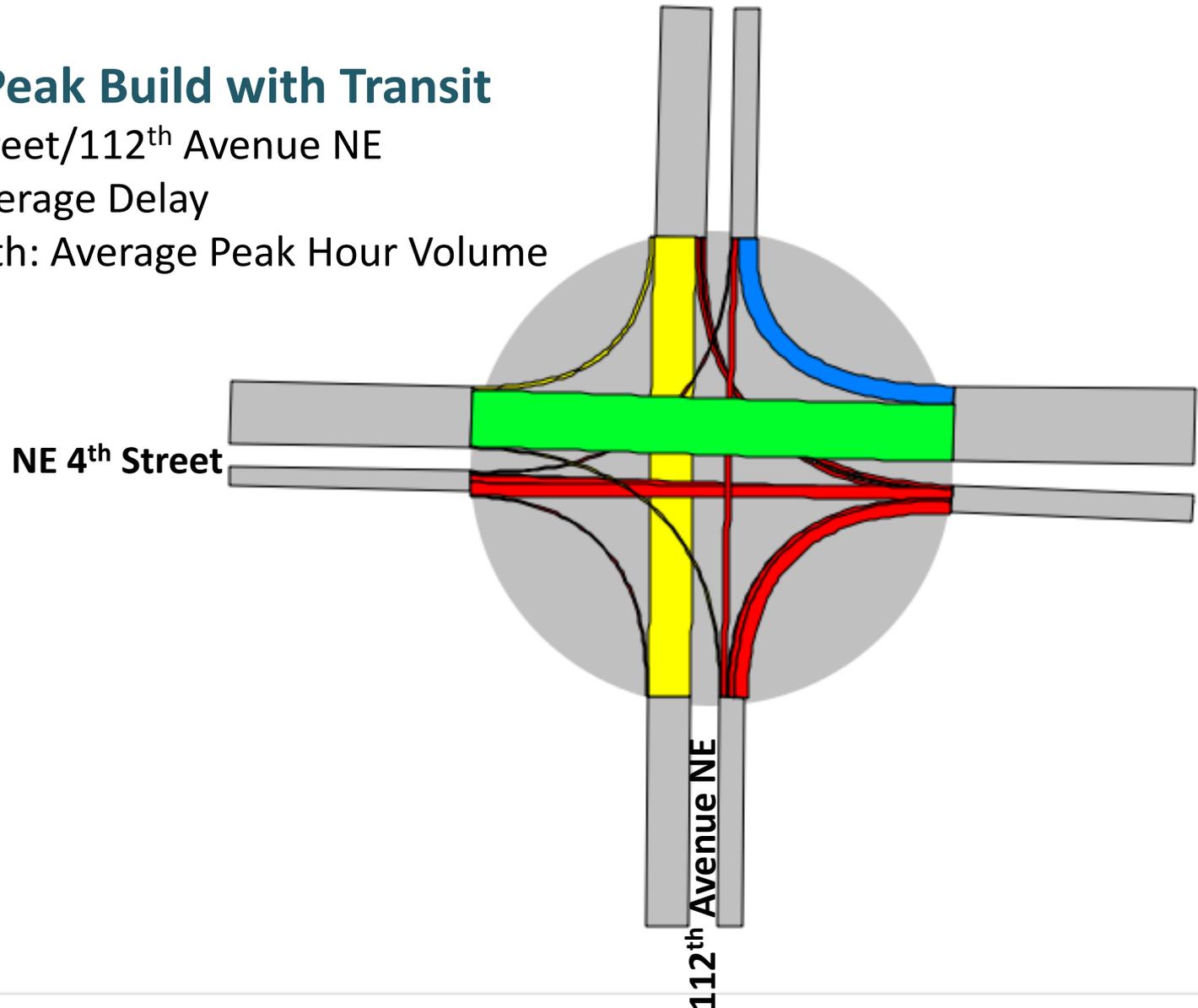


2030 "Build" LOS with Transit

NE 4th Street/112th Avenue NE

2030 PM Peak Build with Transit

- NE 4th Street/112th Avenue NE
- Color: Average Delay
- Bandwidth: Average Peak Hour Volume



Dynameq Modeling Summary

Downtown	2010 Base Year	No Transit		Transit	
		2030 "Baseline"	2030 "Build"	2030 "Baseline"	2030 "Build"
PM Peak Hour Vehicle Volume	82,000	112,000	119,000	110,000	118,000
Average Intersection Delay (seconds per vehicle)	27	56	48	56	49
Level of Service	C	E	D	E	D
Total Vehicle Delay Hours	600	1,700	1,600	1,700	1,600
Total Vehicle Delay Minutes	36,000	102,000	96,000	102,000	96,000
Delay per Vehicle Minutes	.44	.91	.81	.93	.81
Occupancy per Vehicle	1.368	1.373	1.373	1.373	1.373

Source: Dynameq Model. Revised May 2, 2013 to include transit assumptions

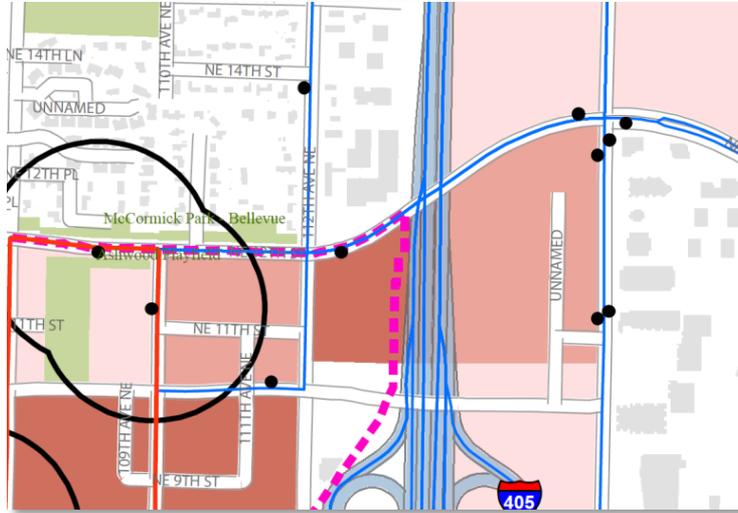
Downtown Transit – Passenger Comfort, Access and Information

- Transit Stop Typologies

- Transit Stop Components

Downtown Transit – Scope of Work

Coverage



Speed and Reliability



Capacity



Comfort/Access/Information



Passenger Comfort, Access and Information

Community Comments

- Wayfinding to/from neighborhood destinations
- Transit access: Sidewalks, crosswalks, mid-block, through-block
- Bicycle facilities: On-street bicycling facilities and wayfinding, including short-term and long-term bicycle parking near transit

Transportation Commission Comments 12/14/12

- Invite entrepreneurs – coffee and other vendors to adopt a bus stop
- Provide wifi at bus stops
- Information on restroom availability – incorporate in wayfinding
- Maps – incorporate in shelters/wayfinding
- Shelter is critical – rain
- Off-board fare payment for speedier boarding
- Electronic transit information at bus stops, also smart phone apps
- Safety, especially considering late night service (components such as lighting, phone, video surveillance)

Downtown Bellevue Transit

Transit Passenger Comfort/Access/Information

- Describe transit stop typologies in Downtown Bellevue
- List preferred typology-based transit stop components



Passenger Comfort/Access/Information

Downtown Transit Stop Typologies

- Local Transit Stop
- Primary Transit Stop
- Frequent Transit Network/
RapidRide Station
- Transit Center/
Downtown Multimodal Center



Transit Stop Typologies and Components

Local Transit Stop

Function

- Served by a single transit route that provides scheduled service

Expected Typical Passenger Volume

- Generally up to 30 boardings per weekday

Stop/Station Components

- Pole-mounted bus stop sign
 - Route number / bus stop number
 - Route schedule / destination
 - Transit route map with neighborhood scale
 - Customer service telephone number/e-mail/web site
- ADA standard landing pad, with access to sidewalk
- Pedestrian-oriented security lighting
- Passenger bench plus shelter if boardings warrant

Stop/Station Access Components

- Typical standard urban pedestrian and bicycle facilities



Transit Stop Typologies and Components

Primary Transit Stop

Function

- Served by one, or more scheduled transit routes with service provided at a combined headway of 30 minutes, or better
- Bus routes may cross at nearby intersection and transfers between routes are possible

Expected Typical Passenger Volume

- Weekday boardings between 30 and 100 passengers

Stop/Station Components

- **Local Transit Stop** components
- Passenger shelter
- Transit route map and transit transfer wayfinding
- Real time information display
- Trash receptacle
- Short-term bicycle parking

Stop/Station Access Components

- Enhanced crosswalk components
- Nearby mid-block crossing(s)
- Neighborhood wayfinding



Transit Stop Typologies and Components

Frequent Transit Network/RapidRide Station

Function

- RapidRide transit access and transfers
- Served primarily by RapidRide B, station may be shared with local or regional frequent transit routes, ie) KCM Route #271
- Combined headway 15-minutes or better

Expected Typical Passenger Volume

- Weekday boardings 100 to 1,000 passengers

Stop/Station Components

- **Primary Transit Stop** facilities
- Sheltered or enclosed passenger waiting areas
- Orca Card vending machine
- Transit transfer information and wayfinding
- Short-term bicycle parking

Stop/Station Access Components

- Enhanced or Exceptional crosswalk components
- Nearby mid-block crossing(s)
- Accessible through-block connections
- Neighborhood wayfinding



Transit Stop Typologies and Components

Transit Center/Downtown Multimodal Center

Function

- Multi-modal transit system access and transfers
- Served by multiple transit routes and transit modes (bus, RapidRide, light rail) with a constant flow of transit vehicles and passengers

Expected Typical Passenger Volume

- Weekday boardings far exceed 1,000 passengers

Stop/Station Components

- **Frequent Transit/RapidRide Station** facilities
- Publically accessible rest room
- “Bike Station”- type facilities including covered, long-term bicycle parking, showers/lockers

Stop/Station Access Components

- Exceptional crosswalk components
- Nearby mid-block crossings
- Accessible through-block connections
- Bicycle access from neighborhoods and region
- Neighborhood wayfinding



Transit Stop Typologies and Components

Staff Recommendations

Designate Four Downtown Typologies

- Local Transit Stop
- Primary Transit Stop
- Frequent Transit Network/RapidRide Station
- Bellevue Transit Center/Multimodal Hub

Describe Components suited to each Typology

- Passenger Comfort, Access, and Information

Identify Implementation Strategies

- Public Investment
 - City of Bellevue
 - Transit Agencies
- Private Development
 - Land Use Code Incentives (Downtown Livability)
- Sponsorship
 - Advertisement
 - Vending



Next Steps

June 13, 2013: Transportation Commission

- 2013 Comprehensive Plan Update: Transportation
- Downtown On-Street Parking Introduction

Summer/Fall 2013

- Transportation Commission: Recommended Downtown Transportation Plan Multimodal Strategy
- Council briefing September 23
- Integrate with Downtown Livability Initiative

Spring 2014

- Downtown Subarea Plan Amendments



Downtown Transportation Plan Update

Thank you!

www.bellevuewa.gov/DowntownTransportationPlanUpdate