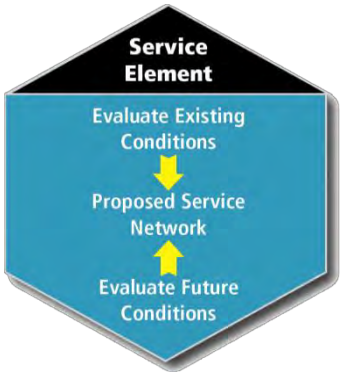
Bellevue Transit Master Plan

Transportation Commission

November 8, 2012



Identifies the City's transit service priorities that are responsive to different financial scenarios and attune to different time horizons.

Assesses roadway, signal system, and other rights-of-way improvements that could be made to support the transit vision outlined in the Service Element.

Articulates Bellevue's interests as it responds to regional transit policy changes and financial uncertainties, and coordinates with partner agencies.

Elements of the Plan Update

Community Input

- Collecting information from riders/non-riders
- Understanding rider behavior (trip purpose)
- Documenting transit service priorities

Technical Analysis

- Analyzing detailed transit route data
- Evaluating service area coverage
- Modeling local and regional travel patterns

Best Practices from Other Cities

- Evaluating Bellevue's transit service network
- Identifying new and innovative ways to design/deliver transit service

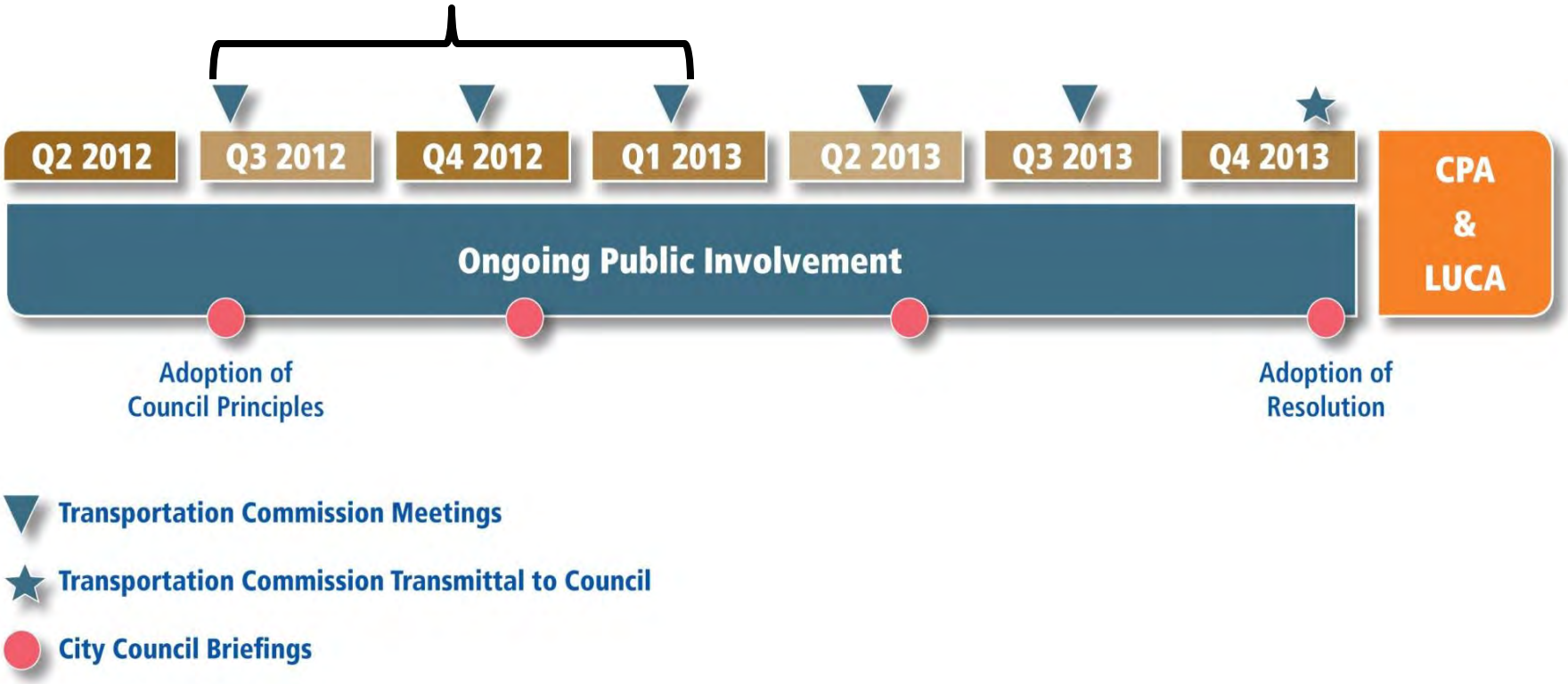
Transit Service Vision Inputs

2/14/13 TC Meeting: Draft Transit Service Vision

11/8/12 TC Meeting: Transit Briefing Book & Service Planning Process

9/18/12 Transit Forum: Discussion Topics for Forum Participants

9/13/12 TC Meeting: Project Background, Council Principles, & Scope of Work



Bellevue Transit Master Plan

Project Timeline

Transit is an essential component of the City's mobility strategy and an increasingly important tool for addressing Bellevue's anticipated growth in travel.

- "An important benefit of transit is that whenever a transit trip replaces a single auto trip it eases the congestion that hurts all businesses and all commuters. Bellevue could not reach its projected growth without transit. We can't just build roads to meet our growth." – *Tom Tanaka, Transportation Commission*

- "Transit draws businesses to Bellevue; for instance, the B-Line has created ease of movement from Microsoft's Main Campus to Downtown. The B-Line is better than the Shuttle. It runs more often and is bigger."
  – *Mark Van Hollebeke, Parks & Community Services Board*

- "For some people transit is the only source or option for transportation."
  – *John Bruels, Human Services Commission*

More can be done to improve bus service for people who depend on transit due to age or disability, in areas of lower density, and at non-peak hours (midday, evening, & weekend).

- "The challenge is getting people from neighborhood areas to reliable transit." – *Scott Lampe, Transportation Commission*
- "Transit in Bellevue primarily benefits the working commuter, especially those who work in downtown Bellevue. Transit in Bellevue does not serve seniors well; and it does not work well for appointments, shopping and errands…. Bellevue has changing demographics that need non-commute transit: young singles that don't own cars; more minorities, more households without kids." – *Pat Sheffels, Planning Commission*
- "I take the bus wherever I need to go when I'm downtown. When I have an evening meeting, I drive because buses drop off after 7 PM." – *Hal Ferris, Planning Commission*

Current sources of funding won't cover everything that needs to be done; as such, the near-term focus needs to be on maximizing ridership.

- "Far and away the dominant market share of transit are the work trips." – *Vic Bishopp, Transportation Commission*
- "Given the current budget constraints, the highest priority for the fixed route buses is giving a positive experience to peak riders." – *Stuart Heath, Parks & Community Services Board*
- "Some neighborhoods will always be difficult to serve ... There is pressure on King County and Sound Transit to reduce unproductive service. To expect that service is going to grow in the short-term is unrealistic. For now we should maintain strong productivity on the transit service we have." – *Kris Liljeblad, Arts Commission*

We need to make strategic investments to support future development and growth in transit ridership.

- "If you look at the demand for Downtown Bellevue, there's a much greater flow North-South, not East-West. We need Bus Rapid Transit on I-405."
  – *Scott Lampe, Transportation Commission*

- "I favor setting up high-ridership corridors for transit that serve high density areas."
  – *Dallas Evans, Parks & Community Services Board*

- "Until 2030, we'll just keep getting denser around East Link nodes…. If parking is free, people will use it…. If you don't build the parking, and if you have good transit, people will use it." – *Hal Ferris, Planning Commission*

- "RapidRide is a success. Maybe look at doing one along Bellevue Way."
  – *Aaron Laing, Planning Commission*

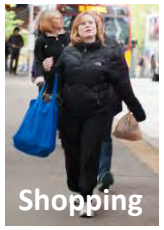
1. Current Transit Network
2. Market Segmentation
3. Future Travel Markets
4. Market Driven Strategies

Service Planning Process

Current Transit Network

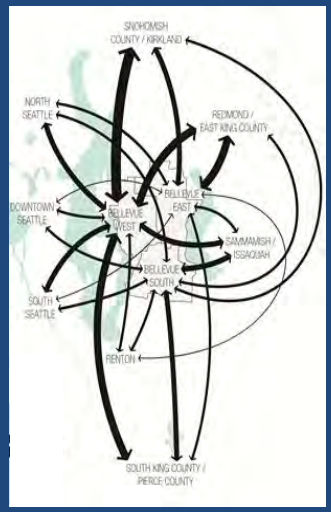
What service types are in place today and how well do they perform?

Market Segmentation



What are the attitudes and preferences that drive traveler choices?

Future Travel Markets



Which segments in which travel markets should transit services compete for?

Market Driven Strategies

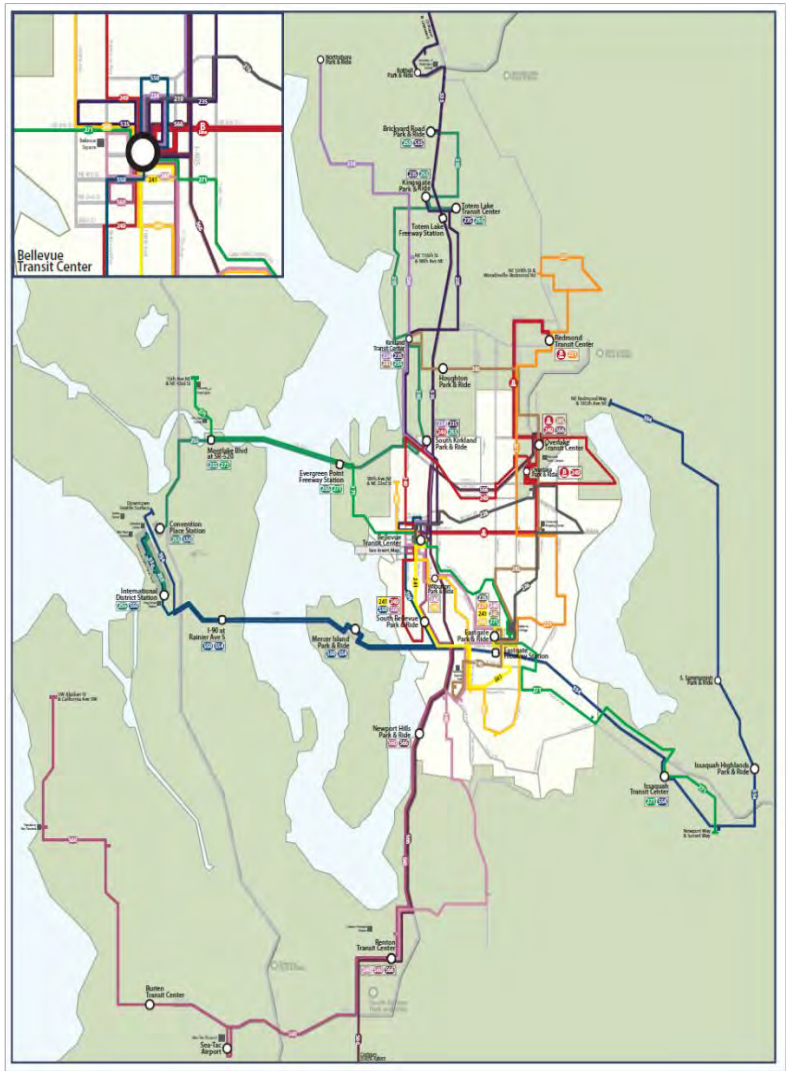
Stop Spacing

Speed of Service

Frequency of Service

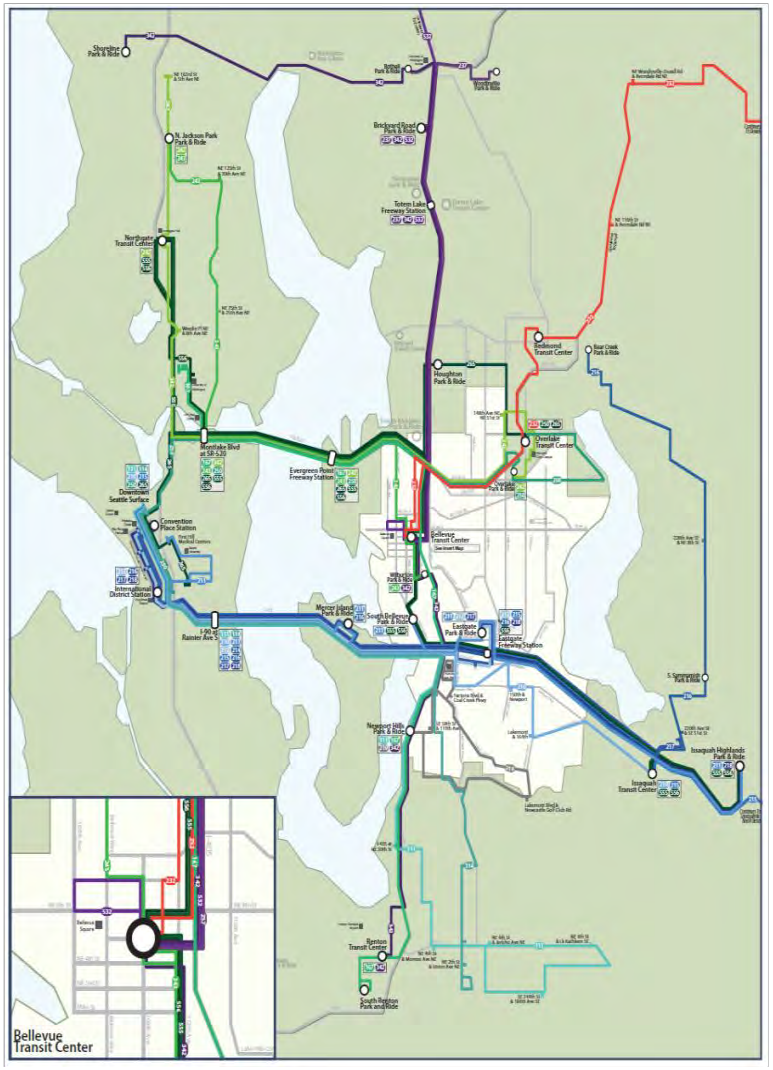
What kinds of strategies can best seize these opportunities?

All-Day Routes



Routes Operating Throughout the Day

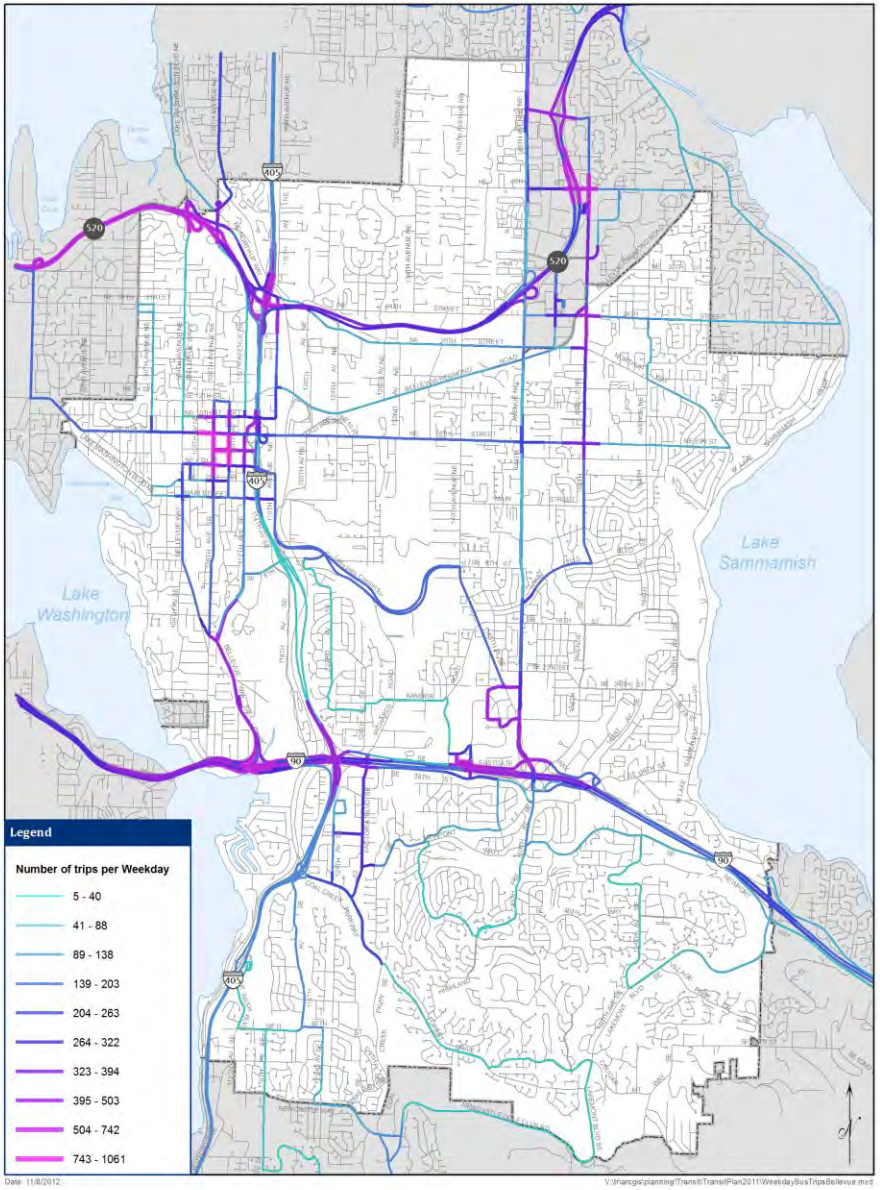
Peak Only Routes



Routes Operating During Morning & Afternoon Commuting Periods

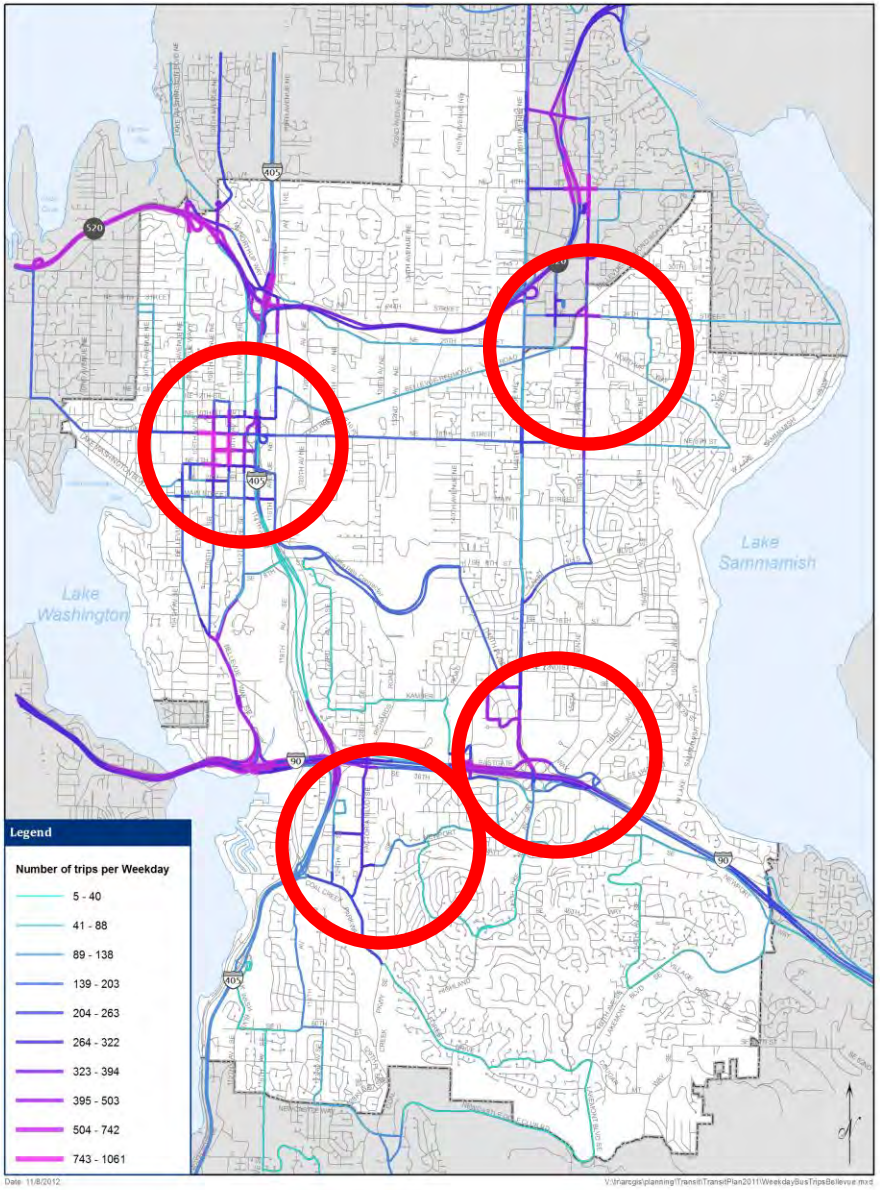
Bellevue Transit Master Plan

Bellevue's Transit Network



Bellevue Transit Master Plan

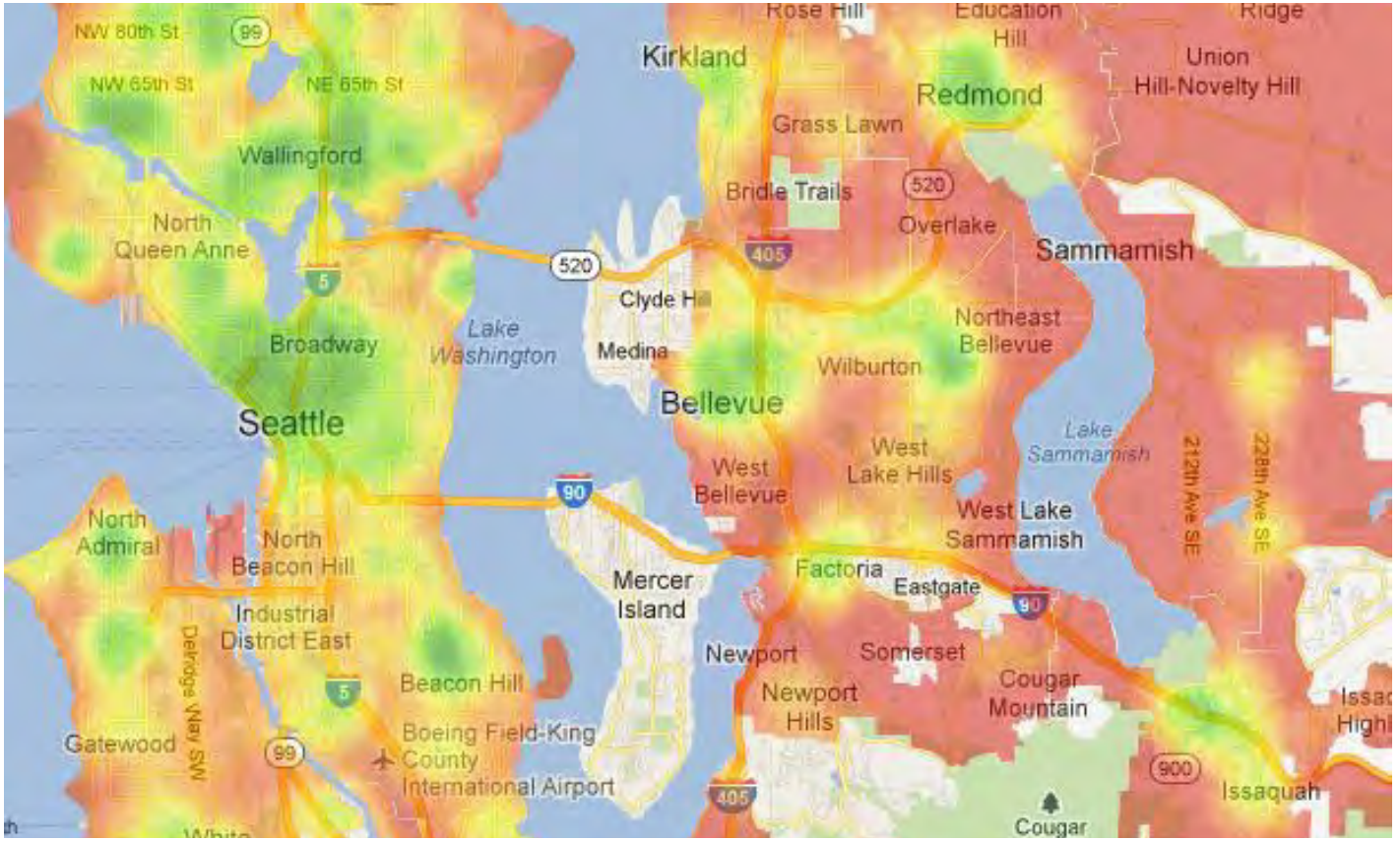
Weekday Bus Trips on City Streets



Bellevue Transit Master Plan

Weekday Bus Trips on City Streets

“TransitScore” measures how well a location is served by transit.



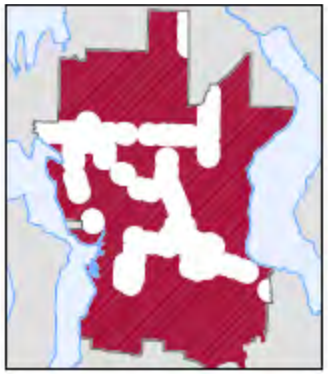
Transit Score	Description
90–100	**Rider's Paradise** — World-class public transportation.
70–89	**Excellent Transit** — Transit is convenient for most trips.
50–69	**Good Transit** — Many nearby public transportation options.
25–49	**Some Transit** — A few nearby public transportation options.
0–24	**Minimal Transit** — It is possible to get on a bus.

← **Seattle Score: 59**

← **Bellevue Score: 39**

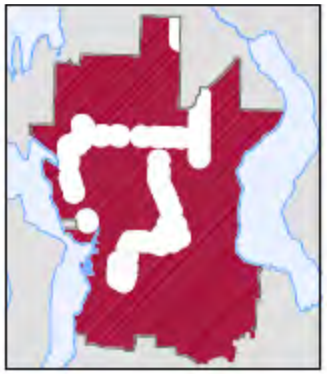
Areas in Bellevue lacking 15 min or Less Bus Service on Weekdays (Fall 2011)

AM Peak (05:00 – 09:00)



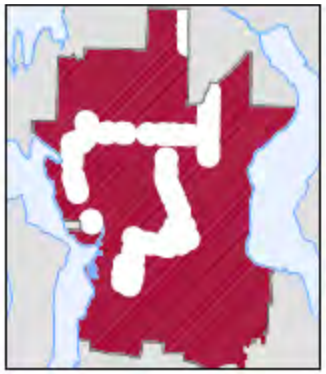
Residents Served: 37%

Base (09:00 – 15:00)



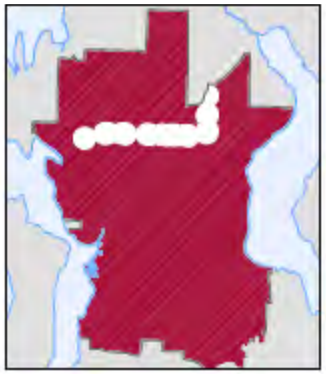
Residents Served: 29%

PM Peak (15:00 – 18:00)



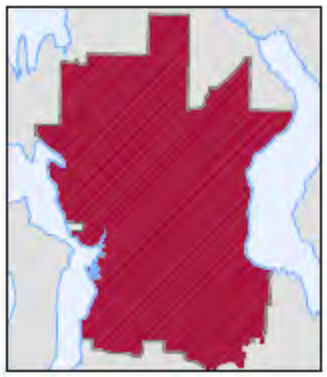
Residents Served: 30%

Evening (18:00 – 22:00)



Residents Served: 13%

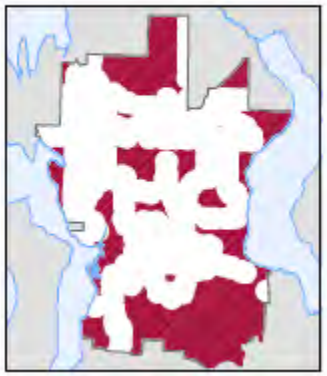
Night (22:00 – 01:00)



Residents Served: 0%

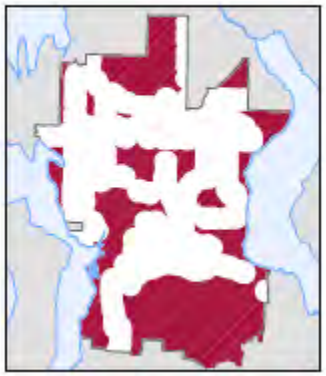
Areas in Bellevue lacking 30 min or Less Bus Service on Weekdays (Fall 2011)

AM Peak (05:00 – 09:00)



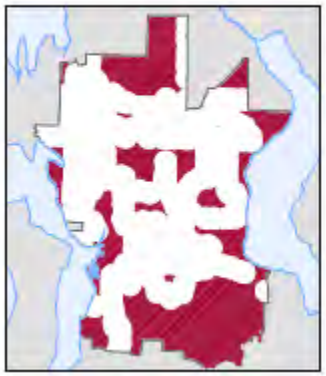
Residents Served: 72%

Base (09:00 – 15:00)



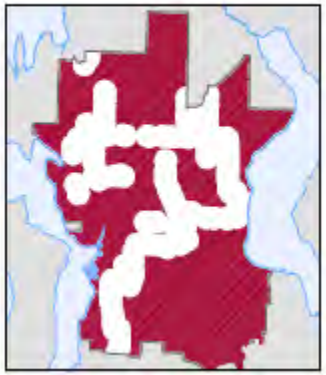
Residents Served: 67%

PM Peak (15:00 – 18:00)



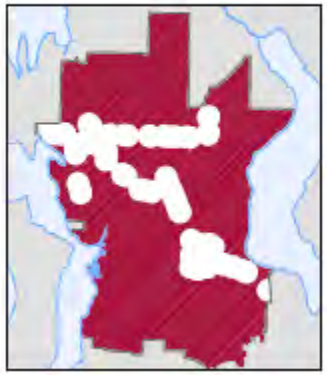
Residents Served: 72%

Evening (18:00 – 22:00)



Residents Served: 40%

Night (22:00 – 01:00)



Residents Served: 27%

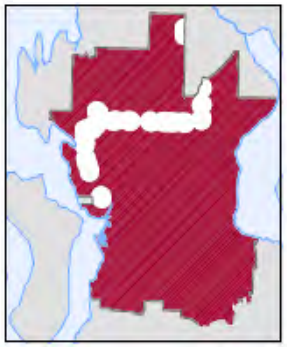
Areas not served by transit during weekdays (i.e bus stop not within 1/4 mile or 15/30 minute or less service not provided)

Bellevue Transit Master Plan

Weekday Service Coverage

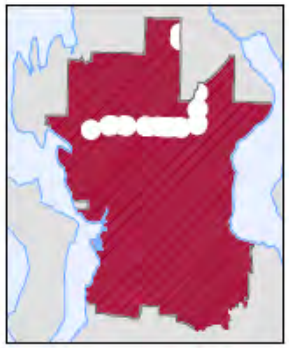
Areas lacking 15 minute or less Bus Service on Saturday (Fall 2011)

Base (09:00 – 15:00)



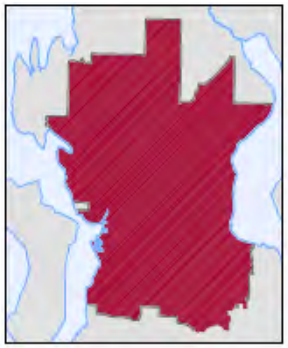
Residents Served: 21%

Evening (18:00 – 22:00)



Residents Served: 14%

Night (22:00 – 01:00)



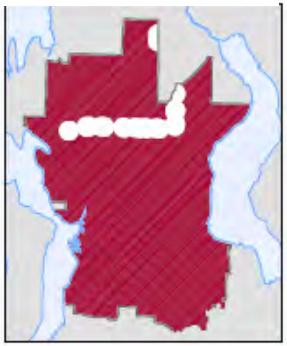
Residents Served: 0%

Areas lacking 15 minute or less Bus Service on Sunday (Fall 2011)

Base (09:00 – 15:00)

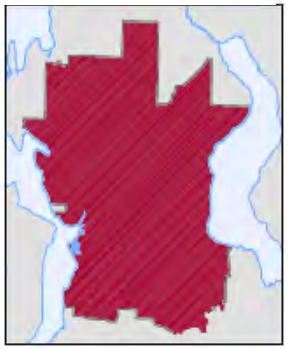
Residents Served: 14%

Evening (18:00 – 22:00)



Residents Served: 12%

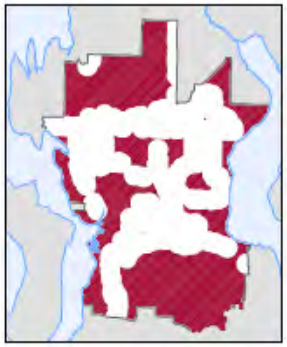
Night (22:00 – 01:00)



Residents Served: 0%

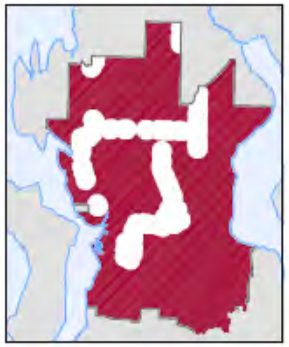
Areas lacking 30 minute or less Bus Service on Saturday (Fall 2011)

Base (09:00 – 15:00)



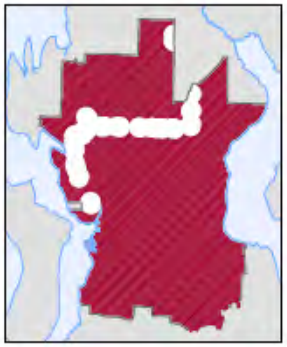
Residents Served: 61%

Evening (18:00 – 22:00)



Residents Served: 30%

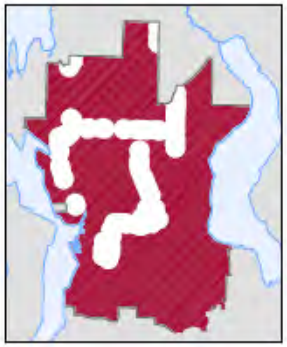
Night (22:00 – 01:00)



Residents Served: 21%

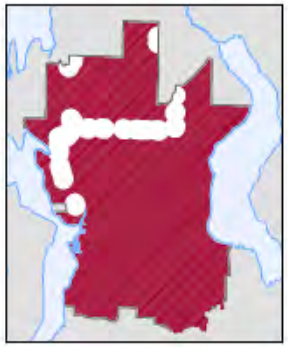
Areas lacking 30 minute or less Bus Service on Sunday (Fall 2011)

Base (09:00 – 15:00)



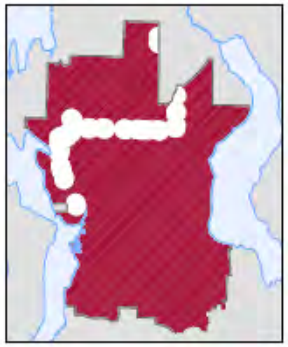
Residents Served: 30%

Evening (18:00 – 22:00)



Residents Served: 22%

Night (22:00 – 01:00)



Residents Served: 21%

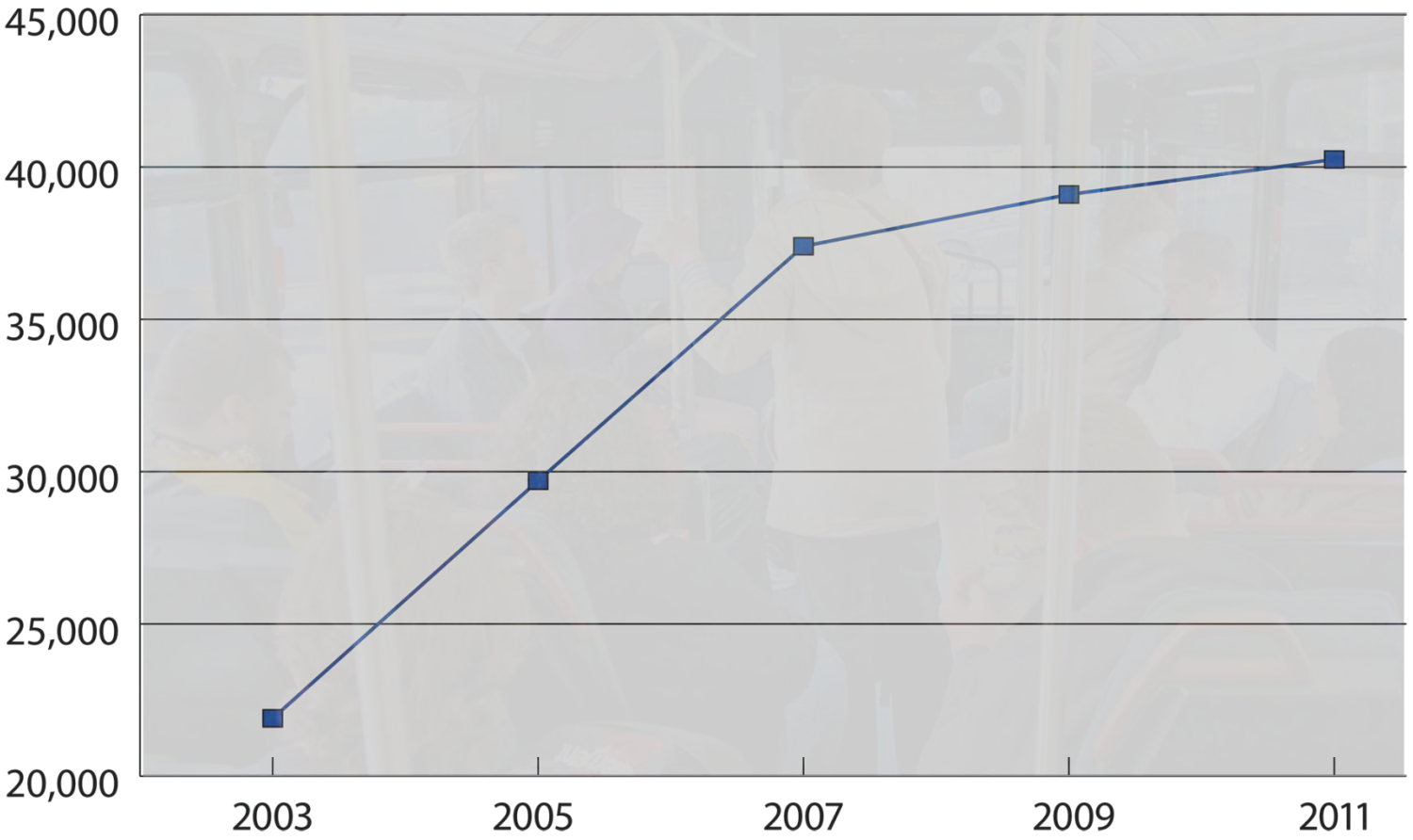
Areas not served by transit during weekends (i.e bus stop not within 1/4 mile or 15/30 minute or less service not provided)

Bellevue Transit Master Plan

Weekend Service Coverage

Average Weekday Transit Ridership (Fall 2003 to Fall 2011)

84 percent increase, from 21,900 (2003) to 40,250 (2011).

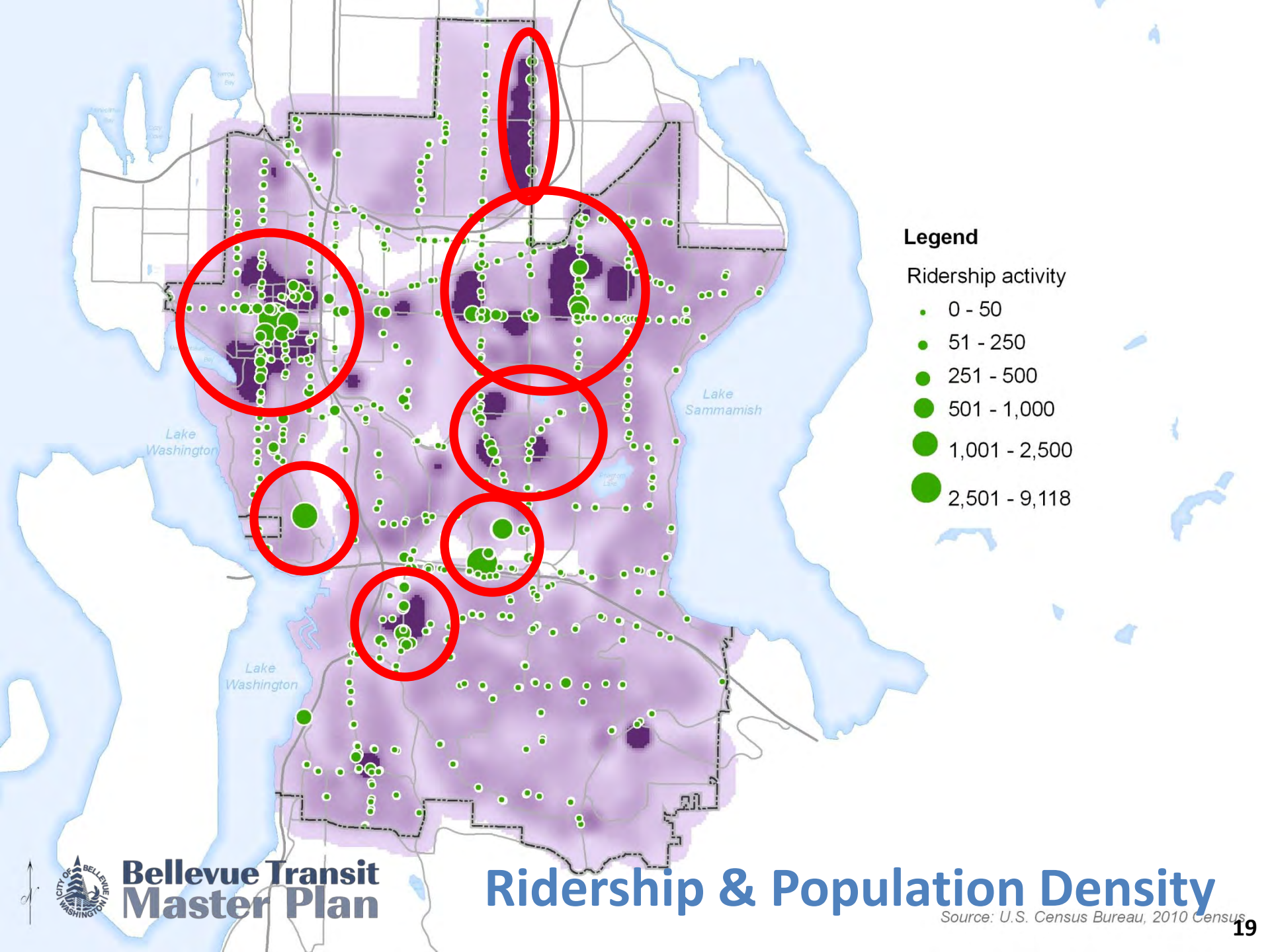


Bellevue Transit Master Plan

Citywide Transit Ridership

Average Weekday Transit Ridership (Fall 2003 to Fall 2011)

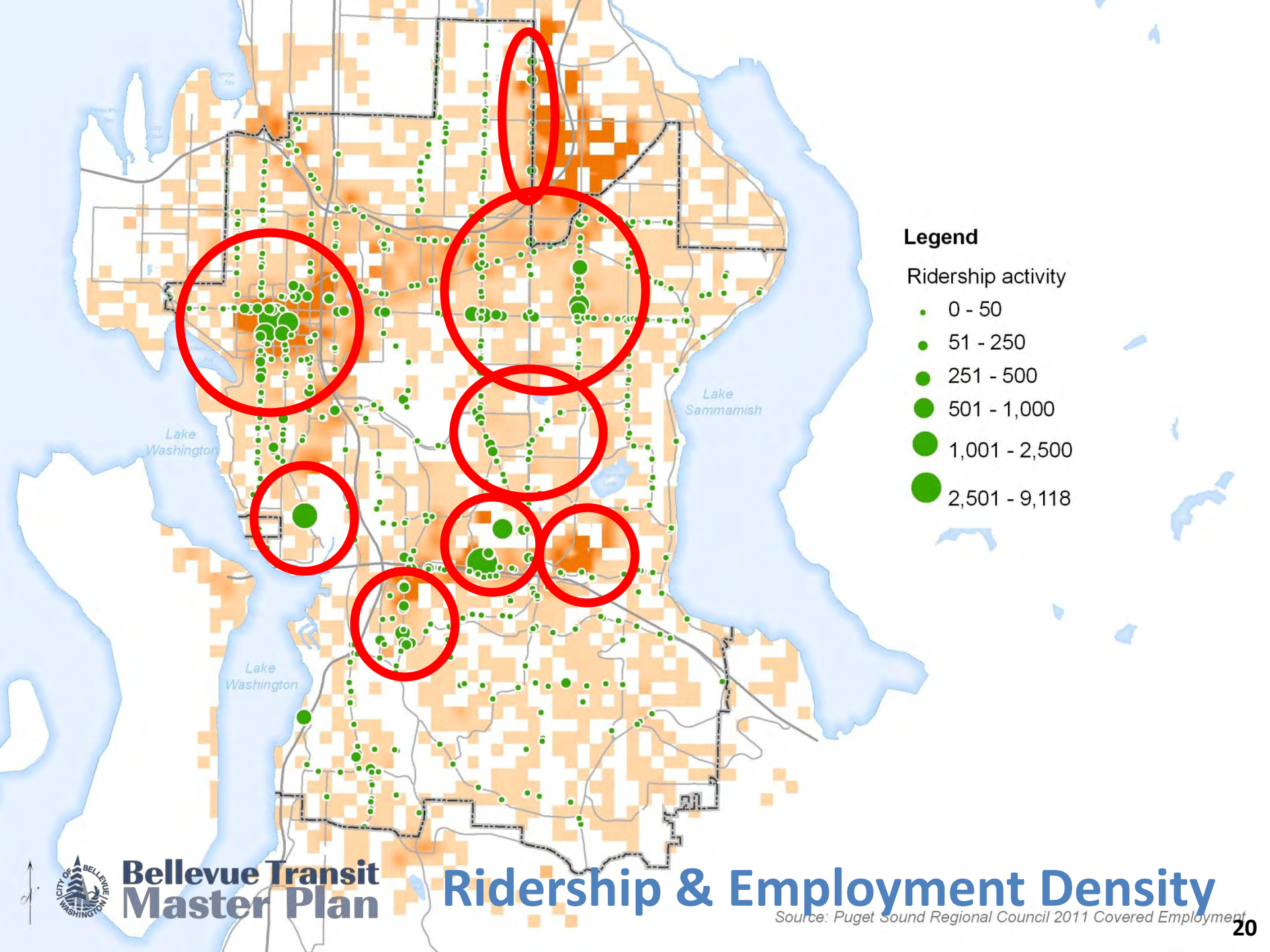
- Eastgate increased **232 percent**, from 2,197 to 7,303.
- Downtown increased **110 percent**, from 7,346 to 15,408.
- Crossroads increased **80 percent**, from 1,706 to 3,065.
- Factoria increased **23 percent**, from 1,724 to 2,113.



Bellevue Transit Master Plan

Ridership & Population Density

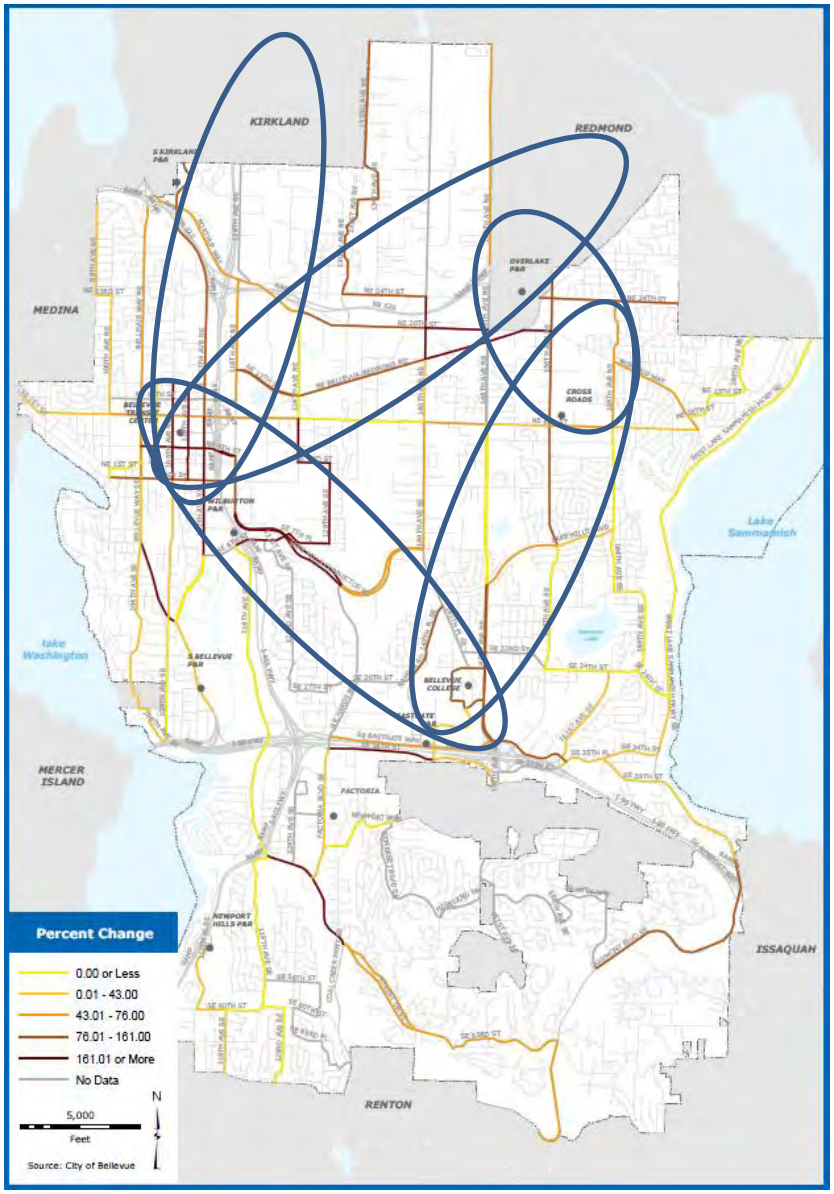
Source: U.S. Census Bureau, 2010 Census



Bellevue Transit Master Plan

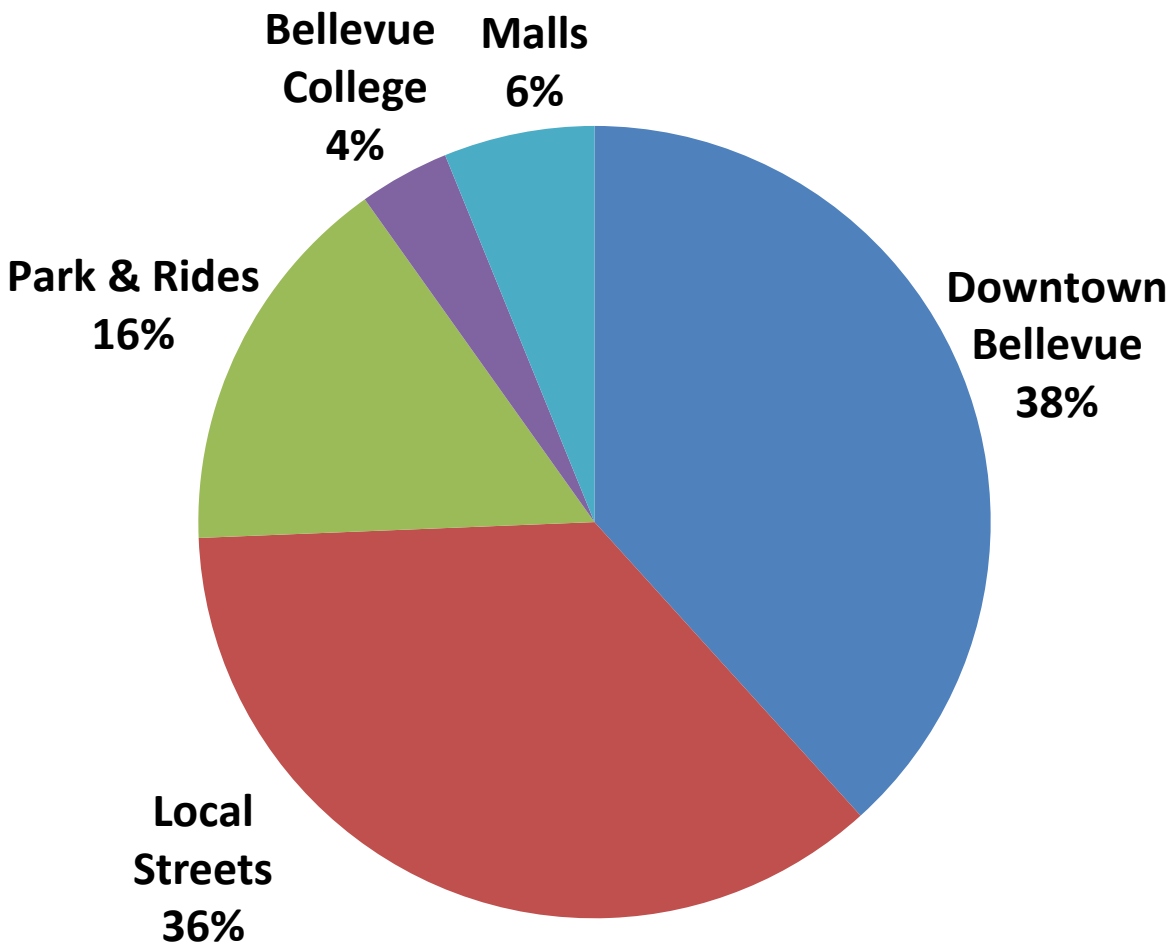
Ridership & Employment Density

Source: Puget Sound Regional Council 2011 Covered Employment



CORRIDOR	CHANGE
BTC to Overlake via Northup Way (b/n Downtown Bellevue and Overlake)	247%
BTC to Overlake via Bel-Red Rd (b/n Downtown Bellevue and Overlake)	235%
BTC to Kirkland via 116th Ave NE (b/n Downtown Bellevue and Kirkland)	185%
BTC to Kirkland via 112th Ave NE (b/n Downtown Bellevue and Kirkland)	157%
BTC to BC via Lake Hills Connector/ 145th Place (b/n Downtown Bellevue and BC)	127%
Crossroads to Overlake via 156th Ave NE (b/n Crossroads Shopping Center and Overlake)	109%
BC to Crossroads via 156th Ave (b/n Bellevue College and Crossroads Shopping Center)	107%

Corridor Ridership (2002-2010)



Notes:

- Fall 2011 average weekday daily ons/offs (40,250) is for KC Metro and Sound Transit only; data not available for Community Transit.
- Downtown Bellevue figure reflects all of Mobility Management Area #3 (including Bellevue Transit Center).
- Park & Ride figure includes Eastgate (2,166), South Bellevue (1,588), Newport Hills (281); Wilburton (51), and Eastgate Direct Access Ramp (2,270).
- Malls figure includes bus stop usage along arterials in front of Factoria (944) and Crossroads Malls (1,533).

Fall 2011 Ridership Activity

HOW STUDENTS ACCESS TRANSIT

I walk to the bus stop. (186) | I get dropped off at a Park & Ride facility. (18) | I drive to a Park & Ride facility. (9) | I bicycle to the bus stop and load my bicycle onto the bus' bicycle rack. (4) | I bicycle to the bus stop and park my bicycle at a nearby rack/locker. (1)

HOW SPECIAL EVENT USERS ACCESS TRANSIT

I drive to a Park & Ride facility. (622) | I walk to the bus stop. (602) | I get dropped off at a Park & Ride facility. (52) | I bicycle to the bus stop and load my bicycle onto the bus' bicycle rack. (16) | I bicycle to the bus stop and park my bicycle at a nearby rack/locker. (4)

HOW WORKERS ACCESS TRANSIT

I walk to the bus stop. (771) | I drive to a Park & Ride facility. (571) | I bicycle to the bus stop and load my bicycle onto the bus' bicycle rack. (67) | I get dropped off at a Park & Ride facility. (59) | I bicycle to the bus stop and park my bicycle at a nearby rack/locker. (10)

HOW SOCIAL USERS ACCESS TRANSIT

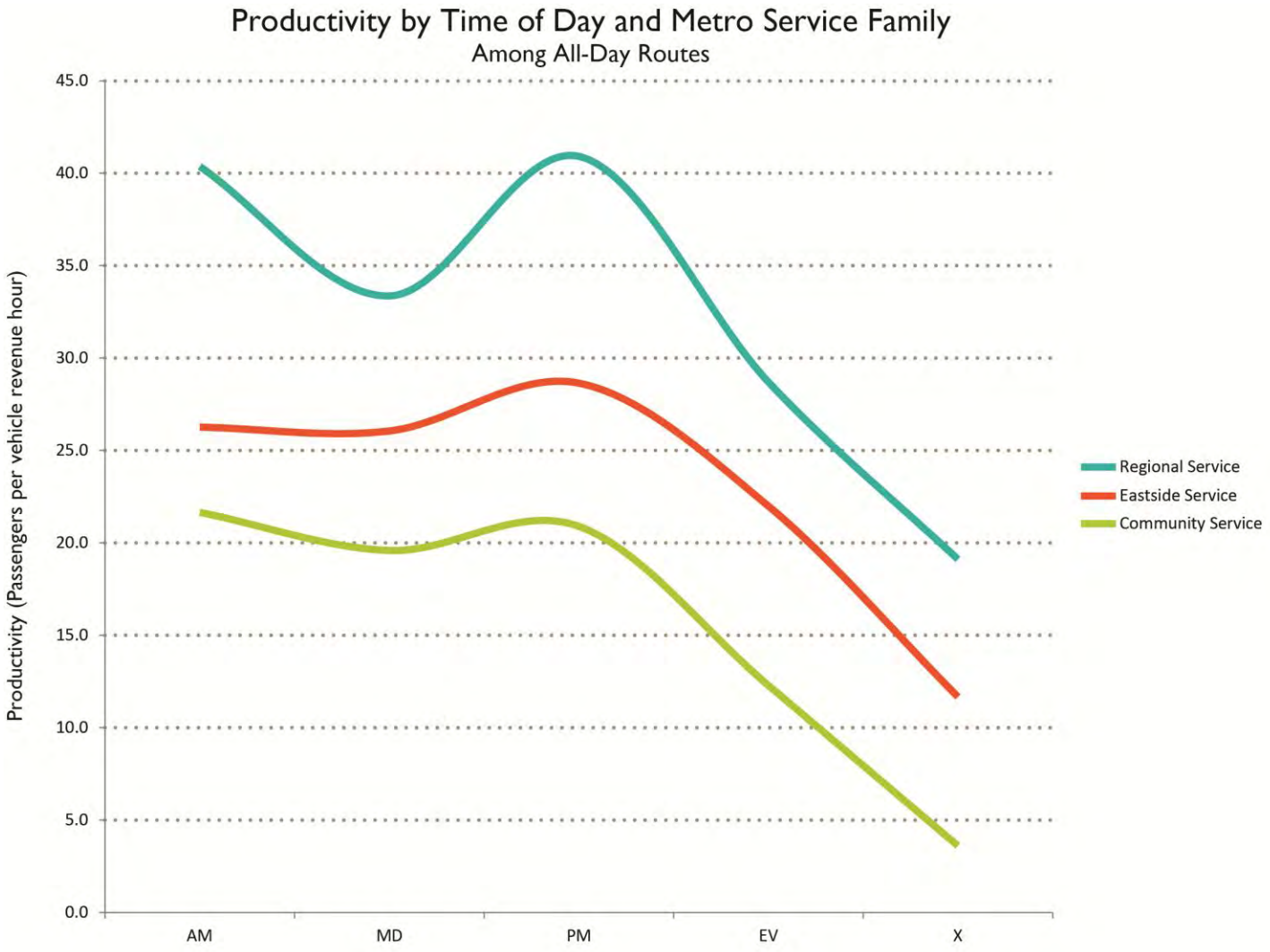
I walk to the bus stop. (662) | I drive to a Park & Ride facility. (356) | I get dropped off at a Park & Ride facility. (39) | I bicycle to the bus stop and load my bicycle onto the bus' bicycle rack. (1) | I bicycle to the bus stop and park my bicycle at a nearby rack/locker. (6)

HOW SHOPPERS ACCESS TRANSIT

I walk to the bus stop. (729) | I drive to a Park & Ride facility. (227) | I get dropped off at a Park & Ride facility. (28) | I bicycle to the bus stop and load my bicycle onto the bus' bicycle rack. (20) | I bicycle to the bus stop and park my bicycle at a nearby rack/locker. (11)

	Q3 2012			Q3 2011		
Park & Ride	Capacity	Used	Utilization	Capacity	Used	Utilization
South Bellevue	519	560	108%	519	557	107%
Eastgate	1,614	1,508	93%	1,614	1,297	80%
Wilburton	186	153	82%	186	128	69%
Newport Hills	275	199	72%	275	179	65%

Bellevue Park & Ride Usage



Bellevue Transit Master Plan

Productivity by Time of Day

Bellevue Routes Serving the Seattle Core

Route	Peak		Off-Peak		Night	
	Rides/ Plat Hr	Pass Mi/ Plat Mi	Rides/ Plat Hr	Pass Mi/ Plat Mi	Rides/ Plat Hr	Pass Mi/ Plat Mi
111	19	11.5	—	—	—	—
114	17.5	10.2	—	—	—	—
167	22.1	16.9	—	—	—	—
210	10.6	5.0	—	—	—	—
211	14.9	4.7	—	—	—	—
212	34.4	14.7	—	—	—	—
215	17.3	9.7	—	—	—	—
216	20.6	12.3	—	—	—	—
217	26.9	12.2	—	—	—	—
218	36.5	17.2	—	—	—	—
225	28.8	12.5	—	—	—	—
229	24.7	13.4	—	—	—	—
243	23.0	8.6	—	—	—	—
250	11.2	5.5	—	—	—	—
255	28.8	15.0	22.6	13.9	14.7	10.4
256	16.1	6.6	—	—	—	—
261	18.8	7.3	—	—	—	—
266	13.2	6.7	—	—	—	—
271	20.9	9.0	25.9	11.8	13.5	5.9
272	15.0	6.5	—	—	—	—
280	—	—	—	—	9.8	4.5
Fall 2010 Thresholds						
Top 25%	41.1	12.9	49.7	13.9	28.7	7.3
Bottom 25%	18.7	8.2	29.1	9.3	15.3	5

Bellevue Routes Not Serving the Seattle Core

Route	Peak		Off-Peak		Night	
	Rides/ Plat Hr	Pass Mi/ Plat Mi	Rides/ Plat Hr	Pass Mi/ Plat Mi	Rides/ Plat Hr	Pass Mi/ Plat Mi
219	4.1	0.8	—	—	—	—
221	15.8	5.6	16.5	5.9	8.6	2.3
222	16.8	3.9	14.8	5.0	7.4	1.9
230E	35.3	8.0	25.8	5.9	26.6	5.1
230W	26.2	7.1	20.6	5.3	11.3	3.5
232	14.2	4.2	—	—	—	—
233	21.4	4.9	22.6	6.8	10.5	2.4
234	15.7	6.6	13.2	5.6	6.2	2.9
237	15.2	5.7	—	—	—	—
240	29.1	7.4	25.0	8.9	13.6	3.4
242	15.5	8.1	—	—	—	—
245	19.5	5.7	21.2	5.8	11.8	2.5
246	10.3	2.2	7.5	1.1	—	—
247	6.3	1.9	—	—	—	—
249	14	3.6	12.6	4.7	5.4	2.0
253	33.4	10.1	38.2	8.6	27.7	5.6
342	13.9	6.4	—	—	—	—
925 DART	1.0	—	1.0	—	—	—
926 DART	7.3	1.9	6.9	1.8	—	—
Fall 2010 Thresholds						
Top 25%	21.1	7.0	26.3	8.6	17.4	5.1
Bottom 25%	8.4	2.2	10.4	2.4	7.8	2.2

Figures based on Fall 2010 performance data.

Bellevue Routes Serving the Seattle Core

Route	Peak		Off-Peak		Night	
	Rides/ Plat Hr	Pass Mi/ Plat Mi	Rides/ Plat Hr	Pass Mi/ Plat Mi	Rides/ Plat Hr	Pass Mi/ Plat Mi
111	20.8	12.8	—	—	—	—
114	17.8	10.4	—	—	—	—
167	22.3	16.7	—	—	—	—
210	10.7	5.0	—	—	—	—
211EX	16.9	4.8	—	—	—	—
212	36.7	15.8	—	—	—	—
215	19.7	11.1	—	—	—	—
216	21.2	13.9	—	—	—	—
217	30.4	16.0	—	—	—	—
218	37.6	20.8	—	—	—	—
225	24.5	12.4	—	—	—	—
229	27.2	14.3	—	—	—	—
243	24.2	8.9	—	—	—	—
250	9.2	4.5	—	—	—	—
255	27.0	14.7	20.5	12.1	17.5	11.8
256	17.9	9.4	—	—	—	—
261	17.2	7.2	—	—	—	—
266	13.5	7.1	—	—	—	—
271	23.3	10.0	26.7	13.6	16.9	7.9
272	14.3	6.1	—	—	—	—
280*	—	—	—	—	9.8	—
Spring 2011 Thresholds						
Top 25%	42.0	12.9	52.6	15.2	32.0	8.4
Bottom 25%	18.6	7.9	29.4	9.8	17.7	5.8

* Passenger miles data was unavailable on some routes and time periods due to a lack of APC data.

Bellevue Routes Not Serving the Seattle Core

Route	Peak		Off-Peak		Night	
	Rides/ Plat Hr	Pass Mi/ Plat Mi	Rides/ Plat Hr	Pass Mi/ Plat Mi	Rides/ Plat Hr	Pass Mi/ Plat Mi
219	4.2	0.5	—	—	—	—
221	17.0	5.0	17.8	5.7	12.5	2.7
222	15.6	3.3	16.0	4.7	8.3	2.4
230 E	36.3	8.6	25.9	9.6	26.1	6.5
230 W	28.2	7.2	21.4	7.9	11.9	4.5
232	15.5	4.8	—	—	—	—
233	23.0	5.5	22.2	6.4	13.5	3.2
234	16.2	5.7	12.7	5.6	8.8	3.3
237	13.7	5.1	—	—	—	—
240	27.9	9.9	24.5	12.6	12.9	5.5
242	16.7	9.1	—	—	—	—
245	22.4	6.2	20.2	6.0	15.7	3.7
246	9.6	1.8	8.5	2.0	—	—
247	4.8	1.3	—	—	—	—
249	15.6	4.5	14.9	5.3	5.0	1.4
253	35.2	11.3	36.4	12.5	31.5	8.9
342	14.7	4.7	—	—	—	—
925 DART	1.0	0.5	—	—	—	—
926 DART	8.4	2.2	7.4	1.9	—	—
Spring 2011 Thresholds						
Top 25%	27	7.2	27.4	9.3	20.3	6.2
Bottom 25%	9.8	2.9	12.7	3.3	8.8	2.6

Figures based on Spring 2011 performance data.

5 3

Bellevue Transit Master Plan

Spring 2011 Performance

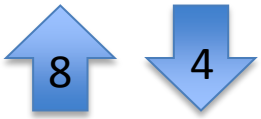
Bellevue Routes Serving the Seattle Core

Route	Peak		Off-Peak		Night	
	Rides/ Plat Hr	Pass Mi/ Plat Mi	Rides/ Plat Hr	Pass Mi/ Plat Mi	Rides/ Plat Hr	Pass Mi/ Plat Mi
111	24.4	15.1	—	—	—	—
114	22.4	13.0	—	—	—	—
167	25.1	19.9	—	—	—	—
210	11.0	5.0	—	—	—	—
211	12.8	3.9	—	—	—	—
212	47.7	18.9	—	—	—	—
215	19.6	11.2	—	—	—	—
216	26.2	14.2	—	—	—	—
217	28.9	15.8	—	—	—	—
218	43.5	20.2	—	—	—	—
250	19.3	10.0	—	—	—	—
255	30.4	14.3	27.1	12.0	20.5	10.3
265	17.3	8.8	—	—	—	—
271	25.1	10.5	28.0	12.7	19.1	8.5
280	—	—	—	—	5.9	—
Fall 2010 Thresholds						
Top 25%	45.0	14.7	55.4	15.9	31.3	9.0
Bottom 25%	22.7	9.7	29.5	9.9	19.1	5.8

Bellevue Routes Not Serving the Seattle Core

Route	Peak		Off-Peak		Night	
	Rides/ Plat Hr	Pass Mi/ Plat Mi	Rides/ Plat Hr	Pass Mi/ Plat Mi	Rides/ Plat Hr	Pass Mi/ Plat Mi
B Line	39.6	11.1	33.7	10.5	29.8	8.0
219	7.0	0.9	—	—	—	—
221	16.8	5.3	14.0	4.3	8.9	2.3
226	21.9	5.6	16.4	3.9	9.4	2.3
232	14.7	5.4	—	—	—	—
234	17.9	6.4	14.8	5.9	10.9	3.7
235	17.4	5.7	12.2	4.9	8.6	3.2
237	17.7	4.3	—	—	—	—
240	19.8	6.6	22.3	8.2	14.6	5.9
241	16.6	3.3	13.2	2.7	10.1	1.5
242	18.2	9.8	—	—	—	—
243	25.0	9.8	—	—	—	—
244	12.3	5.0	—	—	—	—
245	20.8	6.6	18.8	5.9	13.2	4.0
246	9.6	2.3	8.2	1.8	—	—
249	16.4	4.0	9.6	2.5	7.4	2.0
269	10.6	4.5	12.5	6.0	9.1	3.9
342	19.6	9.4	—	—	—	—
Fall 2010 Thresholds						
Top 25%	21.9	6.4	22.4	6.6	17.7	5.3
Bottom 25%	12.2	2.2	10.0	1.9	9.3	2.0

Figures based on Spring 2012 performance data.



Bellevue Transit Master Plan

Spring 2012 Performance

Bellevue Transit Master Plan

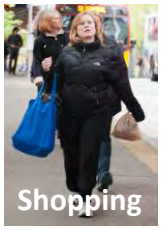
Transit/Auto Travel Time Ratio

Service Planning Process

Current Transit Network

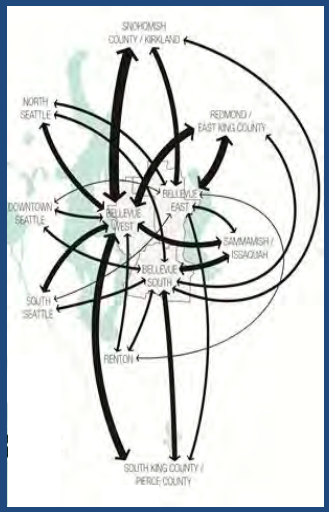
What service types are in place today and how well do they perform?

Market Segmentation



What are the attitudes and preferences that drive traveler choices?

Future Travel Markets



Which segments in which travel markets should transit services compete for?

Market Driven Strategies

Stop Spacing

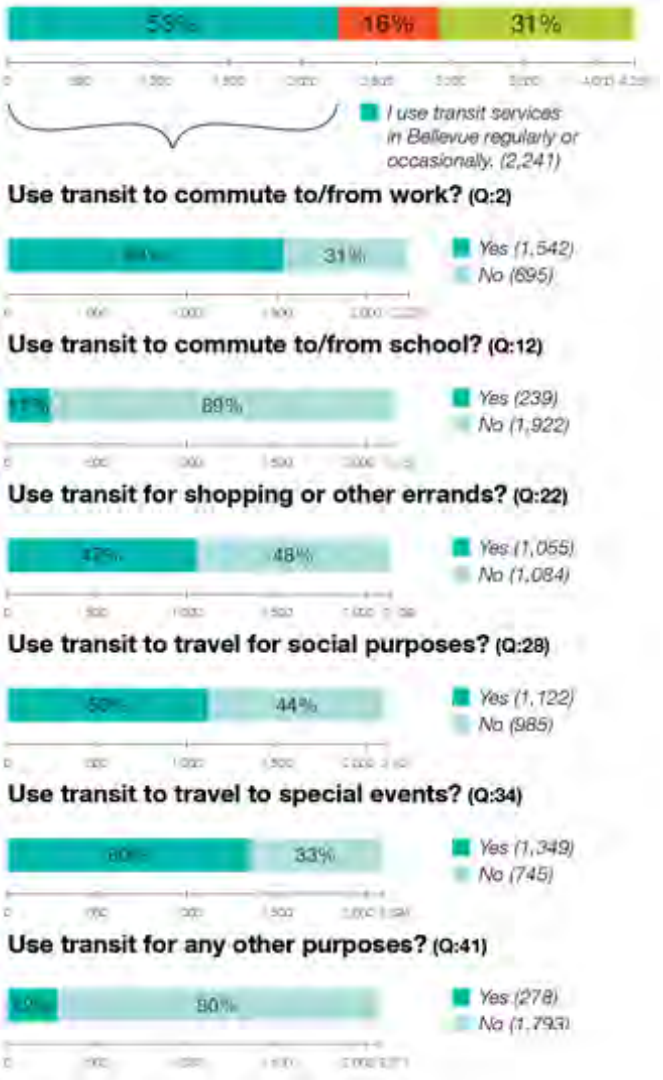
Speed of Service

Frequency of Service

What kinds of strategies can best seize these opportunities?

Bellevue Transit Master Plan

Market Segmentation

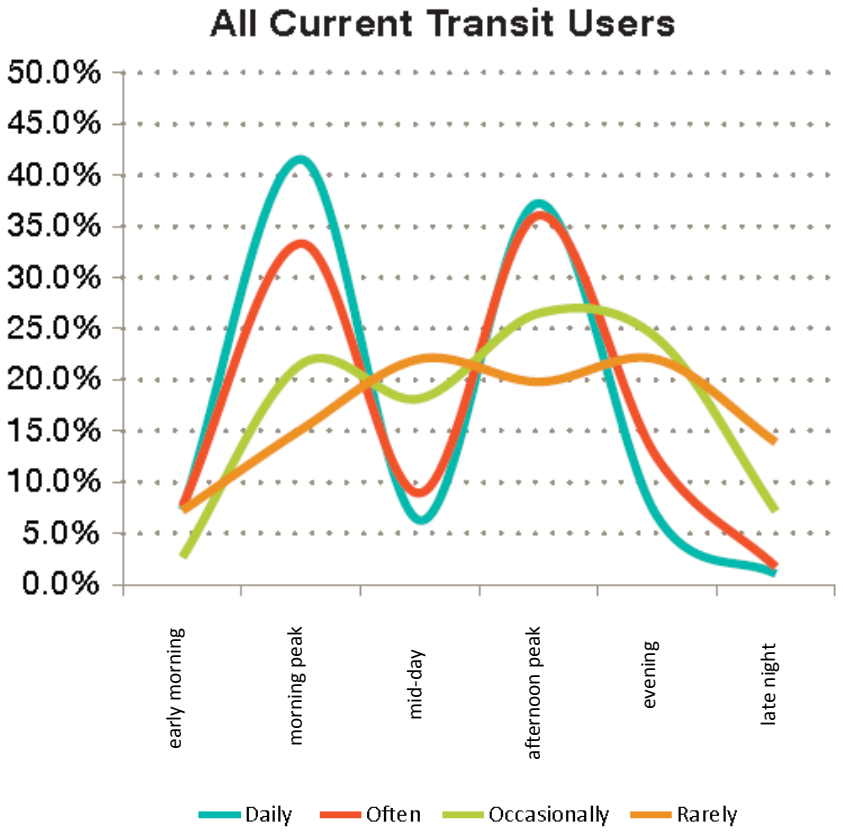


- **HBW is most common trip purpose:** 68.8% of respondents use transit in Bellevue to commute to work.
- **Most use transit for 2+ purposes:** 77% (505/2,195) use transit for more than one purpose—30.5% use transit for two purposes, 29.4% for three purposes, 15.9% for four purposes, and 1.2% for all five trip purposes.
- **Most are "regular riders" (use transit 3+ per week):** 69.5% of respondents are regular transit users for one or more trip purposes, compared to 63.3% infrequent riders and 45% occasional riders.
- **Work/school users tend to be regular riders:** 75.7% of work- and 74.0% of school commuters use transit three or more times per week.
- **Shopping/social users tend to be infrequent riders.** 62.7% of shopping transit users and 76.1% of social transit users use transit less than once per week.

Current Riders

Regular ridership is strongly peak-oriented: Over half of all regular riders use transit during the morning and afternoon peak (56.9% and 54.0%, respectively), while less than 20% use transit during other times of the day.

Frequency of Transit use for Current Users



Bellevue Transit Master Plan

Peak vs. Off-Peak Usage

"The routes, though they are where I want to go aren't very direct. There are typically so many stops between where I start and where I want to go, so the ride often takes too long."

- Carmel All-Around Transit User
  Resident of South Bellevue

Bellevue Transit Master Plan

Route Directness

"The bus stop can be quite a distance from where people live. We are one block south of NE 8th and it is still 1/4 mile. It would be much longer for most in our neighborhood."

- Derek, Non-Commute Transit User
  Resident of Wilburton

Bellevue Transit Master Plan

Service Area Coverage

"For those of us who commute into downtown Seattle, it isn't very realistic to catch the bus from our neighborhoods and transfer. So we depend upon the Park and Rides. It is therefore crucial that adequate parking spaces be provided at the Park and Rides in order for Bellevue residents to use transit for commuting."

- Sarah, Work Commuter
  Resident of East Bellevue

Bellevue Transit Master Plan

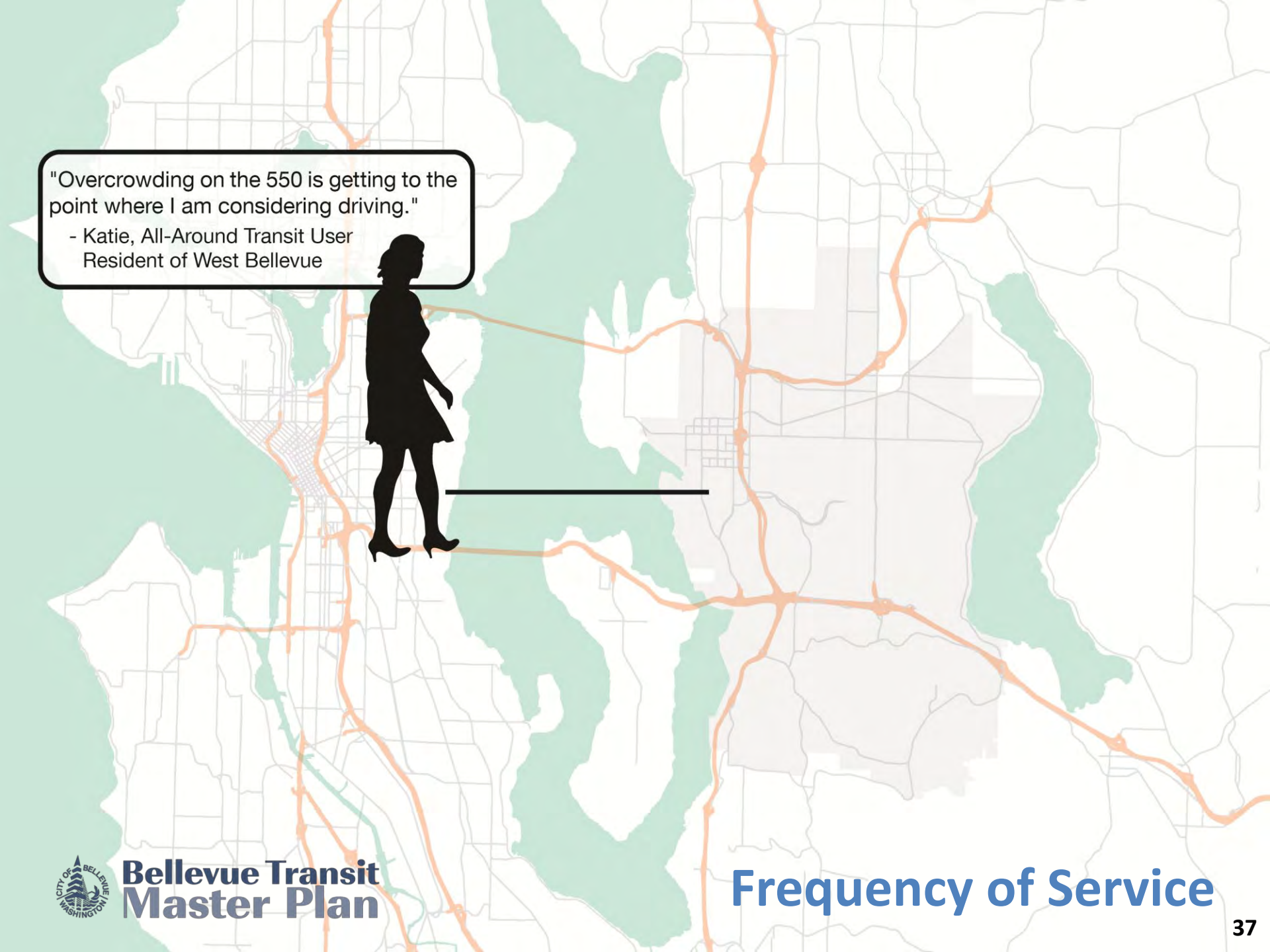
Park & Ride Capacity

"Increase HOV lanes for buses to use to get around rush [hour] traffic, [and] prioritize signals to allow buses to move through congested areas faster…"

- Daryl, All-Around Transit User
  Resident of Northwest Bellevue

Bellevue Transit Master Plan

Speed & Reliability

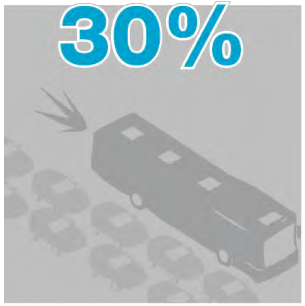


Bellevue Transit Master Plan

Frequency of Service

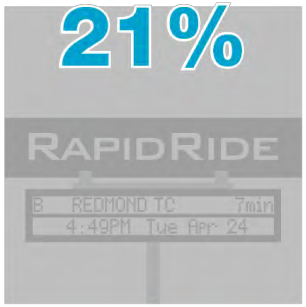
HOW SHOULD THE CITY INVEST?

ACCORDING TO CURRENT TRANSIT USERS



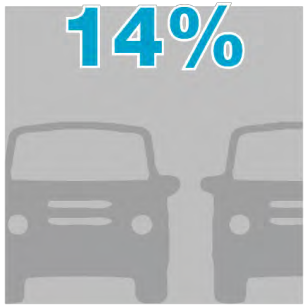
30%

Improve service speed and reliability by investing in roadway and traffic signal infrastructure. (595)



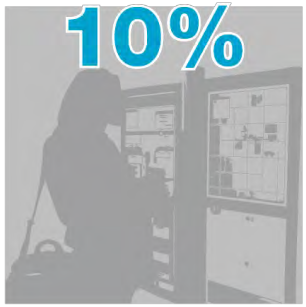
21%

Provide real-time bus arrival information signs at major stops, similar to the RapidRide B Line at Bellevue Transit Center. (406)



14%

Increase vehicle parking capacity at Park and Ride lots. (268)



10%

Provide additional route, schedule, and wayfinding information at bus shelters. (189)

5%

Install additional bicycle lanes/trails to better connect neighborhoods to bus services. (107)

3%

Improve comfort at bus stops with improvements like additional seating and other street furniture. (60)

3%

Improve safety at bus stops by providing additional street lighting. (61)

2%

Improve sidewalk connectivity (install additional sidewalks) at and around bus stops. (48)

2%

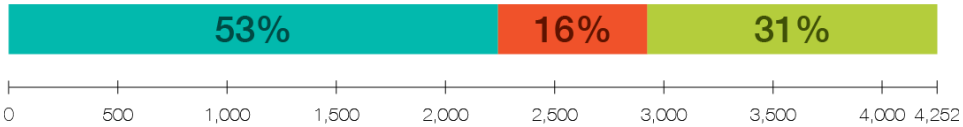
Repair City-owned streets used as transit corridors to improve ride quality/comfort. (31)

<1%

Increase bicycle parking capacity at Park and Ride lots. (3)

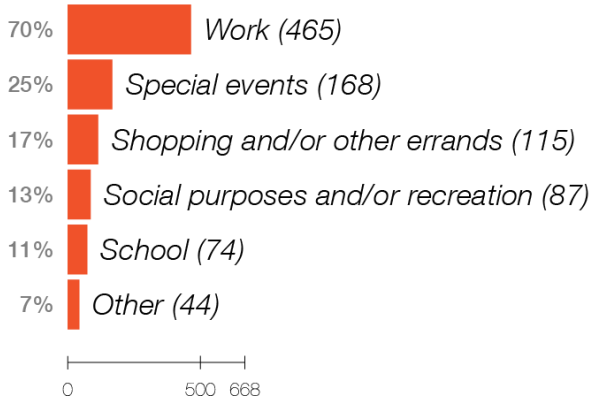
Note: N=1,962 total respondents. Percentages for current transit users who live in Bellevue are shown in parenthesis (661 respondents).

FORMER RIDERS: TRIP PURPOSE



I formerly used transit in Bellevue but no longer do. (684)

For what purpose(s) did you previously use transit? (Q:49)



WHY DO YOU NO LONGER RIDE THE BUS?

ACCORDING TO FORMER RIDERS OF TRANSIT IN BELLEVUE

Traveling by bus takes too long. (133)

I moved / changed jobs / now work from home. (80)

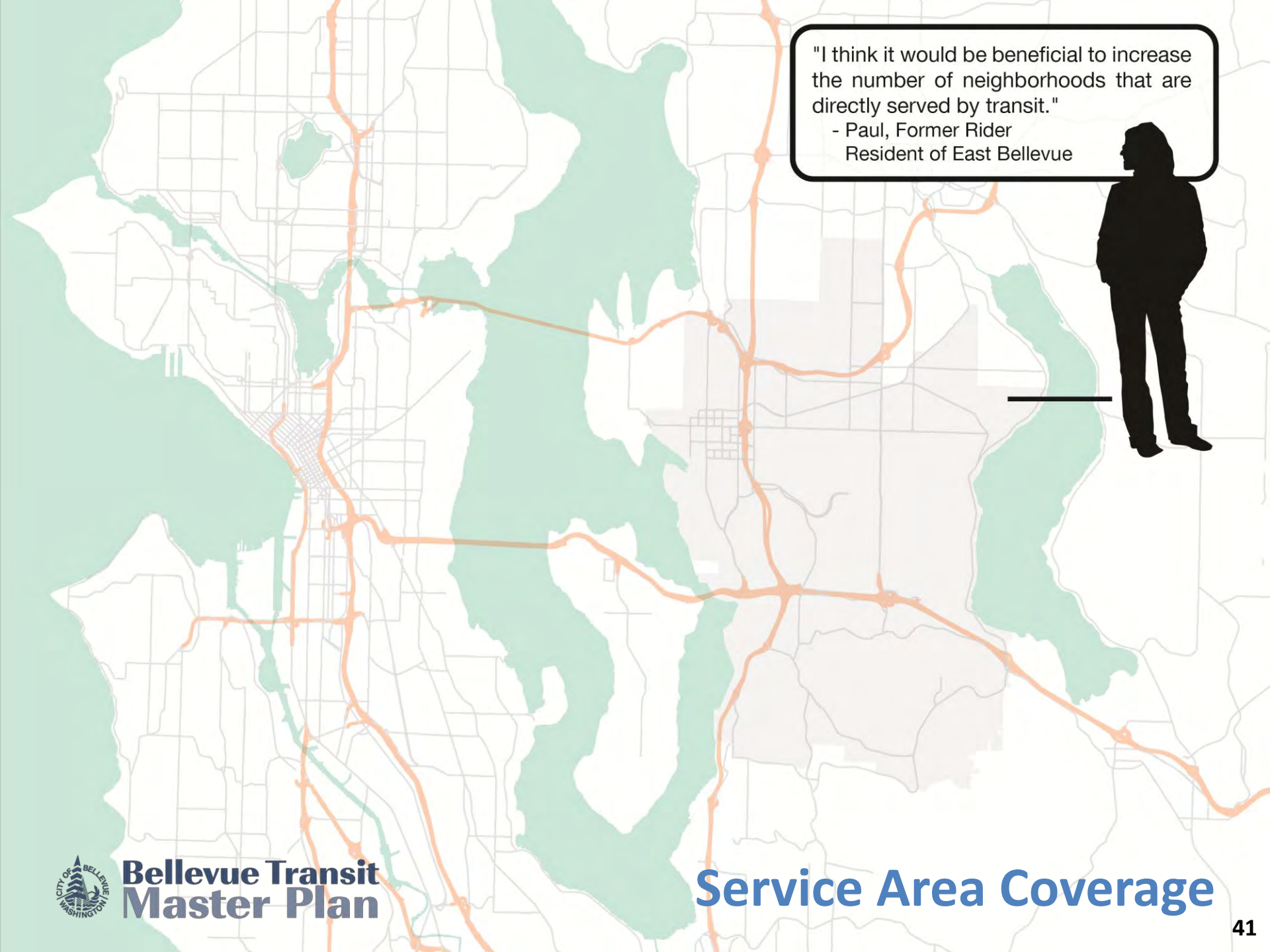
I think driving is more convenient. (69)

"Bus stops are geared towards daily commuters only, [with] limited to no service on nights and weekends in the Lake Hills area."

- Jens, Former Rider
  Resident of East Bellevue

Bellevue Transit Master Plan

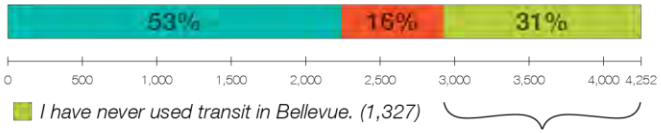
Late Night & Weekend Service



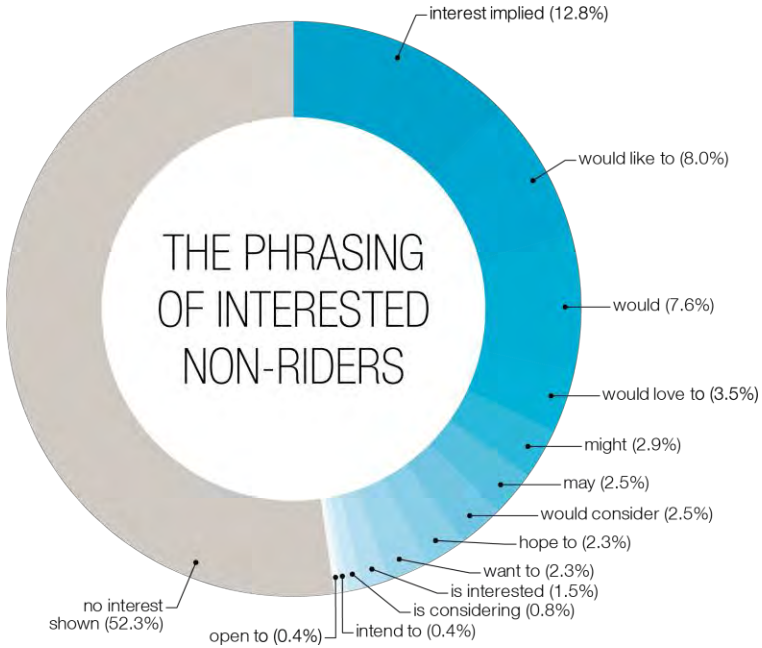
Bellevue Transit Master Plan

Service Area Coverage

NEVER RIDDEN: WHY?



For what reason(s) do you not use transit? (Q:56)



Bellevue Transit Master Plan

Non-Riders

Bellevue Transit Master Plan

Non-Riders Support Transit

Bellevue Transit Master Plan

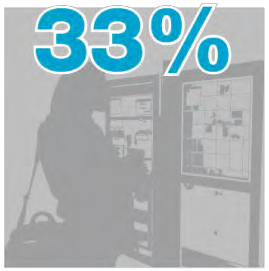
Non-Riders Support Transit

WHAT IMPROVEMENTS WOULD GET YOU TO CONSIDER RIDING THE BUS?

ACCORDING TO THOSE WHO HAVE NEVER USED TRANSIT IN BELLEVUE

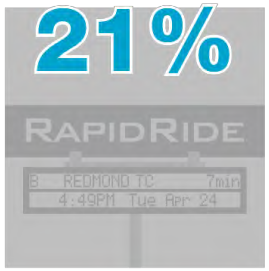
Proximity of stops to home/destination(s). (580)

Speed of service. (451)



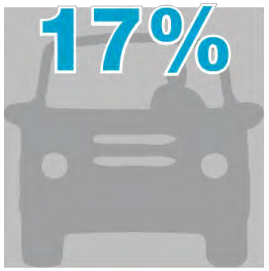
Simplified routes/ schedules. (417)

Amount/frequency of weekday service. (371)



Availability of real-time bus arrival information. (261)

Schedule reliability. (241)



I would not consider riding the bus even if services were improved. (218)

Availability of a seat on the bus (i.e. reduce overcrowding). (145)

Amount/frequency of evening/late night service. (146)

Comfort while riding. (118)

Pedestrian connections to bus stops. (94)

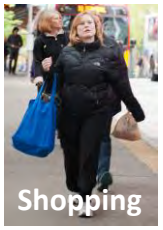
Amount/frequency of weekend service. (91)

Service Planning Process

Current Transit Network

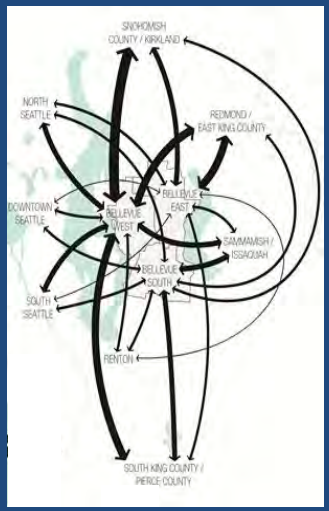
What service types are in place today and how well do they perform?

Market Segmentation



What are the attitudes and preferences that drive traveler choices?

Future Travel Markets



Which segments in which travel markets should transit services compete for?

Market Driven Strategies

Stop Spacing

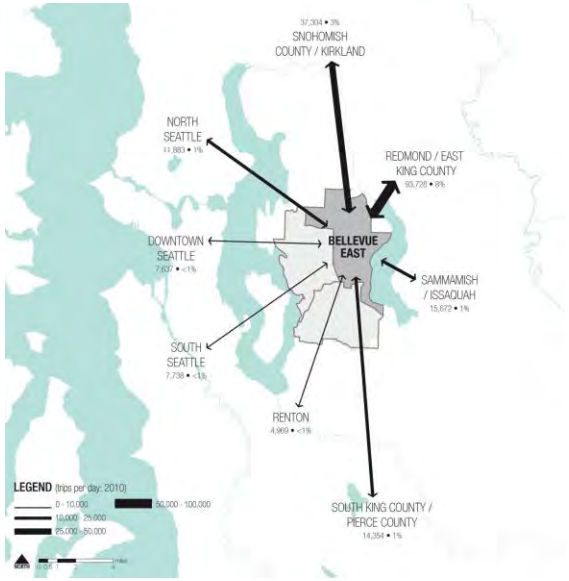
Speed of Service

Frequency of Service

What kinds of strategies can best seize these opportunities?

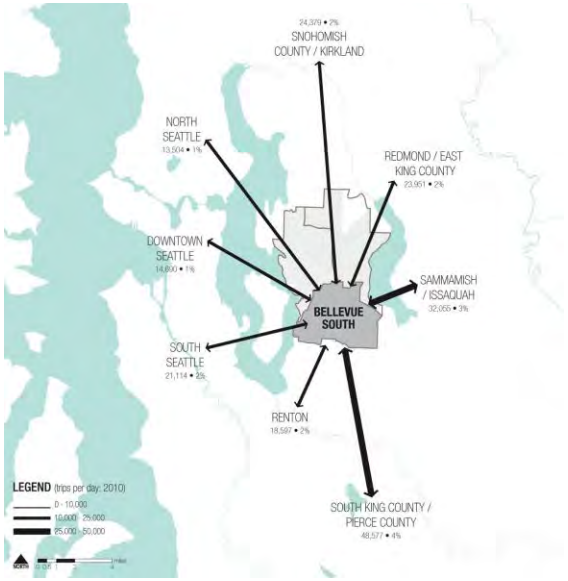
1,219,965 daily person trips to/from or internal to Bellevue in 2010.

Bellevue East



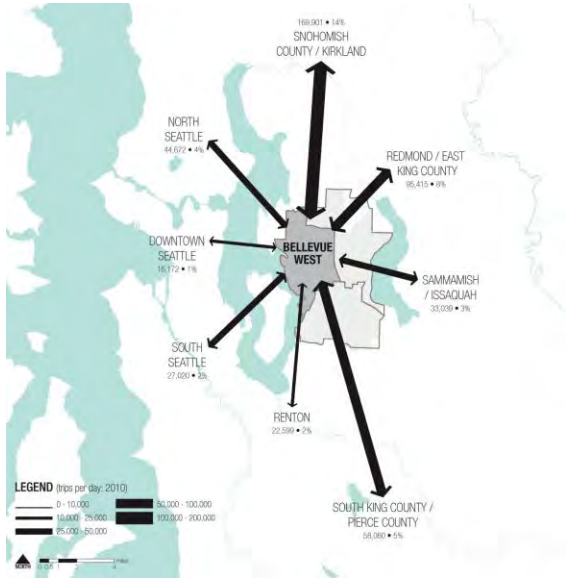
193,285 of the total 1,219,965 trips start and/or end in East Bellevue (16%).

Bellevue South



196,866 of the total 1,219,965 trips being and/or end in South Bellevue (16%).

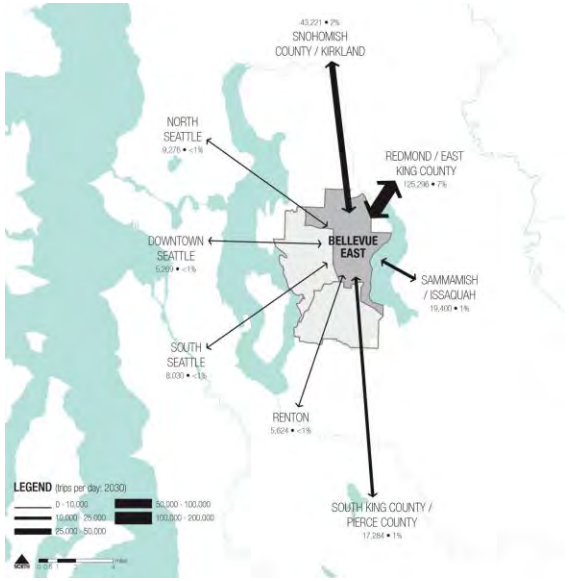
Bellevue West



466,877 of the total 1,219,965 trips start and/or end in West Bellevue (38%).

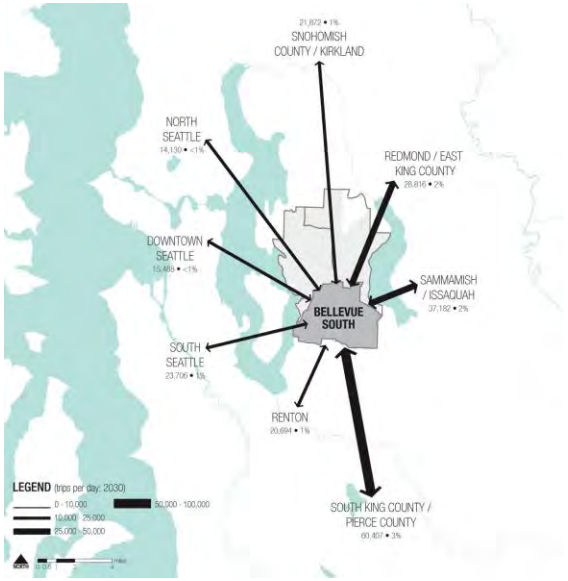
1,750,539 daily person trips to/from or internal to Bellevue in 2030.

Bellevue East



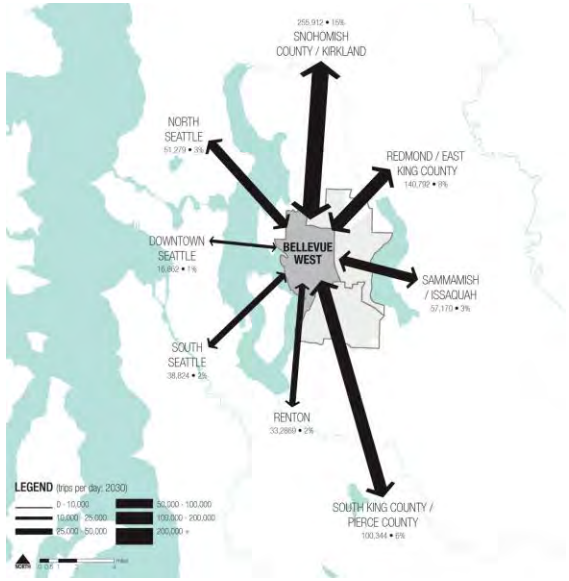
233,398 of the total 1,750,539 trips start and/or end in East Bellevue (13%).

Bellevue South



222,294 of the total 1,750,539 trips being and/or end in South Bellevue (13%).

Bellevue West

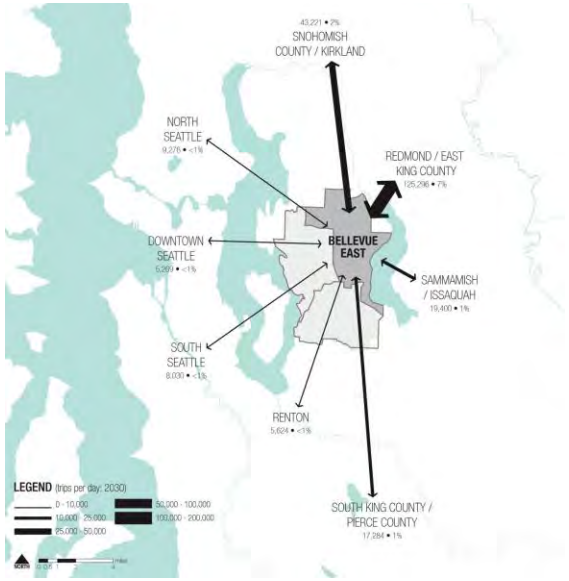


694,470 of the total 1,750,539 trips start and/or end in West Bellevue (40%).

Total Trips to Bellevue (2030)

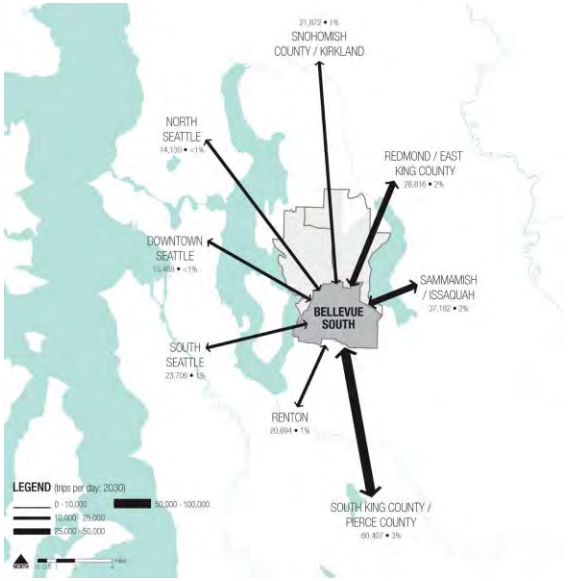
1,750,539 daily person trips to/from or internal to Bellevue in 2030.

Bellevue East



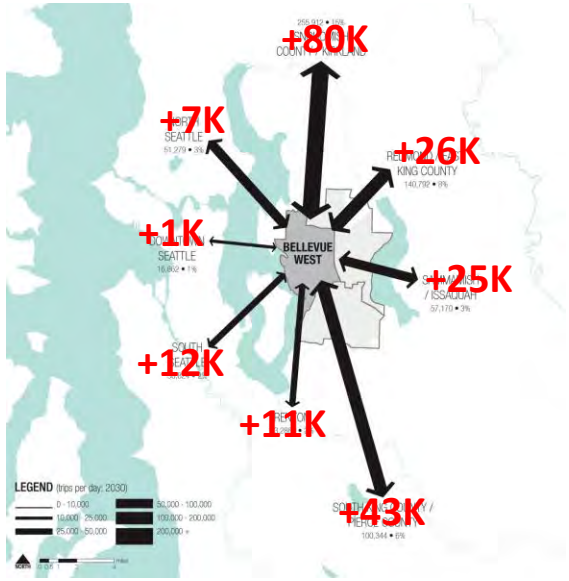
233,398 of the total 1,750,539 trips start and/or end in East Bellevue (13%).

Bellevue South



222,294 of the total 1,750,539 trips being and/or end in South Bellevue (13%).

Bellevue West



694,470 of the total 1,750,539 trips start and/or end in West Bellevue (40%).

- *"West Bellevue" area, which includes Downtown Bellevue, is the largest origin/destination for trips to Bellevue*
- *Largest flows are from the I-5 and I-405 corridor markets of Snohomish County/Kirkland and South King County/Pierce County.*
- *Seattle market is smaller than the close in suburban markets.*
- *Suggests additional need for suburban park-and-ride capacity and express bus capacity in the I-405 corridor.*

I-405
Corridor Program

White Paper:
Bus Rapid Transit Line Concept

Ten-Year Program Implementing the First Phase of the I-405 Corridor Program Recommendations

Submitted to:
Washington State Department of Transportation
Office of Urban Corridors
401 Second Avenue, Suite 560
Seattle, WA 98104

Prepared by:
I-405 Transit Workgroup

and

Mirai Associates
19110 Bothell Way NE, Suite 202
Bothell, WA 98011

August 2003

FINAL DRAFT

Washington State Department of Transportation

INTERSTATE 405 Corridor Program
Congestion Relief & Bus Rapid Transit Projects

600 – 108th Avenue NE, Suite 405
Bellevue, WA 98004
Main 425-456-8500
Fax 425-456-8600

I-405 South Corridor
Bus Rapid Transit Pre-Design

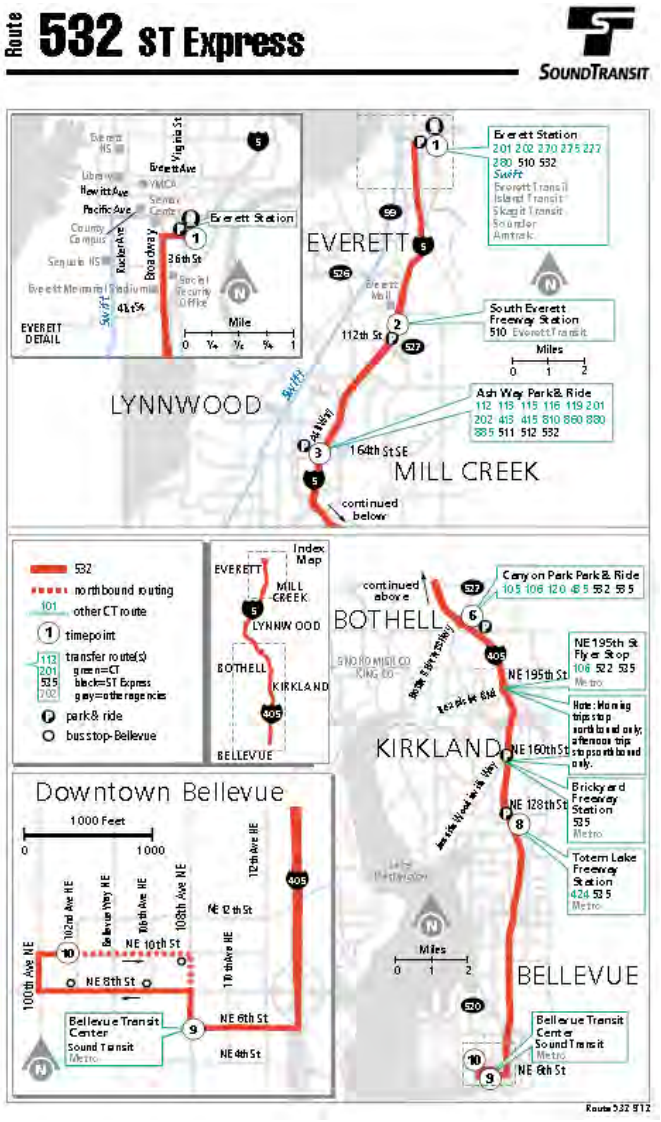
Final Report
June 16, 2005

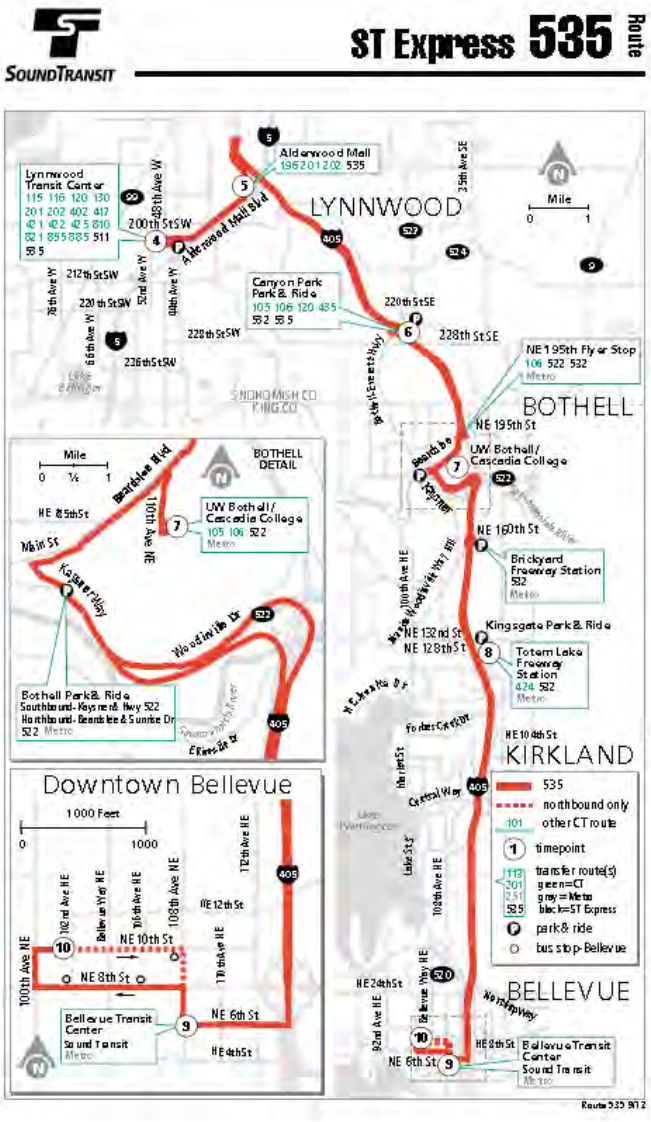
Prepared By:
IBI Group
506 Second Avenue, Suite 600
Seattle, WA 98104

Mirai Associates
11410 NE 122nd Way, Suite 320
Kirkland, WA 98034

Otak
117 S Main Street, Suite 400
Seattle, WA 98104

Washington State Department of Transportation

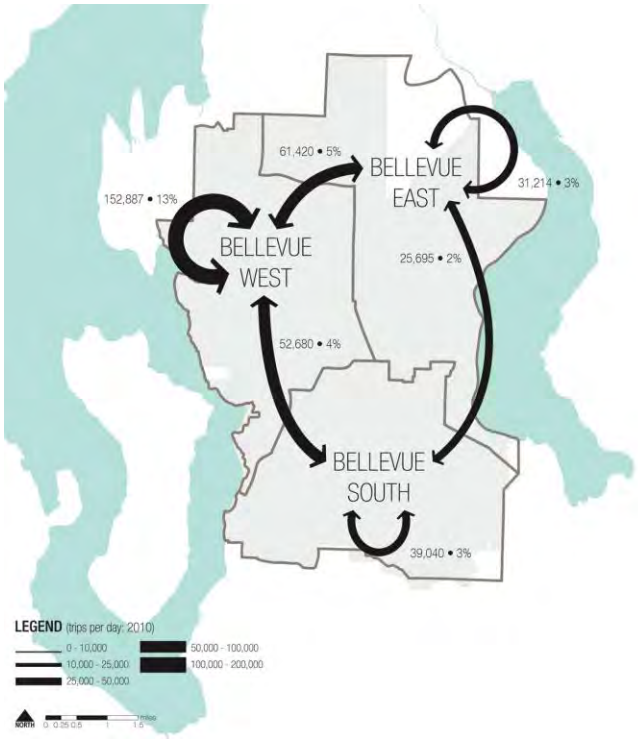




Bellevue Transit Master Plan

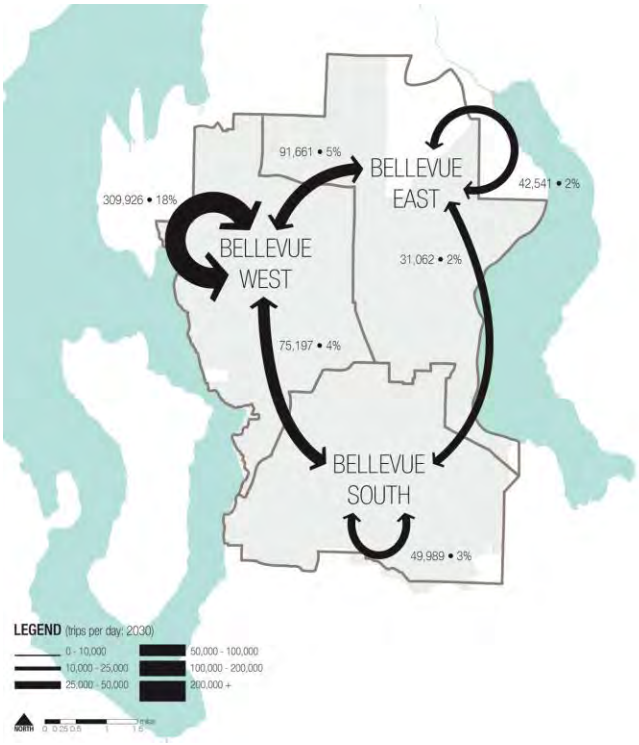
Experience in I-405 Corridor

362,937 of the total 1,219,965 trips begin/end in Bellevue in 2010 (30%).



Trips in Bellevue (2010)

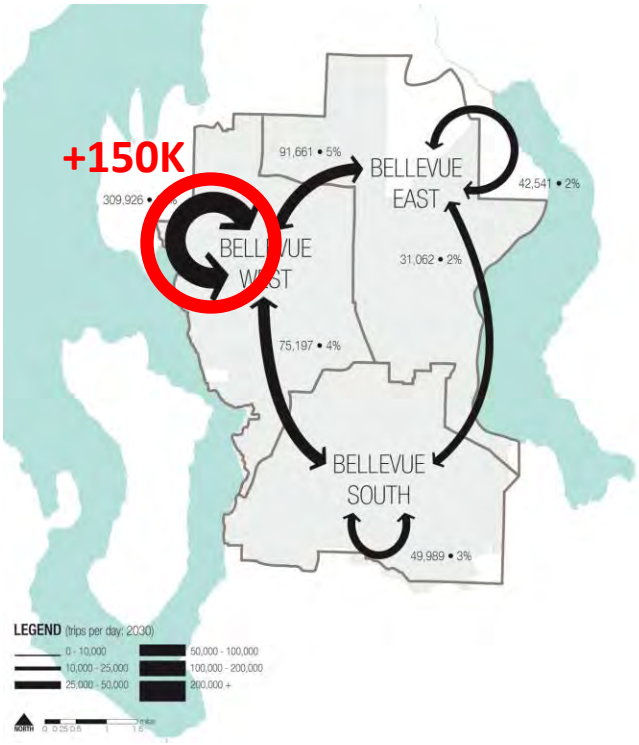
600,377 of the total 1,750,539 trips begin/end in Bellevue in 2030 (34%).



Bellevue Transit Master Plan

Trips in Bellevue (2030)

600,377 of the total 1,750,539 trips begin/end in Bellevue in 2030 (34%).



- *West Bellevue internal market growth is almost twice as high as the next biggest market (Kirkland/Snohomish County to Bellevue).*
- *West Bellevue internal market represents City's best opportunity to gain transit mode share, as the City can influence service levels, capital enhancements, and priority measures for transit at both the trip origin and destination.*
- *Existing transit network is not well designed to capture non-work trips (fastest growing trip purpose) as frequencies during off-peak time (more than 15-minute) are often insufficient to attract choice riders.*

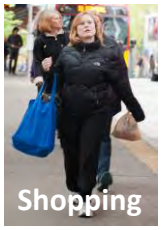
Trips in Bellevue (2030)

Service Planning Process

Current Transit Network

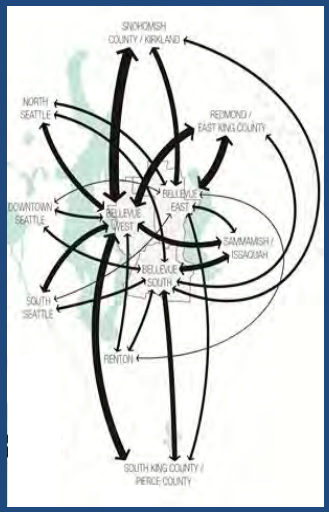
What service types are in place today and how well do they perform?

Market Segmentation



What are the attitudes and preferences that drive traveler choices?

Future Travel Markets



Which segments in which travel markets should transit services compete for?

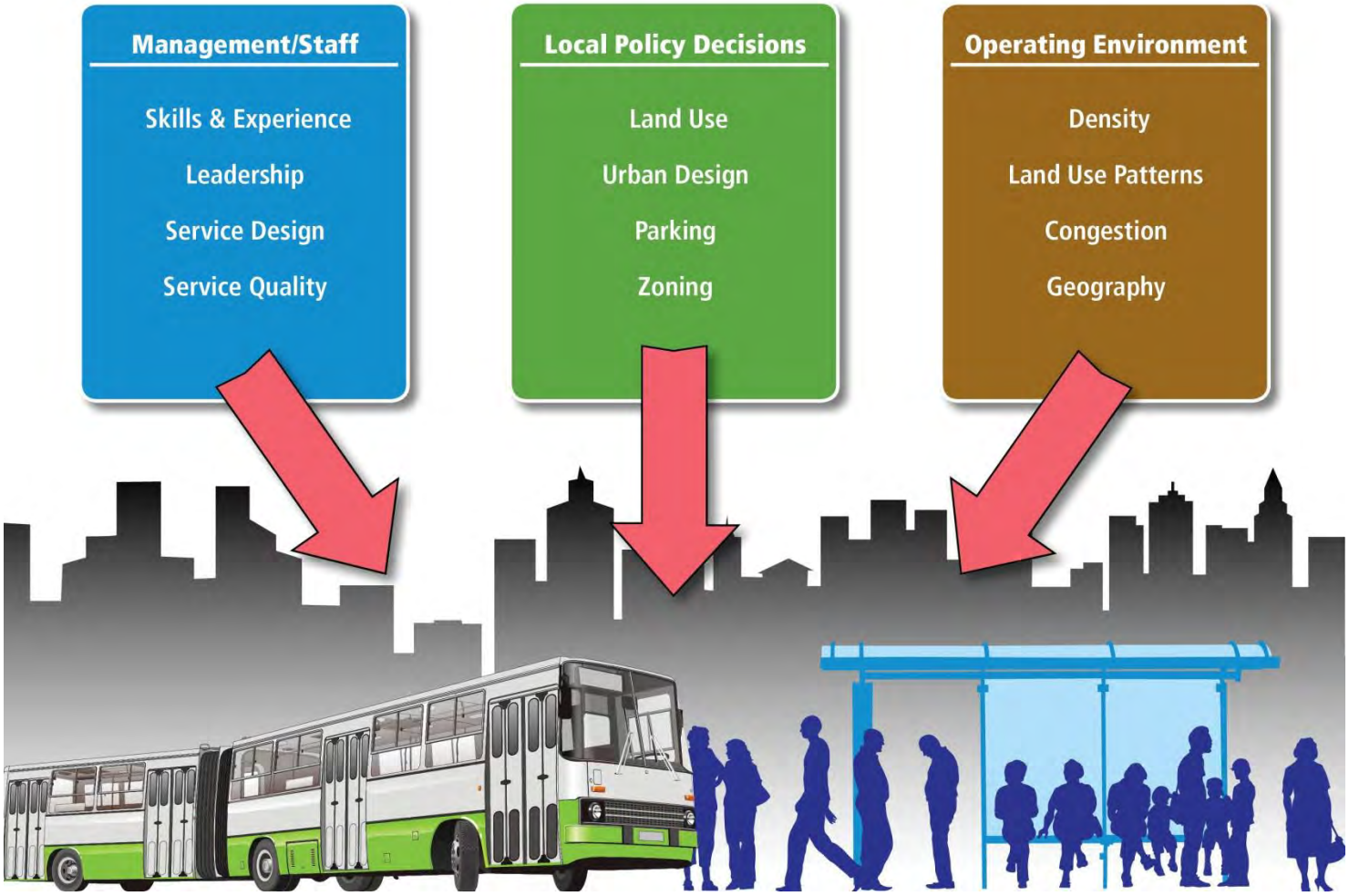
Market Driven Strategies

Stop Spacing

Speed of Service

Frequency of Service

What kinds of strategies can best seize these opportunities?



Transit Performance

Downtown Bellevue 2030 Vision

South Kirkland P&R Transit Oriented Development Project

Bel-Red Subarea Plan

Eastgate Transit Oriented Development Concept

Evolving Land Use Vision

East Link Light Rail

Project to be built

Stations

- Station

Route Profile

- At-Grade
- Elevated
- Tunnel
- Retained Cut / Fill
- Future Downtown Redmond Extension*

* The Board also identified a route for a further extension to Downtown Redmond in the future that was not funded in the Sound Transit 2 ballot measure.

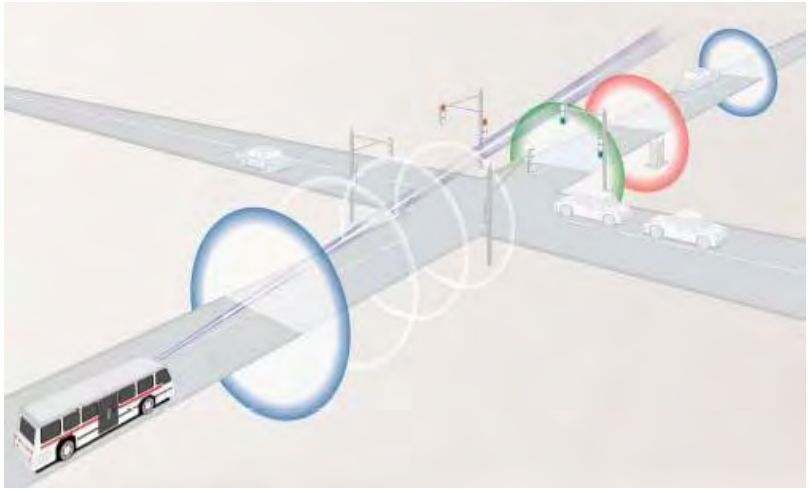
Central Link Light Rail

- Central Link Alignment and Station
- University Link Under Construction
- Final Design

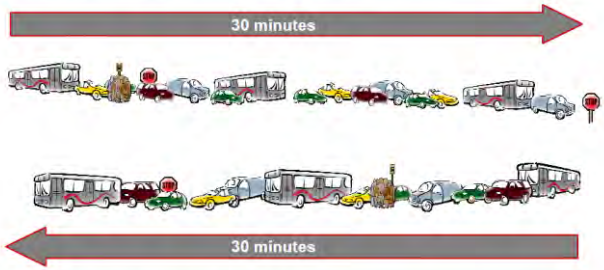
(December 2011)

Bellevue Transit Master Plan

Evolving Transportation Vision



Bus route…60 min running time

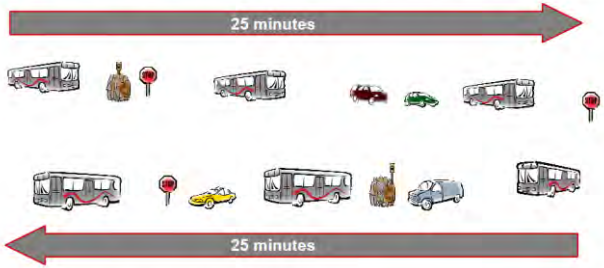


Round Trip Travel Time = 60 minutes

Bus every 10 minutes = $\frac{60}{10}$ = 6.0 => **6** buses + **6** drivers

The Cost of Delay

Remove congestion…reduce time, reduce resources



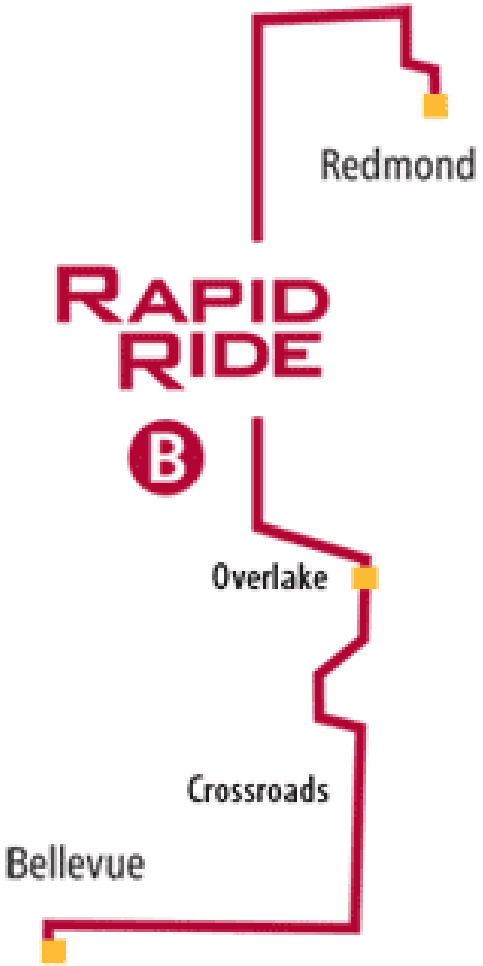
Round Trip Travel Time = 50 minutes

Bus every 10 minutes = $\frac{50}{10}$ = **5** buses + **5** drivers

17% decrease in cost and travel times!

The Cost of Delay

Enhancing Speed & Reliability



RapidRide B Case Study

Serves Major Employment Centers

- Downtown Bellevue
- Crossroads
- Overlake Village
- Overlake
- 154th Ave NE/ Willows Road
- Downtown Redmond

16% ridership increase in corridor based on:

- YTD average weekday ridership (Sept 2012) = 5,870 (RapidRide B).
- Average weekday ridership (Spring 2011) = 5,066 (Rt. 253 and 235E).

Parking Demand for King County

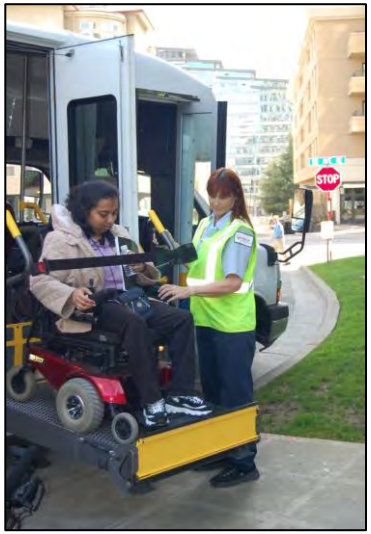
Park & Ride Facility	Lot Capacity	Base Year Demand		Future Demand	
		Observed	Estimated	2010	2020
I-90 Lots					
Mercer Island	257	257	490	590	680 to 750
South Bellevue	524	582	470	600 to 650	690 to 1020
Eastgate	724	673	600	760	820
Lakemont	N/A	N/A	520	660	730 to 820
Issaquah	394	405	520	670	800
Issaquah Highlands	N/A	N/A	360	510	640
Preston	53	33	90	130 to 190	170 to 230
North Bend	N/A	N/A	140	210	270
Snoqualmie Pass	N/A	N/A	0	0	0
TOTAL	**1952**	**1950**	**3210**	**4130 to 4440**	**4780 to 5350**
I-405 Lots					
Northshore	376	125	560	560 to 620	700 to 850
Kenmore	432	389			
Bothell	230	209	620	640 to 710	770 to 940
Woodinville	459	266			
Brickyard	247	237			
Kingsgate	502	467	520	520 to 580	650 to 790
NE 116th	24	5			
SR 908/Kirkland Way	20	13	480	480 to 530	610 to 740
Houghton	450	288			
Redmond	344	258	520	520 to 580	650 to 790
Bear Creek	334	180			
Northup	32	16	530	530 to 590	670 to 820
Evergreen Point	51	47			
S Kirkland	603	525			
NE 40th/Overlake TC (Sep '01)	235	N/A			
Overlake	150	83			
Wilburton	190	196	510	520 to 570	650 to 790
Newport Hills	292	187			
Renton Highlands	146	80	490	490 to 540	610 to 750
TOTAL	**5117**	**3571**	**4230**	**4260 to 4720**	**5310 to 6470**

I-90 Lots Increased Demand (2000-2020): 3,398 or 174%
I-405 Lots Increased Demand (2000-2020): 1,353 or 26%

The goal of this study was to develop corridor-level park and-ride demand estimates for the year 2020, and to identify potential current and future park-and-ride lot investment needs within the four-county region that can be prioritized through the regional and state priority programming processes and through transit agency budget processes.

Enhancing P&R Access to Transit

- The quality of the pedestrian environment can be a deciding factor when choosing whether or not to take transit at all, especially for those with the option to drive.

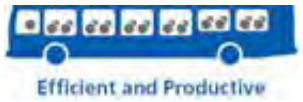


Access Paratransit Van
Cost/boarding = $42.11

Fixed-Route Bus
Cost/boarding = $3.98

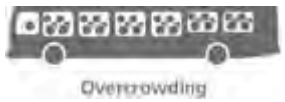
- For those people with disabilities who do not have the option to drive, investing in neighborhood sidewalks can extend the reach of fixed-route service thereby reducing a transit agency's paratransit service obligations.

Enhancing Ped Access to Transit



Restructures.

- Transit service doesn't reflect transit demand
- Transit services overlap
- Service levels do not match ridership
- Major transportation changes take place (e.g. SR-520 tolling)
- Major developments or land use changes have occurred



Additions.

- Reduce overcrowding
- Improve on-time performance
- Approach target service levels
- Improve service on routes with high performance

Reductions.

- Reduce low productivity service in areas not underserved
- Restructure service to improve efficiency
- Reduce low-productivity services in underserved areas

http://www.bellevuewa.gov/bellevue-transit-plan.htm

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Additional Information