#### CHAPTER III - EXISTING BELLEVUE TRANSIT SYSTEM

Currently, 40 transit routes operate through the city of Bellevue - provided by both King County Metro and Sound Transit. The routes serve diverse destinations throughout the region and within the city itself. These services can be aggregated into three service categories:

- **Community services** Exclusively serve the City of Bellevue connecting Bellevue neighborhoods with each other and with downtown Bellevue.
- Eastside services Provide connectivity between the City of Bellevue and other eastside jurisdictions. Eastside routes connect the City of Bellevue with the following destinations: Kingsgate, Redmond, Kirkland, Northshore P&R, Woodinville, Totem Lake, Bear Creek P&R, Issaquah, and East Lake Sammamish.
- **Regional services** Cross subarea and county lines connecting the City of Bellevue with other regional destinations within King, Snohomish, and Pierce Counties (note: routes to Seattle are considered regional routes).

In addition to these regular fixed route services, King County Metro also operates a number of specialized transportation services in the City of Bellevue; including: one custom bus route to Everett Boeing, one Dial-A-Ride route, and sixteen school related routes. The operating expense of the custom bus and school related routes are shared with public and private institutions.

Figure III-1 groups Bellevue's routes into each of the three fixed-route service categories referenced above [note: specialized transportation services are not reflected]. Figure III-1 shows that most Bellevue routes are oriented to regional destinations, primarily Seattle.

Figure III-1 Service Categories

Regional Routes	Eastside Routes	Local Routes				
111, 114, 167, 210, 212, 215,	222, 230, 233, 234, 239, 240,	219, 921				
225, 229, 232, 237, 242, 243,	249, 253, 269, 920					
250, 255, 256, 258, 262, 261,						
266, 271, 272, 530, 531, 532,						
535, <i>550</i> , 560, 565						
Note: All italicized regional routes have origins or destinations in downtown Seattle.						

As reflected in the following system network evaluation, Metro transit operations in Bellevue are oriented to serving regional employment destinations, primarily Seattle. Local transit services, when provided on weekdays, operate on a reduced span of service with limited service frequencies of approximately one trip per hour (i.e., 60 minute headways). Weekend transit services are negligible at all times.

Because Metro's transit network in Bellevue is primarily oriented to serving Seattle the radial service pattern is designed so most routes converge at the Bellevue Transit Center – like the spoke of a wheel. The primary problem with the present radial system in Bellevue is that it is poorly suited to the land development patterns taking place in the City.

While the Bellevue CBD is growing rapidly, the CBD is not the only focus of travel in Bellevue – a number of major non-CBD activity centers are developing which are not well served by transit. As a result, people must transfer frequently to get to various Bellevue origins and destinations. This situation would not be a significant deterrent to using transit were transfer wait times 15 minutes or less. Unfortunately, residents in a number of communities in Bellevue need to transfer between two bus routes (each with limited service frequencies) and experience lengthy transfer wait times (60+ minutes) before they can access various travel destinations throughout the City.

#### Span of Service

For good availability of service, users must have both an adequate span and frequency of service options. Figures III-2 through III-4 provide an overview of King County Metro's Bellevue – Bellevue – Bellevue – Eastside, and Bellevue – Regional services by time period for weekdays, Saturdays, and Sundays.<sup>2</sup>

King County Metro's 1999 Rider/Nonrider Survey showed that one-third (32%) of bus riders living in East King County rely on King County Metro for all or most of their transportation needs. Clearly, for these individuals, an adequate span of service on King County Metro operations is critical. However, many riders might use transit more often if the span of service on the existing route network were broadened.

Because most routes operating in Bellevue tend to have a strong peak orientation with limited service in non-peak periods transit is not regarded as a viable option for many types of trips; for example, many major destinations, notably Bellevue Square, Factoria, Crossroads, maintain operations until 9:00 PM or later. In the interest of encouraging transit usage among both employees and customers of these facilities, public transit services would need to operate late enough to serve these later hours of operation.

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<sup>&</sup>lt;sup>2</sup> For a detailed listing of the route profiles of King County Metro services in Bellevue (based on September 2000 Service Change data) reference Appendix D.

Figure III-2 Weekday Headways on King County Routes Serving Bellevue

	Community Routes							
Route	Destination	Peak	Mid	Early Eve	Late Eve	Early Morn		
219	Factoria - Newcastle	60	45					
222	Bellevue - Overlake	30	30	36		180		
233	Bellevue - Overlake	45						

	Inter-Community Routes							
Route	Destination	Peak	Mid	Early Eve	Late Eve	Early Morn		
230	Bellevue - Kingsgate P&R	26	30	60	180	60		
230	Bellevue - Redmond P&R	30	30	60	180	90		
232	Bellevue - Redmond P&R	60				180		
234	Bellevue - Kirkland	45	60	180		90		
234	Bellevue - Northshore P&R	36	60	180				
237	Bellevue - Woodinville	45						
239	Overlake - Totem Lake	60						
249	Bellevue - Redmond P&R	45	60					
253	Bellevue - Bear Creek P&R	30	30	180		90		
269	Issaquah - E Lake Sammamish	90		180		180		
920	Bellevue - Kingsgate P&R	60	60			180		
921	Bellevue - Eastgate P&R	60	60	180		180		

		Regional	Routes			
Route	Destination	Peak	Mid	Early Eve	Late Eve	Early Morn
111	Renton - Seattle CBD	36				60
114	Renton - Seattle CBD	45				180
167	Auburn P&R - U. District	36				90
210	Issaquah - Seattle CBD	36				
212	Eastgate P&R - Seattle CBD	23				
215	Issaquah - Seattle CBD	90	30	60	90	
225	Overlake - Seattle CBD	26		90		45
229	Overlake - Seattle CBD	45		180		90
240	Bellevue - Renton	45	60	60		90
242	Overlake - North Seattle	26				180
243	Bellevue - Jackson Park	60				
250	Redmond P&R - Seattle CBD	36				90
255	Kingsgate - Seattle CBD	30	60	60	90	90
256	Overlake P&R - Seattle CBD	90				
258	Kirkland - Seattle CBD	60				180
261	Overlake P&R - Seattle CBD	36				90
262	Kingsgate P&R - Seattle CBD	45				
266	Bear Creek P&R - Seattle CBD	23				180
271	Issaquah P&R - U. District	30	30	60	180	90
272	Eastgate P&R - U. District	36	180			180
280	Bellevue TC - Seattle CBD					180
942	Eastgate P&R - First Hill	36				

Figure III-3 Saturday Headways on King County Routes Serving Bellevue

Community Routes							
Route	Destination	Peak	Mid	Early Eve	Late Eve	Early Morn	
219	Factoria - Newcastle						
222	Bellevue - Overlake	180	36	60	90		
233	Bellevue - Overlake						

	Iı	nter-Commu	nity Route	S		
Route	Destination	Peak	Mid	Early Eve	Late Eve	Early Morn
230	Bellevue - Kingsgate P&R	36	30	30	45	180
230	Bellevue - Redmond P&R	60	60	90	90	
232	Bellevue - Redmond P&R					
234	Bellevue - Kirkland	60	60	180		
234	Bellevue - Northshore P&R	60	60	180		
237	Bellevue - Woodinville					
239	Overlake - Totem Lake					
249	Bellevue - Redmond P&R	180	90			
253	Bellevue - Bear Creek P&R	60	60	180		
269	Issaquah - E Lake Sammamish					
920	Bellevue - Kingsgate P&R					
921	Bellevue - Eastgate P&R					

	Regional Routes							
Route	Destination	Peak	Mid	Early Eve	Late Eve	Early Morn		
111	Renton - Seattle CBD							
114	Renton - Seattle CBD							
167	Auburn P&R - U. District							
210	Issaquah - Seattle CBD							
212	Eastgate P&R - Seattle CBD							
215	Issaquah - Seattle CBD							
225	Overlake - Seattle CBD							
229	Overlake - Seattle CBD							
240	Bellevue - Renton	90	60	60				
242	Overlake - North Seattle							
243	Bellevue - Jackson Park							
250	Redmond P&R - Seattle CBD							
255	Kingsgate - Seattle CBD	90	60	60	90			
256	Overlake P&R - Seattle CBD							
258	Kirkland - Seattle CBD							
261	Overlake P&R - Seattle CBD							
262	Kingsgate P&R - Seattle CBD							
266	Bear Creek P&R - Seattle CBD							
271	Issaquah P&R - U. District	60	30	60	180			
272	Eastgate P&R - U. District							
280	Bellevue TC - Seattle CBD							
942	Eastgate P&R - First Hill							

Figure III-4 Sunday Headways on King County Routes Serving Bellevue

Community Routes							
Route	Destination	Peak	Mid	Early Eve	Late Eve	Early Morn	
219	Factoria - Newcastle						
222	Bellevue - Overlake	180	60	60	180		
233	Bellevue - Overlake						

		Inter-Commu	nity Routes			
Route	Destination	Peak	Mid	Early Eve	Late Eve	Early Morn
230	Bellevue - Kingsgate P&R	45	30	30	45	
230	Bellevue - Redmond P&R	90	60	60	90	
232	Bellevue - Redmond P&R					
234	Bellevue - Kirkland					
234	Bellevue - Northshore P&R					
237	Bellevue - Woodinville					
239	Overlake - Totem Lake					
249	Bellevue - Redmond P&R					
253	Bellevue - Bear Creek P&R	90	60	180		
269	Issaquah - E Lake Sammamish					
920	Bellevue - Kingsgate P&R					
921	Bellevue - Eastgate P&R					

		Regional	Routes			
Route	Destination	Peak	Mid	Early Eve	Late Eve	Early Morn
111	Renton - Seattle CBD					
114	Renton - Seattle CBD					
167	Auburn P&R - U. District					
210	Issaquah - Seattle CBD					
212	Eastgate P&R - Seattle CBD					
215	Issaquah - Seattle CBD					
225	Overlake - Seattle CBD					
229	Overlake - Seattle CBD					
240	Bellevue - Renton	180	60	60		
242	Overlake - North Seattle					
243	Bellevue - Jackson Park					
250	Redmond P&R - Seattle CBD					
255	Kingsgate - Seattle CBD	180	60	60	90	
256	Overlake P&R - Seattle CBD					
258	Kirkland - Seattle CBD					
261	Overlake P&R - Seattle CBD					
262	Kingsgate P&R - Seattle CBD					
266	Bear Creek P&R - Seattle CBD					
271	Issaquah P&R - U. District	90	60	60	180	
272	Eastgate P&R - U. District					
280	Bellevue TC - Seattle CBD					
942	Eastgate P&R - First Hill			<u> </u>		

- Bellevue Bellevue routes primarily operate weekdays during the peak and mid-day timeperiods. Only one of the three routes in this service category is operated on Saturdays and Sundays.
- Bellevue Eastside routes primarily operate weekdays during the peak and mid-day time-periods. Only 8 of the 12 regional routes offer mid-day service on weekdays. And, on weekends, only 6 of the 12 routes in this service category is operated on Saturdays; and, on Sundays only 3 of these routes remains in service.
- Bellevue Regional routes primarily operate weekdays during the peak, early evening, and early morning time-periods. Only 5 of the 22 regional routes offer mid-day service on weekdays. And, on weekends, only 3 routes remain in operation.

# Route Coverage

Considering transit service in a generic sense, that is, ignoring specific destinations served by individual routes, peak hour service area coverage in the City of Bellevue is fairly comprehensive. Service gaps are generally in mid- to upper-income areas along 92nd Avenue NE between NE 8th and Yarrow Point, between 116th Avenue NE and 130th Avenue NE north of SR-520, along 124th-128th Avenue SE south of NE 8th Street and in the Cougar Mountain area south of I-90. Most of the remainder of the City enjoys convenient access to local and/or regional fixed route transit services.

During midday hours, several additional gaps in service coverage appear, including a large portion of southeast Bellevue south of Lake Hills Boulevard and east of 148th Avenue SE and between 156th Avenue and 164th Avenue between NE 8th Street and Lake Hills Boulevard.

Early evening hours (6-9 PM) exhibit a significant reduction in the transit coverage within the City of Bellevue. Large areas of the City are virtually without transit service during this period, including the area between I-405 and 140th Avenue NE north of NE 8th Street, the northeastern portion of the city east of 164th Street NE and north of Bel-Red Road, nearly the entire area between NE 8th Street and I-90 between I-405 and 140th Avenue SE (except for Woodridge and the area adjacent to BCC and most of the area to the south and east of Somerset.

Weekend service coverage tends to resemble that of evening service coverage, with many routes not providing any weekend service. Those that do provide service tend to exhibit rather lengthy headways (more than 30 minutes), making transfers at any location other than the Bellevue Transit Center unreliable and time-consuming.

When specific route destination areas are taken into account, the coverage becomes somewhat less uniform. The following examples illustrate the lack of a coordinated intra-Bellevue route network, even during the peak commuter period.

#### Downtown Bellevue

Even though downtown Bellevue represents a major employment center for the Eastside, there are a number of areas within the City which do not have direct (non-transfer) access to this important urban center.<sup>3</sup> Included in the peak hour service gaps are the area between 116th Avenue NE and 140th Avenue NE north of SR-520, the area to the north of NE 24th Street and east of 156th Avenue NE, the area between 116th Avenue NE and 140th Avenue NE between NE 8th Street and the Lake Hills Connector and nearly the entire southeast quadrant of the City east of 148th Avenue NE/SE and NE 8th Street.

Midday service coverage for Bellevue CBD-bound service is nearly identical to that of the peaks with the exception of an area on the western slope of Newport Hills, which loses its access to the CBD.

The Evening service coverage of Bellevue CBD-bound service exhibits expanded gaps in the area north of Bel-Red Road between Bellevue Way and 140th Avenue NE, in the Woodridge community and in the Somerset/Hilltop area; in addition to the gaps exhibited in the Peak and midday periods.

Of particular concern is the absence of any direct service to the Bellevue CBD from the southeastern quadrant of the City (Lake Hills and Phantom Lake) and from the area south of Bridal Trails Park during all time periods.

#### Crossroads

The Crossroads area is a focus of retail and entertainment activity as well as the site of a major theater complex serving the eastern half of the City. In spite of this, direct (non-transfer) transit access to this area does not exist for significant portions of the City. During the peak periods, transit access is confined to the Lake Hills, Eastgate and Crossroads neighborhoods and to service operating across the NE 8th Street corridor.

Midday service is even more restricted, with a large area of the Lake Hills and Phantom Lake neighborhoods also cut off from direct transit access to the Crossroads area.

Evening service is restricted to a small area of the Crossroads neighborhood and the NE 8th Street corridor. With such limited access, the Crossroads entertainment areas, including the movie theaters, are effectively not served by transit at all from most areas of the City.

#### Overlake

The Overlake area is a focus of several major retail businesses (Fred Meyer and Sears) as well as a number of restaurants and other smaller retail businesses. Transit access through this area is impacted by heavy traffic congestion on NE 24th Street just east of 148th Avenue NE and along 148th Avenue NE between Bel-Red Road and SR-520.

<sup>&</sup>lt;sup>3</sup> Figure III-5 identifies areas in Bellevue that lack direct service to downtown Bellevue, Factoria, Overlake, and Crossroads at various times of day (peak/midday/evening).

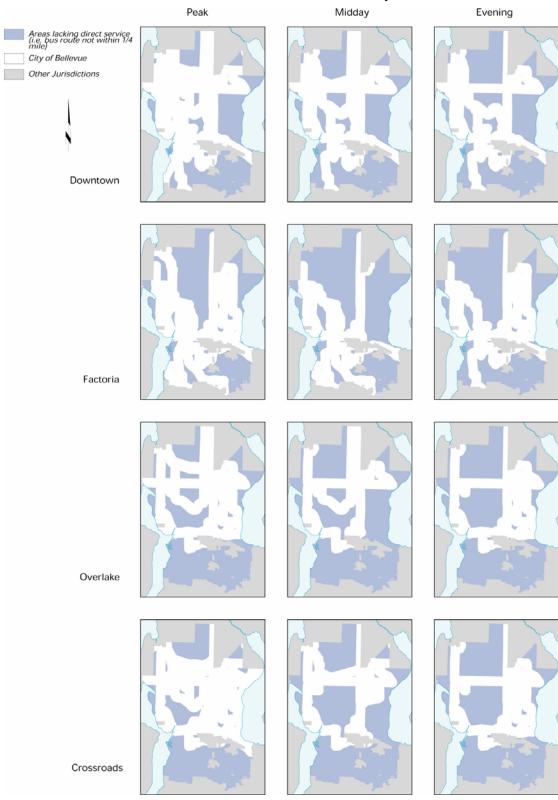


Figure III-5
Directness of Service to Bellevue Activity Centers

This congestion is compounded by heavy access and egress volumes to/from SR-520 and by the large volumes of left-turning traffic movements in this area.

Much of the peak hour transit service in this area is focused on the Overlake Park and Ride facility just off 152nd Avenue NE and by regional transit services bound for multiple regional destinations, including Seattle and Snohomish County. Service is provided in this area by King County Metro, Sound Transit and by Community Transit.

Major areas without direct (non-transfer) transit service to the Overlake area during peak commuter hours include the area between I-405 and 148th Avenue NE and north of SR-520, The area between Bellevue Way and 148th Avenue between NE 8th Street and I-90 and the entire area south of I-90 except for a small area around Factoria and Newport Way and the area west of Bellevue Way between NE 8th Street and SR-520.

During the midday, the entire area between Bellevue Way and 148th Ave NE north of Bel-Red Road is without direct service into the Overlake area as is the region bounded by Bellevue Way, NE 8th Street, 148th Avenue SE and I-90 and the entire southeastern quadrant of the City south of NE 8th Street and east of 148th Avenue SE. South of I-90, coverage is identical to that available during peak hours.

In the evening, coverage is nearly identical to that of the midday period. Some slight improvement in the Crossroads area is evident in the very early evening due to the operation of route 261 through this area. However, this service terminates at 7:00 PM.

#### Service Frequency

Access to the transit network must also take account of the frequency of service being provided. As reflected in Figure III-6, much of the service in the Bellevue area, particularly during non-peak periods, operates at average headways in excess of 30 minutes. This figure depicts September 2000 Service Change data where peak hour service is defined as 6 am - 9 am; midday service is from 9 am - 12 pm; and, evening service is from 6 pm - 9 pm.

In general, service is most frequent during peak commuter hours. However, even during this period, significant gaps exist in the service network. As Figure III-6 indicates, the areas around Bridle Hills, northeast Bellevue, Lake Hills, Wilburton and Eastgate/Cougar Mountain areas are without access to routes having service at least every 30 minutes during peak commuter hours. On Saturday mornings, only the area along NE 8th Street between downtown Bellevue and Crossroads enjoys such service while on Sunnday Mornings, only a small area of downtown Bellevue enjoys this frequent transit access.



During weekday midday periods, service access to frequent transit services diminishes somewhat from peak levels, with most of the area north of SR520 between Bellevue Way and 140th Avenue NE without such access, as well as a significant portion of East Bellevue. On Saturday afternoons, most of the City northeast, east and southeast of Crossroads lose access to this frequent level of service as well as South Bellevue north of the South Bellevue P/R and the Factoria area. During Sunday middays, access to frequent transit service is restricted to a few corridors surrounding Bellevue Way north of the CBD and south of the South Bellevue P/R, NE 8th Street as far east as Crossroads, and a small area in the Eastgate area

Transit frequencies significantly decline during evening hours (after 6 PM.) On weekdays, 30-minute service is available only in downtown Bellevue, between Factoria and the South Bellevue P/R and in the Eastgate/BCC area. On Saturday and Sunday evenings, such service levels are available only along Bellevue Way between downtown Bellevue and the South Kirkland P/R, between Factoria and the South Bellevue P/R and in the immediate Eastgate area.

With the exception of these few areas, the City of Bellevue is without 30-minute service during evening hours, even across the heavily-traveled NE 8th Street corridor.

In addition to the examination of general service frequencies, a closer examination of service frequencies also points out certain deficiencies in the transit service levels being provided within neighborhoods in the City of Bellevue. To carry out this analysis, five major trip generators/destinations were chosen from within the City of Bellevue: Bellevue CBD, Crossroads, Overlake, Eastgate and Factoria. For each of these locations, the number of transit trips operated during each of five time periods were also recorded: Weekday Peak (6-9 AM), Weekday Midday (9AM-12PM), Weekday Evening (6-9 PM), Saturday Midday (6-9 AM) and Sunday Midday (6-9 AM.)

From this information, the average headway for routes serving each of these five areas during each of the five time periods was calculated. The results are summarized in the following table.

Figure III-7
Average Headways to Bellevue Activity Centers

Time	Average Headway						
Period	Total	Bell. CBD	Crossroads	Overlake	Eastgate	Factoria	
6-9 AM	40	33	33	36	35	41	
9AM-12 PM	42	41	36	34	39	42	
6-9 PM	74	77	34	72	60	80	
Sat	50	48	40	45	32	36	
Sun	53	51	48	45	60	60	

As Figure III-6 shows, average headway for the entire city during the peak for all routes providing significant service within the City was 40 minutes. During the midday, that average increases only slightly to 42 minutes. However, in other time periods, the average varies from 50 minutes on Saturday to 74 minutes on weekday evenings. Since these are averages, a significant proportion of all service operates with headways greater than those shown in the table.

When one concentrates on services to specific locations, the headways follow a pattern similar to that discussed. Even though the Bellevue CBD is served by many routes, the average headway on any single route serving the CBD is still more than one hour on weekday evenings and only slightly less than one hour on weekends. Of all the areas studied, only Crossroads was served at intervals of less than one hour on weekday evenings. Saturday service is operated in the 40-60 minute headway range with Sunday headways slightly longer, generally about 60 minutes.

In serving the transit dependent, the existing level of service is useable, but not convenient. The average level of existing service within the City is inadequate, however, to make transit a competitive mode.

Even though the existing service network is designed for commuters, many of the commuter routes exhibit only marginal levels of service too few to attract significant ridership. While some routes are designed to serve specific shift times at certain work locations, many others offer only two or three AM and PM trips, providing minimal access to many job sites and providing little in the way of a safety net for employees working late or having non-traditional work schedules. During off-peak hours, many routes offer significantly lower levels of service or suspend operations entirely.

There is no truly generic measure of transit accessibility. While route coverage and frequencies can be compared from route to route, the destinations served by those routes differ significantly. The combination of gaps in service coverage to specific destinations with the generally low frequency of service on most routes during off-peak periods (and often during peak periods, as well) does little to encourage transit ridership within the City for any but the transit dependent.

#### Auto vs. Transit Travel Times

The disparity between auto and transit travel times depends greatly upon the beginning and end points chosen for evaluated trips. Where direct transit alignments between areas exist along major arterials, transit travel times compare favorably with those exhibited by private vehicles. In fact, when parking availability and location are added into the mix, transit can be the faster mode for some trips.

However, where alignments are circuitous and service frequencies are low, transit travel times can be significantly longer than private vehicle trips. According to this analysis, trips between several origin/destination pairs can be made by transit as fast via transit as by private vehicle. Among these origin/destination pairs are: Downtown to North Bellevue;

Downtown to Richards Valley; and Downtown to Crossroads. All of these pairs have a transit/auto travel time ratio of less than 1.25, reflecting very competitive trip times between modes. All of these origin/destination pairs are served by multiple routes operating over direct transit alignments (NE 8th and Bellevue Way.)

However, many other origin/destination pairs exhibit very different characteristics. As reflected in Figure III-7, four pairs to/from Eastgate exhibit transit/auto travel time ratios in excess of 3.0, reflecting a significant travel time penalty associated with transit travel.<sup>4</sup> Many of these origin/destination pairs are fairly close together, reflecting circuitous transit routing and infrequent levels of service.

Figure III-8
MMA Auto vs. Bus Travel Time Ratios in Excess of 2.0

		Transit	Auto	Transit/Auto
Origin	Destination	Travel Time	Travel Time	Ratio
Eastgate	Newcastle	8.00	1.00	8.00
Eastgate	East Bellevue	10.00	2.00	5.00
Eastgate	Bell-Red	30.00	7.00	4.29
Eastgate	South Bellevue	15.00	4.00	3.75
Eastgate	Downtown	27.00	9.00	3.00
Overlake	Downtown	19.00	8.00	2.38
Overlake	East Bellevue	7.00	3.00	2.33
South Bellevue	Downtown	14.00	6.00	2.33
East Bellevue	Downtown	12.00	6.00	2.00

Of the 28 origination pairs evaluated by the City of Bellevue, 12 had transit/auto travel time rations of 1.5 or less, reflecting competitive transit travel times vis-à-vis those of the private auto, while 9 pairs exhibited ratios of 2.0 or more, reflecting transit travel times more than twice those of auto travel times. Many of these long transit travel times were noted between downtown and East Bellevue and Eastgate, where direct service is unavailable or infrequent.

The travel time analysis corroborates the findings of the service coverage analysis which identified a number of significant service coverage deficiencies. Estimated transit travel times to and from these regions tend to reflect the scarce nature of transit connections available between: Downtown to East Bellevue; Downtown to Eastgate; Crossroads to South Bellevue; and, Crossroads to Eastgate.

<sup>&</sup>lt;sup>4</sup> Transit travel times were estimated between these destinations using Metro's route schedules. Auto travel times were estimated using the Mapquest internet site (<a href="www.mapquest.com">www.mapquest.com</a>) which estimates travel times between identified origins and destinations.

# **Key Findings**

#### • Transit is Focused Toward the Commuter Market

Service within the City of Bellevue has often developed from a commuter-based focus on getting Bellevue residents to employment locations outside the City, primarily to downtown Seattle, the University District, Snohomish County, Renton and the Kent Valley. Service in many Bellevue neighborhoods, primarily in East Bellevue, is more directly oriented to external destinations than to those within the City.

# • Access to Community-Oriented Transit Services is Poor

Even though Bellevue residents tend to work on the Eastside, much of the existing transit network is designed to transport them more efficiently to other locations. Service during off-peak hours, while more focused on local destinations, has serious coverage and focus gaps. The most noticeable of these is the disconnection between East Bellevue and the downtown core, where transit connections are poor to non-existent and the lack of direct access, particularly during evening and night hours to the Crossroads area from a significant portion of the City.

The City would benefit from a focus on trips within the City and not on direct service to external destinations from local neighborhoods. Areas such as East Bellevue would be much better served by focusing local service on other City destinations and providing connections to external destinations via transfers at the Eastgate and Overlake park and ride lots during peak hours or by overlays of commuter routes on the local route network.

#### • Access to Other Eastside Destinations via Transit is Poor

Currently, the fixed route service network is designed primarily for commuters and frequently does not function well for other trip purposes during off-peak periods. A transit focused on local and sub-regional destinations, with commuter services overlaid on that network during commute periods would improve Eastside to Eastside access.

#### • Service Frequencies are Poor

The City of Bellevue appears to be outgrowing the ability to provide timed-transfers at the Bellevue Transit Center. Transit volumes are increasing, necessitating the expansion of that facility, and the focusing of service at the BTC sacrifices transfer priorities in other areas, notably those with lesser levels of service where transfer waits can approach an hour or more.

Improving service frequencies from the typical 60 minute interval would reduce the reliance on timed transfers and allow for more flexibility in providing connections in other Bellevue neighborhoods. This, in turn, will help reduce the travel time penalty imposed on transit riders destined to many destinations within the City of Bellevue.

#### **CHAPTER IV - MARKET CONDITIONS**

Consistent with national trends, the origins and destinations of commuting trips in the Puget Sound Region have become increasingly suburban, generating what Alan Pisarski of the Eno Foundation for Transportation calls "the suburban commuting boom." As reflected in the following quotations, the "traditional commute" - the Bellevue resident commuting to downtown Seattle - is now one of many travel markets; including Bellevue residents commuting to Bellevue and other eastside jurisdictions as well as the Seattle resident commuting to downtown Bellevue.

- The PSRC, in its 1999 Central Puget Sound Regional Economic Report, notes that "Between 1995 and 1998, the number of high tech jobs on the Eastside grew from 36,500 to 50,100, an increase of 37 percent. Over half of the region's high tech jobs are located on the Eastside...The Eastside cities of Redmond, Bellevue, Issaquah and Bothell are home to over 51,000 high tech jobs, more than twice the number in Seattle."
- King County Metro, in its Six Year Transit Development Plan (1996-2001), acknowledged that: "Continuing decentralization of population and employment in King County has decreased travel to Seattle in general and downtown Seattle in particular and has resulted in the rapid growth of suburb-to-suburb and intra-community trips."
- WSDOT, in its *Translake Washington Study Technical Report*, notes that "SR-520 has shown a gradual, but steady, increase in volume between 1984 and the present....Vehicle travel volumes in both directions are generally balanced..."
- WSDOT, in its I-90 Existing Conditions Report, notes that "1999 Existing conditions show
  that I-90 carries approximately 58% of the trips for AM westbound and PM eastbound
  vehicles." The gap between east and west is anticipated to narrow over time as the
  Eastside continues to grow and attract more jobs. Certainly future two-way improved
  transit and GP travel times will make trips to and from the east that much more
  attractive

King County Metro Six-Year Transit Development Plan (1995-2001) recognized this trend and was formulated on a significant reorientation of service to a broader range of travel destinations. While a number of improvements have been made to the existing route network, the latent demand for transit in East King County is significant.

Operating statistics from King County Metro show that transit ridership on the Eastside is increasing rapidly. By way of example, 31% of East County households used transit in 1999 (1994 = 19%) – the most significant growth in Metro's service area. Additionally, King County Metro's 1999 Rider/Nonrider Survey showed that one-third (32%) of bus riders living

<sup>&</sup>lt;sup>5</sup> Alan Pisarski. *Commuting in America: A National Report on Commuting Patterns and Trends*. Eno Foundation for Transportation. 1987.

in East King County rely on King County Metro for all or most of their transportation needs.

There are a number of promising trends that suggest the continued improvement of transit as a viable mobility option for Bellevue residents – higher land use densities in the suburbs, more funding for transit service, more infrastructure improvements supportive of transit, and a public committed to alternative modes of travel.

As reflected in Figures IV-1 and IV-2, residential and employment development in the City of Bellevue is occurring at a rapid pace. As evidenced in the following summary, based on Puget Sound Regional Council 2010 growth estimates, residential development in Bellevue is strong throughout the city:

#### Southeast Area

- Southeast area of Bellevue has higher densities than other areas and a 1998 population of about 4,000. Projections indicate a 50% growth by 2010.
- Transit service only covers north edge of area.

#### Northeast Area

- Includes portions of Redmond
- Denser development with about 9,200 population; 11,700 by 2010
- Area served by one route
- Near new transit center/park-and-ride lot at SR 520/NE 40th Street

#### Central Bellevue (140th Avenue Corridor)

- Significant current population along corridor Lake Hills to Kirkland (23,000)
- Projected modest increase in population by 2010
- Served by Route Metro 920 hourly service with van-type vehicle; no evening or weekend coverage.

Similarly, employment development in Bellevue is occurring at an accelerated pace in the following areas:

#### North of SR 520

- Already dense employment area. Doubling of employment level by 2010 5,300 to 10,600. Served by two Metro routes: 230 via Lake Washington Blv'd (30 minute peak and midday service); 234 via 108th Avenue (30 minute peak; 69 minute midday service)
- Overlake: 20,000 additional employment by 2010. Sound Transit 545/546 provide quick links between Overlake transit center and Seattle
- Several Eastside locations without convenient transit access to Overlake: From Kirkland (Route 230) via downtown Bellevue; From Sammamish (Route 269) peak only every 60 minutes; North Bellevue peak only service; and Renton no service.

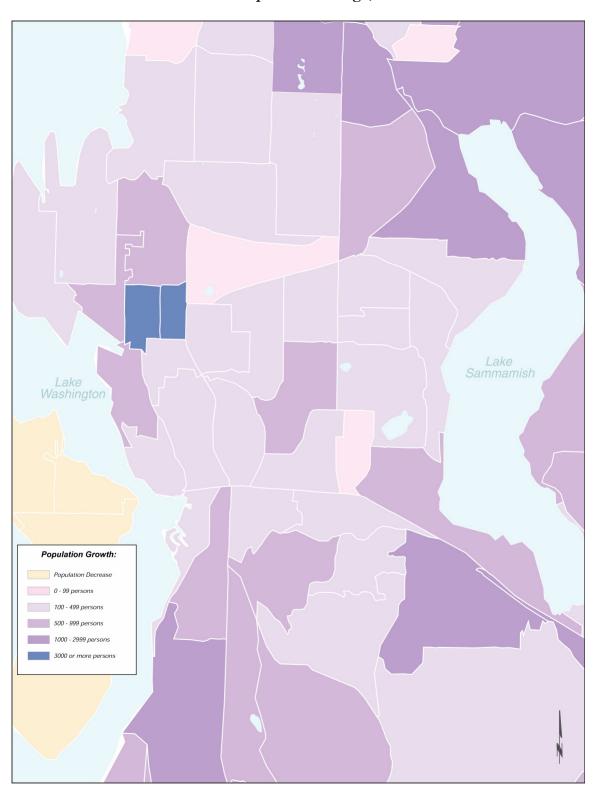


Figure IV-1 Forecasted Population Change, 1998-2010

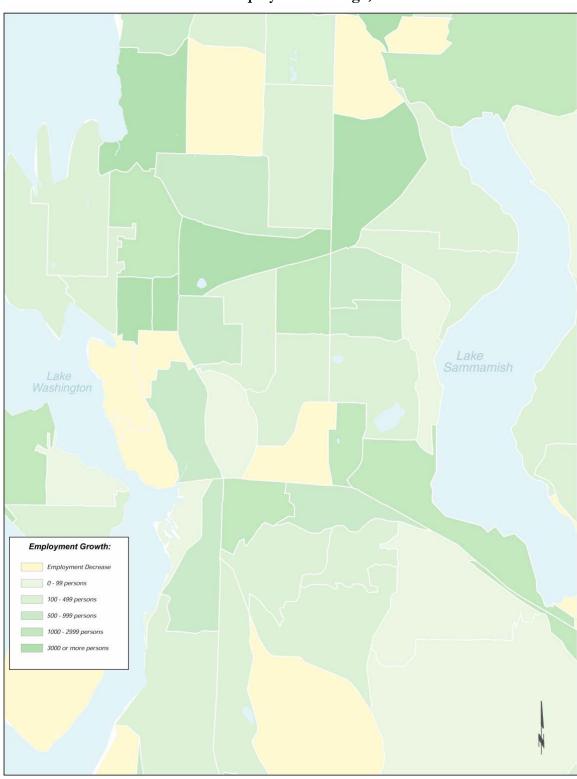


Figure IV-2 Forecasted Employment Change, 1999-2010

#### **Travel Demand Analysis**

A major factor in assessing possible transit service improvements in Bellevue is the pattern and volumes of total travel demand. It is recognized that future total travel does not necessarily translate into transit travel demand. However, many trips will be candidates for transit. The examination of total travel serves as a starting point for examining what may be potentially feasible transit markets.

This travel demand analysis of 2010 person trips to the City of Bellevue was was based on information from the Bellevue-Kirkland-Redmond (BKR) model. A total of 28 districts were identified for the travel demand analysis – 13 in Bellevue; 8 for the eastside, and 7 for the region (non Bellevue and non-eastside areas). The 13 districts in Bellevue correspond to the city's Mobility Management Areas. The Bellevue, Eastside, and Regional areas are aggregations of the traffic analysis zones (TAZ's) that make up the area covered by the BKR model.

Three major markets were addressed by the analysis of travel patterns:

- Bellevue-Bellevue trips,
- Bellevue-Eastside trips, and
- Bellevue-Regional trips.

The review of production (trips originating in a particular area) and attractions (trips attracted to a particular area) indicated that downtown Bellevue and Overlake dominate as major destinations in Bellevue. Figures IV-3 through IV-5 identify dominant travel patterns affecting downtown Bellevue and the Overlake area. The following summarizes key findings of the 2010 person trips demand assessment:

Bellevue – Bellevue Markets (10,000 + Person Trips)

- East Bellevue Overlake = 18,800
- South Bellevue downtown Bellevue = 18,400
- Bridle Trails Overlake = 16,600
- North Bellevue downtown Bellevue = 15,400
- Bel-Red Northup downtown Bellevue = 14,800
- Northeast Bellevue Overlake = 13,600
- Crossroads Overlake = 13,500
- Bel-Red Northup Overlake = 13,100

Bellevue-Eastside Markets (10,000 + Person Trips)

- Redmond non-CBD Overlake = 65,600
- Kirkland downtown Bellevue = 43,200
- Kirkland Overlake = 39,300
- Redmond non-CBD downtown Bellevue = 15,700
- Renton downtown Bellevue = 14,800
- Medina, Clyde Hill downtown Bellevue = 11,700
- Sammamish Overlake = 11,000

Bellevue-Regional Markets (10,000 + Person Trips)

- Pierce County Overlake = 21,300
- Pierce County downtown Bellevue = 21,000
- Snohomish County downtown Bellevue = 16,900
- Snohomish County Overlake = 15,200
- South King County downtown Bellevue = 14,900
- Medina, Clyde Hill downtown Bellevue = 11,700
- North Seattle downtown Bellevue = 11,500
- South King County Overlake = 10,500
- South Seattle downtown Bellevue = 10,300

The travel demand assessment indicates several key conclusions:

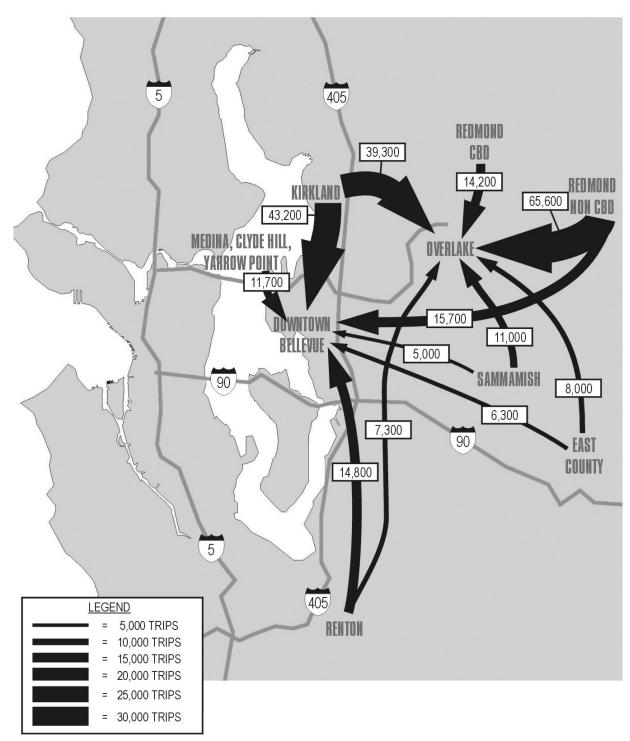
- Bellevue-Bellevue Markets The volume of South Bellevue-downtown Bellevue demand indicates the importance of quality transit access between areas such as Factoria and downtown Bellevue. Also good transit connections involving Crossroads-Overlake and East Bellevue-Overlake will be necessary to meet expected trip volumes.
- Bellevue-Eastside Markets For Eastside patterns, the results indicate the need for improved transit access between Kirkland and both downtown Bellevue and Overlake. Also, future transit improvements should address growth in demand between Redmond and downtown Bellevue/Overlake. Transit plans by Kirkland and Redmond have also called out this need.
- Bellevue-Regional Markets Regional travel patterns indicate that future major Bellevue markets involve corridors that are currently not well served by public transit. These include Snohomish-Overlake, South King County-Overlake, South King County-downtown Bellevue, and Pierce County to Overlake and downtown Bellevue.

BRIDLE **TRAILS** 16,600 405 520 13,100 BEL-RED **NORTHRUP** NORTH 7,000 BELLEVUE 13,600 14,800 7,300 15,400 13,500 6,900 BELLEVUE **CROSSROADS** 18,800 9,100 9,200 EAST 18,400 BELLEVUE SOUTH BELLEVUE 6,500 9,000 90 6,300 **NEWCASTLE** 405 **NEWPORT LEGEND** 5,000 TRIPS 10,000 TRIPS = 15,000 TRIPS = 20,000 TRIPS = 25,000 TRIPS

Figure IV-3 2010 Total Bellevue Trips to Downtown Bellevue and Overlake

Figure IV-4
2010 Total Eastside Trips to Downtown Bellevue and Overlake





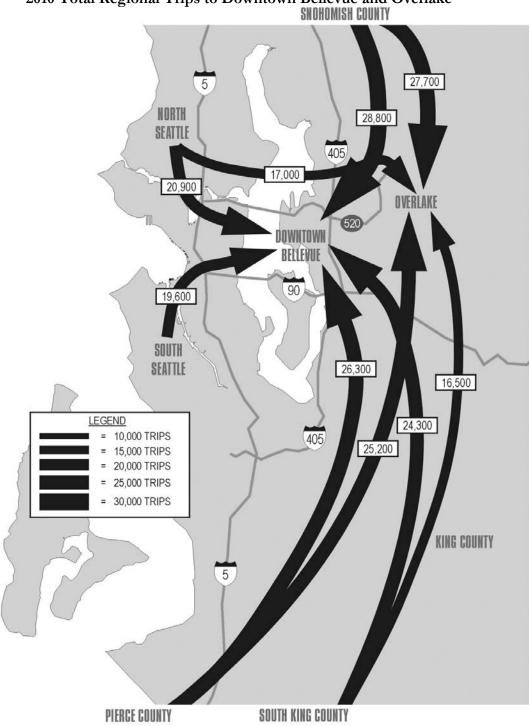


Figure IV-5
2010 Total Regional Trips to Downtown Bellevue and Overlake SHOHOMISH COUNTY