

# King County Metro Transit **2011 Service Guidelines Report**

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*We'll Get You There*

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## THE GUIDELINES AT WORK

### The RapidRide B Line and fall 2011 Eastside restructures

Several recent and planned transit investments prompted Metro to restructure service on the Eastside in fall 2011. The federal Urban Partnership Program gave Metro an opportunity to add cross-lake transit service to accommodate increased transit demand caused by tolling on the SR-520 Bridge. Sound Transit and Metro had built the Redmond Transit Center. Metro was planning to launch the RapidRide B Line in September. Sound Transit had expanded Overlake Transit Center and improved service on Route 545, and Metro had added layover space at Eastgate Park-and-Ride.

To make the best use of these opportunities and investments, we began in 2010 to plan a restructure of Metro service connecting Bellevue, Redmond, Kirkland, Overlake, Totem Lake, and Eastgate, conducting an extensive public outreach process called Bellevue and Redmond Connections.

Although the service guidelines were still under development, our planning was consistent with them in a number of ways. The guidelines define significant service investment as a trigger for restructuring service. They set priorities such as improving service quality, and define service design principles such as reducing duplication of service.

The following examples from the Eastside restructuring project illustrate how the guidelines can work and the results they can achieve.

#### Service quality

The top priority in the service guidelines is to improve service quality by reducing over-crowding and improving schedule reliability. The Eastside restructuring project allowed Metro to address service quality issues that we had identified using the service guidelines, as shown in the table below.



#### Geographic value and social equity in the Eastside restructure

- The Eastside restructure connects the regional growth and jobs centers of Bellevue, Overlake Redmond, downtown Seattle, Totem Lake, and the University District with 15-minute all-day service.
- The B Line serves the diverse and low-income Crossroads transit activity center, providing all-day service that connects historically disadvantaged populations to regional growth, job and other activity centers important to people who rely on transit for all their mobility needs.
- Design principles used in the restructure resulted in more frequent, direct and reliable transit service that moves people between the Eastside and regional areas where most daily activities take place.

#### Routes with Service Quality Issues

Route	Between	And	Via	Change
222	Bellevue	Eastgate	104th Ave SE	Streamlined new Route 241 Revised Route 249
233	Bellevue	Redmond	NE Bellevue Redmond Road	Replaced in part with B Line

## The B Line

The start of the RapidRide B Line moved the All-Day and Peak Network closer to the goal of high-quality, productive service for the Eastside. The B Line delivers geographic value by providing frequent connections to the regional growth and jobs centers of Bellevue, Overlake and Redmond with very frequent service. The B Line contributes to social equity by serving the diverse and low-income Crossroads transit activity center. As an all-day service it supports traditional and non-traditional work hours as well as travel for shopping and recreation—especially important for those who rely solely on transit for their mobility.

The B Line is also an example of how the guidelines can help Metro enhance existing services that are already productive. The B Line basically consolidated three top-performing routes on the Eastside. The combination of routes 230E, 233 and 253 into a single streamlined pattern resulted in improved network connections to services continuing to downtown Seattle, an easy-to-understand service design, and reduced duplication of service. These are all service-design principles that the guidelines suggest Metro consider when restructuring service. They have led to more frequent, direct and reliable transit service that moves people between the Eastside and regional activity centers.

### Routes Converted to B Line

Route	Between	And	Via	Rides / Platform hour, Spring 2011		
				Peak	Off-peak	Night
230E	Redmond	Bellevue	Crossroads and Overlake	36.3	25.9	26.1
233	Bellevue	Bear Creek P&R	Overlake	23.0	22.2	13.5
253	Redmond	Bellevue	Overlake	32.5	36.4	31.6
				Top 25%		

## The All-Day and Peak Network

The guidelines state that the goal of restructuring is to improve the efficiency and effectiveness of transit services. The Eastside restructuring project integrated the RapidRide B Line with a network of frequent services connecting regional growth and activity centers, and the result is more productive services.

The project added 15-minute all-day connections between the centers shown in the table below. These frequent all-day connections are the key to increasing Eastside transit ridership and service productivity. This change has also delivered geographic value by providing high-quality connections among Eastside centers.

### New/Improved 15-Minute All-Day Connections on Eastside

Regional Growth Centers	Activity Centers	Route(s)
Totem Lake – Downtown Seattle	Kirkland – Juanita	255
Overlake	Kirkland – Crossroads – Eastgate – Factoria	245
University District – Bellevue	Eastgate – Factoria	271
Bellevue – Overlake – Redmond	Crossroads	B Line
Bellevue	Kirkland	234/235

## Providing target levels of service on underserved corridors

The improvement of service on the B Line and Route 271 allowed us to meet or move towards target service levels for two corridors. The table on the next page shows the improvements in two underserved corridors on the Eastside.

## Improving Underserved Eastside Corridors

Corridor	Target level of service compared to level of service before restructure			Level of service after restructure		
	Peak	Off-peak	Night	Peak	Off-peak	Night
Bellevue to Redmond via NE 8th St, 156th Ave NE (B Line)	< 15 min	15	15	< 15 min	15 min	15
University District to Bellevue via SR-520 (Route 271)	< 15 min	< 15 min	30	< 15 min	< 15 min	30
	Underserved			Underserved		

Before the fall 2011 change, transit service in the corridor connecting Bellevue and Redmond via NE Eighth Street was provided by various routes. The corridor was underserved in the peak and night periods. With the start of the B Line, the Bellevue-Redmond corridor now meets the target service levels for all periods.

The peak and off-peak (midday) target service level for the corridor between the University District and Bellevue via SR-520 is better than 15 minutes. The B Line restructure boosted the peak service to better than 15 minutes and improved the off-peak frequency of Route 271 from 30 minutes to every 15 minutes. These improvements moved service in the University District-to-Bellevue corridor towards the guidelines-based target level of service, and are consistent with the priority the guidelines place on connections between regional growth centers.

### Reducing duplication

The Eastside restructure consolidated service in the B Line corridor and deleted several peak-period routes that overlapped with routes providing service in both directions all day, shown in the table below. Some of these routes were also performing poorly before the restructure, so deleting them allowed the hours from those routes to be reinvested in more productive services. These restructures reduced duplication of services connecting downtown Seattle with Eastgate, Kirkland, Overlake, and Redmond.

#### Peak Routes Deleted Due to Duplication

Route	Between	And	Via	All day route or alternative route
255	Overlake Transit Center	Downtown Seattle	164th Ave SE, Eastgate and I-90	212
229	Overlake Transit Center	Downtown Seattle	156th Ave SE, Eastgate and I-90	212
266	Redmond	Downtown Seattle	148th Ave NE and SR-520	250/268/545

Before the restructure, routes 225 and 229 both duplicated service provided by other routes, including Route 212 between Eastgate Park-and-Ride and downtown Seattle. This service design divided the transit demand between Eastgate and downtown Seattle among three different routes. Long sections of routes 225 and 229 served neighborhood "tails" where there were relatively few riders compared to the riders traveling between Eastgate and downtown Seattle. We deleted the two routes, added trips to Route 212 to accommodate the riders using the routes between Eastgate and downtown Seattle, and added different routes to serve the neighborhoods north of Eastgate in a new way. The consolidation of these routes into a single all-day route maintains the needed peak-period capacity while eliminating the competition and the potential confusion for riders. Even though neither of the deleted routes was among the bottom 25 percent on the guidelines performance measures, their replacement is consistent with the guidelines.

Before the restructure, routes 250, 265 and 266 all traveled between Redmond and downtown Seattle via SR-520. All three routes were in the bottom 25 percent of routes serving the Seattle core on both performance measures. We consolidated these three routes into two routes, eliminating Route 266 and revising routes 250 and 265 to travel between Overlake Transit Center and downtown Seattle via SR-520. This consolidation should help improve the productivity of revised routes 250 and 265, making them more competitive with other routes serving the Seattle core.

### Revising and reducing low-productivity services

The guidelines help us identify services that could potentially be revised or reinvested to meet other needs. The Eastside restructuring project involved a number of reinvestments from services that were performing poorly to those that served areas or populations with greater needs. As described earlier, several low-performing peak-only services were consolidated into other services. Other ways we addressed low-performing services in this restructure included revising some low-performing routes to serve new destinations and reducing other routes.

#### Revised Route

Route	Between	And	Change
211	Eastgate	Downtown Seattle	Extended to Issaquah Highlands, a new activity center connection

As part of a service partnership, Route 211 between Eastgate and downtown Seattle was extended from Eastgate to Issaquah Highlands to connect more places.

#### Eliminated Route

Route	Between	And	Via	Alternate/revised routes
247	Overlake	Kent/Boeing	148th Ave NE and I-405	153/566/913

Routes 247 and 926 were among the bottom 25 percent of routes not serving the Seattle core on both performance measures. Route 247 connected Overlake and Kent Boeing, and overlapped all-day Sound Transit Route 566 between Overlake and Kent Transit Center. We deleted Route 247 while revising Route 913, serving Kent Transit Center, to ensure that people could still connect to Kent Boeing by using Route 566 from Overlake to Kent Transit Center and Route 913 between Kent Transit Center and Kent Boeing.

These types of service consolidations that combine the transit demand of low-performing services with the demand of larger transit markets are supported in the guidelines concerning productivity and service design.

The examples of changes to low-performing routes during the Eastside restructuring project show that low performance can prompt many different kinds of action. Where routes provide service to historically disadvantaged populations or important connections to transit activity centers, they may be revised or consolidated to continue meeting those needs while combining markets or eliminating unproductive sections of routes. Where services largely duplicate or compete for riders, low-performing services can be removed to increase the productivity of remaining services. Where low-performing services can be revised to make the service more frequent or faster or serve a larger market, the guidelines encourage Metro to pursue those actions.

SECTION 5

## POTENTIAL CHANGES TO THE SERVICE GUIDELINES AND STRATEGIC PLAN

Metro has begun to incorporate the principles and practices in our strategic plan and service guidelines into our service planning. We have not yet had the opportunity to assess the impact of the guidelines. As a result, it is still too early to propose changes to the guidelines or strategic plan. Over the next year, we will assess whether the use of the guidelines has helped lead us in the direction we anticipated. We have identified some preliminary areas that we will continue to monitor and review for potential changes in the future. We will consider the following issues along with updates to our strategic plan in 2013:

**Refine corridor definition.** The guidelines define a network of key transit corridors connecting centers and other transit activity areas. To maintain a clear distinction between corridors and the routes that serve them, and to allow consistent corridor monitoring as we manage a dynamic and evolving service network, we may need to consider ways to clarify and refine the processes of defining and evaluating the corridors.

**Refine methodologies.** We may need to continue refining the methods and measures for tracking and evaluating both corridor and route performance. We will strive to apply the best available tools to effectively manage our system and to align our evaluation processes with the best available data.

**Clarify.** We may need to continue clarifying terms and practices that are part of the guidelines analysis. We will also clarify how the corridor and route analyses work together and inform service planning and implementation.

Transit activity center must result in a new primary connection to the network to address an area of projected all-day transit demand. The existence of a new corridor for analysis.

corridor using step-one of the All-Day and Peak Network assessment 30-minute service frequency or better.

Thresholds and points used to set service levels	
Measure	Threshold
Households within 1/4 mile of stops per corridor mile	75% of households
	50% of households
1/4 mile of stops per corridor mile	25% of households
	<25% of households
1/4 mile of stops per corridor mile	50%
	33%
1/4 mile of stops per corridor mile	16%
	<16%