King County

1200 King County Courthouse
516 Third Avenue
Seattle, WA 98104

KING COUNTY

Signature Report

June 4, 2013

Motion 13906

Proposed No. 2013-0178.1 **Sponsors** Dembowski and Phillips

A MOTION relating to the King County Metro Strategic Plan for Public Transportation 2011-2021 and King County Metro Service Guidelines and accepting the King County Metro Transit 2012 Service Guidelines Report.

WHEREAS, the council adopted the King County Metro Strategic Plan for Public Transportation 2011-2021 (Strategic Plan) and the King County Metro Service Guidelines (Service Guidelines) in July 2011, and

WHEREAS, the Strategic Plan and Service Guidelines were to follow the recommendations of the regional transit task force regarding the policy framework for the Metro transit system, and

WHEREAS, the regional transit task force recommended that the Strategic Plan and Service Guidelines focus on transparency and clarity, cost control, and productivity, and

WHEREAS, the regional transit task force further recommended that the policy guidance for making service reductions and service growth decisions be based on the following three priorities:

1. Emphasize productivity due to its linkage to economic development, land use, financial stability, and environmental sustainability;

2. Ensure social equity; and

3. Provide geographic value throughout the county, and

WHEREAS, Ordinance 17143, Section 5, adopting the Strategic Plan and Service Guidelines directs that an annual service guidelines report of Metro's transit system, beginning with a baseline report in 2012, be transmitted by the executive to the council for acceptance by motion, and

WHEREAS, Ordinance 17143, Section 5.B, specifies that the annual service guidelines report also be transmitted by March 31 of each year to the regional transit committee for consideration, and

WHEREAS, Ordinance 17143, Section 5.A, specifies that the annual service guidelines report include:

1. The corridors analyzed to determine the Metro All-Day and Peak Network with a summary of resulting scores and assigned service levels as determined by the Service Guidelines;

2. The results of the analysis including a list of over-served and under-served transit corridors and the estimated number of service hours, as either an increase or decrease, necessary to meet each underserved corridor's needs;

3. The performance of transit services by route and any changes in the Service Guidelines thresholds since the previous reporting period, using the performance measures identified in Chapter III of the Strategic Plan and in the Service Guidelines;

4. A list of transit service changes made to routes and corridors of the network since the last reporting period;

5. Network and rider connectivity associated with transit services delivered by other providers; and

6. A list of potential changes, if any, to the Strategic Plan and Service Guidelines to better meet their policy intent, and

WHEREAS, King County Metro staff has compiled the required information and the executive has transmitted the baseline service guidelines report set forth as Attachment A to this motion to the council and to the regional transit committee;

NOW, THEREFORE, BE IT MOVED by the Council of King County:

The King County Council hereby accepts the attached King County Metro Transit 2012 Service Guidelines Report.

Motion 13906 was introduced on 4/1/2013 and passed by the Metropolitan King County Council on 6/3/2013, by the following vote:

Yes: 9 - Mr. Phillips, Mr. von Reichbauer, Mr. Gossett, Ms. Hague, Ms. Patterson, Ms. Lambert, Mr. Dunn, Mr. McDermott and Mr. Dembowski
No: 0
Excused: 0

KING COUNTY COUNCIL
KING COUNTY, WASHINGTON

Larry Gossett, Chair

ATTEST:

Anne Noris, Clerk of the Council

Attachments: A. King County Metro Transit 2012 Service Guidelines Report

King County
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King County
Metro Transit
2012 Service Guidelines Report

March 2013

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King County Metro Transit
2012 Service Guidelines Report

March 2013

King County
METRO

We'll Get You There

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EXECUTIVE SUMMARY

The Service Guidelines define a transparent process using objective data that helps Metro make decisions about adding, reducing and changing transit service to deliver productive, high quality service where it's needed most.

Metro Transit uses service guidelines to plan and manage our transit system and to enable the public to see the basis of our proposals to expand, reduce or revise service. We developed the guidelines in response to a recommendation of the 2010 Regional Transit Task Force, and included them in the Strategic Plan for Public Transportation, which was adopted by King County in 2011. This *2012 Service Guidelines Report* was prepared to comply with Section 5 of King County Ordinance 17143, which adopted the guidelines.

The service guidelines strike a balance between productivity, social equity and geographic value. They help us use tax and fare dollars as effectively as possible to provide high-quality service that gets people where they want to go (productivity). They help us make sure Metro serves areas that have many low-income and minority residents and others who may depend on transit (social equity), and that we respond to public transportation needs throughout the county (geographic value).

This report presents our analysis of Metro's 2012 All-Day and Peak Network, which sets target service levels for the 113 corridors in the network and identifies where service investments are needed. It also presents our analysis of 233 Metro bus routes, identifying routes that are not meeting the performance levels in the service guidelines. While this report does not recommend specific service changes or actions, it identifies areas needing investment as well as services that might be changed or reduced. These findings will be particularly important as a system reduction of up to 17 percent may be necessary because of a projected revenue shortfall.

Investment Needs

The following is a summary of our major findings:

2012 Investment Needs
(Based on Spring 2012 Data)

Priority	Investment Area	Estimated Annual Hours Needed
1	Reduce passenger crowding	5,500
2	Improve schedule reliability	19,000
3	Increase service to meet target service levels in All-Day and Peak Network	309,800
	Total investment need	**334,300**
4	Increase service on high-productivity routes	See discussion on next page

Changes in Investment Needs Since 2011

The total investment need of 334,300 annual service hours is a decline from the 400,000-hour need found in the 2011 analysis. This decline is primarily the result of investments Metro made to reduce passenger crowding, improve schedule reliability, and increase service on corridors that did not meet their target levels. Estimated investment needs also change over time because of changes in land use, ridership, and traffic congestion. This need does not fully reflect changes made after spring 2012. Those changes will be reflected in the guidelines report for spring 2013.

Service quality needs. Six routes need investment to reduce passenger crowding and 55 routes need investment to improve schedule reliability. These routes need investments that are likely to be relatively small, such as an added trip at a particular time of day or a few additional minutes of running time. We determined a total investment need of 24,500 annual service hours to correct the service quality problems. Ridership is increasing, so crowding data from spring 2012 may not reflect current conditions.

Service to meet target service levels in the All-Day and Peak Network. Forty-three corridors need investment to reach target service levels. Meeting target levels typically requires the addition of many trips in a time period or multiple time periods of the day, or complete revision of the schedules of routes serving an area. We determined a total investment need of approximately 309,800 annual service hours to meet target service levels.

High-productivity routes. Ninety routes were in the top 25 percent on one or both productivity measures in 2012. Some of these high-productivity routes are identified for service investments based on service quality needs or are on corridors below target service levels. We plan to invest in high-productivity routes beyond those with needs identified in the first three priorities to focus resources and service in areas where there is latent demand for transit and where service investments will result in higher ridership.

Metro must carry many more riders and almost double the current level of bus service by 2040 to meet the goals in the region's transportation plan. Investing in high-productivity routes is one way we move towards a system that is more productive, carries more riders, and uses resources effectively to serve more people. Metro has made successful investments in high-productivity routes in recent years. We will continue to invest in these routes incrementally as opportunities allow, such as when we restructure service or partner with local jurisdictions. Even larger investments and new resources to grow the system will be required to fully reach the region's goals.

Reduction priorities

The service guidelines suggest priorities for reducing service that consider a route's productivity and its role in meeting the target services levels of the All-Day and Peak Network These elements help us ensure a network of services that balances productivity, social equity and geographic value. Low productivity is one of the first things considered when services must be reduced, but not all routes with low productivity are priorities for service reductions. Routes that are duplicative and on corridors that are above their target service levels are described as having a high potential for major reduction. Routes that operate below the productivity threshold but help achieve target service levels on the All-Day and Peak Network are described as having a medium potential for major reduction.

While it is not a goal to reduce anyone's transit service, Metro may at times have to reduce service to meet budget needs or reinvestment priorities. When reductions are necessary, services with a high potential for major reduction are considered first, followed by services with a medium potential for reduction. These services do not meet performance standards and are relatively less critical connections on the All-Day and Peak Network.

Any major change to service would be designed to maintain the greatest degree of public mobility and would be subject to policies guiding County Council review and public involvement. Changes could include deletions, reductions and restructures. An estimate of hours that might be reduced from these services in the current system is shown in the table below.

Estimate of Hours that could be Reduced from Services with High and Medium Reduction Potential

	Percent of Total System	Estimated Annual Hours
High potential for major reduction	3% – 5%	100,000 - 170,000
Medium potential for major reduction	4% – 6%	130,000 - 200,000

The guidelines at work: 2012 service changes

Metro used the guidelines analysis to make service revisions in June and September 2012. The revisions were prompted by the planned start of two RapidRide lines and County Council direction to reinvest at least 100,000 annual service hours. In June, we reduced or deleted a number of routes that had low productivity and added service to routes that had crowding or reliability problems. In September, we completed a major service restructure that implemented the RapidRide C and D lines, added frequent all-day service between key centers, increased service to meet target levels, reduced duplicative services, revised and reduced services that had low productivity, and reallocated service hours to improve service quality on several routes. We made these changes with the expectation of attracting more riders, improving productivity, connecting major centers within Seattle and in nearby communities, and advancing social equity by serving people who depend on transit.

Using the guidelines to face a major funding shortfall

Metro is using the guidelines to face one of our biggest potential financial challenges ever. After mid-2014, Metro revenues are projected to fall short of the amount needed to maintain the current level of service. This report includes an illustrative example of a 17-percent (up to 600,000 annual service hours) service reduction that follows the reduction priorities outlined in the service guidelines. These priorities were designed to maintain a balance between productivity, geographic value, and social equity.

The illustration shows that in a major system reduction, Metro could delete, reduce, or revise as many as 70 percent of our existing bus routes, affecting people throughout King County. Even routes that are not low-productivity would be affected by reductions of this magnitude. Many people who currently use transit would have longer, less convenient transit trips or would lose access to service completely. Increased traffic congestion would affect many people, regardless of how they travel today.

Current budget outlook. Metro's ability to make the needed investments in the transit system depends on future funding. Metro and the King County Council have taken numerous actions since 2008 to manage a severe revenue shortfall and preserve as much service as possible, but use of reserve funds and revenue from the temporary congestion reduction charge will no longer be available after mid-2014. As a result, Metro faces an ongoing annual shortfall of $75 million. Metro's 2013-2014 budget assumes that Metro will cut service beginning in fall 2014 unless a new source of funding is approved.

Metro at a Glance (2012)

Service area	2,134 square miles
Population	1.96 million
Employment	1.2 million
Fixed-route ridership	115.4 million*
Vanpool ridership:	3.4 million*
Access ridership:	1.1 million*
* preliminary estimates	
Annual service hours	3.5 million
Active fleet	1,396 buses
Bus stops	over 8,000
Park-and-rides	131

INTRODUCTION

This is the second annual service guidelines report. It presents the results of our analysis of the Metro system using the service guidelines and identifies services that are candidates for investment, change, or reduction. It serves as a snapshot of Metro service in one four-month service change period, and allows us to compare service in that same period each year to identify trends and areas needing improvement.

A redesigned report

Based on feedback we received from readers last year, we redesigned this year's report to better explain how we use the guidelines to analyze the transit system and how we use the results.

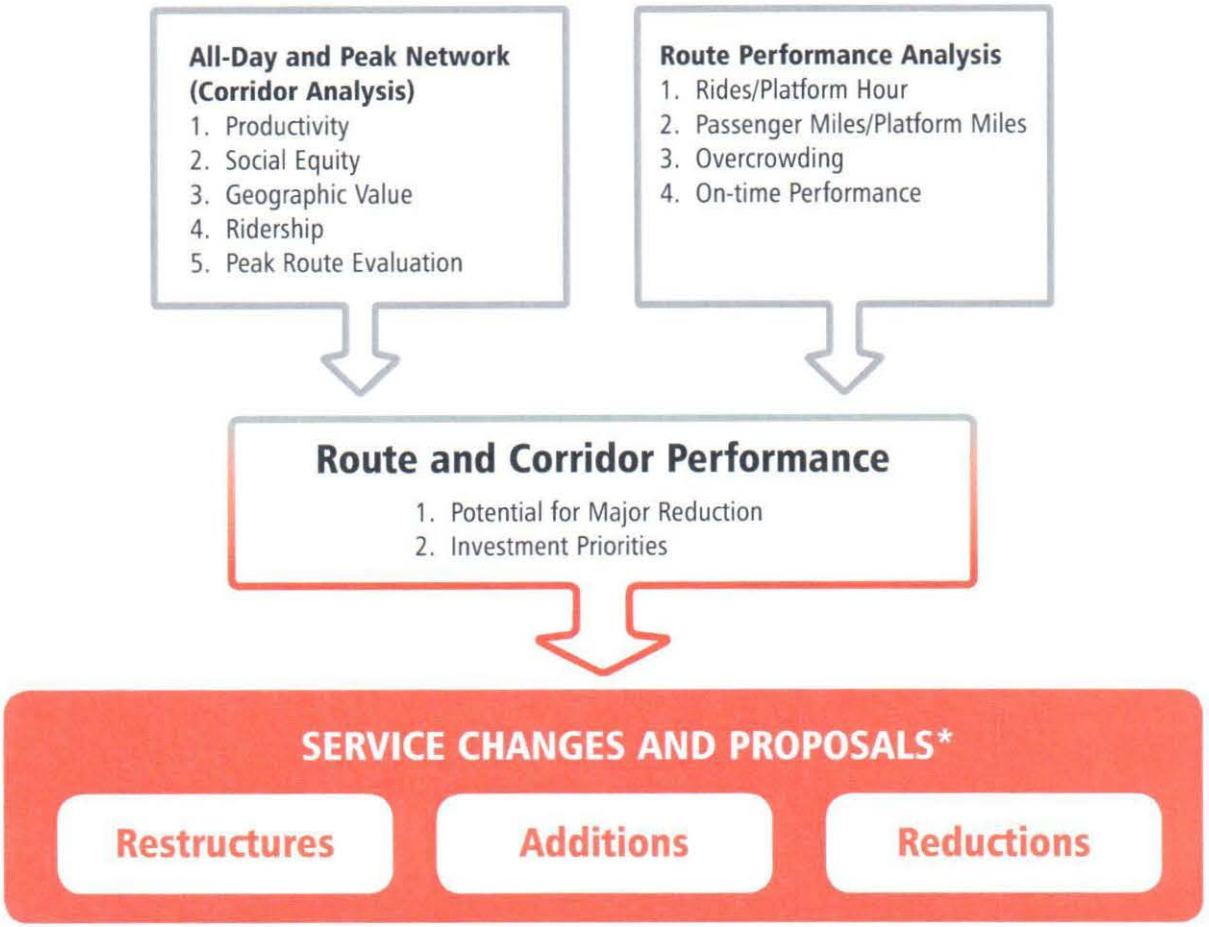
Our intent is to give readers clear answers to the following questions:

- **How is my route doing?** Section 1 presents the results of our route performance analysis as well as our analysis of corridors to determine if target service levels were being met.
- **Where are service investments most needed or most likely to occur?** Section 2 identifies specific investment priorities based on service quality needs, target service levels, and route productivity.
- **What routes have the highest potential for major reductions or elimination?** Section 3 identifies which routes have the highest potential for major reductions based on the combined route and All-Day and Peak Network analysis.
- **How is Metro using the guidelines?** Section 4 describes how we put the guidelines to work as we made major service changes in 2012.
- **How would Metro use the guidelines to face a major funding shortfall?** Section 5 describes how we would use the guidelines to reduce service, and includes an illustration of how individual routes would be affected and the impacts of major service reductions.

Figure 1 summarizes the service guidelines process that we followed in preparing this report. To read the complete service guidelines, visit http://metro.kingcounty.gov/planning and select the "Service Guidelines" tab.

FIGURE 1

Metro Service Guidelines Process



***Service Design Principles** guide changes to the system and are considered when planning for service changes.

SECTION 1

ROUTE AND CORRIDOR ANALYSIS

When Metro plans changes to our transit system, we analyze both the performance of routes (productivity and service quality) and the service those routes provide on the All-Day and Peak Network. The guidelines we use for this analysis are summarized below.

The tables that follow the analysis summary present the information we gathered about both route performance and the level of service on corridors, as well as the resulting potential for major reduction and investment priority for routes.

Route performance analysis

We assess each route's performance by measuring its productivity and service quality.

1) **Productivity.** We calculate productivity using two measures:

   - **Rides per platform hour** - total ridership divided by the total hours a bus travels from the time it leaves its base until it returns.
   - **Passenger miles per platform mile** - total miles traveled by all passengers divided by the total miles the bus operates from its base until it returns.

We analyze productivity in peak, off-peak, and night periods in the market the route serves:

- **Seattle core** routes serve downtown Seattle, First Hill, Capitol Hill, South Lake Union, the University District, or Uptown.
- **Non-Seattle-core** routes serve other areas of Seattle and King County.

What are corridors and routes?

This section discusses both corridors and routes. It is important to understand these terms.

Corridors are major transit pathways that connect regional growth, manufacturing/industrial, and activity centers; park-and-rides and transit hubs; and major destinations throughout King County. The service guidelines evaluate and set target service levels for the All-Day and Peak Network, which consists of 113 major all-day transit corridors and all peak-period routes in King County. The term "target service levels" refers to the level of service on a corridor of the All-Day and Peak Network. The term "corridor analysis" refers to the analysis of 113 major all-day transit corridors.

Routes are the actual services provided. Service within a single corridor might be provided by multiple bus routes. For example, the corridor from Fremont to downtown Seattle via Dexter Avenue North is served by two different bus routes, 26 and 28, and both of these routes extend beyond Fremont. The service guidelines evaluate bus route productivity and service quality.

Some routes also cover multiple corridors. For example, the Route 271 serves three distinct travel markets: Issaquah-Eastgate, Eastgate-Bellevue, and Bellevue-University District. Metro identified each of these segments as a separate corridor to enable analysis of the different travel markets served by a single route.

Low-productivity routes are those in the bottom 25 percent of routes that operate in the same time period and market. High-productivity routes are those in the top 25 percent. The performance thresholds for 2012 are shown in the table below.

TABLE 1

2012 Route Performance Thresholds

Market	Performance	Peak		Off Peak		Night	
		Rides/ Platform Hour	Passenger Miles/ Platform Mile	Rides/ Platform Hour	Passenger Miles/ Platform Mile	Rides/ Platform Hour	Passenger Miles/ Platform Mile
Routes that do not serve Seattle Core	Bottom 25%	12.0	2.2	10.1	1.9	9.3	2.0
Routes that serve Seattle Core	Bottom 25%	22.8	9.8	30.6	9.9	19.1	5.8

2) **Service quality.** We assess route overcrowding and reliability.

- **Overcrowding** is defined as a trip that on average has 25 to 50 percent more riders than seats depending on service frequency; or people standing for longer than 20 minutes.
- **Reliability** is measured by how often trips are late—arriving at any time point more than five minutes behind schedule. A route has low reliability if it is late more than 20 percent of the time on an average weekday or weekend, or more than 35 percent of the time in the weekday PM peak period.

All-Day and Peak Network analysis

1) Peak analysis

This analysis compares both rides per trip and travel time on peak period routes to those on the local alternative. A peak route may be justified if it exceeds the guidelines thresholds for either of these measures, and a peak period route that exceeds the thresholds on both measures provides even more value. The results of the peak analysis are in Appendix F.

2) Corridor analysis

Each corridor in the All-Day and Peak Network is assigned target service levels based on land use (potential productivity), social equity, and geographic value. Table 2 shows the target service levels. The All-Day and Peak Network analysis compares the target service levels to existing service to determine whether a corridor is below, at, or above the target levels. The steps of the corridor analysis as well as the results are in Appendix K.

TABLE 2

Target Service Levels

Service family	Frequency (minutes)			Days of service	Hours of service
	Peak[1]	Off-peak	Night		
Very frequent	15 or better	15 or better	30 or better	7 days	16-20 hours
Frequent	15 or better	30	30	7 days	16-20 hours
Local	30	30 - 60	*	5-7 days	12-16 hours
Hourly	60 or worse	60 or worse	--	5 days	8-12 hours
Peak	8 trips/day minimum	--	--	5 days	Peak

1 Peak periods are 5-9 a.m. and 3-7 p.m. weekdays; off-peak are 9 a.m. to 3 p.m. weekdays and 5 a.m. to 7 p.m. weekends; night is 7 p.m. to 5 a.m. all days.

* Night service on local corridors is determined by ridership and connections.

Our analysis concluded that in 2012, more corridors were targeted for very frequent and hourly service and fewer corridors were targeted for frequent and local service than in 2011.

TABLE 3

Number of All-Day Corridors by Service Levels

Service Level	2011	2012	Change
Very Frequent	35	37	+ 2
Frequent	28	26	– 2
Local	35	31	– 4
Hourly	15	19	+ 4

TABLE 4

Number of Peak Period Routes Analyzed

Service Level	2011	2012	Change
Peak	93	92	– 1

Among corridors with different all-day target service levels, 11 moved to a more frequent service level, and 10 moved to a less frequent level. These shifts were the result of changes in any of the following: ridership, the percentage of people boarding in low-income or minority areas, or the number of jobs near a corridor. In three instances, corrections of errors in last year's analysis resulted in a change in the target service level. A list of all corridors with different target service levels and the reasons for the change is in Appendix H.

These shifts in target service levels show how the guidelines are sensitive to changes in the community. The target service levels are directly impacted by changes in the use of bus service by people living and working in local communities and in the environment that local jurisdictions help create through policy and planning actions.

The complete network: integration with Sound Transit

The 113 corridors in Metro's All-Day Network do not include corridors where Sound Transit is the primary provider of all-day service. Key corridors in King County where Sound Transit is the primary provider of two-way, all-day transit service are listed in the table below. Metro operates service in many of these corridors, but these are mainly peak services that complement Sound Transit's all-day service.

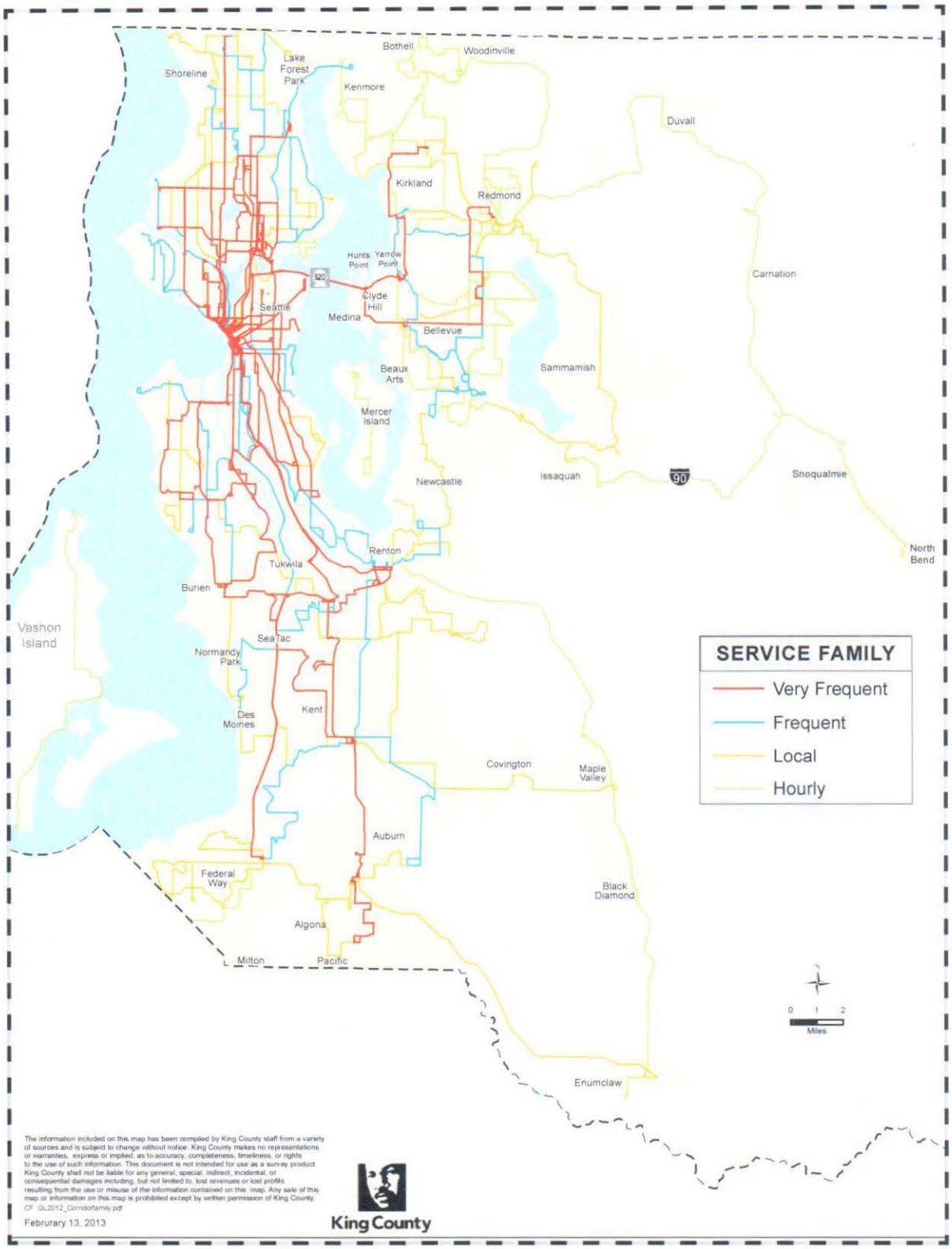
TABLE 5: **Corridors Served Primarily by Sound Transit**

Between	And	Via	Major Route
Woodinville	Downtown Seattle	Bothell, Kenmore, Lake Forest Park, Lake City	522
UW Bothell	Bellevue	Totem Lake	535
Redmond	Downtown Seattle	Overlake	545
Bellevue	Downtown Seattle	Mercer Island	550
Issaquah	Downtown Seattle	Eastgate, Mercer Island	554
Burien	Bellevue	SeaTac, Renton	560
Auburn	Overlake	Kent, Renton, Bellevue	566
SeaTac	Federal Way	I-5	574
Federal Way	Downtown Seattle	I-5	577/578
SeaTac	Downtown Seattle	Rainier Valley	Link light rail

As Link service expands, Sound Transit will become the primary provider in additional corridors such as the Northgate-to-downtown Seattle corridor. As services are introduced and modified, Metro and Sound Transit will make adjustments to the network.

FIG. 2

All-Day Network



Combined analysis: potential for major reduction and investment priority

Figure 3 explains how Metro uses the combined corridor and route analysis to determine the potential for major reduction and the investment priority. Potential major reduction is characterized as high, medium, and low.

Routes that have low productivity and contribute the least to the total transit network have a relatively high potential for major reduction. We examine those routes first when we take action to improve productivity, meet budget realities, or reinvest existing services to meet our investment priorities.

Investment priorities are listed in the guidelines:

1. Overcrowding
2. Reliability
3. Corridors below target service levels
4. High productivity routes

Tables showing the actual results of our analysis follow Figure 3.

FIG. 3

How to Read the Combined Route Performance and Network Assessment Tables

Route and associated Corridor:
None: Service is duplicative of a corridor
Peak: Service is peak only
Owl: Service between 1–4 a.m.

What is the corridor's target service level?

Routes are assessed on two productivity measures:
Rides/Platform Hour
Passenger Miles/Platform Mile

Compares current service levels to targets:
At: Meets target
Below: Less than target
None: Duplicative of a corridor
Peak: Service is peak only

Route	Description	Corridor	Target Service Family	Route Productivity			Peak Route Criteria		Corridor Status			Potential for Major Reduction	Investment Priority
				Peak	Off Peak	Night	Travel Time	Ridership	Peak	Off Peak	Night		
A Line	Federal Way - Tukwila	32	Very Frequent	A	A	A			At	At	At	Low	4
B Line	Bellevue - Redmond	15	Very Frequent	A	A	A			At	At	At	Low	4
1	Kinnear - Seattle CBD	None	None	B	C	C			None			Low	2, 4
2N	West Queen Anne - Seattle CBD	75	Very Frequent	B	B	D			At	At	At	Medium	2, 4
2NEX	West Queen Anne - Seattle CBD	Peak	Peak	D			No	Yes				Medium	-
2S	Madrona Park - Seattle CBD	60	Very Frequent	D	C	C			Above	At	At	High	2
3N	North Queen Anne - Seattle CBD	76	Very Frequent	B	B	C			At	At	At	[illegible]	4
3S	Madrona - Seattle CBD	23	Very Frequent	B	A	C			At	At	At	Low	1, 4
4N	East Queen Anne - Seattle CBD	76	Very Frequent	B	B	C			At	At	At	Low	4
4S	Judkins Park - Seattle CBD	23	Very Frequent	B	C	C			At	At	At	Low	1, 4
5	Shoreline - Seattle CBD	38/96	Very Frequent/ Local	B	C	B			Above, At	At, At	At, At	Low	2, 4
5EX	Greenwood - Seattle CBD	Peak	Peak	B			No	No				Low	4
7	Rainier Beach - Seattle CBD	77	Very Frequent	A	A	B			At	At	Above	Low	4
7EX	Rainier Beach - Seattle CBD	Peak	Peak	D			Yes	No				Medium	-
8	Rainier Beach - Seattle Center	78	Very Frequent	B	D	B			At	At	At	Medium	2, 4
9EX	Rainier Beach - Capitol Hill	79	Frequent	C	C				Below	At	Below	Low	3

Does the peak route meet its travel time or ridership thresholds?

Summarizes risk factors and categorizes service as High, Medium or Low Potential for Major Reduction

Lists relevant investment priorities for each service

13906

TABLE 6

Spring 2012 Route and Corridor Performance

Route	Description	Corridor	Target Service Family	Route Productivity			Peak Route Criteria		Corridor Status			Potential for Major Reduction	Investment Priority
				Peak	Off Peak	Night	Travel Time	Ridership	Peak	Off Peak	Night		
A Line	Federal Way - Tukwila	32	Very Frequent	A	A	A			At	At	At	Low	4
B Line	Bellevue - Redmond	15	Very Frequent	A	A	A			At	At	At	Low	4
1	Kinnear - Seattle CBD	None	None	B	C	C			None			Low	2, 4
2N	West Queen Anne - Seattle CBD	75	Very Frequent	B	B	D			At	At	At	Medium	2, 4
2NEX	West Queen Anne - Seattle CBD	Peak	Peak	D			No	Yes				Medium	-
2S	Madrona Park - Seattle CBD	60	Very Frequent	D	C	C			Above	At	At	High	2, 4
3N	North Queen Anne - Seattle CBD	76	Very Frequent	B	B	C			At	At	At	Low	4
3S	Madrona - Seattle CBD	23	Very Frequent	B	A	C			At	At	At	Low	1, 4
4N	East Queen Anne - Seattle CBD	76	Very Frequent	B	B	C			At	At	At	Low	4
4S	Judkins Park - Seattle CBD	23	Very Frequent	B	C	C			At	At	At	Low	1, 4
5	Shoreline - Seattle CBD	38/96	Very Frequent/ Local	B	C	B			Above, At	At, At	At, At	Low	2, 4
5EX	Greenwood - Seattle CBD	Peak	Peak	B			No	No				Low	4
7	Rainier Beach - Seattle CBD	77	Very Frequent	A	A	B			At	At	Above	Low	4
7EX	Rainier Beach - Seattle CBD	Peak	Peak	D			Yes	No				Medium	-
8	Rainier Beach - Seattle Center	78	Very Frequent	B	D	B			At	At	At	Medium	2, 4
9EX	Rainier Beach - Capitol Hill	79	Frequent	C	C				Below	At	Below	Low	3
10	Capitol Hill - Seattle CBD	21	Very Frequent	C	A	C			At	Below	At	Low	3, 4
11	Madison Park - Seattle CBD	59	Very Frequent	D	D	D			At	Below	Below	Medium	2, 3, 4
12	Interlaken Park - Seattle CBD	22	Very Frequent	B	C	D			At	At	At	Medium	4
13	Seattle Pacific University - Seattle CBD	75	Very Frequent	B	B	C			At	At	At	Low	4
14N	Summit - Seattle CBD	None	None	B	C	C			None			Low	4
14S	Mount Baker - Seattle CBD	64	Frequent	C	C	D			Below	At	At	Medium	3
15	Blue Ridge - Seattle CBD	10	Very Frequent	A	B	B			At	At	At	Low	4
15EX	Blue Ridge - Seattle CBD	Peak	Peak	A			No	Yes				Low	4
16	Northgate - Seattle CBD via Wallingford	69	Very Frequent	C	C	C			Below	Below	At	Low	1, 2, 3
17	Sunset Hill - Seattle CBD	12	Frequent	C	C	D			At	At	At	Medium	-
17EX	Sunset Hill - Seattle CBD	Peak	Peak	C			Yes	Yes				Low	2
18	North Beach - Seattle CBD	10	Very Frequent	B	C	A			At	At	At	Low	4
18EX	North Beach - Seattle CBD	Peak	Peak	B			No	Yes				Low	2, 4
19	West Magnolia - Seattle CBD	Peak	Peak	D			Yes	No				Medium	-
21	Arbor Heights - Seattle CBD	39	Local	D	E	D			At	At	At	Medium	2
21EX	Arbor Heights - Seattle CBD	Peak	Peak	C			No	No				Low	-

LEGEND

Productivity

A	Top 25% in both measures
B	Top 25% in one measure
C	Between top and bottom 25% both measures
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E	Bottom 25% both measures

Potential for Major Reduction

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Investment Priorities

1 Overcrowding

2 Reliability

3 Corridors below target service level

4 High Productivity Routes

(continued) Spring 2012 Route and Corridor Performance

Route	Description	Corridor	Target Service Family	Route Productivity			Peak Route Criteria		Corridor Status			Potential for Major Reduction	Investment Priority
				Peak	Off Peak	Night	Travel Time	Ridership	Peak	Off Peak	Night		
22	White Center - Seattle CBD via Gatewood	None	None	D	D				None			High	-
23	White Center - Seattle CBD via SODO	113	Frequent	B	D	E			Below	At	At	Medium	3, 4
24	West Magnolia - Seattle CBD	61	Frequent	D	E	E			At	At	At	Medium	2
25	Laurelhurst - Seattle CBD	58/107	Hourly/Local	D	E				At, Above	At, Above	At, At	High	-
26	Wallingford - Seattle CBD	34	Very Frequent	B	C	C			At	At	At	Low	2, 4
26EX	Wallingford - Seattle CBD	Peak	Peak	B			No	No				Low	4
27	Colman Park - Seattle CBD	24	Frequent	D	D	E			Below	At	At	Medium	2, 3
28	Broadview - Seattle CBD	34/36	Very Frequent/ Local	B	C	C			At, At	At, Below	At, At	Low	2, 4
28EX	Broadview - Seattle CBD	Peak	Peak	B			No	Yes				Low	2, 4
30	Sand Point - U District	35/92	Very Frequent/ Local	C	E	D			At, At	At, At	At, At	Medium	2
31	Magnolia - U District	35	Very Frequent	D	E				At	At	At	Medium	-
33	Discovery Park - Seattle CBD	26	Frequent	B	D	E			Below	Below	Below	Low	2, 3, 4
34EX	Rainier Beach - Seattle CBD	Peak	Peak	D			No	No				High	-
35	Seattle CBD - Harbor Island	Peak	Peak	E			Yes	Yes				Medium	-
36	Othello Station - Seattle CBD	13	Very Frequent	A	A	C			At	At	At	Low	2, 4
37	Alaska Junction - Seattle CBD via Alki	Peak	Peak	E			Yes	Yes				Medium	2
38	Beacon Hill - Mt Baker	None	None		D				None			High	2
39	Rainier Beach - Seattle CBD via Seward Park	71	Local	D	E	E			At	Below	Above	High	3
41	Lake City - Seattle CBD via Northgate	55	Very Frequent	A	A	A			Below	At	At	Low	3, 4
42	Columbia City - Pioneer Square	None	None		E				None			High	-
43	U District - Seattle CBD via Capitol Hill/24th	None	None	A	C	A			None			Low	4
44	Ballard - U District	11	Very Frequent	A	B	B			At	Below	At	Low	1, 3, 4
45EX	Seattle Center - U District	Peak	Peak	D			Yes	No				Medium	-
46	Shilshole - U District	Peak	Peak	D	E		No	Yes				Medium	-
48N	Loyal Heights - U District	8	Very Frequent	D	D	D			Above	At	Above	High	2
48NEX	Loyal Heights - U District	Peak	Peak	D			No	Yes				Medium	-
48S	Mount Baker - U District	66	Very Frequent	B	B	B			At	At	At	Low	2, 4
49	U District - Seattle CBD via Capitol Hill/Broadway	105	Very Frequent	A	A	A			At	At	At	Low	2, 4
51	Alaska Junction - Admiral District	None	None	D	D				None			High	-
53	Alaska Junction - Alki	None	None		E				None			High	-

LEGEND

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Investment Priorities

1 Overcrowding
2 Reliability
3 Corridors below target service level
4 High Productivity Routes

(continued) Spring 2012 Route and Corridor Performance

Route	Description	Corridor	Target Service Family	Route Productivity			Peak Route Criteria		Corridor Status			Potential for Major Reduction	Investment Priority
				Peak	Off Peak	Night	Travel Time	Ridership	Peak	Off Peak	Night		
54	White Center - Seattle CBD via Alaska Junction	111	Very Frequent	B	D	C			At	At	At	Medium	4
54EX	White Center - Seattle CBD	Peak	Peak	C			No	Yes				Low	-
55	Admiral District - Seattle CBD	None	None	B	D	D			None			High	4
56	Alki - Seattle CBD	2	Frequent	C	D	E			Below	At	At	Medium	3
57	Alaska Junction - Seattle CBD	Peak	Peak	D			Yes	Yes				Medium	2
60	White Center - Capitol Hill	20	Very Frequent	D	D	D			Below	Below	At	Medium	1, 2, 3
64EX	Lake City - First Hill	Peak	Peak	C			Yes	Yes				Low	-
65	Lake City - U District	57	Frequent	C	C	C			Below	At	At	Low	2, 3
66EX	Northgate - Seattle CBD via Eastlake	68	Very Frequent	B	B	B			At	At	At	Low	2, 4
67	Northgate - U District	68	Very Frequent	C	A	B			At	At	At	Low	4
68	Northgate - U District via NE 75th	70	Very Frequent	B	C				Below	Below	Below	Low	2, 3, 4
70	U District - Seattle CBD via Broadway	104	Very Frequent	B	C	E			At	At	At	Medium	4
71	Wedgwood - Seattle CBD	110	Local	A	A	A			At	At	At	Low	2, 4
72	Lake City - Seattle CBD via U District	104	Very Frequent	A	A	A			At	At	At	Low	2, 4
73	Jackson Park - Seattle CBD	25	Very Frequent	A	A	A			At	At	Below	Low	3, 4
74EX	Sand Point - Seattle CBD	Peak	Peak	A			No	No				Low	4
75	Ballard - U District via Northgate	9/56	Local/Frequent	C	C	C			At, At	At, At	At, At	Low	-
76	Wedgwood - Seattle CBD	Peak	Peak	C			No	No				Low	-
77EX	North City - Seattle CBD	Peak	Peak	C			Yes	No				Low	-
79EX	Lake City - Seattle CBD	Peak	Peak	E			No	No				High	-
81	Seattle CBD - Loyal Heights	Owl	None			E			None			High	-
82	Seattle CBD - Greenwood	Owl	None			C			None			Low	-
83	Seattle CBD - Maple Leaf	Owl	None			C			None			Low	-
84	Seattle CBD - Madison Park	Owl	None			E			None			High	-
85	Seattle CBD - White Center	Owl	None			E			None			High	-
99	International District - Waterfront	None	None	D	E				None			High	2
101	Renton - Seattle CBD	84	Very Frequent	B	A	A			At	Below	At	Low	2, 3, 4
102	Fairwood - Seattle CBD	Peak	Peak	B			No	Yes				Low	4
105	Renton HighlanSeattle CBD - Renton TC	87	Frequent	B	A	B			Below	At	At	Low	2, 3, 4
106	Renton - Seattle CBD via Rainier beach	86	Frequent	C	C	B			At	At	At	Low	2, 4
107	Rainier Beach - Renton	85	Frequent	B	B	C			At	At	At	Low	4
110	Tukwila Station - North Renton	Peak	Peak	D			Yes	No				Medium	-

LEGEND

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Investment Priorities

1 Overcrowding

2 Reliability

3 Corridors below target service level

4 High Productivity Routes

(continued) Spring 2012 Route and Corridor Performance

Route	Description	Corridor	Target Service Family	Route Productivity			Peak Route Criteria		Corridor Status			Potential for Major Reduction	Investment Priority
				Peak	Off Peak	Night	Travel Time	Ridership	Peak	Off Peak	Night		
111	Lake Kathleen - Seattle CBD	Peak	Peak	B			Yes	Yes				Low	4
113	Shorewood - Seattle CBD	Peak	Peak	C			Yes	Yes				Low	-
114	Renton Highlands Seattle CBD - Seattle CBD	Peak	Peak	D			Yes	No				Medium	-
116EX	Fauntleroy - Seattle CBD	Peak	Peak	E			No	No				High	-
118	Tahlequah - Vashon	91	Hourly	C	C	E			At	At	At	Medium	-
118EX	Tahlequah - Seattle CBD	Peak	Peak	E			No	No				High	-
119	Dockton - Vashon	None	None	C	C				None			Low	-
119EX	Dockton - Seattle CBD via ferry	Peak	Peak	D			No	No				High	-
120	Burien - Seattle CBD	17	Very Frequent	B	B	A			At	At	At	Low	2, 4
121	Highline CC - Seattle CBD	Peak	Peak	C	D		Yes	Yes				Medium	-
122	Highline CC - Seattle CBD	Peak	Peak	C			Yes	Yes				Low	-
123EX	Burien - Seattle CBD	Peak	Peak	E			Yes	Yes				Medium	-
124	Tukwila - Seattle CBD	99	Frequent	B	B	B			Below	At	At	Low	2, 3, 4
125	Shorewood - Seattle CBD	112	Frequent	C	E	D			At	At	At	Medium	2
128	Southcenter - Admiral District	1	Local	A	A	A			At	At	At	Low	2, 4
129	Riverton Heights - Tukwila Intl Blvd Station	Peak	Peak	E			Yes	Yes				Medium	-
131	Highline CC - Seattle CBD via Burien/Georgetown	18	Frequent	D	E	D			Below	Below	Below	Low	2, 3
132	Highline CC - Seattle CBD via Burien/South Park	19	Very Frequent	D	C	D			Below	Below	Below	Low	2, 3
133	Burien - U District	Peak	Peak	C			Yes	Yes				Low	-
134	Burien - Seattle CBD	Peak	Peak	E			No	Yes				Medium	-
139	Gregory Heights - Burien TC	None	None	D	D	E			None			High	-
140	Burien - Renton	83	Very Frequent	A	A	A			Below	At	Below	Low	3, 4
143EX	Black Diamond - Seattle CBD	Peak	Peak	C			Yes	Yes				Low	-
148	Fairwood - Renton TC	31	Local	C	C	B			At	At	At	Low	4
150	Kent - Seattle CBD	51	Very Frequent	B	B	A			Below	At	At	Low	2, 3, 4
152	Auburn - Seattle CBD	Peak	Peak	D			No	No				High	-
153	Renton - Kent via East Valley	52	Frequent	C					Below	Below	Below	Low	3
154	Tukwila Station - Federal Center	Peak	Peak	C			Yes	No				Low	-
155	Fairwood - Southcenter	101	Local	C	C				Below	Below	At	Low	3
156	Tukwila - SeaTac	100	Frequent	E	E	E			Below	At	Below	Medium	3
157	Lake Meridian - Seattle CBD via Panther Lake	Peak	Peak	D			Yes	Yes				Medium	-
158	Lake Meridian - Seattle CBD via Kent TC	Peak	Peak	B			Yes	Yes				Low	4
159	Timberlane - Seattle CBD	Peak	Peak	D			No	No				High	-

LEGEND

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Investment Priorities

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4 High Productivity Routes

(continued) Spring 2012 Route and Corridor Performance

Route	Description	Corridor	Target Service Family	Route Productivity			Peak Route Criteria		Corridor Status			Potential for Major Reduction	Investment Priority
				Peak	Off Peak	Night	Travel Time	Ridership	Peak	Off Peak	Night		
161	Lake Meridian - Seattle CBD	Peak	Peak	E			Yes	No				Medium	-
162	Kent - Seattle CBD	Peak	Peak	D			Yes	No				Medium	-
164	Kent - GRCC	37	Frequent	A	A	B			Below	At	Below	Low	3, 4
166	Des Moines - Kent	48	Local	A	A	B			At	Below	Below	Low	2, 3, 4
167	Renton - U District	Peak	Peak	B			Yes	Yes				Low	4
168	Kent - Four Corners	49	Local	B	B	C			At	At	At	Low	4
169	Renton - Kent via East Hill	50	Local	A	A	A			At	At	At	Low	2, 4
173	Federal Way - Federal Center	Peak	Peak	C			Yes	No				Low	-
175	West Federal Way - Seattle CBD	Peak	Peak	D			Yes	No				Medium	-
177	Federal Way - Seattle CBD	Peak	Peak	D			No	No				**High**	2
179	Twin Lakes - Seattle CBD	Peak	Peak	D			No	No				**High**	2, 4
180	Burien - Auburn	3	Very Frequent	A	A	B			Below	Below	At	Low	3, 4
181	Twin Lakes - GRCC	4	Local	A	A	C			At	At	At	Low	2, 4
182	NE Tacoma - Federal Way TC	67	Hourly	C	C				Above	At	At	Low	-
183	Federal Way - Kent	33	Frequent	C	B				Below	Below	Below	Low	3, 4
186	Auburn - Enumclaw	30	Local	C					At	Below	At	Low	3
187	Twin Lakes - Federal Way TC	103	Local	C	B	D			At	At	Above	**High**	2, 4
190	Redondo Heights - Seattle CBD	Peak	Peak	D			Yes	Yes				Medium	-
192	Star Lake - Seattle CBD	Peak	Peak	D			Yes	No				Medium	-
193EX	Star Lake - First Hill	Peak	Peak	C			Yes	Yes				Low	-
196	South Federal Way - Seattle CBD	Peak	Peak	D			Yes	No				Medium	-
197	Twin Lakes - U District	Peak	Peak	D			Yes	No				Medium	4
200	North Issaquah - Issaquah TC	None	None	E	C				None			**High**	-
201	S Mercer Island - Mercer Island P&R via Mercer Way	Peak	Peak	E			Yes	Yes				Medium	-
202	South Mercer Island - Seattle CBD	62	Hourly	E			No	No	Above	Above	At	**High**	2
203	Shorewood - Mercer Island P&R	None	None	D	D				None			**High**	-
204	S Mercer Island - Mercer Island P&R via Island Crest	62	Hourly		E				Above	Above	At	**High**	-
205EX	South Mercer Island - U District	Peak	Peak	E			No	No				**High**	-
209	North Bend - Issaquah	42	Hourly	D	D				At	At	At	Medium	-
210	Issaquah - Seattle CBD via Factoria	Peak	Peak	E			Yes	No				Medium	-
211EX	Issaquah Highlands Seattle CBD - Seattle CBD	Peak	Peak	E			No	No				**High**	-
212	Eastgate - Seattle CBD	Peak	Peak	A			Yes	Yes				Low	4
213	Covenant Shores - Mercer Island P&R	None	None		D				None			**High**	-

LEGEND

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4 High Productivity Routes

(continued) Spring 2012 Route and Corridor Performance

Route	Description	Corridor	Target Service Family	Route Productivity			Peak Route Criteria		Corridor Status			Potential for Major Reduction	Investment Priority
				Peak	Off Peak	Night	Travel Time	Ridership	Peak	Off Peak	Night		
214	Issaquah - Seattle CBD	Peak	Peak	D			No	No				High	-
215	North Bend - Seattle CBD	Peak	Peak	D			No	Yes				Medium	-
216	Sammamish - Seattle CBD	Peak	Peak	C			No	No				Low	-
217	Issaquah - Seattle CBD via Eastgate	Peak	Peak	B			No	No				Low	4
218	Issaquah Highlands Seattle CBD - Seattle CBD	Peak	Peak	B			Yes	Yes				Low	4
219	Newcastle - Factoria	Peak	Peak	E			Yes	Yes				Medium	-
221	Eastgate - Education Hill	80	Hourly	C	C	D			Above	Above	Above	High	2
224	Fall City - Redmond	82	Hourly	D	D				At	At	At	Medium	2
226	Bellevue - Eastgate via CrossroaSeattle CBD	29/72	Hourly/Local	B	C	C			Above, At	Above, At	Above, Above	Low	4
232	Duvall - Bellevue	Peak	Peak	C			Yes	No				Low	-
234	Kenmore - Bellevue	43/53	Hourly/Frequent	B	C	C			Above, At	Above, Above	Above, At	Low	4
235	Kingsgate - Bellevue	53	Frequent	C	C	D			At	Above	At	Medium	-
236	Woodinville - Kirkland	98	Hourly	E	D	E			Above	Above	Above	High	-
237	Woodinville - Bellevue	Peak	Peak	C			Yes	No				Low	-
238	Bothell - Kirkland	109	Hourly	D	C	E			Above	Above	Above	High	-
240	Bellevue - Renton	16	Local	B	B	B			At	At	At	Low	4
241	Bellevue - Eastgate via South Bellevue	27	Hourly	C	C	D			Above	Above	Above	High	-
242	Northgate - Overlake	Peak	Peak	B			Yes	Yes				Low	4
243	Jackson Park - Wilburton	Peak	Peak	D			Yes	No				Medium	-
244EX	Kenmore - Overlake	Peak	Peak	C			Yes	Yes				Low	-
245	Kirkland - Factoria	54	Frequent	B	C	C			At	Above	At	Low	2, 4
246	Bellevue - Eastgate via Factoria	28	Hourly	D	E				Above	At	At	High	-
248	Avondale - Kirkland	7	Local	C	C	C			At	At	Above	Low	-
249	Bellevue - Overlake	73	Hourly	C	D	E			Above	Above	At	High	-
250	Overlake - Seattle CBD	Peak	Peak	D			No	No				High	-
252	Kingsgate - Seattle CBD	Peak	Peak	B			Yes	No				Low	4
255	Brickyard - Seattle CBD	97	Very Frequent	B	D	B			At	At	At	Medium	2, 4
257	Brickyard - Seattle CBD	Peak	Peak	D			Yes	Yes				Medium	-
260	Finn Hill - Seattle CBD	Peak	Peak	E			Yes	Yes				Medium	-
265	Overlake - First Hill	Peak	Peak	E			Yes	No				Medium	2
268	Bear Creek - Seattle CBD	Peak	Peak	D			Yes	No				Medium	-

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(continued) Spring 2012 Route and Corridor Performance

Route	Description	Corridor	Target Service Family	Route Productivity			Peak Route Criteria		Corridor Status			Potential for Major Reduction	Investment Priority
				Peak	Off Peak	Night	Travel Time	Ridership	Peak	Off Peak	Night		
269	Overlake - Issaquah	41	Local	D	C	D			At	Below	At	Medium	3
271	U District - Issaquah	14/40/106	Frequent/ Local/ Very Frequent	C	D	D			Above, At, At	Above, At, At	At, Above, At	High	-
277	Juanita - U District	Peak	Peak	E			Yes	Yes				Medium	-
280	Seattle CBD - Renton via Bellevue	Owl	None			D			None			High	-
301	Aurora Village - Seattle CBD	Peak	Peak	B			Yes	No				Low	4
303EX	Shoreline - First Hill	Peak	Peak	B			No	Yes				Low	4
304	Richmond Beach - Seattle CBD	Peak	Peak	C			Yes	Yes				Low	-
306EX	Kenmore - Seattle CBD	Peak	Peak	B			No	Yes				Low	4
308	Horizon View - Seattle CBD	Peak	Peak	D			Yes	Yes				Medium	-
309EX	Kenmore - First Hill	Peak	Peak	C			Yes	Yes				Low	-
311	Duvall - Seattle CBD	Peak	Peak	D			Yes	Yes				Medium	2
312EX	Bothell - Seattle CBD	Peak	Peak	C			No	No				Low	-
316	Aurora Village - Seattle CBD	Peak	Peak	A			Yes	Yes				Low	4
330	Shoreline - Lake City	95	Hourly	B					Above	Below	At	Low	3, 4
331	Shoreline - Kenmore	44	Local	C	C	D			At	At	Above	High	-
342	Shoreline - Renton	Peak	Peak	B			Yes	No				Low	4
345	Shoreline - Northgate	94	Frequent	A	A	C			Below	At	Below	Low	3, 4
346	Aurora Village - Northgate	6	Local	A	A	B			At	At	At	Low	4
347	Mountlake Terrace - Northgate	65	Frequent	A	A	A			Below	At	Below	Low	3, 4
348	Richmond Beach - Northgate	90	Local	B	B	C			At	At	At	Low	4
355EX	Shoreline - Seattle CBD	Peak	Peak	C			No	No				Low	-
358EX	Aurora Village - Seattle CBD	5	Very Frequent	B	A	A			At	At	Below	Low	1, 2, 3, 4
372EX	U District	45	Frequent	C	C	C			At	At	Below	Low	3
373EX	Aurora Village - U District	93	Frequent	C					Below	Below	Below	Low	3
600EX	Seattle CBD - South Base	Peak	Peak	E			Yes	Yes				Medium	-

LEGEND

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Potential for Major Reduction

	Any light shaded field is a risk factor
High	Service in the bottom 25% of one or both productivity measures AND has **none** or **above** for its corridor status OR peak routes not meeting peak criteria
Medium	Service in the bottom 25% of one or both productivity measures AND **at** its corridor status OR peak services meeting peak criteria
Low	Services not in the bottom 25% of one or both productivity measures OR corridors **below** target service levels

Investment Priorities

1 Overcrowding

2 Reliability

3 Corridors below target service level

4 High Productivity Routes

(continued) Spring 2012 Route and Corridor Performance

Route	Description	Corridor	Target Service Family	Route Productivity			Peak Route Criteria		Corridor Status			Potential for Major Reduction	Investment Priority
				Peak	Off Peak	Night	Travel Time	Ridership	Peak	Off Peak	Night		
901DART	Mirror Lake - Federal Way TC	63	Local	D	D	D			At	At	Above	High	-
903DART	Twin Lakes - Federal Way TC	102	Local	C	D	D			At	At	At	Medium	-
907DART	Enumclaw - Renton	88	Hourly		E				At	At	At	Medium	-
908DART	Maplewood - Renton TC	89	Local		E				Below	Below	At	Low	3
909DART	Kennydale - Renton TC	47	Hourly	E	D				At	At	At	Medium	-
910DART	North Auburn - Supermall	None	None		E				None			High	-
912	Covington - Enumclaw	None	None	E					None			High	-
913DART	Riverview - Kent TC	Peak	Peak	D			Yes	Yes				Medium	-
914DART	Kent East Hill - Kent TC	None	None		C				None			Low	-
915DART	Enumclaw - Auburn	30	Local		C				At	Below	At	Low	3
916DART	Kent East Hill - Kent TC	None	None		B				None			Low	4
917DART	Pacific - Auburn	74	Local	C	C				Below	Below	At	Low	3
919DART	SE Auburn - Auburn	None	None		C				None			Low	-
927DART	Sammamish - Issaquah	None	None	E	D				None			High	-
930DART	Redmond - Kingsgate	81	Local	E	E				At	Below	Below	Medium	3
931DART	Bothell - Redmond	108	Hourly	E	E				Above	At	At	High	-
935DART	Kenmore - Totem Lake	46	Hourly	E	E				Above	At	At	High	-

LEGEND

Productivity

A	Top 25% in both measures
B	Top 25% in one measure
C	Between top and bottom 25% both measures
D	Bottom 25% one measure
E	Bottom 25% both measures

Potential for Major Reduction

	Any light shaded field is a risk factor
High	Service in the bottom 25% of one or both productivity measures AND has **none** or **above** for its corridor status OR peak routes not meeting peak criteria
Medium	Service in the bottom 25% of one or both productivity measures AND **at** its corridor status OR peak services meeting peak criteria
Low	Services not in the bottom 25% of one or both productivity measures OR corridors **below** target service levels

Investment Priorities

1 Overcrowding

2 Reliability

3 Corridors below target service level

4 High Productivity Routes

SECTION 2

SERVICE INVESTMENT PRIORITIES

Our analysis identified areas where investment is needed to provide high-quality service and to meet target service levels. The findings will be used to guide service investments in the order identified in the service guidelines.

Based on spring 2012 analysis, the current investment needs are shown in the table below.

TABLE 7

2012 Investment Needs
(Based on Spring 2012 Data)

Priority	Investment Area	Estimated Annual Hours Needed
1	Reduce passenger crowding	5,500
2	Improve schedule reliability	19,000
3	Increase service to meet target service levels in All-Day and Peak Network*	309,800
	Total investment need	**334,300**
4	Increase service on high-productivity routes	See Priority 4, p. 30

* Referred to in the 2011 service guidelines report as "underserved corridors"

The investment need has declined from the 2011 combined need of nearly 400,000 annual service hours. This decline is primarily due to investments Metro made to reduce passenger crowding, improve schedule reliability, and add service to meet target levels on corridors in the June and September 2012 service changes. More detailed information about these changes is in Section 4. Estimated annual hours needed also changes over time because of changes in land use, ridership, and traffic congestion.

Priority 1 – Passenger crowding investments

Investment in the most crowded routes is the highest priority in the service guidelines. When service is chronically very crowded, it is poor quality and has a negative impact on riders. The passenger load thresholds are set so that we accept standing passengers on many of our services, but take action where crowding is at an unacceptable level and where it occurs regularly.

The table below identifies routes that need additional trips to reduce crowding.

TABLE 8

Routes Needing Investment to Reduce Passenger Crowding

Route	Description	Day	Annual Hours Needed
3 South	Madrona – Seattle CBD	Weekday	500
4 South	Judkins Park – Seattle CBD	Weekday	300
16	Northgate – Seattle CBD via Wallingford	Weekday	500
44	Ballard – U District	Weekday	2,400
60	White Center – Capitol Hill	Weekday	600
358EX	Aurora Village – Seattle CBD	Saturday	1,200
		Total hours needed	5,500

Many of the routes that were found in last year's analysis to have the most severe crowding have been improved since spring 2012. Trips were added to Route 44 on weekday mornings, although this analysis identified new needs in the afternoon peak period. Trips were also added to Route 73 on Sundays based on information from the previous guidelines report. Route 36 was changed to operate as a stand-alone route rather than being partially connected to Route 1. This will improve reliability and result in more even loads between trips, unlike the past when trips bunched together and had uneven loads.

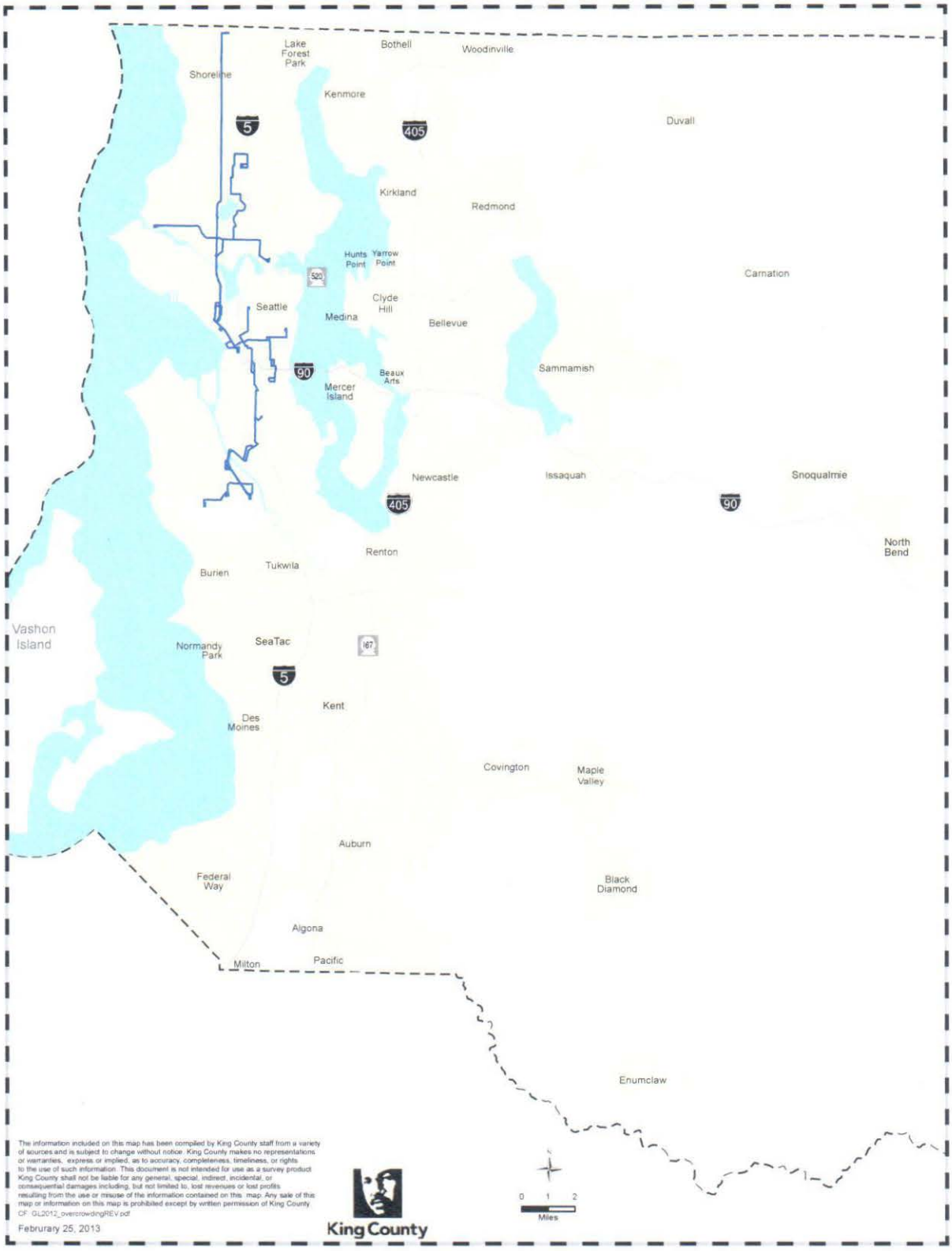
Some routes were identified as overcrowded but were determined not to need immediate investment for several reasons:

- Passenger crowding can be relieved on some trips by using a larger bus.
- Trips were added to some crowded routes since spring 2012.
- Some routes were deleted or had major changes since spring 2012.

A list of all routes that were identified as overcrowded is in Appendix D.

FIG. 4

Routes Needing Investment to Reduce Passenger Crowding



Priority 2 – Schedule reliability investments

Schedule reliability is the second priority for investment. Routes that exceed reliability thresholds in the guidelines are candidates for investment of service hours. The reliability thresholds are set so that some lateness is considered acceptable, recognizing that variations in travel time, congestion, and ridership are inevitable. The thresholds for action are at a point where lateness is likely having impacts on people's ability to count on the bus.

Routes with reliability problems are operating in areas around the county. Many of the unreliable routes have the common characteristics of being very long from end-to-end and traveling on very congested streets and highways. Some of the unreliable routes are long because they are through-routed, including many routes that travel through downtown Seattle and serve neighborhoods to the north and south. Other routes serve areas that are farther apart, such as commuter services from Federal Way to downtown Seattle; or areas of high congestion, such as services that use congested freeways. The number of unreliable routes in 2012 reflects the impact of Metro's scheduling efficiency effort in 2010 and 2011, which reduced layover time throughout the system. Reducing layover has saved hours but has reduced the resilience of service. Delays on any single trip are now more likely to carry through multiple trips or throughout the day rather than being isolated.

The table below lists the 55 routes identified as needing service-hour investments to improve their reliability using data from September 2011 to September 2012. The total need of 19,000 annual hours was calculated based on how far the routes were below the reliability threshold during different time periods. While this calculation provides a reasonable assessment of total needs, individual routes may receive more or less investment depending on the scheduling techniques available to solve an issue.

TABLE 9

Routes Needing Investment to Improve Schedule Reliability

Route	Area	Day	Estimated Hours Needed
1	Kinnear – Seattle CBD	Weekday	400
2	West Queen Anne – Seattle CBD – Madrona Park	Weekday, Saturday	900
8	Rainier Beach – Seattle Center	Weekday, Saturday, Sunday	600
11	Madison Park – Seattle CBD	Sunday	50
16	Northgate – Seattle CBD via Wallingford	Sunday	100
17EX	Sunset Hill – Seattle CBD	Weekday	250
18EX	North Beach – Seattle CBD	Weekday	250
24	West Magnolia – Seattle CBD	Weekday, Saturday	1,050
26	Wallingford – Seattle CBD	Weekday, Saturday, Sunday	350
27	Colman Park – Seattle CBD	Saturday	100
28	Broadview – Seattle CBD	Weekday	600
28EX	Broadview – Seattle CBD	Weekday	250
33	Discovery Park – Seattle CBD	Saturday	50
36	Othello Station – Seattle CBD	Weekday	300
37	Alaska Junction – Seattle CBD via Alki	Weekday	250
48	Loyal Heights – U District – Mount Baker	Saturday, Sunday	400
49	U District – Seattle CBD via Capitol Hill/Broadway	Weekday	500
57	Alaska Junction – Seattle CBD	Weekday	300
60	White Center – Capitol Hill	Saturday	100
66EX	Northgate – Seattle CBD via Eastlake	Weekday	800

Route	Area	Day	Estimated Hours Needed
71	Wedgwood – Seattle CBD	Weekday	100
72	Lake City – Seattle CBD via U District	Weekday	250
99	International District – Waterfront	Saturday, Sunday	150
101	Renton – Seattle CBD	Saturday, Sunday	200
105	Renton Highlands- Renton TC	Weekday	300
106	Renton – Seattle CBD via Rainier beach	Weekday	100
124	Tukwila – Seattle CBD	Weekday, Saturday	2,000
128	Southcenter – Admiral District	Weekday	700
131	Highline CC – Seattle CBD via Burien/Georgetown	Weekday, Saturday	850
132	Highline CC – Seattle CBD via Burien/South Park	Saturday	100
150	Kent – Seattle CBD	Weekday, Sunday	1,000
166	Des Moines – Kent	Weekday	400
169	Renton – Kent via East Hill	Weekday	400
177	Federal Way – Seattle CBD	Weekday	250
179	Twin Lakes – Seattle CBD	Weekday	300
181	Twin Lakes – GRCC	Weekday	1,300
187	Twin Lakes – Federal Way TC	Weekday	250
196 (178)	South Federal Way – Seattle CBD	Weekday	900
202	South Mercer Island – Seattle CBD	Weekday	250
221	Eastgate – Education Hill	Weekday	300
224	Fall City – Redmond	Weekday	500
245	Kirkland – Factoria	Saturday	100
255	Brickyard – Seattle CBD	Saturday	100
265	Overlake – First Hill	Weekday	250
311	Duvall – Seattle CBD	Weekday	250
358EX	Aurora Village – Seattle CBD	Saturday	100
		Total hours needed	**19,000**

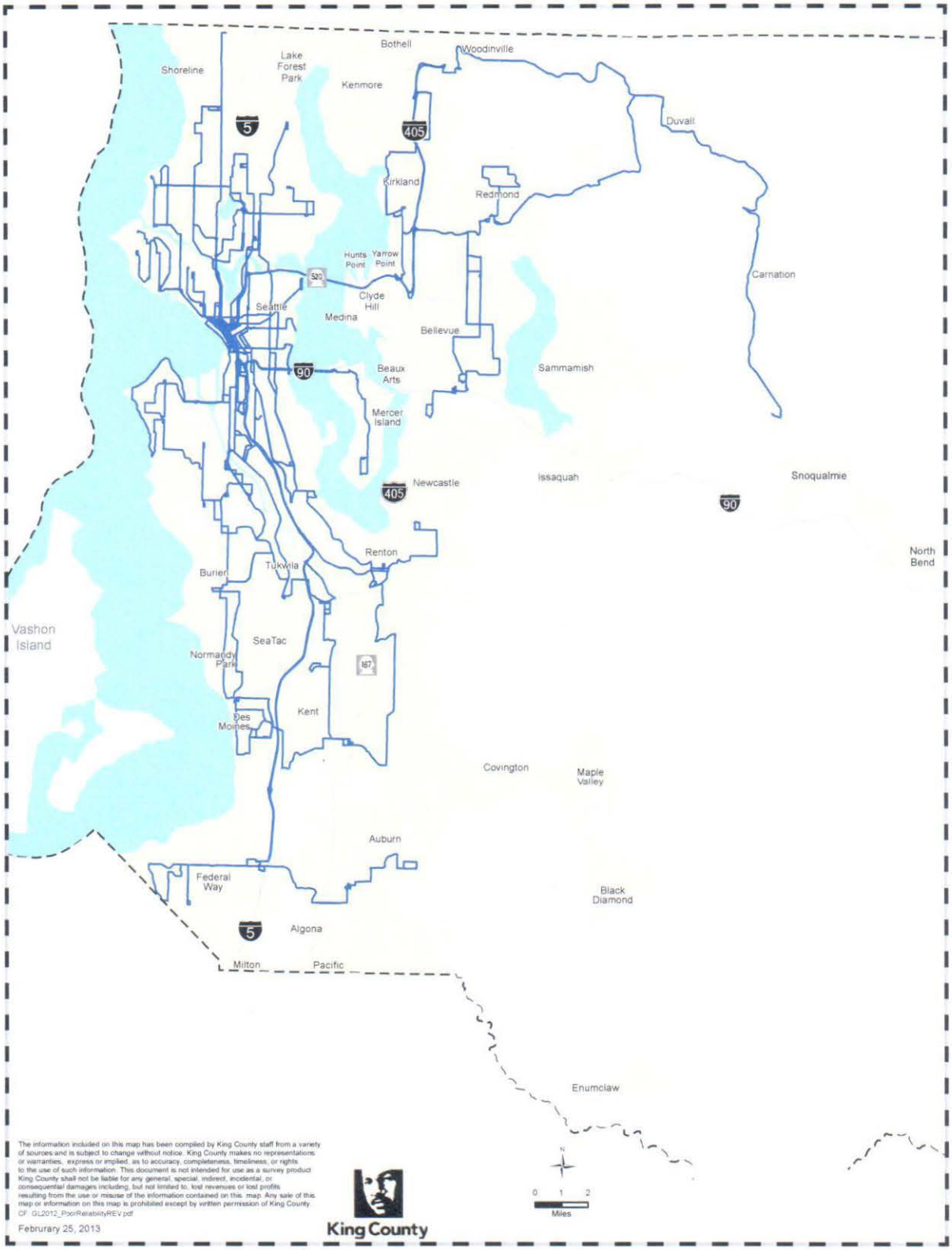
Some other routes had reliability problems but were determined not to need immediate investment for several reasons:

- Some routes received reliability investments since spring 2012.
- Some routes were deleted or had major changes since spring 2012.
- More recent data indicated that reliability had improved on some routes that had undergone major changes.

A list of all routes that exceeded the guidelines thresholds for reliability during the period analyzed for this report is in Appendix E.

FIG. 5

Routes Needing Investment to Improve Schedule Reliability



Priority 3 – Corridors below target service levels (underserved corridors)

Our analysis found that 43 corridors in the All-Day and Peak Network were below target service levels in one or more time periods in spring 2012. To bring service up to the target levels, 309,800 annual hours of investment would be needed. The total investment need is lower than it was in 2011, when our analysis determined that approximately 350,000 annual hours were needed. This reduction reflects Metro's investments in corridors that were below target service levels as well as changes in how corridors scored in 2012.

Table 10 lists the corridors that were below target service levels as of spring 2012. Priority among these corridors was established by ordering the corridors in descending order of points, first by the geographic value score, then by the productivity score, and finally by the social equity score. This priority order helps ensure that service enhancements are equitably distributed and productive.

The list of corridors below target service levels includes some corridors where Metro has changed service since spring 2012. As part of the start of the RapidRide C and D lines and the associated restructure of service, eight corridors that were below target service levels in spring 2012 had significant changes to improve frequency, or were changed so that additional investment on those corridors may no longer be needed. Those eight corridors are highlighted in Table 10; more detailed information about the entire C and D line restructuring process is in Section 4. The corridors will be re-evaluated in a future analysis to determine any future investment needs.

TABLE 10

2012 Corridors Below Target Service Levels and Estimated Hours to Meet Service Level Targets, Ordered by Investment Priority

(Shading indicates corridor had significant change since Spring 2012)

Corridor number	Between	And	Major route	Estimated hours to meet target
25	Cowen Park	Downtown Seattle	73	9,600
11	Ballard	U. District	44	7,300
19	Burien	Downtown Seattle	132	18,000
55	Lake City	Downtown Seattle	41	2,000
20	Capitol Hill	White Center	60	8,900
99	Tukwila	Downtown Seattle	124	4,000
84	Renton	Downtown Seattle	101	10,200
100	Tukwila	Des Moines	156	12,000
3	Auburn	Burien	180	21,500
33	Federal Way	Kent	183	10,000
51	Kent	Downtown Seattle	150	7,400
52	Kent	Renton	153	10,000
83	Renton	Burien	140 (F line)	8,000
81	Redmond	Totem Lake	930DART	7,000
59	Madison Park	Downtown Seattle	11	11,000
38	Greenwood	Downtown Seattle	5	2,600
5	Aurora Village	Downtown Seattle	358EX (E line)	7,000
69	Northgate	Downtown Seattle	16	8,000
18	Burien	Downtown Seattle	131	12,000
87	Renton	Renton Highlands	105	2,000
93	Shoreline	U. District	373EX	21,800
94	Shoreline CC	Northgate	345	5,000
57	Lake City	U. District	65	5,100

CONTINUED

Corridor number	Between	And	Major route	Estimated hours to meet target
95	Shoreline CC	Lake City	330	1,900
48	Kent	Burien	131/166	4,000
37	Green River CC	Kent	164	5,800
30	Enumclaw	Auburn	186/915	5,000
41	Issaquah	Overlake	269	11,000
45	Kenmore	U. District	372EX	4,000
101	Tukwila	Fairwood	155	5,000
21	Capitol Hill	Downtown Seattle	10	3,500
24	Colman Park	Downtown Seattle	27	3,000
64	Mount Baker	Downtown Seattle	14S	4,100
26	Discovery Park	Downtown Seattle	33	9,000
107	U. District	Downtown Seattle	25	3,000
113	White Center	Downtown Seattle	23	2,100
2	Alki	Downtown Seattle	56	2,500
71	Othello Station	Columbia City	39	2,200
79	Rainier Beach	Capitol Hill	9EX	9,000
70	Northgate	U. District	68	10,000
65	Mountlake Terrace	Northgate	347	6,300
74	Pacific	Auburn	917DART	4,000
89	Renton Highlands	Renton	908DART	4,000
			Total hours needed	**309,800**

Change from 2011

The list of corridors below target service levels in spring 2012 differs from the spring 2011 list because of service investments, changes in corridor scores, and corrections to the 2011 analysis. Table 11 lists the corridors that were below target service levels in 2011 but are no longer targeted for investment. Reasons for change include:

- **Service improvements made in 2011.** Service was improved on several corridors as part of the B Line launch and early investment in the C Line corridor.
- **Scoring decreases.** Ridership, productivity, or social equity scoring changed for several corridors.
    - **Lower land use (productivity) scores.** One corridor had fewer households per corridor mile than in the previous year, resulting in it moving below the threshold and receiving fewer points.
    - **Lower social equity scores.** The proportion of riders boarding in low-income census tracts fell below the system average for several corridors, so they no longer received points for low-income status.
    - **Lower ridership and productivity, resulting in lower Step 2 scores.** The ridership and productivity of major routes changed on several corridors. These corridors were targeted for less service because they needed less to meet existing demand.
- **Corrections from 2011.** The guidelines analysis is a work in progress, and we discovered several data errors after publication of the previous report. Corrections resulted in reduced scores for some corridors.

In general, we expect to see changes each year in corridors that are below target service levels as ridership, productivity, and social equity factors evolve and change. Our analysis takes such changes into account as we determine what investments may be needed.

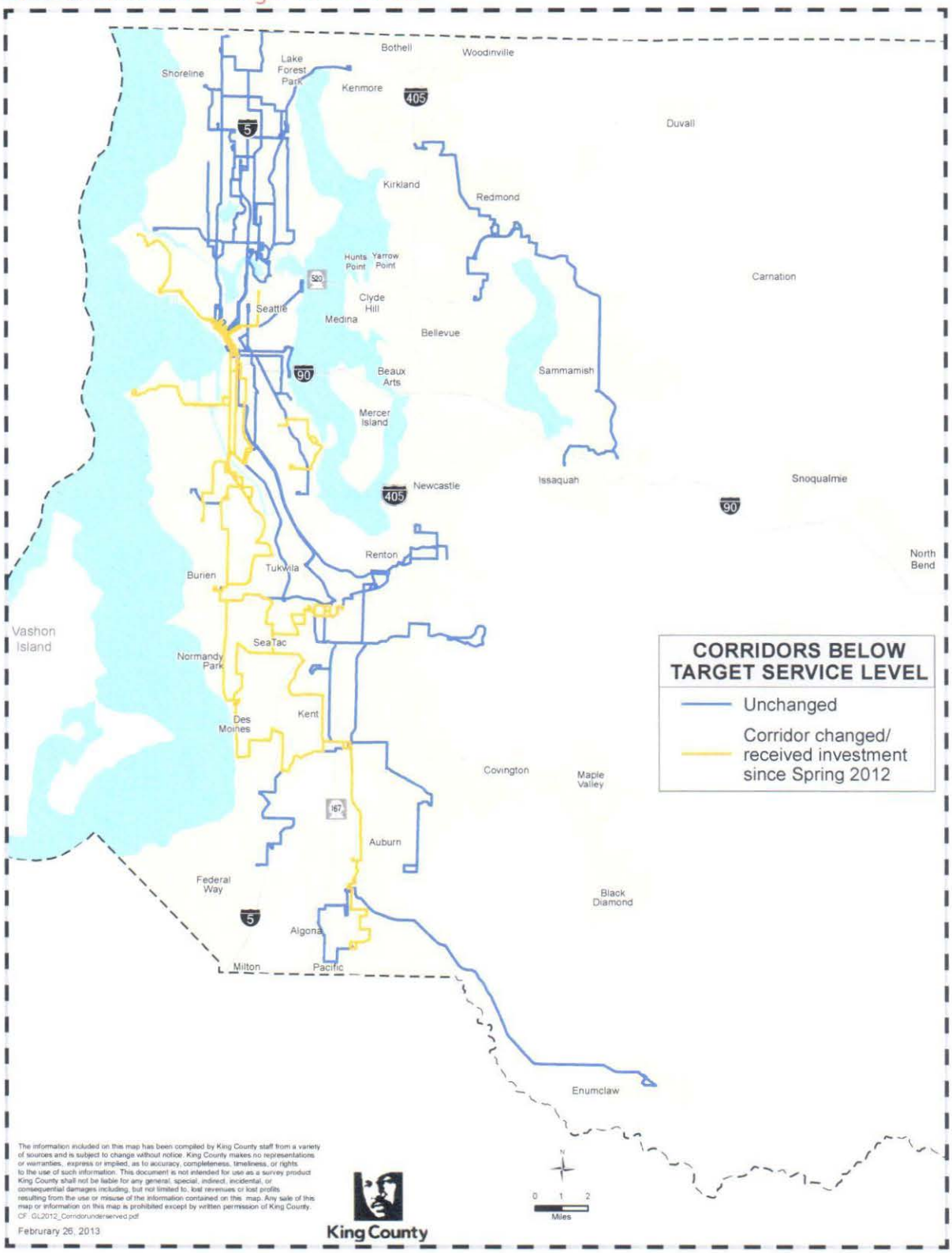
TABLE 11

2011 Corridors Below Target Service Levels that are No Longer Targeted for Investment

Corridor number	Between	And	Major route	Reason for Change
9	Ballard	Lake City	75	Lower social equity score (percent of boardings in low-income census tracts below county average)
12	Ballard	Downtown Seattle	17	Calculation correction
15	Bellevue	Redmond	B	Service improvement in fall 2011
28	Eastgate	Bellevue	246	Lower social equity score (percent of boardings in low-income census tracts below county average)
35	Fremont	U District	30/31	Lower land use score (households per corridor mile); Lower passenger loads (in peak period)
40	Issaquah	Eastgate	271	Calculation correction
42	Issaquah	North Bend	209	Calculation correction
50	Kent	Renton	169	Lower Step 2 score (peak loads)
67	NE Tacoma	Federal Way	182	Lower social equity score (percent of boardings in low-income census tracts below county average)
76	Queen Anne	Downtown Seattle	3N	Lower Step 2 score (off-peak cost recovery/ productivity)
103	Twin Lakes	Federal Way	187	Lower social equity score (percent of boardings in low-income census tracts below county average)
106	U District	Bellevue	271	Service improvement
110	Wedgwood	Cowen Park	71	Calculation correction
111	West Seattle	Downtown Seattle	54 (C Line)	Service improvement in fall 2011
112	White Center	Downtown Seattle	125	Lower Step 2 score (peak loads)

FIG. 6

2012 Corridors Below Target Service Levels



Priority 4 – High-productivity routes

Route productivity is assessed using two measures, and high-productivity routes are defined as those that perform in the top 25 percent of comparable routes on one or both measures in at least one time period.

Ninety routes were in the top 25 percent on one or both productivity measures in 2012. We plan to invest in high-productivity routes beyond those identified in the first three priorities to focus resources and service in areas where there is latent demand for transit and where service investments will result in higher ridership.

The benefits of investing in high-productivity service have been demonstrated based on successful restructures and changes Metro has made in recent years. Investments in the RapidRide A and B lines in 2010 and 2011 are recent examples of how improving frequency and quality of service leads to increased ridership and improved rider satisfaction. Ridership has increased by over 47 percent on the A line after two years and over 14 percent on the B line after one year, and both these routes are among the top 25 percent of routes on both performance measures in all time periods. Other examples of this type of successful investment in high-productivity service include the restructure of service in the Ambaum/Delridge corridor that created Route 120 in 2004, and the restructure of service around Central Link light rail that included adding service to routes 8 and 36 in 2010. We will continue to invest in high-productivity services over time as opportunities allow, such as when we restructure service or when we partner with local jurisdictions.

Metro must carry many more riders and almost double the current level of bus service by 2040 to meet the goals in the region's transportation plan. Investing incrementally and restructuring service is one way we move towards a system that is more productive, carries more riders, and uses resources effectively to serve more people. However, even larger investments and new resources to grow the system will be required to fully reach the region's goals.

Some notable groups of high-productivity routes that performed well on both measures include:

- **Current and future RapidRide routes**. The A Line, B Line, and Route 140 (future F Line) all performed in the top 25 percent on both measures for all time periods. The 15 and 18 (now the D Line) and 358 (future E Line) were top performers in at least one time period.
- **Downtown Seattle to University District routes.** Routes 43, 49, 71, 72, 73, and 74 Express are all top performers that connect the largest transit markets in King County. These routes not only carry many riders between downtown Seattle and the University District, routes 43 and 49 also provide key connections to Capitol Hill, and all the routes carry many riders circulating within downtown Seattle. The performance of these routes indicates that transit demand will be very strong in the future University Link light rail corridor.
- **Radial routes between regional growth centers and downtown Seattle.** Routes 101, 120, and 150 from the regional growth centers of Burien, Kent, Renton, and Tukwila to downtown Seattle perform very well compared to other services. These routes are highly used throughout the day but perform particularly well in off-peak and night periods. They operate on arterials and freeways and are anchored by the downtown cores of the communities they serve. Sound Transit has several routes with a similar function: they connect growth centers like Bellevue (Route 550) and Federal Way to downtown Seattle (routes 577/578), reflecting the way Metro and Sound Transit services complement one another.

- **Routes connecting regional growth centers in south King County.** The network of routes that connect regional growth centers in south King County continued to perform well in 2012. Routes 128, 164, 166, 169, 180, and 181 connect the largest south King County cities—Auburn, Burien, Covington, Des Moines, Federal Way, Kent, Maple Valley, Renton, SeaTac, and Tukwila—as well as West Seattle and White Center. These routes generally operate with 30-minute all-day service, and their good performance is indicative of the strong demand for transit between regional growth and activity centers outside the Seattle core.

- **Routes that connect neighborhoods to Northgate.** The network of all-day routes in north King County was developed in the early 2000s as a system that connects several feeder routes with the high-performing Route 41 that connects Northgate to downtown Seattle. Routes 345, 346, and 347 provide neighborhood circulation within North Seattle and Shoreline as well as connection to services at Northgate. This group of routes is notable because performance is strong not just on the service to downtown Seattle, but also on the neighborhood routes that provide circulation and connect to the trunk service.

- **Commuter routes from high-demand areas.** Routes 15 Express, 74 Express, 212 and 316 are the top-performing commuter routes, all serving downtown Seattle. These highly successful commuter routes operate in areas that also have high all-day demand for service, including Ballard, Eastgate, the University District, and North Seattle.

TABLE 12

2012 Routes in Top 25% on Both Measures in All Time Periods Served

Route	Description	Time Period
A Line	Federal Way – Tukwila	Peak, off peak, night
B Line	Bellevue – Redmond	Peak, off peak, night
15EX	Blue Ridge – Seattle CBD	Peak
41	Lake City – Seattle CBD via Northgate	Peak, off peak, night
49	U District – Seattle CBD via Capitol Hill/Broadway	Peak, off peak, night
71	Wedgwood – Seattle CBD	Peak, off peak, night
72	Lake City – Seattle CBD via U District	Peak, off peak, night
73	Jackson Park – Seattle CBD	Peak, off peak, night
74EX	Sand Point – Seattle CBD	Peak
128	Southcenter – Admiral District	Peak, off peak, night
140 (F Line)	Burien – Renton	Peak, off peak, night
169	Renton – Kent via East Hill	Peak, off peak, night
212	Eastgate – Seattle CBD	Peak
316	Aurora Village – Seattle CBD	Peak
347	Mountlake Terrace – Northgate	Peak, off peak, night

TABLE 13

2012 Routes in Top 25% on Both Measures in at Least One Time Period Served

Route	Description	Time Period
3 South	Madrona – Seattle CBD	Off peak
7	Rainier Beach – Seattle CBD	Peak, off peak
10	Capitol Hill – Seattle CBD	Off peak
15 (D Line)	Blue Ridge – Seattle CBD	Peak
18	North Beach – Seattle CBD	Night
36	Othello Station – Seattle CBD	Peak, off peak
43	U District – Seattle CBD via Capitol Hill/24th	Peak, night
44	Ballard – U District	Peak
67	Northgate – U District	Off peak
101	Renton – Seattle CBD	Off peak, night
105	Renton Highlands – Renton TC	Off peak
120	Burien – Seattle CBD	Night
150	Kent – Seattle CBD	Night
164	Kent – GRCC	Peak, off peak
166	Des Moines – Kent	Peak, off peak
180	Burien – Auburn	Peak, off peak
181	Twin Lakes – GRCC	Peak, off peak
345	Shoreline – Northgate	Peak, off peak
346	Aurora Village – Northgate	Peak, off peak
358EX (E Line)	Aurora Village – Seattle CBD	Off peak, night

SECTION 3

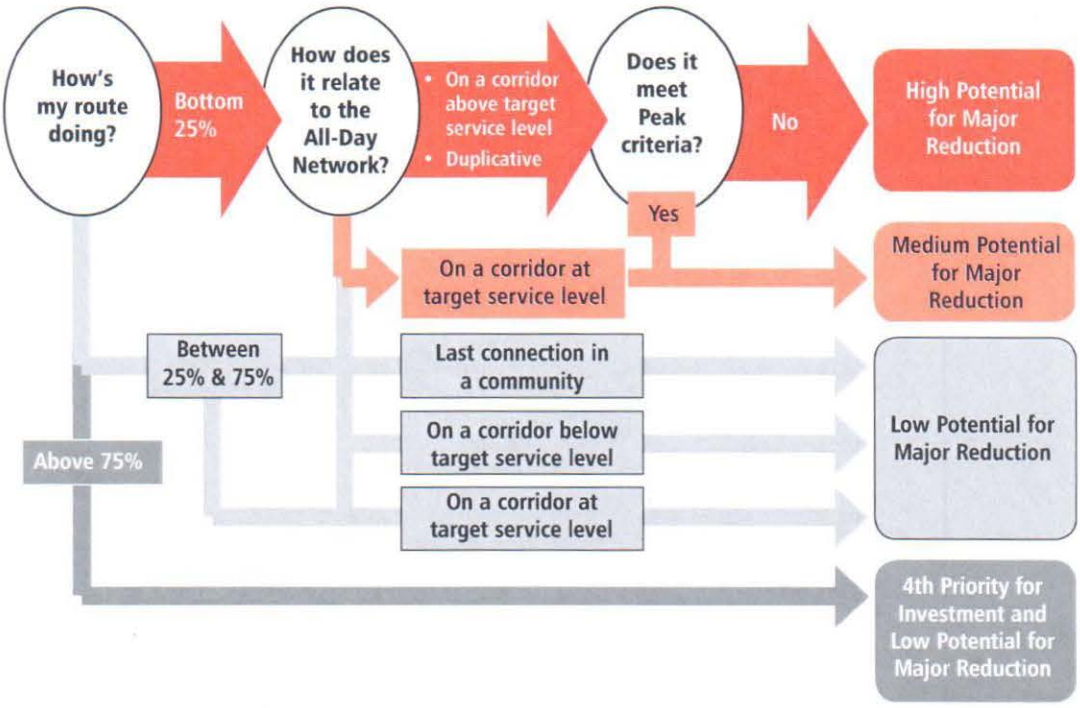
SERVICE REDUCTION PRIORITIES

The service guidelines suggest priorities for reducing service that are based on route performance and level of service. The route productivity analysis identifies routes performing in the bottom 25 percent of routes serving similar markets at similar times of day. The All-Day and Peak Network corridor analysis balances productivity, social equity and geographic value in setting and assessing service levels. The route and All-Day and Peak Network analyses are used together to identify where service reductions could be made to meet investment priorities or budget realities, or simply to improve the productivity and efficiency of the system.

The first factor that puts a route at risk of reduction is performance in the bottom 25 percent of similar routes on one or both productivity measures. Excluding services that have had major changes or have been deleted since spring 2012, about 490,000 annual hours of service fall into that bottom 25 percent. However, not all services performing in the bottom 25 percent have the same potential for major reduction. Routes that are on corridors which are at or below the target service level have a lower potential because reducing or deleting them would create a new need based on factors other than ridership. Peak routes that meet both peak service criteria also have a lower potential, again because they provide service needed in the All-Day and Peak Network. Routes that are duplicative of services on corridors in the All-Day and Peak Network, and those that are on corridors that are above target service levels are a higher priority for reduction. The All-Day and Peak Network reflects the value of connections in communities throughout King County, so it suggests a minimum level of service for all 113 corridors.

FIG. 7

What Does the Performance of My Route Mean?



As shown in the diagram on the previous page, low productivity alone does not immediately put a route at high potential for major reduction; how the service contributes to meeting target service levels in the All-Day and Peak Network is also important. The table below shows the estimated range of hours that could be reduced from services that have a high or medium potential for major reduction. Not all services that are considered for reduction are completely eliminated--service reductions also include actions such as reducing service frequency or shortening the span of service.

TABLE 14

Estimate of Hours that Could be Reduced from Services with High and Medium Reduction Potential

	Percent of Total System	Est. Hours
High potential for major reduction	3% - 5%	100,000 - 170,000
Medium potential for major reduction	4% - 6%	130,000 - 200,000

High potential for major reduction

To help us deliver a more efficient and productive system, the guidelines identify those services that perform poorly and contribute the least to the total transit network. We have characterized these services as having a relatively high potential for major reduction. This means that they are generally more likely to be eliminated in at least one time period than services with a medium or low potential for major reduction. This is especially true in times when Metro must cut service because of budget constraints. It is not, however, Metro's goal to eliminate anyone's transit service and any change to service would be designed to maintain the greatest degree of public mobility. These changes may involve restructures, where those restructures would result in more productive services as a whole.

The tables that follow show which routes were identified as having a high potential for major reduction in 2012. It is estimated that between 3 and 5 percent of Metro's system is at a high potential for major reduction.

Routes that have a high potential for major reduction meet the following conditions:

- Services in the bottom 25 percent for one or both performance measures AND duplicative of service on a corridor OR on a corridor above its target service level OR a peak service not meeting either of the peak criteria.

The following routes are not on the list because they were either deleted or changed considerably since spring 2012: 22, 25, 34 Express, 38, 39, 42, 51, 53, 55, 79 Express, 81, 85, 99, 139, 177, 912, 935.

TABLE 15

Routes Below One or More Productivity Thresholds at High Potential for Major Reduction

Route	Description	Peak		Off Peak		Night		Corridor	Target Service Family	Peak Criteria		Corridor Status			Potential for Major Reduction	Time Period
		Boardings/ Plat Hour	Pass. Mi/ Plat. Mi.	Boardings/ Plat Hour	Pass. Mi/ Plat. Mi.	Boardings/ Plat Hour	Pass. Mi/ Plat. Mi.			Travel Time	Ridership	Peak	Off Peak	Night		
2S*	Madrona Park - Seattle CBD	46.6	9.7	43.7	13.0	23.1	6.0	60	Very Frequent			Above	At	At	High	Peak
48N*	Loyal Heights - U District	32.5	5.4	37.7	7.6	21.6	4.7	8	Very Frequent			Above	At	Above	High	All
84*	Seattle CBD - Madison Park					8.0	1.4	Owl	None			None			High	Night
116EX*	Fauntleroy - Seattle CBD	15.8	6.9					Peak	Peak	No	No	Peak			High	Peak
118EX*	Tahlequah - Seattle CBD	13.7	5.7					Peak	Peak	No	No	Peak			High	Peak
119EX*	Dockton - Seattle CBD via ferry	16.8	10.0					Peak	Peak	No	No	Peak			High	Peak
152*	Auburn - Seattle CBD	16.1	10.0					Peak	Peak	No	No	Peak			High	Peak
159*	Timberlane - Seattle CBD	19.3	13.4					Peak	Peak	No	No	Peak			High	Peak
179*	Twin Lakes - Seattle CBD	21.1	15.4					Peak	Peak	No	No	Peak			High	Peak
187	Twin Lakes - Federal Way TC	21.6	3.8	27.7	4.8	9.9	1.4	103	Local			At	At	Above	High	Night
200	North Issaquah - Issaquah TC	7.8	1.3	12.1	2.7			None	None			None			High	Peak
202*	South Mercer Island - Seattle CBD	13.0	4.6					62	Hourly	No	No	Above	Above	At	High	Peak
203	Shorewood - Mercer Island P&R	12.5	1.5	14.6	1.1			None	None			None			High	Peak/ Off Peak
204	S Mercer Island - Mercer Island P&R via Island Crest			9.9	1.6			62	Hourly			Above	Above	At	High	Off Peak
205EX*	South Mercer Island - U District	17.3	4.9					Peak	Peak	No	No	Peak			High	Peak
211EX*	Issaquah HighlanSeattle CBD - Seattle CBD	12.8	3.9					Peak	Peak	No	No	Peak			High	Peak
213	Covenant Shores - Mercer Island P&R			13.6	1.2			None	None			None			High	Off Peak
214*	Issaquah - Seattle CBD	21.7	11.3					Peak	Peak	No	No	Peak			High	Peak
221	Eastgate - Education Hill	16.8	5.3	14.0	4.3	8.9	2.3	80	Hourly			Above	Above	Above	High	Night
236	Woodinville - Kirkland	8.7	2.2	7.2	2.1	5.4	1.4	98	Hourly			Above	Above	Above	High	All
238	Bothell - Kirkland	11.4	3.4	12.3	3.4	5.2	1.4	109	Hourly			Above	Above	Above	High	Peak/ Night
241	Bellevue - Eastgate via South Bellevue	16.6	3.3	13.2	2.7	10.1	1.5	27	Hourly			Above	Above	Above	High	Night
246	Bellevue - Eastgate via Factoria	9.6	2.3	8.2	1.8			28	Hourly			Above	At	At	High	Peak/ Off Peak
249	Bellevue - Overlake	16.4	4.0	9.6	2.5	7.4	2.0	73	Hourly			Above	Above	At	High	Off Peak/ Night
250*	Overlake - Seattle CBD	19.3	10.0					Peak	Peak	No	No	Peak			High	Peak
271*	U District - Issaquah	25.1	10.5	28.0	12.7	19.1	8.5	14/40/106	Frequent/ Local/ Very Frequent			Above, At, At	Above, At, At	At, Above, At	High	Off Peak/ Night
331	Shoreline - Kenmore	17.1	5.0	20.0	5.4	9.9	2.0	44	Local			At	At	Above	High	Night
901DART	Mirror Lake - Federal Way TC	18.4	2.0	17.9	1.5	14.1	2.0	63	Local			At	At	Above	High	All
910DART	North Auburn - Supermall			7.4	1.2			None	None			None			High	Off Peak
927DART	Sammamish - Issaquah	7.3	1.5	6.2	2.0			None	None			None			High	Peak/ Off Peak
931DART	Bothell - Redmond	7.7	1.4	8.0	1.9			108	Hourly			Above	At	At	High	Peak/ Off Peak
Spring 2012 thresholds for routes that DO NOT serve Seattle core																
	Bottom 25%	12.0	2.2	10.1	1.9	9.3	2.0									
	Top 25%	21.9	6.0	22.4	6.6	17.7	5.3									
*Spring 2012 thresholds for routes that serve Seattle core																
	Bottom 25%	22.8	9.8	30.6	9.9	19.1	5.8									
	Top 25%	45.4	14.8	54.3	15.5	31.5	9.0									

Potential for Major Reduction

	Any light shaded field is a risk factor
High	Service in the bottom 25% of one or both productivity measures AND has **none** or **above** for its corridor status OR peak routes not meeting peak criteria
Medium	Service in the bottom 25% of one or both productivity measures AND **at** its corridor status OR peak services meeting peak criteria
Low	Services not in the bottom 25% of one or both productivity measures OR corridors **below** target service levels

Medium potential for major reduction

Many routes that operate below the productivity threshold are not at a high potential for major reduction because they are providing important contributions to the All-Day and Peak Network at their current service level. These services are more likely to be reduced through targeted trip cuts or via a restructure that maintains segments or otherwise avoids the removal of these routes from the network. Also, when resources allow, these services may be involved in restructures that consolidate services in the high potential category with services in the medium category to create a stronger restructured service.

The tables that follow show which routes were identified as having a medium potential for major reduction in 2012. It is estimated that between 4 and 6 percent of Metro's system is at medium potential for major reduction.

Routes that are at medium potential for major reduction meet the following conditions:

- Services in the bottom 25 percent for one or both performance measures AND on a corridor at its target service level OR a peak service meeting one or both of the peak criteria.

The following routes are not shown on the list because they were either deleted or changed considerably since spring 2012:

2N Express, 14S, 17, 21, 23, 24, 27, 30, 31, 35, 37, 45 Express, 46, 54, 56, 57, 60, 123 Express, 125, 129, 134, 156, 162, 196, 219.

TABLE 16

Routes Below One or More Productivity Thresholds at Medium Potential for Major Reduction

Route	Description	Peak		Off Peak		Night		Corridor	Target Service Family	Peak Criteria		Corridor Status			Potential for Major Reduction	Time Period
		Boardings/ Plat Hour	Pass. Mi/ Plat. Mi.	Boardings/ Plat Hour	Pass. Mi/ Plat. Mi.	Boardings/ Plat Hour	Pass. Mi/ Plat. Mi.			Travel Time	Ridership	Peak	Off Peak	Night		
7EX*	Rainier Beach - Seattle CBD	28.8	7.2					Peak	Peak	Yes	No				Medium	Peak
8*	Rainier Beach - Seattle Center	49.4	10.9	42.7	9.6	35.3	7.3	78	Very Frequent			At	At	At	Medium	Off Peak
11*	Madison Park - Seattle CBD	57.8	9.0	62.8	9.5	47.8	5.7	59	Very Frequent			At	Below	Below	Medium	All
12*	Interlaken Park - Seattle CBD	55.9	10.7	46.0	12.3	26.1	5.3	22	Very Frequent			At	At	At	Medium	Night
19*	West Magnolia - Seattle CBD	39.6	11.1	37.2	13.1	18.4	6.1	12	Frequent				At		Medium	Peak
48NEX*	Loyal Heights - U District	25.5	6.3					Peak	Peak	No	Yes				Medium	Peak
70*	U District - Seattle CBD via Broadway	45.8	13.6	40.8	14.8	19.1	4.8	104	Very Frequent			At	At	At	Medium	Night
110	Tukwila Station - North Renton	13.3	1.7					Peak	Peak	Yes	No				Medium	Peak
114*	Renton HighlanSeattle CBD - Seattle CBD	22.3	13.1					Peak	Peak	Yes	No				Medium	Peak
118	Tahlequah - Vashon	18.9	4.6	10.2	2.5	6.0	1.5	91	Hourly			At	At	At	Medium	Night
121*	Highline CC - Seattle CBD	27.4	11.6	21.8	11.6			Peak	Peak	Yes	Yes				Medium	Off Peak
157*	Lake Meridian - Seattle CBD via Panther Lake	15.7	10.8					Peak	Peak	Yes	Yes				Medium	Peak
161*	Lake Meridian - Seattle CBD	17.1	9.7					Peak	Peak	Yes	No				Medium	Peak
175*	West Federal Way - Seattle CBD	13.5	10.7					Peak	Peak	Yes	No				Medium	Peak
190*	Redondo Heights - Seattle CBD	21.3	12.5					Peak	Peak	Yes	Yes				Medium	Peak
192*	Star Lake - Seattle CBD	19.2	11.5					Peak	Peak	Yes	No				Medium	Peak
197*	Twin Lakes - U District	19.3	15.8					Peak	Peak	Yes	No				Medium	Peak
201	S Mercer Island - Mercer Island P&R via Mercer Way	5.5	0.8					Peak	Peak	Yes	Yes				Medium	Peak
209	North Bend - Issaquah	6.8	3.2	8.7	4.3			42	Hourly			At	At	At	Medium	Peak/ Off Peak
210*	Issaquah - Seattle CBD via Factoria	11.0	5.0					Peak	Peak	Yes	No				Medium	Peak
215*	North Bend - Seattle CBD	19.4	11.5					Peak	Peak	No	Yes				Medium	Peak
224	Fall City - Redmond	6.1	2.7	6.8	3.5			82	Hourly			At	At	At	Medium	Peak/ Off Peak
235	Kingsgate - Bellevue	17.4	5.7	12.2	4.9	8.6	3.2	53	Frequent			At	Above	At	Medium	Night
243*	Jackson Park - Wilburton	25.0	9.8					Peak	Peak	Yes	No				Medium	Peak
255*	Brickyard - Seattle CBD	29.7	14.8	26.3	12.6	20.1	10.7	97	Very Frequent			At	At	At	Medium	Off Peak
257*	Brickyard - Seattle CBD	21.2	12.7					Peak	Peak	Yes	Yes				Medium	Peak
260*	Finn Hill - Seattle CBD	15.9	9.1					Peak	Peak	Yes	Yes				Medium	Peak
265*	Overlake - First Hill	17.3	8.8					Peak	Peak	Yes	No				Medium	Peak
268*	Bear Creek - Seattle CBD	22.3	13.2					Peak	Peak	Yes	No				Medium	Peak
269	Overlake - Issaquah	10.6	4.5	12.5	6.0	9.1	3.9	41	Local			At	Below	At	Medium	Peak/ Night
277*	Juanita - U District	12.6	5.0					Peak	Peak	Yes	Yes				Medium	Peak
Spring 2012 thresholds for routes that DO NOT serve Seattle core																
	Bottom 25%	12.0	2.2	10.1	1.9	9.3	2.0									
	Top 25%	21.9	6.0	22.4	6.6	17.7	5.3									
*Spring 2012 thresholds for routes that serve Seattle core																
	Bottom 25%	22.8	9.8	30.6	9.9	19.1	5.8									
	Top 25%	45.4	14.8	54.3	15.5	31.5	9.0									

Potential for Major Reduction

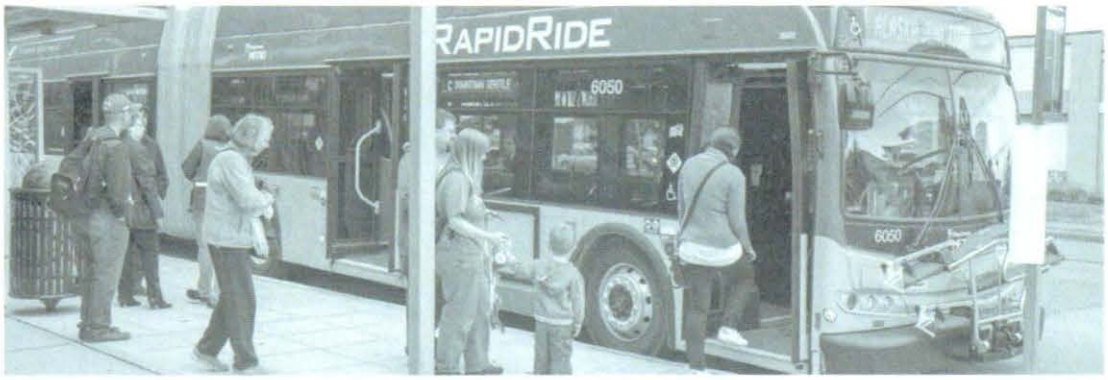
	Any light shaded field is a risk factor
High	Service in the bottom 25% of one or both productivity measures AND has **none** or **above** for its corridor status OR peak routes not meeting peak criteria
Medium	Service in the bottom 25% of one or both productivity measures AND **at** its corridor status OR peak services meeting peak criteria
Low	Services not in the bottom 25% of one or both productivity measures OR corridors **below** target service levels

(continued) Routes Below One or More Productivity Thresholds at Medium Potential for Major Reduction

Route	Description	Peak		Off Peak		Night		Corridor	Target Service Family	Peak Criteria		Corridor Status			Potential for Major Reduction	Time Period
		Boardings/ Plat Hour	Pass. Mi/ Plat. Mi.	Boardings/ Plat Hour	Pass. Mi/ Plat. Mi.	Boardings/ Plat Hour	Pass. Mi/ Plat. Mi.			Travel Time	Ridership	Peak	Off Peak	Night		
308*	Horizon View - Seattle CBD	21.7	11.5					Peak	Peak	Yes	Yes				Medium	Peak
311*	Duvall - Seattle CBD	19.7	12.3					Peak	Peak	Yes	Yes				Medium	Peak
600EX*	Seattle CBD - South Base	9.5	1.0					Peak	Peak	Yes	Yes				Medium	Peak
903DART	Twin Lakes - Federal Way TC	17.9	3.0	15.2	1.9	11.6	1.8	102	Local			At	At	At	Medium	Off Peak/ Night
907DART	Enumclaw - Renton			4.1	1.4			88	Hourly			At	At	At	Medium	Off Peak
909DART	Kennydale - Renton TC	10.8	1.9	9.6	2.1			47	Hourly			At	At	At	Medium	Peak/ Off Peak
913DART	Riverview - Kent TC	12.5	2.1					Peak	Peak	Yes	Yes				Medium	Peak
930DART	Redmond - Kingsgate	9.9	0.9	9.3	1.1			81	Local			At	Below	Below	Medium	Peak/ Off Peak
Spring 2012 thresholds for routes that DO NOT serve Seattle core																
Bottom 25%		12.0	2.2	10.1	1.9	9.3	2.0									
Top 25%		21.9	6.0	22.4	6.6	17.7	5.3									
*Spring 2012 thresholds for routes that serve Seattle core																
Bottom 25%		22.8	9.8	30.6	9.9	19.1	5.8									
Top 25%		45.4	14.8	54.3	15.5	31.5	9.0									

Potential for Major Reduction

	Any light shaded field is a risk factor
High	Service in the bottom 25% of one or both productivity measures AND has **none** or **above** for its corridor status OR peak routes not meeting peak criteria
Medium	Service in the bottom 25% of one or both productivity measures AND **at** its corridor status OR peak services meeting peak criteria
Low	Services not in the bottom 25% of one or both productivity measures OR corridors **below** target service levels



SECTION 4

THE GUIDELINES AT WORK

Metro revises service three times each year, in the spring, summer, and fall. In 2012, Metro made service changes in February, June and September using the service guidelines. The changes were prompted by the planned start of two RapidRide lines and by Ordinance 17169, in which the County Council directed Metro to reinvest at least 100,000 annual service hours to make Metro more efficient and productive; and to eliminate the Ride Free Area (RFA).

In each service change, we reduced or deleted routes with relatively low productivity and invested hours where needed to reduce overcrowding, improve reliability or bring service up to target levels. These changes were designed to make better use of transit resources and to take advantage of new investments by reorganizing service to reduce duplication, provide more frequent service where it is most needed, and offer new and better connections for transit riders.

February 2012 service changes

In February 2012, Metro replaced fixed-route service on three routes with dial-a-ride transit (DART) service. These three routes served communities in southeast and northeast King County including parts of Black Diamond, Bothell, Enumclaw, Maple Valley, Redmond, Renton, and Woodinville. The routes were lower productivity services, but represented the last or only connection in some areas they served. Transitioning these routes to DART service allowed Metro to maintain connections in these communities while saving money by providing lower-cost service in these areas.

Examples of delivering geographic value and promoting social equity in the 2012 service changes:

- Frequent, all-day connections are provided by the RapidRide C and D lines between downtown Seattle and Uptown regional growth and jobs centers, the Ballard/ Interbay manufacturing/industrial center and the transit activity centers of Alaska Junction, Crown Hill, and Westwood Village.
- More frequent, direct, and reliable service provides better connections to more places for historically disadvantaged and low-income populations.
- Service is more frequent in areas with diverse and low-income communities such as Burien, SeaTac, South Park, and White Center.
- More frequent east-west connections increase mobility and travel options for all riders, such as routes 31 and 32 between Interbay, Fremont, and the University of Washington and Route 50 between West Seattle, SODO, and southeast Seattle.
- Conversion of three higher cost fixed-route services in northeast and southwest King County with dial-a-ride transit (DART) provides more flexible, less costly service to lower density areas in lieu of service reductions.

June 2012 service changes

In June 2012, Metro reduced or deleted 15 routes that had low productivity. We reinvested the service hours, adding trips to eight routes to relieve crowding and revising schedules for 17 routes to improve reliability.

We also added evening service seven days a week on Route 180, which serves the corridor between Burien, SeaTac, Kent, and Auburn. This corridor was targeted for 30-minute night service but had no night service after about 7:30 p.m. between Burien, SeaTac, and Kent.

The total reinvestment in June of more than 30,000 hours met needs that were identified in the 2011 guidelines report. Not only did the reinvestment make Metro more efficient and productive, preliminary information indicates that reliability investments have improved on-time performance on many of the routes that received additional service hours.

June 2012 changes

Service quality investments

Trips were added to these routes:
1, 8, 9, 41, 44, 73, 128, 169

Schedules were changed for these routes:
5, 7, 8, 16, 22, 31, 33, 43, 48, 49, 60, 68, 106, 128, 166, 205, 309

Service reductions

Routes reduced:
25, 99, 119, 139, 935

Routes deleted:
38, 79, 129, 162, 175, 196, 219, 600, 912, 925

September 2012 service changes

The September 2012 service change was the largest change Metro has made in recent history. It was the first large restructure to be implemented under the new guidelines. The box below has more information about what the guidelines say about restructures.

Routes representing almost one-quarter of the total Metro system hours were affected by the 2012 service change. We started the RapidRide C and D lines, revised more than 50 routes, and eliminated the Ride Free Area in downtown Seattle. These changes were designed to improve the effectiveness of transit and provide better connections for riders. Metro reduced low-performing routes by more than 65,000 hours and invested those hours to relieve crowding, improve reliability, and improve corridors that were below their target service levels. Fifteen routes with low productivity were reduced or deleted, and three were revised substantially with the goal of attracting more riders. The average productivity of routes that were reduced was 25.6 rides per hour, while the average productivity of routes receiving investments was 36.2 rides per hour.

When does Metro restructure service?

A service restructure changes a number of routes in an area at once. Metro restructures service to improve the efficiency and effectiveness of the transit network, reduce duplication and ensure good service design as outlined in the service design guidelines. Restructuring is also one way to improve service in underserved corridors when we don't have new resources.

The service guidelines list the following triggers for restructuring service:

- Metro or Sound Transit starts a major new service.
- Transit service does not reflect changed travel patterns or transit demand.
- Transit services overlap.
- Service does not match ridership.
- A major transportation change takes place, such as the start of SR-520 bridge tolling.
- A major development or land-use change takes place.

Metro may restructure service in the next few years for the following purposes:

- Reduce duplication and improve performance of routes serving Renton when the F Line starts.
- Reduce duplication and improve performance in Issaquah, Magnolia, and Mercer Island.
- Make changes to maintain high-performing all-day service in Kent East Hill after grant funding expires in 2014.
- Improve performance and directness of travel in Juanita/Bothell/Kirkland/Woodinville.

Elimination of the Ride Free Area

With the elimination of the RFA, Metro transitioned to a systemwide "pay on entry" fare collection system. This change meant that all riders pay as they enter the bus, making the system simpler to understand and use. However, bus travel times were expected to increase in downtown Seattle as a result of this change, so Metro also revised several routes serving the downtown core to improve the flow of buses through this area. These changes included eliminating or revising existing through routes, eliminating some routes that serve downtown to reduce duplication, shifting some routes to other downtown pathways, and changing stop patterns of particular routes.

Service quality investments

The C and D line restructures gave Metro an opportunity to more closely examine and address routes with service quality issues that had been identified through the service guidelines analysis. Key investments in service quality included additional trips and route revisions to improve reliability. For example, more frequent service was added to Route 128 to reduce overcrowding and accommodate an expected increase in riders.

Metro also had an opportunity to reschedule several routes as part of the C and D line restructure, allowing us to improve on-time performance by creating schedules that better reflected the actual running times.

September 2012 service quality investments

Trips were added to this route: 128

These routes were shortened to improve reliability: 5, 28, 30, 75, 131, 132

These routes were no longer through-routed to improve reliability: 36, 125, 40 (replaced parts of Route 17)

Two major types of changes were made beyond simply rescheduling service. First, some routes were shortened and replaced by other services. Shorter routes are generally more reliable because there is less time and distance for routes to get off-schedule. Second, some routes were no longer through-routed. Through-routing is when a bus travels into a major center such as downtown Seattle as one route and travels out of the center as a different route. Through-routing is an efficient way to schedule service, but it can cause unreliable service because any delays on the inbound portion of the through-route are carried through to the outbound route.

Investments in corridors below target service levels and other All-Day Network corridors

The largest investments made as part of the restructure were to meet or move towards target service levels identified through our guidelines process. We met or moved towards target service levels on the corridors below through service improvements on routes 131, 132, and 166 and the start of the RapidRide C Line and routes 40 and 50.

- Kent and Burien via Kent-Des Moines Road, S 240th Street, First Avenue S (Route 166) was improved from hourly to every 30 minutes off-peak and night periods.
- West Seattle and Seattle CBD via Alaska Junction and Fauntleroy (C Line) was improved to every 10-15 minutes all day.
- Ballard and Lake City via Northgate (new Route 40) was improved to every 15 minutes or better during the peak period.

Improved service between Burien, South Park, SODO, and downtown Seattle

Routes 131 and 132 serve All-Day Network corridors between Burien, South Park, and downtown Seattle.

Both corridors were identified as underserved in 2011, and both routes had poor reliability.

With the restructure:

- Service comes every 15 minutes on Fourth Avenue S through SODO
- Both routes arrive more frequently
- Both routes are faster, more direct, and more reliable

- Othello Station and Columbia City via Seward Park (new Route 50) was improved to every 30 minutes during the off-peak period.
- Burien and downtown Seattle via First Avenue S, South Park, Airport Way (Route 131) was improved to every 30 minutes during the off-peak period.
- Burien and downtown Seattle via Des Moines Memorial Drive South Park (Route 132) was improved to every 30 minutes during the off-peak and night periods.

As part of the restructure we also used the service design guidelines, which are principles and quantitative standards for designing the transit network and individual routes. As we redesigned the network around the C and D lines, our major purposes were to provide an efficient network, reduce duplication between services so they wouldn't compete for the same riders, and make the network simple and easy for riders to understand.

We reduced duplication by adjusting routes to connect with and feed into the RapidRide lines rather than compete with them between neighborhoods and downtown Seattle. We improved connections and made transfers easier by creating common transfer points between multiple routes at major centers (see box about Westwood Village).

Example of how we use the service design guidelines: creating frequent connections at Westwood Village

With the September 2012 service change, the C Line and four more routes were designed to connect to Westwood Village. This network design provides a connection point between many routes and strives to make transfers easier. More frequent service and connections are available with the listed routes in the table.

Route	Description		Weekday Frequencies		
			Peak	Midday	Evening
21	Westwood Village	CBD Seattle	15	15	30
60	Westwood Village	Capitol Hill	20	20	30-60
120	Burien	CBD Seattle	8-15	15	30-60
125	SSCC	CBD Seattle	20	30	45
C Line	Westwood Village	CBD Seattle	10-15	15	15-30

Service reductions

The guidelines help us identify services that could potentially be revised or reduced, with the hours reinvested to meet other needs. In September, we made changes to many poorly performing routes. We reduced some trips or deleted service in some times of day on routes where productivity was low but where some service was needed to provide connections and meet demand.

We significantly rerouted or revised several routes that had low productivity. In some cases, we deleted service to lower-ridership areas while maintaining service between activity centers. Reducing service to lower-ridership areas and focusing service in the busiest areas can improve productivity.

Metro deleted routes with low productivity. Many of the areas served by the deleted routes had alternative routes nearby, or replacement service was planned that was significantly different.

September 2012 service reductions

Routes reduced: 37, 55, 56, 125

Routes revised: 21, 22, 131, 132

Routes deleted: 23, 34, 39, 45, 46, 53, 81, 85, 133, 134

SECTION 5

USING THE GUIDELINES TO FACE A MAJOR FUNDING SHORTFALL

Metro's funding shortfall

Since the service guidelines were adopted in July 2011, Metro has been using them to improve the transit system by delivering productive, high quality service where it's needed most. This year, we have begun using the guidelines for a different purpose: to prepare for a major reduction of the transit system that may be necessary because of a severe financial challenge facing Metro.

Starting in mid-2014, after some stop-gap funding runs out, Metro's annual revenues are projected to fall $75 million short of what is needed to maintain the current level of service. This shortfall—caused by a steep decline in sales tax revenue—remains despite many steps taken since 2008 to substantially narrow Metro's budget gap. Actions include reducing staff and overhead, finding new efficiencies, tapping reserve funds, raising fares, and adopting a congestion reduction charge to provide supplemental funding for two years while new revenue sources are considered.

If Metro does not receive additional revenue, up to 17 percent of current service—about 600,000 annual service hours—might have to be eliminated, even though ridership is expected to grow past the record levels seen before the recession. Service cuts would begin as early as September 2014.

What might happen without additional funding: an illustration

This section illustrates potential system reductions that Metro might have to make if additional funding is not available.

This is not a service change proposal, but rather an illustration of the potential impact a 17 percent service reduction would have: roughly 70 percent of routes might be deleted, reduced or revised, leading to broad impacts on the entire public transportation network, a large portion of Metro's customers, and communities across King County. Impacts would include fewer travel options for riders, more-crowded and less-reliable buses, and worse traffic congestion.

A formal service reduction proposal would require a more detailed, comprehensive analysis of updated data and a robust outreach process to gather public comments and suggestions. We would also consider opportunities to cut costs yet maintain an effective network through restructures. A final proposal would have to be approved via ordinance by the King County Council. Metro's adopted 2013/14 budget assumes that an initial reduction of 150,000 annual service hours would be adopted by the council in spring 2014 and would occur in September 2014.

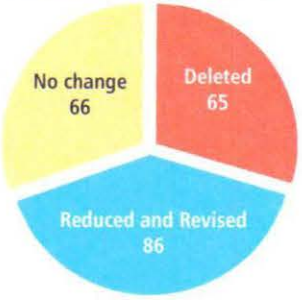
Potential 17-percent reduction

We used the service guidelines described in Section 3 as the basis for this illustration of where and when service might be reduced. We identified reduction priorities by considering each route's productivity and how it contributes to the corridor's target service level. The box below provides a more detailed summary of the guidelines for reducing service.

For this illustration we analyzed all Metro routes in service as of spring 2013 (except for school and custom bus routes). The routes are listed in Table 17 and shown in Figure 8. The analysis found the following:

- **Roughly one-third of Metro's routes (65 routes) might be deleted.** Many of these routes are in the bottom 25 percent for one or both productivity measures, but some more-productive routes would also have to be deleted. Many of these higher-productivity routes are peak-only routes that do not meet our peak speed or ridership criteria.
- **An estimated 40 percent of Metro's routes (86 routes) might be reduced or revised.** These routes would run less frequently, run for fewer hours each day, or have different or shorter routings. About half of these routes are performing in the bottom 25 percent for one or both productivity measures. The other half are higher-productivity routes that would be reduced and/or revised, or modified as part of a restructure, to improve service efficiency.

Potential Number of Routes in Each Category



- **Roughly one-third of Metro's routes (66 routes) might remain unchanged,** but even these unchanged routes are likely to carry more people and be more crowded in a reduced transit network. These routes typically are in the top 25 percent on one or both performance measures, or have been revised since spring 2012 to improve their performance and system efficiency.

Illustrations of route reductions and changes that might be made in eight areas of the county to make up a total 17 percent reduction are described beginning on page 48.

In an actual service change proposal, the estimated number of deletions, reductions and changes would likely be altered through consideration of current data, additional restructures, and public input.

Guidelines methodology for reducing service

The first routes considered for reduction are those that perform in the bottom 25 percent on one or both productivity measures: **rides per platform hour** and **passenger miles per platform mile.**

Reductions can range from deleting a single trip to eliminating an entire route.

However, not all services performing in the bottom 25 percent are priorities for major reduction. Metro strives to maintain service at the target levels for corridors in our transit network, which were set on the basis of productivity, social equity, and geographic value. This means that we would keep some routes that are performing in the bottom 25 percent because, for example, they provide the only transit connection to a community or serve a community with a low-income or minority population.

Why reducing routes in the bottom 25 percent is not enough

The routes that perform in the bottom 25 percent for productivity are a starting point for potential service reductions, but additional cuts would be needed to reach a 600,000-hour reduction target. All of Metro's low-performing routes add up to only about 490,000 hours*. In addition, as explained above, some routes in the bottom 25 percent would be maintained to support other policy objectives. With a 600,000-hour reduction, the remaining cuts would have to come from services that have higher productivity and would normally be at low risk for reduction.

*Does not include routes that have been changed since spring 2012

Service restructuring—making changes to multiple routes along a corridor or within an area—can improve efficiency and reduce operating costs while retaining more riders. However, restructuring more service means a greater degree of change to the network that can be stressful for riders and operations. This illustration included only a limited consideration of potential restructures. A final service proposal would involve a more-thorough analysis of restructures.

Public engagement is part of any major service change and helps shape Metro's service proposals. For example, during the September 2012 service change process, thousands of people commented on our proposed service revisions, and we made many modifications as a result of what we heard. Public input would shape the composition of any major service-reduction proposal, but it would not change the financial imperative to cut service to match available revenue.

Potential impacts

A 17 percent reduction of Metro service could directly affect as many as 70 percent of Metro's routes and have a broad impact on the entire public transportation network and a large portion of Metro's customers. Our services are part of an integrated transportation system, in which services work together to get people where they want to go. Today as many as one-third of our customers make trips that involve transfers. For many of these riders, connections would become less convenient or impossible if services were eliminated or reduced.

The effectiveness of the overall transit network would be diminished. A reduced transit network would shrink the number of places people could go, limit where and how often they could travel, and increase the time that trips would take. People would have to walk farther or wait longer for a bus; many would ride crowded buses, or be left at the curb as full buses pass them by. Overall, the system would be less convenient, attractive, and functional for many riders. Many riders might stop using transit as a result.

Here are some examples of what a reduced network could mean:

- **Elimination or reduction of as many as 70 percent of the routes in the system would affect all types of services, not just those that are low-performing.**
- **Reduced neighborhood access to transit.** Many people in neighborhoods throughout King County would get less service, or would lose service entirely.
- **Longer, less-convenient trips to work and school.** Fifty-five percent of Metro's riders take the bus to school or work. Riders would have to wait longer, walk farther, make extra transfers or stand in the aisle more often. Some might not be able to get to their jobs or classes.
- **Increased traffic congestion.** Metro service takes about 175,000 vehicles off the road every weekday—largely during the busiest times of day on the most heavily used corridors. Major service reductions would send thousands of people back into their cars, worsening congestion and slowing traffic for everyone by adding tens of thousands of new car trips to King County's already-congested roadways.
- **Impacts on economic growth.** More than 1,500 businesses, the University of Washington, and other institutions provide bus passes to their employees or students; they rely on transportation to get people to work on time, manage parking, and help reduce traffic congestion. Cuts to the transit system would affect our local economy as people would have a harder time getting to work and increased congestion would make it harder to move goods and deliver services.
- **Impacts on those who depend on transit.** People who rely solely or heavily on transit would have fewer travel choices because there would be fewer bus stops, fewer routes, and less service on remaining routes.
- **Decreased accessible service options.** With less fixed-route service and fewer bus stops, riders with disabilities would have fewer opportunities to use Metro's fixed-route system. The Access Transportation service area could also become smaller if the service network shrinks, reducing the area in which Metro is required by the Americans with Disabilities Act to provide complementary paratransit service.

TABLE 17

Routes Potentially Affected in a Reduction of Up to 600,000 Service Hours[1]

	Total Service Hours
From Potential Route Deletions	250,000 – 300,000
From Potential Route Reductions/Revisions	390,000 – 440,000
Target Reduction Amount	600,000

Routes Potentially Deleted	
7EX	192
19	197
21EX	200
22	201
25	203
27	205EX
30	210
37	211EX
48NEX	213
57	215
61 (17)*	216
76	237
77EX	243
82	244EX
83	250
84	257
99	260
110	265
113	268
114	277
118EX	280
119	304
119EX	308
123EX	601EX (600EX)*
139	907DART
152	910DART
154	913DART
157	914DART
159	919DART
161	927DART
173	930DART
179	935DART
190	

Routes Potentially Reduced and Revised		
1	48N	221
2S	60	224
2N	65	226
3S	66 EX	232
3N	67	234
4S	68	235
4N	70	236
5	71	238
5 EX	72	241
7	73	245
8	106	246
9EX	107	248
10	116EX	249
11	118	255
12	121	269
14S	122	271
16	125	309EX
21	148	311
24	156	312EX
26	177	331
26 EX	181	355EX
28	182	372EX
28 EX	186	373 EX
29 (2NEX)*	187	901DART
31	193EX	903DART
36	202	908DART
41	204	909DART
43	209	931DART
47 (14)*	214	

Routes Potentially Unchanged		
13	124	242
15EX	128	252
17EX	131**	301
18EX	132**	303EX
32	140	306EX
33**	143EX	316
40	150	330
44	153	342
48S	155	345
49	158	346
50	164	347
55**	166	348
56**	167	358EX
62	168	A Line
64EX	169	B Line
74EX	178	C Line (54)
75	180	D Line (15)
101	183	773
102	212	775
105	217	915DART
111	218	916DART
120	240	917DART

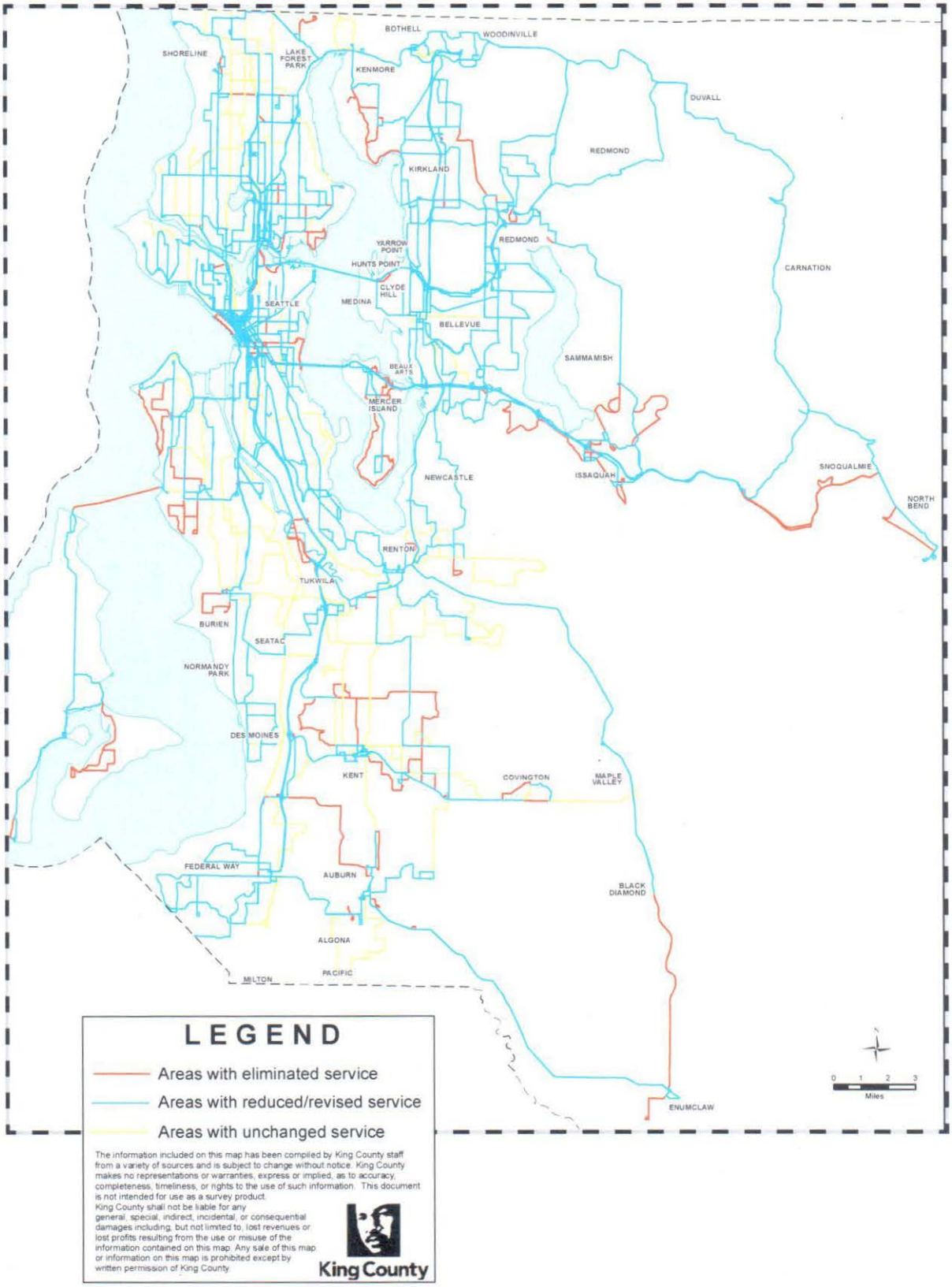
** Routes not reduced because we expect productivity to be above the bottom 25% threshold due to changes since spring 2012

Routes in the bottom 25% for productivity

1 Includes all Metro routes in service as of spring 2013 except school and custom bus routes

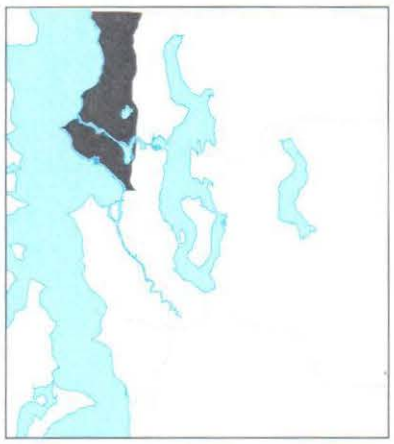
FIG. 8

Potential Metro Service Reductions–Up to 600,000 Annual Service Hours



Service reduction illustration: northwest Seattle/north King County

In this illustration, bus trips and hours of service are reduced or changed on about 25 routes in northwest Seattle and north King County. Many routes in this area were recently changed or eliminated as part of a major service restructure in 2012.



Possible service reductions

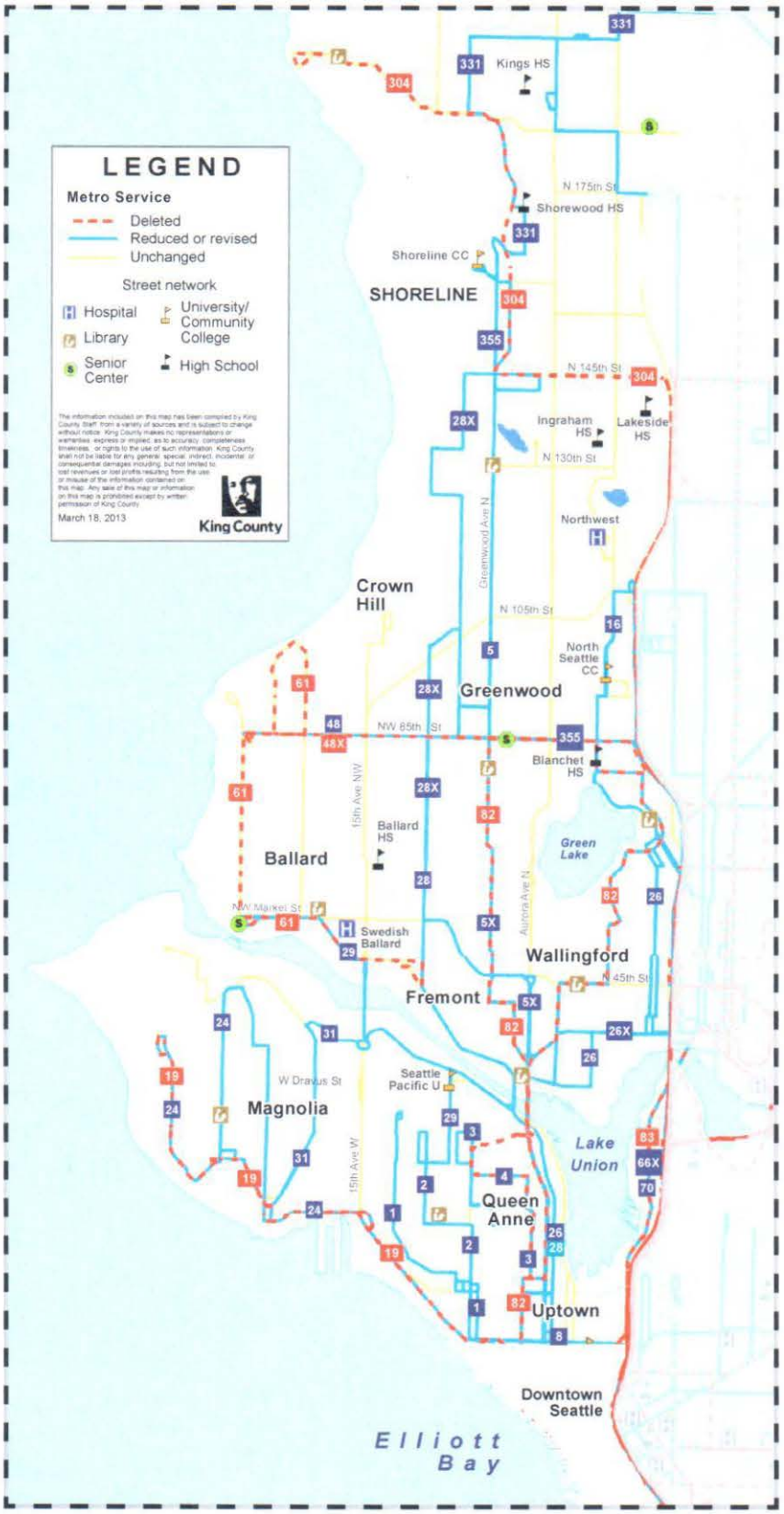
- All-day service—Parts of Shoreline (N 145th Street) could lose all service. North Beach, Sunset Hill (32nd Avenue NW), and west Queen Anne (10th Avenue W) could lose all non-peak-period service.
- Peak service—Riders traveling to downtown Seattle, the University District, and Uptown during peak travel periods could see a reduction in service, which could create crowded conditions. Some riders who currently have direct trips could have to transfer to get to their destinations.
- Midday/weekend service—Green Lake, Greenwood, Loyal Heights, Magnolia, Queen Anne, Shoreline, Uptown, and Wallingford could see reductions in services during off-peak periods.
- Night service—Eastlake, Fremont, Green Lake, Greenwood, Loyal Heights, Queen Anne, Seattle Center, Shoreline, South Lake Union, Uptown, and Wallingford could see reductions in night service.
- Other changes—In addition to the reductions listed above, some routes could be modified to be more direct or to serve different markets.

Many riders would have to change the way they travel. Metro would work to accommodate riders on major transit corridors, but some trips would no longer have the capacity to meet the demand for service. Riders on major routes could experience very crowded buses. They could also be passed up by full buses more often, and might have to adjust how they travel as a result of the changes. Metro might have to make further reductions in lower-priority areas in order to provide adequate service levels on major transit corridors.

- Routes that could change: 1, 2, 3, 4, 5, 5X, 8, 16, 19, 24, 26, 26X, 28, 28X, 29, 31, 48, 48X, 61, 66X, 70, 82, 83, 304, 331, 355.
- Other routes that could experience crowding and reliability issues: 13, 32, 40, 44, 330, 345, 346, 358X, RapidRide D Line.

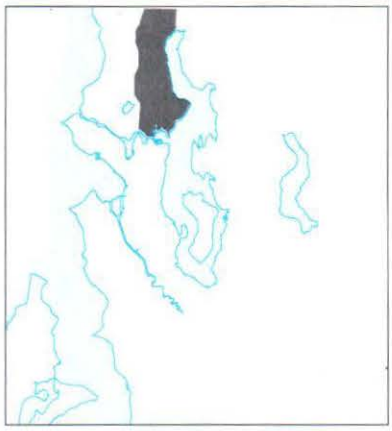
FIG. 9

Service Reduction Illustration: Northwest Seattle/North King County



Service reduction illustration: northeast Seattle/north King County

In this illustration, bus trips and hours of service are reduced or changed on about 20 routes in northeast Seattle and north King County.



Possible service reductions

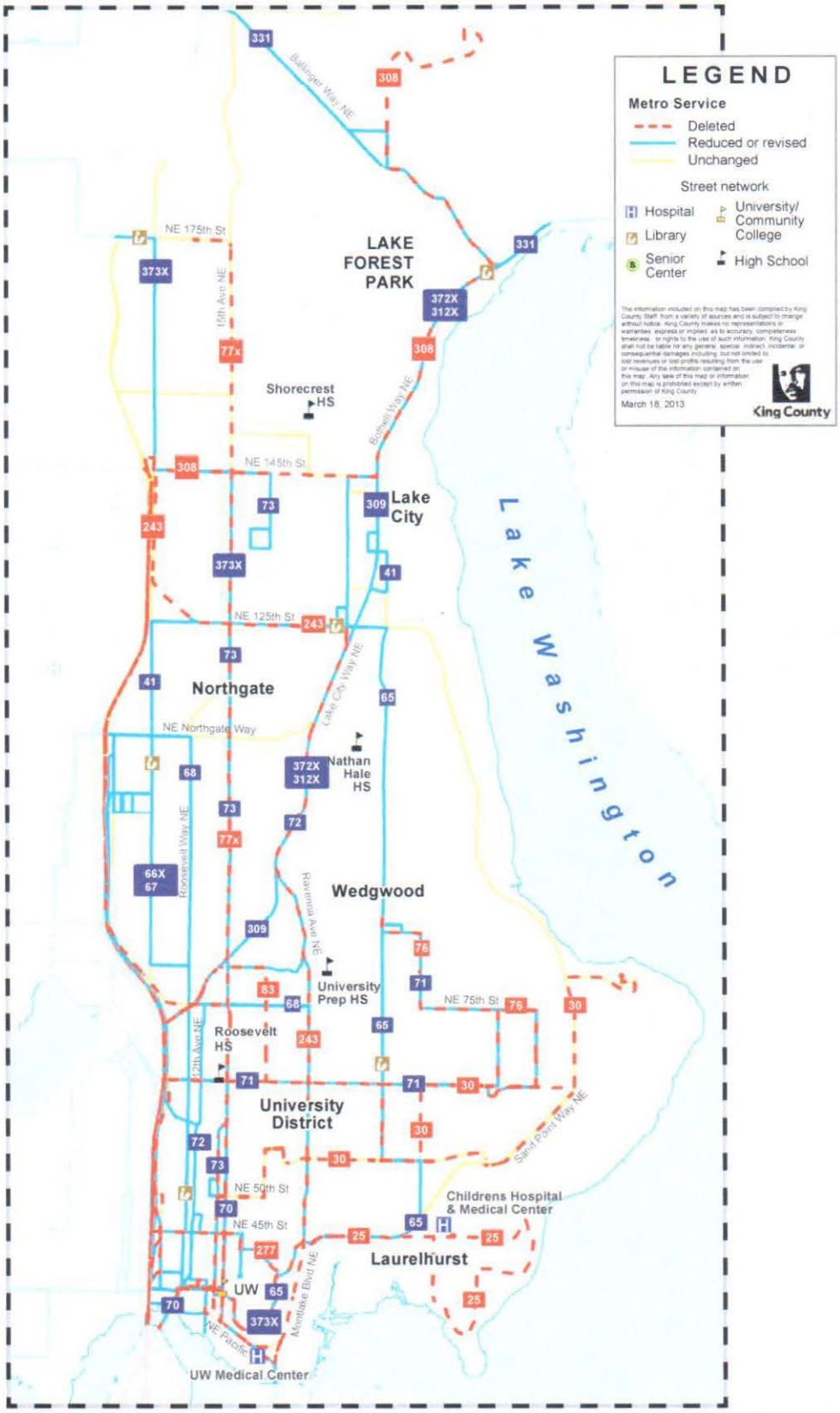
- All-day service—Parts of Lake Forest Park (35th Avenue NE and NE 197th Street) and Laurelhurst (east of 40th Avenue NE/NE 45th Street) could lose all service.
- Peak service—Riders traveling to Bellevue, downtown Seattle, First Hill, and the University District during peak travel periods could see reductions in service, which could create crowded conditions. Some riders who currently have direct trips could have to transfer to get to their destinations.
- Midday/weekend service—Sand Point, Shoreline, and the University District could see reductions in service during off-peak travel periods.
- Night service—Lake City, Laurelhurst, Maple Leaf, Sand Point, Shoreline, the University District, and Wedgewood could see reductions in night service .
- Other changes—In addition to the reductions listed above, some routes could be modified to be more direct or to serve different markets.

Many riders would have to change the way they travel. Metro would work to accommodate riders on major transit corridors, but some trips would no longer have the capacity to meet the demand for service. Riders on major routes could experience very crowded buses. They could also be passed up by full buses more often, and might have to adjust how they travel as a result of the changes. Metro might have to make further reductions in lower-priority areas in order to provide adequate service levels on major transit corridors.

- Routes that could change: 25, 30, 41, 65, 66X, 67, 68, 70, 71, 72, 73, 76, 77X, 83, 243, 277, 308, 309X, 312X, 331, 372, 373X.
- Other routes that could experience crowding and reliability issues: 31, 32, 75, 330, 347, 348.

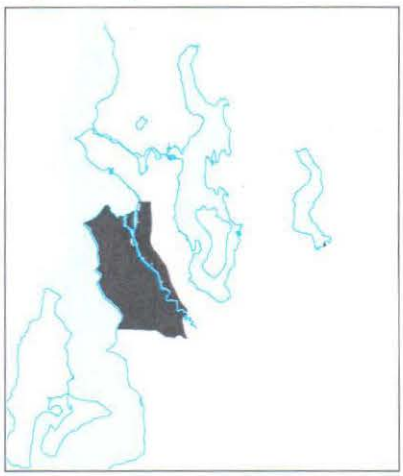
FIG. 10

Service Reduction Illustration: Northeast Seattle/North King County



Service reduction illustration: southwest Seattle/south King County

In this illustration, bus trips and hours of service are reduced on about 20 routes in southwest Seattle and south King County. Many routes in this area were recently changed or eliminated as part of a major service restructure in 2012.



Possible service reductions

- All-day service—Arbor Heights, Gatewood, Genesee Hill, Shorewood, and Beach Drive SW could lose all service.
- Peak service—Riders traveling to the Boeing industrial and Duwamish areas, downtown Seattle, and West Seattle during peak travel periods could see a reduction in service, which could create crowded conditions. Some riders who currently have direct trips could have to transfer to get to their destinations.
- Midday/weekend service—High Point (35th Avenue SW), North Delridge, and South Seattle Community College could see reductions in service during off-peak travel periods.
- Night service—Georgetown, South Park, and White Center could see reductions in night service.

Many riders would have to change the way they travel. Metro would work to accommodate riders on major transit corridors, but some trips would no longer have the capacity to meet the demand for service. Riders on major routes could experience very crowded buses. They could also be passed up by full buses more often, and might have to adjust how they travel as a result of the changes. Metro might have to make further reductions in lower-priority areas in order to provide adequate service levels on major transit corridors.

- Routes that could change: 21, 21X, 22, 37, 57, 60, 106, 113, 116, 118X, 119X, 121, 122, 123, 125, 154, 173, 601.
- Other routes in this area that could experience crowding and reliability issues: 50, 120, 124, 128, 131, 132, RapidRide C Line.

FIG. 11

Service Reduction Illustration: Southwest Seattle/South King County

Service reduction illustration: central and southeast Seattle/south King County

In this illustration, bus trips and hours of service are reduced on about 40 routes in central and southeast Seattle and south King County.

Possible service reductions

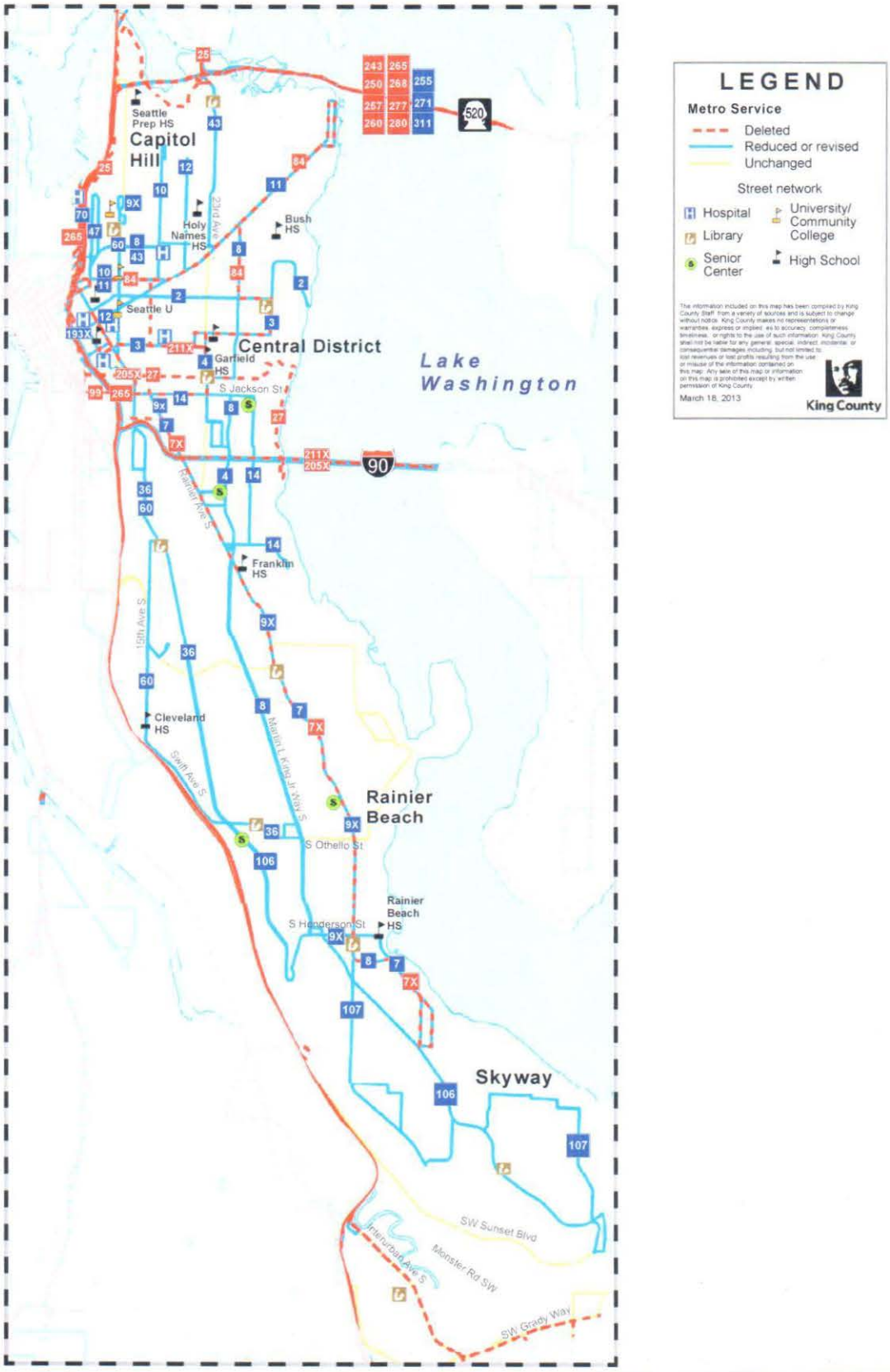
- All-day service—Leschi and parts of Eastlake and Montlake (Lakeview Boulevard, Harvard Avenue E, E Lynn Street) could lose all service.
- Peak service—Riders traveling to Bellevue, downtown Seattle, First Hill, Rainier Beach, and the University District during peak travel periods could see a reduction in service, which could create crowded conditions. Some riders who currently have direct trips could have to transfer to get to their destinations.
- Midday/weekend service—Capitol Hill, the Central District, First Hill, Madrona, and Rainier Beach could see reductions in services during off-peak travel periods.
- Night service—Beacon Hill, Capitol Hill, the Central District, Eastlake, First Hill, Madison Park, Madrona, Montlake, Mount Baker, Rainier Beach, and Skyway could see reductions in night service.
- Other changes—In addition to the reductions listed above, some routes could be modified to be more direct or to serve different markets.

Many riders would have to change the way they travel. Metro would work to accommodate riders on major transit corridors, but some trips would no longer have the capacity to meet the demand for service. Riders on major routes could experience very crowded buses. They could also be passed up by full buses more often, and might have to adjust how they travel as a result of the changes. Metro might have to make further reductions in lower-priority areas in order to provide adequate service levels on major transit corridors.

- Routes that could change: 2, 3, 4, 7, 7X, 8, 9X, 10, 11, 12, 14, 25, 27, 36, 43, 47, 60, 70, 84, 99, 106, 107, 114, 193X, 205X, 210, 211X, 215, 216, 243, 250, 255, 257, 260, 265, 268, 271, 277, 311.
- Other routes that could experience crowding and reliability issues: 49, 50, 101.

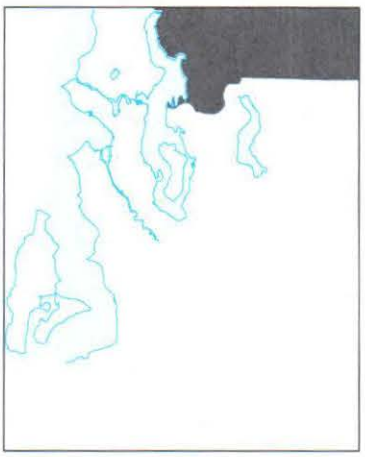
FIG. 12

Service Reduction Illustration: Central And Southeast Seattle/South King County



Service Reduction Illustration: east King County–north

In this illustration, bus trips and hours of service are reduced or changed on about 25 routes in the north part of east King County.



Possible service reductions

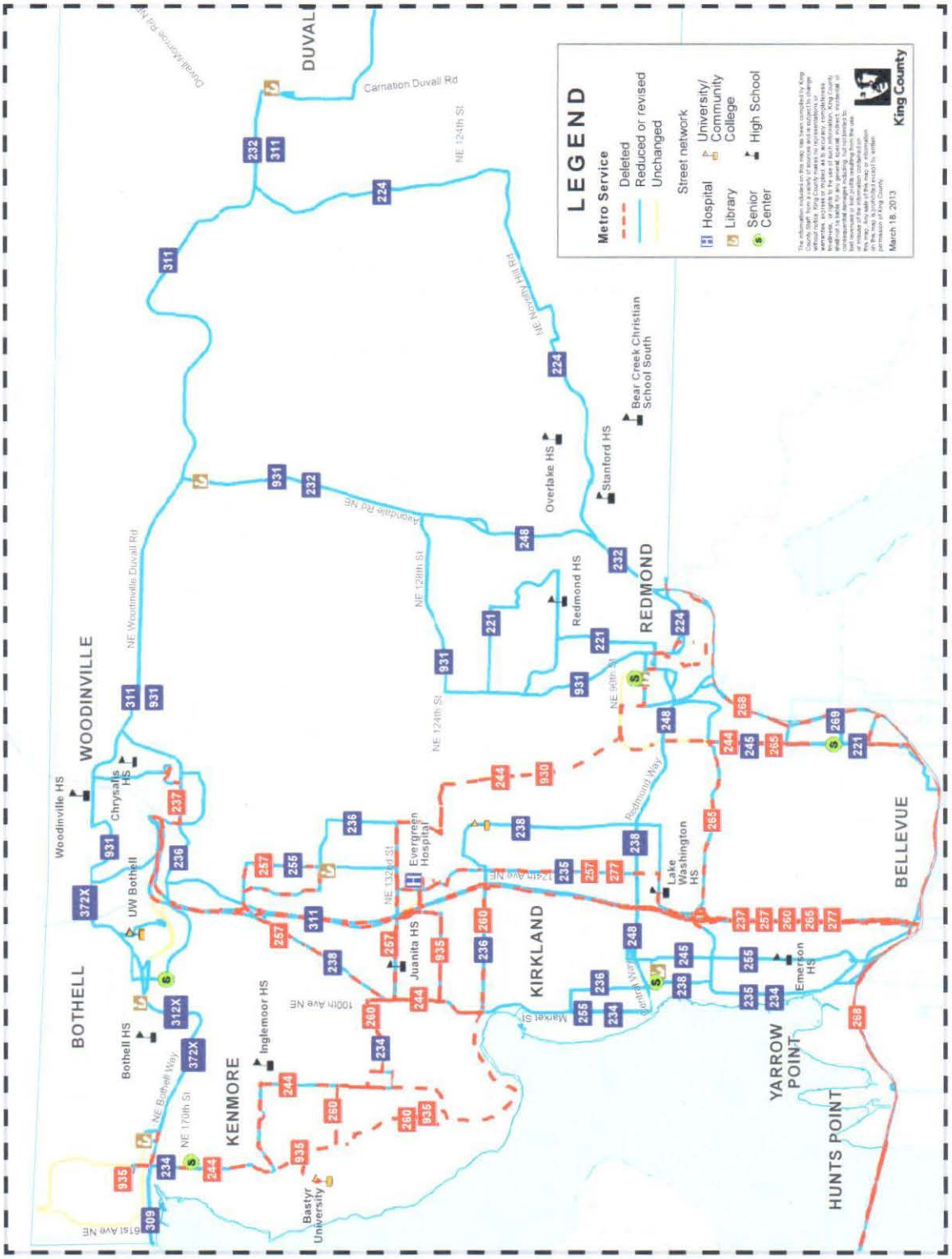
- All-day service—Parts of Juanita could lose all service.
- Peak service—Riders traveling to Bellevue, Eastgate, downtown Seattle, First Hill, Issaquah, Kirkland, Overlake, Redmond, and the University District during peak travel periods could see a reduction in service, which could create crowded conditions. Some riders who currently have direct trips could have to transfer to get to their destinations.
    - Competition for already scarce parking spaces at the Brickyard, Kingsgate, Redmond, Overlake, and South Kirkland park-and-rides could increase. Commuter routes crossing SR-520 to downtown Seattle and the University District could be less frequent and often overcrowded.
- Midday/weekend service—Avondale, Bothell, Education Hill, Kenmore, Kingsgate, Redmond, and Woodinville could see reductions in services during off-peak travel periods.
- Night service—Avondale, Bothell, Juanita, Kenmore, Kirkland, and Woodinville could see reductions in night service.

Many riders would have to change the way they travel. Metro would work to accommodate riders on major transit corridors, but some trips would no longer have the capacity to meet the demand for service. Riders on major routes could experience very crowded buses. They could also be passed up by full buses more often, and might have to adjust how they travel as a result of the changes. Metro might have to make further reductions in lower-priority areas in order to provide adequate service levels on major transit corridors.

- Routes that could change: 221, 224, 232, 234, 235, 236, 237, 238, 244, 245, 248, 255, 257, 260, 265, 268, 269, 277, 309, 311, 312, 372, 930, 931, 935.
- Other routes that could experience crowding and reliability issues: RapidRide B Line.

FIG. 13

Service Reduction Illustration: East King County–North



Service reduction illustration: east King County – south

In this illustration, bus trips and hours of service are reduced or changed on about 35 routes in the south part of east King County.

Possible service reductions

- All-day service—Parts of Issaquah, Mercer Island, North Bend, and Sammamish could lose all service.
- Peak service—Riders traveling to Bellevue, Eastgate, Factoria, Issaquah, Mercer Island, Overlake, Redmond, downtown Seattle, and the University District during peak travel periods could see a reduction in service, which could create crowded conditions. Some riders who currently have direct trips could have to transfer to get to their destinations.

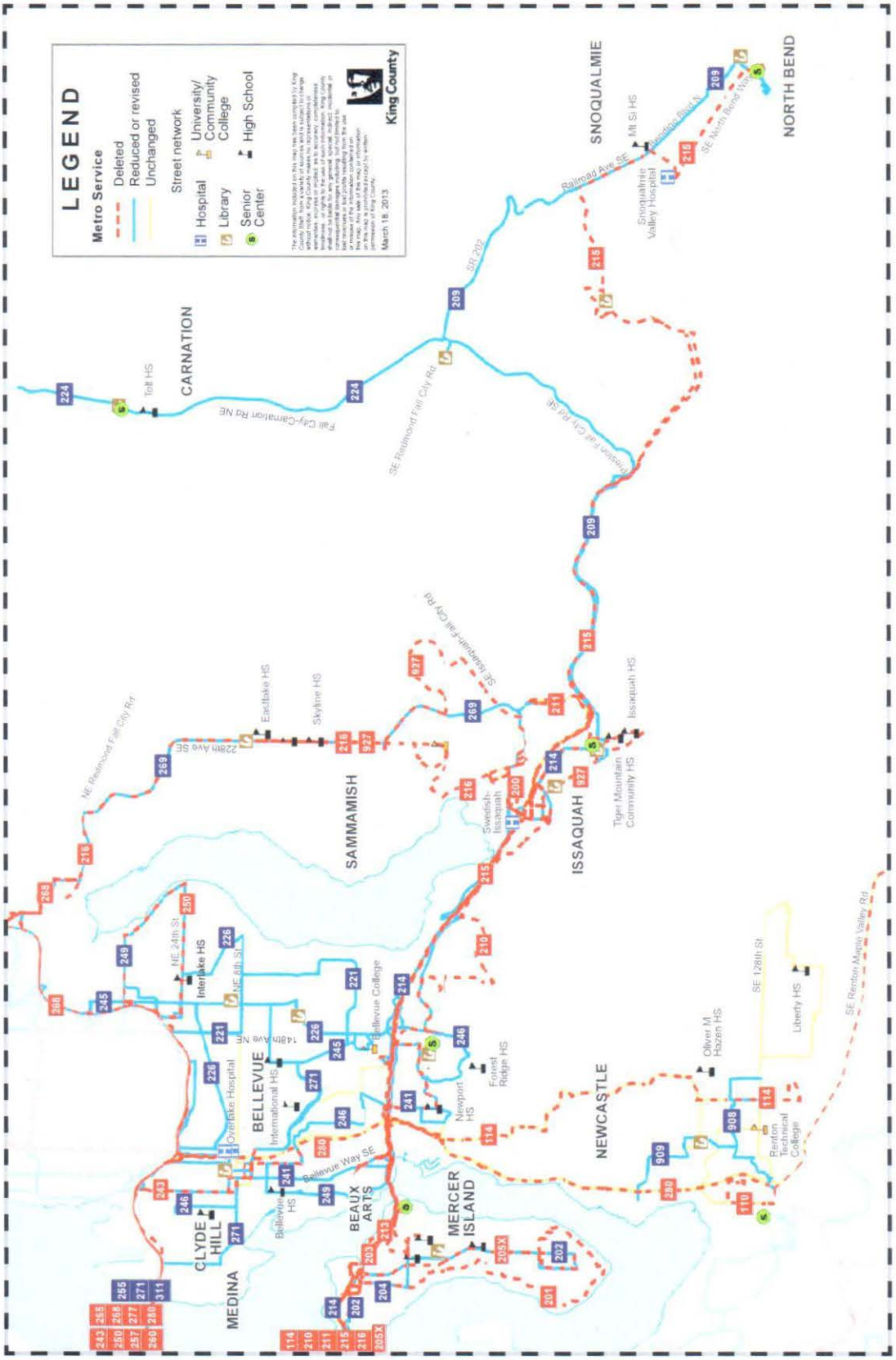
  Competition for already-scarce park-and-ride spaces at the Eastgate, Issaquah Highlands, Mercer Island, and South Bellevue park-and-rides could increase. Commuter routes that cross I-90 to downtown Seattle and the University District could be less frequent, and could often be overcrowded.
- Midday/weekend service—Bellevue, Clyde Hill, Eastgate, Factoria, Issaquah, Kennydale, Overlake, Medina, Mercer Island, and the Renton Highlands could see reductions in service during off-peak travel periods.
- Night service—Bellevue, Crossroads, Eastgate, Factoria, Issaquah, Overlake, Renton, and Sammamish could see reductions in night service.

Many riders would have to change the way they travel. Metro would work to accommodate riders on major transit corridors, but some trips would no longer have the capacity to meet the demand for service. Riders on major routes could experience very crowded buses. They could also be passed up by full buses more often, and might have to adjust how they travel as a result of the changes. Metro might have to make further reductions in lower-priority areas in order to provide adequate service levels on major transit corridors.

- Routes that could change: 110, 114, 200, 201, 202, 203, 204, 205, 209, 210, 211, 213, 214, 215, 216, 221, 224, 226, 241, 243, 245, 246, 249, 250, 255, 257, 260, 265, 268, 269, 271, 277, 280, 908, 909, 927.
- Other routes that could experience crowding and reliability issues: 105, 240, RapidRide B Line.

FIG. 14

Service Reduction Illustration: East King County – South



Service reduction illustration: southwest King County

In this service reduction illustration, bus trips and hours of service are reduced on about 25 routes in southwest King County.

Possible service reductions

- All-day service—Riders on Maury Island and in parts of Burien, including Gregory Heights and Highline Medical Center, could lose all service. Vashon Island riders could lose all non-peak-period service.
- Peak service—Riders traveling to the Boeing industrial and Duwamish areas, Burien, downtown Seattle, Federal Way, First Hill, SeaTac, the University District, and West Seattle during peak travel periods could see reductions in service. Vashon Island riders would have to walk onto the ferry at the Vashon Island ferry dock.

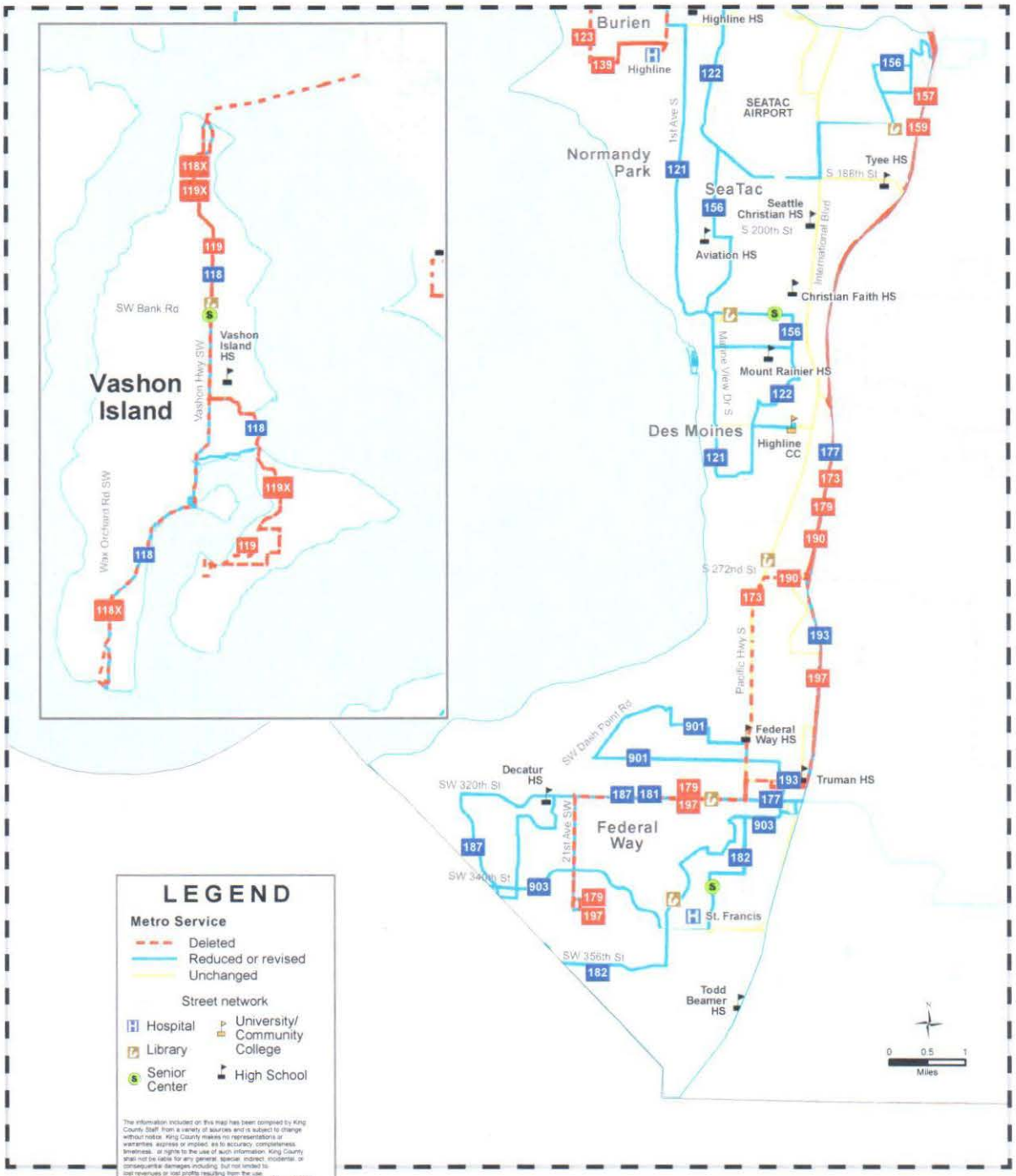
  Riders could see a loss or reduction in service at the following park-and-rides: Federal Way/S 320th Street, Federal Way Transit Center, Redondo Heights, Star Lake, and Twin Lakes. These changes could create crowded conditions as fewer trips are overloaded with more riders. Some riders who currently have direct trips could have to transfer to get to their destinations.
- Midday/weekend service—Riders in Des Moines, Federal Way, Highline Community College, Mirror Lake, SeaTac, and Twin Lakes could see reductions in service during off-peak travel periods.
- Night service—Riders in Federal Way and Twin Lakes could see reductions in night service.

Many riders would have to change the way they travel. Metro would work to accommodate riders on major transit corridors, but some trips would no longer have the capacity to meet the demand for service. Riders on major routes could experience very crowded buses. They could also be passed up by full buses more often, and might have to adjust how they travel as a result of the changes. Metro might have to make further reductions in lower-priority areas in order to provide adequate service levels on major transit corridors.

- Routes that could change: 118, 118X, 119, 119X, 121, 122, 123, 139, 156, 157, 159, 173, 177, 179, 181, 182, 187, 190, 193, 197, 901, 903.
- Other routes that could experience crowding and reliability issues: 140, 180, 183, RapidRide A Line.

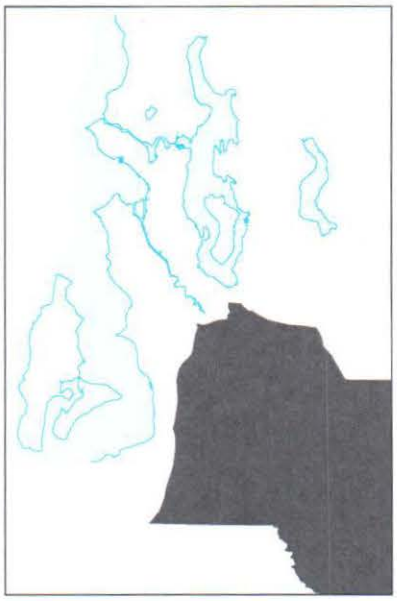
FIG. 15

Service Reduction Illustration: Southwest King County



Service reduction illustration: southeast King County

In this illustration, bus trips and hours of service are reduced on about 20 routes in southeast King County.



Possible service reductions

- All-day service—Parts of Algona, Auburn, Black Diamond, Covington, Enumclaw, and Kent could lose all service.
- Peak service—Riders traveling to Auburn, the Boeing industrial and Duwamish areas, downtown Seattle, Enumclaw, First Hill, Green River Community College, Kent, Renton, and the University District during peak periods could see a reduction in service.

  Riders could see a loss or reduction in service at the following park-and-rides: Auburn, Auburn Station, Kent-Des Moines, Kent Station, Lake Meridian, and Lincoln/James. These changes could create crowded conditions as fewer trips are overloaded with more riders. Some riders who currently have direct trips could have to transfer to get to their destinations.
- Midday/weekend service—Riders in Auburn, Enumclaw, Fairwood, Kent, Maple Valley, and Renton could see reductions in service during off-peak travel periods.
- Night service—Auburn, Green River Community College, and Renton riders could see reductions in night service.

Many riders would have to change the way they travel. Metro would work to accommodate riders on major transit corridors, but some trips would no longer have the capacity to meet the demand for service. Riders on major routes could experience very crowded buses. They could also be passed up by full buses more often, and might have to adjust how they travel as a result of the changes. Metro might have to make further reductions in lower-priority areas in order to provide adequate service levels on major transit corridors.

- Routes that could change: 110, 148, 152, 154, 156, 157, 159, 161, 181, 186, 190, 192, 193X, 197, 280, 907, 910, 913, 914, 919.
- Other routes that could experience crowding and reliability issues: 140, 150, 164, 168, 180.

FIG. 16

Service Reduction Illustration: Southeast King County

SECTION 6

POTENTIAL CHANGES TO THE SERVICE GUIDELINES AND STRATEGIC PLAN

Metro's strategic plan and service guidelines will be updated in 2013. Per Ordinance 17143, the legislation and update will include refinements to the guidelines methodology to:

A. Incorporate input from local jurisdictions as generated through a collaborative process defined by the executive;

B. Address the factors, methodology and prioritization of service additions in existing and new corridors consistent with Strategy 6.1.1;

C. More closely align factors used to serve and connect centers in the development of the All-Day and Peak Network and resulting service level designations, including consideration of existing public transit services, with jurisdictions' growth decisions, such as zoning and transit-supportive design requirements, and actions associated with but not limited to permitting, transit operating enhancements, parking controls and pedestrian facilities; and

D. Create a category of additional service priority, complementary to existing priorities for adding service contained within the King County Metro Service Guidelines, so that priorities include service enhancements to and from, between and within Vision 2040 regionally designated centers, and other centers where plans call for transit-supportive densities and jurisdictions have invested in capital facilities, made operational changes that improve the transit operating environment and access to transit, and implemented programs that incentivize transit use.

To prepare for the 2013 update, we conducted a collaborative Linking Transit and Development process that engaged local jurisdictions during the summer of 2012. A preliminary report identified three themes for potential improvement: collaboration, certainty, and clarity. Participants were interested in having more certainty about investments needed in the future, in complementing the short-term planning of the service guidelines with longer-range planning, and in improving coordination and communication between Metro and local jurisdictions. Building on the input from the local jurisdictions, Metro is working with the Regional Transit Committee and the King County Councilmembers to refine the elements of the 2013 update.

Metro is also considering other changes to incorporate new Federal Title VI standards and policy requirements, to integrate alternative services into the guidelines evaluation, and minor administrative changes to improve the service guidelines analysis.

APPENDICES

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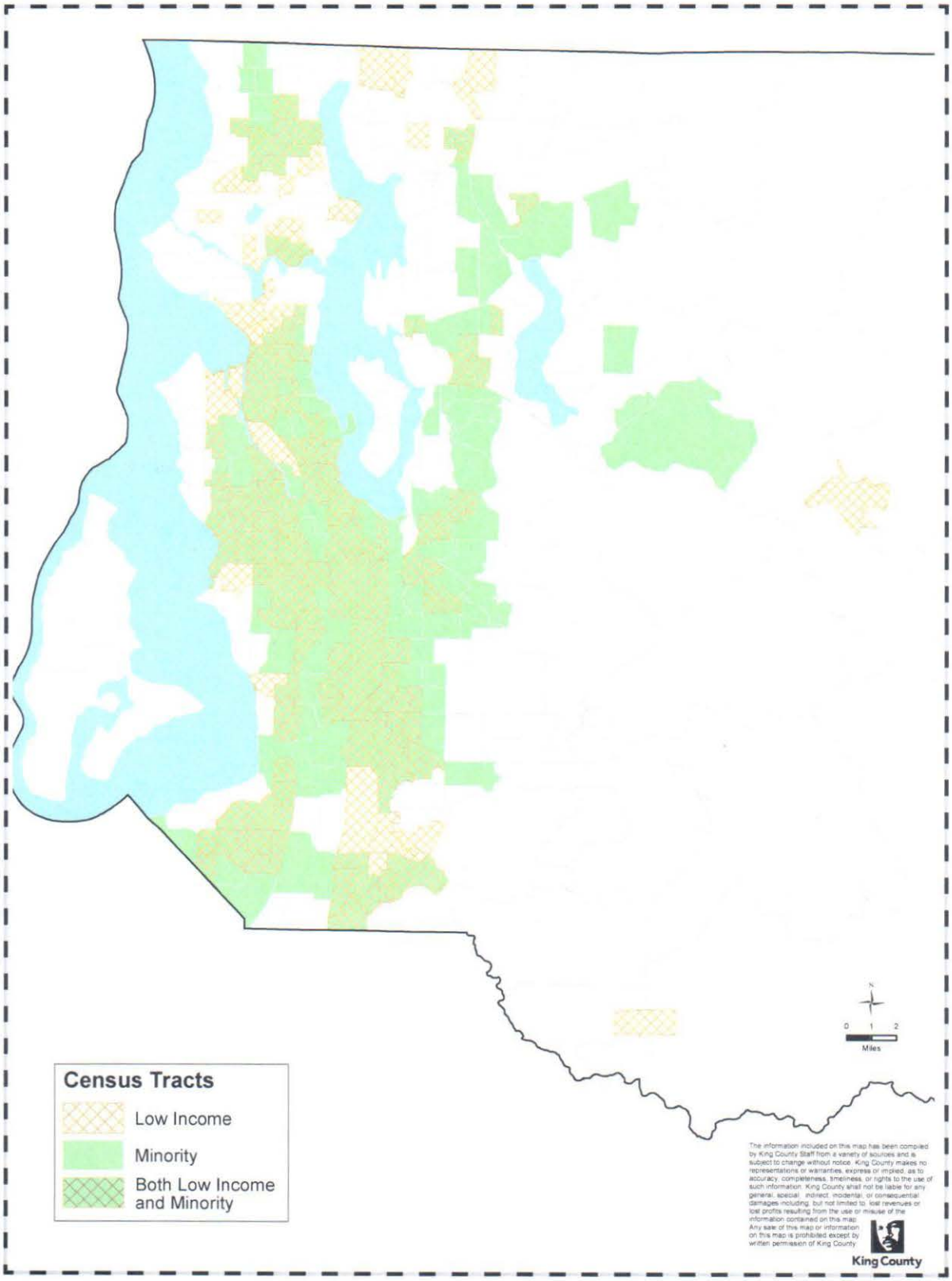
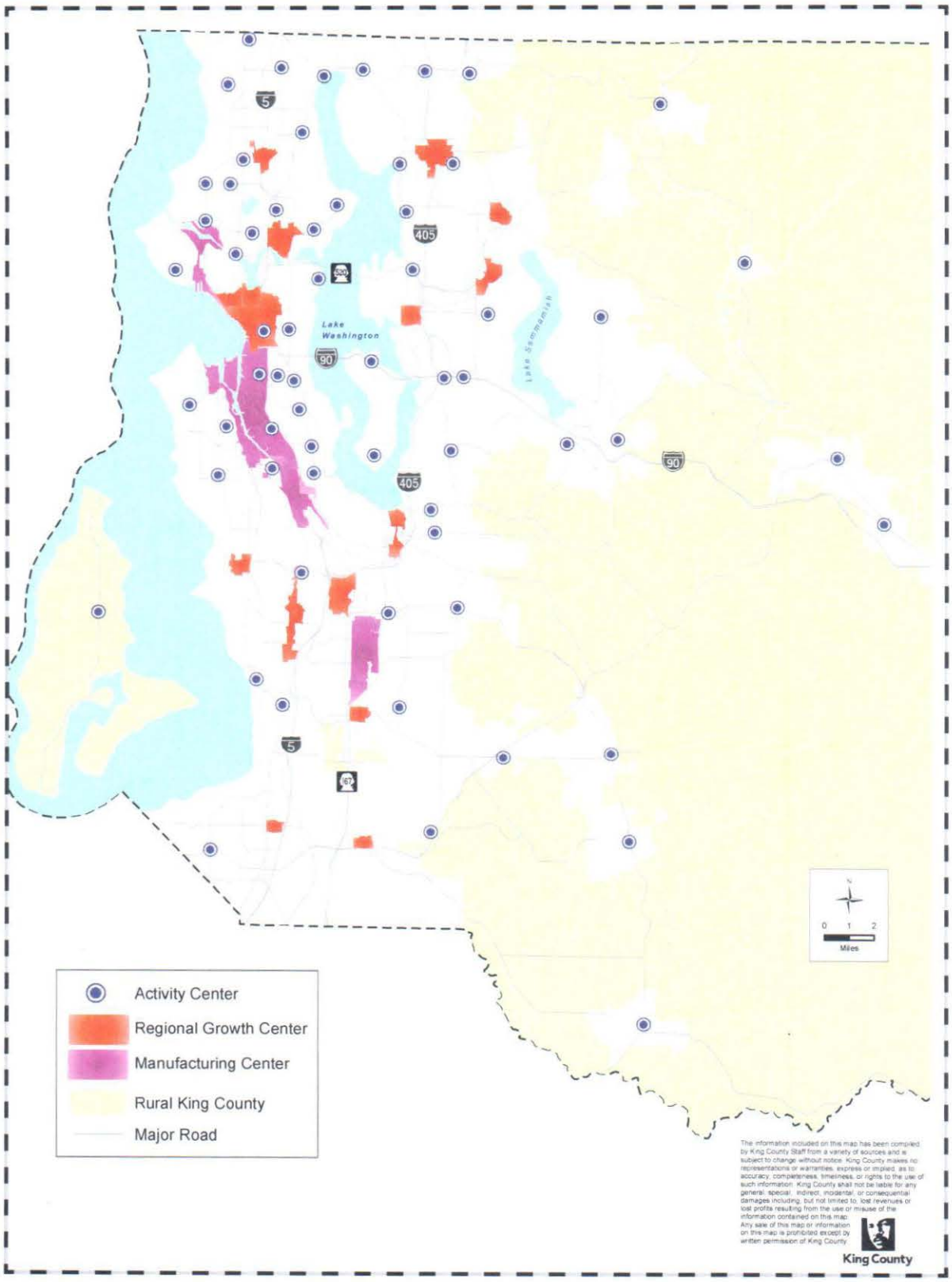
Appendix A:
King County Low Income and Minority Census Tracts (2011 Geography)



Appendix B:
Activity Centers



Appendix C:
Route Productivity Data

Routes that Do Not Serve the Seattle Core

Route	Description	Peak		Off Peak		Night	
		Rides/ Platform Hour	Passenger Miles/ Platform Mile	Rides/ Platform Hour	Passenger Miles/ Platform Mile	Rides/ Platform Hour	Passenger Miles/ Platform Mile
A Line	Federal Way – Tukwila	47.7	13.9	51.8	17.6	36.6	12.5
B Line	Bellevue – Redmond	39.6	11.1	33.7	10.5	29.8	8.0
38	Beacon Hill – Mt Baker			14.5	1.5		
51	Alaska Junction – Admiral District	13.3	1.2	11.1	1.3		
53	Alaska Junction – Alki			9.3	1.9		
105	Renton Highlands – Renton TC	30.4	5.9	30.2	7.2	18.2	4.1
107	Rainier Beach – Renton	23.4	5.6	22.4	5.5	14.5	3.9
110	Tukwila Station – North Renton	13.3	1.7				
118	Tahlequah – Vashon	18.9	4.6	10.2	2.5	6.0	1.5
119	Dockton – Vashon	16.2	3.6	10.9	2.5		
128	Southcenter – Admiral District	37.1	11.5	35.7	11.7	22.9	7.0
129	Riverton Heights – Tukwila Intl Blvd Station	9.6	1.2				
139	Gregory Heights – Burien TC	13.2	1.7	12.3	1.7	7.1	0.9
140	Burien – Renton	28.5	8.5	33.1	10.5	32.2	11.2
148	Fairwood – Renton TC	16.8	4.8	16.8	5.3	16.7	5.3
153	Renton – Kent via East Valley	18.4	4.3				
154	Tukwila Station – Federal Center	16.6	4.4				
155	Fairwood – Southcenter	16.2	3.6	18.7	4.7		
156	Tukwila – SeaTac	10.5	2.1	9.4	1.9	8.2	1.6
164	Kent – GRCC	43.9	10.2	42.9	12.6	25.7	5.1
166	Des Moines – Kent	26.9	6.6	29.1	7.3	20.9	4.6
168	Kent – Four Corners	21.9	4.0	23.1	5.4	17.5	3.7
169	Renton – Kent via East Hill	39.6	12.2	39.9	13.5	29.3	9.4
173	Federal Way – Federal Center	12.4	5.7				
180	Burien – Auburn	33.4	10	31.4	10.5	15.6	5.5
181	Twin Lakes – GRCC	31.1	9.5	27.3	9.2	17.5	4.5
182	NE Tacoma – Federal Way TC	14.8	3.8	16.9	4.7		
183	Federal Way – Kent	18.6	4.6	17.9	7.5		
186	Auburn – Enumclaw	12.2	3.3				
187	Twin Lakes – Federal Way TC	21.6	3.8	27.7	4.8	9.9	1.4
200	North Issaquah – Issaquah TC	7.8	1.3	12.1	2.7		
201	S Mercer Island – Mercer Island P&R via Mercer Way	5.5	0.8				
203	Shorewood – Mercer Island P&R	12.5	1.5	14.6	1.1		
204	S Mercer Island – Mercer Island P&R via Island Crest			9.9	1.6		
209	North Bend – Issaquah	6.8	3.2	8.7	4.3		
213	Covenant Shores – Mercer Island P&R			13.6	1.2		
219	Newcastle – Factoria	7.0	0.9				
221	Eastgate – Education Hill	16.8	5.3	14	4.3	8.9	2.3
224	Fall City – Redmond	6.1	2.7	6.8	3.5		
226	Bellevue – Eastgate via Crossroads	21.9	5.6	16.4	3.9	9.4	2.3

Route	Description	Peak		Off Peak		Night	
		Rides/ Platform Hour	Passenger Miles/ Platform Mile	Rides/ Platform Hour	Passenger Miles/ Platform Mile	Rides/ Platform Hour	Passenger Miles/ Platform Mile
232	Duvall – Bellevue	14.7	5.4				
234	Kenmore – Bellevue	17.9	6.4	14.8	5.9	10.9	3.7
235	Kingsgate – Bellevue	17.4	5.7	12.2	4.9	8.6	3.2
236	Woodinville – Kirkland	8.7	2.2	7.2	2.1	5.4	1.4
237	Woodinville – Bellevue	17.7	4.3				
238	Bothell – Kirkland	11.4	3.4	12.3	3.4	5.2	1.4
240	Bellevue – Renton	19.8	6.6	22.3	8.2	14.6	5.9
241	Bellevue – Eastgate via South Bellevue	16.6	3.3	13.2	2.7	10.1	1.5
242	Northgate – Overlake	18.1	9.9				
244EX	Kenmore – Overlake	12.3	5.0				
245	Kirkland – Factoria	20.8	6.6	18.9	6.0	13.3	4.0
246	Bellevue – Eastgate via Factoria	9.6	2.3	8.2	1.8		
248	Avondale – Kirkland	18.3	5.2	15.8	4.0	9.7	2.8
249	Bellevue – Overlake	16.4	4.0	9.6	2.5	7.4	2.0
269	Overlake – Issaquah	10.6	4.5	12.5	6.0	9.1	3.9
330	Shoreline – Lake City	22.4	5.0				
331	Shoreline – Kenmore	17.1	5.0	20.0	5.4	9.9	2.0
342	Shoreline – Renton	19.6	9.4				
345	Shoreline – Northgate	36.0	7.7	37.2	8.3	14.8	4.6
346	Aurora Village – Northgate	36.9	10.3	29.2	10.3	13.8	5.3
347	Mountlake Terrace – Northgate	26.2	9.1	22.4	8.4	17.8	6.6
348	Richmond Beach – Northgate	22.6	5.0	22.7	5.5	14.5	4.6
901DART	Mirror Lake – Federal Way TC	18.4	1.9	17.9	1.5	14.1	2.0
903DART	Twin Lakes – Federal Way TC	17.9	3.0	15.2	1.9	11.6	1.8
907DART	Enumclaw – Renton			4.1	1.4		
908DART	Maplewood – Renton TC			7.0	1.4		
909DART	Kennydale – Renton TC	10.8	1.9	9.6	2.1		
910DART	North Auburn – Supermall			7.4	1.2		
912	Covington – Enumclaw	1.4	0.3				
913DART	Riverview – Kent TC	12.5	2.1				
914DART	Kent East Hill – Kent TC			21.1	5.4		
915DART	Enumclaw – Auburn			16.6	3.3		
916DART	Kent East Hill – Kent TC			18.3	7.3		
917DART	Pacific – Auburn	13.9	2.4	12.5	2.7		
919DART	SE Auburn – Auburn			13.8	2.0		
927DART	Sammamish – Issaquah	7.3	1.5	6.2	2.0		
930DART	Redmond – Kingsgate	9.9	0.9	9.3	1.1		
931DART	Bothell – Redmond	7.7	1.4	8.0	1.9		
935DART	Kenmore – Totem Lake	5.4	0.8	3.8	0.8		

Spring 2012 thresholds for routes that DO NOT serve Seattle core	Peak		Off Peak		Night	
Bottom 25%	**12.0**	**2.2**	**10.1**	**1.9**	**9.3**	**2.0**
Top 25%	**21.9**	**6.0**	**22.4**	**6.6**	**17.7**	**5.3**

Route Productivity – Routes that Serve the Seattle Core

Route	Description	Peak		Off Peak		Night	
		Rides/ Platform Hour	Passenger Miles/ Platform Mile	Rides/ Platform Hour	Passenger Miles/ Platform Mile	Rides/ Platform Hour	Passenger Miles/ Platform Mile
1	Kinnear – Seattle CBD	55.3	11.3	45.7	13.1	30.4	8.6
2N	Madrona Park – Seattle CBD	59.5	11.2	56.4	14.3	28.7	5.8
2S	West Queen Anne – Seattle CBD	46.6	9.7	43.7	13.0	23.1	6.0
2NEX	West Queen Anne – Seattle CBD	37.9	6.8				
3N	Madrona – Seattle CBD	54.8	11.7	59.4	11.9	27.8	5.9
3S	North Queen Anne – Seattle CBD	58.6	12.4	55.3	15.6	22.5	6.0
4N	East Queen Anne – Seattle CBD	57.2	12.0	57.0	12.9	26.5	7.1
4S	Judkins Park – Seattle CBD	54.1	12.2	45.0	12.3	27.9	7.3
5	Shoreline – Seattle CBD	48.9	12.5	46.4	13.9	31.5	8.0
5EX	Greenwood – Seattle CBD	42.8	15.5				
7	Rainier Beach – Seattle CBD	48.9	15.5	56.7	18.8	30.9	9.0
7EX	Rainier Beach – Seattle CBD	28.8	7.2				
8	Rainier Beach – Seattle Center	49.4	10.9	42.7	9.6	35.3	7.3
9EX	Rainier Beach – Capitol Hill	42.9	12.2	42.6	14.7		
10	Capitol Hill – Seattle CBD	45.3	11.0	54.7	16.3	27.6	6.6
11	Madison Park – Seattle CBD	57.8	9.0	62.8	9.5	47.8	5.7
12	Interlaken Park – Seattle CBD	55.9	10.7	46.0	12.3	26.1	5.3
13	Seattle Pacific University – Seattle CBD	55.4	11.4	55.7	14.6	24.8	6.4
14N	Mount Baker – Seattle CBD	55.5	14.2	52.7	14.8	22.5	6.0
14S	Summit – Seattle CBD	43.5	10.6	46.0	14.2	24.4	5.6
15	Blue Ridge – Seattle CBD	57.8	15.1	53.1	16.5	31.7	8.7
15EX	Blue Ridge – Seattle CBD	49.1	17.7				
16	Northgate – Seattle CBD via Wallingford	37.8	13.2	37.8	12.5	21.5	8.2
17	Sunset Hill – Seattle CBD	39.6	11.1	37.2	13.1	18.4	6.1
17EX	Sunset Hill – Seattle CBD	39.5	14.0				
18	North Beach – Seattle CBD	49.0	11.2	50.6	15.3	31.5	9.2
18EX	North Beach – Seattle CBD	44.9	16.4				
19	West Magnolia – Seattle CBD	32.0	9.3				
21	Arbor Heights – Seattle CBD	29.0	7.8	27.2	9.6	16.9	6.0
21EX	Arbor Heights – Seattle CBD	30.5	10.8				
22	White Center – Seattle CBD via Gatewood	28.4	9.3	24.5	10.2		
23	White Center – Seattle CBD via SODO	46.3	14.6	34.8	9.1	16.9	4.8
24	West Magnolia – Seattle CBD	32.3	8.6	23.9	7.0	13.0	3.8
25	Laurelhurst – Seattle CBD	23.2	5.0	17.1	4.6		
26	Wallingford – Seattle CBD	46.4	11.1	40.3	10.9	27.7	6.5
26EX	Wallingford – Seattle CBD	46.8	13.5				
27	Colman Park – Seattle CBD	38.0	7.9	30.8	8.9	15.4	4.5
28	Broadview – Seattle CBD	51.0	10.3	48.2	10.0	27.9	6.1
28EX	Broadview – Seattle CBD	45.2	15.0				
30	Sand Point – U District	35.1	10.8	29.5	8.8	23.2	5.8
31	Magnolia – U District	26.2	7.5	20.3	7.7		
33	Discovery Park – Seattle CBD	50.4	11.6	34.3	6.2	16.7	3.6
34EX	Rainier Beach – Seattle CBD	26.3	6.9				
35	Seattle CBD – Harbor Island	13.4	3.5				
36	Othello Station – Seattle CBD	54.2	14.8	58.8	19.8	28.1	8.3
37	Alaska Junction – Seattle CBD via Alki	17.2	6.2				

Route	Description	Peak		Off Peak		Night	
		Rides/ Platform Hour	Passenger Miles/ Platform Mile	Rides/ Platform Hour	Passenger Miles/ Platform Mile	Rides/ Platform Hour	Passenger Miles/ Platform Mile
39	Rainier Beach – Seattle CBD via Seward Park	31.9	6.5	25.4	5.3	11.7	3.4
41	Lake City – Seattle CBD via Northgate	52.5	18.9	56.7	23.6	38.1	16.7
42	Columbia City – Pioneer Square			9.5	1.8		
43	U District – Seattle CBD via Capitol Hill/24th	52.0	15.7	47.4	14.2	40.9	10.6
44	Ballard – U District	54.8	18.3	49.8	18.2	29.6	9.8
45EX	Seattle Center – U District	25.3	6.2				
46	Shilshole – U District	22.9	4.4	7.7	1.0		
48N	Loyal Heights – U District	32.5	5.4	37.7	7.6	21.6	4.7
48S	Loyal Heights – U District	60.6	11.6	56.9	10.2	34.9	6.4
48NEX	Mount Baker – U District	25.5	6.3				
49	U District – Seattle CBD via Capitol Hill/ Broadway	54.1	20.1	56.0	19.2	47.5	14.8
54	White Center – Seattle CBD via Alaska Junction	35.0	14.8	28.0	13.2	23.2	8.7
54EX	White Center – Seattle CBD	29.9	12.0				
55	Admiral District – Seattle CBD	30.1	15.9	20.1	12.9	14.4	6.2
56	Alki – Seattle CBD	33.3	11.1	28.4	11.7	18.3	5.0
57	Alaska Junction – Seattle CBD	21.9	10.2				
60	White Center – Capitol Hill	35.6	9.2	33.8	8.7	20.1	4.8
64EX	Lake City – First Hill	30.0	12.0				
65	Lake City – U District	34.4	10.1	33.9	12.7	21.3	7.0
66EX	Northgate – Seattle CBD via Eastlake	44.4	16.4	36.7	16.6	24.5	9.7
67	Northgate – U District	39.6	10.2	60.6	18.1	40.9	8.2
68	Northgate – U District via NE 75th	49.0	12.9	52.8	13.9		
70	U District – Seattle CBD via Broadway	45.8	13.6	40.8	14.8	19.1	4.8
71	Wedgwood – Seattle CBD	62.0	20.0	61.4	20.7	39.9	12.3
72	Lake City – Seattle CBD via U District	59.7	19.2	65.6	21.4	39.0	12.2
73	Jackson Park – Seattle CBD	58.1	16.6	62.7	19.7	42.7	12.9
74EX	Sand Point – Seattle CBD	55.7	16.1				
75	Ballard – U District via Northgate	37.3	10.8	41.7	13.7	26.2	8.4
76	Wedgwood – Seattle CBD	40.2	12.8				
77EX	North City – Seattle CBD	36.2	13.0				
79EX	Lake City – Seattle CBD	21.0	5.6				
81	Seattle CBD – Loyal Heights					9.5	5.3
82	Seattle CBD – Greenwood					21.6	8.5
83	Seattle CBD – Maple Leaf					21.2	8.9
84	Seattle CBD – Madison Park					8.0	1.4
85	Seattle CBD – White Center					9.5	4.1
99	International District – Waterfront	35.1	6.2	30.5	5.6		
101	Renton – Seattle CBD	41.7	20.6	56.8	27.7	34.9	18.1
102	Fairwood – Seattle CBD	38.4	21.5				

Spring 2012 thresholds for routes that serve Seattle core	Peak		Off Peak		Night	
Bottom 25%	**22.8**	**9.8**	**30.6**	**9.9**	**19.1**	**5.8**
Top 25%	**45.4**	**14.8**	**54.3**	**15.5**	**31.5**	**9.0**

Route	Description	Peak		Off Peak		Night	
		Rides/ Platform Hour	Passenger Miles/ Platform Mile	Rides/ Platform Hour	Passenger Miles/ Platform Mile	Rides/ Platform Hour	Passenger Miles/ Platform Mile
106	Renton – Seattle CBD via Rainier Beach	39.5	12.1	41.6	13.8	24.1	9.2
111	Lake Kathleen – Seattle CBD	24.0	15.3				
113	Shorewood – Seattle CBD	26.7	11.6				
114	Renton Highlands – Seattle CBD	22.3	13.1				
116EX	Fauntleroy – Seattle CBD	15.8	6.9				
118EX	Tahlequah – Seattle CBD via ferry	13.7	5.7				
119EX	Dockton – Seattle CBD via ferry	16.8	10.0				
120	Burien – Seattle CBD	41.1	16.7	46.2	18.4	37.0	15.4
121	Highline CC – Seattle CBD	27.4	11.6	21.8	11.6		
122	Highline CC – Seattle CBD	29.5	14.0				
123EX	Burien – Seattle CBD	18.2	8.3				
124	Tukwila – Seattle CBD	42.2	15.7	39.2	17.3	23.1	9.2
125	Shorewood – Seattle CBD	26.1	10.9	24.6	9.9	11.9	6.6
131	Highline CC – Seattle CBD via Burien/ Georgetown	24.4	6.7	24.2	7.8	14.3	6.1
132	Highline CC – Seattle CBD via Burien/ South Park	31.5	9.6	31.0	10.9	15.4	5.9
133	Burien – U District	24.5	13.7				
134	Burien – Seattle CBD	14.8	5.4				
143EX	Black Diamond – Seattle CBD	23.3	14.1				
150	Kent – Seattle CBD	40.9	20.7	43.4	22.6	31.9	19.1
152	Auburn – Seattle CBD	16.1	10.0				
157	Lake Meridian – Seattle CBD via Panther Lake	15.7	10.8				
158	Lake Meridian – Seattle CBD via Kent TC	23.5	16.3				
159	Timberlane – Seattle CBD	19.3	13.4				
161	Lake Meridian – Seattle CBD	17.1	9.7				
162	Kent – Seattle CBD	18.8	12.2				
167	Renton – U District	25.1	19.9				
175	West Federal Way – Seattle CBD	13.5	10.7				
177	Federal Way – Seattle CBD	22.5	13.8				
179	Twin Lakes – Seattle CBD	21.1	15.4				
190	West Federal Way – Seattle CBD	21.3	12.5				
192	Star Lake – Seattle CBD	19.2	11.5				
193EX	Star Lake – First Hill	24.3	14.7				
196	South Federal Way – Seattle CBD	14.3	10.3				
197	Twin Lakes – U District	19.3	15.8				
202	South Mercer Island – Seattle CBD	13.0	4.6				
205EX	South Mercer Island – U District	17.3	4.9				
210	Issaquah – Seattle CBD via Factoria	11.0	5.0				
211EX	Issaquah Highlands – Seattle CBD	12.8	3.9				
212	Eastgate – Seattle CBD	47.7	18.9				
214	Issaquah – Seattle CBD	21.7	11.3				
215	North Bend – Seattle CBD	19.4	11.5				
216	Sammamish – Seattle CBD	25.9	14.4				
217	Issaquah – Seattle CBD via Eastgate	28.7	16.0				
218	Issaquah Highlands – Seattle CBD	43.1	20.7				
243	Jackson Park – Wilburton	25.0	9.8				

Route	Description	Peak		Off Peak		Night	
		Rides/ Platform Hour	Passenger Miles/ Platform Mile	Rides/ Platform Hour	Passenger Miles/ Platform Mile	Rides/ Platform Hour	Passenger Miles/ Platform Mile
250	Overlake – Seattle CBD	19.3	10.0				
252	Kingsgate – Seattle CBD	27.1	15.5				
255	Brickyard – Seattle CBD	29.7	14.8	26.3	12.6	20.1	10.7
257	Brickyard – Seattle CBD	21.2	12.7				
260	Finn Hill – Seattle CBD	15.9	9.1				
265	Overlake – First Hill	17.3	8.8				
268	Bear Creek – Seattle CBD	22.3	13.2				
271	U District – Issaquah	25.1	10.5	28.0	12.7	19.1	8.5
277	Juanita – U District	12.6	5.0				
280*	Seattle CBD – Renton via Bellevue					9.8	
301	Aurora Village – Seattle CBD	42.3	23.8				
303EX	Shoreline – First Hill	35.5	15.0				
304	Richmond Beach – Seattle CBD	25.6	13.5				
306EX	Kenmore – Seattle CBD	32.6	16.6				
308	Horizon View – Seattle CBD	21.7	11.5				
309EX	Kenmore – First Hill	30.1	13.3				
311	Duvall – Seattle CBD	19.7	12.3				
312EX	Bothell – Seattle CBD	26.7	11.8				
316	Aurora Village – Seattle CBD	50.7	14.9				
355EX	Shoreline – Seattle CBD	30.3	10.7				
358EX	Aurora Village – Seattle CBD	44.7	19.8	56.8	28.8	39.3	17.5
372EX	U District	31.6	12.8	35.3	12.5	20.0	7.3
373EX	Aurora Village – U District	28.7	11.0				
600EX	Seattle CBD – South Base	9.5	1.0				

*Passenger miles data was unavailable on Route 280 due to lack of APC data.

Spring 2012 thresholds for routes that serve Seattle core	Peak		Off Peak		Night	
Bottom 25%	**22.8**	**9.8**	**30.6**	**9.9**	**19.1**	**5.8**
Top 25%	**45.4**	**14.8**	**54.3**	**15.5**	**31.5**	**9.0**

Appendix D:
Routes with Overcrowding (Spring 2012)

Route	Between	Day	Trips >1.25 Load Factor (Operating less frequently than every 10 min)	Trips >1.5 Load Factor (Operating every 10 min or better)	Trips with Standing for more than 20 min	Action Taken
3	North Queen Anne – Seattle CBD – Madrona	Weekday	3			Need identified
4	East Queen Anne – Seattle CBD – Judkins Park	Weekday	1			Need identified
16	Northgate – Seattle CBD via Wallingford	Weekday	1			Need identified
16	Northgate – Seattle CBD via Wallingford	Saturday			1	Considering larger bus
17	Sunset Hill – Seattle CBD	Weekday	1			Deleted in September 2012
30	Sand Point – U District	Weekday	1			Revised in September 2012
36	Othello Station – Seattle CBD	Weekday		1	9	Revised in September 2012
36	Othello Station – Seattle CBD	Saturday			5	Revised in September 2012
36	Othello Station – Seattle CBD	Sunday			6	Revised in September 2012
44	Ballard – U District	Weekday	4			Added trips in June 2012; Additional need identified
54	White Center – Seattle CBD via Alaska Junction	Weekday			1	Deleted in September 2012
60	White Center – Capitol Hill	Weekday	1			Need identified
68	Northgate – U District via NE 75th	Weekday	2			Revised in September 2012
71	Wedgwood – Seattle CBD	Sunday	2		3	Added trips in June 2012
72	Lake City – Seattle CBD via U District	Sunday			2	Added trips in June 2012
74	Sand Point – Seattle CBD	Weekday	1			No capacity to add trips in transit tunnel during peak hours
128	Southcenter – Admiral District	Weekday	1			Added trips in June 2012
150	Kent – Seattle CBD	Sunday			1	Revised in February 2013
177	Federal Way – Seattle CBD	Weekday			1	Considering larger bus
179	Twin Lakes – Seattle CBD	Weekday			3	Considering larger bus
193EX	Star Lake – First Hill	Weekday	1			Considering larger bus
271	U District – Issaquah	Weekday	1			Considering larger bus
358EX	Aurora Village – Seattle CBD	Saturday			4	Need identified

Appendix E:
Routes with Poor Reliability (September 2011–August 2012)

"-" indicates that it meets the guideline

Route	Description	All-Day % Late	PM % Late	Saturday % Late	Sunday % Late	Action Taken
1	Kinnear - Seattle CBD	25%	-	22%	-	Need identified
2	West Queen Anne – Seattle CBD – Madrona Park	25%	-	23%	-	Need identified
5	Shoreline - Seattle CBD	-	-	34%	37%	Investment in June 2012; Revised in September 2012
7	Rainier Beach - Seattle CBD	22%	-	-	-	Investment in June 2012
8	Rainier Beach - Seattle Center	28%	44%	26%	26%	Investment in June 2012; Additional need identified
11	Madison Park - Seattle CBD	-	-	-	23%	Need identified
16	Northgate - Seattle CBD via Wallingford	32%	54%	34%	32%	Investment in June 2012; Additional need identified
17EX	Sunset Hill - Seattle CBD	29%	44%	-	-	Need identified
18EX	North Beach - Seattle CBD	26%	40%	-	-	Need identified
21	Arbor Heights - Seattle CBD	24%	40%	22%	-	Revised in September 2012
22	White Center - Seattle CBD via Gatewood	32%	57%	-	-	Revised in September 2012
24	West Magnolia - Seattle CBD	23%	-	36%	25%	Need identified
26	Wallingford - Seattle CBD	21%	37%	23%	22%	Need identified
27	Colman Park - Seattle CBD	30%	-	31%	21%	Need identified
28	Broadview - Seattle CBD	37%	41%	43%	35%	Need identified
28EX	Broadview - Seattle CBD	26%	40%	-	-	Need identified
30	Sand Point - U District	25%	43%	-	-	Revised in September 2012
31	Magnolia - U District	25%	-	-	-	Investment in June 2012
33	Discovery Park - Seattle CBD	27%	35%	27%	21%	Need identified
36	Othello Station - Seattle CBD	21%	-	-	-	Need identified
37	Alaska Junction - Seattle CBD via Alki	38%	44%	-	-	Need identified
38	Beacon Hill - Mt Baker	27%	-	26%	-	Deleted in September 2012
42	Columbia City - Pioneer Square	26%	37%	-	-	Deleted in February 2013
43	U District - Seattle CBD via Capitol Hill/24th	-	-	24%	-	Considering minor schedule change
48	Loyal Heights – U District – Mount Baker	-	-	25%	25%	Need identified
49	U District - Seattle CBD via Capitol Hill/ Broadway	23%	-	-	-	Need identified
57	Alaska Junction - Seattle CBD	41%	62%	-	-	Need identified
60	White Center - Capitol Hill	22%	-	27%	21%	Investment in June 2012; Additional need identified
65	Lake City - U District	21%	35%	-	-	Revised in September 2012
66EX	Northgate - Seattle CBD via Eastlake	28%	41%	-	-	Need identified
68	Northgate - U District via NE 75th	31%	-	22%	-	Investment in June 2012; Revised in September 2012
71	Wedgwood - Seattle CBD	28%	-	-	-	Need identified

Route	Description	All-Day % Late	PM % Late	Saturday % Late	Sunday % Late	Action Taken
72	Lake City - Seattle CBD via U District	23%	-	-	21%	Need identified
72EX	Lake City - Seattle CBD via U District	-	-	21%	-	Considering minor schedule change
99	International District - Waterfront	-	-	40%	28%	Need identified
101	Renton - Seattle CBD	-	-	25%	26%	Need identified
105	Renton Highlands - Renton TC	26%	-	-	23%	Need identified
106	Renton - Seattle CBD via Rainier Beach	24%	-	21%	-	Need identified
119EX	Dockton - Seattle CBD via ferry	21%	-	-	-	Considering minor schedule change
120	Burien - Seattle CBD	-	-	21%	23%	Revised in September 2012
124	Tukwila - Seattle CBD	27%	-	23%	-	Need identified
125	Shorewood - Seattle CBD	30%	-	-	22%	Revised in September 2012
128	Southcenter - Admiral District	25%	-	-	-	Need identified
131	Highline CC - Seattle CBD via Burien/ Georgetown	31%	-	34%	23%	Need identified
132	Highline CC - Seattle CBD via Burien/ South Park	28%	39%	42%	25%	Need identified
150	Kent - Seattle CBD	24%	-	-	22%	Need identified
157	Lake Meridian - Seattle CBD via Panther Lake	22%	35%	-	-	Considering minor schedule change
166	Des Moines - Kent	26%	38%	-	-	Need identified
168	Kent - Four Corners	-	-	-	21%	Considering minor schedule change
169	Renton - Kent via East Hill	24%	37%	-	-	Need identified
177	Federal Way - Seattle CBD	23%	-	-	-	Need identified
179	Twin Lakes - Seattle CBD	27%	-	-	-	Need identified
181	Twin Lakes - Seattle CBD	33%	41%	-	-	Need identified
187	Twin Lakes - GRCC	24%	-	-	-	Need identified
190	Twin Lakes - Federal Way TC	20%	-	-	-	Considering minor schedule change
178	Redondo Heights - Seattle CBD	44%	49%	-	-	Need identified
202	South Federal Way - Seattle CBD	26%	37%	-	-	Need identified
205EX	South Mercer Island - Seattle CBD	20%	-	-	-	Investment in June 2012
209	South Mercer Island - U District	20%	-	-	-	Considering minor schedule change
217	North Bend - Issaquah	20%	-	-	-	Considering minor schedule change
221	Eastgate - Education Hill	23%	40%	-	-	Need identified
224	Fall City - Redmond	40%	38%	-	-	Need identified
237	Fall City - Redmond	23%	35%	-	-	Considering minor schedule change
243	Woodinville - Bellevue	20%	40%	-	-	Considering minor schedule change
245	Jackson Park - Wilburton	-	-	23%	-	Need identified

Route	Description	All-Day % Late	PM % Late	Saturday % Late	Sunday % Late	Action Taken
255	Kirkland - Factoria	-	-	25%	22%	Need identified
265	Brickyard - Seattle CBD	22%	-	-	-	Need identified
280	Overlake - First Hill	-	-	31%	-	Considering minor schedule change
309EX	Seattle CBD - Renton via Bellevue	29%	53%	-	-	Investment in June 2012
311	Kenmore - First Hill	21%	-	-	-	Need identified
316	Duvall - Seattle CBD	-	39%	-	-	Considering minor schedule change
355EX	Aurora Village - Seattle CBD	21%	-	-	-	Considering minor schedule change
358EX	Shoreline - Seattle CBD	-	-	22%	-	Need identified
600EX	Aurora Village - Seattle CBD	27%	-	-	-	Deleted September 2012

"-" indicates that it meets the guideline

Appendix F:
Peak Route Analysis Results

Route	Description	Ridership	Travel Time
		>= 90% of alternative	>= 20% faster than alternative
2NEX	West Queen Anne – Seattle CBD	Yes	No
5EX	Greenwood – Seattle CBD	No	No
7EX	Rainier Beach – Seattle CBD	No	Yes
15EX	Blue Ridge – Seattle CBD	Yes	No
17EX	Sunset Hill – Seattle CBD	Yes	Yes
18EX	North Beach – Seattle CBD	Yes	No
19	West Magnolia – Seattle CBD	No	Yes
21EX	Arbor Heights – Seattle CBD	No	No
26EX	Wallingford – Seattle CBD	No	No
28EX	Broadview – Seattle CBD	Yes	No
34EX	Rainier Beach – Seattle CBD	No	No
35	Seattle CBD – Harbor Island	Yes	Yes
37	Alaska Junction – Seattle CBD via Alki	Yes	Yes
45EX	Seattle Center – U District	No	Yes
46*	Shilshole – U District	Yes	No
48NEX	Loyal Heights – U District	Yes	No
54EX	White Center – Seattle CBD	Yes	No
56EX	Alki – Seattle CBD	Included in corridor analysis	
57	Alaska Junction – Seattle CBD	Yes	Yes
64EX*	Lake City – First Hill	Yes	Yes
74EX	Sand Point – Seattle CBD	No	No
76	Wedgwood – Seattle CBD	No	No
77EX	North City – Seattle CBD	No	Yes
79EX	Lake City – Seattle CBD	No	No
102	Fairwood – Seattle CBD	Yes	No
110	Tukwila Station – North Renton	No	Yes
111	Lake Kathleen – Seattle CBD	Yes	Yes
113	Shorewood – Seattle CBD	Yes	Yes
114	Renton Highlands – Seattle CBD	No	Yes
116EX	Fauntleroy – Seattle CBD	No	No
118EX	Tahlequah – Seattle CBD via ferry	No	No
119EX	Dockton – Seattle CBD via ferry	No	No
121	Highline CC – Seattle CBD	Yes	Yes
122	Highline CC – Seattle CBD	Yes	Yes
123EX	Burien – Seattle CBD	Yes	Yes
129	Riverton Heights – Tukwila Intl Blvd Station	Yes	Yes
133*	Burien – U District	Yes	Yes
134	Burien – Seattle CBD	Yes	No
143EX	Black Diamond – Seattle CBD	Yes	Yes

Route	Description	Ridership	Travel Time
		>= 90% of alternative	>= 20% faster than alternative
152*	Auburn – Seattle CBD	No	No
153	Renton – Kent via East Valley	Included in corridor analysis	
154	Tukwila Station – Federal Center	No	Yes
157	Lake Meridian – Seattle CBD via Panther Lake	Yes	Yes
158	Lake Meridian – Seattle CBD via Kent TC	Yes	Yes
159*	Timberlane – Seattle CBD	No	No
161	Lake Meridian – Seattle CBD	No	Yes
162*	Kent – Seattle CBD	No	Yes
167	Renton – U District	Yes	Yes
173	Federal Way – Federal Center	No	Yes
175*	West Federal Way – Seattle CBD	No	Yes
177	Federal Way – Seattle CBD	No	No
179	Twin Lakes – Seattle CBD	No	No
190	Redondo Heights – Seattle CBD	Yes	Yes
192	Star Lake – Seattle CBD	No	Yes
193EX*	Star Lake – First Hill	Yes	Yes
196	South Federal Way – Seattle CBD	No	Yes
197	Twin Lakes – U District	No	Yes
201	S Mercer Island – Mercer Island P&R via Mercer Way	Yes	Yes
202	South Mercer Island – Seattle CBD	No	No
205EX	South Mercer Island – U District	No	No
210	Issaquah – Seattle CBD via Factoria	No	Yes
211EX*	Issaquah Highlands – Seattle CBD	No	No
212	Eastgate – Seattle CBD	Yes	Yes
214	Issaquah – Seattle CBD	No	No
215	North Bend – Seattle CBD	Yes	No
216	Sammamish – Seattle CBD	No	No
217	Issaquah – Seattle CBD via Eastgate	No	No
218	Issaquah Highlands – Seattle CBD	Yes	Yes
219	Newcastle – Factoria	Yes	Yes
232	Duvall – Bellevue	No	Yes
237	Woodinville – Bellevue	No	Yes
242	Northgate – Overlake	Yes	Yes
243	Jackson Park – Wilburton	No	Yes
244EX*	Kenmore – Overlake	Yes	Yes
250	Overlake – Seattle CBD	No	No
252	Kingsgate – Seattle CBD	No	Yes
257	Brickyard – Seattle CBD	Yes	Yes
260	Finn Hill – Seattle CBD	Yes	Yes
265	Overlake – First Hill	No	Yes
268	Bear Creek – Seattle CBD	No	Yes
269	Overlake – Issaquah	Included in corridor analysis	

Route	Description	Ridership	Travel Time
		>= 90% of alternative	>= 20% faster than alternative
277	Juanita – U District	Yes	Yes
301EX	Aurora Village – Seattle CBD	No	Yes
303EX*	Shoreline – First Hill	Yes	No
304	Richmond Beach – Seattle CBD	Yes	Yes
306EX	Kenmore – Seattle CBD	Yes	No
308	Horizon View – Seattle CBD	Yes	Yes
309EX*	Kenmore – First Hill	Yes	Yes
311*	Duvall – Seattle CBD	Yes	Yes
312EX	Bothell – Seattle CBD	No	No
316	Aurora Village – Seattle CBD	Yes	Yes
330	Shoreline – Lake City	Included in corridor analysis	
342	Shoreline – Renton	No	Yes
355EX	Shoreline – Seattle CBD	No	No
373EX	Aurora Village – U District	Included in corridor analysis	
600EX	Seattle CBD – South Base	Yes	Yes
913DART	Riverview – Kent TC	Yes	Yes
930DART	Redmond – Kingsgate	Included in corridor analysis	

* More than one alternative was analyzed; performance reflects the highest-performing segment.

Appendix G:
2012 Corridor Changes

Eleven corridors had changes between 2011 and 2012. These changes were made to ensure that the corridor analysis most accurately reflects the pathways served by Metro. Nine corridors were revised to accurately reflect the network that was restructured around the B Line. One corridor was revised to accurately reflect a new connection to an activity center, and one corridor was revised to remove a duplicative connection to an activity center. These adjustments affected the corridor analysis because they affect the number of households and jobs within ½ mile of stops along the corridors.

Corridor	Revision	Major Route in 2011	Major Route in 2012
16	Connects to Eastgate; no longer connects to South Bellevue Park and Ride	240	240
27	No longer connects to Beaux Arts	222	241
28	Revised pathway connecting Somerset, Factoria, and Eastgate	246	246
53	Revised pathway connecting Kirkland and Bellevue	230 W	234/235
54	Revised pathway	245	245
57	Revised to connect to Children's Hospital activity center	65	65
72	No longer connects to Overlake Transit Center	233	226
73	Revised pathway in South Kirkland	249	249
80	Revised pathway in Phantom Lake area	221	221
97	Revised connection to downtown Kirkland	255	255
100	No longer connects to Tukwila Sounder Station	156	156

Appendix H::
Corridors that Changed Target Service Level from 2011 to 2012

Corridor number	Between	And	Major route	2011 Service Level	2012 Service Level	Reason for Change
3	Auburn	Burien	180	Frequent	Very Frequent	Increased Step 2 score – higher Off-Peak loads
9	Ballard	Lake City	75	Frequent	Local	Lower social equity score (proportion of riders boarding in low-income census tracts is now less than system average)
28	Eastgate	Bellevue	246	Local	Hourly	Lower social equity score (proportion of riders boarding in low-income census tracts is now less than system average)
37	Green River CC	Kent	164	Local	Frequent	Higher Step 2 score – higher peak productivity
40	Issaquah	Eastgate	271	Frequent	Local	Correction
42	Issaquah	North Bend	209	Local	Hourly	Correction
43	Kenmore	Kirkland	234	Local	Hourly	Lower Step 2 score – lower peak loads
50	Kent	Renton	169	Frequent	Local	Lower Step 2 score – lower peak loads
53	Kirkland	Bellevue	234/235	Local	Frequent	Higher Step 2 score – higher peak loads
54	Kirkland	Factoria	245	Local	Frequent	Higher Step 2 score – higher peak loads
62	Mercer Island	S Mercer Island	204	Local	Hourly	Lower Step 2 score – lower peak loads
65	Mountlake Terrace	Northgate	347	Local	Frequent	Higher Step 2 score – higher peak loads
67	NE Tacoma	Federal Way	182	Local	Hourly	Lower social equity score (proportion of riders boarding in low-income census tracts is now less than system average)
72	Overlake	Bellevue	233	Hourly	Local	Higher land use score (more households per corridor mile) and social equity score (proportion of riders boarding in low-income and minority census tracts is now greater than system average)
80	Redmond	Eastgate	221	Local	Hourly	Correction
84	Renton	Seattle CBD	101	Frequent	Very Frequent	Higher Step 2 score – higher off-peak loads
92	Sand Point	U. District	30	Hourly	Local	Higher land use score – More jobs per corridor mile
95	Shoreline CC	Lake City	330	Local	Hourly	Lower social equity score (proportion of riders boarding in minority census tracts is now less than system average)
96	Shoreline CC	Greenwood	5	Hourly	Local	Higher social equity score (proportion of riders boarding in low-income census tracts is now greater than system average)
97	Totem Lake	Seattle CBD	255	Frequent	Very Frequent	Higher Step 2 score – higher off-peak loads

Appendix I:
2012 Service Changes

Month	Route	Description of Change	Type
February	149/907	Route 149 changed to DART service; renumbered as Route 907.	Deleted route/ added new route
February	186/915	Route 186 weekday midday and Saturday service changed to DART service and renumbered to 915	Deleted route/ added new route
February	221	Revised to operate both directions via West Lake Sammamish Pkwy NE, Leary Way NE, Bear Creek Pkwy and 161st Ave NE.	Revised routing
February	240	Service frequency improved from 30 to 15 minutes during portions of each peak period	Improved frequency
February	251/931	Changed to DART service and renumbered to Route 931. Service area revised.	Deleted route/ new route
February	910	DART area revised to serve Walmart and a new DART area northeast of the Supermall.	Revised routing
June	25	Revised to operate via UW campus and frequency reduced from every 30 minutes to every 60 minutes during peak periods.	Revised routing; Reduced frequency
June	38	Deleted route	Deleted route
June	71	Improve Sunday frequency	Improved frequency
June	72	Improve Sunday frequency	Improved frequency
June	73	Improve Sunday frequency	Improved frequency
June	79	Deleted route	Deleted route
June	119	Deleted three evening trips.	Reduced trips
June	129	Deleted route	Deleted route
June	139	Deleted service after 8 p.m.	Reduced span
June	162	Delete route	Deleted route
June	175	Delete route	Deleted route
June	177/178/ 196	Convert thirteen Route 177 trips to Route 178 trips by extending to South Federal Way Park and Ride; add two new Route 177 trips; Delete route 196	Reduced trips/ added new route/ deleted route
June	180	Extended evening service from Kent to Burien	Extended span
June	219	Delete route	Deleted route
June	255	Added two peak trips and delete four off peak trips	Added trips; reduced trips
June	348	Revise routing in Richmond Beach	Revised routing
June	912	Delete route	Deleted route
June	925	Delete route	Deleted route
June	935	Delete midday service	Reduced span
September	C Line	New route to serve Westwood Village, Fauntleroy, Alaska Junction and downtown Seattle. Replaces portions of route 54 local, 54 express, and 55.	Added new route
September	D Line	New route to serve Crown Hill, Ballard, Uptown and downtown Seattle. Replaces portions of Routes 15 and 18.	Added new route
September	1	Link with Route 14 instead of Route 36.	Revised routing
September	2EX / 29	Renumber as Route 29; extend to Ballard.	Revised routing; added trips
September	3N	Revise weekend early morning/evening service to not serve the Raye Street loop.	Revised routing

Month	Route	Description of Change	Type
September	5	No longer provide service between Northgate Transit Center and Greenwood Avenue N, operate all trips to Shoreline Community College.	Revised routing
September	10	No longer linked with Route 12.	Revised routing
September	11	No longer linked with Route 125.	Revised routing
September	12	No longer linked with Route 10.	Revised routing
September	14N / 47	Revise in downtown Seattle; renumber as Route 47; Operate at reduced frequency during off-peak, night and weekends.	Revised routing; reduced frequency
September	14S	Operate at reduced frequency at night.	Reduced frequency
September	15	Delete route; provide alternate service on RapidRide D Line.	Deleted route
September	15EX	No changes to the current routing. Operate fewer trips.	Revised routing; reduced trips
September	17	Delete; provide alternate service on routes 29, 32, 40, 61, and 62.	Deleted route
September	17EX	Add one morning trip	Added trip
September	18	Delete; provide alternate service on RapidRide D Line and Route 40.	Deleted route
September	19	Revise in downtown Seattle and link with Route 124.	Revised routing
September	21	Revise to provide service between Westwood Village and downtown Seattle. Add frequency.	Revised routing; higher frequency
September	21EX	Delete one morning and one evening trip.	Reduced trips
September	22	Revise routing to serve Arbor Heights, Alaska Junction, Westwood Village and Gatewood. Reduce frequency.	Revised routing; reduced frequency
September	23	Delete; provide alternate service on with Route 131.	Deleted route
September	24	Reduce evening hours of operation by ending around 9:30 p.m. Link with Route 124 instead of routes 131/132.	Reduced span; revised routing
September	26	Link with routes 131/132 instead of Route 124.	Revised routing
September	27	Reduce evening hours of operation by ending around 9:30 p.m. Link with Route 33 instead of Route 17.	Reduced span; revised routing
September	28	Revise routing to no longer operate north of NW 103rd St. Link with Route 23 instead of routes 131/132.	Revised routing
September	28EX	Add two trips to extend morning span of service.	Added trips
September	30	Revise routing to operate between Sand Point and the University District via Ravenna.	Revised routing
September	31	Link with routes 65/75 instead of Route 68.	Revised routing
September	32	New route to serve Uptown, West Seattle Center, Interbay.	Added new route
September	33	Improve midday frequency to 30 minutes, operate on 3rd Avenue, and link with Route 27 instead of routes 34/39.	Revised routing; improved frequency
September	34EX	Delete route; provide alternate service on routes 7, 7X, 50 and 106.	Deleted route
September	35	Delete route.	Deleted route
September	36	No longer linked with Route 1.	Revised routing
September	37	Reduce number of trips.	Reduced trips
September	39	Delete; provide alternate service on Route 50.	Deleted route
September	40	New route connecting Northgate Transit Center, North Seattle Community College, Crown Hill, Sunset Hill, Ballard, Fremont and downtown Seattle.	Added new route
September	45EX	Delete; provide alternate service on routes 13, 31 and 32.	Deleted route

Month	Route	Description of Change	Type
September	46	Delete; provide alternate service on routes 31, 32, 40, and 44.	Deleted route
September	50	New route to serve Alki, Admiral District, North Delridge, SODO station, VA Medical Center, Beacon Hill, Columbia City, Seward Park, and Othello Station.	Added new route
September	51	Delete; provide alternate service on routes 50 and 128.	Deleted route
September	53	Delete; provide alternate service on routes 37, 773, and 775.	Deleted route
September	54	Delete; provide alternate service on RapidRide C Line, and routes 116 and 120.	Deleted route
September	54EX	Delete; provide alternate service on RapidRide C Line, and routes 116 and 120.	Deleted route
September	55	Operate peak only.	Reduced span
September	56	Delete; provide alternate service on routes 50 and 56 Express.	Deleted route
September	57	Revise routing to operate on the Alaskan Way Viaduct. Operate peak only	Revised routing; reduced span
September	60	Revise routing to extend to Westwood Village.	Revised routing
September	61	New route to serve North Beach, Sunset Hill, Leary Way, and downtown Ballard. Replaces Route 17 service on 32nd Avenue NW.	Added new route
September	62	New route to serve provide one-way peak period service between downtown Seattle and the Ballard Business District.	Added new route
September	65	Link with routes 31/32 instead of routes 66/67.	Revised routing
September	67	Link with Route 68 instead of Route 65.	Revised routing
September	68	Link with Route 67 instead of Route 31.	Revised routing
September	75	Revise routing to operate between Northgate Transit Center and the University District.	Revised routing
September	81	Delete; provide alternate service on RapidRide D Line.	Deleted route
September	85	Delete; provide alternate service on RapidRide C Line and Route 120.	Deleted route
September	99	Delete off-peak service.	Reduced span
September	113	Revise route to operate on 2nd Avenue.	Revised routing
September	116/118/ 119	Operate additional trips on Route 116. Revise stop pattern.	Added trips; revised routing
September	120	Revise routing to serve Westwood Village. Route 60 provides alternate service.	Revised routing
September	121	Operate on 2nd Avenue in downtown Seattle	Revised routing
September	122	Operate on 2nd Avenue in downtown Seattle	Revised routing
September	123EX	Revise routing to operate between Gregory Heights and downtown Seattle via the Burien Transit Center, SR-509 and the Alaskan Way Viaduct.	Revised routing
September	124	Revise routing to operate via Georgetown and Airport Way South between Tukwila International Boulevard Station and downtown Seattle.	Revised routing
September	125	Revise routing to operate between Westwood Village and downtown Seattle via South Seattle Community College and the Alaskan Way Viaduct.. No longer linked with Route 11. Reduced frequency.	Revised routing; reduced frequency and span

Month	Route	Description of Change	Type
September	128	Revise routing to extend to Atlantic Street in the Admiral District. Higher frequency.	Revised routing; higher frequency
September	131	Revise routing to operate between the Burien Transit Center and downtown Seattle via Highland Park and 4th Avenue S. Higher frequency.	Revised routing; higher frequency
September	132	Revise routing to operate between the Burien Transit Center and downtown Seattle via South Park and 4th Avenue S. Higher frequency.	Revised routing; higher frequency
September	133	Delete; provide alternate service on Routes 120, 121, 122, and 123, which connect to routes 70, 71X, 72X, and 73.	Deleted route
September	134	Delete; provide alternate service on routes 106, 124, 131, and 132.	Deleted route
September	155	No longer linked with Route 156.	Revised routing
September	156	Revise routing to extend to Highline Community College. Higher frequency at night. No longer linked with Route 155.	Revised routing; higher frequency
September	166	Revise routing to extend to the Burien Transit Center via First Avenue S.	Revised routing
September	212	Move route from Downtown Transit Tunnel to surface.	Revised routing
September	217	Move route from Downtown Transit Tunnel to surface.	Revised routing
September	218	Delete two morning and two evening trips.	Reduced trips
September	265	Add trips	Added trips
September	301	Revise northbound routing to use Seattle Boulevard S.	Revised routing
September	306	Move northbound routing from 3rd Avenue to 4th Avenue.	Revised routing
September	308	Move northbound routing from 3rd Avenue to 4th Avenue.	Revised routing
September	312	Move northbound routing from 3rd Avenue to 4th Avenue.	Revised routing
September	330	No longer linked to Route 75.	Revised routing
September	914	Minor routing change on Kent East Hill.	Revised routing
September	916	Minor routing change on Kent East Hill.	Revised routing

Appendix J:
Information Sources

This report is based on information collected from many sources. Ridership and reliability information is gathered by computers on Metro buses. The automated vehicle location (AVL) system on all Metro buses gathers data about bus locations that we use to track on-time performance. An automatic passenger counter (APC) system, installed on about 15 percent of Metro's buses, provides ridership data. For this report, we used ridership and service information from the spring 2012 service change, between February 18 and June 8, 2012. This is the most recent full period between service changes for which we had final information. We used reliability information from a longer period—between August 2011 and July 2012.

Metro made changes to the way ridership is counted between 2011 and 2012 to prepare for the end of the Ride Free Area and to better use data from our upgraded on-board systems (OBS). These changes affect route-level ridership, as riders who previously were not charged a fare are now included in route-level counts. Major changes in route performance data from spring 2012 are:

- **Changes to ridership counting for routes serving downtown Seattle**. Passenger rides that occurs completely within downtown Seattle are now included in route-level ridership data. These rides were formerly excluded because riders did not pay a fare within the Ride Free Area. Before this change, total rides on a trip were calculated by using the higher of boardings and exits to measure the number of riders using the bus beyond the Ride Free Area. Now that all riders are charged a fare, rides are being calculated by using boardings only. This change was made in spring 2012 rather than waiting until fall 2012 to enable us to compare information before and after the Ride Free Area was discontinued.

- **Changes to where some trips are considered to begin and end**. Start and endpoints have been revised for all trips on separate routes that are connected without a layover time, or "through-routed." Trips are now considered to start or end where the signs change on the bus, which means data will now match more closely with what riders experience on the street.

Metro uses the most current data available at the time the report is produced. However, by the time the report is produced, service changes have often been made that make the data obsolete. Some routes have been changed or deleted, and new routes have been created. Information about improvements and system changes made each summer or fall is reflected in the guidelines report for the following calendar year. For example, this 2012 report is the first one that includes the RapidRide B Line and associated restructuring of service in East King County that occurred in fall 2011

We use the annual guidelines report to guide decisions, but we also consider any new information or changes since the time the report was produced before suggesting or proposing service changes. We are looking into ways to provide this information more quickly in future years.

Appendix K:
Corridor Analysis Tables

Setting a target service level for a corridor on the All-Day and Peak Network

Metro uses the service guidelines to evaluate the All-Day and Peak network and establish target service levels for transit corridors throughout King County. The tables on the following pages present the corridor analysis including target service levels for each corridor as of spring 2012. The process of setting target service levels has two steps which are outlined in the service guidelines.

In step 1, we ask:

- **How many jobs and households are nearby?** This indicates how productive bus service is likely to be. The answer results in the **productivity score**. Total possible score: 20.
- **How many people board the bus in low-income or minority census tracts?** We determine low-income and minority census tracts from census data. If the percentage of people boarding is above the percentage of boardings in low-income and minority tracts in the county overall, a **social equity** score is given. Total possible score: 10.
- **Does this corridor get people to centers of employment or other activity?** These centers are defined by our region's planning organization, and we also include some transit activity centers. The answer results in the **geographic value** score. Total possible score: 10.

We assign a preliminary level of service based on the total score.

In step 2, we ask:

- Would the preliminary service level accommodate current riders? We increase the target service level if needed. This step helps us make sure there is room on the suggested level of service for the people currently using it.

Sample Corridor X

Step 1 Score

Productivity	7
Social Equity	5
Geographic Value	10
Total	22

Preliminary target service level:
Frequent

Step 2

Increase service level to serve actual riders based on average passenger loads.

Final target service level:
Very Frequent

Appendix K: Corridor Analysis of All-Day Network: Step One

	Connections				Land Use - Productivity				Social Equity - Demographics				Geographic Value - Primary Connections						Preliminary Service Levels		
CORRIDOR ID. NUMBER	BETWEEN	AND	VIA	MAJOR ROUTE	HOUSEHOLDS/ CORRIDOR MI	POINTS	JOBS/ CORRIDOR MI	POINTS	MINORITY	POINTS	LOW-INCOME	POINTS	ACTIVITY CENTERS	POINTS	REGIONAL & MANUFACTURING/INDUSTRIAL CENTERS	POINTS	**TOTAL SCORE**	**RAPIDRIDE**	PEAK	OFFPEAK	NIGHT
1	Admiral District	Southcenter	California Ave SW, Military Rd, TIBS	128	965	0	586	0	72%	5	56%	5	Yes	5		0	15		30	30	0
2	Alki	Seattle CBD	Admiral Way	56	1,987	4	9,150	4	0%	0	10%	0		0		0	8		60	60	0
3	Auburn	Burien	Kent, SeaTac	180	549	0	1,153	0	64%	5	99%	5		0	Yes	10	20		15	30	30
4	Auburn/GRCC	Federal Way	15th St SW, Lea Hill Rd	181	550	0	608	0	31%	0	87%	5		0	Yes	10	15		30	30	0
5	Aurora Village	Seattle CBD	Aurora Ave N	E Line	2,308	7	8,195	4	49%	0	29%	0	Yes	5		0	16	Yes	< 15	15	15
6	Aurora Village	Northgate	Meridian Av N	346	1,077	0	902	0	95%	5	40%	0	Yes	5		0	10		30	30	0
7	Avondale	Kirkland	NE 85th St, NE Redmond Wy, Avondale Wy NE	248	1,102	0	1,414	0	81%	5	30%	0	Yes	5		0	10		30	30	0
8	Ballard	U. District	Green Lake, Greenwood	48N	2,262	4	1,312	0	5%	0	8%	0	Yes	5		0	9		60	60	0
9	Ballard	Lake City	Holman Road, Northgate	75	2,005	4	1,744	0	34%	0	53%	0		0	Yes	10	14		30	30	0
10	Ballard	Seattle CBD	15th Ave W	D Line	3,220	7	10,394	4	0%	0	29%	0		0	Yes	10	21	Yes	< 15	15	15
11	Ballard	U. District	Wallingford (N 45th St)	44	2,461	7	6,597	4	17%	0	32%	0		0	Yes	10	21		15	30	30
12	Ballard	Seattle CBD	W Nickerson, Westlake Av N, 9th Ave	17	2,277	7	12,552	7	0%	0	2%	0		0	Yes	10	24		15	30	30
13	Beacon Hill	Seattle CBD	Beacon Ave	36	2,165	4	11,669	7	100%	5	60%	5		0		0	21		15	30	30
14	Bellevue	Eastgate	Lake Hills Connector	271	640	0	3,321	0	98%	5	94%	5	Yes	5		0	15		30	30	0
15	Bellevue	Redmond	NE 8th St, 156th Ave NE	B Line	1,514	4	4,251	0	91%	5	0%	0		0	Yes	10	19	Yes	< 15	15	15
16	Bellevue	Renton	Newcastle, Factoria	240	875	0	2,213	0	87%	5	60%	5	Yes	5		0	15		30	30	0
17	Burien	Seattle CBD	Delridge, Ambaum	120	1,263	4	4,538	0	80%	5	72%	5		0	Yes	10	24		15	30	30
18	Burien	Seattle CBD	1st Ave S, South Park, Airport Wy	131	1,203	4	5,470	0	69%	5	86%	5	Yes	5		0	19		15	30	30
19	Burien	Seattle CBD	Des Moines Mem Dr, South Park	132	1,331	4	7,448	4	79%	5	93%	5		0	Yes	10	28		15	15	30
20	Capitol Hill	White Center	South Park, Georgetown, Beacon Hill, First Hill	60	1,513	4	3,084	0	82%	5	76%	5		0	Yes	10	24		15	30	30
21	Capitol Hill	Seattle CBD	15th Ave E	10	4,551	10	20,221	10	0%	0	91%	5		0		0	25		15	15	30
22	Capitol Hill	Seattle CBD	Madison St	12	3,922	10	33,098	10	19%	0	91%	5		0	Yes	10	35		15	15	30
23	Central District	Seattle CBD	E Jefferson St	3S/4S	3,920	10	30,381	10	93%	5	88%	5	Yes	5		0	35		15	15	30
24	Colman Park	Seattle CBD	Leschi, Yesler	27	2,950	7	17,304	10	89%	5	54%	0		0		0	22		15	30	30
25	Cowen Park	Seattle CBD	University Way, I-5	73	2,342	7	17,749	10	80%	5	96%	5		0	Yes	10	37		15	15	30
26	Discovery Park	Seattle CBD	Gilman Ave W, 22nd Ave W, Thorndyke Av W	33	2,586	7	12,159	7	0%	0	30%	0		0		0	14		30	30	0
27	Eastgate	Bellevue	Newport Wy , S. Bellevue	241	883	0	3,544	0	71%	5	54%	0		0		0	5		60	60	0
28	Eastgate	Bellevue	Somerset, Factoria, Eastgate	246	866	0	3,019	0	81%	5	35%	0		0		0	5		60	60	0
29	Eastgate	Overlake	Phantom Lake	226	618	0	723	0	26%	0	14%	0		0		0	0		60	60	0
30	Enumclaw	Auburn	Auburn Wy S, SR 164	186/915	201	0	360	0	23%	0	61%	5	Yes	5		0	10		30	30	0
31	Fairwood	Renton	S Puget Dr, Royal Hills	148	720	0	493	0	100%	5	46%	0	Yes	5		0	10		30	30	0
32	Federal Way	SeaTac	SR-99	A Line	734	0	1,436	0	100%	5	94%	5		0	Yes	10	20	Yes	< 15	15	15
33	Federal Way	Kent	Military Road	183	771	0	547	0	95%	5	70%	5		0	Yes	10	20		15	30	30
34	Fremont	Seattle CBD	Dexter Ave N	26/28	3,953	10	22,372	10	0%	0	12%	0		0	Yes	10	30		15	15	30
35	Fremont	U. District	N 40th St	30/31	2,066	4	11,696	7	44%	0	59%	5	Yes	5		0	21		15	30	30
36	Fremont	Broadview	8th Av NW, 3rd Av NW	28	1,403	4	1,186	0	0%	0	14%	0		0		0	4		60	60	0
37	Green River CC	Kent	132nd Ave SE	164	938	0	567	0	59%	5	82%	5	Yes	5		0	15		30	30	0

Threshold	Points	Threshold	Points	Threshold	Points	Threshold	Points	Threshold	Points	Threshold	Points
> 3,413	10	> 16,545	10	>= 54%	5	>= 56%	5	Yes	5	Yes	10
> 2,276	7	> 10,922	7	< 54%	0	< 56%	0	No	0	No	0
> 1,138	4	> 5,494	4								

Levels	Points	Points	Points
15	19-40	25-40	--
30	10-18	10-24	19-40
60	0-9	0-9	0-18

(continued) Corridor Analysis of All-Day Network: Step One

	Connections				Land Use - Productivity				Social Equity - Demographics				Geographic Value - Primary Connections						Preliminary Service Levels		
CORRIDOR ID. NUMBER	BETWEEN	AND	VIA	MAJOR ROUTE	HOUSEHOLDS/ CORRIDOR MI	POINTS	JOBS/ CORRIDOR MI	POINTS	MINORITY	POINTS	LOW-INCOME	POINTS	ACTIVITY CENTERS	POINTS	REGIONAL & MANUFACTURING/INDUSTRIAL CENTERS	POINTS	**TOTAL SCORE**	**RAPIDRIDE**	PEAK	OFFPEAK	NIGHT
38	Greenwood	Seattle CBD	Greenwood Ave N	5	3,522	10	13,109	7	0%	0	25%	0	Yes	5		0	22		15	30	30
39	High Point	Seattle CBD	35th Ave SW	21	1,623	4	7,367	4	31%	0	35%	0	Yes	5		0	13		30	30	0
40	Issaquah	Eastgate	Newport Way	271	236	0	966	0	70%	5	61%	5		0		0	10		30	30	0
41	Issaquah	Overlake	Sammamish, Bear Creek	269	435	0	1,627	0	83%	5	0%	0	Yes	5		0	10		30	30	0
42	Issaquah	North Bend	Fall City, Snoqualmie	209	120	0	345	0	7%	0	26%	0	Yes	5		0	5		60	60	0
43	Kenmore	Kirkland	Juanita	234	947	0	653	0	0%	0	0%	0	Yes	5		0	5		60	60	0
44	Kenmore	Shoreline	Lake Forest Park, Aurora Village TC	331	645	0	443	0	30%	0	10%	0	Yes	5		0	5		60	60	0
45	Kenmore	U. District	Lake Forest Park, Lake City	372EX	1,135	0	3,270	0	31%	0	63%	5	Yes	5		0	10		30	30	0
46	Kenmore	Totem Lake	Finn Hill, Juanita	935DART	713	0	630	0	0%	0	2%	0	Yes	5		0	5		60	60	0
47	Kennydale	Renton	Edmonds Av NE	909DART	992	0	545	0	87%	5	35%	0		0		0	5		60	60	0
48	Kent	Burien	Kent-DM Rd, S. 240th St, 1st Av S	131/166	830	0	668	0	69%	5	86%	5	Yes	5		0	15		30	30	0
49	Kent	Maple Valley	Kent-Kangley Road	168	619	0	536	0	62%	5	57%	5	Yes	5		0	15		30	30	0
50	Kent	Renton	Kent East Hill	169	729	0	965	0	100%	5	36%	0		0	Yes	10	15		30	30	0
51	Kent	Seattle CBD	Tukwila	150	517	0	5,352	0	100%	5	100%	5		0	Yes	10	20		15	30	30
52	Kent	Renton	84th Av S, Lind Av SW	153	351	0	1,960	0	99%	5	95%	5		0	Yes	10	20		15	30	30
53	Kirkland	Bellevue	South Kirkland	234/235	1,433	4	4,684	0	23%	0	0%	0	Yes	5		0	9		60	60	0
54	Kirkland	Factoria	Overlake, Crossroads, Eastgate	245	819	0	1,499	0	65%	5	16%	0	Yes	5		0	10		30	30	0
55	Lake City	Seattle CBD	NE 125th St, Northgate, I-5	41	1,175	4	7,898	4	61%	5	61%	5		0	Yes	10	28		15	15	30
56	Lake City	U. District	Lake City, Sand Point	75	1,070	0	4,646	0	24%	0	68%	5	Yes	5		0	10		30	30	0
57	Lake City	U. District	35th Ave NE, Childrens Hospital	65	1,348	4	4,419	0	49%	0	63%	5	Yes	5		0	14		30	30	0
58	Laurelhurst	U. District	NE 45th St	25	842	0	8,014	4	13%	0	28%	0		0		0	4		60	60	0
59	Madison Park	Seattle CBD	Madison St	11	3,944	10	18,268	10	29%	0	81%	5	Yes	5		0	30		15	15	30
60	Madrona	Seattle CBD	Union St	2S	3,754	10	16,025	7	37%	0	84%	5		0		0	22		15	30	30
61	Magnolia	Seattle CBD	34th Ave W, 28th Ave W	24	2,688	7	11,680	7	0%	0	27%	0	Yes	5		0	19		15	30	30
62	Mercer Island	S Mercer Island	Island Crest Way	204	588	0	640	0	0%	0	0%	0	Yes	5		0	5		60	60	0
63	Mirror Lake	Federal Way	S 312th St	901DART	868	0	495	0	97%	5	97%	5		0		0	10		30	30	0
64	Mount Baker	Seattle CBD	31st Av S, S Jackson St	14S	2,318	7	16,126	7	100%	5	87%	5		0		0	24		15	30	30
65	Mountlake Terrace	Northgate	15th Ave NE, 5th Ave NE	347	1,221	4	948	0	51%	0	36%	0		0		0	4		60	60	0
66	Mt Baker	U. District	23rd Ave E	48S	1,560	4	5,280	0	89%	5	58%	5	Yes	5		0	19		15	30	30
67	NE Tacoma	Federal Way	SW 356th St, 9th Ave S	182	335	0	921	0	61%	5	39%	0		0		0	5		60	60	0
68	Northgate	U. District	Roosevelt	67	1,302	4	4,554	0	47%	0	60%	5		0	Yes	10	19		15	30	30
69	Northgate	Seattle CBD	Green Lake, Wallingford	16	2,700	7	9,122	4	26%	0	55%	0	Yes	5		0	16		30	30	0
70	Northgate	U. District	Roosevelt Way NE, NE 75th St	68	1,583	4	5,379	0	47%	0	78%	5		0		0	9		60	60	0
71	Othello Station	Columbia City	Seward Park	39	1,141	4	528	0	100%	5	71%	5		0		0	14		30	30	0
72	Overlake P&R	Bellevue	Bell-Red Road	226	1,658	4	8,414	4	99%	5	82%	5		0		0	18		30	30	0
73	Overlake	Bellevue	W Lake Sammamish Pkwy, S Kirkland P&R, Bellevue Way NE	249	962	0	3,136	0	38%	0	6%	0	Yes	5		0	5		60	60	0
74	Pacific	Auburn	Algona	917DART	294	0	410	0	92%	5	100%	5		0		0	10		30	30	0
75	Queen Anne	Seattle CBD	Queen Anne Ave N	2/13	4,238	10	17,696	10	0%	0	48%	0		0		0	20		15	30	30
76	Queen Anne	Seattle CBD	Taylor Ave N	3N/4N	4,093	10	18,839	10	0%	0	43%	0		0		0	20		15	30	30
77	Rainier Beach	Seattle CBD	Rainier Ave	7	1,898	4	10,098	4	100%	5	71%	5		0		0	18		30	30	0
78	Rainier Beach	Seattle Center	MLK Jr Wy, E John St, Denny Way	8	2,798	7	3,255	0	41%	0	81%	5		0	Yes	10	22		15	30	30

Threshold	Points	Threshold	Points	Threshold	Points	Threshold	Points	Threshold	Points	Threshold	Points
> 3,413	10	> 16,545	10	>= 54%	5	>= 56%	5	Yes	5	Yes	10
> 2,276	7	> 10,922	7	< 54%	0	< 56%	0	No	0	No	0
> 1,138	4	> 5,494	4								

Levels	Points	Points	Points
15	19-40	25-40	--
30	10-18	10-24	19-40
60	0-9	0-9	0-18

(continued) Corridor Analysis of All-Day Network: Step One

	Connections				Land Use - Productivity				Social Equity - Demographics				Geographic Value - Primary Connections						Preliminary Service Levels		
CORRIDOR ID NUMBER	BETWEEN	AND	VIA	MAJOR ROUTE	HOUSEHOLDS/ CORRIDOR MI	POINTS	JOBS/ CORRIDOR MI	POINTS	MINORITY	POINTS	LOW-INCOME	POINTS	ACTIVITY CENTERS	POINTS	REGIONAL & MANUFACTURING/INDUSTRIAL CENTERS	POINTS	**TOTAL SCORE**	**RAPIDRIDE**	PEAK	OFFPEAK	NIGHT
79	Rainier Beach	Capitol Hill	Rainier Ave	9EX	2,231	4	3,519	0	96%	5	71%	5		0		0	14		30	30	0
80	Redmond	Eastgate	148th Ave, Crossroads, Bellevue College	221	676	0	964	0	91%	5	47%	0		0		0	5		60	60	0
81	Redmond	Totem Lake	Willows Road	930DART	715	0	2,237	0	66%	5	11%	0		0	Yes	10	15		30	30	0
82	Redmond	Fall City	Duvall, Carnation	224	179	0	225	0	29%	0	11%	0	Yes	5		0	5		60	60	0
83	Renton	Burien	S 154th St	F Line	478	0	1,330	0	93%	5	61%	5		0	Yes	10	20	Yes	< 15	15	15
84	Renton	Seattle CBD	MLK Jr Wy, I-5	101	804	0	6,354	4	100%	5	44%	0		0	Yes	10	19		15	30	30
85	Renton	Rainier Beach	West Hill, Rainier View	107	797	0	485	0	100%	5	63%	5		0		0	10		30	30	0
86	Renton	Seattle CBD	Skyway, S. Beacon Hill	106	981	0	6,492	4	97%	5	57%	5	Yes	5		0	19		15	30	30
87	Renton	Renton Highlands	NE 4th St, Union Ave NE	105	1,170	4	593	0	97%	5	90%	5	Yes	5		0	19		15	30	30
88	Renton	Enumclaw	Maple Valley, Black Diamond	907	187	0	235	0	15%	0	16%	0	Yes	5		0	5		60	60	0
89	Renton Highlands	Renton	NE 7th St, Edmonds Av NE	908DART	967	0	540	0	82%	5	67%	5		0		0	10		30	30	0
90	Richmond Beach	Northgate	Richmond Bch Rd, 15th Ave NE	348	1,268	4	1,003	0	58%	5	40%	0	Yes	5		0	14		30	30	0
91	S Vashon	N Vashon	Valley Center	118	34	0	69	0	0%	0	0%	0		0		0	0		60	60	0
92	Sand Point	U. District	NE 55th St	30	1,823	4	5,778	4	35%	0	73%	5		0		0	13		30	30	0
93	Shoreline	U. District	Jackson Park, 15th Av NE	373EX	1,153	4	2,684	0	85%	5	60%	5	Yes	5		0	19		15	30	30
94	Shoreline CC	Northgate	N 130th St, Meridian Av N	345	1,231	4	1,553	0	56%	5	56%	5	Yes	5		0	19		15	30	30
95	Shoreline CC	Lake City	N 155th St, Jackson Park	330	1,350	4	924	0	52%	0	37%	0	Yes	5		0	9		60	60	0
96	Shoreline CC	Greenwood	Greenwood Av N	5	1,760	4	919	0	9%	0	56%	5	Yes	5		0	14		30	30	0
97	Totem Lake	Seattle CBD	Kirkland, SR-520	255	993	0	5,743	4	0%	0	2%	0		0	Yes	10	14		30	30	0
98	Totem Lake	Kirkland	Kingsgate	236	946	0	1,105	0	28%	0	54%	0	Yes	5		0	5		60	60	0
99	Tukwila	Seattle CBD	Pacific Hwy S, 4th Ave S	124	1,127	0	9,804	4	74%	5	70%	5		0	Yes	10	24		15	30	30
100	Tukwila	Des Moines	McMicken Heights, Sea-Tac	156	346	0	628	0	100%	5	88%	5		0	Yes	10	20		15	30	30
101	Tukwila	Fairwood	S 180th St, Carr Road	155	569	0	1,104	0	100%	5	40%	0	Yes	5		0	10		30	30	0
102	Twin Lakes	Federal Way	SW Campus Dr, 1st Ave S	903	751	0	1,064	0	100%	5	87%	5		0		0	10		30	30	0
103	Twin Lakes	Federal Way	S 320th St	187	718	0	549	0	62%	5	51%	0		0		0	5		60	60	0
104	U. District	Seattle CBD	Eastlake, Fairview	70	2,891	7	22,154	10	39%	0	88%	5		0	Yes	10	32		15	15	30
105	U. District	Seattle CBD	Broadway	49	3,164	7	11,208	7	42%	0	77%	5		0	Yes	10	29		15	15	30
106	U. District	Bellevue	SR-520	271	870	0	6,627	4	57%	5	43%	0		0	Yes	10	19		15	30	30
107	U. District	Seattle CBD	Lakeview	25	1,910	4	14,210	7	44%	0	80%	5		0		0	16		30	30	0
108	UW Bothell	Redmond	Woodinville, Cottage Lake	931DART	315	0	565	0	9%	0	19%	0	Yes	5		0	5		60	60	0
109	UW Bothell/CCC	Kirkland	132nd Ave NE, Lk Wash Voch Tech	238	846	0	838	0	0%	0	12%	0	Yes	5		0	5		60	60	0
110	Wedgwood	Cowen Park	View Ridge, NE 65th St	71	1,341	4	431	0	65%	5	85%	5		0		0	14		30	30	0
111	West Seattle	Seattle CBD	Fauntleroy, Alaska Junction	C Line	2,090	4	7,340	4	0%	0	0%	0	Yes	5		0	13	Yes	< 15	15	15
112	White Center	Seattle CBD	16th Ave SW, SSCC	125	831	0	6,128	4	88%	5	26%	0	Yes	5		0	14		30	30	0
113	White Center	Seattle CBD	Highland Park, 4th Ave S	23	1,285	4	10,593	4	81%	5	63%	5		0		0	18		30	30	0

Threshold	Points	Threshold	Points	Threshold	Points	Threshold	Points	Threshold	Points	Threshold	Points
> 3,413	10	> 16,545	10	>= 54%	5	>= 56%	5	Yes	5	Yes	10
> 2,276	7	> 10,922	7	< 54%	0	< 56%	0	No	0	No	0
> 1,138	4	> 5,494	4								

Levels	Points	Points	Points
15	19-40	25-40	--
30	10-18	10-24	19-40
60	0-9	0-9	0-18

Appendix K: Corridor Analysis of All-Day Network: Step Two and Final Suggested Service Levels

	Connections				Loads at Preliminary Service Level		Load-Based Service Level Improvements		Cost Recovery at Preliminary Service Level			Cost Recovery-Based Service Level Improvements			Night Service Additions				Service Level Improvements			Final Suggested Service Levels and Family			
CORRIDOR ID. NUMBER	BETWEEN	AND	VIA	MAJOR ROUTE	PEAK	OFFPEAK	PEAK	OFFPEAK	PEAK	OFFPEAK	NIGHT	PEAK	OFFPEAK	NIGHT	PRIMARY CONNECTION BETWEEN URBAN CENTERS	COST RECOVERY BASIS (8%/16%)	CORRIDOR HAS 15 MIN PEAK SERVICE	ADD WHAT FREQUENCY NIGHT SERVICE?	PEAK	OFFPEAK	NIGHT	PEAK	OFFPEAK	NIGHT	RESULTING SERVICE FAMILY
1	Admiral District	Southcenter	California Ave SW, Military Rd, TIBS	128	0.70	0.74	0	0	45%	28%	36%	0	0	1	0	30	0	30	0	0	1	30	30	30	Local
2	Alki	Seattle CBD	Admiral Way	56	1.86	0.87	2	1	82%	44%	29%	1	0	0	0	30	30	30	2	1	0	**15**	30	30	Frequent
3	Auburn	Burien	Kent, SeaTac	180	0.39	0.80	0	1	14%	25%	12%	0	0	0	60	60	30	30	0	1	0	**15**	**15**	30	Very Frequent
4	Auburn/GRCC	Federal Way	15th St SW, Lea Hill Rd	181	0.57	0.55	0	0	25%	21%	27%	0	0	0	60	30	0	30	0	0	0	30	30	30	Local
5	Aurora Village	Seattle CBD	Aurora Ave N	E Line	0.90	0.77	1	0	46%	44%	31%	0	0	0	0	30	30	30	1	0	0	< 15	15	15	Very Frequent
6	Aurora Village	Northgate	Meridian Av N	346	0.68	0.60	0	0	45%	23%	11%	0	0	0	0	60	0	60	0	0	0	30	30	60	Local
7	Avondale	Kirkland	NE 85th St, NE Redmond Wy, Avondale Wy NE	248	0.33	0.21	0	0	15%	12%	15%	0	0	0	0	60	0	60	0	0	0	30	30	**60**	Local
8	Ballard	U. District	Green Lake, Greenwood	48N	2.57	1.91	2	2	159%	118%	67%	2	2	1	0	30	30	30	2	2	1	**15**	15	**30**	Very Frequent
9	Ballard	Lake City	Holman Road, Northgate	75	0.69	0.55	0	0	45%	33%	41%	0	0	1	60	30	0	30	0	0	1	30	30	30	Local
10	Ballard	Seattle CBD	15th Ave W	D Line	0.68	0.89	0	1	47%	62%	25%	0	1	0	60	30	30	30	0	1	0	< 15	< 15	15	Very Frequent
11	Ballard	U. District	Wallingford (N 45th St)	44	1.17	1.56	1	2	56%	78%	46%	1	1	1	60	30	30	30	1	2	1	< 15	**< 15**	15	Very Frequent
12	Ballard	Seattle CBD	W Nickerson, Westlake Av N, 9th Ave	17	0.77	0.68	0	0	32%	29%	14%	0	0	0	60	60	30	30	0	0	0	15	30	30	Frequent
13	Beacon Hill	Seattle CBD	Beacon Ave	36	1.65	2.53	2	2	124%	138%	44%	2	2	1	0	30	30	30	2	2	1	< 15	< 15	15	Very Frequent
14	Bellevue	Eastgate	Lake Hills Connector	271	0.90	0.66	1	0	31%	22%	15%	0	0	0	0	60	30	30	1	0	0	**15**	**30**	30	Frequent
15	Bellevue	Redmond	NE 8th St, 156th Ave NE	B Line	0.61	0.51	0	0	48%	26%	23%	0	0	0	60	30	30	30	0	0	0	< 15	15	15	Very Frequent
16	Bellevue	Renton	Newcastle, Factoria	240	0.36	0.54	0	0	16%	17%	23%	0	0	0	0	30	0	30	0	0	0	30	30	30	Local
17	Burien	Seattle CBD	Delridge, Ambaum	120	1.33	1.15	1	1	75%	72%	29%	1	1	0	60	30	30	30	1	1	0	< 15	15	30	Very Frequent
18	Burien	Seattle CBD	1st Ave S, South Park, Airport Wy	131	0.15	0.23	0	0	7%	9%	6%	0	0	0	0	0	30	30	0	0	0	**15**	**30**	**30**	Frequent
19	Burien	Seattle CBD	Des Moines Mem Dr, South Park	132	0.32	0.14	0	0	19%	6%	6%	0	0	0	60	0	30	30	0	0	0	**15**	**15**	**30**	Very Frequent
20	Capitol Hill	White Center	South Park, Georgetown, Beacon Hill, First Hill	60	0.67	1.02	0	1	33%	40%	16%	0	0	0	60	60	30	30	0	1	0	**15**	**15**	30	Very Frequent
21	Capitol Hill	Seattle CBD	15th Ave E	10	1.37	0.80	1	1	103%	43%	22%	2	0	0	0	30	30	30	2	1	0	< 15	**< 15**	30	Very Frequent
22	Capitol Hill	Seattle CBD	Madison St	12	1.09	0.62	1	0	128%	36%	20%	2	0	0	60	30	30	30	2	0	0	< 15	15	30	Very Frequent
23	Central District	Seattle CBD	E Jefferson St	3S/4S	1.39	1.63	1	2	90%	81%	44%	1	1	1	0	30	30	30	1	2	1	< 15	< 15	15	Very Frequent
24	Colman Park	Seattle CBD	Leschi, Yesler	27	0.47	0.54	0	0	23%	24%	12%	0	0	0	0	60	30	30	0	0	0	**15**	30	30	Frequent
25	Gowen Park	Seattle CBD	University Way, I-5	73	1.87	1.51	2	2	89%	92%	67%	1	1	1	60	30	30	30	2	2	1	< 15	< 15	**15**	Very Frequent
26	Discovery Park	Seattle CBD	Gilman Ave W, 22nd Ave W, Thorndyke Av W	33	1.10	0.34	1	0	62%	18%	17%	1	0	0	0	30	30	30	1	0	0	**15**	**30**	30	Frequent
27	Eastgate	Bellevue	Newport Wy , S. Bellevue	241	0.40	0.31	0	0	27%	21%	8%	0	0	0	0	0	0	0	0	0	0	**60**	**60**	**0**	Hourly
28	Eastgate	Bellevue	Somerset, Factoria, Eastgate	246	0.30	0.18	0	0	16%	6%	N/A	0	0	N/A	0	N/A	0	0	0	0	0	**60**	60	0	Hourly
29	Eastgate	Overlake	Phantom Lake	226	0.38	0.28	0	0	27%	13%	4%	0	0	0	0	0	0	0	0	0	0	**60**	**60**	**0**	Hourly
30	Enumclaw	Auburn	Auburn Wy S, SR 164	186/915	0.67	0.00	0	0	10%	6%	N/A	0	0	N/A	0	N/A	0	0	0	0	0	30	**30**	0	Local
31	Fairwood	Renton	S Puget Dr, Royal Hills	148	0.46	0.35	0	0	21%	13%	13%	0	0	0	0	60	0	60	0	0	0	30	30	60	Local
32	Federal Way	SeaTac	SR-99	A Line	0.69	0.74	0	0	39%	40%	29%	0	0	0	60	30	30	30	0	0	0	< 15	15	15	Very Frequent
33	Federal Way	Kent	Military Road	183	0.21	0.25	0	0	11%	7%	N/A	0	0	N/A	60	N/A	30	30	0	0	0	**15**	**30**	**30**	Frequent
34	Fremont	Seattle CBD	Dexter Ave N	26/28	1.24	0.68	1	0	62%	38%	44%	1	0	1	60	30	30	30	1	0	1	< 15	15	15	Very Frequent
35	Fremont	U. District	N 40th St	30/31	0.76	1.36	0	1	43%	46%	18%	0	0	0	0	30	30	30	0	1	0	15	15	30	Very Frequent
36	Fremont	Broadview	8th Av NW, 3rd Av NW	28	1.24	0.68	1	0	62%	38%	22%	1	0	0	0	30	0	30	1	0	0	30	**60**	30	Local
37	Green River CC	Kent	132nd Ave SE	164	0.63	0.70	0	0	53%	33%	20%	1	0	0	0	30	30	30	1	0	0	**15**	30	**30**	Frequent

Load Factor*	Peak	Off Peak
>=1.5	2	2
>=0.8	1	1

Cost Recovery*	Peak	Off Peak	Night
>=100%	2	2	2
>=50%	1	1	1
>=33%	--	--	1
>=16%	--	--	30 Min
>=8%	--	--	60 Min

*Load Factor and Cost Recovery service level improvements move the preliminary levels of service up one or two levels, e.g. a load factor or cost recovery service level improvement of 2 changes a 30 min. service to <15 or a 60 min. service to 15, etc. A cost recovery >8% warrants 60 min. night service, >16% warrants 30 min.

Above Target
Below Target

(continued) Corridor Analysis of All-Day Network: Step Two and Final Suggested Service Levels

	Connections				Loads at Preliminary Service Level		Load-Based Service Level Improvements		Cost Recovery at Preliminary Service Level			Cost Recovery-Based Service Level Improvements			Night Service Additions				Service Level Improvements			Final Suggested Service Levels and Family			
CORRIDOR ID NUMBER	BETWEEN	AND	VIA	MAJOR ROUTE	PEAK	OFFPEAK	PEAK	OFFPEAK	PEAK	OFFPEAK	NIGHT	PEAK	OFFPEAK	NIGHT	PRIMARY CONNECTION BETWEEN URBAN CENTERS	COST RECOVERY BASIS (8%/16%)	CORRIDOR HAS 15 MIN PEAK SERVICE	ADD WHAT FREQUENCY NIGHT SERVICE?	PEAK	OFFPEAK	NIGHT	**PEAK**	**OFFPEAK**	**NIGHT**	**RESULTING SERVICE FAMILY**
38	Greenwood	Seattle CBD	Greenwood Ave N	5	0.86	1.16	1	1	40%	72%	25%	0	1	0	0	30	30	30	1	1	0	**< 15**	15	30	Very Frequent
39	High Point	Seattle CBD	35th Ave SW	21	0.54	0.45	0	0	24%	21%	26%	0	0	0	0	30	0	30	0	0	0	30	30	30	Local
40	Issaquah	Eastgate	Newport Way	271	0.30	0.33	0	0	10%	11%	7%	0	0	0	0	0	0	0	0	0	0	30	30	**0**	Local
41	Issaquah	Overlake	Sammamish, Bear Creek	269	0.29	N/A	0	N/A	13%	N/A	N/A	0	N/A	N/A	0	N/A	0	0	0	0	0	30	**30**	0	Local
42	Issaquah	North Bend	Fall City, Snoqualmie	209	0.33	0.27	0	0	6%	7%	N/A	0	0	N/A	0	N/A	0	0	0	0	0	60	60	0	Hourly
43	Kenmore	Kirkland	Juanita	234	0.45	0.26	0	0	15%	12%	4%	0	0	0	0	0	0	0	0	0	0	**60**	**60**	**0**	Hourly
44	Kenmore	Shoreline	Lake Forest Park, Aurora Village TC	331	1.10	0.94	1	1	28%	31%	8%	0	0	0	0	0	0	0	1	1	0	30	30	**0**	Local
45	Kenmore	U. District	Lake Forest Park, Lake City	372EX	2.24	0.62	2	0	65%	28%	16%	1	0	0	0	60	30	30	2	0	0	< 15	30	**30**	Frequent
46	Kenmore	Totem Lake	Finn Hill, Juanita	935DART	0.40	0.15	0	0	9%	3%	N/A	0	0	N/A	0	N/A	0	0	0	0	0	**60**	60	0	Hourly
47	Kennydale	Renton	Edmonds Av NE	909DART	0.33	0.33	0	0	9%	8%	N/A	0	0	N/A	0	N/A	0	0	0	0	0	60	60	0	Hourly
48	Kent	Burien	Kent-DM Rd, S. 240th St, 1st Av S	131/166	0.46	0.50	0	0	22%	23%	33%	0	0	0	0	30	0	30	0	0	0	30	**30**	**30**	Local
49	Kent	Maple Valley	Kent-Kangley Road	168	0.44	0.36	0	0	18%	18%	14%	0	0	0	0	60	0	60	0	0	0	30	30	60	Local
50	Kent	Renton	Kent East Hill	169	0.76	0.67	0	0	32%	31%	46%	0	0	1	60	30	0	30	0	0	1	30	30	30	Local
51	Kent	Seattle CBD	Tukwila	150	0.83	1.22	1	1	33%	68%	25%	0	1	0	60	30	30	30	1	1	0	**< 15**	15	30	Very Frequent
52	Kent	Renton	84th Av S, Lind Av SW	153	0.19	N/A	0	N/A	8%	N/A	N/A	0	N/A	N/A	60	N/A	30	30	0	0	0	**15**	**30**	**30**	Frequent
53	Kirkland	Bellevue	South Kirkland	234/235	1.79	1.05	2	1	58%	46%	17%	1	0	0	0	30	30	30	2	1	0	15	**30**	30	Frequent
54	Kirkland	Factoria	Overlake, Crossroads, Eastgate	245	1.12	0.78	1	0	34%	30%	21%	0	0	0	0	30	30	30	1	0	0	15	**30**	30	Frequent
55	Lake City	Seattle CBD	NE 125th St, Northgate, I-5	41	0.88	0.79	1	0	43%	44%	30%	0	0	0	60	30	30	30	1	0	0	**< 15**	15	30	Very Frequent
56	Lake City	U. District	Lake City, Sand Point	75	1.38	0.66	1	0	61%	33%	41%	1	0	1	0	30	30	30	1	0	1	15	30	30	Frequent
57	Lake City	U. District	35th Ave NE, Childrens Hospital	65	1.52	0.66	2	0	84%	26%	33%	1	0	1	0	30	30	30	2	0	1	**< 15**	30	30	Frequent
58	Laurelhurst	U. District	NE 45th St	25	0.23	0.14	0	0	9%	7%	N/A	0	0	N/A	0	N/A	0	0	0	0	0	60	60	0	Hourly
59	Madison Park	Seattle CBD	Madison St	11	0.80	0.36	0	0	47%	24%	37%	0	0	1	0	30	30	30	0	0	1	15	**15**	15	Very Frequent
60	Madrona	Seattle CBD	Union St	2S	0.59	1.36	0	1	38%	68%	18%	0	1	0	0	30	30	30	0	1	0	15	15	30	Very Frequent
61	Magnolia	Seattle CBD	34th Ave W, 28th Ave W	24	0.64	0.41	0	0	26%	19%	10%	0	0	0	0	60	30	30	0	0	0	15	30	30	Frequent
62	Mercer Island	S Mercer Island	Island Crest Way	204	0.60	0.26	0	0	21%	15%	N/A	0	0	N/A	0	N/A	0	0	0	0	0	**60**	**60**	0	Hourly
63	Mirror Lake	Federal Way	S 312th St	901DART	0.52	0.37	0	0	15%	13%	N/A	0	0	N/A	0	N/A	0	0	0	0	0	30	30	**0**	Local
64	Mount Baker	Seattle CBD	31st Av S, S Jackson St	14S	0.90	0.79	1	0	35%	36%	19%	0	0	0	0	30	30	30	1	0	0	**< 15**	30	30	Frequent
65	Mountlake Terrace	Northgate	15th Ave NE, 5th Ave NE	347	1.62	1.02	2	1	43%	35%	14%	0	0	0	0	60	30	30	2	1	0	**15**	30	**30**	Frequent
66	Mt Baker	U. District	23rd Ave E	48S	0.96	0.68	1	0	111%	89%	54%	2	1	1	0	30	30	30	2	1	1	< 15	15	15	Very Frequent
67	NE Tacoma	Federal Way	SW 356th St, 9th Ave S	182	0.70	0.44	0	0	24%	13%	N/A	0	0	N/A	0	N/A	0	0	0	0	0	**60**	60	0	Hourly
68	Northgate	U. District	Roosevelt	67	1.03	1.22	1	1	54%	95%	32%	1	1	0	60	30	30	30	1	1	0	< 15	15	30	Very Frequent
69	Northgate	Seattle CBD	Green Lake, Wallingford	16	1.27	1.09	1	1	46%	44%	34%	0	0	1	0	30	30	30	1	1	1	**15**	**15**	30	Very Frequent
70	Northgate	U. District	Roosevelt Way NE, NE 75th St	68	2.54	1.61	2	2	120%	82%	N/A	2	1	N/A	0	N/A	30	30	2	2	0	**15**	**15**	**30**	Very Frequent
71	Othello Station	Columbia City	Seward Park	39	0.48	0.25	0	0	39%	13%	12%	0	0	0	0	60	0	60	0	0	0	30	**30**	**60**	Local
72	Overlake P&R	Bellevue	Bell-Red Road	226	0.38	0.28	0	0	18%	13%	7%	0	0	0	0	0	0	0	0	0	0	30	30	**0**	Local
73	Overlake	Bellevue	W Lake Sammamish Pkwy, S Kirkland P&R, Bellevue Way NE	249	0.63	0.51	0	0	40%	15%	N/A	0	0	N/A	0	N/A	0	0	0	0	0	**60**	**60**	0	Hourly
74	Pacific	Auburn	Algona	917DART	0.26	0.21	0	0	8%	5%	N/A	0	0	N/A	0	N/A	0	0	0	0	0	**30**	**30**	0	Local
75	Queen Anne	Seattle CBD	Queen Anne Ave N	2/13	0.79	1.25	0	1	57%	87%	39%	1	1	1	0	30	30	30	1	1	1	< 15	15	15	Very Frequent
76	Queen Anne	Seattle CBD	Taylor Ave N	3N/4N	1.10	1.40	1	1	70%	93%	43%	1	1	1	0	30	30	30	1	1	1	< 15	15	15	Very Frequent
77	Rainier Beach	Seattle CBD	Rainier Ave	7	2.24	2.05	2	2	120%	133%	97%	2	2	1	0	30	30	30	2	2	1	< 15	< 15	**30**	Very Frequent
78	Rainier Beach	Seattle Center	MLK Jr Wy, E John St, Denny Way	8	0.45	0.85	0	1	40%	67%	28%	0	1	0	60	30	30	30	0	1	0	15	15	30	Very Frequent

Load Factor*	Peak	Off Peak
>=1.5	2	2
>=0.8	1	1

Cost Recovery*	Peak	Off Peak	Night
>=100%	2	2	2
>=50%	1	1	1
>=33%	--	--	1
>=16%	--	--	30 Min
>=8%	--	--	60 Min

*Load Factor and Cost Recovery service level improvements move the preliminary levels of service up one or two levels, e.g. a load factor or cost recovery service level improvement of 2 changes a 30 min. service to <15 or a 60 min. service to 15, etc. A cost recovery >8% warrants 60 min. night service, >16% warrants 30 min.

Above Target
Below Target

(continued) Corridor Analysis of All-Day Network: Step Two and Final Suggested Service Levels

	Connections				Loads at Preliminary Service Level		Load-Based Service Level Improvements		Cost Recovery at Preliminary Service Level			Cost Recovery-Based Service Level Improvements			Night Service Additions				Service Level Improvements			Final Suggested Service Levels and Family			
CORRIDOR ID NUMBER	BETWEEN	AND	VIA	MAJOR ROUTE	PEAK	OFFPEAK	PEAK	OFFPEAK	PEAK	OFFPEAK	NIGHT	PEAK	OFFPEAK	NIGHT	PRIMARY CONNECTION BETWEEN URBAN CENTERS	COST RECOVERY BASIS (8%/16%)	CORRIDOR HAS 15 MIN PEAK SERVICE	ADD WHAT FREQUENCY NIGHT SERVICE?	PEAK	OFFPEAK	NIGHT	PEAK	OFFPEAK	NIGHT	RESULTING SERVICE FAMILY
79	Rainier Beach	Capitol Hill	Rainier Ave	9EX	1.79	0.53	2	0	70%	33%	N/A	1	0	N/A	0	N/A	30	30	2	0	0	< 15	30	30	Frequent
80	Redmond	Eastgate	148th Ave, Crossroads, Bellevue College	221	0.44	0.54	0	0	27%	22%	14%	0	0	0	0	60	0	60	0	0	0	60	60	60	Hourly
81	Redmond	Totem Lake	Willows Road	930DART	0.43	N/A	0	N/A	8%	N/A	N/A	0	N/A	N/A	60	N/A	0	60	0	0	0	30	30	60	Local
82	Redmond	Fall City	Duvall, Carnation	224	0.35	0.27	0	0	5%	5%	N/A	0	0	N/A	0	N/A	0	0	0	0	0	60	60	0	Hourly
83	Renton	Burien	S 154th St	F Line	0.37	0.48	0	0	15%	26%	13%	0	0	0	60	60	30	30	0	0	0	< 15	15	15	Very Frequent
84	Renton	Seattle CBD	MLK Jr Wy, I-5	101	1.07	0.84	1	1	43%	44%	27%	0	0	0	60	30	30	30	1	1	0	< 15	15	30	Very Frequent
85	Renton	Rainier Beach	West Hill, Rainier View	107	1.18	0.42	1	0	38%	17%	23%	0	0	0	0	30	30	30	1	0	0	15	30	30	Frequent
86	Renton	Seattle CBD	Skyway, S. Beacon Hill	106	0.69	0.55	0	0	32%	32%	19%	0	0	0	0	30	30	30	0	0	0	15	30	30	Frequent
87	Renton	Renton Highlands	NE 4th St, Union Ave NE	105	0.29	0.47	0	0	12%	24%	14%	0	0	0	0	60	30	30	0	0	0	15	30	30	Frequent
88	Renton	Enumclaw	Maple Valley, Black Diamond	907	0.00	0.25	0	0	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	0	0	0	0	0	60	60	0	Hourly
89	Renton Highlands	Renton	NE 7th St, Edmonds Av NE	908DART	0.13	0.11	0	0	N/A	3%	N/A	N/A	0	N/A	0	N/A	0	0	0	0	0	30	30	0	Local
90	Richmond Beach	Northgate	Richmond Bch Rd, 15th Ave NE	348	0.56	0.41	0	0	28%	18%	11%	0	0	0	0	60	0	60	0	0	0	30	30	60	Local
91	S Vashon	N Vashon	Valley Center	118	0.51	0.20	0	0	15%	8%	N/A	0	0	N/A	0	N/A	0	0	0	0	0	60	60	0	Hourly
92	Sand Point	U. District	NE 55th St	30	0.38	0.34	0	0	21%	12%	18%	0	0	0	0	30	0	30	0	0	0	30	30	30	Local
93	Shoreline	U. District	Jackson Park, 15th Av NE	373EX	0.50	N/A	0	N/A	18%	N/A	N/A	0	N/A	N/A	0	N/A	30	30	0	0	0	15	30	30	Frequent
94	Shoreline CC	Northgate	N 130th St, Meridian Av N	345	0.26	0.56	0	0	15%	29%	6%	0	0	0	0	0	30	30	0	0	0	15	30	30	Frequent
95	Shoreline CC	Lake City	N 155th St, Jackson Park	330	0.67	N/A	0	N/A	37%	N/A	N/A	0	N/A	N/A	0	N/A	0	0	0	0	0	60	60	0	Hourly
96	Shoreline CC	Greenwood	Greenwood Av N	5	0.43	0.29	0	0	20%	18%	25%	0	0	0	0	30	0	30	0	0	0	30	30	30	Local
97	Totem Lake	Seattle CBD	Kirkland, SR-520	255	2.31	0.87	2	1	73%	41%	31%	1	0	0	60	30	30	30	2	1	0	< 15	15	30	Very Frequent
98	Totem Lake	Kirkland	Kingsgate	236	0.50	0.32	0	0	14%	11%	4%	0	0	0	0	0	0	0	0	0	0	60	60	0	Hourly
99	Tukwila	Seattle CBD	Pacific Hwy S, 4th Ave S	124	0.39	0.54	0	0	26%	31%	18%	0	0	0	60	30	30	30	0	0	0	15	30	30	Frequent
100	Tukwila	Des Moines	McMicken Heights, Sea-Tac	156	0.11	0.16	0	0	4%	7%	N/A	0	0	N/A	60	N/A	30	30	0	0	0	15	30	30	Frequent
101	Tukwila	Fairwood	S 180th St, Carr Road	155	0.22	0.19	0	0	7%	7%	N/A	0	0	N/A	0	N/A	0	0	0	0	0	30	30	0	Local
102	Twin Lakes	Federal Way	SW Campus Dr, 1st Ave S	903	0.66	0.51	0	0	15%	12%	9%	0	0	0	0	60	0	60	0	0	0	30	30	60	Local
103	Twin Lakes	Federal Way	S 320th St	187	0.80	0.29	1	0	35%	22%	8%	0	0	0	0	0	0	0	1	0	0	30	60	0	Local
104	U. District	Seattle CBD	Eastlake, Fairview	70	1.30	0.67	1	0	56%	32%	67%	1	0	1	60	30	30	30	1	0	1	< 15	15	15	Very Frequent
105	U. District	Seattle CBD	Broadway	49	0.70	0.71	0	0	44%	44%	74%	0	0	1	60	30	30	30	0	0	1	15	15	15	Very Frequent
106	U. District	Bellevue	SR-520	271	0.90	1.32	1	1	31%	44%	15%	0	0	0	60	60	30	30	1	1	0	< 15	15	30	Very Frequent
107	U. District	Seattle CBD	Lakeview	25	0.23	0.14	0	0	9%	7%	N/A	0	0	N/A	0	N/A	0	0	0	0	0	30	30	0	Local
108	UW Bothell	Redmond	Woodinville, Cottage Lake	931DART	0.43	0.32	0	0	13%	6%	N/A	0	0	N/A	0	N/A	0	0	0	0	0	60	60	0	Hourly
109	UW Bothell/CCC	Kirkland	132nd Ave NE, Lk Wash Voch Tech	238	0.70	0.54	0	0	19%	19%	4%	0	0	0	0	0	0	0	0	0	0	60	60	0	Hourly
110	Wedgwood	Cowen Park	View Ridge, NE 65th St	71	0.43	0.42	0	0	25%	24%	31%	0	0	0	0	30	0	30	0	0	0	30	30	30	Local
111	West Seattle	Seattle CBD	Fauntleroy, Alaska Junction	C Line	0.60	0.43	0	0	24%	22%	18%	0	0	0	0	30	30	30	0	0	0	< 15	15	15	Very Frequent
112	White Center	Seattle CBD	16th Ave SW, SSCC	125	1.43	0.60	1	0	43%	19%	19%	0	0	0	0	30	30	30	1	0	0	15	30	30	Frequent
113	White Center	Seattle CBD	Highland Park, 4th Ave S	23	0.69	0.49	0	0	38%	27%	26%	0	0	0	0	30	0	30	0	0	0	30	30	30	Local

Load Factor*	Peak	Off Peak
>=1.5	2	2
>=0.8	1	1

Cost Recovery*	Peak	Off Peak	Night
>=100%	2	2	2
>=50%	1	1	1
>=33%	--	--	1
>=16%	--	--	30 Min
>=8%	--	--	60 Min

*Load Factor and Cost Recovery service level improvements move the preliminary levels of service up one or two levels, e.g. a load factor or cost recovery service level improvement of 2 changes a 30 min. service to <15 or a 60 min. service to 15, etc. A cost recovery >8% warrants 60 min. night service, >16% warrants 30 min.

Above Target
Below Target