



*We'll Get You There*

King County  
Metro Transit  
**2013 Service  
Guidelines  
Report**

November 2013



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King County Metro Transit  
**2013 Service Guidelines Report**

November 2013



*We'll Get You There*

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# Using the Guidelines to Plan, Assess and Change Service

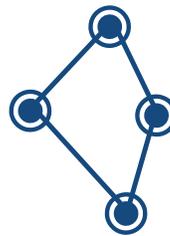
## Where do we provide service?

Our Transit network is comprised of corridors connecting centers

- Centers:**
- Transit centers and places where many people work, live or go for services or activities
  - 85 centers across King County today

**Corridors**  
112 Metro corridors serve centers

**All-Day and Peak Network**  
These 112 corridors create Metro's all-day transit network. Metro provides additional peak only service to meet demand.



## How much service should we provide?

Target corridor service levels are set in two steps:

### 1. What is the preliminary service level?

**Productivity** (Jobs & Households) + **Social Equity** (low-income & minority riders) + **Geographic Value** (connections to centers)

### Preliminary Service Level

2. Does preliminary service level provide enough buses?

| Preliminary Service level | Current Riders | Target |
|---------------------------|----------------|--------|
|                           |                |        |

## How is service performing?

Service analysis looks at both routes and corridors:

**Route Productivity** Rides/ Hr. Pass.Mi/ Mi.

|         |            |
|---------|------------|
| Top 25% | Bottom 25% |
|---------|------------|

**Service Reliability**  
< 5 Minutes late

**Overcrowding**  
Avg. load < 125% seats: regular service  
Avg. load < 150% seats: 10 min. service  
Standing load < 20 min all service

**Peak Criteria**  
Travel time  
Ridership

### Target Service Comparison

| Target | Existing |
|--------|----------|
|        |          |
| Above  | Below    |

## What should we do differently?

**Investment Priorities**

Invest to:

- Reduce overcrowding
- Improve reliability
- Achieve target service levels
- Become more productive

**Reduction Priorities**

Reduce service to:

- Meet budget constraints
- Re-invest in investment priorities

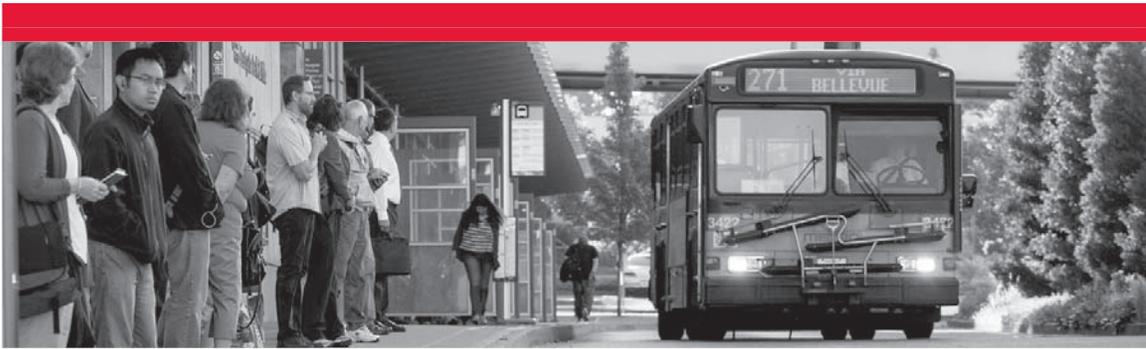
**Improvements & Restructures**

Make improvements and restructures to:

- Match design guidelines
- Meet investment priorities

=

**Service Change Proposals**



## ■ EXECUTIVE SUMMARY

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 the King County Council in 2011 and amended in August 2013. This *2013 Service Guidelines Report* was prepared to comply with Section 5 of King County Ordinance 17143. It presents our analysis of the Metro system using the guidelines. Unless noted otherwise, the data analyzed was from the February 16-June 7, 2013 service period.

The service guidelines strike a balance between productivity, social equity and geographic value. They help us use public 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 2013 All-Day and Peak Network, which sets target service levels for the 112 corridors in the network and identifies where service-hour investments are needed. It also presents our performance analysis of 212 Metro bus routes, which assesses productivity and service quality and identifies routes that are candidates for change or reduction. Metro's system experienced overall productivity improvements since last year's report. The performance thresholds increased for both the bottom and top performance thresholds for each period, measure and market except in the off-peak for routes that serve the Seattle Core. The findings of our analysis are the basis for the service reduction proposal presented in Section 5. The County's adopted 2013-2014 budget assumes that Metro will have a \$75 million revenue shortfall starting in mid-2014, after some temporary funding runs out. A reduction of up to 600,000 annual service hours would be necessary to close the budget gap. An additional 45,000 annual service hours would have to be cut in June 2014 because the funding will end for enhanced service to mitigate traffic impacts of the Alaskan Way Viaduct Replacement Project. The proposal for this major reduction—about 17 percent of the Metro system—is based on the reduction priorities in the service guidelines.

### Investment Needs

The 2013 guidelines analysis found an estimated need of approximately 510,000 annual hours to meet Metro's service quality objectives and



*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.*

meet the target service levels. These needs represent an increase of about 15 percent above the current system size. These investments are necessary to provide reliable services with adequate transit capacity to destinations throughout King County.

**2013 Investment Needs**  
(Based on Spring 2013 Data)

| Priority                     | Investment Area   | Estimated Annual Hours Needed |
|------------------------------|---|-------------------------------|
| 1                            | Reduce passenger crowding   | 15,400                        |
| 2                            | Improve schedule reliability  | 27,800                        |
| 3                            | Increase service to meet target service levels in All-Day and Peak Network  | 467,500                       |
| <b>Total investment need</b> |   | <b>510,700</b>                |
| 4                            | Increase service on high-productivity routes: A substantial portion of the growth needed to meet the <i>Transportation 2040</i> goals (an additional 2.6 million annual service hours) will be on high-productivity services. |                               |

**Investment priorities 1 and 2: Service quality needs.** Twenty-seven routes need investment to reduce passenger crowding and 69 routes need investment to improve schedule reliability. These routes need investments that are likely to be relatively minor, 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 43,200 annual service hours to correct the service quality problems.

**Investment priority 3: Service to meet target service levels in the All-Day and Peak Network.** Fifty-eight corridors need investment to reach target service levels. Meeting target levels typically requires the addition of many trips in a time period or in 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 467,500 annual service hours to meet target service levels.

**Investment priority 4: High-productivity routes.** Investment in high-productivity services is the fourth investment priority. Eighty-two of the 212 routes evaluated were in the top 25 percent on one or both productivity measures in 2013.

Highly productive routes generally serve areas where there is latent demand for transit. Although we know from our experience that investments in very productive routes result in higher ridership, the guidelines do not attempt to quantify the service hours that would be necessary to satisfy that demand. Some of these high-productivity routes are already identified as needing investments because they are overcrowded, unreliable or on corridors where service is not at the target level.

Investment in high-productivity routes is one way we use resources effectively to serve more people, helping us meet future needs. To meet the long-term goal in the Puget Sound region’s transportation plan, Metro must double the number of riders and nearly double service levels by 2040. Growth to this level will help Metro maximize mobility as well as the economic and environmental benefits of transit.

The existing need of more than 500,000 annual service hours represents only about 20 percent of the growth needed to meet the region’s 2040 targets. We expect a substantial portion of the remaining 2.6 million annual service hours will be on highly productive routes. Although new resources will be required to make the large investments our region needs, we will invest in highly productive routes incrementally as opportunities become available—such as through service restructures or partnerships with local jurisdictions.

## Changes in investment needs since 2012

The total investment need of 510,700 annual service hours is a substantial increase from the 334,300-hour need found in the 2012 analysis. The investment needs grew for several reasons:

- Continued growth in ridership has resulted in an increased need for investment to reduce passenger crowding.
- More investment is needed to address a decline in schedule reliability that has resulted from more-crowded buses, more roadway construction, increasing traffic congestion, and scheduling efficiencies adopted in 2010 and 2011 that have made it harder for late buses to get back on schedule.
- Target service levels increased for many routes as a result of the August 2013 update to the service guidelines methodology that made it more responsive to jobs and household levels.

**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. In addition, state funding for enhanced transit service to mitigate the impacts of the Alaskan Way Viaduct Replacement Project expires in June 2014. Unless a new source of funding is approved, Metro will have to reduce service in 2014 and 2015 to close the funding gap.

## Reduction priorities

While it is never a goal to take away anyone's transit service, Metro may reduce service and reinvest the hours according to priorities defined in the guidelines to make the transit system more effective. Metro may also have to eliminate service because of budget constraints—as we are planning to do now because of the projected \$75 million revenue shortfall and discontinuation of Alaskan Way Viaduct construction mitigation funding. The service guidelines include priorities for reducing service that consider a route's productivity and its role in meeting the target service levels of the All-Day and Peak Network. We used these guidelines to plan a proposed reduction of up to 600,000 hours plus the 45,000 hours that will be lost when the Alaskan Way Viaduct mitigation contract ends. This proposal is presented in Section 5.

This report summarizes the reduction priorities of the guidelines into high, medium and low potential for major reduction. For a comparison of these designations and the reduction priorities in the guidelines, see Figure 12 on page 44.

Services that operate below the productivity thresholds are the first we consider for reduction. However, not all routes that operate below productivity thresholds have the same priority for service reductions. We describe routes as having high potential for major reduction when they operate below the productivity threshold and are largely duplicative of other routes and are on corridors that are above their target service levels. We describe routes as having medium potential for major reduction when they operate below the productivity threshold but help achieve target service levels on the All-Day and Peak Network.

Services with a high or medium potential for major reduction are within the first reduction priority in the guidelines. These services do not meet performance standards and are less used connections on the All-Day and Peak Network.

The 2013 analysis estimated that the total number of service hours that could be reduced from services categorized as having medium or high potential for reduction ranged from 255,000 to 360,000. A range was presented because the number of hours that would actually be reduced from a route would vary in

a service reduction plan, depending on the route’s role in the overall network. To close the budget gap, additional hours from service categorized as having low priority for reduction must be eliminated. This is productive, well-performing service used by many riders and it would not be eliminated in ordinary circumstances.

### The guidelines at work: 2013 service changes and September 2012 results

Metro used the previous guidelines analysis to make service revisions in September 2013. The revisions included restructuring commuter service on the I-90 corridor, starting alternative service and revising existing service in the Snoqualmie Valley, reducing service on routes below the productivity threshold, and adding service to reduce crowding or improve reliability. We made these changes with the expectation of attracting more riders, improving productivity, and advancing social equity by serving people who depend on transit.

Our September 2012 service revision was the first extensive use of the guidelines to restructure and reallocate service to improve system effectiveness. Early results are promising, showing increases in ridership and productivity on the RapidRide C and D lines and routes that were restructured.

#### Metro at a Glance (2012)

|                       |                    |
|-----------------------|--------------------|
| Service area          | 2,134 square miles |
| Population            | 1.96 million       |
| Employment            | 1.2 million        |
| Fixed-route ridership | 114.7 million      |
| Vanpool ridership:    | 3.4 million        |
| Access ridership:     | 1.2 million        |
| Annual service hours  | 3.5 million        |
| Active fleet          | 1,396 buses        |
| Bus stops             | over 8,000         |
| Park-and-rides        | 131                |





## ■ INTRODUCTION

This is the third annual service guidelines report. From now on, reports will be published in the fall rather than in the spring, as previous reports were, to better align service planning with the budget process and to provide data to the public as soon as it is available.

The report presents the results of our analysis of spring 2013 data for 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 service change—a four-month period—and allows us to compare service in that same period each year to identify trends and areas needing improvement.

When Metro makes service decisions to match budget projections—whether resources are shrinking, stable, or growing—the service guidelines help by identifying reduction and investment priorities. The adopted 2013-2014 budget assumes that Metro will have a \$75 million annual revenue shortfall beginning in mid-2014—at about the same time the Alaskan Way Viaduct (AWV) construction mitigation funding expires. This will make it necessary to reduce service by up to 600,000 annual service hours to close the general revenue gap, plus 45,000 hours that would be lost when AWV mitigation service ends.

### What is in this report?

This report is organized to lead readers through 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, which determines if target service levels are being met. In the future, this section will also discuss performance of alternative services.
- **Where are service investments most needed?** 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 summarizes corridor and route information, identifying services with high, medium, and low potential for major reduction. This section is the starting point for analyzing how we could reduce the system. It does not provide the reduction proposals.
- **How is Metro using the guidelines?** Section 4 describes how we used the guidelines to plan service changes in 2013, and presents early results of the major fall 2012 service revision.
- **What will a major service reduction look like?** Section 5 shows a proposed reduction of up to approximately 600,000 annual service hours based that would be necessary because of the assumed revenue shortfall, and an additional 45,000 hours that would be necessary because of the discontinuation of Alaskan Way Viaduct project mitigation funding.

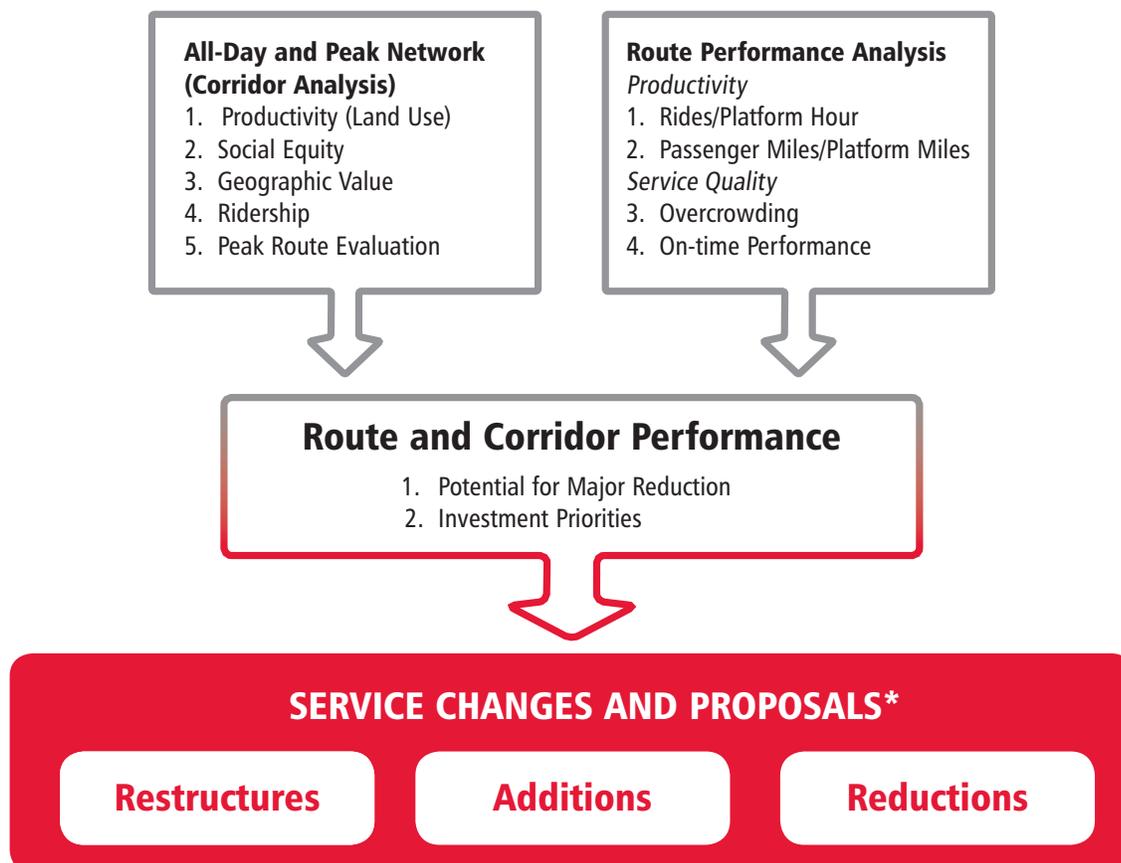
Figure 1 summarizes the service guidelines process we followed in preparing this report. To read the complete service guidelines, visit <http://metro.kingcounty.gov/planning> and select the “Service Guidelines” tab.

## 2013 strategic plan and service guidelines update

This report reflects the following updates to Metro’s strategic plan and service guidelines that were adopted in August 2013:

1. **Better linkage of transit service and local development.** The updates and the process we followed in developing them are described in Section 1.
2. **Civil Rights Act Title VI.** The Federal Transit Administration revised its requirements for transit agencies pursuant to Title VI of the Civil Rights Act of 1964, and we updated Metro’s systemwide service standards and policies to comply.
3. **Alternative services.** The service guidelines were updated to integrate alternative services per King County Council Motion 13736, which accepted the *King County Metro Transit Five-Year Implementation Plan for Alternatives to Traditional Transit Service Delivery*. The guidelines now include alternative services as one of the designated service families. The guidelines also clarify the purpose of alternative services, describe the conditions under which alternative services would be considered, and discuss how the services will be evaluated.
4. **Clarification of guidelines analysis process.** The guidelines were revised to improve clarity and to address technical issues related to the corridor analysis. Examples include revised passenger load thresholds that include RapidRide service levels, and a clearer explanation of the target service level comparison process.

FIG. 1  
Metro Service Guidelines Process



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



## Providing service where it's needed most: how the guidelines advance social equity and geographic value

Metro strives to provide equitable access to public transportation for everyone in our community and to deliver value throughout King County. The service guidelines help us by defining criteria and processes for analyzing and planning transit service that focus on social equity and geographic value.

### Social equity

One of the most important processes is that of setting target service levels for corridors in the All-Day and Peak Network. The guidelines define a process for determining a social equity score that makes up 25 percent of each corridor's total service-level score. First we determine low-income and minority census tracts in the corridor using census data. Then we assign a social equity score based on the percentage of people who board buses in those areas compared to the county average.

The social equity score is combined with scores for productivity (50 percent of the total) and geographic value (25 percent) to determine a preliminary target service level. The next step is to increase the service level if necessary to serve the actual number of current riders. This step helps us make sure that in areas where many people have few transportation options and rely on Metro to get around, we set a target service level that will accommodate them.

The investment priorities defined in the guidelines also benefit low-income and minority corridors where many people use transit. The guidelines place a high priority on reducing overcrowding and improving schedule reliability. The table below shows the findings of the 2013 guidelines analysis for investment needed to reduce overcrowding, improve reliability, and meet target service levels systemwide and in low-income and minority routes and corridors.

| Priority Investment Category  | Estimated total hours needed | Hours on minority routes/corridor | % of total need | Hours on low-income routes/corridor | % of total need |
|-------------------------------|------------------------------|-----------------------------------|-----------------|-------------------------------------|-----------------|
| Passenger crowding            | 15,400                       | 7,300                             | 47%             | 8,200                               | 53%             |
| Schedule reliability          | 27,800                       | 11,750                            | 42%             | 16,200                              | 58%             |
| Meeting target service levels | 467,100                      | 317,500                           | 68%             | 300,900                             | 64%             |



We also consider historically disadvantaged populations and people who depend on transit when we develop proposals to add, reduce or revise service. We strive to reach or maintain established target service levels. Even when reducing low-performing service, we avoid making reductions on underserved corridors.

The proposed plan to cut up to 600,000 service hours because of Metro’s \$75 million revenue shortfall and 45,000 hours because of the discontinuation of Alaskan Way Viaduct mitigation funding will affect transit users throughout King County. The guidelines help us assure that low-income and minority communities are not disproportionately affected.

Another way we avoid disproportionate impacts is to conduct robust public outreach that engages people who have low incomes or are members of minority groups—including those who speak little or no English. We develop partnerships with community organizations, have public open houses and information tables at convenient times and locations, translate public communication materials, and offer interpreters at meetings.

We follow the requirements and guidance of Title VI of the Civil Rights Act, which prohibits discrimination on the basis of race, color or national origin; King County Ordinance 16948, related to the “fair and just” principle of the King County Strategic Plan, which strives to eliminate inequities and social injustices based on race, income, and neighborhood; and the Executive Order on Translation, which requires county agencies to ensure that public communications are culturally and linguistically appropriate for the target audience, including people who do not speak English well.

For example, Ordinance 16948 lists 13 “determinants of equity.” When planning service changes we strive to maintain public transportation connections and access to health, education, food, housing, employment and other activities of daily living and civic engagement.

### Geographic value

To help us deliver value throughout the county’s geographic area, the guidelines identify the primary transit connections between centers on the basis of ridership and travel time. Centers are activity nodes that are the basis of the countywide transit network. They include regional growth centers, manufacturing/industrial centers, and transit activity centers. Transit activity centers include major destinations and transit attractions such as large employment sites and health and social service facilities.

In the process for setting target service levels, we assign higher levels to corridors that serve as primary connections between centers.

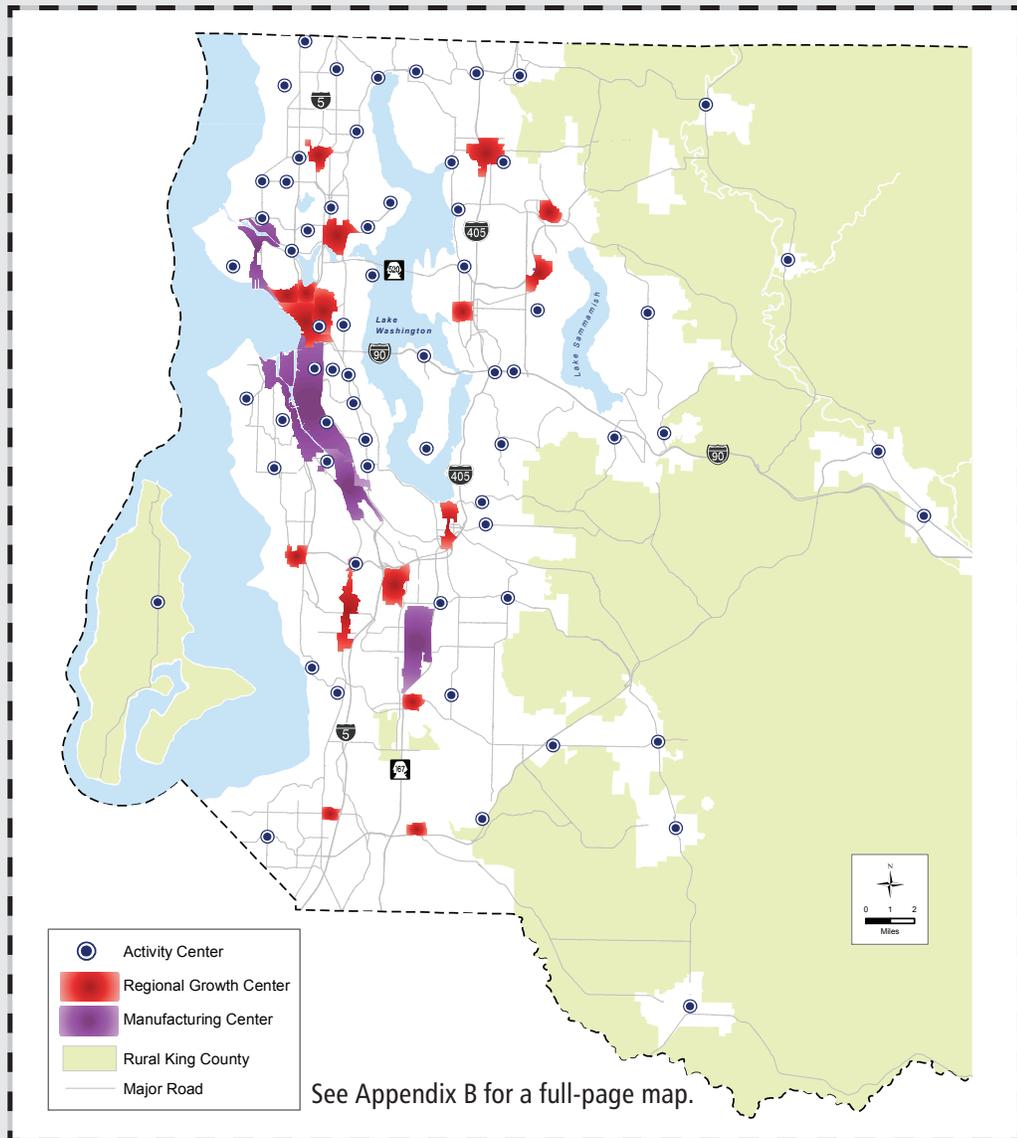
| Primary Connections              | Number of Corridors |
|----------------------------------|---------------------|
| Between regional growth centers  | 31                  |
| Between transit activity centers | 49                  |

The guidelines also incorporate geographic value by classifying routes by market served. This classification allows us to compare similar routes when assessing productivity. We classify our routes into two groups:

- Seattle core routes, which serve the greater downtown Seattle area and the University District.
- Non-Seattle core routes, which operate in other areas of Seattle and King County.

Routes that serve the Seattle core are expected to perform at a higher level because their market potential is greater than routes serving other parts of King County.

### Transit Activity Centers



## SECTION 1

# SERVICE ANALYSIS

When Metro plans changes to our transit system, we analyze both the performance of routes (productivity and service quality) and how those routes serve the All-Day and Peak Network. This section describes how we do this analysis and presents the results. This analysis is the starting point for planning service revisions but is not a service change proposal.



The results are summarized in Table 7 (p. 20), which shows route performance and service quality needs alongside target service levels, corridor needs, and potential for major reduction.

The methodology for analyzing corridors was revised to better link local jurisdictions' development decisions and transit service. This revision is described on page 12.

## How we do the analysis

### Route performance

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.

**Routes below the productivity threshold** 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 2013 are shown in Table 1.

### What are corridors and routes?

**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 use the corridor analysis to evaluate and set target service levels for the 112 corridors of the All-Day and Peak Network.

**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. Some routes also cover multiple corridors. For example, the Route 271 serves three distinct travel markets: Issaquah-Eastgate, Eastgate-Bellevue, and Bellevue-University District. The service guidelines evaluate routes for productivity and service quality.

**Change in route performance thresholds.** The route performance thresholds change in each report to reflect current performance. Compared to the 2012 report, the performance thresholds increased for both the bottom and top performance thresholds for each period, measure and market except in the off-peak for routes that serve the Seattle Core. This general increase reflects overall improvement in the Metro system's productivity. The bottom 25 percent threshold for off-peak passenger miles per platform mile for routes that serve the Seattle Core changed from 9.9 to 9.8. The top 25 percent threshold for off-peak rides per platform mile and for passenger miles per platform mile both changed from 54.3 to 51.3 and from 15.5 to 15.4, respectively. Route performance threshold changes between 2012 and 2013 are shown in Tables 1 and 2.

Year-over-year change from 2012 to 2013 for each route's ridership and hours is reported in Appendix K.

**TABLE 1**  
**2012-2013 Route Performance Threshold Changes for Top 25%**

| Market                                      | Performance | Peak                       |   | Off Peak                   |                                     | Night                      |                                      |
|---|-------------|----------------------------|---|----------------------------|-------------------------------------|----------------------------|--------------------------------------|
|   |             | Rides/<br>Platform<br>Hour | Passenger<br>Miles/<br>Platform<br>Mile | Rides/<br>Platform<br>Hour | Passenger<br>Miles/Platform<br>Mile | Rides/<br>Platform<br>Hour | Passenger<br>Miles/<br>Platform Mile |
| Routes that<br>DO NOT serve<br>Seattle core | 2013        | 24.1                       | 7.4                                     | 24.5                       | 7.9                                 | 18.8                       | 6.3                                  |
|   | 2012        | 21.9                       | 6.0                                     | 22.4                       | 6.6                                 | 17.7                       | 5.3                                  |
|   | Change      | 2.2                        | 1.4                                     | 2.1                        | 1.3                                 | 1.1                        | 1.0                                  |
| Routes that<br>serve Seattle<br>core        | 2013        | 47.3                       | 16.6                                    | 51.3                       | 15.4                                | 34.9                       | 10.8                                 |
|   | 2012        | 45.4                       | 14.8                                    | 54.3                       | 15.5                                | 31.5                       | 9.0                                  |
|   | Change      | 1.9                        | 1.8                                     | -3.0                       | -0.1                                | 3.4                        | 1.8                                  |

**TABLE 2**  
**2012-2013 Route Performance Threshold Changes for Bottom 25%**

| Market                                      | Performance | Peak                       |   | Off Peak                   |                                     | Night                      |                                      |
|---|-------------|----------------------------|---|----------------------------|-------------------------------------|----------------------------|--------------------------------------|
|   |             | Rides/<br>Platform<br>Hour | Passenger<br>Miles/<br>Platform<br>Mile | Rides/<br>Platform<br>Hour | Passenger<br>Miles/Platform<br>Mile | Rides/<br>Platform<br>Hour | Passenger<br>Miles/<br>Platform Mile |
| Routes that<br>DO NOT serve<br>Seattle core | 2013        | 12.1                       | 2.4                                     | 12.0                       | 2.7                                 | 10.9                       | 2.6                                  |
|   | 2012        | 12.0                       | 2.2                                     | 10.1                       | 1.9                                 | 9.3                        | 2.0                                  |
|   | Change      | 0.1                        | 0.2                                     | 1.9                        | 0.8                                 | 1.6                        | 0.6                                  |
| Routes that<br>serve Seattle<br>core        | 2013        | 24.0                       | 10.7                                    | 32.6                       | 9.8                                 | 21.4                       | 6.3                                  |
|   | 2012        | 22.8                       | 9.8                                     | 30.6                       | 9.9                                 | 19.1                       | 5.8                                  |
|   | Change      | 1.2                        | 0.9                                     | 2.0                        | -0.1                                | 2.3                        | 0.5                                  |

- Service quality.** We assess route overcrowding and reliability. To ensure that investments are warranted to address problems, we may consider performance over a longer period than a single service change.

  - Overcrowding** is defined as a trip that on average has 25 to 50 percent more riders than seats (depending on service frequency) or has 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

The All-Day and Peak Network analysis examines corridors and peak service.

### 1) Corridor analysis

Each corridor in the All-Day and Peak Network is assigned target service levels based on productivity, social equity, and geographic value. Table 3 shows the service family categories based on 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 L.

#### An updated corridor methodology that better links transit service and local development

In response to King County Ordinance 17143, Metro convened a collaborative working group to discuss concepts for refining Metro's service guidelines to better link transit service and local development. The group included representatives of local jurisdictions and partner agencies, the Regional Transit Committee staff, King County Council staff members, and others involved in transportation and land-use planning.

The working group identified the following issues during the collaborative process:

- Land-use thresholds are spread too far apart to be sensitive to near-term development.
- Land-use thresholds that fluctuate over time create moving development targets.
- Corridors should consider student populations—an important transit market.

In October 2012, the County Executive transmitted a preliminary report on potential changes to the Strategic Plan and Service Guidelines that addressed these issues. This *Linking Transit and Development Preliminary Concept Report* can be found at: [http://metro.kingcounty.gov/planning/#guidelines\\_update](http://metro.kingcounty.gov/planning/#guidelines_update)

Subsequently, the Regional Transit Committee and the King County Council adopted the following changes to the service guidelines:

1. Shifted from three thresholds to five thresholds for both households and jobs.
2. Changed from relative thresholds (for both households and jobs) to five fixed thresholds.
3. Included college and university student enrollment as jobs due to the similar travel characteristics.

The most noticeable change resulting from use of the new methodology is that more corridors receive points for households and/or jobs. The use of five rather than three thresholds makes the corridors more sensitive to the widely varying development patterns across King County. In previous analyses using the old methodology, many corridors received zero points for households and/or jobs. See Appendix L for these thresholds.

**TABLE 3**  
**Service Families**

| Service family       | Frequency (minutes)                                      |              |              | Days of service | Hours of service |
|----------------------|--|--------------|--------------|-----------------|------------------|
|                      | Peak <sup>1</sup>  | 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             |
| Alternative services | Determined by demand and community collaboration process |              |              |                 |                  |

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.

As an outcome of our analysis of spring 2013 data, more corridors were targeted for very frequent service and fewer corridors were targeted for frequent, local, and hourly service than in 2012, as seen in Table 4. This is a result of methodology changes (see box on page 12).

**TABLE 4**  
**Number of All-Day Corridors by Assigned Service Levels**

| Service Level         | 2012 | 2013 | Change |
|-----------------------|------|------|--------|
| Very frequent         | 37   | 53   | 16     |
| Frequent              | 26   | 22   | -4     |
| Local                 | 31   | 26   | -5     |
| Hourly                | 19   | 11   | -8     |
| Alternative services* | N/A  | N/A  | N/A    |

\*New service family; data will be included in subsequent reports.

Thirty-two all-day corridors moved to a more frequent service level and one moved to a less frequent level.

### Setting target service levels: the role of social equity and geographic value

When we set target service levels, consideration of social equity and geographic value makes a difference.

To illustrate, some corridors that have low density and score poorly on land-use measures still warrant high levels of service because they score highly on geographic value and social equity measures. For example, corridor 3, between Auburn and Burien, gets only two points for land use. However, it is a highly used corridor that gets the maximum points possible for geographic value

and social equity, and is scored as a frequent-service corridor as a result. Without the social equity and geographic value scores, this corridor would not be identified as needing investment.

Similarly, corridor 55 between Lake City, Northgate and downtown Seattle and corridor 106 between Bellevue and the University District both get more points for social equity and geographic value than for land use, and are targeted for very frequent service as a result.

Eleven corridors received additional points from changes in the number of households or jobs per corridor mile. This reflects actual changes in the number of jobs, universities/colleges and residences with access to transit. The 2013 analysis also raised target service levels on seven corridors in part because of higher demand.

A list of all corridors that received different target service levels and the reasons for the changes is in Appendix H.

The target service levels are directly affected 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 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. In many of these corridors, Metro operates mainly peak service that complements Sound Transit’s all-day service.

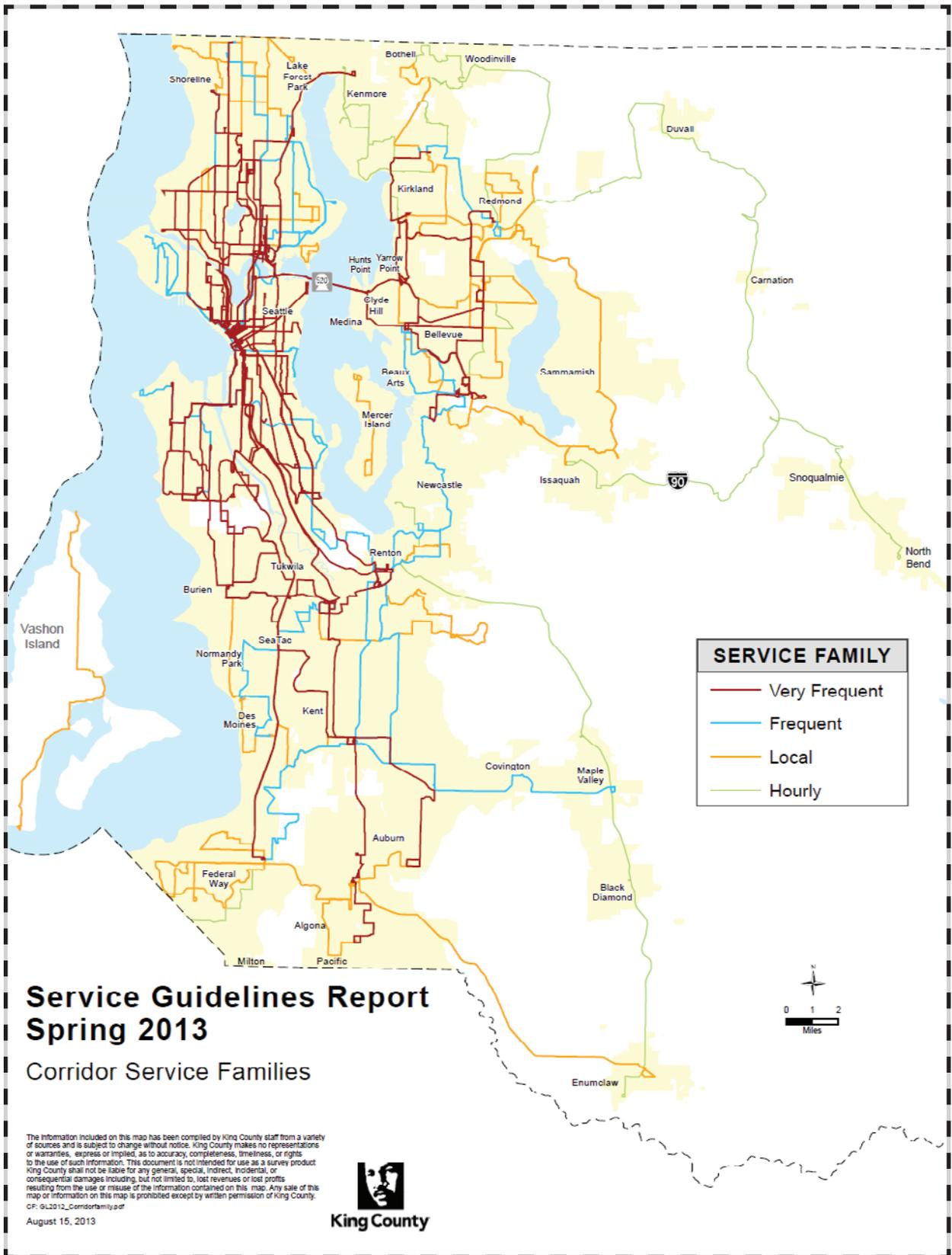


**TABLE 5**  
**Corridors Served Primarily by Sound Transit**

| 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**  
**Corridor Service Families**



## 2) Peak Analysis

This analysis compares both rides per trip and travel time on peak-period routes to those on the local alternative. For peak service to be justified, a peak route must have at least 90 percent of the rides per trip that its alternative service has and must be at least 20 percent faster than its alternative.

A peak route may be justified if it exceeds the route performance 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 Figure 3 and Appendix F.

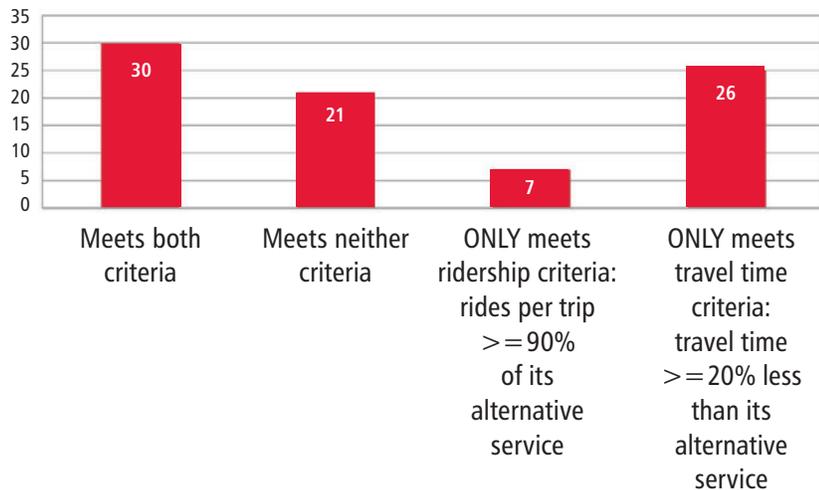
Table 6 below shows the change in the number of peak-only routes operated by Metro. The reduction in peak-only routes is largely due to the fall 2012 service restructures made in conjunction with the start of the RapidRide C and D Lines. These restructures eliminated some peak services as the RapidRide lines and the new network connections around RapidRide created a more robust all-day, two-way network.

**TABLE 6**  
**Number of Peak-Period Routes Analyzed**

| Service Level | 2012 | 2013 | Change |
|---------------|------|------|--------|
| Peak          | 92   | 83   | - 9    |

The chart below shows the number of peak routes that meet one, two or neither of the peak criteria.

**FIG. 3**  
**2013 Peak Route Analysis Results**



## Combined analysis: potential for major reduction and investment priority

Figure 4 explains how Metro uses the combined corridor and route analysis to determine both the potential for major reduction in service and the investment priority. Potential for major reduction is characterized as high, medium or low. Services identified as having either high or medium potential for reduction are within the first reduction priority in the guidelines. All other services are identified as having low potential for reduction.

The first reduction priority in the guidelines is those routes that are below the 25 percent productivity threshold for at least one measure for a given period and do not provide a primary connection between centers or service that is necessary to meet the corridor's target service level. We examine those routes first when we take action to improve productivity, meet budget realities, or reinvest existing services to meet our investment priorities. A detailed description of the reduction priorities is in Section 3.

It is possible that a route can be designated as having a potential for reduction and can also be a priority for investment. Figure 5 shows routes for which this occurs and explains how it happens.

The size of proposed service changes (reinvestments, investments, or reductions) will be informed by budget realities and County Council direction. Services with medium or low potential for reduction may be impacted if Metro makes severe service reductions or extensive service reinvestments because of financial constraints or in response to public input.

Investment priorities are listed in the guidelines:

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

Table 7, which shows the actual results of our analysis, follows Figure 5. A detailed description of information and data sources used in this report is in Appendix J.



FIG. 5

How Can a Route have both Potential for Reduction and Priority for Investment?

Sometimes, routes that show up as having medium or high potential for reduction can also show up as needing investment. There are a few reasons this can occur.

- Differences in performance by time of day.** The potential for reduction is based on the lowest-performing time of day for a route. For example, a route that has a potential for reduction in the night period may need investment in the peak or off-peak period. For simplicity, we show the lowest-performing time so that readers of the report can have a clear idea whether or not their route is likely to be considered for reduction in any time period. An example of this is Route 28, which is identified as high potential for major reduction in off-peak but is targeted for investment due to high performance in the peak period.
- Reliability investment priorities.** Routes are identified as an investment priority for reliability if they meet the thresholds, regardless of ridership or performance. Even a route that carries relatively fewer riders may be targeted for investment if it has poor reliability. It is important to identify reliability needs for all routes to ensure that a route has high-quality service as long as it continues operating. An example of this is Route 177.
- High performance on one measure and low performance on another.** A small number of routes are in the top 25 percent on one measure and in the bottom 25 percent on the other measure. These routes may show up as having potential for major reduction, but would also show up as an investment priority because they are high-productivity. An example of this is Route 280.

3. High performance on one measure and low performance on another. A small number of routes are in the top 25 percent on one measure and in the bottom 25 percent on the other measure. These routes may show up as having potential for major reduction, but would also show up as an investment priority because they are high-productivity. An example of this is Route 280.

| Route | Route | Description  | Corridor | Target Service Family | Route Productivity             | Peak Criteria                    | Corridor Status                         | Potential for Major Reduction | Investment Priority |
|-------|-------|--|----------|-----------------------|--------------------------------|----------------------------------|---|-------------------------------|---------------------|
| 28*   | 28    | Whittier Heights - Ballard - Seattle CBD via Leary Av NW | 34/36    | Very Frequent/Local   | Peak: B, Off Peak: D, Night: D | Ridership: At, Travel Time: D    | Peak: At, Off Peak: Above, Night: At    | High                          | 2, 4                |
| 98*   | 98    | South Lake Union Street Car                              | None     | None                  | Peak: D, Off Peak: D, Night: D | Ridership: No, Travel Time: D    | Peak: None, Off Peak: None, Night: At   | High                          | 4                   |
| 173   | 173   | Federal Way TC - Federal Center-South                    | Peak     | Peak                  | Peak: D, Off Peak: D, Night: D | Ridership: No, Travel Time: No   | Peak: Peak, Off Peak: Peak, Night: Peak | High                          | 2                   |
| 177*  | 177   | Federal Way - Seattle CBD                                | Peak     | Peak                  | Peak: D, Off Peak: D, Night: D | Ridership: No, Travel Time: No   | Peak: Peak, Off Peak: Peak, Night: Peak | High                          | 1, 2, 4             |
| 179*  | 179   | Twin Lakes - Seattle CBD                                 | Peak     | Peak                  | Peak: D, Off Peak: D, Night: D | Ridership: No, Travel Time: No   | Peak: Peak, Off Peak: Peak, Night: Peak | High                          | 4                   |
| 197*  | 197   | Twin Lakes - University District                         | Peak     | Peak                  | Peak: D, Off Peak: D, Night: D | Ridership: No, Travel Time: Yes  | Peak: Peak, Off Peak: Peak, Night: Peak | High                          | 2                   |
| 202*  | 202   | South Mercer Island - Seattle CBD                        | Peak     | Peak                  | Peak: E, Off Peak: D, Night: D | Ridership: No, Travel Time: No   | Peak: Peak, Off Peak: Peak, Night: Peak | High                          | 2                   |
| 243*  | 243   | Jackson Park - Bellevue                                  | Peak     | Peak                  | Peak: D, Off Peak: D, Night: D | Ridership: Yes, Travel Time: Yes | Peak: Peak, Off Peak: Peak, Night: Peak | High                          | 2                   |
| 280*  | 280   | Seattle CBD - Bellevue - Renton                          | Owl      | Owl                   | Peak: D, Off Peak: D, Night: D | Ridership: No, Travel Time: No   | Peak: None, Off Peak: None, Night: None | High                          | 2, 4                |

**LEGEND**  
**Productivity**  
 A Top 25% in both measures  
 B Top 25% in one measure\*  
 C Between top and bottom 25% in both measures  
 D Bottom 25% in one measure\*  
 E Bottom 25% in both measures  
 \*If one measure is in bottom 25% then it is a D

**Potential for Major Reduction**  
 Any light shaded field is a risk factor  
 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 one or either peak criteria  
**Medium** Service in the bottom 25% of one or both productivity measures AND at its corridor status  
**Low** Services not in the bottom 25% for both productivity measures OR corridors below target service levels OR peak routes meeting both criteria

**Investment Priorities**  
 1 Overcrowding  
 2 Reliability  
 3 Corridors below target service level  
 4 High productivity routes

**TABLE 7**  
**Spring 2013 Route and Corridor Performance**

| Route  | Description  | Corridor | Target Service Family        | Route Productivity |          |       | Peak 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              | Below        | At     | 3, 4                          |                     |
| B Line | Bellevue - Crossroads - Redmond                          | 15       | Very Frequent                | A                  | A        | A     |               |           | At              | At           | At     | 4                             |                     |
| C Line | Westwood Village - Alaska Junction - Seattle CBD         | 111      | Very Frequent                | B                  | B        | B     |               |           | At              | Below        | At     | 3, 4                          |                     |
| D Line | Ballard - Seattle Center - Seattle CBD                   | 10       | Very Frequent                | B                  | A        | A     |               |           | At              | At           | At     | 1, 4                          |                     |
| 1      | Kinnear - Seattle CBD                                    | None     | None                         | B                  | A        | C     |               |           | None            | None         | At     | 2, 4                          |                     |
| 2      | West Queen Anne - Seattle CBD - Madrona Park             | 60       | Very Frequent                | B                  | C        | C     |               |           | At              | At           | At     | 4                             |                     |
| 3      | North Queen Anne - Seattle CBD - Madrona Park            | 23/76    | Very Frequent/ Very Frequent | B                  | C        | D     |               |           | At, At          | At, At       | At, At | 4                             |                     |
| 4      | East Queen Anne - Seattle CBD - Judkins Park             | 23/76    | Very Frequent/ Very Frequent | B                  | C        | C     |               |           | At, At          | At, At       | At, At | 2, 4                          |                     |
| 5EX    | Shoreline CC - Seattle CBD                               | Peak     | Peak                         | B                  |          |       | No            | No        | Peak            | Peak         | At     | 4                             |                     |
| 5      | Shoreline CC - Seattle CBD                               | 38/96    | Very Frequent/ Frequent      | A                  | C        | A     |               |           | Below, At       | At, Above    | At, At | 3, 4                          |                     |
| 7EX    | Rainier Beach - Seattle CBD                              | Peak     | Peak                         | D                  |          |       | Yes           | No        | Peak            | Peak         | At     | -                             |                     |
| 7      | Rainier Beach - Seattle CBD                              | 77       | Very Frequent                | B                  | A        | C     |               |           | At              | At           | At     | 2, 4                          |                     |
| 8      | Seattle Center - Capitol Hill - Rainier Beach            | 78       | Very Frequent                | B                  | C        | C     |               |           | At              | At           | At     | 1, 2, 4                       |                     |
| 9EX    | Rainier Beach - Capitol Hill                             | 79       | Very Frequent                | C                  | C        |       |               |           | Below           | Below        | Below  | 1, 3                          |                     |
| 10     | Capitol Hill - Seattle CBD                               | 21       | Very Frequent                | D                  | B        | B     |               |           | At              | At           | At     | 2, 4                          |                     |
| 11     | Madison Park - Seattle CBD                               | 59       | Very Frequent                | D                  | D        | B     |               |           | At              | Below        | At     | 1, 2, 3, 4                    |                     |
| 12     | Interlaken Park - Seattle CBD                            | 22       | Very Frequent                | D                  | D        | E     |               |           | At              | At           | At     | 4                             |                     |
| 13     | Seattle Pacific University - Queen Anne - Seattle CBD    | 75       | Very Frequent                | B                  | B        | C     |               |           | At              | At           | At     | 4                             |                     |
| 14     | Mount Baker - Seattle CBD                                | 64       | Very Frequent                | D                  | D        | D     |               |           | Below           | Below        | At     | 2, 3                          |                     |
| 15EX   | Blue Ridge - Ballard - Seattle CBD                       | Peak     | Peak                         | A                  |          |       | Yes           | Yes       | Peak            | Peak         | At     | 1, 4                          |                     |
| 16     | Northgate TC - Wallingford - Seattle CBD                 | 69       | Very Frequent                | C                  | C        | D     |               |           | Below           | Below        | At     | 2, 3                          |                     |
| 17EX   | Sunset Hill - Ballard - Seattle CBD                      | Peak     | Peak                         | A                  |          |       | Yes           | Yes       | Peak            | Peak         | At     | 1, 2, 4                       |                     |
| 18EX   | North Beach - Ballard - Seattle CBD                      | Peak     | Peak                         | A                  |          |       | No            | Yes       | Peak            | Peak         | At     | 2, 4                          |                     |
| 19     | West Magnolia - Seattle CBD                              | Peak     | Peak                         | D                  |          |       | Yes           | No        | Peak            | Peak         | At     | -                             |                     |
| 21EX   | Arbor Heights - Westwood Village - Seattle CBD           | Peak     | Peak                         | C                  |          |       | Yes           | Yes       | Peak            | Peak         | At     | 2                             |                     |
| 21     | Arbor Heights - Westwood Village - Seattle CBD           | 39       | Very Frequent                | C                  | D        | D     |               |           | At              | At           | At     | 2                             |                     |
| 22     | Arbor Heights - Westwood Village - Alaska Junction       | None     | None                         | C                  | D        | E     |               |           | None            | None         | At     | -                             |                     |
| 24     | Magnolia - Seattle CBD                                   | 61       | Frequent                     | C                  | D        | E     |               |           | At              | At           | At     | 2                             |                     |
| 25     | Laurelhurst - University District - Seattle CBD          | 58/107   | Local/ Local                 | E                  | E        |       |               |           | Below, Below    | Below, Below | At, At | 2, 3                          |                     |
| 26EX   | East Green Lake - Wallingford - Seattle CBD              | Peak     | Peak                         | A                  |          |       | No            | Yes       | Peak            | Peak         | At     | 4                             |                     |
| 26     | East Green Lake - Wallingford - Seattle CBD              | 34       | Very Frequent                | B                  | D        | C     |               |           | At              | At           | At     | 1, 2, 4                       |                     |
| 27     | Colman Park - Leschi Park - Seattle CBD                  | 24       | Frequent                     | D                  | E        | E     |               |           | Below           | At           | At     | 2, 3                          |                     |
| 28     | Whittier Heights - Ballard - Seattle CBD via Leary Av NW | 34/36    | Very Frequent/ Local         | B                  | D        | D     |               |           | At, At          | At, Above    | At, At | 2, 4                          |                     |
| 28EX   | Broadview - Ballard - Seattle CBD via Leary Av NW        | Peak     | Peak                         | C                  |          |       | Yes           | Yes       | Peak            | Peak         | At     | 1, 2                          |                     |
| 29     | Ballard - Queen Anne - Seattle CBD                       | Peak     | Peak                         | D                  |          |       | Yes           | Yes       | Peak            | Peak         | At     | 2                             |                     |
| 30     | Sand Point - University District                         | 92       | Frequent                     | D                  | E        | D     |               |           | Below           | At           | At     | 3                             |                     |
| 31     | University District - Fremont - Magnolia                 | 35       | Very Frequent                | D                  | E        |       |               |           | At              | Below        | At     | 2, 3                          |                     |
| 32     | University District - Fremont - Seattle Center           | 35       | Very Frequent                | C                  | C        | C     |               |           | At              | Below        | At     | 2, 3                          |                     |
| 33     | Discovery Park - Seattle CBD                             | 26       | Frequent                     | C                  | E        | D     |               |           | Below           | At           | Below  | 2, 3                          |                     |

**LEGEND**

**Productivity**  
 A Top 25% in both measures  
 B Top 25% in one measure\*  
 C Between top and bottom 25% in both measures  
 D Bottom 25% in one measure\*  
 E Bottom 25% in both measures\*  
 \*If one measure is in bottom 25% then it is a D

**Potential for Major Reduction**  
 Any light shaded field is a risk factor  
 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 one or either peak criteria

**Corridor Status**  
 High Service in the bottom 25% of one or both productivity measures AND at its corridor status  
 Medium Service in the bottom 25% of one or both productivity measures AND at its corridor status  
 Low Services not in the bottom 25% for both productivity measures OR corridors below target service levels OR peak routes meeting both criteria

**Investment Priorities**  
 1 Overcrowding  
 2 Reliability  
 3 Corridors below target service level  
 4 High productivity routes

(continued) Spring 2013 Route and Corridor Performance

| Route | Description  | Corridor | Target Service Family | Route Productivity |          |       | Peak Criteria |           | Corridor Status |          |       | Investment Priority |
|-------|--|----------|-----------------------|--------------------|----------|-------|---------------|-----------|-----------------|----------|-------|---------------------|
|       |  |          |                       | Peak               | Off Peak | Night | Travel Time   | Ridership | Peak            | Off Peak | Night |                     |
| 36    | Othello Station - Beacon Hill - Seattle CBD          | 13 Peak  | Very Frequent Peak    | C                  | C        | C     | Yes           | Yes       | At              | At       | At    | -                   |
| 37    | Alaska Junction - Alki - Seattle CBD                 | 9/12     | Very Frequent         | E                  |          |       |               |           | Below/Below     | At/At    | At/At | 1, 2, 3             |
| 40    | Northgate TC - Ballard - Seattle CBD via Leary Av NW | 55       | Very Frequent         | C                  | C        | C     |               |           | Below           | Below    | Below | 2, 3, 4             |
| 41    | Lake City - Seattle CBD via Northgate                | None     | None                  | A                  | A        | A     |               |           | None            | None     | None  | 4                   |
| 43    | University District - Capitol Hill - Seattle CBD     | 11       | Very Frequent         | B                  | C        | B     |               |           | At              | At       | At    | Low                 |
| 44    | Ballard - Wallingford - Montlake                     | None     | None                  | B                  | C        | C     |               |           | At              | At       | At    | Low                 |
| 47    | Summit - Seattle CBD                                 | None     | None                  | D                  | E        | E     |               |           | None            | None     | None  | High                |
| 48EX  | Mt Baker - University District - Loyal Heights       | Peak     | Peak                  | D                  |          |       | No            | Yes       | Peak            | Peak     | Peak  | High                |
| 48    | Mt Baker - University District - Loyal Heights       | 8        | Very Frequent         | C                  | C        | C     |               |           | At              | At       | At    | 2                   |
| 49    | University District - Capitol Hill - Seattle CBD     | 105      | Very Frequent         | A                  | A        | A     |               |           | Below           | At       | At    | 3, 4                |
| 50    | Alki - Columbia City - Othello Station               | 2/71     | Frequent              | C                  | C        | E     |               |           | Below/Below     | At/At    | At/At | 3                   |
| 55    | Admiral District - Alaska Junction - Seattle CBD     | Peak     | Peak                  | C                  |          |       | No            | No        | Peak            | Peak     | Peak  | 2                   |
| 56EX  | Alki - Seattle CBD                                   | Peak     | Peak                  | C                  |          |       | Yes           | No        | Peak            | Peak     | Peak  | 2                   |
| 57    | Alaska Junction - Seattle CBD                        | Peak     | Peak                  | C                  |          |       | No            | Yes       | Peak            | Peak     | Peak  | 2                   |
| 60    | Westwood Village - Georgetown - Capitol Hill         | 20       | Very Frequent         | D                  | D        | D     |               |           | Below           | Below    | At    | 2, 3                |
| 61    | North Beach - Ballard                                | None     | None                  | E                  | E        | E     |               |           | None            | None     | None  | -                   |
| 62    | Ballard - Seattle Pacific University - Seattle CBD   | Peak     | Peak                  | E                  |          |       | No            | No        | Peak            | Peak     | Peak  | -                   |
| 64EX  | Lake City - First Hill                               | Peak     | Peak                  | C                  |          |       | Yes           | No        | Peak            | Peak     | Peak  | -                   |
| 65    | Lake City - University District                      | 57       | Frequent              | D                  | D        | D     |               |           | Below           | At       | At    | 3                   |
| 66EX  | Northgate TC - Eastlake - Seattle CBD                | 68       | Very Frequent         | A                  | C        | C     |               |           | At              | Below    | At    | 1, 3, 4             |
| 67    | Northgate TC - University District                   | 70       | Very Frequent         | C                  | A        | C     |               |           | At              | Below    | At    | 1, 3, 4             |
| 68    | Northgate TC - Ravenna - University District         | 70       | Very Frequent         | D                  | B        | B     |               |           | Below           | Below    | Below | 1, 3, 4             |
| 70    | University District - Seattle CBD                    | 104      | Very Frequent         | B                  | C        | C     |               |           | At              | At       | Above | 4                   |
| 71    | Wedgwood - University District - Seattle CBD         | 110      | Local                 | A                  | A        | A     |               |           | At              | At       | At    | 1, 2, 4             |
| 72    | Lake City - University District - Seattle CBD        | Peak     | Peak                  | A                  | A        | A     |               |           | At              | At       | Peak  | 2, 4                |
| 73    | Jackson Park - University District - Seattle CBD     | 25       | Very Frequent         | A                  | A        | A     |               |           | At              | At       | At    | 1, 2, 3, 4          |
| 74EX  | Sand Point - Seattle CBD                             | Peak     | Peak                  | A                  |          |       | No            | No        | Peak            | Peak     | Peak  | 1, 2, 4             |
| 75    | Northgate TC - Lake City - Seattle CBD               | 56       | Frequent              | C                  | C        | B     |               |           | Below           | At       | At    | 1, 3, 4             |
| 76    | Wedgwood - Seattle CBD                               | Peak     | Peak                  | A                  |          |       | No            | No        | Peak            | Peak     | Peak  | 2, 4                |
| 77    | North City - Seattle CBD                             | Peak     | Peak                  | B                  |          |       | Yes           | No        | Peak            | Peak     | Peak  | 2, 4                |
| 82    | Seattle CBD - Greenwood                              | Owl      | Owl                   |                    |          | E     |               |           | None            | None     | None  | -                   |
| 83    | Seattle CBD - Ravenna                                | Owl      | Owl                   |                    |          | D     |               |           | None            | None     | None  | -                   |
| 84    | Seattle CBD - Madison Park - Madrona                 | Owl      | Owl                   |                    |          | E     |               |           | None            | None     | None  | -                   |
| 98    | South Lake Union Street Car                          | None     | None                  | B                  | D        | D     |               |           | None            | None     | None  | 4                   |
| 99    | International District - Waterfront                  | Peak     | Peak                  | D                  |          |       |               |           | Peak            | Peak     | Peak  | -                   |
| 101   | Renton TC - Seattle CBD                              | 84       | Very Frequent         | B                  | A        | A     |               |           | At              | Below    | At    | 1, 2, 3, 4          |
| 102   | Fairwood - Renton TC - Seattle CBD                   | Peak     | Peak                  | B                  |          |       | No            | Yes       | Peak            | Peak     | Peak  | 4                   |
| 105   | Renton Highlands - Renton TC                         | 87       | Frequent              | B                  | A        | B     |               |           | Below           | At       | At    | 3, 4                |
| 106   | Renton TC - Rainier Beach - Seattle CBD              | 86       | Very Frequent         | C                  | C        | C     |               |           | At              | Below    | At    | 3                   |
| 107   | Renton TC - Rainier Beach                            | 85       | Frequent              | B                  | C        | C     |               |           | At              | At       | At    | 4                   |
| 110   | Tukwila Station - North Renton                       | Peak     | Peak                  | D                  |          |       | Yes           | No        | Peak            | Peak     | Peak  | -                   |
| 111   | Lake Kathleen - Seattle CBD                          | Peak     | Peak                  | C                  |          |       | Yes           | Yes       | Peak            | Peak     | Peak  | -                   |
| 113   | Shorewood - Seattle CBD                              | Peak     | Peak                  | C                  |          |       | Yes           | Yes       | Peak            | Peak     | Peak  | -                   |
| 114   | Renton Highlands - Seattle CBD                       | Peak     | Peak                  | D                  |          |       | Yes           | Yes       | Peak            | Peak     | Peak  | 2                   |

**LEGEND**

**Productivity**  
 A Top 25% in both measures  
 B Top 25% in one measure\*  
 C Between top and bottom 25% in both measures  
 D Bottom 25% in one measure\*  
 E Bottom 25% in both measures  
 \*If one measure is in bottom 25% then it is a D

**Potential for Major Reduction**  
 Any light shaded field is a risk factor  
 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 one or either peak criteria  
**High**  
 Medium  
 Low  
 Service in the bottom 25% of one or both productivity measures AND at its corridor status  
 Services not in the bottom 25% for both productivity measures OR corridors below target service levels OR peak routes meeting both criteria  
**Low**

**Investment Priorities**  
 1 Overcrowding  
 2 Reliability  
 3 Corridors below target service level  
 4 High productivity routes

(continued) Spring 2013 Route and Corridor Performance

| Route | Description  | Corridor | Target Service Family | Route Productivity |          |       | Peak Criteria |           | Corridor Status |          |        | Potential for Major Reduction | Investment Priority |
|-------|--|----------|-----------------------|--------------------|----------|-------|---------------|-----------|-----------------|----------|--------|-------------------------------|---------------------|
|       |  |          |                       | Peak               | Off Peak | Night | Travel Time   | Ridership | Peak            | Off Peak | Night  |                               |                     |
| 116EX | Fauntleroy Ferry - Seattle CBD                                     | Peak     | Peak                  | E                  | D        | C     | Yes           | No        | Peak            | Peak     | High   | -                             |                     |
| 118   | Tahlequah - Vashon   | 91       | Hourly                | C                  | D        | C     | Yes           | Yes       | At              | At       | Medium | -                             |                     |
| 118EX | Tahlequah - Seattle CBD via ferry                                  | Peak     | Peak                  | E                  |          |       | Yes           | Yes       | Peak            | Peak     | Low    | -                             |                     |
| 119   | Dockton - Vashon   | None     | None                  | D                  | E        |       |               |           | None            | None     | High   | -                             |                     |
| 119EX | Dockton - Seattle CBD via ferry                                    | Peak     | Peak                  | E                  |          |       | Yes           | Yes       | Peak            | Peak     | Low    | 2                             |                     |
| 120   | Burien TC - Westwood Village - Seattle CBD                         | 17       | Very Frequent         | B                  | B        | A     |               |           | At              | At       | Low    | 2, 4                          |                     |
| 121   | Highline CC - Burien TC - Seattle CBD via 1st Av S                 | Peak     | Peak                  | E                  |          |       | Yes           | No        | Peak            | Peak     | High   | -                             |                     |
| 122   | Highline CC - Burien TC - Seattle CBD via Des Moines Memorial Dr S | Peak     | Peak                  | D                  |          |       | Yes           | Yes       | Peak            | Peak     | Low    | -                             |                     |
| 123   | Burien - Seattle CBD   | Peak     | Peak                  | C                  |          |       | No            | No        | Peak            | Peak     | Low    | -                             |                     |
| 124   | Tukwila - Georgetown - Seattle CBD                                 | 99       | Very Frequent         | C                  | C        | C     |               |           | Below           | Below    | Low    | 2, 3                          |                     |
| 125   | Westwood Village - Seattle CBD                                     | 112      | Frequent              | C                  | D        | D     |               |           | Below           | At       | Medium | 3                             |                     |
| 128   | Southcenter - Westwood Village - Admiral District                  | 1        | Very Frequent         | A                  | A        | C     |               |           | Below           | Below    | Low    | 1, 2, 3, 4                    |                     |
| 131   | Burien TC - Highland Park - Seattle CBD                            | 18       | Very Frequent         | B                  | D        | C     |               |           | Below           | Below    | Low    | 1, 2, 3, 4                    |                     |
| 132   | Burien TC - South Park - Seattle CBD                               | 19       | Very Frequent         | C                  | D        | D     |               |           | Below           | Below    | Medium | 1, 2, 3                       |                     |
| 139   | Burien TC - Gregory Heights  | None     | None                  | E                  | D        | E     |               |           | None            | None     | High   | -                             |                     |
| 140   | Burien TC - Renton TC  | 83       | Very Frequent         | A                  | A        | A     |               |           | Below           | At       | Low    | 3, 4                          |                     |
| 143EX | Black Diamond - Renton TC - Seattle CBD                            | Peak     | Peak                  | D                  |          |       | Yes           | Yes       | Peak            | Peak     | Low    | 1, 2                          |                     |
| 148   | Fairwood - Renton TC   | 31       | Local                 | C                  | C        | A     |               |           | At              | At       | Low    | 4                             |                     |
| 150   | Kent Station - Southcenter - Seattle CBD                           | 51       | Very Frequent         | B                  | B        | B     |               |           | Below           | At       | Low    | 3, 4                          |                     |
| 152   | Auburn - Seattle CBD   | Peak     | Peak                  | D                  |          |       | Yes           | No        | Peak            | Peak     | High   | -                             |                     |
| 153   | Kent Station - Renton TC   | 52       | Frequent              | C                  |          |       | Yes           | Yes       | Below           | Below    | Low    | 3                             |                     |
| 154   | Tukwila Station - Boeing Industrial                                | Peak     | Peak                  | C                  |          |       | Yes           | No        | Peak            | Peak     | Low    | -                             |                     |
| 155   | Fairwood - Southcenter   | 101      | Local                 | C                  | C        |       |               |           | Below           | Below    | Low    | 3                             |                     |
| 156   | Southcenter - SeaTac Airport - Highline CC                         | 100      | Frequent              | C                  | C        | D     |               |           | Below           | At       | Low    | 2                             |                     |
| 157   | Lake Meridian - Seattle CBD  | Peak     | Peak                  | D                  |          |       | Yes           | Yes       | Peak            | Peak     | Low    | -                             |                     |
| 158   | Kent East Hill - Seattle CBD                                       | Peak     | Peak                  | D                  |          |       | Yes           | Yes       | Peak            | Peak     | Low    | -                             |                     |
| 159   | Timberlane - Seattle CBD   | Peak     | Peak                  | D                  |          |       | No            | No        | Peak            | Peak     | High   | -                             |                     |
| 161   | Lake Meridian - Seattle CBD  | Peak     | Peak                  | D                  |          |       | Yes           | No        | Peak            | Peak     | High   | -                             |                     |
| 164   | Green River CC - Kent Station                                      | 37       | Very Frequent         | A                  | A        | A     |               |           | Below           | Below    | Low    | 1, 3, 4                       |                     |
| 166   | Kent Station - Burien TC   | 48       | Local                 | A                  | A        | B     |               |           | At              | At       | Low    | 2, 4                          |                     |
| 167   | Renton - Newport Hills - University District                       | Peak     | Peak                  | B                  |          |       | Yes           | Yes       | Peak            | Peak     | Low    | 4                             |                     |
| 168   | Maple Valley - Kent Station  | 49       | Frequent              | B                  | A        | A     |               |           | Below           | At       | Low    | 3, 4                          |                     |
| 169   | Kent Station - East Hill - Renton TC                               | 50       | Frequent              | A                  | A        | A     |               |           | Below           | At       | Low    | 2, 3, 4                       |                     |
| 173   | Federal Way TC - Federal Center South                              | Peak     | Peak                  | D                  |          |       | Yes           | No        | Peak            | Peak     | High   | 2                             |                     |
| 177   | Federal Way - Seattle CBD  | Peak     | Peak                  | D                  |          |       | No            | No        | Peak            | Peak     | High   | 2                             |                     |
| 178   | South Federal Way - Seattle CBD                                    | Peak     | Peak                  | C                  |          |       | No            | No        | Peak            | Peak     | Low    | 2                             |                     |
| 179   | Twin Lakes - Seattle CBD   | Peak     | Peak                  | D                  |          |       | No            | No        | Peak            | Peak     | High   | 1, 2, 4                       |                     |
| 180   | Auburn - SeaTac Airport - Burien TC                                | 3        | Very Frequent         | A                  | A        | C     |               |           | Below           | Below    | Low    | 3, 4                          |                     |
| 181   | Twin Lakes P&R - Green River CC                                    | 4        | Local                 | A                  | A        | C     |               |           | At              | At       | Low    | 4                             |                     |
| 182   | NE Tacoma - Federal Way TC   | 67       | Hourly                | C                  | C        |       |               |           | Above           | At       | Low    | 2                             |                     |
| 183   | Federal Way - Kent Station   | 33       | Frequent              | C                  | B        |       |               |           | Below           | Below    | Low    | 3, 4                          |                     |
| 186   | Enumclaw - Auburn Station  | Peak     | Peak                  | C                  |          |       |               |           | Peak            | Peak     | Low    | -                             |                     |
| 187   | Federal Way TC - Twin Lakes  | 103      | Local                 | C                  | B        | C     |               |           | At              | At       | Low    | 4                             |                     |
| 190   | Redondo Heights - Seattle CBD                                      | Peak     | Peak                  | D                  |          |       | Yes           | Yes       | Peak            | Peak     | Low    | 2                             |                     |

**LEGEND**

**Productivity**  
A Top 25% in both measures  
B Top 25% in one measure\*  
C Between top and bottom 25% in both measures  
D Bottom 25% in one measure\*  
E Bottom 25% in both measures  
\*If one measure is in bottom 25% then it is a D

**Potential for Major Reduction**  
**High** Any light shaded field is a risk factor  
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 one or either peak criteria  
**Medium** Service in the bottom 25% of one or both productivity measures AND at its corridor status  
**Low** Services not in the bottom 25% for both productivity measures OR corridors below target service levels OR peak routes meeting both criteria

**Investment Priorities**  
1 Overcrowding  
2 Reliability  
3 Corridors below target service level  
4 High productivity routes

(continued) Spring 2013 Route and Corridor Performance

| Route | Description  | Corridor | Target Service Family | Route Productivity |          | Peak Criteria |           | Corridor Status |           | Investment Priority |
|-------|--|----------|-----------------------|--------------------|----------|---------------|-----------|-----------------|-----------|---------------------|
|       |  |          |                       | Peak               | Off Peak | Travel Time   | Ridership | Peak            | Off Peak  |                     |
| 192   | Star Lake - Seattle CBD                                  | Peak     | Peak                  | D                  |          | Yes           | Yes       | Peak            |           | -                   |
| 193EX | Federal Way - First Hill                                 | Peak     | Peak                  | C                  |          | Yes           | Yes       | Peak            |           | -                   |
| 197   | Twin Lakes - University District                         | Peak     | Peak                  | D                  |          | Yes           | No        | Peak            |           | 4                   |
| 200   | Downtown Issaquah - North Issaquah                       | None     | None                  | E                  | C        |               |           | None            |           | -                   |
| 201   | South Mercer Island - Mercer Island P&R via Mercer Wy    | Peak     | Peak                  | E                  |          | Yes           | Yes       | Peak            |           | -                   |
| 202   | South Mercer Island - Seattle CBD                        | Peak     | Peak                  | E                  |          | No            | No        | Peak            |           | 2                   |
| 203   | Mercer Island P&R - Shorewood                            | None     | None                  | D                  | E        |               |           | None            |           | -                   |
| 204   | South Mercer Island - Mercer Island P&R via Island Crest | 62       | Local                 | E                  |          |               |           | At              | Above     | At                  |
| 205EX | South Mercer Island - First Hill - University District   | Peak     | Peak                  | E                  |          | No            | No        | Peak            |           | -                   |
| 209   | North Bend - Snoqualmie - Issaquah                       | 42       | Hourly                | D                  | D        |               |           | At              | At        | At                  |
| 210   | Issaquah - Factoria - Seattle CBD                        | Peak     | Peak                  | E                  |          | Yes           | No        | Peak            |           | -                   |
| 211EX | Issaquah Highlands - First Hill                          | Peak     | Peak                  | E                  |          | No            | No        | Peak            |           | -                   |
| 212   | Eastgate - Seattle CBD                                   | Peak     | Peak                  | B                  | E        | No            | No        | Peak            |           | 4                   |
| 213   | Mercer Island P&R - Covenant Shores                      | None     | None                  |                    |          |               |           | None            |           | -                   |
| 214   | Issaquah - Seattle CBD                                   | Peak     | Peak                  | C                  |          | No            | No        | Peak            |           | -                   |
| 215   | North Bend - Seattle CBD                                 | Peak     | Peak                  | D                  |          | No            | Yes       | Peak            |           | -                   |
| 216   | Sammamish - Seattle CBD                                  | Peak     | Peak                  | B                  |          | No            | No        | Peak            |           | 4                   |
| 217   | Issaquah - Eastgate - Seattle CBD                        | Peak     | Peak                  | C                  |          | Yes           | No        | Peak            |           | -                   |
| 218   | Issaquah Highlands - Seattle CBD                         | Peak     | Peak                  | B                  |          | Yes           | Yes       | Peak            |           | 4                   |
| 221   | Education Hill - Overlake - Eastgate                     | 80       | Local                 | C                  | C        |               |           | At              | At        | 2                   |
| 224   | Fall City - Duvall - Redmond TC                          | 82       | Hourly                | D                  | D        |               |           | At              | At        | -                   |
| 226   | Eastgate - Crossroads - Bellevue                         | 29/72    | Hourly/Frequent       | B                  | B        | C             |           | Above, Below    | Above, At | 3, 4                |
| 232   | Duvall - Bellevue  | Peak     | Peak                  | C                  |          | Yes           | No        | Peak            |           | 2                   |
| 234   | Kenmore - Kirkland TC - Bellevue                         | 43/53    | Hourly/Very Frequent  | B                  | C        | C             |           | Above, At       | Above, At | 4                   |
| 235   | Kingsgate - Kirkland TC - Bellevue                       | 53       | Very Frequent         | C                  | C        | C             |           | At              | At        | -                   |
| 236   | Woodinville - Totem Lake - Kirkland                      | 98       | Hourly                | E                  | E        | E             |           | Above           | Above     | -                   |
| 237   | Woodinville - Bellevue                                   | Peak     | Peak                  | B                  |          | Yes           | No        | Peak            |           | 2, 4                |
| 238   | Bothell - Totem Lake - Kirkland                          | 109      | Local                 | C                  | C        | E             |           | At              | At        | -                   |
| 240   | Bellevue - Newcastle - Renton                            | 16       | Frequent              | B                  | B        | B             |           | Below           | At        | 1, 3, 4             |
| 241   | Eastgate - Factoria - Bellevue                           | 27       | Frequent              | C                  | C        | E             |           | Below           | Below     | 2, 3                |
| 242   | North City - Overlake                                    | Peak     | Peak                  | B                  |          | Yes           | Yes       | Peak            |           | 2, 4                |
| 243   | Jackson Park - Bellevue                                  | Peak     | Peak                  | D                  |          | Yes           | No        | Peak            |           | 2                   |
| 244EX | Kenmore - Overlake                                       | Peak     | Peak                  | C                  |          | Yes           | No        | Peak            |           | -                   |
| 245   | Kirkland - Overlake - Factoria                           | 54       | Very Frequent         | A                  | C        | C             |           | At              | At        | 2, 4                |
| 246   | Eastgate - Factoria - Bellevue                           | 28       | Local                 | D                  | C        | C             |           | At              | Below     | 3                   |
| 248   | Avondale - Redmond TC - Kirkland                         | 7        | Local                 | C                  | C        | C             |           | At              | At        | -                   |
| 249   | Overlake - South Kirkland - South Bellevue               | 73       | Local                 | C                  | C        | E             |           | At              | At        | -                   |
| 250   | Overlake - Seattle CBD                                   | Peak     | Peak                  | D                  |          | No            | No        | Peak            |           | -                   |
| 252   | Kingsgate - Seattle CBD                                  | Peak     | Peak                  | C                  |          | Yes           | Yes       | Peak            |           | -                   |
| 255   | Brickyard - Kirkland TC - Seattle CBD                    | 97       | Very Frequent         | C                  | D        | B             |           | At              | At        | 4                   |
| 257   | Brickyard - Seattle CBD                                  | Peak     | Peak                  | C                  |          | Yes           | Yes       | Peak            |           | 2                   |
| 260   | Finn Hill - Seattle CBD                                  | Peak     | Peak                  | D                  |          | No            | No        | Peak            |           | -                   |
| 265   | Overlake - Houghton - First Hill                         | Peak     | Peak                  | E                  |          | Yes           | No        | Peak            |           | -                   |

**Potential for Major Reduction**

**Potential for Major Reduction**

**Investment Priorities**

- 1 Overcrowding
- 2 Reliability
- 3 Corridors below target service level
- 4 High productivity routes

**LEGEND**

**Productivity**

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

\*If one measure is in bottom 25% then it is a D

**Potential for Major Reduction**

Any light shaded field is a risk factor

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 one or either peak criteria

**High**

Service in the bottom 25% of one or both productivity measures AND **at** its corridor status

**Medium**

Services not in the bottom 25% for both productivity measures OR corridors **below** target service levels OR peak routes meeting both criteria

**Low**

(continued) Spring 2013 Route and Corridor Performance

| Route   | Description                                      | Corridor  | Target Service Family               | Route Productivity        | Peak Criteria            | Corridor Status           | Potential for Major Reduction | Investment Priority |
|---------|--|-----------|-------------------------------------|---------------------------|--------------------------|---------------------------|-------------------------------|---------------------|
|         |  |           |                                     | Peak<br>Off Peak<br>Night | Travel Time<br>Ridership | Peak<br>Off Peak<br>Night |                               |                     |
| 268     | Redmond - Seattle CBD                            | Peak      | Peak                                | B                         | Yes                      | Peak                      | Low                           | 4                   |
| 269     | Issaquah - Overlake                              | 41        | Local                               | C                         |                          | Below                     | Low                           | 3                   |
| 271     | Issaquah - Bellevue - University District        | 14/40/106 | Very Frequent/ Local/ Very Frequent | C D C                     |                          | Above, At, At             | Medium                        | -                   |
| 277     | Juanita - University District                    | Peak      | Peak                                | E                         | Yes                      | Peak                      | Low                           | 2                   |
| 280     | Seattle CBD - Bellevue - Renton                  | Owl       | Owl                                 | D                         |                          | None                      | High                          | 2, 4                |
| 301     | Aurora Village - Seattle CBD                     | Peak      | Peak                                | B                         | Yes                      | Peak                      | Low                           | 4                   |
| 303EX   | Shoreline - First Hill                           | Peak      | Peak                                | B                         | Yes                      | Peak                      | Low                           | 1, 4                |
| 304     | Richmond Beach - Seattle CBD                     | Peak      | Peak                                | C                         | Yes                      | Peak                      | Low                           | -                   |
| 306EX   | Kenmore - Seattle CBD                            | Peak      | Peak                                | D                         | No                       | Peak                      | High                          | -                   |
| 308     | Horizon View - Seattle CBD                       | Peak      | Peak                                | C                         | No                       | Peak                      | Low                           | -                   |
| 309EX   | Kenmore - First Hill                             | Peak      | Peak                                | E                         | Yes                      | Peak                      | High                          | -                   |
| 311     | Duval - Woodinville - Seattle CBD                | Peak      | Peak                                | D                         | Yes                      | Peak                      | Low                           | -                   |
| 312EX   | Bothell - Seattle CBD                            | Peak      | Peak                                | B                         | No                       | Peak                      | Low                           | 4                   |
| 316     | Meridian Park - Seattle CBD                      | Peak      | Peak                                | A                         | Yes                      | Peak                      | Low                           | 2, 4                |
| 330     | Shoreline CC - Lake City                         | 95        | Local                               | C                         |                          | At                        | Low                           | 3                   |
| 331     | Shoreline CC - Kenmore                           | 44        | Local                               | C D                       |                          | At                        | High                          | -                   |
| 342     | Shoreline - Bellevue TC - Renton                 | Peak      | Peak                                | B                         | Yes                      | Peak                      | Low                           | 4                   |
| 345     | Shoreline CC - Northgate                         | 94        | Very Frequent                       | A A B                     |                          | Below                     | Low                           | 3, 4                |
| 346     | Aurora Village - Northgate                       | 6         | Local                               | A A C                     |                          | At                        | Low                           | 1, 4                |
| 347     | Mountlake terrace - Northgate                    | 65        | Local                               | A C A                     |                          | At                        | Low                           | 3, 4                |
| 348     | Richmond Beach - Northgate                       | 90        | Local                               | B C C                     |                          | At                        | Low                           | 4                   |
| 355EX   | Shoreline CC - University District - Seattle CBD | Peak      | Peak                                | C                         | No                       | Peak                      | Low                           | 2                   |
| 358EX   | Aurora Village - Seattle CBD                     | 5         | Very Frequent                       | A A A                     |                          | At                        | Low                           | 2, 3, 4             |
| 372EX   | Woodinville - Lake City - University District    | 45        | Very Frequent                       | C B C                     |                          | At                        | Low                           | 1, 2, 3, 4          |
| 373EX   | Aurora Village - University Village              | 93        | Frequent                            | C                         |                          | Below                     | Low                           | 3                   |
| 601EX   | Seattle CBD - Group Health (Tukwila)             | Peak      | Peak                                | E                         | Yes                      | Peak                      | Low                           | 2                   |
| 901DART | Mirror Lake - Federal Way TC                     | 63        | Local                               | C C C                     |                          | At                        | Low                           | -                   |
| 903DART | Twin Lakes - Federal Way TC                      | 102       | Local                               | C D D                     |                          | At                        | Medium                        | -                   |
| 907DART | Enumclaw - Renton TC                             | 88        | Hourly                              | E D                       |                          | At                        | Medium                        | -                   |
| 908DART | Renton Highlands - Renton TC                     | 89        | Local                               | E E                       |                          | Below                     | Low                           | 3                   |
| 909DART | Kennydale - Renton TC                            | 47        | Hourly                              | E E                       |                          | At                        | Medium                        | -                   |
| 910DART | North Auburn - SuperMail                         | None      | None                                | E E                       |                          | None                      | High                          | -                   |
| 913DART | Kent Station - Riverview                         | Peak      | Peak                                | D                         | Yes                      | Peak                      | Low                           | -                   |
| 914DART | Kent - Kent East Hill                            | None      | None                                | C                         |                          | None                      | Low                           | -                   |
| 915DART | Enumclaw - Auburn Station                        | 30        | Local                               | C C                       |                          | At                        | Low                           | 3                   |
| 916DART | Kent - Kent East Hill                            | None      | None                                | C                         |                          | None                      | Low                           | -                   |
| 917DART | Pacific - Auburn                                 | 74        | Local                               | E D                       |                          | Below                     | Low                           | 3                   |
| 919DART | SE Auburn - Auburn P&R                           | None      | None                                | D                         |                          | None                      | High                          | -                   |
| 927DART | Issaquah - Lake Sammamish                        | None      | None                                | E E                       |                          | None                      | High                          | -                   |
| 930DART | Kingsgate - Redmond                              | 81        | Frequent                            | E E                       |                          | Below                     | Low                           | 3                   |
| 931DART | Bothell - Redmond                                | 108       | Hourly                              | E D                       |                          | Above                     | High                          | -                   |
| 935DART | Totem Lake - Kenmore                             | 46        | Hourly                              | E                         |                          | Above                     | High                          | -                   |

**LEGEND**

**Productivity**

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

\*If one measure is in bottom 25% then it is a D

**Potential for Major Reduction**

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

**Investment Priorities**

- 1 Overcrowding
- 2 Reliability
- 3 Corridors below target service level
- 4 High productivity routes

## Alternative services

Alternative services are defined as any non-fixed-route services directly provided or supported by Metro. Alternative services provide access to local destinations and to fixed-route transit service on corridors that cannot be cost-effectively served by fixed-route transit at target service levels. As part of efforts to increase system efficiency, Metro has converted some lower-performing fixed routes into dial-a-ride transit (DART) service. Alternative services can take other forms, such as van service operated by community partners.

The County Council adopted Motion 13736, accepting the *King County Metro Transit Five-Year Implementation Plan for Alternatives to Traditional Transit Service Delivery*, in September 2012. This motion requested that alternative services be further integrated into the strategic plan and guidelines.

### Measuring performance

Metro's first alternative service pilot project began in fall 2013 in the Snoqualmie Valley. As alternative services are more widely implemented, Metro will develop measures and thresholds for tracking performance, such as cost per rider. Results will be included in future service guidelines reports.

### Service type and service frequency

The type and frequency of alternative services are determined through a collaborative community engagement process that seeks to balance community travel needs against costs, which shall not exceed the estimated cost to deliver fixed-route service at target service levels.

### Adding, reducing and improving alternative service

When planning improvements to corridors that are below their target service levels or that perform in the bottom 25 percent, Metro will consider providing alternative services. When resources are available, we will use alternative services to replace or supplement the fixed-route service in the corridor, maintaining or enhancing access to transit for corridor residents in a cost-effective way. When Metro's resources are growing, we could identify candidate alternative service areas based on feedback from communities about unmet travel needs. Alternative services could respond to travel needs not easily accommodated by fixed-route transit, or could be designed to make the fixed-route service more effective. This could involve adding service in corridors that are below their target service levels.

As development or transit use increases in corridors with alternative services, Metro will consider converting the alternative service into fixed-route service. Such conversions will be guided by alternative service performance thresholds and by cost effectiveness compared to fixed-route service.

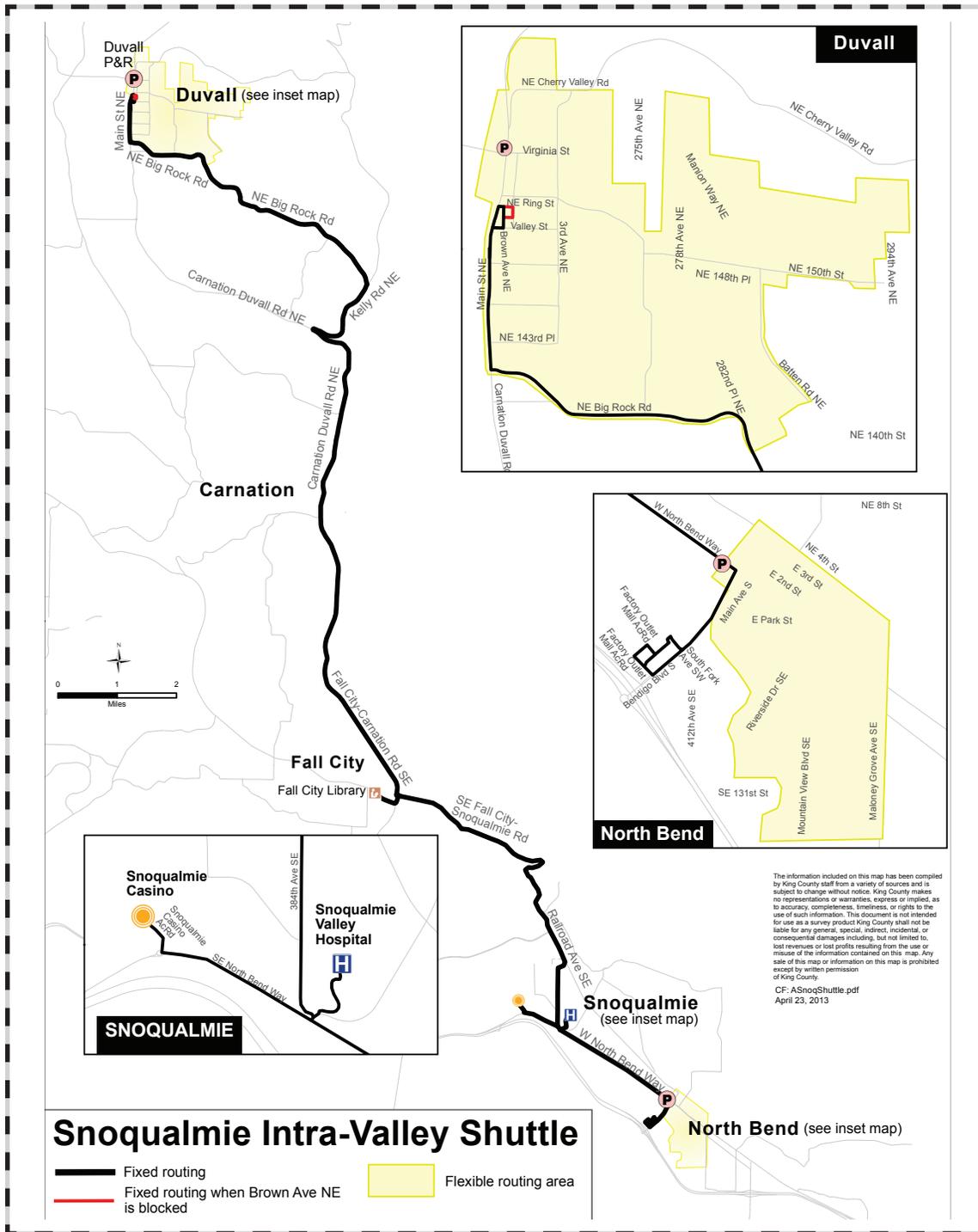
#### Snoqualmie Valley Alternative Service Delivery Project

Metro's alternative services plan identified the Snoqualmie Valley as a candidate area. The Snoqualmie Valley Alternative Service Delivery Project began in fall 2012. Metro collaborated with residents, elected officials and community organizations to design a transportation system that meets the valley's unique needs while improving cost-effectiveness.

Routes 209, 224 and 311 were revised because they performed in the bottom 25 percentile in their markets. Resources generated from elimination of the Duvall-Fall City segment of Route 224 and the Woodinville-Duvall segment of Route 311 support the operation of the Snoqualmie Intra-Valley Shuttle. The Snoqualmie Tribe also supports the service through a funding agreement with Metro.

The new alternative service began in fall 2013. The shuttle provides fixed-route service between Duvall and North Bend, as shown in Figure 6, and service on request within "flexible routing areas" in Duvall and North Bend. Customer requests for travel to, from or within a flexible service area are accommodated after the fixed-route terminal is served. The route then returns to the fixed-route terminal to begin a trip in the opposite direction.

**FIG 6**  
**Snoqualmie Valley Alternative Services Delivery Project**



Metro’s five-year alternative services plan identified Vashon Island and southeast King County as areas where alternatives to fixed-route service would be considered. Metro is also exploring opportunities to provide alternative services in Redmond.



SECTION 2

## ■ SERVICE INVESTMENT PRIORITIES

This section identifies where investments are needed to provide high-quality service and to meet target service levels. When Metro has resources available to invest, or reallocates existing service hours, these findings and the priorities defined in the guidelines will be the basis for investments.

The investment needs identified in this analysis of spring 2013 data are shown in Table 8 below. They are substantially higher than the previous year's analysis.

TABLE 8  
**2013 Investment Needs**  
 (Based on Spring 2013 Data)

| Priority                     | Investment Area   | Estimated Annual Hours Needed |
|------------------------------|---|-------------------------------|
| 1                            | Reduce passenger crowding   | 15,400                        |
| 2                            | Improve schedule reliability  | 27,800                        |
| 3                            | Increase service to meet target service levels in All-Day and Peak Network* | 467,500                       |
| <b>Total investment need</b> |   | <b>510,700</b>                |
| 4                            | Increase service on high-productivity routes                                | See discussion on page 2      |

\* Referred to in the service guidelines as "corridors below target service levels"

Annual service hours needed to reduce passenger crowding increased from 5,500 to 15,400; hours needed to improve schedule reliability increased from 19,000 to 27,800; and hours needed to meet target service levels in the All Day and Peak Network rose from 309,800 to 467,500. The investment needs grew for several reasons:

- **Passenger crowding.** Growth in ridership resulted in more passenger crowding.
- **Schedule reliability declined** as a result of more crowded buses, more roadway construction, and traffic congestion that has worsened as the economy has improved. The number of unreliable routes in 2013 also continues to reflect the impact of scheduling efficiencies Metro adopted in 2010 and 2011. An additional factor affecting the reliability need is that, due to the timing of the last report, the reliability needs of the services that were to be restructured in fall 2012 could not be assessed.
- **Target service levels increased** for many routes on the All-Day and Peak Network as a result of the August 2013 update of the service guidelines methodology that made it more sensitive to job and household levels (see Section 1). These revisions resulted in more routes being identified as underserved, and did not cause any corridor to drop off the list of routes needing investment. Changes in land use and ridership also contributed to higher target service levels. The total investment needs

based on the analysis of spring 2013 data are shown in Table 8, followed by detailed findings about the investment needs.

## 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 and Figure 7 identify routes that need additional trips to reduce crowding.

**TABLE 9**  
**Routes Needing Investment to Reduce Passenger Crowding**

| Route                     | Description  | Day                | Annual Hours Needed |
|---------------------------|--|--------------------|---------------------|
| 8                         | Seattle Center - Capitol Hill - Rainier Beach        | Weekday and Sunday | 700                 |
| 9EX                       | Rainier Beach - Capitol Hill                         | Weekday            | 500                 |
| 11                        | Madison Park - Seattle CBD                           | Weekday            | 500                 |
| 15EX                      | Blue Ridge - Ballard - Seattle CBD                   | Weekday            | 600                 |
| 17EX                      | Sunset Hill - Ballard - Seattle CBD                  | Weekday            | 800                 |
| 26                        | East Green Lake - Wallingford - Seattle CBD          | Weekday            | 400                 |
| 28EX                      | Broadview - Ballard - Seattle CBD via Leary Av NW    | Weekday            | 500                 |
| 40                        | Northgate TC - Ballard - Seattle CBD via Leary Av NW | Weekday            | 700                 |
| 66EX                      | Northgate TC - Eastlake - Seattle CBD                | Weekday            | 900                 |
| 67                        | Northgate TC - University District                   | Weekday            | 200                 |
| 68                        | Northgate TC - Ravenna - University District         | Weekday            | 300                 |
| 71                        | Wedgwood - University District - Seattle CBD         | Saturday           | 500                 |
| 73                        | Jackson Park - University District - Seattle CBD     | Saturday           | 400                 |
| 74EX                      | Sand Point - Seattle CBD                             | Weekday            | 600                 |
| 75                        | Northgate TC - Lake City - Seattle CBD               | Weekday            | 400                 |
| 101                       | Renton TC - Seattle CBD                              | Weekday            | 300                 |
| 128                       | Southcenter - Westwood Village - Admiral District    | Weekday            | 800                 |
| 131                       | Burien TC - Highland Park - Seattle CBD              | Weekday            | 400                 |
| 132                       | Burien TC - South Park - Seattle CBD                 | Weekday            | 500                 |
| 143EX                     | Black Diamond - Renton TC - Seattle CBD              | Weekday            | 1,800               |
| 164                       | Green River CC - Kent Station                        | Weekday            | 300                 |
| 179                       | Twin Lakes - Seattle CBD                             | Weekday            | 600                 |
| 240                       | Bellevue - Newcastle - Renton                        | Weekday            | 1,100               |
| 303EX                     | Shoreline - First Hill                               | Weekday            | 700                 |
| 346                       | Aurora Village - Northgate                           | Weekday            | 200                 |
| 372EX                     | Woodinville - Lake City - University District        | Weekday            | 300                 |
| D Line                    | Ballard - Seattle Center - Seattle CBD               | Weekday            | 400                 |
| <b>Total hours needed</b> |  |                    | <b>15,400</b>       |

Some of the routes that were found in last year's analysis to have the most severe crowding have been improved since fall 2012. Route 4 received service investments in fall 2013. Route 16 received larger coaches to better handle passenger loads.

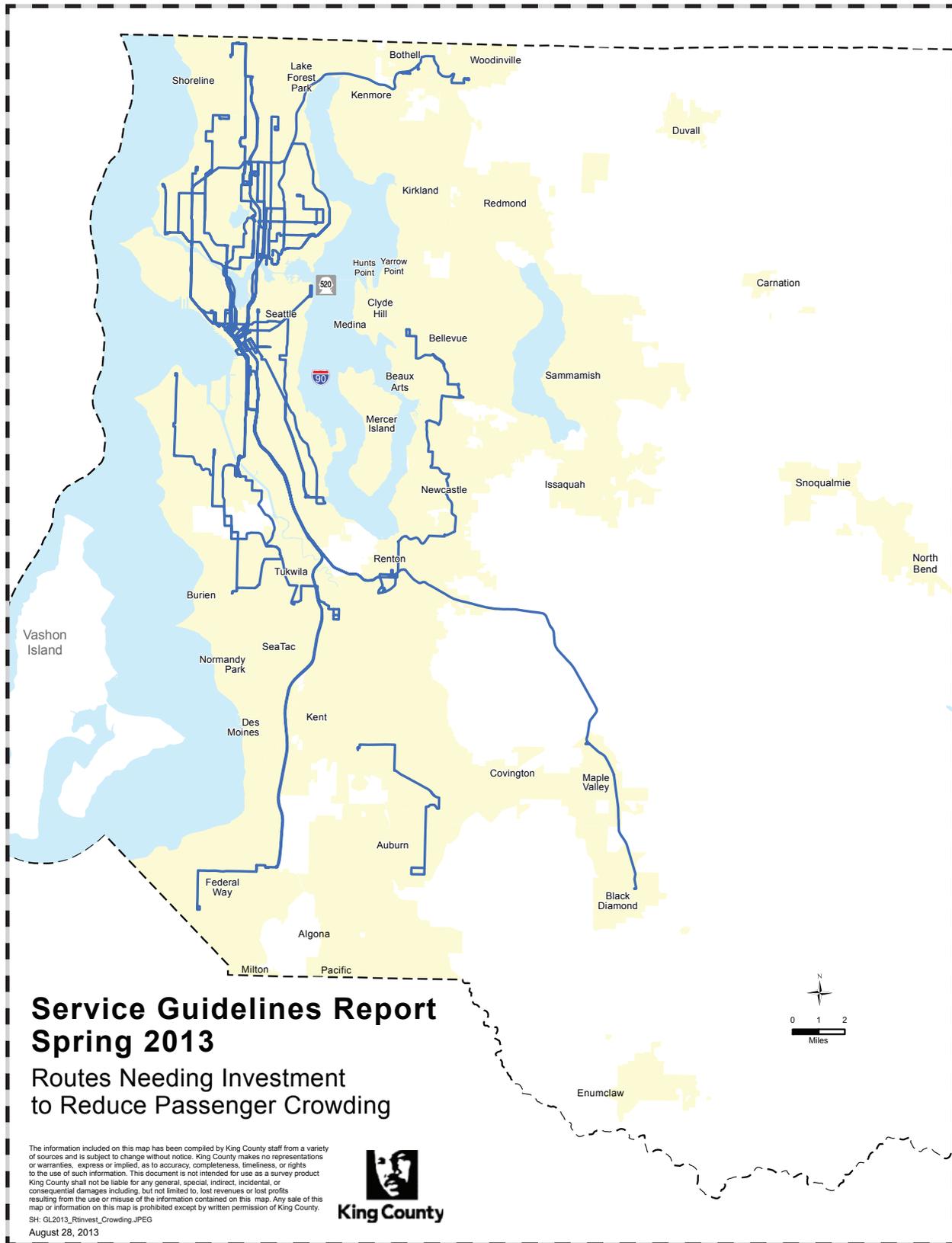
The need for investment to reduce passenger crowding has grown because

- ridership has grown and because
- the last report excluded routes that were part of the fall 2012 restructure.

Some additional routes were identified as overcrowded but were determined to not need immediate investment either because surrounding trips had capacity or because passenger crowding could be accommodated by assigning a larger bus. A list of all routes identified as overcrowded is in Appendix D.

FIG. 7

## Routes Needing Investment to Reduce Passenger Crowding



## Priority 2 – Improve schedule reliability

Schedule reliability is measured as a percent of trips that arrive between 1 minute early and 5 minutes late. To evaluate the system, our reliability threshold is 80 percent for weekday and weekend averages, indicating that our buses should arrive on time 80% of the time, which allows for variations in travel time, congestion, and ridership. Weekday PM peak average (3:15 p.m. – 6:15 p.m.) has a lower reliability threshold of 65 percent because this is the period with the most delays. Routes that are on-time less than 80 percent of the time (65 percent for weekday PM peak) are candidates for investment of service hours.

Metro continually strives to improve schedule reliability and has continued to make improvements since 2011. The table below shows the schedule reliability for calendar years 2011 and 2012 and for the service guidelines period from October 2012 to May 2013. Schedule reliability varies by time of year and tends to be best each year in the early spring. We use a longer time period for this analysis to ensure that schedule reliability needs are not understated by using data from just the four-month spring period. As shown in the table below, reliability has improved for each time period since 2012.

**TABLE 10**  
**Percent On-Time, 2011-2013**

|                       | 2011  | 2012  | October 2012<br>– May 2013 |
|-----------------------|-------|-------|----------------------------|
| 6:00 a.m. – 9:00 a.m. | 81.3% | 81.9% | 81.9%                      |
| 9:00 a.m. – 3:15 p.m. | 74.9% | 75.8% | 78.7%                      |
| 3:15 p.m. – 6:15 p.m. | 69.0% | 68.5% | 70.6%                      |
| Weekday average       | 75.7% | 76.3% | 78.3%                      |
| Saturday              | 75.7% | 75.7% | 78.6%                      |
| Sunday                | 78.6% | 77.9% | 81.4%                      |
| Total system average  | 76.0% | 76.4% | 78.6%                      |

The table below lists the 69 routes identified as needing service-hour investments to improve their reliability using data from October 2012 to May 2013; a map of those routes is shown in Figure 8. The total need of 27,800 annual hours was calculated based on how far above the lateness threshold the routes were during the different time period. While this calculation provides a reasonable estimate of total needs, individual routes may receive more or less investment than estimated depending on the scheduling techniques available to improve reliability.

**TABLE 11**  
**Routes Needing Investment to Improve Schedule Reliability**

| Route | Area  | Day                       | Estimated Hours Needed |
|-------|---|---------------------------|------------------------|
| 1     | Kinnear - Seattle CBD                         | Saturday, Sunday          | 100                    |
| 4     | East Queen Anne - Seattle CBD - Judkins Park  | Saturday                  | 100                    |
| 7     | Rainier Beach - Seattle CBD                   | Saturday                  | 50                     |
| 8     | Seattle Center - Capitol Hill - Rainier Beach | Weekday, Saturday, Sunday | 2,050                  |
| 10    | Capitol Hill - Seattle CBD                    | Saturday                  | 50                     |
| 11    | Madison Park - Seattle CBD                    | Weekday, Saturday, Sunday | 350                    |
| 14    | Mount Baker - Seattle CBD                     | Weekday, Sunday           | 350                    |
| 16    | Northgate TC - Wallingford - Seattle CBD      | Weekday, Saturday, Sunday | 1,300                  |
| 17EX  | Sunset Hill - Ballard - Seattle CBD           | Weekday                   | 250                    |
| 18EX  | North Beach - Ballard - Seattle CBD           | Weekday                   | 250                    |

Continued

| Route | Area   | Day                       | Estimated Hours Needed |
|-------|--|---------------------------|------------------------|
| 21EX  | Arbor Heights - Westwood Village - Seattle CBD           | Weekday                   | 400                    |
| 21    | Arbor Heights - Westwood Village - Seattle CBD           | Saturday                  | 50                     |
| 24    | Magnolia - Seattle CBD                                   | Weekday, Saturday         | 700                    |
| 25    | Laurelhurst - University District - Seattle CBD          | Weekday                   | 250                    |
| 26    | East Green Lake - Wallingford - Seattle CBD              | Weekday, Saturday         | 350                    |
| 27    | Colman Park - Leschi Park - Seattle CBD                  | Weekday, Saturday, Sunday | 450                    |
| 28EX  | Broadview - Ballard - Seattle CBD via Leary Av NW        | Weekday                   | 250                    |
| 28    | Whittier Heights - Ballard - Seattle CBD via Leary Av NW | Weekday, Saturday         | 600                    |
| 29    | Ballard - Queen Anne - Seattle CBD                       | Weekday                   | 500                    |
| 31    | University District - Fremont - Magnolia                 | Weekday                   | 300                    |
| 32    | University District - Fremont - Seattle Center           | Weekday                   | 250                    |
| 33    | Discovery Park - Seattle CBD                             | Weekday, Saturday, Sunday | 400                    |
| 40    | Northgate TC - Ballard - Seattle CBD via Leary Av NW     | Saturday, Sunday          | 500                    |
| 41    | Lake City - Seattle CBD via Northgate                    | Weekday                   | 1,400                  |
| 48    | Mt Baker - University District - Loyal Heights           | Saturday, Sunday          | 300                    |
| 55    | Admiral District - Alaska Junction - Seattle CBD         | Weekday                   | 400                    |
| 56EX  | Alki - Seattle CBD                                       | Weekday                   | 400                    |
| 57    | Alaska Junction - Seattle CBD                            | Weekday                   | 300                    |
| 60    | Westwood Village - Georgetown - Capitol Hill             | Saturday                  | 100                    |
| 71    | Wedgwood - University District - Seattle CBD             | Weekday                   | 850                    |
| 72    | Lake City - University District - Seattle CBD            | Saturday                  | 550                    |
| 73    | Jackson Park - University District - Seattle CBD         | Weekday, Saturday         | 650                    |
| 74EX  | Sand Point - Seattle CBD                                 | Weekday                   | 600                    |
| 76    | Wedgwood - Seattle CBD                                   | Weekday                   | 250                    |
| 77    | North City - Seattle CBD                                 | Weekday                   | 300                    |
| 101   | Renton TC - Seattle CBD                                  | Saturday, Sunday          | 150                    |
| 114   | Renton Highlands - Seattle CBD                           | Weekday                   | 250                    |
| 119EX | Dockton - Seattle CBD via ferry                          | Weekday                   | 250                    |
| 120   | Burien TC - Westwood Village - Seattle CBD               | Saturday, Sunday          | 150                    |
| 124   | Tukwila - Georgetown - Seattle CBD                       | Weekday, Saturday, Sunday | 1,450                  |
| 128   | Southcenter - Westwood Village - Admiral District        | Weekday                   | 500                    |
| 131   | Burien TC - Highland Park - Seattle CBD                  | Weekday, Saturday         | 1,300                  |
| 132   | Burien TC - South Park - Seattle CBD                     | Weekday, Saturday         | 350                    |
| 143EX | Black Diamond - Renton TC - Seattle CBD                  | Weekday                   | 250                    |
| 157   | Lake Meridian - Seattle CBD                              | Weekday                   | 250                    |
| 166   | Kent Station - Burien TC                                 | Weekday                   | 250                    |
| 169   | Kent Station - East Hill - Renton TC                     | Weekday                   | 400                    |
| 173   | Federal Way TC - Federal Center South                    | Weekday                   | 250                    |
| 177   | Federal Way - Seattle CBD                                | Weekday                   | 250                    |
| 178   | South Federal Way - Seattle CBD                          | Weekday                   | 700                    |
| 179   | Twin Lakes - Seattle CBD                                 | Weekday                   | 250                    |
| 182   | NE Tacoma - Federal Way TC                               | Saturday                  | 50                     |
| 190   | Redondo Heights - Seattle CBD                            | Weekday                   | 250                    |
| 202   | South Mercer Island - Seattle CBD                        | Weekday                   | 300                    |
| 221   | Education Hill - Overlake - Eastgate                     | Weekday, Saturday         | 650                    |

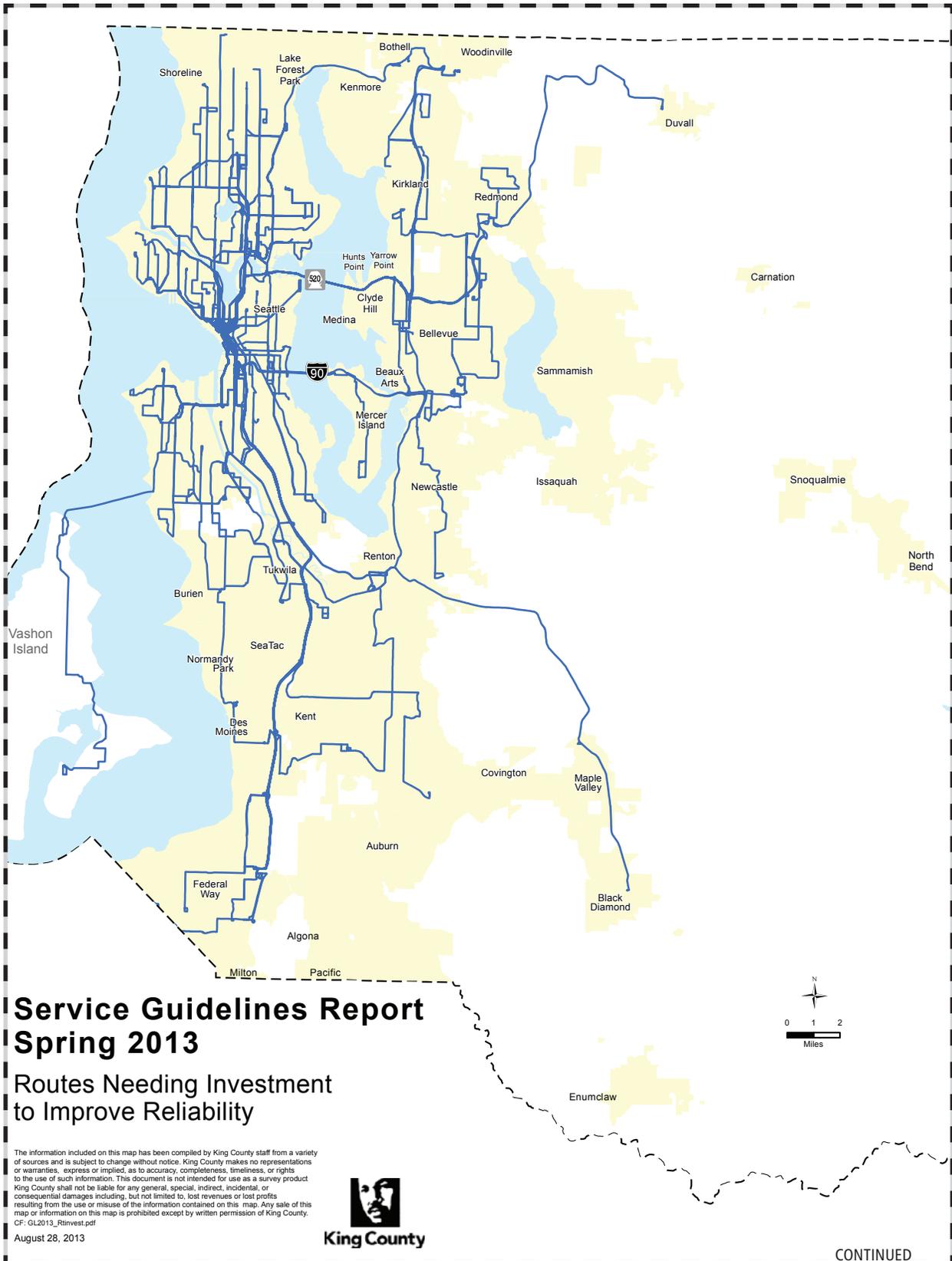
| Route                     | Area   | Day      | Estimated Hours Needed |
|---------------------------|--|----------|------------------------|
| 232                       | Duvall - Bellevue                                | Weekday  | 250                    |
| 237                       | Woodinville - Bellevue                           | Weekday  | 250                    |
| 241                       | Eastgate - Factoria - Bellevue                   | Weekday  | 300                    |
| 242                       | North City - Overlake                            | Weekday  | 250                    |
| 243                       | Jackson Park - Bellevue                          | Weekday  | 250                    |
| 245                       | Kirkland - Overlake - Factoria                   | Saturday | 50                     |
| 257                       | Brickyard - Seattle CBD                          | Weekday  | 250                    |
| 277                       | Juanita - University District                    | Weekday  | 250                    |
| 280                       | Seattle CBD - Bellevue - Renton                  | Saturday | 50                     |
| 316                       | Meridian Park - Seattle CBD                      | Weekday  | 250                    |
| 355EX                     | Shoreline CC - University District - Seattle CBD | Weekday  | 500                    |
| 358EX                     | Aurora Village - Seattle CBD                     | Sunday   | 100                    |
| 372EX                     | Woodinville - Lake City - University District    | Weekday  | 600                    |
| 601EX                     | Seattle CBD - Group Health (Tukwila)             | Weekday  | 250                    |
| <b>Total hours needed</b> |  |          | <b>27,800</b>          |

Some other routes had reliability problems but were determined not to need immediate investment, either because they have received reliability investments since spring 2013 or were deleted or have had major changes since spring 2013.

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

FIG. 8

## Routes Needing Investment to Improve Schedule Reliability



### Priority 3 – Corridors below target service levels

Our analysis found that 58 corridors in the All-Day and Peak Network were below target service levels in one or more time periods in spring 2013. Nineteen corridors are new to this list in 2013 and three corridors from the 2012 list have dropped off. To bring service up to the target levels, an estimated 467,500 annual hours of investment would be needed—substantially higher than the 2012 need of 309,800 annual hours.

Table 12 lists the corridors that were below target service levels as of spring 2013; they are shown in Figure 9 (page 38). Priority among these corridors was established according to the service guidelines 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.

**TABLE 12**  
**2013 Corridors Below Target Service Levels and Estimated Hours to Meet Service Level Targets, Ordered by Investment Priority**

Shading indicates corridor is new to list of routes below target service level

\* Indicates route received investment in 2012

| Corridor number | Between           | And                       | Major route         | Estimated hours to meet target |
|-----------------|-------------------|---------------------------|---------------------|--------------------------------|
| 105             | U. District       | Seattle CBD               | 49                  | 4,700                          |
| 12              | Ballard           | Seattle CBD               | 40                  | 4,400                          |
| 25              | U. District       | Seattle CBD               | 73                  | 4,700                          |
| 69              | Northgate         | Seattle CBD               | 16*                 | 8,900                          |
| 55              | Lake City         | Seattle CBD               | 41                  | 14,600                         |
| 99              | Tukwila           | Seattle CBD               | 124                 | 9,300                          |
| 9               | Ballard           | Northgate                 | 40                  | 4,400                          |
| 68              | Northgate         | U. District               | 66 EX/67*           | 3,300                          |
| 19              | Burien            | Seattle CBD               | 132                 | 15,000                         |
| 20              | Capitol Hill      | Westwood Village          | 60*                 | 9,800                          |
| 51              | Kent              | Seattle CBD               | 150*                | 7,500                          |
| 84              | Renton            | Seattle CBD               | 101                 | 7,300                          |
| 32              | Federal Way       | Tukwila Intl Blvd Station | A Line              | 7,000                          |
| 81              | Redmond           | Totem Lake                | 930 DART            | 11,000                         |
| 33              | Federal Way       | Kent                      | 183                 | 12,400                         |
| 50              | Kent              | Renton                    | 169                 | 5,400                          |
| 52              | Kent              | Renton                    | 153                 | 13,100                         |
| 83              | Renton            | Burien                    | 140 <sup>1</sup>    | 18,000                         |
| 3               | Auburn            | Burien                    | 180                 | 21,700                         |
| 100             | Tukwila           | Highline CC               | 156                 | 9,700                          |
| 59              | Madison Park      | Seattle CBD               | 11                  | 4,600                          |
| 38              | Greenwood         | Seattle CBD               | 5                   | 2,700                          |
| 35              | Fremont           | U. District               | 32                  | 5,900                          |
| 5               | Aurora Village TC | Seattle CBD               | 358 EX <sup>2</sup> | 18,800                         |
| 111             | Westwood Village  | Seattle CBD               | C Line*             | 6,200                          |

<sup>1</sup> Route 140 is slated to be deleted and replaced by RapidRide F Line in June 2014.

<sup>2</sup> Route 358 is slated to be deleted and replaced by RapidRide E Line in June 2014.

| Corridor number | Between               | And                      | Major route  | Estimated hours to meet target |
|-----------------|-----------------------|--------------------------|--------------|--------------------------------|
| 18              | Burien                | Seattle CBD              | 131          | 13,000                         |
| 79              | Rainier Beach Station | Capitol Hill             | 9 EX         | 17,900                         |
| 57              | Lake City             | U. District              | 65           | 5,600                          |
| 86              | Renton                | Seattle CBD              | 106          | 9,400                          |
| 94              | Shoreline CC          | Northgate                | 345          | 8,600                          |
| 45              | Kenmore               | U. District              | 372 EX       | 14,200                         |
| 56              | Northgate             | U. District              | 75           | 4,500                          |
| 87              | Renton                | Renton Highlands         | 105          | 2,800                          |
| 112             | Westwood Village      | Seattle CBD              | 125          | 2,800                          |
| 2               | Alki                  | SODO                     | 50           | 1,900                          |
| 95              | Shoreline CC          | Lake City                | 330          | 4,500                          |
| 16              | Bellevue              | Renton                   | 240          | 7,600                          |
| 37              | Green River CC        | Kent                     | 164          | 11,100                         |
| 49              | Kent                  | Maple Valley             | 168          | 7,400                          |
| 1               | Admiral District      | Tukwila                  | 128          | 20,900                         |
| 41              | Issaquah              | Overlake                 | 269          | 11,100                         |
| 101             | Tukwila               | Fairwood                 | 155*         | 5,200                          |
| 30              | Enumclaw              | Auburn                   | 186/915 DART | 2,600                          |
| 64              | Mount Baker Station   | Seattle CBD              | 14           | 8,200                          |
| 24              | Colman Park           | Seattle CBD              | 27           | 4,900                          |
| 107             | U. District           | Seattle CBD              | 25           | 8,600                          |
| 26              | Discovery Park        | Seattle CBD              | 33           | 3,100                          |
| 72              | Overlake P&R          | Bellevue                 | 226          | 6,500                          |
| 92              | Sand Point            | U. District              | 30           | 1,700                          |
| 70              | Northgate             | U. District              | 68           | 10,600                         |
| 58              | Laurelhurst           | U. District              | 25           | 3,400                          |
| 27              | Eastgate              | Bellevue                 | 241          | 4,800                          |
| 28              | Eastgate              | Bellevue                 | 246          | 3,500                          |
| 93              | Aurora Village TC     | U. District              | 373 EX       | 20,800                         |
| 65              | Mountlake Terrace     | Northgate                | 347          | 2,000                          |
| 71              | Othello Station       | SODO                     | 50           | 1,900                          |
| 89              | Renton                | Renton Technical College | 908 DART     | 3,000                          |
| 74              | Pacific               | Auburn                   | 917 DART     | 3,000                          |
| <b>Total</b>    |                       |                          |              | <b>467,500</b>                 |

## Change from 2012

The list of corridors below target service levels identified in spring 2013 differs from the spring 2012 list because of service investments and changes in corridor scores since the last report. Corridor scores changed because of changes in the thresholds used to set service levels, as described in Section 1, as well as changes in the underlying land use, social equity, and performance data. Table 13 lists the corridors that were below target service levels in 2012 but are no longer targeted for investment. Reasons for change include:

- **Service improvements made in 2012.** Service was improved on several corridors as part of the C and D line launch.
- **Lower ridership and productivity.** 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.

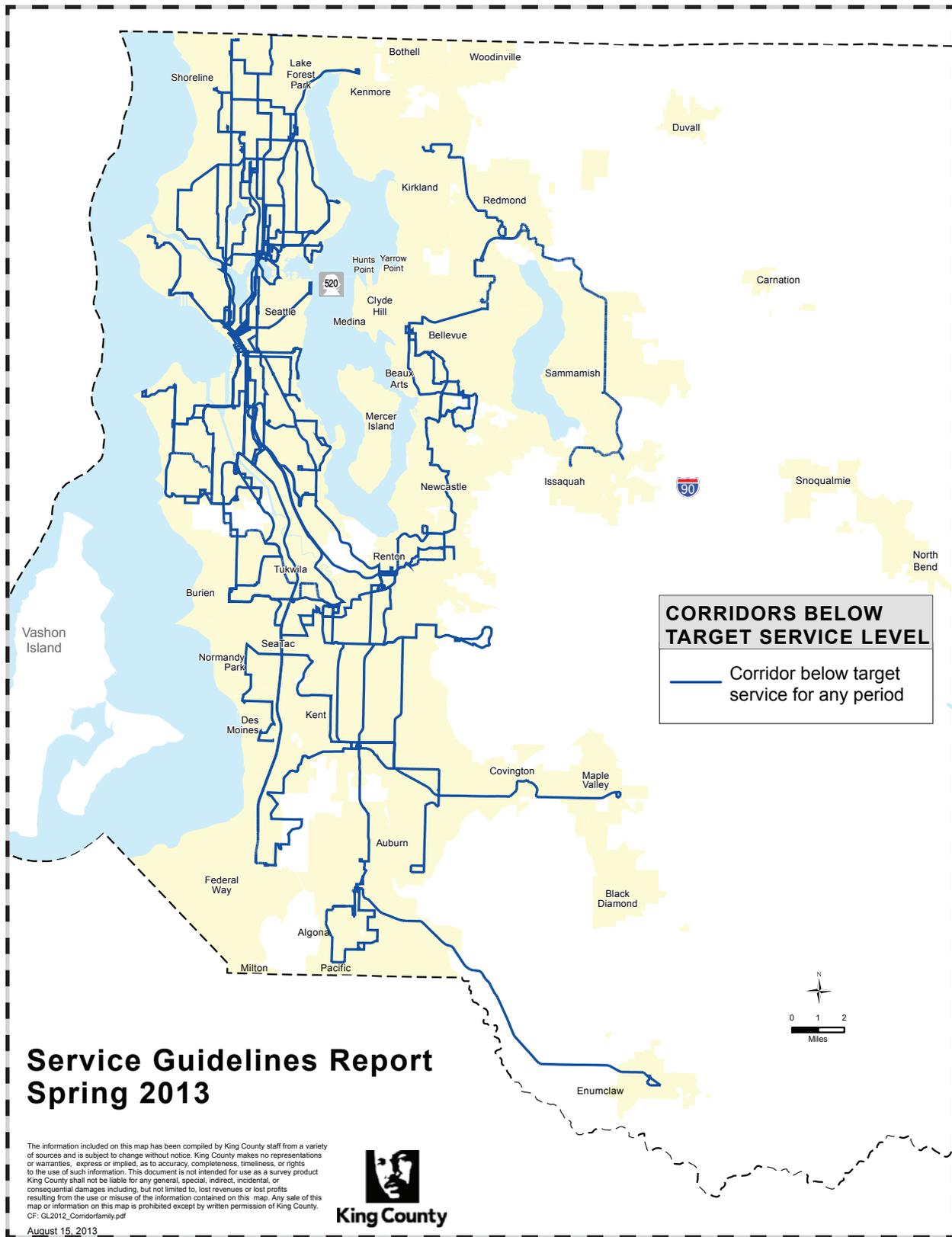
In general, we expect to see changes each year in corridors that are below target service levels as ridership, productivity, and social conditions evolve. Our analysis takes such changes into account as we determine what investments may be needed.

**TABLE 13**  
**2012 Corridors Below Target Service Levels that are No Longer Targeted for Investment**

| Corridor Number | Between      | And         | Major route | Reason for Change        |
|-----------------|--------------|-------------|-------------|--------------------------|
| 11              | Ballard      | U. District | 44          | Lower off-peak ridership |
| 21              | Capitol Hill | Seattle CBD | 10          | Lower off-peak ridership |
| 48              | Kent         | Burien      | 131         | Service improvement      |

FIG. 9

## 2013 Corridors Below Target Service Levels



## Priority 4 – High-productivity routes

Route productivity is assessed using two measures (see page 10). 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.

In the spring 2013 period, of the 212 routes evaluated, 82 were in the top 25 percent on either or both productivity measures: rides per platform hour or passenger miles per platform mile.

Metro must become more productive and carry more riders to help fulfill the public transportation goal set in *Transportation 2040*—one reason why the guidelines define highly productive services as an investment priority. Investing in high-productivity routes in areas where there is latent demand for transit will result in higher ridership. A substantial portion of the growth needed to meet the *Transportation 2040* goals (an additional 2.6 million annual service hours) will be on high-productivity services.

Metro has demonstrated that investments in highly productive service lead to increased ridership. Examples are the RapidRide lines, where investments to improve frequency and quality of service have resulted in ridership growth on all four corridors: 55 percent increase on the A Line since October 2010, 20 percent increase on the B Line since October 2011, 51 percent increase on the C Line since September 2011, and 16 percent increase on the D Line since September 2012. The A and B Lines are among the top 25 percent of routes on both performance measures in all time periods. The C and D Lines are among the top 25 percent of routes on one or both performance measures in all time periods. We will continue to invest in high-productivity services when we restructure service, form service partnerships with local jurisdictions, or have other opportunities.

Many services that performed highly in 2012 continued to do so in 2013. Some notable groups of high-productivity routes that performed well on both measures include:

- **Current and future RapidRide routes.** In addition to the high performance of current RapidRide lines described above, Route 358 (future E Line), and Route 140 (future F Line) all performed in the top 25 percent on both measures for all time periods. The C and D lines performed in the top 25 percent for at least one of the measures during all time periods.
- **Downtown Seattle to University District routes.** Routes 49, 71, 72, 73, and 74 Express continue to be top performers that connect the largest transit markets in King County.
- **Commuter routes serving north Seattle.** Routes 15 Express, 17 Express, 18 Express, 26 Express, 74 Express, 76 and 316 are the top-performing commuter routes. These highly successful commuter routes operate in areas that have high demand for service, including Ballard, Green Lake, the University District, northeast Seattle, and Shoreline. Several of these routes are new to the group of high-performing routes, reflecting the restructure of service around the C and D lines in fall 2012 that consolidated services in northwest Seattle.
- **Routes connecting regional growth centers in south King County.** The network of routes that connect regional growth centers in south King County—128, 164, 166, 169, 180, and 181—continued to perform well in 2013. 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 connects several feeder routes with the high-performing Route 41, which connects Northgate to downtown Seattle. Routes 345, 346, and 347 provide neighborhood circulation as well as connection to Northgate. This group of routes performs well not just on service to downtown Seattle, but also on the neighborhood routes that both circulate and connect to the trunk service.

**TABLE 14**  
**2013 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 - Crossroads - Redmond                  | Peak, off peak, night |
| 15EX         | Blue Ridge - Ballard - Seattle CBD               | Peak                  |
| 17EX         | Sunset Hill - Ballard - Seattle CBD              | Peak                  |
| 18EX         | North Beach - Ballard - Seattle CBD              | Peak                  |
| 26EX         | East Green Lake - Wallingford - Seattle CBD      | Peak                  |
| 41           | Lake City - Seattle CBD via Northgate            | Peak, off peak, night |
| 49           | University District - Capitol Hill - Seattle CBD | Peak, off peak, night |
| 71           | Wedgwood - University District - Seattle CBD     | Peak, off peak, night |
| 72           | Lake City - University District - Seattle CBD    | Peak, off peak, night |
| 73           | Jackson Park - University District - Seattle CBD | Peak, off peak, night |
| 74EX         | Sand Point - Seattle CBD                         | Peak                  |
| 76           | Wedgwood - Seattle CBD                           | Peak                  |
| 140 (F Line) | Burien TC - Renton TC                            | Peak, off peak, night |
| 164          | Green River CC - Kent Station                    | Peak, off peak, night |
| 169          | Kent Station - East Hill - Renton TC             | Peak, off peak, night |
| 316          | Meridian Park - Seattle CBD                      | Peak                  |
| 358EX        | Aurora Village - Seattle CBD                     | Peak, off peak, night |

**TABLE 15**  
**2013 Routes in Top 25% on Both Measures in at Least One Time Period Served**

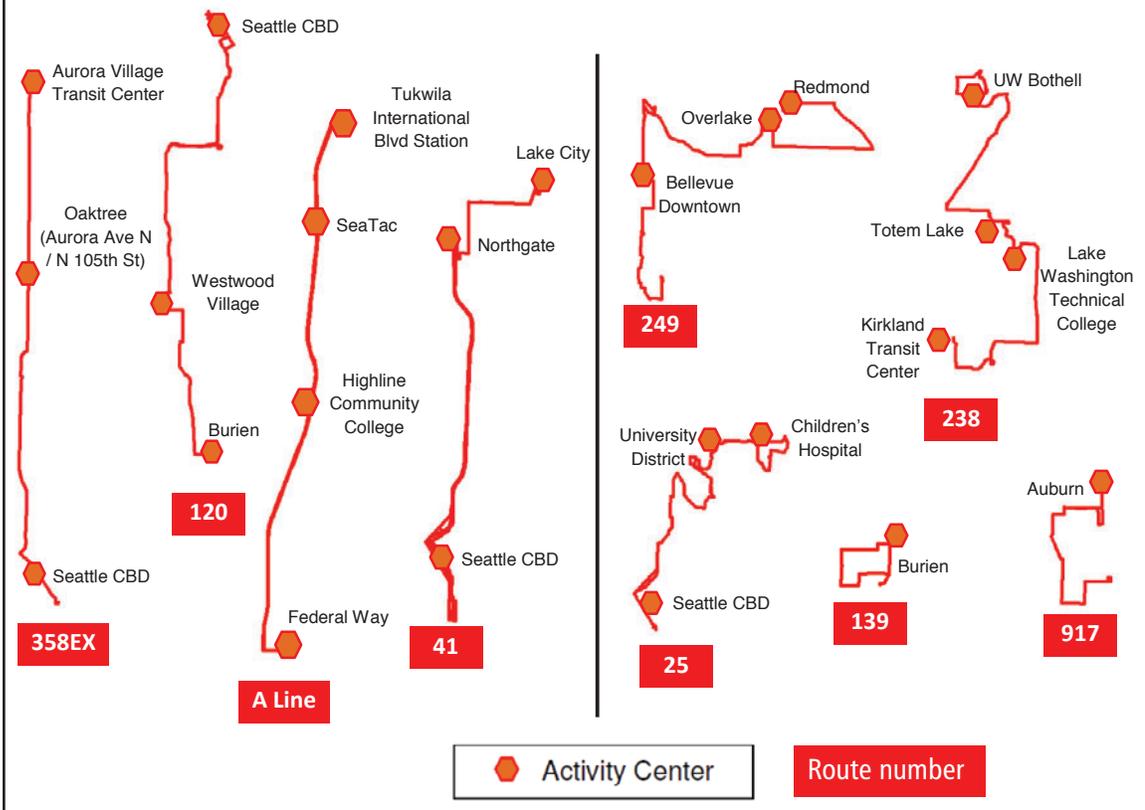
| Route  | Description                                       | Time Period     |
|--------|---|-----------------|
| D Line | Ballard - Seattle Center - Seattle CBD            | Off peak, night |
| 5      | Shoreline CC - Seattle CBD                        | Peak, night     |
| 7      | Rainier Beach - Seattle CBD                       | Off peak        |
| 66EX   | Northgate TC - Eastlake - Seattle CBD             | Peak            |
| 67     | Northgate TC - University District                | Off peak        |
| 101    | Renton TC - Seattle CBD                           | Off peak, night |
| 105    | Renton Highlands - Renton TC                      | Off peak        |
| 120    | Burien TC - Westwood Village - Seattle CBD        | Night           |
| 128    | Southcenter - Westwood Village - Admiral District | Peak, off peak  |
| 148    | Fairwood - Renton TC                              | Night           |
| 166    | Kent Station - Burien TC                          | Peak, off peak  |
| 168    | Maple Valley - Kent Station                       | Off peak, night |
| 180    | Auburn - SeaTac Airport - Burien TC               | Peak, off peak  |
| 181    | Twin Lakes P&R - Green River CC                   | Peak, off peak  |
| 345    | Shoreline CC - Northgate                          | Peak, off peak  |
| 346    | Aurora Village - Northgate                        | Peak, off peak  |
| 347    | Mountlake Terrace - Northgate                     | Peak, night     |

**FIG. 10**  
**Route Design and Productivity**

The design guidelines in the service guidelines help Metro plan productive service. The diagram below illustrates how longer, direct routes that connect multiple activity centers (denoted by the red hexagons along the routes) tend to have high productivity, while services that circulate through neighborhoods or are too short to connect many destinations tend to perform below the performance thresholds.

Selected all-day routes in the **top** 25% performance thresholds for both measures for at least one period

Selected all-day routes **below** 25% performance thresholds for both measures for at least one period





## SECTION 3

# ■ SERVICE REDUCTION PRIORITIES

Metro may reduce service to reallocate resources to meet higher-priority needs, to stay within budget, or to improve the productivity and efficiency of the transit system. This section is not a service reduction proposal. Section 5 of this report presents the service reductions and revisions that would be made because of Metro’s expected revenue shortfall and loss of Alaskan Way Viaduct mitigation funding, based on the 2013 service guidelines analysis.

The service guidelines identify priorities for reducing service that are based on both the route performance analysis and the corridor analysis. The route performance analysis assesses route productivity. The corridor analysis sets target service levels for the All-Day and Peak Network using a process that balances productivity, social equity and geographic value.

The first factor that puts a route at risk of reduction is performance in the bottom 25 percent of routes that operate in the same market in the same time period on one or both of the productivity measures in the guidelines (see page 6 for an explanation of the measures).

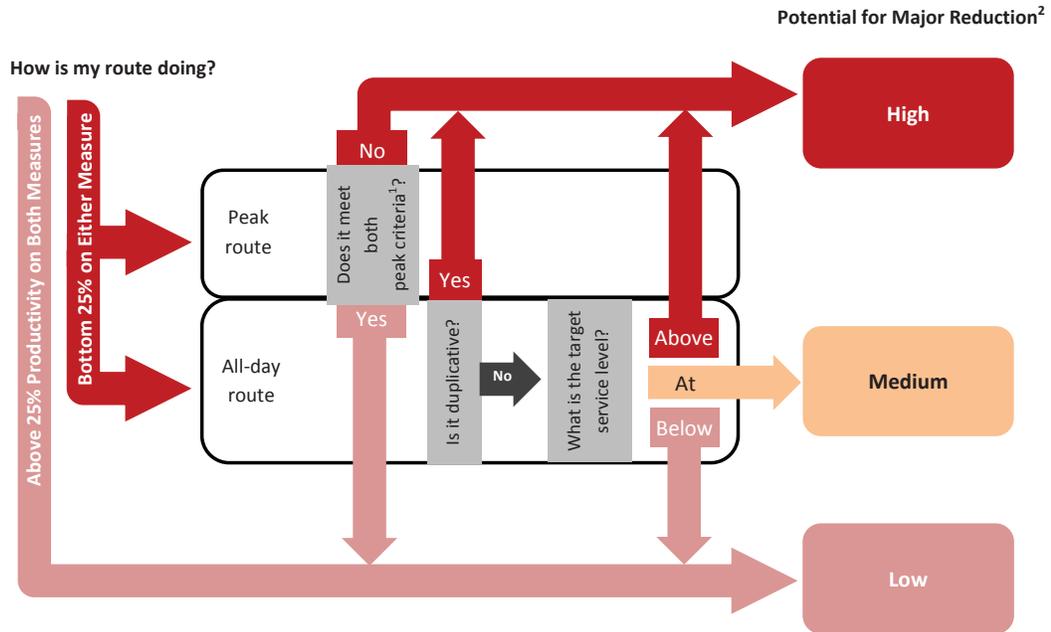
Not all routes performing in the bottom 25 percent have the same risk for reduction. In this report we categorize routes in the lowest-performing 25 percent as having high, medium or low potential for major reduction as follows:

- **High potential:** the route duplicates other service on the corridor, is on a corridor that is receiving service above its target level, or is a peak route that does not meet one or both of the peak service criteria.
- **Medium potential:** the route performs in the bottom 25 percent for a given time period and is on a corridor that is at its target service level.
- **Low potential:** the route is on a corridor that is below the target service level, is a peak service that meets one or both of the peak criteria, or provides the only connection in a community. The All-Day and Peak Network reflects the value of providing connections in communities throughout King County, suggesting that at least a minimum level of service should be provided for all 112 corridors.

Metro’s adopted 2013-2014 budget assumes a \$75 million annual revenue shortfall after mid-2014. Metro must reduce up to 600,000 annual service hours to close this gap. When funding for Alaskan Way Viaduct mitigation service ends in June 2014, an additional 45,000 hours must be deleted. (The actual size of the reduction will depend on Metro’s current finances.) The findings in this report are the basis for planning service reductions. Metro will also consider factors such as opportunities to make the system simpler or more efficient, and changes to other service in an area.

Figure 11 illustrates the factors used to determine a route’s potential for reduction.

FIG. 11  
How is the Potential for Reduction Determined?



<sup>1</sup> Peak criteria are:

- Rides per trip should be 90% or greater compared to alternative service
- Travel time should be at least 20% faster than the alternative service

<sup>2</sup> The high, medium and low potential for major reduction shown here is a simplified presentation of the reduction priorities described in the service guidelines. See Figure 12 to see how High, Medium and Low relate to the four reduction priorities listed in the guidelines.

### Service reduction potential in 2013

As seen on Table 16, the hours are given as an estimated range because the actual hours that would be reduced in a service change plan would vary. For example, if Metro restructures multiple interconnected routes in an area, the overall network might be more effective if we retain a segment of a route that is a candidate for reduction. As another example, we might retain a route that has potential for reduction if it is the only transit service in an area.

TABLE 16  
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%                 | 115,000 - 160,000 |
| Medium potential for major reduction                   | 4% - 6%                 | 140,000 - 200,000 |
| Total hours in High and Medium potential for reduction | 7% - 11%                | 255,000 - 360,000 |

We estimate that a total of between 255,000 and 360,000 annual service hours are in the high and medium risk categories, or between 7 and 11 percent of the Metro system. The \$75 million revenue shortfall would require a reduction of up to 600,000 annual service hours, and discontinuation of Alaskan

Way Viaduct mitigation funding would require an additional reduction of approximately 45,000 annual service hours. A reduction of this magnitude would have to go beyond the services identified as having high or medium potential for reduction. As shown in Figure 12, all services in the bottom 25 percent are not automatically placed within the category of high or medium potential for reduction. All services in the bottom 25 percent account for approximately 705,000 annual service hours, while only 255,000 to 360,000 are placed in the high or medium risk categories. The remaining routes in the bottom 25 percent are not categorized as having a high or medium risk for reduction. This is because they may be the last connection in a community, meet both peak criteria, or serve a corridor that is below its target service level, as they are categorized as a low potential for reduction. (See Fig. 11.)

The chart below describes how the reduction priorities relate to a route’s potential for major reduction. The first reduction priority includes routes that are identified as having a high or medium potential for reduction. The second reduction priority is to restructure service. A restructure may touch routes with varying performances, so the “high, medium or low” classification does not apply. The third and fourth reduction priorities pull from those routes identified as having a low potential for major reduction.

FIG. 12

| Service Guideline Reduction Priorities  | Potential for Major Reduction |
|---|-------------------------------|
| <p><b>1st reduction priority</b> – reduce service on routes that are below the 25% productivity threshold for a given time period, prioritizing those that are in the bottom 25% for both measures, reducing in the following order:</p> <ul style="list-style-type: none"> <li>▪ Duplicative service</li> <li>▪ Peak routes that do not meet one or both of the peak criteria</li> <li>▪ Route on corridors that are above their target service levels</li> </ul>  | High                          |
| <ul style="list-style-type: none"> <li>▪ Routes on corridors that are at their target service levels</li> </ul>   | Medium                        |
| <p><b>2nd reduction priority</b> – Restructure service to improve network design and efficiency</p>   | N/A*                          |
| <p><b>3rd reduction priority</b> – Reduce service on routes that are predominately between 25–50% productivity threshold for a given time period, reducing in the following order:</p> <ul style="list-style-type: none"> <li>▪ Service that duplicates or overlaps with routes on the All-Day and Peak network</li> <li>▪ Peak routes that meet both peak criteria<sup>1</sup></li> <li>▪ Routes on corridors that are above their target service levels</li> <li>▪ Routes on corridors that are at their target service levels</li> </ul> | Low                           |
| <p><b>4th reduction priority</b> – Reduce services on routes that are below the 25% productivity threshold for a given time period on corridors identified as below their target service levels</p>   | Low                           |

\*Restructuring service may touch routes with varying performance and therefore isn’t classified as high, medium or low.

<sup>1</sup> Peak routes that meet both peak criteria and that are between 0-50% reduction priority are evaluated among the 3rd reduction priority.

Whenever reductions are necessary, Metro strives to maintain public mobility as much as possible. To do so, we might reduce service frequency, shorten the span of service, or make targeted trip cuts rather than completely eliminate a route. We might also restructure a number of routes to make the whole network more productive and to maintain segments of routes that are reduced.

The tables on the following pages show the routes that are below the productivity threshold on one or both productivity measures and are at high or medium potential for major reduction based on the corridor analysis.

# Tables of routes at high or medium potential for major reduction

**TABLE 17**  
**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 |
|---------|--|--------------|---------------|---------------|--------------|---------------|---------------|--------------|---------------|----------------------|----------|-----------------------|---------------|-----------|-----------------|------------------|-------|-------------------------------|-------------|
|         |  | Rides/PlatHr | PassMI/PlatMI | PassMI/PlatMI | Rides/PlatHr | PassMI/PlatMI | PassMI/PlatMI | Rides/PlatHr | PassMI/PlatMI | PassMI/PlatMI        |          |                       | Travel Time   | Ridership | Peak            | Off Peak         | Night |                               |             |
| 7EX*    | Rainier Beach - Seattle CBD                              | 37.4         | 9.4           |               |              |               |               |              |               |                      | Peak     | Peak                  | No            | Peak      | Peak            | High             | Peak  |                               |             |
| 19*     | West Magnolia - Seattle CBD                              | 31.5         | 7.8           |               |              |               |               |              |               | Peak                 | Peak     | Yes                   | Peak          | Peak      | High            | Peak             |       |                               |             |
| 22      | Arbor Heights - Westwood Village - Alaska Junction       | 15.6         | 2.8           |               | 13.1         | 2.4           | 7.8           | 1.2          |               | None                 | None     |                       |               | None      | High            | Off Peak / Night |       |                               |             |
| 28*     | Whittier Heights - Ballard - Seattle CBD via Leary AV    | 50.9         | 12.4          |               | 36.1         | 9.7           | 23.1          | 5.8          | 34/36         | Very Frequent/ Local | At, At   | At, At                | At, Above     | At, At    | High            | Off Peak         |       |                               |             |
| 47*     | Summit - Seattle CBD                                     | 35.5         | 8.0           |               | 26.7         | 5.3           | 21.1          | 3.8          |               | None                 | None     |                       | None          | None      | High            | All              |       |                               |             |
| 48EX*   | MT Baker - University District - Loyal Heights           | 36.0         | 8.8           |               |              |               |               |              |               | Peak                 | Peak     | No                    | Yes           | Peak      | High            | Peak             |       |                               |             |
| 61      | North Beach - Ballard                                    | 7.7          | 1.1           |               | 9.3          | 1.5           | 4.9           | 0.8          |               | None                 | None     |                       | None          | None      | High            | All              |       |                               |             |
| 62*     | Ballard - Seattle Pacific University - Seattle CBD       | 15.8         | 4.3           |               |              |               |               |              |               | Peak                 | Peak     | No                    | No            | Peak      | High            | Peak             |       |                               |             |
| 82*     | Seattle CBD - Greenwood                                  |              |               |               |              |               |               |              |               | Owl                  | Owl      |                       |               | Owl       | High            | Night            |       |                               |             |
| 83*     | Seattle CBD - Ravenna                                    |              |               |               |              |               |               |              |               | Owl                  | Owl      |                       |               | Owl       | High            | Night            |       |                               |             |
| 84*     | Seattle CBD - Madison Park - Madrona                     |              |               |               |              |               |               |              |               | Owl                  | Owl      |                       |               | Owl       | High            | Night            |       |                               |             |
| 98*     | South Lake Union Street Car                              | 83.4         | 12.7          |               | 52.4         | 8.9           | 24.0          | 4.0          |               | None                 | None     |                       | None          | None      | High            | Off Peak / Night |       |                               |             |
| 99*     | International District - Waterfront                      | 25.0         | 6.1           |               |              |               |               |              |               | Peak                 | Peak     | Yes                   | No            | Peak      | High            | Peak             |       |                               |             |
| 110     | Tukwila Station - North Renton                           | 12.5         | 2.0           |               |              |               |               |              |               | Peak                 | Peak     | Yes                   | No            | Peak      | High            | Peak             |       |                               |             |
| 116EX*  | Fauntleroy Ferry - Seattle CBD                           | 19.7         | 8.6           |               |              |               |               |              |               | Peak                 | Peak     | Yes                   | No            | Peak      | High            | Peak             |       |                               |             |
| 119     | Dockton - Vashon   | 13.4         | 2.3           |               | 10.1         | 1.3           |               |              |               | None                 | None     |                       | None          | None      | High            | Peak / Off Peak  |       |                               |             |
| 121*    | Highline CC-Burien TC - Seattle CBD via 1st Av S         | 20.4         | 9.0           |               |              |               |               |              |               | Peak                 | Peak     | Yes                   | No            | Peak      | High            | Peak             |       |                               |             |
| 139     | Burien TC - Gregory Heights                              | 11.2         | 2.1           |               | 12.0         | 2.5           | 6.2           | 1.1          |               | None                 | None     |                       | None          | None      | High            | All              |       |                               |             |
| 152*    | Auburn - Seattle CBD                                     | 16.8         | 11.4          |               |              |               |               |              |               | Peak                 | Peak     | Yes                   | No            | Peak      | High            | Peak             |       |                               |             |
| 159*    | Timberlane - Seattle CBD                                 | 20.4         | 14.0          |               |              |               |               |              |               | Peak                 | Peak     | No                    | No            | Peak      | High            | Peak             |       |                               |             |
| 161*    | Lake Meridian - Seattle CBD                              | 18.8         | 10.7          |               |              |               |               |              |               | Peak                 | Peak     | Yes                   | No            | Peak      | High            | Peak             |       |                               |             |
| 173     | Federal Way TC - Federal Center South                    | 12.0         | 5.9           |               |              |               |               |              |               | Peak                 | Peak     | Yes                   | No            | Peak      | High            | Peak             |       |                               |             |
| 177*    | Federal Way - Seattle CBD                                | 23.8         | 15.1          |               |              |               |               |              |               | Peak                 | Peak     | No                    | No            | Peak      | High            | Peak             |       |                               |             |
| 179*    | Twin Lakes - Seattle CBD                                 | 22.7         | 16.7          |               |              |               |               |              |               | Peak                 | Peak     | No                    | No            | Peak      | High            | Peak             |       |                               |             |
| 197*    | Twin Lakes - University District                         | 22.3         | 17.9          |               |              |               |               |              |               | Peak                 | Peak     | Yes                   | No            | Peak      | High            | Peak             |       |                               |             |
| 200     | Downtown Issaquah - North Issaquah                       | 9.5          | 2.0           |               | 13.4         | 3.5           |               |              |               | None                 | None     |                       | None          | None      | High            | Peak             |       |                               |             |
| 202*    | South Mercer Island - Seattle CBD                        | 12.5         | 4.1           |               |              |               |               |              |               | Peak                 | Peak     | No                    | No            | Peak      | High            | Peak             |       |                               |             |
| 203     | Mercer Island P&R - Shorewood                            | 12.3         | 1.8           |               | 11.8         | 1.1           |               |              |               | None                 | None     |                       | None          | None      | High            | Peak / Off Peak  |       |                               |             |
| 204     | South Mercer Island - Mercer Island P&R via Island Crest |              |               |               | 10.1         | 1.5           |               |              | 62            | Local                | At       | At                    | Above         | At        | High            | Off Peak         |       |                               |             |
| 205EX*  | South Mercer Island - First Hill - University District   | 19.0         | 5.5           |               |              |               |               |              |               | Peak                 | Peak     | No                    | No            | Peak      | High            | Peak             |       |                               |             |
| 210*    | Issaquah - Factoria - Seattle CBD                        | 13.3         | 5.5           |               |              |               |               |              |               | Peak                 | Peak     | Yes                   | No            | Peak      | High            | Peak             |       |                               |             |
| 211EX*  | Issaquah Highlands - First Hill                          | 15.4         | 4.7           |               |              |               |               |              |               | Peak                 | Peak     | No                    | No            | Peak      | High            | Peak             |       |                               |             |
| 213     | Mercer Island P&R - Covariant Shores                     |              |               |               | 9.6          | 0.9           |               |              |               | None                 | None     |                       |               | None      | High            | Off Peak         |       |                               |             |
| 215*    | North Bend - Seattle CBD                                 | 23.7         | 13.8          |               |              |               |               |              |               | Peak                 | Peak     | No                    | Yes           | Peak      | High            | Peak             |       |                               |             |
| 236     | Woodville - Totem Lake - Kirkland                        | 8.5          | 2.4           |               | 7.9          | 2.5           | 6.6           | 1.5          | 98            | Hourly               | Above    | Above                 | Above         | Above     | High            | All              |       |                               |             |
| 238     | Bothell - Totem Lake - Kirkland                          | 12.5         | 3.4           |               | 13.5         | 4.0           | 6.4           | 1.6          | 109           | Local                | At       | At                    | At            | At        | High            | Night            |       |                               |             |
| 243*    | Jackson Park - Bellevue                                  | 27.4         | 10.6          |               |              |               |               |              |               | Peak                 | Peak     | Yes                   | No            | Peak      | High            | Peak             |       |                               |             |
| 250*    | Overlake - Seattle CBD                                   | 21.8         | 11.9          |               |              |               |               |              |               | Peak                 | Peak     | No                    | No            | Peak      | High            | Peak             |       |                               |             |
| 260*    | Finn Hill - Seattle CBD                                  | 18.6         | 11.1          |               |              |               |               |              |               | Peak                 | Peak     | No                    | No            | Peak      | High            | Peak             |       |                               |             |
| 265*    | Overlake - Houghton - First Hill                         | 16.6         | 9.0           |               |              |               |               |              |               | Peak                 | Peak     | Yes                   | No            | Peak      | High            | Peak             |       |                               |             |
| 280*    | Seattle CBD - Bellevue - Renton                          |              |               |               |              |               | 16.0          | 10.9         |               | Owl                  | Owl      |                       |               | Owl       | High            | Night            |       |                               |             |
| 306EX*  | Kennore - Seattle CBD                                    | 21.1         | 12.2          |               |              |               |               |              |               | Peak                 | Peak     | No                    | No            | Peak      | High            | Peak             |       |                               |             |
| 309EX*  | Kennore - First Hill                                     | 12.5         | 7.8           |               |              |               |               |              |               | Peak                 | Peak     | Yes                   | No            | Peak      | High            | Peak             |       |                               |             |
| 331     | Shoreline CC - Kenmore                                   | 18.9         | 6.7           |               | 20.8         | 6.7           | 9.5           | 2.9          | 44            | Local                | At       | At                    | At            | Above     | High            | Night            |       |                               |             |
| 910DART | North Auburn - SuperMail                                 | 8.5          | 1.0           |               | 9.2          | 1.8           |               |              |               | None                 | None     |                       | None          | None      | High            | Peak / Off Peak  |       |                               |             |
| 919DART | SE Auburn - Auburn P&R                                   |              |               |               | 14.4         | 2.5           |               |              |               | None                 | None     |                       | None          | None      | High            | Off Peak         |       |                               |             |
| 927DART | Issaquah - Lake Sammamish                                | 7.0          | 1.7           |               | 6.4          | 2.6           |               |              |               | None                 | None     |                       | None          | None      | High            | Peak / Off Peak  |       |                               |             |
| 931DART | Bothell - Redmond  | 7.3          | 2.1           |               | 7.4          | 3.3           |               |              | 108           | Hourly               | Above    | At                    | At            | At        | High            | Peak             |       |                               |             |
| 935DART | Totem Lake - Kenmore                                     | 5.7          | 0.7           |               |              |               |               |              | 46            | Hourly               | Above    | At                    | At            | At        | High            | Peak             |       |                               |             |

Spring 2013 Thresholds for Routes that DO NOT serve Seattle Core

|            |      |     |      |     |      |     |
|------------|------|-----|------|-----|------|-----|
| Bottom 25% | 12.1 | 2.4 | 12.0 | 2.7 | 10.9 | 2.6 |
| Top 25%    | 24.1 | 7.4 | 24.5 | 7.9 | 18.8 | 6.3 |

\* Spring 2013 Thresholds for Routes that serve Seattle Core

|            |      |      |      |      |      |      |
|------------|------|------|------|------|------|------|
| Bottom 25% | 24.0 | 10.7 | 32.6 | 9.8  | 21.4 | 6.3  |
| Top 25%    | 47.3 | 16.6 | 51.3 | 15.4 | 34.9 | 10.8 |

Any light shaded field is a risk factor  
 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  
 Service in the bottom 25% of one or both productivity measures AND at for its corridor status

Potential for Major Reduction

High  
 Medium  
 Low

Services not in the bottom 25% of one or both productivity measures OR corridors below target service levels

**TABLE 18  
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 |
|--|--|--------------|---------------|--------------|---------------|--------------|---------------|-----------|-------------------------------------|---------------|---------------|-----------------|------------|--------|-------------------------------|-------------|
|  |  | Rides/PlatHr | PassMl/PlatMl | Rides/PlatHr | PassMl/PlatMl | Rides/PlatHr | PassMl/PlatMl |           |                                     | Travel Time   | Ridership     | Peak            | Off Peak   | Night  |                               |             |
| 3*   | North Queen Anne - Seattle CBD - Madrona Park  | 53.7         | 11.7          | 49.9         | 10.7          | 24.5         | 6.0           | 23/76     | Very Frequent/ Very Frequent        |               | At, At        | At, At          | At, At     | Medium | Night                         |             |
| 10*  | Capitol Hill - Seattle CBD                     | 50.9         | 10.4          | 52.2         | 10.9          | 35.0         | 7.7           | 21        | Very Frequent                       |               | At            | At              | At         | Medium | Peak                          |             |
| 11*  | Madison Park - Seattle CBD                     | 52.7         | 10.2          | 48.7         | 9.4           | 38.4         | 6.5           | 59        | Very Frequent                       |               | At            | Below           | At         | Medium | Peak                          |             |
| 12*  | Interlaken Park - Seattle CBD                  | 50.6         | 9.5           | 38.0         | 6.3           | 16.4         | 2.7           | 22        | Very Frequent                       |               | At            | At              | At         | Medium | All                           |             |
| 14*  | Mount Baker - Seattle CBD                      | 43.3         | 9.7           | 46.5         | 9.5           | 25.8         | 5.2           | 64        | Very Frequent                       |               | Below         | Below           | At         | Medium | Night                         |             |
| 16*  | Northgate TC - Wallingford - Seattle CBD       | 36.7         | 12.5          | 34.8         | 12.6          | 21.0         | 7.6           | 69        | Very Frequent                       |               | Below         | Below           | At         | Medium | Night                         |             |
| 21*  | Arbor Heights - Westwood Village - Seattle CBD | 39.7         | 13.5          | 32.4         | 10.7          | 20.8         | 7.0           | 39        | Very Frequent                       |               | At            | At              | At         | Medium | Off Peak / Night              |             |
| 24*  | Magnolia - Seattle CBD                         | 44.4         | 13.3          | 28.9         | 10.1          | 21.0         | 5.5           | 61        | Frequent                            |               | At            | At              | At         | Medium | Off Peak / Night              |             |
| 26*  | East Green Lake - Wallingford - Seattle CBD    | 48.5         | 13.1          | 32.2         | 11.1          | 22.6         | 7.1           | 34        | Very Frequent                       |               | At            | At              | At         | Medium | Off Peak                      |             |
| 27*  | Colman Park - Leschi Park - Seattle CBD        | 40.3         | 9.1           | 32.0         | 5.1           | 19.8         | 3.1           | 24        | Frequent                            |               | Below         | At              | At         | Medium | Off Peak / Night              |             |
| 30*  | Sand Point - University District               | 28.6         | 6.6           | 23.8         | 5.8           | 24.5         | 4.9           | 92        | Frequent                            |               | Below         | At              | At         | Medium | Off Peak / Night              |             |
| 31*  | University District - Fremont - Magnolia       | 35.6         | 8.4           | 30.1         | 7.7           |              |               | 35        | Very Frequent                       |               | At            | Below           | At         | Medium | Peak                          |             |
| 33*  | Discovery Park - Seattle CBD                   | 46.7         | 13.6          | 31.5         | 8.3           | 23.1         | 5.8           | 26        | Frequent                            |               | Below         | At              | Below      | Medium | Off Peak                      |             |
| 50   | Alki - Columbia City - Othello Station         | 20.6         | 4.3           | 18.4         | 4.4           | 10.1         | 2.4           | 2/71      | Frequent                            |               | Below/Below   | At/At           | At/At      | Medium | Night                         |             |
| 60*  | Westwood Village - Georgetown - Capitol Hill   | 33.5         | 10.0          | 32.6         | 9.2           | 20.4         | 6.3           | 20        | Very Frequent                       |               | Below         | Below           | At         | Medium | Night                         |             |
| 65*  | Lake City - University District                | 32.9         | 7.7           | 34.3         | 8.5           | 21.4         | 6.1           | 57        | Frequent                            |               | Below         | At              | At         | Medium | Off Peak / Night              |             |
| 118  | Tahlequah - Vashon                             | 14.8         | 2.5           | 12.8         | 2.1           | 13.4         | 3.1           | 91        | Hourly                              |               | At            | At              | At         | Medium | Off Peak                      |             |
| 125*   | Westwood Village - Seattle CBD                 | 35.8         | 14.5          | 28.9         | 12.9          | 20.5         | 8.9           | 112       | Frequent                            |               | Below         | At              | Below      | Medium | Off Peak                      |             |
| 132*   | Burien TC - South Park - Seattle CBD           | 36.3         | 14.8          | 28.3         | 12.1          | 20.3         | 8.8           | 19        | Very Frequent                       |               | Below         | Below           | At         | Medium | Night                         |             |
| 209  | North Bend - Snoqualmie - Issaquah             | 7.8          | 3.5           | 10.7         | 5.3           |              |               | 42        | Hourly                              |               | At            | At              | At         | Medium | Peak / Off Peak               |             |
| 224  | Fall City - Duvall - Redmond TC                | 6.9          | 3.2           | 7.8          | 4.0           |              |               | 82        | Hourly                              |               | At            | At              | At         | Medium | Peak / Off Peak               |             |
| 246  | Eastgate - Factoria - Bellevue                 | 11.6         | 2.6           | 12.3         | 2.7           |              |               | 28        | Local                               |               | At            | Below           | At         | Medium | Peak                          |             |
| 249  | Overlake - South Kirkland - South Bellevue     | 19.6         | 4.8           | 13.4         | 3.3           | 8.2          | 1.8           | 73        | Local                               |               | At            | At              | At         | Medium | Peak                          |             |
| 255**  | Brickyard - Kirkland TC - Seattle CBD          | 28.4         | 14.2          | 27.3         | 13.5          | 24.8         | 13.1          | 97        | Very Frequent                       |               | At            | At              | At         | Medium | Off Peak                      |             |
| 271*   | Issaquah - Bellevue - University District      | 26.1         | 10.7          | 26.5         | 11.4          | 21.4         | 9.2           | 14/40/106 | Very Frequent/ Local/ Very Frequent |               | Above, At, At | At, At, At      | At, At, At | Medium | Off Peak                      |             |
| 903DART  | Twin Lakes - Federal Way TC                    | 20.3         | 4.1           | 17.6         | 2.5           | 12.5         | 2.2           | 102       | Local                               |               | At            | At              | At         | Medium | Off Peak / Night              |             |
| 907DART  | Enumdaw - Renton TC                            | 3.6          | 1.3           | 5.4          | 2.7           |              |               | 88        | Hourly                              |               | At            | At              | At         | Medium | Peak / Off Peak               |             |
| 909DART  | Kennydale - Renton TC                          | 10.0         | 1.8           | 9.5          | 2.1           |              |               | 47        | Hourly                              |               | At            | At              | At         | Medium | Peak / Off Peak               |             |
| <b>Potential for Major Reduction</b>                             |  |              |               |              |               |              |               |           |                                     |               |               |                 |            |        |                               |             |
| Spring 2013 Thresholds for Routes that DO NOT serve Seattle Core |  | 12.1         | 2.4           | 12.0         | 2.7           | 10.9         | 2.6           |           |                                     |               |               |                 |            |        |                               |             |
| Bottom 25%   |  | 24.1         | 7.4           | 24.5         | 7.9           | 18.8         | 6.3           |           |                                     |               |               |                 |            |        |                               |             |
| Top 25%  |  |              |               |              |               |              |               |           |                                     |               |               |                 |            |        |                               |             |
| Spring 2013 Thresholds for Routes that serve Seattle Core        |  | 24.0         | 10.7          | 32.6         | 9.8           | 21.4         | 6.3           |           |                                     |               |               |                 |            |        |                               |             |
| Bottom 25%   |  | 47.3         | 16.6          | 51.3         | 15.4          | 34.9         | 10.8          |           |                                     |               |               |                 |            |        |                               |             |
| Top 25%  |  |              |               |              |               |              |               |           |                                     |               |               |                 |            |        |                               |             |

Any light shaded field is a risk factor  
 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  
 Service in the bottom 25% of one or both productivity measures AND at for its corridor status

Low  
 Medium  
 High

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 uses the guidelines as we revise service three times each year, in the spring, summer, and fall. Following an extraordinarily large service change in fall 2012, in which we started the RapidRide C and D lines, revised more than 50 routes and reallocated more than 65,000 service hours, we made a smaller number of changes in 2013. This section summarizes the 2013 changes and reports on key outcomes emerging from 2012 service changes.



### 2013 service revisions

The February and June service revisions consisted of minor routing and system maintenance changes, including making permanent the trips that had been added to reduce overcrowding on the new C and D lines in fall 2012.

We made more changes in September, to address some of the crowding and unreliability issues, balance ridership and service levels on I-90 commuter routes, start an alternative services demonstration project, and change service in advance of the RapidRide F Line start. These are described below. A full list of changes made in 2013 is in Appendix I.

**Service quality investments.** The 2012 guidelines report found that 24,500 annual service hours were needed to reduce passenger crowding and improve schedule reliability. In September 2013, we invested more than 8,000 annual hours of service in routes that had these service quality problems. Metro did not have new resources for these investments, so following the guidelines, we reallocated hours from other service. However, we were able to meet only some of the needs. The investments did not cover the full list of routes that had reliability problems.

Metro added trips to all six routes identified as having overcrowding in the 2012 guidelines report. Trips were added on weekday mornings on routes 3, 4 and 60; on weekday afternoons on routes 16 and 44; and on Saturdays on Route 358.

We rescheduled four routes identified as having reliability problems in the 2012 report. Schedules were adjusted on weekdays on routes 2, 66, 150, and 181; on Saturdays on Route 2; and on Sundays on Route 150.

At the same time that service quality investments were made, trips were reduced on several routes that performed in the bottom 25 percent on at least one performance measure in 2012.

**I-90 commuter service changes.** Commuter services from the I-90 corridor to downtown Seattle have seen significant ridership growth in the past few years, leading to crowding on some routes. In fall 2013, Metro redistributed resources within this corridor to better match the available capacity to the market demand. The routes affected included commuter services from Bellevue, Eastgate, Issaquah, Issaquah Highlands, North Bend, and Sammamish.

Changes were focused on maintaining high levels of service to the busiest areas, such as the Eastgate and Issaquah Highlands park-and-rides. These changes were intended to reduce crowding and attract riders

### September 2013 service quality investments

**Trips were added to these routes:**

3, 4, 16, 44, 60, 358

**Schedules were changed on these routes:**

2, 8, 66, 150, 181

### September 2013 service reductions

**Routes reduced:**

139, 152, 187, 221, 246, 249, 250, 927

more evenly to different routes in the I-90 corridor. Metro also anticipates that some of the changes will attract new riders by providing faster and more direct trips between the primary destinations.

**Snoqualmie Valley Alternative Service Demonstration Project.** This first alternative service demonstration project began in the Snoqualmie Valley in fall 2013. Metro made changes to three fixed routes and added a new fixed route, and worked with an operating partner to establish a new intra-valley shuttle service in the Snoqualmie Valley. These changes affected service in Carnation, Duvall, Fall City, North Bend, Snoqualmie, and Woodinville.

Overall, the changes to fixed routes were designed to move service to areas with growing concentrations of population and employment. This combination of changes is designed to increase productivity and reduce costs while improving mobility in areas that are difficult to serve in a cost-effective way with traditional fixed-route transit.

**Renton service changes.** In June 2014, Metro will launch the RapidRide F Line between the Burien Transit Center and The Landing in Renton, replacing Route 140. In advance of the startup, Metro extended Route 140 to The Landing in September 2013 to provide better access to Boeing, other area employers, and housing and commercial developments at the south end of Lake Washington. This extension was the result of collaboration between Metro and the City of Renton to ensure that Metro responded to development that has occurred in the north portion of the Renton regional growth center. We also converted a local route to DART and made a minor routing modification in response to public feedback shared during outreach held in late 2012 and early 2013.

### Key early outcomes of fall 2012 service change

The fall 2012 service revision included the first large restructure to be planned using the service guidelines. In conjunction with the start of the RapidRide C and D lines, we restructured networks of more than 50 bus routes in Seattle and nearby communities and made smaller changes to about 40 routes. The revisions were intended to make the transit system more productive and to give riders better connections—including connections to fast, frequent RapidRide service. The changes included reducing or deleting low-productivity routes by more than 65,000 service hours and reinvesting the hours where they were needed to relieve crowding, improve reliability, and increase service on corridors that were below their target levels.

Because an extraordinarily large number of routes were affected and complete data are not yet available for all aspects of service, a comprehensive analysis of outcomes is not possible for this report.

In addition, customers are still adapting to the changes, and we expect performance indicators will change over the next year or two. However, analyses we have conducted to date have found notable results:

- In areas where major investments and restructures were made, ridership has grown more than the system average. The Delridge corridor, served by the Route 120 and portions of the C Line, has seen a 50 percent increase in boardings. Corridors with similar increases include Leary Way (Routes 28 and 40), Greenwood (Route 5), and Holman Road (Route 40).
- Ridership and productivity increases for the RapidRide C and D lines have outpaced systemwide increases. As of August 2013, C Line ridership had grown 51 percent above its 2011 baseline, already meeting the 5-year ridership projection. D line ridership was 16 percent above its baseline, on track to achieve the 5-year ridership projection. Both lines were also well above the average system



productivity as of May 2013. The system average rides per hour for 2013 through May was 32.9; the D Line average was 50.9 rides per hour and the C Line average was 37.6.

- Productivity on services affected by the C and D line restructure increased by 5 to 6 percent between 2011 and 2012.
- Median peak-hour travel times on the C and D lines have improved compared to travel times on the routes they replaced. The greatest travel time improvements are for the northbound C Line during the AM peak and for the northbound D Line during the PM peak. The least travel time improvement is on the southbound C Line during the PM peak.
- After an adjustment period following the September 2012 service change, Metro service systemwide met its on-time performance target of 80 percent in the period January through March 2013.

More detailed information about outcomes of the September 2012 service change and the C and D line restructures can be found at [www.kingcounty.gov/metro/reports](http://www.kingcounty.gov/metro/reports) in the following two reports:

- *Data and Lessons Learned from Elimination of the Ride Free Area and Start-up of RapidRide C and D Lines*
- *RapidRide C and D Line Implementation and Restructures—Ridership Assessment and Guidelines Analysis*

## SECTION 5

# ■ USING THE GUIDELINES TO REDUCE SERVICE BECAUSE OF 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 funding shortfall facing Metro.

Since 2008, the Great Recession and ongoing weak economy have caused a shortfall in Metro's revenue from sales tax. Over the past five years, King County and Metro have taken many steps to substantially cut costs, increase revenue, and preserve most service. Actions include reducing staff and overhead, finding new operating efficiencies, tapping reserve funds, cutting very-low-productivity bus trips, raising fares, and adopting a temporary congestion reduction charge (CRC) that provides supplemental funding for two years.

However, the CRC will expire and available reserve funds will be exhausted in mid-2014. Metro's adopted 2013-2014 budget assumes that as a result, annual revenues will fall \$75 million short of what is needed to maintain the current level of service. Compounding this problem, state funding will end in June 2014 for enhanced Metro service to mitigate traffic impacts of the Alaskan Way Viaduct (AWV) Replacement Project.

If Metro does not receive additional revenue, up to 17 percent of current service would have to be eliminated in 2014 and 2015 to balance the transit budget. This would include up to 600,000 annual service hours to close the general revenue gap, plus 45,000 hours that would be lost when the AWV mitigation service ends. At the time this report is being prepared, the most recent sales tax collections for Metro have been somewhat better than expected, though not nearly enough to stave off service reductions. The actual size of the reductions will depend on Metro's current finances at the time reductions are approved.

In June 2014, the 45,000 hours of transit service supported by the AWV project mitigation contract would be removed. The West Seattle area has been receiving the most mitigation service and would be most heavily affected; other corridors that have been receiving mitigation service are those linking Burien, White Center, North Seattle (Aurora), Ballard and downtown Seattle. About 150 bus trips per day representing 7,500 bus seats per day would be lost, resulting in more-crowded and less-reliable transit service in an even more congested SR-99 corridor.

Service reductions would begin in June 2014, followed by additional reductions in September 2014 and February, June and September 2015. Up to 600,000 annual service hours would be eliminated in communities across King County, plus 45,000 hours in corridors that have been receiving AWV mitigation service.

The following is a proposal for making the necessary service reductions based on the service guidelines and objective data about route performance.

### Service reduction proposal

This proposal differs from the reduction illustration that was shared with the public in the 2012 service guidelines report. It has an added focus on revisions to the network that result in greater overall efficiency

and preservation of service on the most highly used corridors. Using the service guidelines, Metro planners developed the proposal based on a close examination of the network to find the most effective ways to provide service within a severely constrained budget.

**More than 80 percent of Metro’s routes would be changed in some way—some would be deleted, some would be reduced and some would be revised. These changes would have broad impacts on the entire public transportation network—even for routes that are not changed—and would affect a large portion of Metro’s customers and communities across King County. Impacts would include fewer travel options for riders, longer waits at bus stops, more transfers where people today have a direct connection, more-crowded and less-reliable buses, and increased traffic congestion.**

As the basis for this service reduction proposal, Metro spent several months doing a detailed, comprehensive analysis of data for all routes in regular service as of spring 2013. The routes are listed in Table 19. Because the service reductions would come from our current system, Table 19 lists routes as of fall 2013. Routes 208 and 219 are new as of fall 2013, so they are not shown in any tables in the preceding sections. Also that fall, Route 155 was converted to DART service, which is listed as 906DART in the table. We used the service guidelines described in Section 3 as the overarching guidance for which services would be reduced. We identified reduction priorities by considering each route’s performance and whether it is above, below or at the corridor’s target service level. The methodology for reducing service is illustrated in Figure 13.

We also looked for opportunities to cut hours yet maintain an effective network by making service revisions to areas of the county, to groups of routes, and to individual routes. Through these revisions, we could reduce duplication in the transit network while maintaining higher levels of service in the areas with the most ridership. Making changes to multiple routes along a corridor or within an area can improve efficiency and reduce operating costs while retaining more riders. At the same time, we kept in mind that large revisions also reduce or eliminate service in some current route segments, which can be harmful for customers and stressful for bus operators. We also sought to maintain connections in areas where there are high concentrations of minority populations or people with low incomes and high transit ridership.

In the service reduction proposal that is based on this work, the following changes would occur:

- **Less than 20 percent of Metro’s routes (33 routes) would remain unchanged**, but even these unchanged routes would likely carry more people and be more crowded in a reduced transit network. These routes typically are now in the top 25 percent on one or both performance measures, or were revised since spring 2013 to improve their performance and system efficiency.

Table 19 shows five routes that are in the bottom 25 for one or more productivity measures remaining unchanged. These routes remain unchanged for the following reasons:

- Route 10 was in the top 25 for one measure and in the bottom 25 for the other. This route helps maintain a network of well-spaced services.
  - Route 224 was shortened in fall 2013 as part of the alternative services delivery project to help make the service more cost-effective.
  - Route 246 was revised in fall 2013 to help make the service more productive.
  - Route 309EX was in the bottom 25 only because it was on a temporary reroute. Since the re-route has ended, this route is no longer in the bottom 25.
  - Route 601EX is an in service deadhead trip; in other words, it picks people up on its way from the base to the start of a different route. This means deletion of this trip would result in little to no cost savings because the bus and driver would still have to make this trip.
- **More than 50 percent of Metro’s routes (107 routes) would be reduced or revised.** In general, routes were proposed for reduction or revision because of low performance or because of an opportunity to improve the efficiency of the transit network.

The changes in this category would have the widest degree of variation. They range from smaller service reductions such as the last trips at the end of the day or elimination of low productivity route “tails,” to larger reductions that include frequency reductions elimination of all night or off-peak service.

About 40 percent of routes in this category are now performing in the bottom 25 percent for one or both productivity measures during one or more time periods of the day. Many of these routes would be reduced or revised during the specific time periods when they carry the fewest riders, as we seek to preserve service where it is most highly used. The other 60 percent of routes in this category are higher-productivity routes that would be reduced and/or revised, or modified as part of a restructure, to improve service efficiency.

- **More than 30 percent of Metro’s routes (74 routes) would be deleted.** Many of the routes that would be deleted are in the bottom 25 percent for one or both productivity measures, but some more-productive routes would also be deleted. Many of these higher-productivity routes are peak-only routes that do not meet the peak speed or ridership criteria described in Section 1 of this report. We also proposed to delete routes when we were able to consolidate service that operates on parallel corridors and serves similar markets, making better use of overall resources. Some routes would be deleted as we restructured larger areas and revised other routes to provide replacement service.

TABLE 19

## How Routes Would Be Affected in the Service Reduction Proposal

| Unchanged    |         | Deleted |     |         |         | Reduced/Revised |      |       |       |                 |
|--------------|---------|---------|-----|---------|---------|-----------------|------|-------|-------|-----------------|
| A Line       | 301     | 4       | 82  | 205EX   | 909DART | C Line          | 32*  | 114   | 177*  | 249             |
| B Line       | 303EX   | 5EX     | 83  | 209     | 910DART | D Line          | 33   | 116EX | 180   | 252             |
| 10           | 309EX   | 7EX     | 84  | 210     | 913DART | 1               | 36   | 118EX | 181*  | 255             |
| 15EX         | 312EX   | 19      | 99  | 211EX   | 916DART | 2               | 40   | 118   | 182   | 257             |
| 48           | 316     | 21      | 110 | 213     | 919DART | 3*              | 41   | 119EX | 186   | 269             |
| 74EX         | 330     | 22      | 113 | 215     | 927DART | 5               | 43   | 119   | 187   | 271             |
| 75           | 345     | 25      | 139 | 217     | 930DART | 7               | 44   | 120   | 193EX | 311             |
| 76           | 347     | 26      | 152 | 237     | 935DART | 8               | 49   | 121   | 197   | 331             |
| 77           | 373EX   | 27      | 154 | 238     |         | 9EX             | 50*  | 122   | 204   | 342*            |
| 101          | 601EX   | 28      | 158 | 242     |         | 11              | 55   | 123   | 208   | 346             |
| 102          | 906DART | 30      | 159 | 243     |         | 12              | 56EX | 124   | 212*  | 348             |
| 140 (F Line) |         | 31      | 161 | 244EX   |         | 13*             | 60   | 125   | 214   | 355EX*          |
| 153          |         | 37      | 167 | 250     |         | 14              | 64EX | 128   | 221   | 358EX* (E Line) |
| 166          |         | 47      | 173 | 260     |         | 16*             | 65   | 131   | 226   | 372EX*          |
| 169          |         | 48EX    | 178 | 265     |         | 17EX            | 70*  | 132   | 232   | 903DART         |
| 183          |         | 57      | 179 | 277     |         | 18EX            | 71   | 143EX | 234   | 907DART         |
| 216          |         | 61      | 190 | 280     |         | 21EX            | 73*  | 148   | 235*  | 914DART         |
| 218          |         | 62      | 192 | 304     |         | 24              | 98†  | 150   | 236   | 915DART         |
| 219          |         | 66EX    | 200 | 306EX   |         | 26EX*           | 105  | 156   | 240   | 917DART         |
| 224          |         | 67      | 201 | 308     |         | 28EX*           | 106* | 157*  | 241   | 931DART         |
| 246          |         | 68      | 202 | 901DART |         | 29              | 107  | 164   | 245   |                 |
| 268          |         | 72      | 203 | 908DART |         | 111             | 168* | 248   |       |                 |

Shaded cells are routes that perform in the bottom 25% in at least one measure, in at least one time period.

\* Routes have additional service/trips as a result of a revision

† South Lake Union Streetcar

TABLE 20

## Areas and Related Routes That Would Be Revised or Consolidated

## REVISIONS IN REDUCTION PRIORITY II

|                            |      |     |       |       |       |       |       |     |        |     |        |         |
|----------------------------|------|-----|-------|-------|-------|-------|-------|-----|--------|-----|--------|---------|
| Northeast Seattle          | 31   | 32* | 66EX  | 67    | 68    | 70*   | 71    | 72  | 73*    | 242 | 372EX* |         |
| Northeast King County      | 221  | 234 | 235*  | 236   | 237   | 238   | 252   | 255 | 257    | 311 | 342*   | 930DART |
| Central/Southeast Seattle  | 7    | 8   | 9EX   | 14    | 27    | 36    | 60    | 98† | 106*   | 107 |        |         |
| West Seattle               | 21   | 50* | 116EX | 118EX | 119EX | 125   | 128   | 131 | 132    |     |        |         |
| Queen Anne/Central Seattle | 1    | 2   | 3*    | 4     | 12    | 13*   | 29    |     |        |     |        |         |
| North-Central Seattle      | 5EX  | 5   | 16*   | 26EX* | 26    | 28EX* | 28    | 40  | 355EX* |     |        |         |
| I-5 South                  | 177* | 178 | 179   | 181*  | 190   | 192   | 193EX | 197 |        |     |        |         |
| Magnolia                   | 24   | 33  |       |       |       |       |       |     |        |     |        |         |

## ROUTE CONSOLIDATIONS AND ROUTING CHANGES

|             |      |         |     |      |         |         |
|-------------|------|---------|-----|------|---------|---------|
| Kent        | 157* | 158     | 159 | 168* | 914DART | 916DART |
| Federal Way | 187  | 901DART |     |      |         |         |
| Renton      | 111  |         |     |      |         |         |
| Eastgate    | 212* | 217     | 226 | 245  | 271     |         |

\* Routes have additional service/trips as a result of a revision

## Bolded red routes are those that would be deleted

**Revisions** would take place in several areas of the county, listed below. These revisions are categorized as major, minor or route consolidations to give a sense of their magnitude. In proposing the revisions (as listed in tables 19 and 20), Metro’s objective is to maintain service for as many current riders as possible, although in every case some riders would have to walk farther or would lose their service.

**Major revisions** are those where entire areas of the county would be restructured to provide more efficient service, reduce route duplication, target higher frequencies of service to the places with the most ridership, respond to major network changes and land-use developments, and create simpler service patterns that would be easier to understand. In these cases, we would be asking riders to adjust to a new service network, with many riders required to walk farther to reach service and some losing service altogether.

The service reduction proposal includes the following major revisions:

- **Northeast Seattle:** Consolidate several duplicative routes into one frequent route that runs between Northgate and downtown Seattle via the University District. Preserve night and weekend service on corridors with higher ridership in northeast Seattle and reduce service coverage to areas with fewer riders.
- **Northeast King County:** Shorten some routes that have less productive segments, reduce duplication in the network, maintain frequency in areas with higher ridership, better match service provided to the demand for that service, and reduce service coverage to areas that have fewer riders.
- **Central/Southeast Seattle:** Consolidate service to reduce duplication in the network while maintaining connections to areas with higher ridership. Preserve off-peak and night service to corridors with higher ridership in central and southeast Seattle by shortening some routes and reducing service coverage to areas that have fewer riders.
- **West Seattle:** Consolidate service to preserve commuter network and service coverage and frequency to West Seattle and southwest King County arterials. These restructures are in response to the combined impacts of Metro’s structural financial gap and the loss of funding for the Alaskan Way Viaduct mitigation service.

**Minor revisions** are those where groups of routes that provide similar service would be revised or combined to provide more efficient service. In these cases, riders would use different routes to get to their destinations, but most riders would have service that is similar to what they currently use. Other riders may walk farther to access service or may lose their service. The service reduction proposal includes the following minor revisions:

- **Queen Anne/Central Seattle:** Consolidate service to reduce duplication in the network, maintain frequency in areas with high ridership and reduce service to areas with low ridership.
- **North-Central Seattle:** Streamline routings and consolidate competing services. Preserve off-peak, night, and weekend service on corridors with higher ridership in north-central Seattle by reducing service coverage in areas with fewer riders.
- **Magnolia:** Maintain all-day service to the areas with the highest ridership in Magnolia and preserve peak service levels that match rider demand.
- **I-5 South commuter service (Federal Way, Kent):** Maintain service frequency and ability to access current destinations to the most highly used park-and-ride lots on the I-5 south corridor. Eliminate peak service to park-and-rides that have relatively low utilization.

**Route consolidations:** In some cases, two or more routes are combined into one route that serves the majority of the riders that the two original routes served. The service reduction proposal also includes route consolidations in the following areas:

- **Kent:** Maintain some peak service to Kent East Hill by consolidating commuter service onto a single route and providing timed connections with Sounder commuter rail. Maintain scaled-back local DART service in Kent.
- **Federal Way:** Maintain some service coverage by reducing local service network duplication.
- **Renton:** Shorten route to serve most productive segments.
- **Eastgate:** Streamline routing to serve stops with the highest ridership and make service more efficient. Add peak service to accommodate rider demand.

**Route by route** descriptions of all service reductions and revisions are available online at [www.kingcounty.gov/metro/future](http://www.kingcounty.gov/metro/future). These descriptions include a map, summary of the route changes, resulting frequency and service span (or number of trips for peak service), and reasons why the service was reduced or revised. Also available online are maps of revision areas, with route frequencies and service spans of the resulting service network for each revised area. There are no route-by-route descriptions of unchanged or deleted routes.

**Public outreach** is part of any major service change. In November 2013, Metro will launch a public outreach process to inform people about the proposed reductions and learn from them about potential impacts of the changes. Throughout this process, we will strive to increase the public's understanding of the process Metro followed to determine the necessary reductions.

Metro will reach out in multiple forums in all areas of the county. The public outreach effort will be geared toward helping people better understand why service must be cut and how they may be affected, as well as helping Metro understand these effects. The feedback will help us identify impacts we might have missed in our own analysis, as well as ways we might meet our customers' needs in the future. If public feedback helps us identify ways to soften the impacts of service cuts, increase ridership, and *still make the necessary overall reductions*, we may make some adjustments to our proposal before finalizing the service reduction package that will ultimately be considered for adoption by the King County Council. Metro will more likely be able to respond to public feedback that:

- Identifies ways to reduce impacts on riders and serve more people while making the necessary service-hour reductions
- Balances the principles of social equity, geographic value and productivity by following the service guidelines
- Concerns a quantifiable reduced impact or benefit of the suggested change.

Community comments will also inform future service changes and policies, even if we are not able to adjust the reduction proposal and respond to people's concerns within the constraints of our current revenue environment.

A final proposal will be submitted to the King County Council for a decision in 2014.

## Potential impacts

**The proposed reduction of Metro service would directly affect more than 80 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.

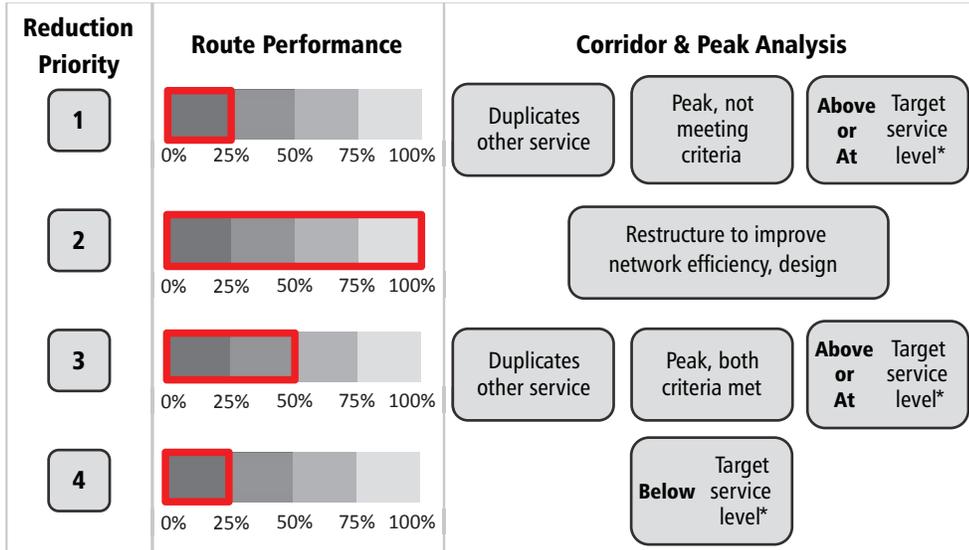
Here are some examples of what a reduced network could mean:

- **Elimination or reduction of more than 80 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-six 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, increasing 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 capacity, 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 as 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. Federal requirements for complementary ADA paratransit, Metro’s Access service, would be reduced if Metro’s fixed-route service was reduced. Reductions in the areas and times in which Access service would be provided are possible, but are not yet part of this proposal.

## 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**.

Fig. 13  
Methodology For Reducing Service



\*Target service level is based on demographics and demand between connections served by transit

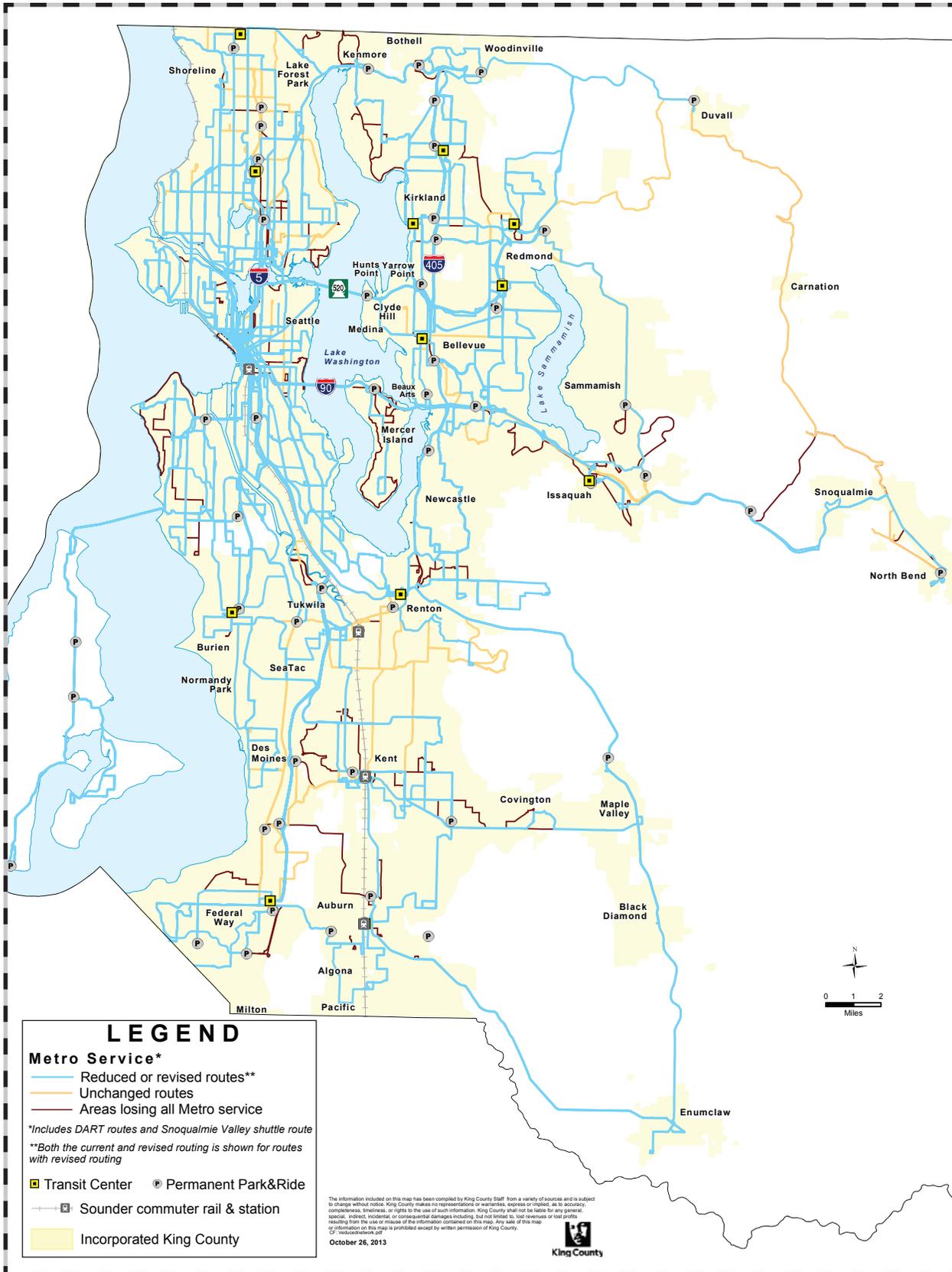
## Why reducing routes in the bottom 25 percent is not enough

The routes that perform in the bottom 25 percent for productivity are a starting point for potential service reductions. Additional cuts would be needed to reduce the 600,000 hours necessary to close the \$75 million shortfall as well as the 45,000 hours funded by the Alaskan Way Viaduct mitigation contract that expires in June 2014. Some routes in the bottom 25 percent would be maintained to support some level of service throughout King County as well as other policy objectives. The remaining cuts would have to come from services that have higher productivity and would normally have a low potential for reduction. For further discussion, please see Section 3, Service Reduction Priorities, page 43.

The figures on the following pages show area maps indicating routes that are deleted, reduced or revised, or unchanged in the service reduction proposal.

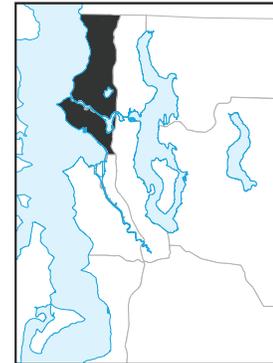
FIG. 14

Proposed Reduction of Up to 600,000 Annual Service Hours



For more information, visit [www.kingcounty.gov/metro/future](http://www.kingcounty.gov/metro/future)

**FIG. 15**  
**Service Reduction Proposal: Northwest Seattle/North King County**



**LEGEND**

**Metro Service**

- - 1 - - Deleted
- 1 Reduced or revised
- 1 Unchanged
- Transit Center
- Major employment sites
- ▲ High School
- University/Community College
- Senior Center
- L Library
- H Hospital

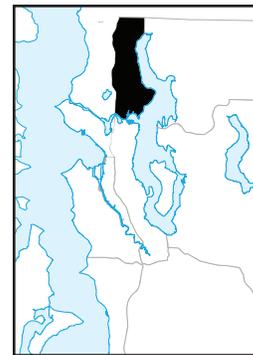
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For more information, visit  
[www.kingcounty.gov/metro/future](http://www.kingcounty.gov/metro/future)

FIG. 16

Service Reduction Proposal: Northeast Seattle/North King County



**LEGEND**

**Metro Service**

- - - Deleted
- | Reduced or revised
- | Unchanged

Transit Center  
● Major employment sites  
▲ High School     ● University/Community College  
S Senior Center  
L Library     H Hospital

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**FIG. 17**  
**Service Reduction Proposal: Southwest Seattle/South King County**

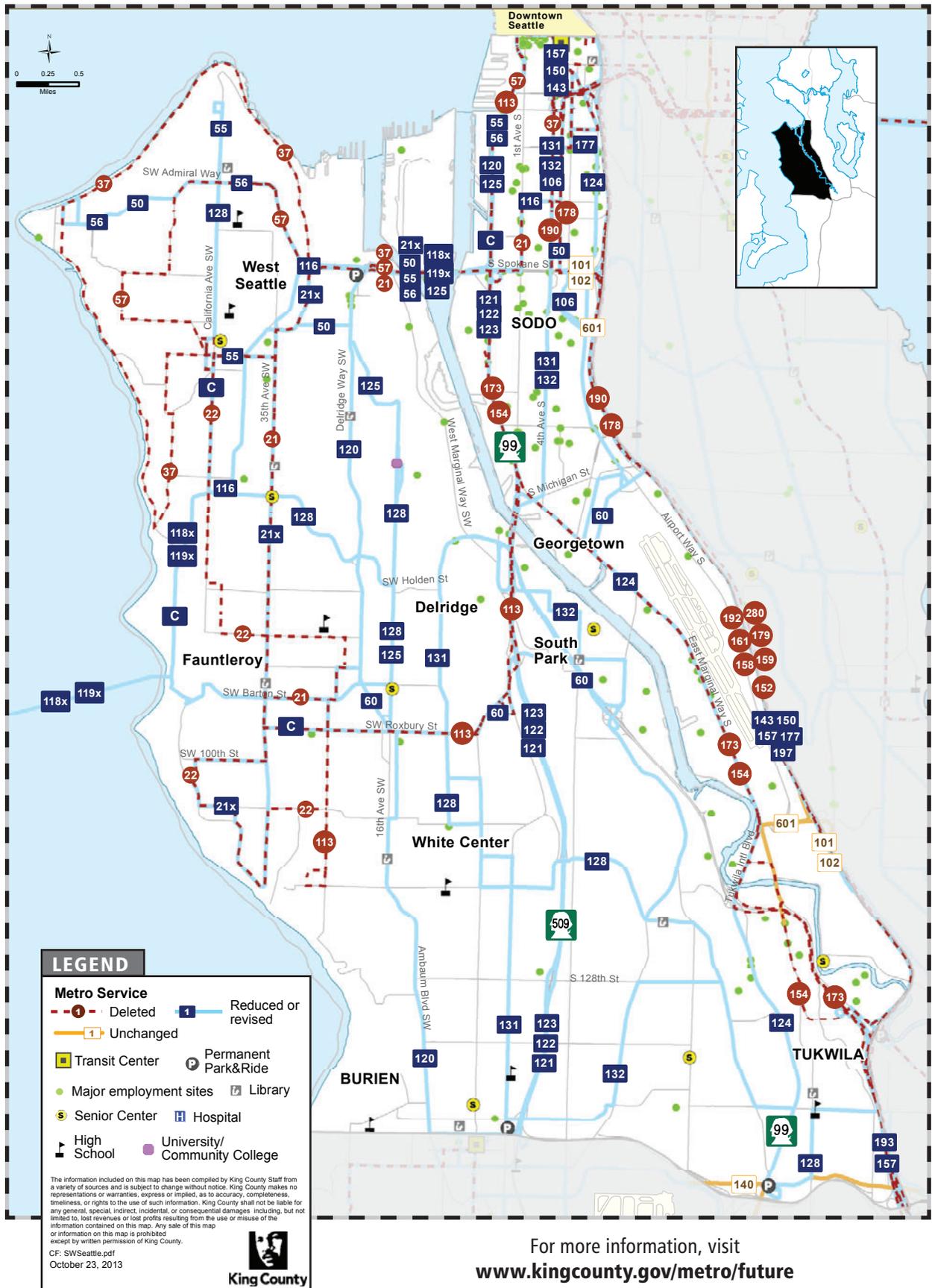
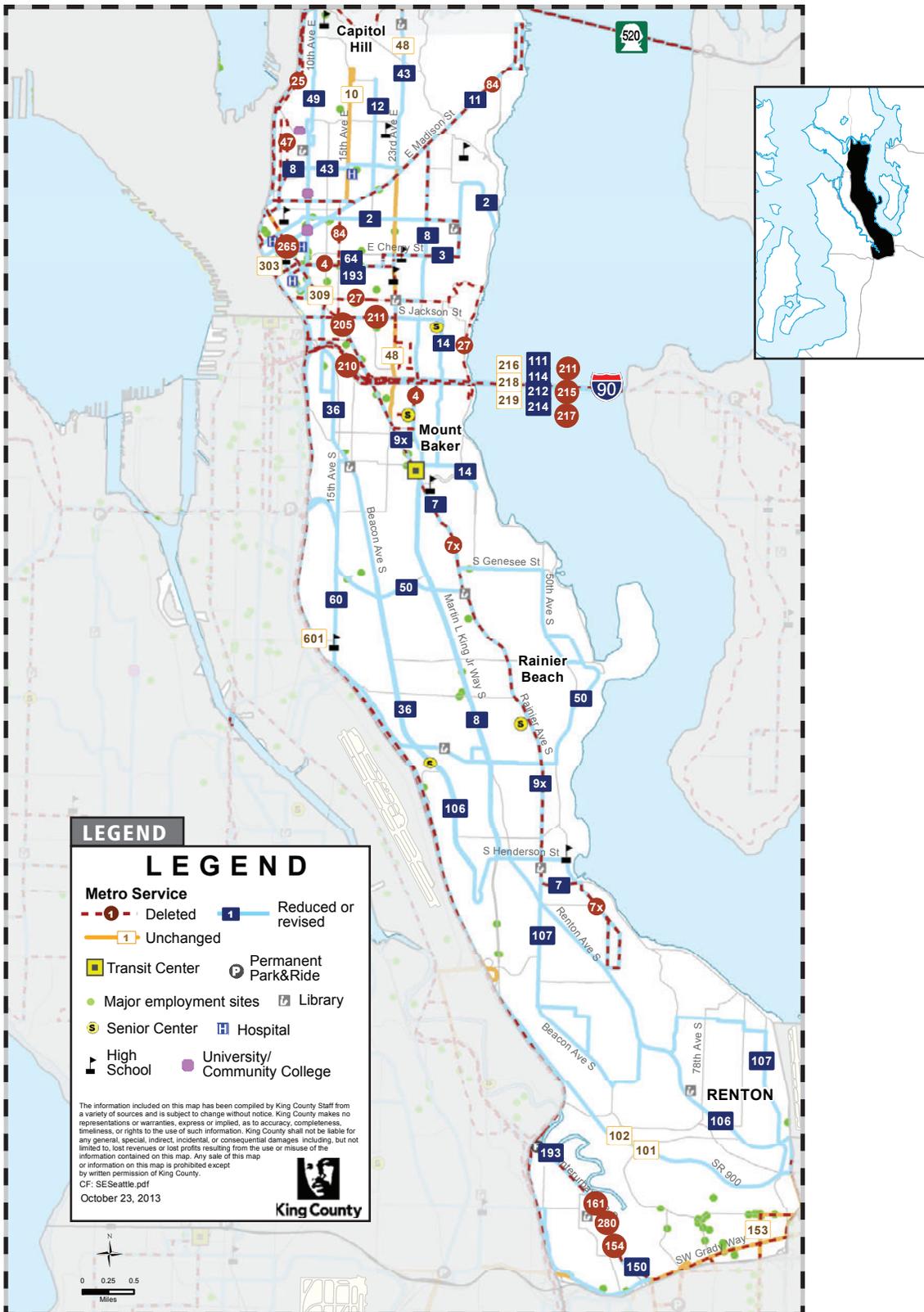


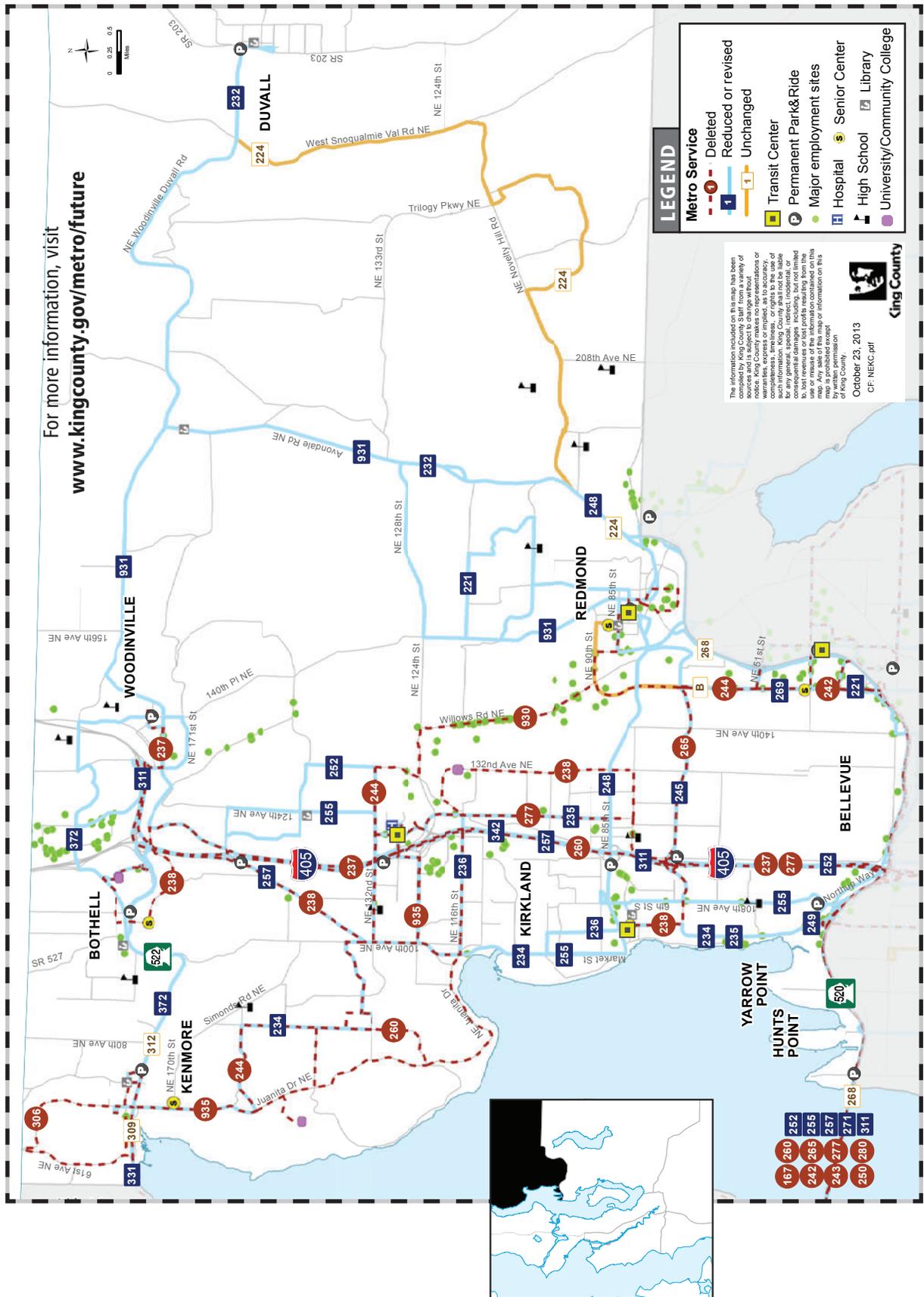
FIG. 18

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

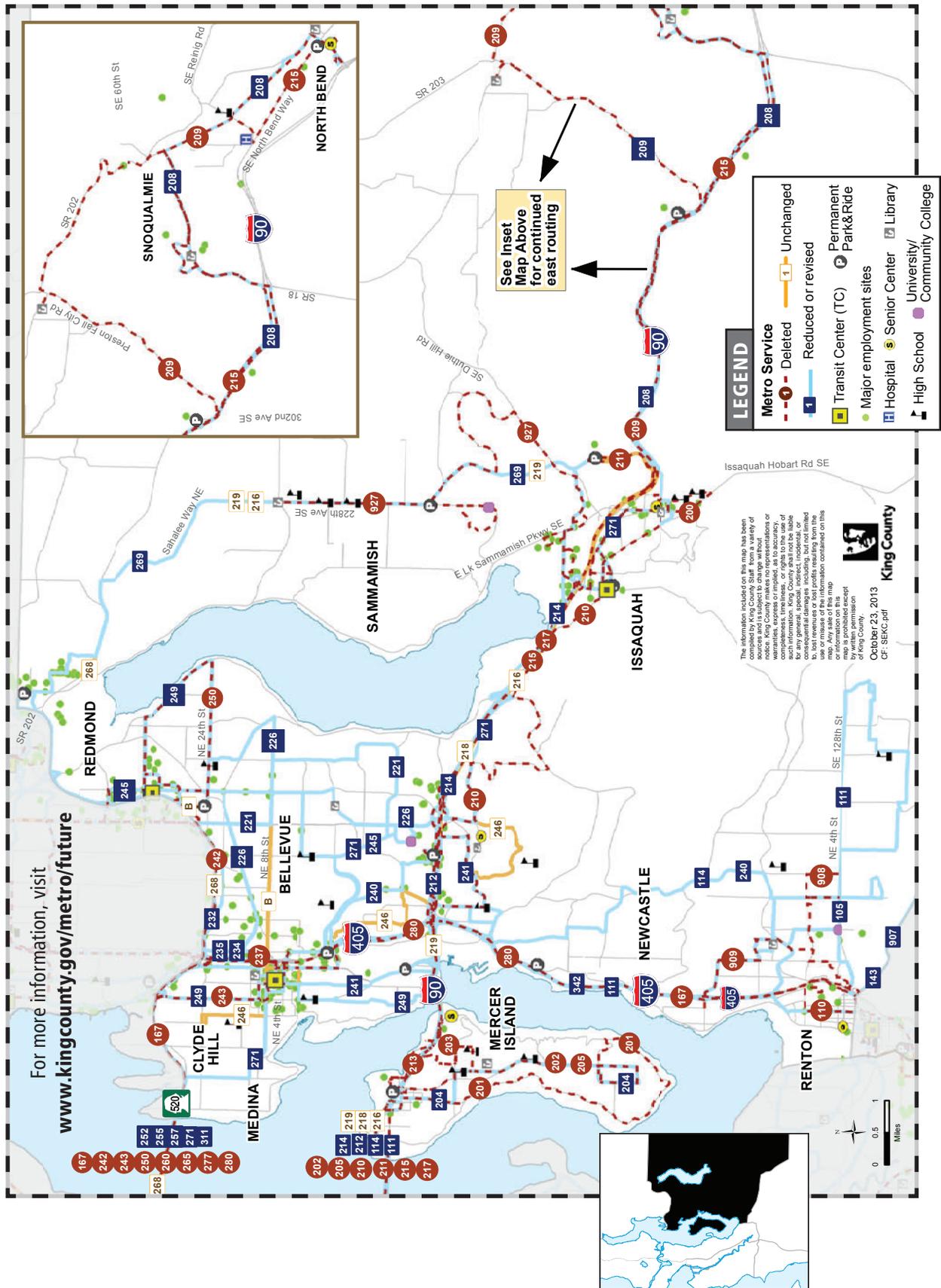


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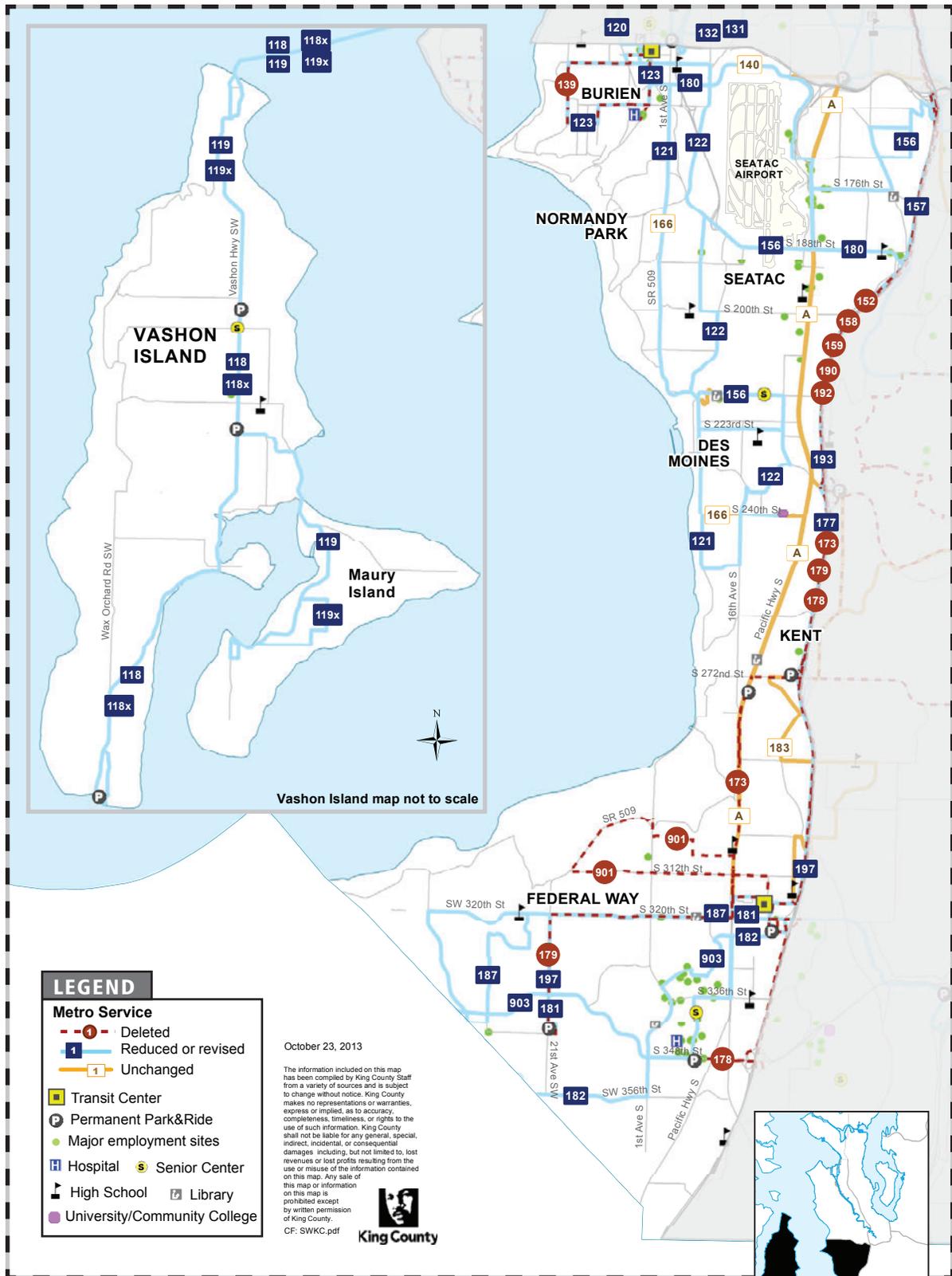
**FIG. 19**  
**Service Reduction Proposal: East King County–North**



**FIG. 20**  
**Service Reduction Proposal: East King County—South**

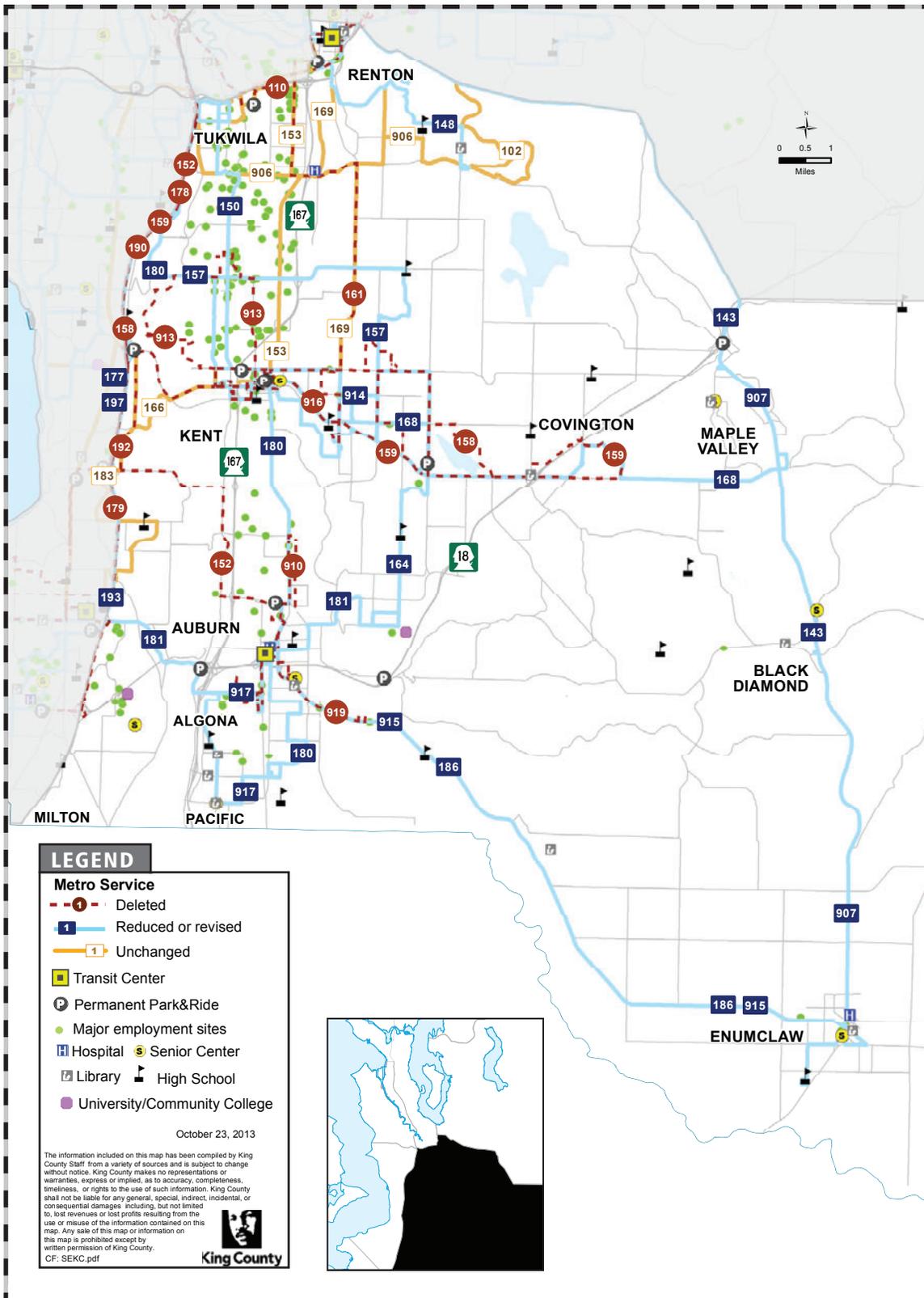


**FIG. 21**  
**Service Reduction Proposal: Southwest King County**



For more information, visit  
[www.kingcounty.gov/metro/future](http://www.kingcounty.gov/metro/future)

**FIG. 22**  
**Service Reduction Proposal: Southeast King County**



For more information, visit  
[www.kingcounty.gov/metro/future](http://www.kingcounty.gov/metro/future)



## SECTION 6

# POTENTIAL CHANGES TO THE SERVICE GUIDELINES AND STRATEGIC PLAN

This 2013 Guidelines Report reflects changes to the guidelines methodology that were adopted as part of the 2013 strategic plan and service guidelines update. With the adoption of the updates, some actions were set in motion that might lead to future changes to the guidelines.

These actions are:

- 1) **Report on passenger load metrics.** Ordinance 17641 requires Metro to develop a report evaluating alternative measures to assess crowded services and the need for related transit service investments.

Metro operates buses with varying seating capacities and layout of seats, and the measure of passenger crowding is based on a ratio of passengers to seats. However, Metro's fleet is changing as we purchase new, low-floor buses to improve operations; these buses have fewer seats than older, high-floor buses. We are also purchasing some buses that are designed to have fewer seats and more room for standing passengers. The intent of the report is to determine if there may be different measures or other changes to passenger load metrics that can help us better identify overcrowding issues. The report is due to the County Council on April 30, 2014.

- 2) **Long-range plan development.** The new strategy 6.1.2 added to the strategic plan provides for Metro to "establish and maintain a long-range transit service and capital plan developed in collaboration with local comprehensive and regional long-range transportation planning."

The long-range plan will create a foundation for better coordination with partners, cities and other stakeholders, provide direction for cities in land use and policy decisions, and provide better guidance on Metro's future. To demonstrate Metro's needs and priorities, it will include service and capital elements of a future Metro transit network.

Metro is developing a scope and work plan for the development of the long-range plan, which is expected to take place over the next two years. As the plan is being developed, Metro will consider whether any changes are necessary to the strategic plan or service guidelines.

- 3) **Transit access and park-and-rides.** Ordinance 17641 also calls for Metro to develop a work plan to identify potential updates to the strategic plan and service guidelines related to park-and-rides and other infrastructure supporting access to transit. This work plan will be developed in coordination with the Puget Sound Regional Council, the Washington State Department of Transportation, Sound Transit, King County Council and King County Executive staff, local jurisdictions and private sector representatives.

The work plan, due to the King County Council by December 31, 2013, is expected to include timelines, milestones and scope for reports that are expected to address:

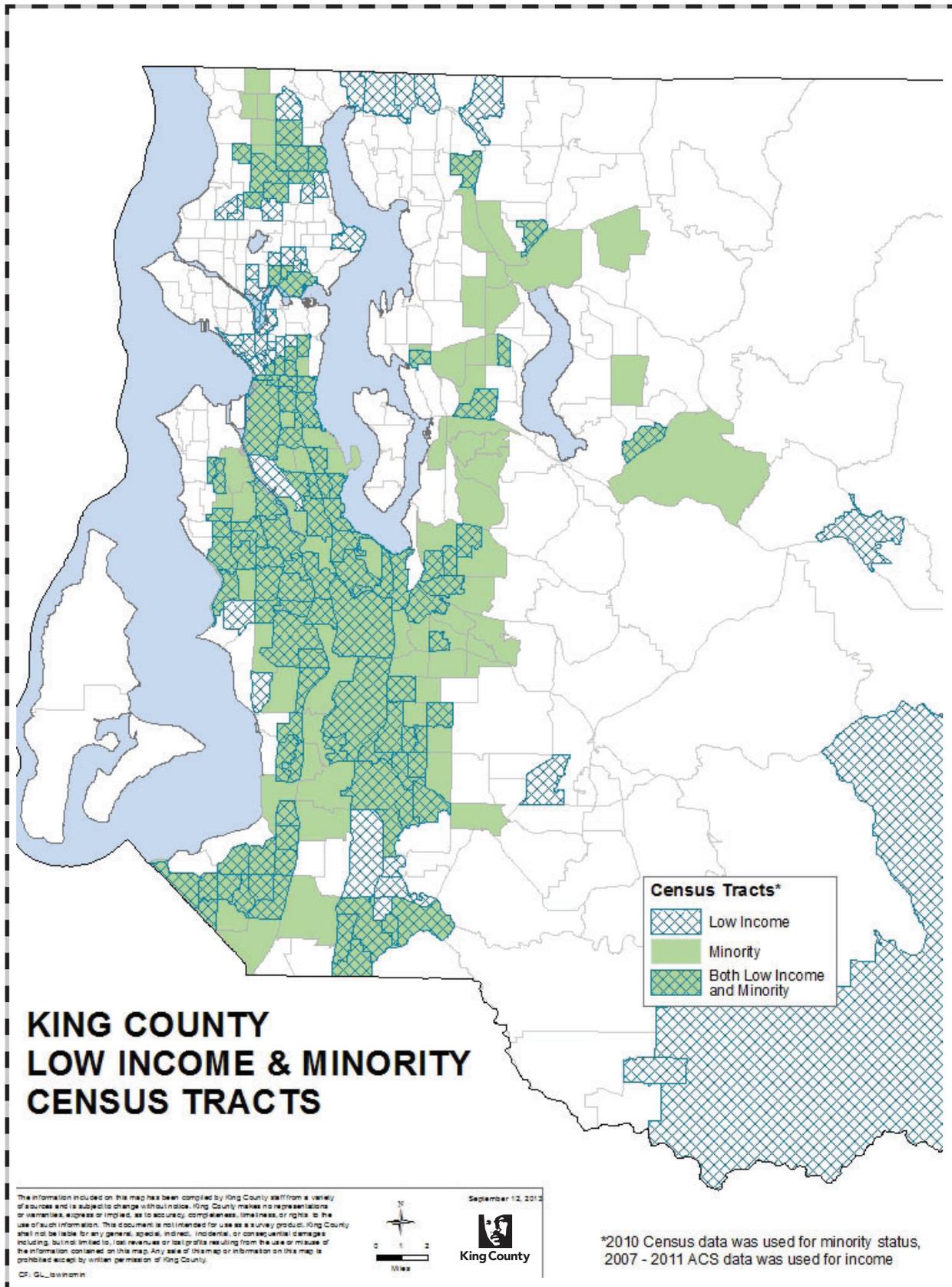
- The role of park-and-rides and other infrastructure supporting access to transit
  - Best practices and approaches to improving transit access
  - Regional coordination for planning, tracking and funding of needs
  - Model policy language for regional consistency
  - Any proposed updates to the strategic plan and/or service guidelines.
- 4) **Alternative services.** Metro will continue to identify and report on appropriate performance measures for alternative services that are consistent with the productivity, social equity and geographic value policies of the *Strategic Plan for Public Transportation*; to monitor alternative service performance; and to establish how alternative transit service and levels of service should be adjusted in the future to meet community needs in a cost-effective manner.

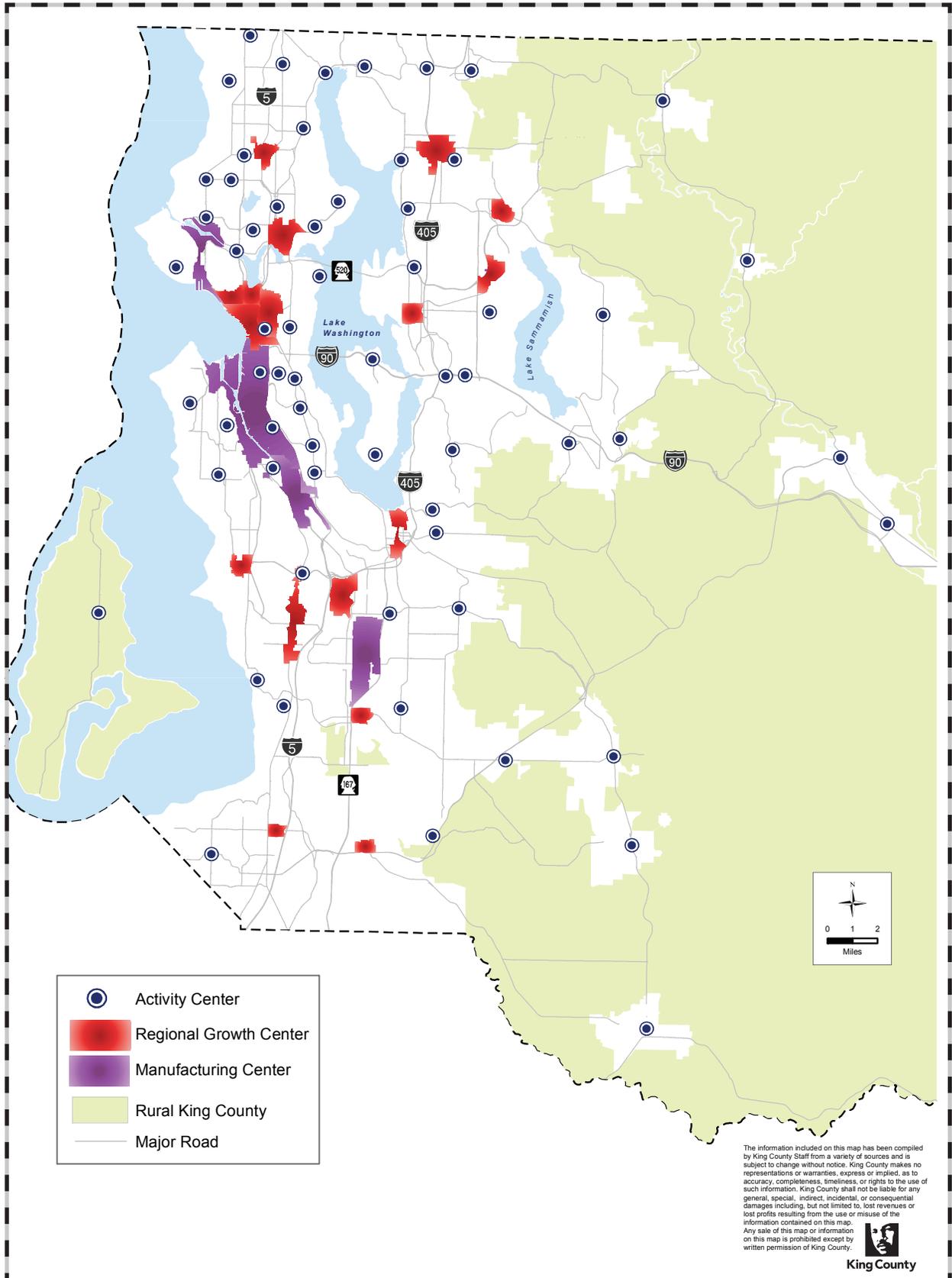
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Appendix A:  
King County Low Income and Minority Census Tracts (2011 Geography)



## Appendix B: Transit Activity Centers and Regional Growth/Manufacturing Centers



## Appendix C:

### Route Productivity Data

#### Routes that Do Not Serve the Seattle Core

| Route  | Description  | Peak                       |   | Off Peak                   |   | Night                      |   |
|--------|--|----------------------------|---|----------------------------|---|----------------------------|---|
|        |  | Rides/<br>Platform<br>Hour | Passenger<br>Miles/<br>Platform<br>Mile | Rides/<br>Platform<br>Hour | Passenger<br>Miles/<br>Platform<br>Mile | Rides/<br>Platform<br>Hour | Passenger<br>Miles/<br>Platform<br>Mile |
| A Line | Federal Way - Tukwila                                    | 49.1                       | 13.5                                    | 54.2                       | 17.6                                    | 39.4                       | 12.7                                    |
| B Line | Bellevue - Crossroads - Redmond                          | 40.7                       | 11.4                                    | 35.3                       | 10.5                                    | 30.9                       | 8.3                                     |
| 22     | Arbor Heights - Westwood Village - Alaska Junction       | 15.6                       | 2.8                                     | 13.1                       | 2.4                                     | 7.8                        | 1.2                                     |
| 50     | Alki - Columbia City - Othello Station                   | 20.6                       | 4.3                                     | 18.4                       | 4.4                                     | 10.1                       | 2.4                                     |
| 61     | North Beach - Ballard                                    | 7.7                        | 1.1                                     | 9.3                        | 1.5                                     | 4.9                        | 0.8                                     |
| 105    | Renton Highlands - Renton TC                             | 31.5                       | 7.3                                     | 28.2                       | 8.2                                     | 18.9                       | 5.7                                     |
| 107    | Renton TC - Rainier Beach                                | 24.2                       | 6.1                                     | 22.0                       | 6.0                                     | 15.0                       | 4.3                                     |
| 110    | Tukwila Station - North Renton                           | 12.5                       | 2.0                                     |                            |   |                            |   |
| 118    | Tahlequah - Vashon                                       | 14.8                       | 2.5                                     | 12.8                       | 2.1                                     | 13.4                       | 3.1                                     |
| 119    | Dockton - Vashon   | 13.4                       | 2.3                                     | 10.1                       | 1.3                                     |                            |   |
| 128    | Southcenter - Westwood Village - Admiral District        | 33.8                       | 10.9                                    | 35.4                       | 12.0                                    | 17.2                       | 5.8                                     |
| 139    | Burien TC - Gregory Heights                              | 11.2                       | 2.1                                     | 12.0                       | 2.5                                     | 6.2                        | 1.1                                     |
| 140    | Burien TC - Renton TC                                    | 29.6                       | 9.0                                     | 33.6                       | 11.3                                    | 28.8                       | 9.7                                     |
| 148    | Fairwood - Renton TC                                     | 16.4                       | 5.2                                     | 17.3                       | 6.0                                     | 19.8                       | 7.0                                     |
| 153    | Kent Station - Renton TC                                 | 22.1                       | 6.2                                     |                            |   |                            |   |
| 154    | Tukwila Station - Boeing Industrial                      | 18.4                       | 5.3                                     |                            |   |                            |   |
| 155    | Fairwood - Southcenter                                   | 18.4                       | 5.6                                     | 19.3                       | 6.1                                     |                            |   |
| 156    | Southcenter - SeaTac Airport - Highline CC               | 15.2                       | 4.6                                     | 15.5                       | 5.3                                     | 10.2                       | 2.6                                     |
| 164    | Green River CC - Kent Station                            | 44.9                       | 13.2                                    | 45.0                       | 16.2                                    | 29.0                       | 8.4                                     |
| 166    | Kent Station - Burien TC                                 | 26.6                       | 8.2                                     | 30.7                       | 9.6                                     | 19.2                       | 5.6                                     |
| 168    | Maple Valley - Kent Station                              | 24.3                       | 7.3                                     | 25.4                       | 8.6                                     | 24.8                       | 7.0                                     |
| 169    | Kent Station - East Hill - Renton TC                     | 37.6                       | 10.8                                    | 39.7                       | 12.0                                    | 30.2                       | 9.1                                     |
| 173    | Federal Way TC - Federal Center South                    | 12.0                       | 5.9                                     |                            |   |                            |   |
| 180    | Auburn - SeaTac Airport - Burien TC                      | 32.8                       | 10.2                                    | 33.2                       | 11.9                                    | 15.3                       | 6.1                                     |
| 181    | Twin Lakes P&R - Green River CC                          | 28.0                       | 8.4                                     | 27.2                       | 9.8                                     | 17.4                       | 4.3                                     |
| 182    | NE Tacoma - Federal Way TC                               | 16.3                       | 4.4                                     | 19.6                       | 6.2                                     |                            |   |
| 183    | Federal Way - Kent Station                               | 21.3                       | 6.4                                     | 21.6                       | 8.7                                     |                            |   |
| 186    | Enumclaw - Auburn Station                                | 12.6                       | 3.2                                     |                            |   |                            |   |
| 187    | Federal Way TC - Twin Lakes                              | 22.9                       | 5.9                                     | 27.6                       | 7.4                                     | 15.5                       | 3.7                                     |
| 200    | Downtown Issaquah - North Issaquah                       | 9.5                        | 2.0                                     | 13.4                       | 3.5                                     |                            |   |
| 201    | South Mercer Island - Mercer Island P&R via Mercer Wy    | 5.7                        | 1.2                                     |                            |   |                            |   |
| 203    | Mercer Island P&R - Shorewood                            | 12.3                       | 1.8                                     | 11.8                       | 1.1                                     |                            |   |
| 204    | South Mercer Island - Mercer Island P&R via Island Crest |                            |   | 10.1                       | 1.5                                     |                            |   |
| 209    | North Bend - Snoqualmie - Issaquah                       | 7.8                        | 3.5                                     | 10.7                       | 5.3                                     |                            |   |
| 213    | Mercer Island P&R - Covenant Shores                      |                            |   | 9.6                        | 0.9                                     |                            |   |
| 221    | Education Hill - Overlake - Eastgate                     | 20.3                       | 5.9                                     | 17.5                       | 4.9                                     | 12.5                       | 2.6                                     |
| 224    | Fall City - Duvall - Redmond TC                          | 6.9                        | 3.2                                     | 7.8                        | 4.0                                     |                            |   |
| 226    | Eastgate - Crossroads - Bellevue                         | 27.6                       | 7.0                                     | 25.6                       | 6.0                                     | 12.4                       | 2.9                                     |
| 232    | Duvall - Bellevue  | 17.7                       | 6.1                                     |                            |   |                            |   |
| 234    | Kenmore - Kirkland TC - Bellevue                         | 22.1                       | 8.6                                     | 19.5                       | 7.5                                     | 14.6                       | 5.0                                     |
| 235    | Kingsgate - Kirkland TC - Bellevue                       | 20.5                       | 7.1                                     | 15.9                       | 6.2                                     | 11.7                       | 4.1                                     |
| 236    | Woodinville - Totem Lake - Kirkland                      | 8.5                        | 2.4                                     | 7.9                        | 2.5                                     | 6.6                        | 1.5                                     |
| 237    | Woodinville - Bellevue                                   | 20.0                       | 8.2                                     |                            |   |                            |   |
| 238    | Bothell - Totem Lake - Kirkland                          | 12.5                       | 3.4                                     | 13.5                       | 4.0                                     | 6.4                        | 1.6                                     |
| 240    | Bellevue - Newcastle - Renton                            | 23.6                       | 8.3                                     | 22.2                       | 8.9                                     | 15.1                       | 6.3                                     |
| 241    | Eastgate - Factoria - Bellevue                           | 16.9                       | 4.1                                     | 16.1                       | 3.9                                     | 10.6                       | 2.4                                     |
| 242    | North City - Overlake                                    | 21.3                       | 12.3                                    |                            |   |                            |   |
| 244EX  | Kenmore - Overlake                                       | 12.4                       | 5.0                                     |                            |   |                            |   |
| 245    | Kirkland - Overlake - Factoria                           | 24.9                       | 7.4                                     | 24.2                       | 7.0                                     | 16.7                       | 4.6                                     |
| 246    | Eastgate - Factoria - Bellevue                           | 11.6                       | 2.6                                     | 12.3                       | 2.7                                     |                            |   |
| 248    | Avondale - Redmond TC - Kirkland                         | 21.4                       | 5.3                                     | 19.9                       | 4.9                                     | 13.6                       | 3.1                                     |
| 249    | Overlake - South Kirkland - South Bellevue               | 19.6                       | 4.8                                     | 13.4                       | 3.3                                     | 8.2                        | 1.8                                     |
| 269    | Issaquah - Overlake                                      | 12.9                       | 5.5                                     |                            |   |                            |   |
| 330    | Shoreline CC - Lake City                                 | 21.3                       | 4.7                                     |                            |   |                            |   |
| 331    | Shoreline CC - Kenmore                                   | 18.9                       | 6.7                                     | 20.8                       | 6.7                                     | 9.5                        | 2.9                                     |
| 342    | Shoreline - Bellevue TC - Renton                         | 18.7                       | 10.2                                    |                            |   |                            |   |

| Route   | Description                   | Peak                       |   | Off Peak                   |   | Night                      |   |
|---------|-------------------------------|----------------------------|---|----------------------------|---|----------------------------|---|
|         |                               | Rides/<br>Platform<br>Hour | Passenger<br>Miles/<br>Platform<br>Mile | Rides/<br>Platform<br>Hour | Passenger<br>Miles/<br>Platform<br>Mile | Rides/<br>Platform<br>Hour | Passenger<br>Miles/<br>Platform<br>Mile |
| 345     | Shoreline CC - Northgate      | 42.2                       | 11.3                                    | 39.2                       | 11.1                                    | 18.5                       | 6.8                                     |
| 346     | Aurora Village - Northgate    | 41.2                       | 12.0                                    | 34.6                       | 10.8                                    | 15.5                       | 5.4                                     |
| 347     | Mountlake Terrace - Northgate | 25.7                       | 8.7                                     | 23.2                       | 7.8                                     | 21.0                       | 6.8                                     |
| 348     | Richmond Beach - Northgate    | 24.5                       | 7.0                                     | 24.0                       | 7.3                                     | 17.8                       | 5.8                                     |
| 901DART | Mirror Lake - Federal Way TC  | 20.8                       | 4.6                                     | 20.6                       | 3.6                                     | 16.3                       | 4.6                                     |
| 903DART | Twin Lakes - Federal Way TC   | 20.3                       | 4.1                                     | 17.6                       | 2.5                                     | 12.5                       | 2.2                                     |
| 907DART | Enumclaw - Renton TC          | 3.6                        | 1.3                                     | 5.4                        | 2.7                                     |                            |   |
| 908DART | Renton Highlands - Renton TC  | 9.4                        | 1.8                                     | 7.0                        | 1.8                                     |                            |   |
| 909DART | Kennydale - Renton TC         | 10.0                       | 1.8                                     | 9.5                        | 2.1                                     |                            |   |
| 910DART | North Auburn - SuperMall      | 8.5                        | 1.0                                     | 9.2                        | 1.8                                     |                            |   |
| 913DART | Kent Station - Riverview      | 13.8                       | 2.2                                     |                            |   |                            |   |
| 914DART | Kent - Kent East Hill         |                            |   | 21.3                       | 4.1                                     |                            |   |
| 915DART | Enumclaw - Auburn Station     |                            |   | 16.0                       | 4.5                                     |                            |   |
| 916DART | Kent - Kent East Hill         |                            |   | 18.5                       | 4.6                                     |                            |   |
| 917DART | Pacific - Auburn              | 11.6                       | 2.2                                     | 11.1                       | 2.7                                     |                            |   |
| 919DART | SE Auburn - Auburn P&R        |                            |   | 14.4                       | 2.5                                     |                            |   |
| 927DART | Issaquah - Lake Sammamish     | 7.0                        | 1.7                                     | 6.4                        | 2.6                                     |                            |   |
| 930DART | Kingsgate - Redmond           | 8.1                        | 1.1                                     |                            |   |                            |   |
| 931DART | Bothell - Redmond             | 7.3                        | 2.1                                     | 7.4                        | 3.3                                     |                            |   |
| 935DART | Totem Lake - Kenmore          | 5.7                        | 0.7                                     |                            |   |                            |   |

| Spring 2013 Thresholds Routes that DO NOT serve Seattle Core | Peak        |            | Off Peak    |            | Night       |            |
|--|-------------|------------|-------------|------------|-------------|------------|
| <b>Bottom 25%</b>  | <b>12.1</b> | <b>2.4</b> | <b>12.0</b> | <b>2.7</b> | <b>10.9</b> | <b>2.6</b> |
| <b>Top 25%</b>   | <b>24.1</b> | <b>7.4</b> | <b>24.5</b> | <b>7.9</b> | <b>18.8</b> | <b>6.3</b> |

## Routes that Serve the Seattle Core

| Route  | Description  | Peak                       |   | Off Peak                   |   | Night                      |   |
|--------|--|----------------------------|---|----------------------------|---|----------------------------|---|
|        |  | Rides/<br>Platform<br>Hour | Passenger<br>Miles/<br>Platform<br>Mile | Rides/<br>Platform<br>Hour | Passenger<br>Miles/<br>Platform<br>Mile | Rides/<br>Platform<br>Hour | Passenger<br>Miles/<br>Platform<br>Mile |
| C Line | Westwood Village - Alaska Junction - Seattle CBD         | 44.2                       | 18.7                                    | 43.5                       | 19.7                                    | 27.5                       | 12.3                                    |
| D Line | Ballard - Seattle Center - Seattle CBD                   | 63.1                       | 15.8                                    | 60.0                       | 18.1                                    | 39.6                       | 11.3                                    |
| 1      | Kinnear - Seattle CBD                                    | 51.0                       | 12.1                                    | 46.5                       | 9.8                                     | 34.3                       | 8.5                                     |
| 2      | West Queen Anne - Seattle CBD - Madrona Park             | 49.1                       | 11.4                                    | 45.7                       | 9.8                                     | 29.8                       | 6.8                                     |
| 3      | North Queen Anne - Seattle CBD - Madrona Park            | 53.7                       | 11.7                                    | 49.9                       | 10.7                                    | 24.5                       | 6.0                                     |
| 4      | East Queen Anne - Seattle CBD - Judkins Park             | 53.5                       | 11.2                                    | 48.4                       | 9.9                                     | 28.3                       | 6.3                                     |
| 5EX    | Shoreline CC - Seattle CBD                               | 47.7                       | 16.5                                    |                            |   |                            |   |
| 5      | Shoreline CC - Seattle CBD                               | 56.8                       | 17.5                                    | 49.4                       | 14.6                                    | 37.8                       | 11.3                                    |
| 7EX    | Rainier Beach - Seattle CBD                              | 37.4                       | 9.4                                     |                            |   |                            |   |
| 7      | Rainier Beach - Seattle CBD                              | 51.9                       | 15.7                                    | 59.3                       | 17.8                                    | 34.9                       | 10.7                                    |
| 8      | Seattle Center - Capitol Hill - Rainier Beach            | 53.9                       | 12.2                                    | 48.8                       | 11.6                                    | 32.8                       | 7.6                                     |
| 9EX    | Rainier Beach - Capitol Hill                             | 40.0                       | 11.5                                    | 44.5                       | 14.3                                    |                            |   |
| 10     | Capitol Hill - Seattle CBD                               | 50.9                       | 10.4                                    | 52.2                       | 10.9                                    | 35.0                       | 7.7                                     |
| 11     | Madison Park - Seattle CBD                               | 52.7                       | 10.2                                    | 48.7                       | 9.4                                     | 38.4                       | 6.5                                     |
| 12     | Interlaken Park - Seattle CBD                            | 50.6                       | 9.5                                     | 38.0                       | 6.3                                     | 16.4                       | 2.7                                     |
| 13     | Seattle Pacific University - Queen Anne - Seattle CBD    | 58.4                       | 14.0                                    | 59.7                       | 14.2                                    | 31.2                       | 7.5                                     |
| 14     | Mount Baker - Seattle CBD                                | 43.3                       | 9.7                                     | 46.5                       | 9.5                                     | 25.8                       | 5.2                                     |
| 15EX   | Blue Ridge - Ballard - Seattle CBD                       | 47.4                       | 17.9                                    |                            |   |                            |   |
| 16     | Northgate TC - Wallingford - Seattle CBD                 | 36.7                       | 12.5                                    | 34.8                       | 12.6                                    | 21.0                       | 7.6                                     |
| 17EX   | Sunset Hill - Ballard - Seattle CBD                      | 54.3                       | 18.7                                    |                            |   |                            |   |
| 18EX   | North Beach - Ballard - Seattle CBD                      | 51.3                       | 18.7                                    |                            |   |                            |   |
| 19     | West Magnolia - Seattle CBD                              | 31.5                       | 7.8                                     |                            |   |                            |   |
| 21EX   | Arbor Heights - Westwood Village - Seattle CBD           | 36.8                       | 15.0                                    |                            |   |                            |   |
| 21     | Arbor Heights - Westwood Village - Seattle CBD           | 39.7                       | 13.5                                    | 32.4                       | 10.7                                    | 20.8                       | 7.0                                     |
| 24     | Magnolia - Seattle CBD                                   | 44.4                       | 13.3                                    | 28.9                       | 10.1                                    | 21.0                       | 5.5                                     |
| 25     | Laurelhurst - University District - Seattle CBD          | 22.4                       | 6.0                                     | 17.5                       | 4.4                                     |                            |   |
| 26EX   | East Green Lake - Wallingford - Seattle CBD              | 52.5                       | 17.7                                    |                            |   |                            |   |
| 26     | East Green Lake - Wallingford - Seattle CBD              | 48.5                       | 13.1                                    | 32.2                       | 11.1                                    | 22.6                       | 7.1                                     |
| 27     | Colman Park - Leschi Park - Seattle CBD                  | 40.3                       | 9.1                                     | 32.0                       | 5.1                                     | 19.8                       | 3.1                                     |
| 28     | Whittier Heights - Ballard - Seattle CBD via Leary Av NW | 50.9                       | 12.4                                    | 36.1                       | 9.7                                     | 23.1                       | 5.8                                     |
| 28EX   | Broadview - Ballard - Seattle CBD via Leary Av NW        | 43.4                       | 13.8                                    |                            |   |                            |   |
| 29     | Ballard - Queen Anne - Seattle CBD                       | 40.5                       | 9.9                                     |                            |   |                            |   |
| 30     | Sand Point - University District                         | 28.6                       | 6.6                                     | 23.8                       | 5.8                                     | 24.5                       | 4.9                                     |
| 31     | University District - Fremont - Magnolia                 | 35.6                       | 8.4                                     | 30.1                       | 7.7                                     |                            |   |
| 32     | University District - Fremont - Seattle Center           | 38.4                       | 12.5                                    | 36.1                       | 12.2                                    | 24.5                       | 6.6                                     |
| 33     | Discovery Park - Seattle CBD                             | 46.7                       | 13.6                                    | 31.5                       | 8.3                                     | 23.1                       | 5.8                                     |
| 36     | Othello Station - Beacon Hill - Seattle CBD              | 45.7                       | 12.9                                    | 51.3                       | 13.7                                    | 27.6                       | 7.4                                     |
| 37     | Alaska Junction - Alki - Seattle CBD                     | 21.3                       | 8.1                                     |                            |   |                            |   |
| 40     | Northgate TC - Ballard - Seattle CBD via Leary Av NW     | 41.5                       | 13.2                                    | 37.3                       | 12.1                                    | 28.8                       | 10.1                                    |
| 41     | Lake City - Seattle CBD via Northgate                    | 59.3                       | 25.4                                    | 56.5                       | 25.4                                    | 46.9                       | 22.3                                    |
| 43     | University District - Capitol Hill - Seattle CBD         | 58.9                       | 16.0                                    | 50.4                       | 13.1                                    | 38.6                       | 10.5                                    |
| 44     | Ballard - Wallingford - Montlake                         | 62.4                       | 16.6                                    | 50.9                       | 12.4                                    | 34.1                       | 9.1                                     |
| 47     | Summit - Seattle CBD                                     | 35.5                       | 8.0                                     | 26.7                       | 5.3                                     | 21.1                       | 3.8                                     |
| 48EX   | Mt Baker - University District - Loyal Heights           | 36.0                       | 8.8                                     |                            |   |                            |   |
| 48     | Mt Baker - University District - Loyal Heights           | 47.2                       | 13.0                                    | 49.1                       | 14.7                                    | 29.9                       | 8.2                                     |
| 49     | University District - Capitol Hill - Seattle CBD         | 62.2                       | 19.7                                    | 63.2                       | 18.2                                    | 53.0                       | 15.6                                    |
| 55     | Admiral District - Alaska Junction - Seattle CBD         | 30.6                       | 12.7                                    |                            |   |                            |   |
| 56EX   | Alki - Seattle CBD                                       | 36.4                       | 14.1                                    |                            |   |                            |   |
| 57     | Alaska Junction - Seattle CBD                            | 32.9                       | 13.2                                    |                            |   |                            |   |
| 60     | Westwood Village - Georgetown - Capitol Hill             | 33.5                       | 10.0                                    | 32.6                       | 9.2                                     | 20.4                       | 6.3                                     |
| 62     | Ballard - Seattle Pacific University - Seattle CBD       | 15.8                       | 4.3                                     |                            |   |                            |   |
| 64EX   | Lake City - First Hill                                   | 34.6                       | 13.6                                    |                            |   |                            |   |
| 65     | Lake City - University District                          | 32.9                       | 7.7                                     | 34.3                       | 8.5                                     | 21.4                       | 6.1                                     |
| 66EX   | Northgate TC - Eastlake - Seattle CBD                    | 52.8                       | 18.8                                    | 40.9                       | 13.7                                    | 27.3                       | 8.9                                     |
| 67     | Northgate TC - University District                       | 40.9                       | 12.8                                    | 53.5                       | 20.6                                    | 24.6                       | 6.7                                     |
| 68     | Northgate TC - Ravenna - University District             | 39.8                       | 8.7                                     | 56.5                       | 13.6                                    |                            |   |
| 70     | University District - Seattle CBD                        | 49.5                       | 14.8                                    | 40.0                       | 11.5                                    |                            |   |
| 71     | Wedgwood - University District - Seattle CBD             | 63.9                       | 20.2                                    | 57.4                       | 19.0                                    | 44.2                       | 14.5                                    |
| 72     | Lake City - University District - Seattle CBD            | 63.2                       | 20.4                                    | 64.8                       | 22.5                                    | 43.3                       | 13.9                                    |
| 73     | Jackson Park - University District - Seattle CBD         | 69.1                       | 20.4                                    | 63.3                       | 20.5                                    | 51.2                       | 15.8                                    |
| 74EX   | Sand Point - Seattle CBD                                 | 60.9                       | 17.7                                    |                            |   |                            |   |
| 75     | Northgate TC - Lake City - Seattle CBD                   | 44.7                       | 11.3                                    | 47.8                       | 12.4                                    | 37.7                       | 9.2                                     |
| 76     | Wedgwood - Seattle CBD                                   | 54.8                       | 18.4                                    |                            |   |                            |   |
| 77     | North City - Seattle CBD                                 | 44.8                       | 16.8                                    |                            |   |                            |   |
| 82     | Seattle CBD - Greenwood                                  |                            |   |                            |   | 12.6                       | 4.8                                     |

| Route | Description  | Peak                       |   | Off Peak                   |   | Night                      |   |
|-------|--|----------------------------|---|----------------------------|---|----------------------------|---|
|       |  | Rides/<br>Platform<br>Hour | Passenger<br>Miles/<br>Platform<br>Mile | Rides/<br>Platform<br>Hour | Passenger<br>Miles/<br>Platform<br>Mile | Rides/<br>Platform<br>Hour | Passenger<br>Miles/<br>Platform<br>Mile |
| 83    | Seattle CBD - Ravenna  |                            |   |                            |   | 15.8                       | 7.8                                     |
| 84    | Seattle CBD - Madison Park - Madrona                               |                            |   |                            |   | 8.1                        | 1.3                                     |
| 98    | South Lake Union Street Car  | 83.4                       | 12.7                                    | 52.4                       | 8.9                                     | 24.0                       | 4.0                                     |
| 99    | International District - Waterfront                                | 25.0                       | 6.1                                     |                            |   |                            |   |
| 101   | Renton TC - Seattle CBD  | 42.9                       | 22.9                                    | 52.7                       | 28.1                                    | 35.7                       | 19.4                                    |
| 102   | Fairwood - Renton TC - Seattle CBD                                 | 36.5                       | 20.7                                    |                            |   |                            |   |
| 106   | Renton TC - Rainier Beach - Seattle CBD                            | 38.9                       | 12.1                                    | 38.4                       | 13.7                                    | 23.7                       | 9.2                                     |
| 111   | Lake Kathleen - Seattle CBD  | 25.6                       | 16.4                                    |                            |   |                            |   |
| 113   | Shorewood - Seattle CBD  | 27.9                       | 12.3                                    |                            |   |                            |   |
| 114   | Renton Highlands - Seattle CBD                                     | 22.0                       | 13.0                                    |                            |   |                            |   |
| 116EX | Fauntleroy Ferry - Seattle CBD                                     | 19.7                       | 8.6                                     |                            |   |                            |   |
| 118EX | Tahlequah - Seattle CBD via ferry                                  | 21.0                       | 10.2                                    |                            |   |                            |   |
| 119EX | Dockton - Seattle CBD via ferry                                    | 16.9                       | 9.6                                     |                            |   |                            |   |
| 120   | Burien TC - Westwood Village - Seattle CBD                         | 39.5                       | 17.8                                    | 46.8                       | 21.6                                    | 36.6                       | 17.5                                    |
| 121   | Highline CC - Burien TC - Seattle CBD via 1st Av S                 | 20.4                       | 9.0                                     |                            |   |                            |   |
| 122   | Highline CC - Burien TC - Seattle CBD via Des Moines Memorial Dr S | 22.8                       | 10.9                                    |                            |   |                            |   |
| 123   | Burien - Seattle CBD   | 26.1                       | 16.3                                    |                            |   |                            |   |
| 124   | Tukwila - Georgetown - Seattle CBD                                 | 35.3                       | 12.5                                    | 37.7                       | 15.4                                    | 23.9                       | 10.0                                    |
| 125   | Westwood Village - Seattle CBD                                     | 35.8                       | 14.5                                    | 28.9                       | 12.9                                    | 20.5                       | 8.9                                     |
| 131   | Burien TC - Highland Park - Seattle CBD                            | 40.3                       | 16.8                                    | 32.5                       | 13.1                                    | 23.6                       | 10.6                                    |
| 132   | Burien TC - South Park - Seattle CBD                               | 36.3                       | 14.8                                    | 28.3                       | 12.1                                    | 20.3                       | 8.8                                     |
| 143EX | Black Diamond - Renton TC - Seattle CBD                            | 22.9                       | 14.1                                    |                            |   |                            |   |
| 150   | Kent Station - Southcenter - Seattle CBD                           | 40.0                       | 20.4                                    | 39.8                       | 21.5                                    | 31.2                       | 18.1                                    |
| 152   | Auburn - Seattle CBD   | 16.8                       | 11.4                                    |                            |   |                            |   |
| 157   | Lake Meridian - Seattle CBD  | 16.6                       | 11.3                                    |                            |   |                            |   |
| 158   | Kent East Hill - Seattle CBD                                       | 23.6                       | 16.6                                    |                            |   |                            |   |
| 159   | Timberlane - Seattle CBD   | 20.4                       | 14.0                                    |                            |   |                            |   |
| 161   | Lake Meridian - Seattle CBD  | 18.8                       | 10.7                                    |                            |   |                            |   |
| 167   | Renton - Newport Hills - University District                       | 26.1                       | 21.0                                    |                            |   |                            |   |
| 177   | Federal Way - Seattle CBD  | 23.8                       | 15.1                                    |                            |   |                            |   |
| 178   | South Federal Way - Seattle CBD                                    | 24.0                       | 16.4                                    |                            |   |                            |   |
| 179   | Twin Lakes - Seattle CBD   | 22.7                       | 16.7                                    |                            |   |                            |   |
| 190   | Redondo Heights - Seattle CBD                                      | 22.1                       | 13.6                                    |                            |   |                            |   |
| 192   | Star Lake - Seattle CBD  | 21.4                       | 13.4                                    |                            |   |                            |   |
| 193EX | Federal Way - First Hill   | 24.7                       | 16.2                                    |                            |   |                            |   |
| 197   | Twin Lakes - University District                                   | 22.3                       | 17.9                                    |                            |   |                            |   |
| 202   | South Mercer Island - Seattle CBD                                  | 12.5                       | 4.1                                     |                            |   |                            |   |
| 205EX | South Mercer Island - First Hill - University District             | 19.0                       | 5.5                                     |                            |   |                            |   |
| 210   | Issaquah - Factoria - Seattle CBD                                  | 13.3                       | 5.5                                     |                            |   |                            |   |
| 211EX | Issaquah Highlands - First Hill                                    | 15.4                       | 4.7                                     |                            |   |                            |   |
| 212   | Eastgate - Seattle CBD   | 36.0                       | 18.7                                    |                            |   |                            |   |
| 214   | Issaquah - Seattle CBD   | 24.6                       | 14.9                                    |                            |   |                            |   |
| 215   | North Bend - Seattle CBD   | 23.7                       | 13.8                                    |                            |   |                            |   |
| 216   | Sammamish - Seattle CBD  | 28.3                       | 17.6                                    |                            |   |                            |   |
| 217   | Issaquah - Eastgate - Seattle CBD                                  | 24.5                       | 15.7                                    |                            |   |                            |   |
| 218   | Issaquah Highlands - Seattle CBD                                   | 44.5                       | 24.2                                    |                            |   |                            |   |
| 243   | Jackson Park - Bellevue  | 27.4                       | 10.6                                    |                            |   |                            |   |
| 250   | Overlake - Seattle CBD   | 21.8                       | 11.9                                    |                            |   |                            |   |
| 252   | Kingsgate - Seattle CBD  | 26.9                       | 16.2                                    |                            |   |                            |   |
| 255   | Brickyard - Kirkland TC - Seattle CBD                              | 28.4                       | 14.2                                    | 27.3                       | 13.5                                    | 24.8                       | 13.1                                    |
| 257   | Brickyard - Seattle CBD  | 25.9                       | 16.3                                    |                            |   |                            |   |
| 260   | Finn Hill - Seattle CBD  | 18.6                       | 11.1                                    |                            |   |                            |   |
| 265   | Overlake - Houghton - First Hill                                   | 16.6                       | 9.0                                     |                            |   |                            |   |
| 268   | Redmond - Seattle CBD  | 29.5                       | 18.8                                    |                            |   |                            |   |
| 271   | Issaquah - Bellevue - University District                          | 26.1                       | 10.7                                    | 26.5                       | 11.4                                    | 21.4                       | 9.2                                     |
| 277   | Juanita - University District                                      | 15.9                       | 6.1                                     |                            |   |                            |   |
| 280   | Seattle CBD - Bellevue - Renton                                    |                            |   |                            |   | 16.0                       | 10.9                                    |

| Spring 2013 Thresholds Routes that serve Seattle Core | Peak        |             | Off Peak    |             | Night       |             |
|---|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Bottom 25%</b>                                     | <b>24.0</b> | <b>10.7</b> | <b>32.6</b> | <b>9.8</b>  | <b>21.4</b> | <b>6.3</b>  |
| <b>Top 25%</b>  | <b>47.3</b> | <b>16.6</b> | <b>51.3</b> | <b>15.4</b> | <b>34.9</b> | <b>10.8</b> |

| Route | Description                                      | Peak                       |   | Off Peak                   |   | Night                      |   |
|-------|--|----------------------------|---|----------------------------|---|----------------------------|---|
|       |  | Rides/<br>Platform<br>Hour | Passenger<br>Miles/<br>Platform<br>Mile | Rides/<br>Platform<br>Hour | Passenger<br>Miles/<br>Platform<br>Mile | Rides/<br>Platform<br>Hour | Passenger<br>Miles/<br>Platform<br>Mile |
| 301   | Aurora Village - Seattle CBD                     | 34.5                       | 19.8                                    |                            |   |                            |   |
| 303EX | Shoreline - First Hill                           | 35.0                       | 17.2                                    |                            |   |                            |   |
| 304   | Richmond Beach - Seattle CBD                     | 26.5                       | 14.7                                    |                            |   |                            |   |
| 306EX | Kenmore - Seattle CBD                            | 21.1                       | 12.2                                    |                            |   |                            |   |
| 308   | Horizon View - Seattle CBD                       | 27.5                       | 14.9                                    |                            |   |                            |   |
| 309EX | Kenmore - First Hill                             | 12.5                       | 7.8                                     |                            |   |                            |   |
| 311   | Duvall - Woodinville - Seattle CBD               | 21.7                       | 13.9                                    |                            |   |                            |   |
| 312EX | Bothell - Seattle CBD                            | 36.2                       | 17.6                                    |                            |   |                            |   |
| 316   | Meridian Park - Seattle CBD                      | 57.2                       | 19.4                                    |                            |   |                            |   |
| 355EX | Shoreline CC - University District - Seattle CBD | 33.2                       | 11.3                                    |                            |   |                            |   |
| 358EX | Aurora Village - Seattle CBD                     | 52.3                       | 22.2                                    | 60.7                       | 24.5                                    | 44.6                       | 18.8                                    |
| 372EX | Woodinville - Lake City - University District    | 40.8                       | 13.2                                    | 50.6                       | 15.5                                    | 30.3                       | 6.8                                     |
| 373EX | Aurora Village - University Village              | 32.7                       | 13.0                                    |                            |   |                            |   |
| 601EX | Seattle CBD - Group Health (Tukwila)             | 9.1                        | 3.4                                     |                            |   |                            |   |

Spring 2013 Thresholds Routes that serve Seattle Core

|                   | Peak        |             | Off Peak    |             | Night       |             |
|-------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Bottom 25%</b> | <b>24.0</b> | <b>10.7</b> | <b>32.6</b> | <b>9.8</b>  | <b>21.4</b> | <b>6.3</b>  |
| <b>Top 25%</b>    | <b>47.3</b> | <b>16.6</b> | <b>51.3</b> | <b>15.4</b> | <b>34.9</b> | <b>10.8</b> |

Appendix D:  
Routes with Overcrowding

| Route | Description  | Day      | Trips >1.25 Load Factor | Trips >1.5 Load Factor | Trips with Standing for more than 20 min. | Recommended Action                        |
|-------|--|----------|-------------------------|------------------------|---|---|
| 4     | East Queen Anne - Seattle CBD - Judkins Park         | Weekday  | 2                       |                        |   | Watch - service added in fall 2013        |
| 5EX   | Shoreline CC - Seattle CBD                           | Weekday  | 1                       |                        | 1   | Watch - surrounding trips have capacity   |
| 8     | Seattle Center - Capitol Hill - Rainier Beach        | Weekday  | 2                       |                        |   | Add trip in PM Peak                       |
| 8     | Seattle Center - Capitol Hill - Rainier Beach        | Sunday   | 1                       |                        |   | Add trip in PM Peak                       |
| 9EX   | Rainier Beach - Capitol Hill                         | Weekday  | 2                       |                        |   | Add trip in PM Peak                       |
| 11    | Madison Park - Seattle CBD                           | Weekday  | 2                       |                        |   | Add trip in AM Peak                       |
| 15EX  | Blue Ridge - Ballard - Seattle CBD                   | Weekday  | 2                       |                        | 1   | Add trip in PM Peak                       |
| 16    | Northgate TC - Wallingford - Seattle CBD             | Weekday  | 3                       |                        |   | Watch - Larger coaches have been assigned |
| 17EX  | Sunset Hill - Ballard - Seattle CBD                  | Weekday  |                         |                        | 2   | Add trip in PM and edge of PM Peak        |
| 18EX  | North Beach - Ballard - Seattle CBD                  | Weekday  |                         |                        | 1   | Watch - surrounding trips have capacity   |
| 26    | East Green Lake - Wallingford - Seattle CBD          | Weekday  |                         | 1                      |   | Add trip in AM Peak                       |
| 28EX  | Broadview - Ballard - Seattle CBD via Leary Av NW    | Weekday  | 2                       |                        | 1   | Add trip in AM Peak & watch PM Peak trips |
| 32    | University District - Fremont - Seattle Center       | Weekday  | 1                       |                        |   | Assign larger coach                       |
| 40    | Northgate TC - Ballard - Seattle CBD via Leary Av NW | Weekday  | 3                       |                        | 3   | Add trip in PM Peak                       |
| 41    | Lake City - Seattle CBD via Northgate                | Weekday  | 2                       |                        |   | Watch - surrounding trips have capacity   |
| 44    | Ballard - Wallingford - Montlake                     | Weekday  | 4                       |                        |   | Watch - surrounding trips have capacity   |
| 66EX  | Northgate TC - Eastlake - Seattle CBD                | Weekday  | 3                       |                        |   | Add trip in AM and PM Peak                |
| 67    | Northgate TC - University District                   | Weekday  | 5                       |                        |   | Add trip in AM Peak & assign larger coach |
| 68    | Northgate TC - Ravenna - University District         | Weekday  | 7                       |                        | 1   | Add trip in AM Peak & assign larger coach |
| 70    | University District - Seattle CBD                    | Weekday  | 2                       |                        |   | Assign larger coach                       |
| 71    | Wedgwood - University District - Seattle CBD         | Weekday  |                         |                        | 1   | Add trip in AM Peak                       |
| 71    | Wedgwood - University District - Seattle CBD         | Saturday | 2                       |                        |   | Watch - surrounding trips have capacity   |

| Route  | Description                                       | Day      | Trips >1.25 Load Factor | Trips >1.5 Load Factor | Trips with Standing for more than 20 min. | Recommended Action                            |
|--------|---|----------|-------------------------|------------------------|---|---|
| 72     | Lake City - University District - Seattle CBD     | Sunday   | 2                       |                        |   | Watch - surrounding trips have capacity       |
| 73     | Jackson Park - University District - Seattle CBD  | Weekday  | 2                       |                        | 2   | Add trip in PM Peak                           |
| 73     | Jackson Park - University District - Seattle CBD  | Saturday | 2                       |                        |   | Watch - surrounding trips have capacity       |
| 73     | Jackson Park - University District - Seattle CBD  | Sunday   | 1                       |                        |   | Watch - surrounding trips have capacity       |
| 74EX   | Sand Point - Seattle CBD                          | Weekday  |                         |                        | 1   | Add trip in PM Peak                           |
| 75     | Northgate TC - Lake City - Seattle CBD            | Weekday  | 2                       |                        |   | Add trip in PM Peak                           |
| 101    | Renton TC - Seattle CBD                           | Weekday  | 1                       |                        | 2   | Add trip in AM Peak                           |
| 128    | Southcenter - Westwood Village - Admiral District | Weekday  | 1                       |                        |   | Add trip to edge of PM Peak                   |
| 131    | Burien TC - Highland Park - Seattle CBD           | Weekday  | 1                       |                        |   | Add trip in PM Peak                           |
| 132    | Burien TC - South Park - Seattle CBD              | Weekday  | 1                       |                        |   | Add trip in PM Peak                           |
| 143EX  | Black Diamond - Renton TC - Seattle CBD           | Weekday  |                         |                        | 3   | Add trip in AM and PM Peak                    |
| 159    | Timberlane - Seattle CBD                          | Weekday  |                         |                        | 1   | Watch - surrounding trips have capacity       |
| 164    | Green River CC - Kent Station                     | Weekday  | 1                       |                        |   | Add trip in midday                            |
| 179    | Twin Lakes - Seattle CBD                          | Weekday  |                         |                        | 1   | Add trip in AM Peak                           |
| 193EX  | Federal Way - First Hill                          | Weekday  |                         |                        | 1   | Watch - surrounding trips have capacity       |
| 197    | Twin Lakes - University District                  | Weekday  |                         |                        | 1   | Watch - surrounding trips have capacity       |
| 218    | Issaquah Highlands - Seattle CBD                  | Weekday  | 2                       |                        | 7   | Watch - fall 2013 I-90 service restructure    |
| 240    | Bellevue - Newcastle - Renton                     | Weekday  | 2                       |                        |   | Add trip in AM Peak & trip to edge of PM Peak |
| 252    | Kingsgate - Seattle CBD                           | Weekday  |                         |                        | 1   | Watch - surrounding trips have capacity       |
| 303EX  | Shoreline - First Hill                            | Weekday  | 1                       |                        |   | Add trip in PM Peak                           |
| 346    | Aurora Village - Northgate                        | Weekday  | 1                       |                        |   | Add trip in AM Peak                           |
| 372EX  | Woodinville - Lake City - University District     | Weekday  | 2                       |                        |   | Add trip in AM Peak                           |
| D Line | Ballard - Seattle Center - Seattle CBD            | Weekday  |                         |                        | 1   | Add trip in PM peak                           |

Appendix E:  
Routes with Poor Reliability

"-" indicates that it meets the guideline

| Route | Description  | All-Day % Late | PM % Late | Saturday % Late | Sunday % Late | Action Taken   |
|-------|--|----------------|-----------|-----------------|---------------|--|
| 1     | Kinnear - Seattle CBD                                    | -              | -         | 24%             | 24%           | Service investment - 100 hours                       |
| 2     | West Queen Anne - Seattle CBD - Madrona Park             | -              | -         | 24%             | -             | No action at this time. Investment in September 2013 |
| 4     | East Queen Anne - Seattle CBD - Judkins Park             | -              | -         | 24%             | -             | Service investment - 100 hours                       |
| 7     | Rainier Beach - Seattle CBD                              | -              | -         | 20%             | -             | Service investment - 50 hours                        |
| 8     | Seattle Center - Capitol Hill - Rainier Beach            | 27%            | 42%       | 23%             | 20%           | Service investment - 2050 hours                      |
| 10    | Capitol Hill - Seattle CBD                               | -              | -         | 22%             | -             | Service investment- 50 hours                         |
| 11    | Madison Park - Seattle CBD                               | 23%            | -         | 22%             | 22%           | Service investment - 350 hours                       |
| 14    | Mount Baker - Seattle CBD                                | 24%            | -         | -               | 23%           | Service investment- 350 hours                        |
| 16    | Northgate TC - Wallingford - Seattle CBD                 | 24%            | 40%       | 24%             | 29%           | Service investment - 1300 hours                      |
| 17EX  | Sunset Hill - Ballard - Seattle CBD                      | 31%            | 47%       | -               | -             | Service investment - 250 hours                       |
| 18EX  | North Beach - Ballard - Seattle CBD                      | 20%            | -         | -               | -             | Service investment - 250 hours                       |
| 21EX  | Arbor Heights - Westwood Village - Seattle CBD           | 26%            | 41%       | -               | -             | Service investment - 400 hours                       |
| 21    | Arbor Heights - Westwood Village - Seattle CBD           | -              | -         | 20%             | -             | Service investment - 50 hours                        |
| 24    | Magnolia - Seattle CBD                                   | 28%            | -         | 24%             | -             | Service investment - 700 hours                       |
| 25    | Laurelhurst - University District - Seattle CBD          | 26%            | 45%       | -               | -             | Service investment - 250 hours                       |
| 26    | East Green Lake - Wallingford - Seattle CBD              | 21%            | -         | 27%             | -             | Service investment - 350 hours                       |
| 27    | Colman Park - Leschi Park - Seattle CBD                  | 21%            | -         | 34%             | 30%           | Service investment - 450 hours                       |
| 28EX  | Broadview - Ballard - Seattle CBD via Leary Av NW        | 20%            | -         | -               | -             | Service investment - 250 hours                       |
| 28    | Whittier Heights - Ballard - Seattle CBD via Leary Av NW | 26%            | -         | 25%             | -             | Service investment - 600 hours                       |
| 29    | Ballard - Queen Anne - Seattle CBD                       | 26%            | 39%       | -               | -             | Service investment - 500 hours                       |
| 31    | University District - Fremont - Magnolia                 | 24%            | -         | -               | -             | Service investment - 300 hours                       |
| 32    | University District - Fremont - Seattle Center           | 21%            | -         | -               | -             | Service investment - 250 hours                       |
| 33    | Discovery Park - Seattle CBD                             | -              | 36%       | 28%             | 25%           | Service investment - 400 hours                       |

| Route | Description  | All-Day % Late | PM % Late | Saturday % Late | Sunday % Late | Action Taken  |
|-------|--|----------------|-----------|-----------------|---------------|---|
| 40    | Northgate TC - Ballard - Seattle CBD via Leary Av NW         | -              | -         | 25%             | 30%           | Service investment - 500 hours                            |
| 41    | Lake City - Seattle CBD via Northgate                        | 22%            | 39%       | -               | -             | Service investment - 1400 hours                           |
| 48    | Mt Baker - University District - Loyal Heights               | -              | -         | 24%             | 24%           | Service investment - 300 hours                            |
| 55    | Admiral District - Alaska Junction - Seattle CBD             | 28%            | 47%       | -               | -             | Service investment - 400 hours                            |
| 56EX  | Alki - Seattle CBD   | 28%            | 53%       | -               | -             | Service investment - 400 hours                            |
| 57    | Alaska Junction - Seattle CBD                                | 37%            | 67%       | -               | -             | Service investment - 300 hours                            |
| 60    | Westwood Village - Georgetown - Capitol Hill                 | -              | -         | 23%             | -             | Service investment - 100 hours                            |
| 66EX  | Northgate TC - Eastlake - Seattle CBD                        | 25%            | -         | -               | -             | No action at this time. Investment in September 2013      |
| 71    | Wedgwood - University District - Seattle CBD via I-5         | 26%            | -         | 23%             | -             | Service investment - 450 hours                            |
| 71    | Wedgwood - University District - Seattle CBD via Eastlake E  | 31%            | -         | -               | -             | Service investment - 400 hours                            |
| 72    | Lake City - University District - Seattle CBD via I-5        | 25%            | 37%       | 27%             | -             | Service investment - 500 hours                            |
| 72    | Lake City - University District - Seattle CBD via Eastlake E | -              | -         | 21%             | -             | Service investment - 50 hours                             |
| 73    | Jackson Park - University District - Seattle CBD             | 21%            | 42%       | 22%             | -             | Service investment - 650 hours                            |
| 74EX  | Sand Point - Seattle CBD                                     | 29%            | 57%       | -               | -             | Service investment - 600 hours                            |
| 76    | Wedgwood - Seattle CBD                                       | 21%            | 36%       | -               | -             | Service investment - 250 hours                            |
| 77    | North City - Seattle CBD                                     | 21%            | 40%       | -               | -             | Service investment - 300 hours                            |
| 101   | Renton TC - Seattle CBD                                      | -              | -         | 26%             | 22%           | Service investment - 150 hours                            |
| 114   | Renton Highlands - Seattle CBD                               | 29%            | -         | -               | -             | Service investment - 250 hours                            |
| 119EX | Dockton - Seattle CBD via ferry                              | 30%            | -         | -               | -             | Service investment - 250 hours                            |
| 120   | Burien TC - Westwood Village - Seattle CBD                   | -              | -         | 23%             | 21%           | Service investment - 150 hours                            |
| 124   | Tukwila - Georgetown - Seattle CBD                           | 30%            | 39%       | 33%             | 22%           | Service investment - 1450 hours                           |
| 128   | Southcenter - Westwood Village - Admiral District            | 23%            | -         | -               | -             | Service investment - 500 hours                            |
| 131   | Burien TC - Highland Park - Seattle CBD                      | 31%            | -         | 31%             | -             | Service investment - 1300 hours                           |
| 132   | Burien TC - South Park - Seattle CBD                         | 20%            | -         | 26%             | -             | Service investment - 350 hours                            |
| 143EX | Black Diamond - Renton TC - Seattle CBD                      | 24%            | -         | -               | -             | Service investment - 250 hours                            |
| 155   | Fairwood - Southcenter                                       | -              | -         | 27%             | -             | No action at this time. Changed to DART in September 2013 |

| Route | Description                           | All-Day % Late | PM % Late | Saturday % Late | Sunday % Late | Action Taken   |
|-------|---------------------------------------|----------------|-----------|-----------------|---------------|--|
| 157   | Lake Meridian - Seattle CBD           | 22%            | -         | -               | -             | Service investment - 250 hours                       |
| 166   | Kent Station - Burien TC              | 21%            | -         | -               | -             | Service investment - 250 hours                       |
| 169   | Kent Station - East Hill - Renton TC  | 22%            | 36%       | -               | -             | Service investment - 400 hours                       |
| 173   | Federal Way TC - Federal Center South | 20%            | -         | -               | -             | Service investment - 250 hours                       |
| 177   | Federal Way - Seattle CBD             | 22%            | -         | -               | -             | Service investment - 250 hours                       |
| 178   | South Federal Way - Seattle CBD       | 38%            | 41%       | -               | -             | Service investment - 700 hours                       |
| 179   | Twin Lakes - Seattle CBD              | 26%            | -         | -               | -             | Service investment - 250 hours                       |
| 181   | Twin Lakes P&R - Green River CC       | 24%            | -         | -               | -             | No action at this time. Investment in September 2013 |
| 182   | NE Tacoma - Federal Way TC            | -              | -         | 22%             | -             | Service investment - 50 hours                        |
| 190   | Redondo Heights - Seattle CBD         | 23%            | -         | -               | -             | Service investment - 250 hours                       |
| 202   | South Mercer Island - Seattle CBD     | 26%            | 42%       | -               | -             | Service investment - 300 hours                       |
| 221   | Education Hill - Overlake - Eastgate  | 23%            | 42%       | 23%             | -             | Service investment - 650 hours                       |
| 224   | Fall City - Duvall - Redmond TC       | 39%            | 46%       | -               | -             | No action at this time. Revised in September 2013    |
| 232   | Duvall - Bellevue                     | 21%            | -         | -               | -             | Service investment - 250 hours                       |
| 237   | Woodinville - Bellevue                | 30%            | 39%       | -               | -             | Service investment - 250 hours                       |
| 241   | Eastgate - Factoria - Bellevue        | -              | 38%       | -               | -             | Service investment - 300 hours                       |
| 242   | North City - Overlake                 | 20%            | -         | -               | -             | Service investment - 250 hours                       |
| 243   | Jackson Park - Bellevue               | 21%            | 40%       | -               | -             | Service investment - 250 hours                       |
| 245   | Kirkland - Overlake - Factoria        | -              | -         | 22%             | -             | Service investment - 50 hours                        |
| 246   | Eastgate - Factoria - Bellevue        | -              | 36%       | -               | -             | No action at this time. Reduced in September 2013    |
| 257   | Brickyard - Seattle CBD               | 22%            | -         | -               | -             | Service investment - 250 hours                       |
| 277   | Juanita - University District         | 21%            | -         | -               | -             | Service investment - 250 hours                       |
| 280   | Seattle CBD - Bellevue - Renton       | -              | -         | 25%             | -             | Service investment - 50 hours                        |
| 311   | Duvall - Woodinville - Seattle CBD    | 30%            | -         | -               | -             | No action at this time. Revised in September 2013    |
| 316   | Meridian Park - Seattle CBD           | 23%            | -         | -               | -             | Service investment - 250 hours                       |

| Route | Description                                      | All-Day % Late | PM % Late | Saturday % Late | Sunday % Late | Action Taken  |
|-------|--|----------------|-----------|-----------------|---------------|---|
| 330   | Shoreline CC - Lake City                         | 21%            | -         | -               | -             | No action at this time. Added service in September 2013 |
| 355EX | Shoreline CC - University District - Seattle CBD | 27%            | 46%       | -               | -             | Service investment - 500 hours                          |
| 358EX | Aurora Village - Seattle CBD                     | -              | -         | 24%             | 22%           | No action at this time. Investment in September 2013    |
| 372EX | Woodinville - Lake City - University District    | 24%            | -         | -               | -             | Service investment - 600 hours                          |
| 601EX | Seattle CBD - Group Health (Tukwila)             | 43%            | -         | -               | -             | Service investment - 250 hours                          |

Appendix F:  
Peak Route Analysis Results

| Route | Description   | Alternative Route(s)*         | Ridership             | Travel Time                    |
|-------|---|-------------------------------|-----------------------|--------------------------------|
|       |   |                               | >= 90% of alternative | >= 20% faster than alternative |
| 5EX   | Shoreline CC - Seattle CBD  | 5                             | No                    | No                             |
| 7EX   | Rainier Beach - Seattle CBD                                       | 7                             | No                    | Yes                            |
| 15EX  | Blue Ridge - Ballard - Seattle CBD                                | D Line                        | Yes                   | Yes                            |
| 17EX  | Sunset Hill - Ballard - Seattle CBD                               | 61 to D Line                  | Yes                   | Yes                            |
| 18EX  | North Beach - Ballard - Seattle CBD                               | 40 to D Line                  | Yes                   | No                             |
| 19    | West Magnolia - Seattle CBD                                       | 24                            | No                    | Yes                            |
| 21EX  | Arbor Heights - Westwood Village - Seattle CBD                    | 21                            | Yes                   | Yes                            |
| 26EX  | East Green Lake - Wallingford - Seattle CBD                       | 26                            | Yes                   | No                             |
| 28EX  | Broadview - Ballard - Seattle CBD via Leary Av NW                 | 28                            | Yes                   | Yes                            |
| 29    | Ballard - Queen Anne - Seattle CBD                                | 2                             | Yes                   | Yes                            |
| 37    | Alaska Junction - Alki - Seattle CBD                              | None                          | Yes                   | Yes                            |
| 48EX  | Mt Baker - University District - Loyal Heights                    | 48                            | Yes                   | No                             |
| 55    | Admiral District - Alaska Junction - Seattle CBD                  | 50/128 to 673                 | No                    | No                             |
| 56EX  | Alki - Seattle CBD  | 50 to C Line                  | No                    | Yes                            |
| 57    | Alaska Junction - Seattle CBD                                     | 56                            | Yes                   | No                             |
| 62    | Ballard - Seattle Pacific University - Seattle CBD                | 40                            | No                    | No                             |
| 64EX  | Lake City - First Hill  | 76 to 3/4                     | No                    | Yes                            |
| 74EX  | Sand Point - Seattle CBD  | 30 to 71/72/73                | No                    | No                             |
| 76    | Wedgwood - Seattle CBD  | 71                            | No                    | No                             |
| 77    | North City - Seattle CBD  | 73                            | No                    | Yes                            |
| 102   | Fairwood - Renton TC - Seattle CBD                                | 148 to 101                    | Yes                   | No                             |
| 110   | Tukwila Station - North Renton                                    | 140 to 240/560/566            | No                    | Yes                            |
| 111   | Lake Kathleen - Seattle CBD                                       | None                          | Yes                   | Yes                            |
| 113   | Shorewood - Seattle CBD   | None                          | Yes                   | Yes                            |
| 114   | Renton Highlands - Seattle CBD                                    | 240 to 212                    | Yes                   | Yes                            |
| 116EX | Fauntleroy Ferry - Seattle CBD                                    | C Line to 21                  | No                    | Yes                            |
| 118EX | Tahlequah - Seattle CBD via ferry                                 | 118 to 116EX                  | Yes                   | Yes                            |
| 119EX | Dockton - Seattle CBD via ferry                                   | 119 to 116EX                  | Yes                   | Yes                            |
| 121   | Highline CC -Burien TC - Seattle CBD via 1st Av S                 | 166 to 120                    | No                    | Yes                            |
| 122   | Highline CC -Burien TC - Seattle CBD via Des Moines Memorial Dr S | 156 to Link                   | Yes                   | Yes                            |
| 123   | Burien - Seattle CBD  | 139 to 121/122                | No                    | No                             |
| 143EX | Black Diamond - Renton TC - Seattle CBD                           | None                          | Yes                   | Yes                            |
| 152   | Auburn - Seattle CBD  | None                          | No                    | Yes                            |
| 153   | Kent Station - Renton TC  | Included in corridor analysis |                       |                                |
| 154   | Tukwila Station - Boeing Industrial                               | 140 to 124                    | No                    | Yes                            |
| 157   | Lake Meridian - Seattle CBD                                       | None                          | Yes                   | Yes                            |
| 158   | Kent East Hill - Seattle CBD                                      | None                          | Yes                   | Yes                            |

| Route | Description  | Alternative Route(s)*             | Ridership             | Travel Time                    |
|-------|--|-----------------------------------|-----------------------|--------------------------------|
|       |  |                                   | >= 90% of alternative | >= 20% faster than alternative |
| 159   | Timberlane - Seattle CBD                               | 164/168 to Sounder                | No                    | No                             |
| 161   | Lake Meridian - Seattle CBD                            | 169 to 101/150                    | No                    | Yes                            |
| 167   | Renton - Newport Hills - University District           | 560 to 271                        | Yes                   | Yes                            |
| 173   | Federal Way TC - Federal Center South                  | A to 124                          | No                    | Yes                            |
| 177   | Federal Way - Seattle CBD                              | 577                               | No                    | No                             |
| 178   | South Federal Way - Seattle CBD                        | 182 to 577                        | No                    | No                             |
| 179   | Twin Lakes - Seattle CBD                               | 181 to 577                        | No                    | No                             |
| 190   | Redondo Heights - Seattle CBD                          | 574 to Link                       | Yes                   | Yes                            |
| 192   | Star Lake - Seattle CBD                                | 574 to Link                       | Yes                   | Yes                            |
| 193EX | Federal Way - First Hill                               | None                              | Yes                   | Yes                            |
| 197   | Twin Lakes - University District                       | 181 to 577 to 71,72,73            | No                    | Yes                            |
| 201   | South Mercer Island - Mercer Island P&R via Mercer Wy  | None                              | Yes                   | Yes                            |
| 202   | South Mercer Island - Seattle CBD                      | 205 to 550                        | No                    | No                             |
| 205EX | South Mercer Island - First Hill - University District | 202 to 71/72/73                   | No                    | No                             |
| 210   | Issaquah - Factoria - Seattle CBD                      | 241 to 550                        | No                    | Yes                            |
| 211EX | Issaquah Highlands - First Hill                        | 210/212/550/554 to 3              | No                    | No                             |
| 212   | Eastgate - Seattle CBD                                 | 554                               | No                    | No                             |
| 214   | Issaquah - Seattle CBD                                 | 554                               | No                    | No                             |
| 215   | North Bend - Seattle CBD                               | 209 to 214                        | Yes                   | No                             |
| 216   | Sammamish - Seattle CBD                                | 269 to 218                        | No                    | No                             |
| 217   | Issaquah - Eastgate - Seattle CBD                      | 554 to 200/269/972                | No                    | Yes                            |
| 218   | Issaquah Highlands - Seattle CBD                       | 554                               | Yes                   | Yes                            |
| 232   | Duvall - Bellevue                                      | 248 to 545                        | No                    | Yes                            |
| 237   | Woodinville - Bellevue                                 | 311 to 532/535                    | No                    | Yes                            |
| 242   | North City - Overlake                                  | 540                               | Yes                   | Yes                            |
| 243   | Jackson Park - Bellevue                                | 372 to 271                        | No                    | Yes                            |
| 244EX | Kenmore - Overlake                                     | None                              | No                    | Yes                            |
| 250   | Overlake - Seattle CBD                                 | 249 to 545                        | No                    | No                             |
| 252   | Kingsgate - Seattle CBD                                | 255                               | Yes                   | Yes                            |
| 257   | Brickyard - Seattle CBD                                | 238 to 255                        | Yes                   | Yes                            |
| 260   | Finn Hill - Seattle CBD                                | 234 to 255                        | No                    | No                             |
| 265   | Overlake - Houghton - First Hill                       | 245 to 255/260                    | No                    | Yes                            |
| 268   | Redmond - Seattle CBD                                  | 545                               | No                    | Yes                            |
| 269   | Issaquah - Overlake                                    | Included in corridor analysis     |                       |                                |
| 277   | Juanita - University District                          | 235 to 540                        | Yes                   | Yes                            |
| 301   | Aurora Village - Seattle CBD                           | 358                               | No                    | Yes                            |
| 303EX | Shoreline - First Hill                                 | None                              | Yes                   | Yes                            |
| 304   | Richmond Beach - Seattle CBD                           | 348 to 301, 345 to 41, 358, 316   | No                    | Yes                            |
| 306EX | Kenmore - Seattle CBD                                  | 522                               | No                    | No                             |
| 308   | Horizon View - Seattle CBD                             | 331 to 306/312, 306, 312, 522, 77 | No                    | No                             |

| Route   | Description                                      | Alternative Route(s)*         | Ridership             | Travel Time                    |
|---------|--|-------------------------------|-----------------------|--------------------------------|
|         |  |                               | >= 90% of alternative | >= 20% faster than alternative |
| 309EX   | Kenmore - First Hill                             | 312 to 3                      | No                    | Yes                            |
| 311     | Duvall - Woodinville - Seattle CBD               | 232 to 545/522                | Yes                   | Yes                            |
| 312EX   | Bothell - Seattle CBD                            | 522                           | Yes                   | No                             |
| 316     | Meridian Park - Seattle CBD                      | 16                            | Yes                   | Yes                            |
| 330     | Shoreline CC - Lake City                         | Included in corridor analysis |                       |                                |
| 342     | Shoreline - Bellevue TC - Renton                 | None                          | No                    | Yes                            |
| 355EX   | Shoreline CC - University District - Seattle CBD | 5                             | No                    | No                             |
| 373EX   | Included in corridor analysis                    |                               |                       |                                |
| 601EX   | Seattle CBD - Group Health (Tukwila)             | None                          | Yes                   | Yes                            |
| 913DART | Kent Station - Riverview                         | None                          | Yes                   | Yes                            |
| 930DART | Kingsgate - Redmond                              | Included in corridor analysis |                       |                                |

\* Alternative routes must serve at least 50% of riders on the peak-only route.

## Appendix G: 2013 Corridor Changes

Seventeen corridors had changes between 2012 and 2013. These changes were made to ensure that the corridor analysis most accurately reflects the pathways served by Metro. Seven corridors were revised to accurately reflect the network that was restructured around the C and D Lines. One corridor was removed as two preexisting corridors cover the pathway. Six corridors were revised to provide better connections to activity centers. Three pathways were revised in their routings, but not activity center endpoints. These adjustments affect 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 2012 | Major Route in 2013 |
|----------|--|---------------------|---------------------|
| 2        | No longer connects to downtown Seattle; Revised to connect to SODO activity center | 56                  | 50                  |
| 10       | Revised to reflect RapidRide alignment   | 15/18               | D                   |
| 12       | Revised to end at Ballard activity center; Revised pathway                         | 17                  | 40                  |
| 17       | Revised pathway in White Center area to connect to Westwood Village                | 120                 | 120                 |
| 18       | Revised pathway in south Seattle and SODO  | 131                 | 131                 |
| 19       | Revised pathway in SODO  | 132                 | 132                 |
| 20       | Extended to Westwood Village activity center                                       | 60                  | 60                  |
| 39       | Revised to end at Westwood Village activity center                                 | 21                  | 21                  |
| 71       | No longer connects to downtown Seattle; Revised to connect to SODO activity center | 39                  | 50                  |
| 80       | Revised pathway in Redmond   | 221                 | 221                 |
| 90       | Revised pathway in Richmond Beach  | 348                 | 348                 |
| 99       | Revised pathway in SODO  | 124                 | 124                 |
| 100      | Extended to Highline Community College activity center                             | 156                 | 156                 |
| 107      | Revised pathway in U District  | 25                  | 25                  |
| 111      | Revised to reflect RapidRide alignment   | 54                  | C                   |
| 112      | Extended to Westwood Village activity center                                       | 125                 | 125                 |
| 113      | Deleted - Corridors 18 and 20 cover this previous corridor                         | 23                  | n/a                 |

Appendix H:  
Corridors that Changed Target Service Level from 2012 to 2013

| Corridor Number | Between               | And             | Major Route | 2012 Service Level | 2013 Service Level | Reasons for Change (Simplified)   |
|-----------------|-----------------------|-----------------|-------------|--------------------|--------------------|---|
| 1               | Admiral District      | Tukwila         | 128         | Local              | Very Frequent      | Higher demand   |
| 9               | Ballard               | Northgate       | 40          | Local              | Very Frequent      | Land use threshold changes; higher demand; corridor modified                                |
| 12              | Ballard               | Seattle CBD     | 40          | Frequent           | Very Frequent      | Land use threshold changes; higher demand   |
| 14              | Bellevue              | Eastgate        | 271         | Frequent           | Very Frequent      | More jobs; Land use threshold changes   |
| 16              | Bellevue              | Renton          | 240         | Local              | Frequent           | Land use threshold changes  |
| 18              | Burien                | Seattle CBD     | 131         | Frequent           | Very Frequent      | More jobs; Land use threshold changes   |
| 27              | Eastgate              | Bellevue        | 241         | Hourly             | Frequent           | More jobs; Land use threshold changes; Higher percentage of boardings in low-income areas   |
| 28              | Eastgate              | Bellevue        | 246         | Hourly             | Local              | More jobs; Land use threshold changes   |
| 37              | Green River CC        | Kent            | 164         | Frequent           | Very Frequent      | Higher demand   |
| 39              | Westwood Village      | Seattle CBD     | 21          | Local              | Very Frequent      | Land use threshold changes; Higher percentage of boardings in low-income and minority areas |
| 45              | Kenmore               | U. District     | 372EX       | Frequent           | Very Frequent      | More households and jobs  |
| 49              | Kent                  | Maple Valley    | 168         | Local              | Frequent           | Land use threshold changes  |
| 50              | Kent                  | Renton          | 169         | Local              | Frequent           | Land use threshold changes; Higher percentage of boardings in low-income areas              |
| 53              | Kirkland              | Bellevue        | 234/235     | Frequent           | Very Frequent      | More households; Land use threshold changes   |
| 54              | Kirkland              | Factoria        | 245         | Frequent           | Very Frequent      | Land use threshold changes  |
| 58              | Laurelhurst           | U. District     | 25          | Hourly             | Local              | More households; Land use threshold changes   |
| 62              | Mercer Island         | S Mercer Island | 204         | Hourly             | Local              | Higher demand   |
| 64              | Mount Baker Station   | Seattle CBD     | 145         | Frequent           | Very Frequent      | More households; Land use threshold changes   |
| 65              | Mountlake Terrace     | Northgate       | 347         | Frequent           | Local              | Higher demand   |
| 71              | Othello Station       | SODO            | 50          | Local              | Frequent           | Higher demand   |
| 72              | Overlake P&R          | Bellevue        | 226         | Local              | Very Frequent      | Land use threshold changes  |
| 73              | Overlake              | Bellevue        | 249         | Hourly             | Local              | Land use threshold changes  |
| 79              | Rainier Beach Station | Capitol Hill    | 9EX         | Frequent           | Very Frequent      | More households; Land use threshold changes; Activity center connection                     |

| Corridor Number | Between           | And         | Major Route | 2012 Service Level | 2013 Service Level | Reasons for Change (Simplified)                        |
|-----------------|-------------------|-------------|-------------|--------------------|--------------------|--|
| 80              | Redmond           | Eastgate    | 221         | Hourly             | Local              | Land use threshold changes; Activity center connection |
| 81              | Redmond           | Totem Lake  | 930DART     | Local              | Frequent           | Land use threshold changes                             |
| 86              | Renton            | Seattle CBD | 106         | Frequent           | Very Frequent      | Land use threshold changes                             |
| 92              | Sand Point        | U. District | 30          | Local              | Frequent           | More households; Land use threshold change             |
| 94              | Shoreline CC      | Northgate   | 345         | Frequent           | Very Frequent      | Land use threshold changes                             |
| 95              | Shoreline CC      | Lake City   | 330         | Hourly             | Local              | Land use threshold changes                             |
| 96              | Shoreline CC      | Greenwood   | 5           | Local              | Frequent           | Higher demand  |
| 99              | Tukwila           | Seattle CBD | 124         | Frequent           | Very Frequent      | Land use threshold changes                             |
| 107             | U. District       | Seattle CBD | 25          | Local              | Frequent           | More households and jobs                               |
| 109             | Bothell (UWB/CCC) | Kirkland    | 238         | Hourly             | Local              | Land use threshold changes                             |

## Appendix I: 2013 Service Changes

| Month    | Route   | Description of Change  | Type                       |
|----------|---------|--|----------------------------|
| February | C Line  | Added two morning and two afternoon trips and adjusted schedules.  | Added trips                |
| February | 21      | Revised southbound afternoon and evening trips to serve Arbor Heights before ending at Westwood Village.               | Revised routing            |
| February | 22      | Extended span of service to Arbor Heights by one hour.   | Added trips                |
| February | 24      | Extended span of service by one hour.  | Added trips                |
| February | 41      | Revised pathways during emergency tunnel closures and when the DSTT is closed.   | Revised routing            |
| February | 42      | Deleted route.   | Deleted route              |
| February | 55      | Added two morning and two afternoon trips and adjusted schedules.  | Added trips                |
| February | 71      | Revised pathways during emergency tunnel closures and when the DSTT is closed.   | Revised routing            |
| February | 71/71EX | Converted the local trip departing from IDS at 6:49 p.m. to an express trip.   | Added trips; reduced trips |
| February | 72      | Revised pathways during emergency tunnel closures and when the DSTT is closed.   | Revised routing            |
| February | 73      | Revised pathways during emergency tunnel closures and when the DSTT is closed.   | Revised routing            |
| February | 74      | Revised pathways during emergency tunnel closures and when the DSTT is closed.   | Revised routing            |
| February | 76      | Revised pathways during emergency tunnel closures and when the DSTT is closed.   | Revised routing            |
| February | 77      | Revised pathways during emergency tunnel closures and when the DSTT is closed.   | Revised routing            |
| February | 82      | Shifted outbound service to operate along 3rd Avenue.  | Revised routing            |
| February | 106     | Revised SODO/Georgetown service to return back to normal routing with the completion of the Airport Way S/Argo Bridge. | Revised routing            |
| February | 120     | Added two morning and two afternoon trips and adjusted schedules.  | Added trips                |
| February | 124     | Revised SODO/Georgetown service to return back to normal routing with the completion of the Airport Way S/Argo Bridge. | Revised routing            |
| February | 140     | Revised routing on last evening trips.   | Revised routing            |
| February | 152     | Revised routing to use the SODO Busway between S Lander Street and S Spokane Street.                                   | Revised routing            |
| February | 212     | Modified the PM inbound routing to use Virginia Street instead of Olive Way.   | Revised routing            |
| February | 216     | Deleted service at Eastgate Freeway Station in the afternoon.  | Revised routing            |
| February | 217     | Modified the PM inbound routing to use Virginia Street instead of Olive Way.   | Revised routing            |
| February | 316     | Revised pathways during emergency tunnel closures and when the DSTT is closed.   | Revised routing            |
| February | 913DART | Revised to operate one-way counter-clockwise loop to/from S 240th Street.  | Revised routing            |
| June     | C Line  | Added one early morning trip connecting to Route 560 at Westwood Village.  | Added trips                |
| June     | C Line  | Revised headway of AM Peak inbound trips.  | Revised schedule           |

| Month     | Route   | Description of Change   | Type                       |
|-----------|---------|---|----------------------------|
| June      | D Line  | Revised headway of AM Peak inbound trips.   | Revised schedule           |
| June      | 7       | Revised staging location for night owl operations.  | Revised routing            |
| June      | 36      | Revised staging location and first stop for night owl operations.   | Revised routing            |
| June      | 49      | Revised staging location and first stop for night owl operations.   | Revised routing            |
| June      | 56/57   | Provided an earlier afternoon trip to the Genesee Hill neighborhood from downtown Seattle by converting the Route 56 3:28 p.m. trip to a Route 57 trip. | Added trips/Reduced trips  |
| June      | 82      | Revised staging location and first stop for night owl operations.   | Revised routing            |
| June      | 83      | Revised staging location and first stop for night owl operations.   | Revised routing            |
| June      | 84      | Revised staging location and first stop for night owl operations.   | Revised routing            |
| June      | 120     | Revised staging location and first stop for night owl operations.   | Revised routing            |
| June      | 124     | Revised staging location and first stop for night owl operations.   | Revised routing            |
| June      | 240     | Deleted 12 weekday trips that were funded by an expiring Regional Mobility Grant.   | Reduced trips              |
| June      | 280     | Revised staging location and first stop for night owl operations.   | Revised routing            |
| September | 2       | Adjusted schedule to improve reliability  | Adjusted schedule          |
| September | 3       | Added 1 AM outbound trip.   | Added trips                |
| September | 4       | Added 1 Early AM outbound trip.   | Added trips                |
| September | 5       | Added 2 Saturday trips funded by the City of Seattle  | Added trips                |
| September | 10      | Added 7 Saturday trips and 12 Sunday trips funded by the City of Seattle  | Added trips                |
| September | 16      | Added 1 Early PM inbound trip.  | Added trips                |
| September | 16      | Established new routing, stops and layover locations in downtown Seattle due to seawall project and bored tunnel construction.                          | Added trips                |
| September | 21      | Added 1 Saturday trip funded by the City of Seattle   | Added trips                |
| September | 22      | Expanded/adjusted routing to provide more convenient service for Arbor Heights riders.  | Added trips                |
| September | 30      | Revised the evening and weekend turn around (live-loop) in Sand Point.  | Added trips                |
| September | 40      | Added 2 weekday trips, 2 Saturday trips, and 2 Sunday trips funded by the City of Seattle   | Added trips                |
| September | 41      | Added 2 weekday trips, 11 Saturday trips, and 2 Sunday trips funded by the City of Seattle  | Added trips                |
| September | 44      | Added 3 PM outbound trips.  | Revised routing            |
| September | 48/48EX | Converted the first afternoon express trip into a local trip.   | Revised routing            |
| September | 48      | Added 1 weekday trip, 3 Saturday trips, and 5 Sunday trips funded by the City of Seattle  | Revised routing            |
| September | 49      | Adjusted trip times on Saturday and Sunday nights funded by the City of Seattle   | Added trips                |
| September | 60      | Added 1 AM inbound trip.  | Added trips; reduced trips |
| September | 66EX    | Adjusted schedule to improve reliability.   | Added trips                |
| September | 66EX    | Established new routing, stops and layover locations in downtown Seattle due to seawall project and bored tunnel construction.                          | Adjusted schedule          |
| September | 70      | Revised layover on Saturdays to accommodate the University District Farmers Market.   | Revised routing            |
| September | 71      | Revised layover on Saturdays to accommodate the University District Farmers Market.   | Revised routing            |

| Month     | Route       | Description of Change   | Type                           |
|-----------|-------------|---|--------------------------------|
| September | 72          | Revised layover on Saturdays to accommodate the University District Farmers Market.   | Revised routing                |
| September | 73          | Revised layover on Saturdays to accommodate the University District Farmers Market.   | Revised routing                |
| September | 99          | Established new routing, stops and layover locations in downtown Seattle due to seawall project and bored tunnel construction.  | Revised routing                |
| September | 110         | Revised schedules to maintain connections with Sounder.   | Revised routing                |
| September | 120         | Added 3 weekday trips, 8 Saturday trips, and 2 Sunday trips funded by the City of Seattle.  | Revised schedule               |
| September | 139         | Deleted the first AM trip on weekdays departing Burien TC   | Reduced trips                  |
| September | 140         | Extended Route 140 to Boeing and the Landing.   | Revised routing                |
| September | 150         | Adjusted schedule to improve reliability  | Adjusted schedule              |
| September | 152         | Eliminated 1 AM and 1 PM trip due to poorly performing service.   | Reduced trips                  |
| September | 154         | Revised schedules to maintain connections with Sounder.   | Revised schedule               |
| September | 155/906DART | Converted Route 155 to dial-a-ride transit service (906DART) with a flexible service area in Fairwood.  | Added new route, deleted route |
| September | 156         | Removed the through-route with Route 155.   | Revised routing                |
| September | 169         | Revised terminal to relieve crowding at Renton Transit Center.  | Revised routing                |
| September | 180         | Revised schedules to maintain connections with Sounder.   | Revised schedule               |
| September | 181         | Adjusted schedule to improve reliability  | Adjusted schedule              |
| September | 186         | Revised schedules to maintain connections with Sounder.   | Revised schedule               |
| September | 187         | Eliminated 2 evening trips departing Federal Way Transit Center on weekdays.  | Reduced trips                  |
| September | 208         | Created new route between Issaquah and Snoqualmie Ridge.  | Added new route                |
| September | 209         | Reduced service to 3 AM inbound trips and 3 PM outbound trips. Revised routing to eliminate the deviation onto Boalch Avenue NW and NW 14th Street.   | Reduced trips; revised routing |
| September | 210         | Revised route to serve Eastgate Park-and-Ride Lower Platform in the morning peak period and Eastgate Freeway Station in the afternoon peak period.  | Revised routing                |
| September | 211         | Revised route to serve Eastgate Freeway Station and bypass stops at Eastgate Park-and-Ride Lower Platform, Richards Road and the South Bellevue Park-and-Ride.                                    | Revised routing                |
| September | 212         | Eliminated four AM trips and four PM trips. During the morning peak period, the combination of Route 210 and 212 maintains the existing number of trips at Eastgate Park-and-Ride Lower Platform. | Reduced trips                  |
| September | 214         | Added 2 AM and 3 PM trips to off-set the loss of Route 215 at Issaquah Transit Center. Also truncated 7 AM and 7 PM Route 214 trips at the Issaquah Transit Center.                               | Added trips; reduced trips     |
| September | 215         | Revised the routing to bypass Issaquah Transit Center.  | Revised routing                |
| September | 216         | Revised routing to serve Issaquah Highlands Park-and-Ride and re-establish the afternoon stop at Eastgate Freeway Station.  | Revised routing                |
| September | 218         | Converted 5 AM and 9 PM Route 218 trips to new Route 219 trips, which will follow the same path as Route 218 and continue north to serve Sammamish.   | Added trips; reduced trips     |
| September | 219         | Created a new route that follows the same path as Route 216 between SR 202 and Sahalee Way.   | Added new route                |

| Month     | Route   | Description of Change  | Type                         |
|-----------|---------|--|------------------------------|
| September | 221     | Eliminated 1 PM northbound and 1 PM southbound trip.   | Reduced trips                |
| September | 224     | Eliminated the route segment between Duvall and Fall City, improved the frequency on the remaining route between Duvall and Redmond, and revised the routing in Redmond Ridge. | Revised routing; added trips |
| September | 246     | Reduced service to hourly during the peak periods.   | Reduced trips                |
| September | 249     | Reduced midday service to 45-60 minute frequency.  | Reduced trips                |
| September | 250     | Eliminated 2 AM and 2 PM trips.  | Reduced trips                |
| September | 311     | Eliminated the segment between Duvall and Woodinville.   | Revised routing              |
| September | 330     | Revised schedule to match Shoreline Community College class start and end times.   | Revised schedule             |
| September | 331     | Revised schedule to match Shoreline Community College class start and end times.   | Revised schedule             |
| September | 358     | Added trips in Saturday PM.  | Added trips                  |
| September | 629     | Added contracted shuttle route between Duvall and North Bend.  | Added new route              |
| September | 909DART | Revised routing to operate further east to Renton Technical College and the Renton Housing Authority.  | Revised routing              |
| September | 910DART | Revised schedules to maintain connections with Sounder.  | Revised schedule             |
| September | 913DART | Revised schedules to maintain connections with Sounder.  | Revised schedule             |

## Appendix J: Information and Data Sources

### 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 some Metro buses, provides ridership data. For this report, we used ridership and service information from the spring 2013 service change, between February 16 and June 7, 2013. We used reliability information for a longer time period – between October 2012 and May 2013.

Metro uses the most current and complete data available at the time the report is produced. However, there are limitations to the data. One key consideration when using Metro’s ridership data is:

- **Ridership data is a sample** - APC sampling rates are a consistent data issue. Only about 18% of Metro’s non-RapidRide trips are currently being observed on any given day. Trip and route level data do not include adjustments that are made when estimating system-wide ridership and are prone to more sampling variance. Saturday and Sunday ridership data is also prone to more sampling variance because there are fewer days that a trip could be sampled. Metro has begun to outfit all new buses with APC equipment starting in 2013 and this issue will diminish over time.

Considerations specific to this year’s report include:

- **Upgrades to the Automated Passenger Counting (APC) System** - As part of Metro’s onboard system project, Metro upgraded APC hardware and software from a signpost based system to a GPS-based system. While Metro continued to collect ridership data during the conversion process using both the legacy and GPS based system, some routes were not sampled adequately throughout the transition. This gap in the data resulted in both under and over counting of route level ridership in 2012 and 2013. Additionally, the GPS equipment is more sensitive and captures slightly more boardings than the legacy equipment. This data is adjusted, and when aggregated to an annual system wide basis the ridership information is reliable. However, at the trip, route, period or service change level ridership data is less reliable, especially as a comparison to 2012 when the APC transition was underway.
- **Changes to where some trips are considered to begin or end** – In 2012, Metro adjusted the point or location where a through-route partner arriving in downtown changes its number to that of the departing through-route partner. This procedural change has resulted in a small, but sometimes noticeable shift in ridership between paired routes.
- **No Ride Free Area** - With the elimination of the downtown Seattle Ride Free Area and implementation of “pay as you board” fare collection, fewer rides within downtown Seattle are expected. The elimination of the downtown Seattle Ride Free Area and switch to “pay on entry” fare collection should reduce ridership on all-day, two-way routes more than one-way commuter services.

### Data sources

There are several types of changes that can affect total platform hours on a route, and not all of those changes necessarily affect the level of service or number of trips. Different changes that affected route platform hours displayed in this appendix between 2012 and 2013 include:

- **Adding or eliminating trips** – Metro made many changes to service between Spring 2012 and Spring 2013, including the large restructure of service in Fall 2012 around the RapidRide C and D lines.
- **Ending the Ride Free Area** – Ending the Ride Free Area in Fall 2012 caused changes to how long it takes buses to travel in downtown Seattle. To prepare, Metro added hours to some routes to account for longer travel times even on routes that did not have any new trips.

- **Restructuring service** – Shortening or lengthening a route affects platform hours. Revisions to where a bus operates such as changing the pathway a bus operates on through downtown Seattle or rerouting for a long-term construction project can also affect how many hours it takes to operate a route.
- **Investments for reliability** – Investments to improve reliability often affect platform hours without impacting the number of trips. This type of investment includes changes such as adding more time to a schedule in an area that has become more congested, adding more recovery or break time between trips to allow buses to get back on schedule, or connecting trips together in a different way.
- **Routine scheduling changes and scheduling efficiencies** – With over 12,000 trips operating on an average weekday, there are sometimes opportunities to connect trips or routes together in a different way to be more efficient or to operate more reliably. Scheduling adjustments such as hooking trips together in a different way, adjusting run times, changing recovery time, or moving routes between operating bases can change hours without changing service levels. In 2010 and 2011 Metro implemented scheduling efficiencies to reduce hours without changing the number of trips by changing run times, reducing breaks between trips, and scheduling trips differently. On a smaller scale there is an ongoing and continued effort to continue making schedules more efficient that results in shifting hours on some routes each year.

## Appendix K: Route-level Ridership (weekday average, Spring 2012 and Spring 2013)

The table below contains weekday ridership and platform hour changes between 2012 and 2013 for all routes in the system. This list includes numerous custom bus routes which are excluded from the route analysis provided in this report. Weekday ridership has been rounded to the nearest 100, except where the weekday ridership is below 50 passengers. " – " indicates that the route did not operate during that period, therefore no weekday rides or platform hours exist.

| Route | Weekday Rides in 2012 | Weekday Rides in 2013 | Change in Rides | Weekday Platform Hours in 2012 | Weekday Platform Hours in 2013 | Change in Platform Hours |
|-------|-----------------------|-----------------------|-----------------|--------------------------------|--------------------------------|--------------------------|
| 1     | 2,600                 | 2,300                 | (300)           | 57                             | 48                             | (9)                      |
| 2     | 5,700                 | 5,700                 | 0               | 121                            | 127                            | 6                        |
| 2EX   | 900                   | -                     | (900)           | 23                             | -                              | (23)                     |
| 3     | 7,000                 | 6,700                 | (300)           | 132                            | 136                            | 4                        |
| 4     | 5,400                 | 5,300                 | (100)           | 111                            | 112                            | 1                        |
| 5     | 7,300                 | 8,000                 | 700             | 163                            | 153                            | (9)                      |
| 7     | 11,800                | 12,900                | 1,100           | 242                            | 247                            | 5                        |
| 7EX   | 300                   | 400                   | 100             | 12                             | 12                             |                          |
| 8     | 9,000                 | 10,300                | 1,300           | 200                            | 209                            | 8                        |
| 9     | 2,700                 | 2,700                 | 0               | 62                             | 65                             | 3                        |
| 10    | 4,100                 | 4,400                 | 300             | 88                             | 88                             | 0                        |
| 11    | 4,000                 | 3,200                 | (800)           | 69                             | 64                             | (4)                      |
| 12    | 4,300                 | 3,500                 | (800)           | 85                             | 76                             | (9)                      |
| 13    | 2,900                 | 3,200                 | 300             | 61                             | 61                             | 0                        |
| 14    | 4,400                 | 2,700                 | (1,700)         | 96                             | 66                             | (30)                     |
| 15    | 5,000                 | -                     | (5,000)         | 96                             | -                              | (96)                     |
| 15EX  | 1,200                 | 1,000                 | (200)           | 24                             | 20                             | (4)                      |
| 16    | 5,100                 | 5,200                 | 100             | 146                            | 155                            | 9                        |
| 17    | 2,500                 | -                     | (2,500)         | 69                             | -                              | (69)                     |
| 17EX  | 500                   | 700                   | 200             | 14                             | 14                             | 0                        |
| 18    | 4,100                 | -                     | (4,100)         | 89                             | -                              | (89)                     |
| 18EX  | 800                   | 1,000                 | 200             | 19                             | 19                             | 0                        |
| 19    | 300                   | 300                   | 0               | 9                              | 9                              | 0                        |
| 21    | 2,200                 | 3,800                 | 1,600           | 80                             | 111                            | 31                       |
| 21EX  | 1,000                 | 1,000                 | 0               | 33                             | 28                             | (4)                      |
| 22    | 1,700                 | 200                   | (1,500)         | 61                             | 16                             | (45)                     |
| 23    | 2,300                 | -                     | (2,300)         | 62                             | -                              | (62)                     |
| 24    | 1,800                 | 2,300                 | 500             | 67                             | 61                             | (6)                      |
| 25    | 800                   | 500                   | (300)           | 36                             | 27                             | (9)                      |
| 26    | 2,700                 | 2,700                 | 0               | 68                             | 73                             | 6                        |
| 26EX  | 700                   | 800                   | 100             | 15                             | 15                             | 0                        |
| 27    | 1,400                 | 1,400                 | 0               | 39                             | 39                             | 0                        |
| 28    | 3,800                 | 2,800                 | (1,000)         | 81                             | 72                             | (9)                      |
| 28EX  | 1,100                 | 1,200                 | 100             | 24                             | 28                             | 4                        |

| Route | Weekday Rides in 2012 | Weekday Rides in 2013 | Change in Rides | Weekday Platform Hours in 2012 | Weekday Platform Hours in 2013 | Change in Platform Hours |
|-------|-----------------------|-----------------------|-----------------|--------------------------------|--------------------------------|--------------------------|
| 29    | -                     | 1,300                 | 1,300           | -                              | 33                             | 33                       |
| 30    | 2,800                 | 1,300                 | (1,500)         | 91                             | 49                             | (42)                     |
| 31    | 1,200                 | 1,800                 | 600             | 48                             | 52                             | 4                        |
| 32    | -                     | 2,600                 | 2,600           | -                              | 72                             | 72                       |
| 33    | 1,800                 | 1,800                 | 0               | 44                             | 45                             | 1                        |
| 34    | 200                   | -                     | (200)           | 8                              | -                              | (8)                      |
| 35    | < 50                  | -                     | (< 50)          | 3                              | -                              | (3)                      |
| 36    | 10,800                | 10,600                | (200)           | 205                            | 232                            | 27                       |
| 37    | 300                   | 200                   | (100)           | 17                             | 11                             | (7)                      |
| 38    | 100                   | -                     | (100)           | 8                              | -                              | (8)                      |
| 39    | 1,500                 | -                     | (1,500)         | 53                             | -                              | (53)                     |
| 40    | -                     | 7,900                 | 7,900           | -                              | 202                            | 202                      |
| 41    | 9,600                 | 10,400                | 800             | 182                            | 180                            | (2)                      |
| 42    | 100                   | -                     | (100)           | 8                              | -                              | (8)                      |
| 43    | 6,800                 | 7,900                 | 1,100           | 139                            | 147                            | 8                        |
| 44    | 6,400                 | 7,100                 | 700             | 131                            | 133                            | 2                        |
| 45    | 200                   | -                     | (200)           | 7                              | -                              | (7)                      |
| 46    | 300                   | -                     | (300)           | 16                             | -                              | (16)                     |
| 47    | -                     | 800                   | 800             | -                              | 26                             | 26                       |
| 48    | 11,300                | 11,500                | 200             | 256                            | 249                            | (8)                      |
| 49    | 7,200                 | 8,500                 | 1,300           | 132                            | 136                            | 4                        |
| 50    | -                     | 2,000                 | 2,000           | -                              | 109                            | 109                      |
| 51    | 200                   | -                     | (200)           | 14                             | -                              | (14)                     |
| 53    | 100                   | -                     | (100)           | 8                              | -                              | (8)                      |
| 54    | 4,700                 | -                     | (4,700)         | 153                            | -                              | (153)                    |
| 54EX  | 500                   | -                     | (500)           | 18                             | -                              | (18)                     |
| 55    | 2,100                 | 700                   | (1,400)         | 85                             | 22                             | (63)                     |
| 56    | 2,000                 | 800                   | (1,200)         | 69                             | 21                             | (48)                     |
| 57    | 300                   | 300                   | 0               | 12                             | 10                             | (2)                      |
| 60    | 4,800                 | 5,100                 | 300             | 140                            | 154                            | 14                       |
| 61    | -                     | 300                   | 300             | -                              | 35                             | 35                       |
| 62    | -                     | 300                   | 300             | -                              | 17                             | 17                       |
| 64    | 700                   | 800                   | 100             | 23                             | 22                             | 0                        |
| 65    | 2,700                 | 3,000                 | 300             | 81                             | 91                             | 10                       |
| 66    | 3,000                 | 3,400                 | 400             | 78                             | 76                             | (2)                      |
| 67    | 1,500                 | 1,700                 | 200             | 32                             | 42                             | 10                       |
| 68    | 2,000                 | 2,300                 | 300             | 39                             | 47                             | 8                        |
| 70    | 4,400                 | 4,700                 | 300             | 101                            | 101                            | 0                        |
| 71    | 4,800                 | 5,000                 | 200             | 84                             | 86                             | 2                        |
| 72    | 4,400                 | 4,900                 | 500             | 76                             | 80                             | 5                        |
| 73    | 5,800                 | 6,600                 | 800             | 98                             | 96                             | (2)                      |

| Route | Weekday Rides in 2012 | Weekday Rides in 2013 | Change in Rides | Weekday Platform Hours in 2012 | Weekday Platform Hours in 2013 | Change in Platform Hours |
|-------|-----------------------|-----------------------|-----------------|--------------------------------|--------------------------------|--------------------------|
| 74    | 1,200                 | 1,400                 | 200             | 21                             | 23                             | 1                        |
| 75    | 5,700                 | 4,500                 | (1,200)         | 154                            | 97                             | (57)                     |
| 76    | 900                   | 1,100                 | 200             | 22                             | 20                             | (2)                      |
| 77    | 900                   | 1,100                 | 200             | 24                             | 24                             | 0                        |
| 79    | 200                   | -                     | (200)           | 10                             | -                              | (10)                     |
| 81    | < 50                  | -                     | (< 50)          | 3                              | -                              | (3)                      |
| 82    | 100                   | < 50                  | (100)           | 3                              | 3                              | 0                        |
| 83    | 100                   | 100                   | 0               | 3                              | 3                              | 0                        |
| 84    | < 50                  | < 50                  | 0               | 4                              | 4                              | 0                        |
| 85    | < 50                  | -                     | (< 50)          | 4                              | -                              | (4)                      |
| 99    | 900                   | 400                   | (500)           | 27                             | 16                             | (11)                     |
| 101   | 4,900                 | 5,000                 | 100             | 106                            | 107                            | 1                        |
| 102   | 900                   | 900                   | 0               | 24                             | 24                             | 0                        |
| 105   | 1,100                 | 1,100                 | 0               | 38                             | 38                             | 0                        |
| 106   | 5,200                 | 5,100                 | (100)           | 134                            | 136                            | 2                        |
| 107   | 1,400                 | 1,500                 | 100             | 61                             | 63                             | 2                        |
| 110   | 200                   | 200                   | 0               | 13                             | 13                             | 0                        |
| 111   | 900                   | 900                   | 0               | 36                             | 35                             |                          |
| 113   | 300                   | 300                   | 0               | 12                             | 12                             | 0                        |
| 114   | 400                   | 400                   | 0               | 17                             | 17                             | 0                        |
| 116   | 300                   | 500                   | 200             | 21                             | 26                             | 5                        |
| 118   | 400                   | 500                   | 100             | 31                             | 31                             | 1                        |
| 118EX | 100                   | 200                   | 100             | 9                              | 9                              | 0                        |
| 119   | 200                   | 200                   | 0               | 15                             | 13                             | (2)                      |
| 119EX | 100                   | 100                   | 0               | 5                              | 5                              | 0                        |
| 120   | 8,300                 | 8,600                 | 300             | 195                            | 206                            | 11                       |
| 121   | 1,200                 | 1,000                 | (200)           | 46                             | 47                             | 1                        |
| 122   | 600                   | 600                   | 0               | 21                             | 26                             | 5                        |
| 123   | 300                   | 300                   | 0               | 14                             | 12                             | (2)                      |
| 124   | 3,700                 | 3,300                 | (400)           | 99                             | 95                             | (4)                      |
| 125   | 1,800                 | 1,800                 | 0               | 73                             | 56                             | (17)                     |
| 128   | 3,700                 | 4,400                 | 700             | 104                            | 134                            | 31                       |
| 129   | 100                   | -                     | (100)           | 6                              | -                              | (6)                      |
| 131   | 1,400                 | 2,900                 | 1,500           | 63                             | 82                             | 18                       |
| 132   | 2,400                 | 3,100                 | 700             | 81                             | 99                             | 18                       |
| 133   | 300                   | -                     | (300)           | 14                             | -                              | (14)                     |
| 134   | 200                   | -                     | (200)           | 15                             | -                              | (15)                     |
| 139   | 200                   | 200                   | 0               | 16                             | 15                             |                          |
| 140   | 3,500                 | 3,500                 | 0               | 115                            | 114                            |                          |
| 143   | 600                   | 600                   | 0               | 27                             | 27                             | 0                        |
| 148   | 600                   | 600                   | 0               | 37                             | 38                             | 0                        |

| Route | Weekday Rides in 2012 | Weekday Rides in 2013 | Change in Rides | Weekday Platform Hours in 2012 | Weekday Platform Hours in 2013 | Change in Platform Hours |
|-------|-----------------------|-----------------------|-----------------|--------------------------------|--------------------------------|--------------------------|
| 150   | 7,300                 | 7,100                 | (200)           | 181                            | 184                            | 4                        |
| 152   | 300                   | 300                   | 0               | 20                             | 20                             |                          |
| 153   | 400                   | 400                   | 0               | 20                             | 20                             | 0                        |
| 154   | 100                   | 200                   | 100             | 9                              | 9                              | 0                        |
| 155   | 400                   | 400                   | 0               | 22                             | 22                             | 0                        |
| 156   | 400                   | 1,000                 | 600             | 37                             | 71                             | 35                       |
| 157   | 200                   | 200                   | 0               | 15                             | 15                             | 0                        |
| 158   | 600                   | 600                   | 0               | 26                             | 26                             | 0                        |
| 159   | 500                   | 500                   | 0               | 23                             | 23                             | 0                        |
| 161   | 400                   | 400                   | 0               | 22                             | 22                             | 0                        |
| 162   | 200                   | -                     | (200)           | 9                              | -                              | (9)                      |
| 164   | 2,000                 | 2,100                 | 100             | 48                             | 47                             |                          |
| 166   | 1,600                 | 2,200                 | 600             | 55                             | 79                             | 23                       |
| 167   | 400                   | 400                   | 0               | 16                             | 16                             | 0                        |
| 168   | 1,500                 | 1,700                 | 200             | 68                             | 68                             |                          |
| 169   | 2,900                 | 3,000                 | 100             | 74                             | 78                             | 4                        |
| 173   | 100                   | 100                   | 0               | 6                              | 6                              | 0                        |
| 175   | 200                   | -                     | (200)           | 16                             | -                              | (16)                     |
| 177   | 1,100                 | 700                   | (400)           | 50                             | 29                             | (21)                     |
| 178   | -                     | 700                   | 700             | -                              | 29                             | 29                       |
| 179   | 600                   | 700                   | 100             | 29                             | 29                             | 1                        |
| 180   | 4,200                 | 4,600                 | 400             | 137                            | 149                            | 12                       |
| 181   | 2,300                 | 2,200                 | (100)           | 80                             | 81                             | 1                        |
| 182   | 500                   | 500                   | 0               | 28                             | 29                             | 0                        |
| 183   | 700                   | 700                   | 0               | 34                             | 34                             | 0                        |
| 186   | 200                   | 200                   | 0               | 19                             | 20                             | 1                        |
| 187   | 400                   | 500                   | 100             | 21                             | 21                             | 0                        |
| 190   | 400                   | 400                   | 0               | 19                             | 18                             | 0                        |
| 192   | 200                   | 300                   | 100             | 12                             | 12                             | 0                        |
| 193   | 700                   | 700                   | 0               | 28                             | 27                             | 0                        |
| 196   | 300                   | -                     | (300)           | 23                             | -                              | (23)                     |
| 197   | 700                   | 800                   | 100             | 38                             | 38                             | 0                        |
| 200   | 400                   | 400                   | 0               | 34                             | 34                             | 0                        |
| 201   | < 50                  | < 50                  | 0               | 2                              | 2                              | 0                        |
| 202   | 200                   | 200                   | 0               | 16                             | 15                             |                          |
| 203   | 100                   | 100                   | 0               | 8                              | 8                              | 0                        |
| 204   | 100                   | 100                   | 0               | 11                             | 11                             | 0                        |
| 205   | 200                   | 200                   | 0               | 13                             | 12                             | 0                        |
| 209   | 300                   | 300                   | 0               | 34                             | 33                             |                          |
| 210   | 200                   | 200                   | 0               | 16                             | 15                             | 0                        |
| 211   | 300                   | 400                   | 100             | 26                             | 26                             | 0                        |
| 212   | 2,400                 | 2,400                 | 0               | 51                             | 67                             | 16                       |

| Route | Weekday Rides in 2012 | Weekday Rides in 2013 | Change in Rides | Weekday Platform Hours in 2012 | Weekday Platform Hours in 2013 | Change in Platform Hours |
|-------|-----------------------|-----------------------|-----------------|--------------------------------|--------------------------------|--------------------------|
| 213   | < 50                  | < 50                  | 0               | 1                              | 1                              | 0                        |
| 214   | 700                   | 800                   | 100             | 34                             | 34                             | 0                        |
| 215   | 500                   | 600                   | 100             | 25                             | 24                             |                          |
| 216   | 600                   | 700                   | 100             | 24                             | 24                             | 0                        |
| 217   | 200                   | 200                   | 0               | 8                              | 8                              | 0                        |
| 218   | 1,800                 | 2,000                 | 200             | 42                             | 44                             | 3                        |
| 219   | 100                   | -                     | (100)           | 10                             | -                              | (10)                     |
| 221   | 1,200                 | 1,500                 | 300             | 82                             | 82                             | 0                        |
| 224   | 100                   | 100                   | 0               | 19                             | 20                             | 0                        |
| 226   | 1,200                 | 1,600                 | 400             | 65                             | 61                             | (4)                      |
| 232   | 300                   | 400                   | 100             | 22                             | 21                             |                          |
| 234   | 1,100                 | 1,500                 | 400             | 72                             | 72                             | 0                        |
| 235   | 900                   | 1,100                 | 200             | 66                             | 66                             | 0                        |
| 236   | 500                   | 500                   | 0               | 59                             | 59                             | 0                        |
| 237   | 100                   | 100                   | 0               | 5                              | 5                              | 0                        |
| 238   | 800                   | 900                   | 100             | 69                             | 72                             | 3                        |
| 240   | 2,300                 | 2,600                 | 300             | 115                            | 115                            | 0                        |
| 241   | 600                   | 700                   | 100             | 43                             | 41                             | (3)                      |
| 242   | 400                   | 500                   | 100             | 22                             | 22                             | 0                        |
| 243   | 200                   | 200                   | 0               | 8                              | 8                              | 0                        |
| 244   | 200                   | 200                   | 0               | 17                             | 18                             | 1                        |
| 245   | 3,000                 | 3,700                 | 700             | 156                            | 156                            | 0                        |
| 246   | 400                   | 500                   | 100             | 40                             | 41                             | 1                        |
| 248   | 900                   | 1,100                 | 200             | 56                             | 56                             | 0                        |
| 249   | 900                   | 1,200                 | 300             | 69                             | 69                             | 0                        |
| 250   | 400                   | 400                   | 0               | 19                             | 19                             | 0                        |
| 252   | 700                   | 600                   | (100)           | 24                             | 24                             |                          |
| 255   | 5,900                 | 6,100                 | 200             | 219                            | 218                            |                          |
| 257   | 500                   | 500                   | 0               | 23                             | 21                             | (3)                      |
| 260   | 200                   | 200                   | 0               | 12                             | 11                             | 0                        |
| 265   | 500                   | 600                   | 100             | 27                             | 36                             | 8                        |
| 268   | 300                   | 400                   | 100             | 15                             | 14                             |                          |
| 269   | 500                   | 600                   | 100             | 49                             | 48                             |                          |
| 271   | 5,900                 | 6,000                 | 100             | 224                            | 223                            | (2)                      |
| 277   | 200                   | 300                   | 100             | 18                             | 19                             | 0                        |
| 280   | < 50                  | 100                   | 100             | 3                              | 4                              | 1                        |
| 301   | 1,700                 | 1,600                 | (100)           | 40                             | 48                             | 7                        |
| 303   | 1,100                 | 1,300                 | 200             | 31                             | 38                             | 7                        |
| 304   | 400                   | 400                   | 0               | 15                             | 16                             | 1                        |
| 306   | 600                   | 400                   | (200)           | 17                             | 19                             | 2                        |
| 308   | 200                   | 200                   | 0               | 9                              | 9                              | 0                        |

| Route | Weekday Rides in 2012 | Weekday Rides in 2013 | Change in Rides | Weekday Platform Hours in 2012 | Weekday Platform Hours in 2013 | Change in Platform Hours |
|-------|-----------------------|-----------------------|-----------------|--------------------------------|--------------------------------|--------------------------|
| 309   | 300                   | 200                   | (100)           | 11                             | 14                             | 3                        |
| 311   | 1,000                 | 1,100                 | 100             | 50                             | 51                             | 2                        |
| 312   | 1,500                 | 2,000                 | 500             | 56                             | 54                             | (2)                      |
| 316   | 800                   | 1,000                 | 200             | 16                             | 17                             | 0                        |
| 330   | 300                   | 300                   | 0               | 12                             | 14                             | 2                        |
| 331   | 1,000                 | 1,100                 | 100             | 54                             | 54                             | 0                        |
| 342   | 300                   | 300                   | 0               | 17                             | 16                             | 0                        |
| 345   | 1,300                 | 1,500                 | 200             | 36                             | 36                             | 0                        |
| 346   | 1,400                 | 1,600                 | 200             | 43                             | 43                             | 0                        |
| 347   | 1,300                 | 1,300                 | 0               | 56                             | 56                             | 0                        |
| 348   | 1,200                 | 1,300                 | 100             | 56                             | 56                             | 0                        |
| 355   | 900                   | 1,000                 | 100             | 29                             | 29                             | 0                        |
| 358   | 10,400                | 12,000                | 1,600           | 222                            | 222                            | 1                        |
| 372   | 3,800                 | 5,300                 | 1,500           | 120                            | 124                            | 3                        |
| 373   | 900                   | 900                   | 0               | 30                             | 29                             |                          |
| 600   | 100                   | -                     | (100)           | 6                              | -                              | (6)                      |
| 601   | -                     | < 50                  | < 50            | -                              | 5                              | 5                        |
| 671   | 8,400                 | 8,700                 | 300             | 180                            | 179                            |                          |
| 672   | 5,900                 | 6,100                 | 200             | 164                            | 164                            | 0                        |
| 673   | -                     | 7,000                 | 7,000           | -                              | 169                            | 169                      |
| 674   | -                     | 8,800                 | 8,800           | -                              | 156                            | 156                      |
| 773   | 100                   | 100                   | 0               | 15                             | 8                              | (8)                      |
| 775   | 100                   | 100                   | 0               | 9                              | 5                              | (3)                      |
| 821   | 100                   | -                     | (100)           | 2                              | -                              | (2)                      |
| 822   | 100                   | -                     | (100)           | 2                              | -                              | (2)                      |
| 823   | 100                   | 100                   | 0               | 2                              | 2                              | 0                        |
| 824   | 100                   | 100                   | 0               | 2                              | 2                              | 0                        |
| 885   | < 50                  | -                     | (< 50)          | 2                              | -                              | (2)                      |
| 886   | < 50                  | -                     | (< 50)          | 1                              | -                              |                          |
| 887   | -                     | 100                   | 100             | -                              | 2                              | 2                        |
| 888   | 100                   | 100                   | 0               | 2                              | 3                              | 0                        |
| 889   | 100                   | 100                   | 0               | 2                              | 2                              | 0                        |
| 890   | < 50                  | -                     | (< 50)          | 2                              | -                              | (2)                      |
| 891   | 100                   | 100                   | 0               | 3                              | 3                              | 0                        |
| 892   | 100                   | 100                   | 0               | 3                              | 2                              | 0                        |
| 893   | < 50                  | 100                   | 100             | 2                              | 2                              | 0                        |
| 901   | 300                   | 400                   | 100             | 19                             | 19                             | 0                        |
| 903   | 500                   | 500                   | 0               | 28                             | 28                             | 0                        |
| 907   | 100                   | 100                   | 0               | 19                             | 19                             | 0                        |
| 908   | 100                   | 100                   | 0               | 10                             | 10                             | 0                        |
| 909   | 100                   | 100                   | 0               | 14                             | 14                             | 0                        |

| Route | Weekday Rides in 2012 | Weekday Rides in 2013 | Change in Rides | Weekday Platform Hours in 2012 | Weekday Platform Hours in 2013 | Change in Platform Hours |
|-------|-----------------------|-----------------------|-----------------|--------------------------------|--------------------------------|--------------------------|
| 910   | 100                   | 100                   | 0               | 9                              | 9                              | 0                        |
| 912   | < 50                  | -                     | (< 50)          | 11                             | -                              | (11)                     |
| 913   | 200                   | 200                   | 0               | 13                             | 13                             | 0                        |
| 914   | 200                   | 200                   | 0               | 10                             | 10                             | 0                        |
| 915   | 100                   | 100                   | 0               | 7                              | 7                              | 0                        |
| 916   | 200                   | 200                   | 0               | 11                             | 11                             | 0                        |
| 917   | 200                   | 200                   | 0               | 14                             | 14                             | 0                        |
| 919   | 100                   | 100                   | 0               | 8                              | 8                              | 0                        |
| 925   | < 50                  | -                     | (< 50)          | 10                             | -                              | (10)                     |
| 927   | 100                   | 100                   | 0               | 21                             | 21                             | 0                        |
| 930   | 100                   | 100                   | 0               | 13                             | 13                             | 0                        |
| 931   | 300                   | 300                   | 0               | 39                             | 39                             | 0                        |
| 935   | 200                   | 100                   | (100)           | 34                             | 19                             | (15)                     |
| 952   | 300                   | 300                   | 0               | 25                             | 25                             | 0                        |
| 980   | < 50                  | < 50                  | 0               | 2                              | 2                              | 0                        |
| 981   | < 50                  | < 50                  | 0               | 2                              | 2                              | 0                        |
| 982   | 100                   | 100                   | 0               | 4                              | 3                              |                          |
| 983   | < 50                  | < 50                  | 0               | 2                              | 2                              | 0                        |
| 984   | < 50                  | < 50                  | 0               | 2                              | 1                              | 0                        |
| 986   | 100                   | 100                   | 0               | 3                              | 3                              | 0                        |
| 987   | 100                   | 100                   | 0               | 3                              | 3                              | 0                        |
| 988   | 100                   | 100                   | 0               | 3                              | 3                              | 0                        |
| 989   | 100                   | 100                   | 0               | 3                              | 4                              | 1                        |
| 994   | 100                   | 100                   | 0               | 3                              | 3                              | 0                        |
| 995   | < 50                  | 100                   | 100             | 3                              | 3                              | 1                        |

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

| CORRIDOR ID NUMBER | Connections      |              | Land Use - Productivity                         |              | Social Equity - Demographics |                          |        | Geographic Value - Primary Connections |        |          |        | Preliminary Target Service Levels |        |                  |        |   |        |             |          |      |         |
|--------------------|------------------|--------------|---|--------------|------------------------------|--------------------------|--------|--|--------|----------|--------|-----------------------------------|--------|------------------|--------|---|--------|-------------|----------|------|---------|
|                    | BETWEEN          | AND          | VIA   | MAJOR ROUTE  | POINTS                       | HOUSEHOLDS/CORRIDOR MILE | POINTS | JOBS/CORRIDOR MILE                     | POINTS | MINORITY | POINTS | LOW-INCOME                        | POINTS | ACTIVITY CENTERS | POINTS | REGIONAL & MANUFACTURING/INDUSTRIAL CENTERS | POINTS | TOTAL SCORE | RAPIRIDE | PEAK | OFFPEAK |
| 1                  | Admiral District | Southcenter  | California Ave SW, Military Rd, TIBS            | 128          | 1018                         | 2                        | 946    | 2                                      | 69%    | 5        | 52%    | 0                                 | Yes    | 5                | 0      | 0   | 14     |             | 30       | 30   | 0       |
| 2                  | Alki             | SODO         | Alaska Junction                                 | 50           | 1214                         | 4                        | 1999   | 4                                      | 17%    | 0        | 17%    | 0                                 | Yes    | 5                | 0      | 0   | 13     |             | 30       | 30   | 0       |
| 3                  | Auburn           | Federal Way  | Kent, Seatac                                    | 180          | 570                          | 0                        | 1248   | 2                                      | 75%    | 5        | 99%    | 5                                 | 0      | Yes              | 10     | 22  |        | 15          | 30       | 30   | 0       |
| 4                  | Auburn/GRCC      | Federal Way  | 15th St SW, Lea Hill Rd                         | 181          | 585                          | 0                        | 1189   | 2                                      | 25%    | 0        | 40%    | 0                                 | 0      | Yes              | 10     | 12  |        | 30          | 30       | 0    | 0       |
| 5                  | Aurora Village   | Seattle CBD  | Aurora Ave N                                    | 358EX        | 2237                         | 6                        | 8233   | 8                                      | 42%    | 0        | 28%    | 0                                 | Yes    | 5                | 0      | 19  | Yes    | <15         | 15       | 15   | 15      |
| 6                  | Aurora Village   | Northgate    | Meridian Av N                                   | 346          | 1099                         | 2                        | 2548   | 4                                      | 99%    | 5        | 52%    | 0                                 | Yes    | 5                | 0      | 16  |        | 30          | 30       | 0    | 0       |
| 7                  | Avondale         | Kirkland     | NE 85th St, NE Redmond Wy, Avondale Wy NE       | 248          | 1154                         | 2                        | 1453   | 4                                      | 79%    | 5        | 31%    | 0                                 | Yes    | 5                | 0      | 16  |        | 30          | 30       | 0    | 0       |
| 8                  | Ballard          | U. District  | Green Lake, Greenwood                           | 48N          | 2321                         | 6                        | 8366   | 8                                      | 8%     | 0        | 29%    | 0                                 | Yes    | 5                | 0      | 19  |        | 15          | 30       | 30   | 0       |
| 9                  | Ballard          | Northgate    | Holman Road, Northgate                          | 40           | 1968                         | 6                        | 3372   | 6                                      | 14%    | 0        | 51%    | 0                                 | 0      | Yes              | 10     | 22  |        | 15          | 30       | 30   | 0       |
| 10                 | Ballard          | Seattle CBD  | 15th Ave W                                      | 674          | 3204                         | 10                       | 12205  | 10                                     | 0%     | 0        | 25%    | 0                                 | 0      | Yes              | 10     | 22  | Yes    | <15         | 15       | 15   | 15      |
| 11                 | Ballard          | U. District  | Wallingford (N 45th St)                         | 44           | 2379                         | 6                        | 13714  | 10                                     | 16%    | 0        | 30%    | 0                                 | 0      | Yes              | 10     | 26  |        | 15          | 15       | 30   | 0       |
| 12                 | Beacon Hill      | Seattle CBD  | Ballard/Interbay/MIC, Fremont, South Lake Union | 40           | 3157                         | 6                        | 20346  | 10                                     | 1%     | 0        | 22%    | 0                                 | 0      | Yes              | 10     | 30  |        | 15          | 15       | 30   | 0       |
| 13                 | Beacon Hill      | Seattle CBD  | Beacon Ave                                      | 36           | 2327                         | 6                        | 12564  | 10                                     | 93%    | 5        | 68%    | 5                                 | 0      | 0                | 0      | 26  |        | 15          | 15       | 30   | 0       |
| 14                 | Bellevue         | Eastgate     | Lake Hills Connector                            | 271          | 747                          | 2                        | 6349   | 8                                      | 98%    | 5        | 81%    | 0                                 | Yes    | 5                | 0      | 25  | Yes    | <15         | 15       | 15   | 15      |
| 15                 | Bellevue         | Redmond      | NE 8th St, 156th Ave NE                         | 240          | 953                          | 2                        | 2752   | 4                                      | 90%    | 5        | 69%    | 5                                 | 0      | Yes              | 0      | 21  |        | 15          | 30       | 30   | 0       |
| 16                 | Bellevue         | Renton       | Newcastle, Factoria                             | 120          | 1280                         | 4                        | 5465   | 6                                      | 70%    | 5        | 63%    | 5                                 | 0      | Yes              | 10     | 30  |        | 15          | 15       | 30   | 0       |
| 17                 | Burien           | Seattle CBD  | Deiridge, Ambaum                                | 131          | 1334                         | 4                        | 8360   | 8                                      | 70%    | 5        | 81%    | 5                                 | Yes    | 5                | 0      | 27  |        | 15          | 15       | 30   | 0       |
| 18                 | Burien           | Seattle CBD  | 1st Ave S, South Park, Airport Wy               | 131          | 1334                         | 4                        | 8360   | 8                                      | 70%    | 5        | 81%    | 5                                 | Yes    | 5                | 0      | 27  |        | 15          | 15       | 30   | 0       |
| 19                 | Burien           | Seattle CBD  | Des Moines Mem Dr, South Park                   | 132          | 1153                         | 2                        | 7825   | 8                                      | 69%    | 5        | 100%   | 5                                 | 0      | Yes              | 10     | 30  |        | 15          | 15       | 30   | 0       |
| 20                 | Capitol Hill     | White Center | South Park, Georgetown, Beacon Hill, First Hill | 60           | 1486                         | 4                        | 4187   | 6                                      | 90%    | 5        | 75%    | 0                                 | 0      | Yes              | 10     | 30  |        | 15          | 15       | 30   | 0       |
| 21                 | Capitol Hill     | Seattle CBD  | 15th Ave E                                      | 10           | 5462                         | 10                       | 19041  | 10                                     | 0%     | 0        | 87%    | 5                                 | 0      | 0                | 0      | 35  |        | 15          | 15       | 30   | 0       |
| 22                 | Capitol Hill     | Seattle CBD  | Madison St                                      | 12           | 4647                         | 10                       | 39044  | 10                                     | 24%    | 0        | 87%    | 5                                 | 0      | 0                | 0      | 35  |        | 15          | 15       | 30   | 0       |
| 23                 | Central District | Seattle CBD  | E Jefferson St                                  | 35/45        | 4255                         | 10                       | 31852  | 10                                     | 67%    | 5        | 100%   | 5                                 | Yes    | 5                | 0      | 35  |        | 15          | 15       | 30   | 0       |
| 24                 | Colman Park      | Seattle CBD  | Leschi, Yesler                                  | 27           | 2996                         | 8                        | 19013  | 10                                     | 85%    | 5        | 56%    | 0                                 | 0      | 0                | 0      | 23  |        | 15          | 30       | 30   | 0       |
| 25                 | Cowen Park       | Seattle CBD  | University Way, I-5                             | 73           | 2167                         | 6                        | 20677  | 10                                     | 71%    | 5        | 100%   | 5                                 | 0      | Yes              | 10     | 36  |        | 15          | 15       | 30   | 0       |
| 26                 | Discovery Park   | Seattle CBD  | Gilman Ave W, 22nd Ave W, Thornolyke Av W       | 33           | 2793                         | 8                        | 12854  | 10                                     | 0%     | 0        | 21%    | 0                                 | 0      | 0                | 0      | 18  |        | 30          | 30       | 0    | 0       |
| 27                 | Eastgate         | Bellevue     | Newport Wy, S. Bellevue, 112th                  | 241          | 948                          | 2                        | 6826   | 8                                      | 80%    | 5        | 63%    | 5                                 | 0      | 0                | 0      | 20  |        | 15          | 30       | 30   | 0       |
| 28                 | Eastgate         | Bellevue     | Somerset, Factoria, Woodridge                   | 246          | 933                          | 2                        | 6100   | 8                                      | 91%    | 5        | 34%    | 0                                 | 0      | 0                | 0      | 15  |        | 30          | 30       | 0    | 0       |
| 29                 | Eastgate         | Overlake     | Phantom Lake                                    | 226          | 682                          | 2                        | 2944   | 4                                      | 40%    | 0        | 22%    | 0                                 | 0      | 0                | 0      | 6   |        | 60          | 60       | 0    | 0       |
| 30                 | Enumclaw         | Auburn       | Auburn Wy S, SR 164                             | 186/915/DART | 207                          | 0                        | 373    | 0                                      | 43%    | 0        | 92%    | 5                                 | Yes    | 5                | 0      | 10  |        | 30          | 30       | 0    | 0       |
| 31                 | Fairwood         | Renton       | S Puget Dr, Royal Hills                         | 148          | 741                          | 2                        | 674    | 2                                      | 100%   | 5        | 35%    | 0                                 | Yes    | 5                | 0      | 14  |        | 30          | 30       | 0    | 0       |
| 32                 | Federal Way      | Seattle CBD  | SR-99   | 671          | 784                          | 2                        | 2298   | 4                                      | 100%   | 5        | 94%    | 5                                 | 0      | Yes              | 10     | 26  | Yes    | <15         | 15       | 15   | 15      |
| 33                 | Federal Way      | Seattle CBD  | Military Road                                   | 183          | 810                          | 2                        | 662    | 2                                      | 97%    | 5        | 71%    | 5                                 | 0      | Yes              | 10     | 24  |        | 15          | 30       | 30   | 0       |
| 34                 | Fremont          | Seattle CBD  | Dexter Ave N                                    | 2628         | 4248                         | 10                       | 24782  | 10                                     | 0%     | 0        | 5%     | 0                                 | 0      | 0                | 0      | 30  |        | 15          | 15       | 30   | 0       |
| 35                 | Fremont          | U. District  | N 40th St                                       | 32           | 2142                         | 6                        | 25828  | 10                                     | 7%     | 0        | 46%    | 0                                 | Yes    | 5                | 0      | 21  |        | 15          | 30       | 30   | 0       |
| 36                 | Fremont          | Whittier Hts | 8th Av NW, 3rd Av NW                            | 28           | 1401                         | 4                        | 1544   | 4                                      | 0%     | 0        | 33%    | 0                                 | 0      | 0                | 0      | 8   |        | 60          | 60       | 0    | 0       |
| 37                 | Green River CC   | Kent         | 132nd Ave SE                                    | 164          | 931                          | 2                        | 1815   | 4                                      | 43%    | 0        | 93%    | 0                                 | Yes    | 5                | 0      | 11  |        | 30          | 30       | 0    | 0       |
| 38                 | Greenwood        | Seattle CBD  | Greenwood Ave N                                 | 5            | 3607                         | 10                       | 12962  | 10                                     | 0%     | 0        | 23%    | 0                                 | Yes    | 5                | 0      | 25  |        | 15          | 15       | 30   | 0       |
| 39                 | High Point       | Seattle CBD  | 35th Ave SW                                     | 21           | 1850                         | 6                        | 9254   | 8                                      | 68%    | 5        | 68%    | 5                                 | Yes    | 5                | 0      | 29  |        | 15          | 15       | 30   | 0       |

| Threshold | Points |
|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|
| > 3000    | 10     | > 10250   | 10     | >= 51%    | 5      | >= 60%    | 5      | Yes       | 5      |
| > 2400    | 8      | > 5500    | 8      | DART 53%  | 5      | DART 47%  | 5      | No        | 0      |
| > 1800    | 6      | > 3000    | 6      | < 51%     | 0      | < 60%     | 0      |           |        |
| > 1200    | 4      | > 1400    | 4      |           |        |           |        |           |        |
| > 600     | 2      | > 500     | 2      |           |        |           |        |           |        |

| 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

| CORRIDOR ID NUMBER | Connections      |                  | MAJOR ROUTE                             | Land Use - Productivity |        | Social Equity - Demographics |        |                    | Geographic Value - Primary Connections |        |            |        | Preliminary Target Service Levels |        |   |        |             |          |      |         |       |
|--------------------|------------------|------------------|---|-------------------------|--------|------------------------------|--------|--------------------|--|--------|------------|--------|-----------------------------------|--------|---|--------|-------------|----------|------|---------|-------|
|                    | BETWEEN          | AND              |   | VIA                     | POINTS | HOUSEHOLDS/CORRIDOR MILE     | POINTS | JOBS/CORRIDOR MILE | MINORITY                               | POINTS | LOW-INCOME | POINTS | ACTIVITY CENTERS                  | POINTS | REGIONAL & MANUFACTURING/INDUSTRIAL CENTERS | POINTS | TOTAL SCORE | RAPIRIDE | PEAK | OFFPEAK | NIGHT |
| 79                 | Rainier Beach    | Capitol Hill     | Rainier Ave                             | 2341                    | 6      | 5476                         | 6      | 96%                | 5                                      | 81%    | 5          | Yes    | 5                                 | 0      | 27  |        | 15          | 15       | 30   | 0       |       |
| 80                 | Redmond          | Eastgate         | 148th Ave, Crossroads, Bellevue College | 221                     | 750    | 2                            | 2140   | 4                  | 84%                                    | 5      | 45%        | 0      | Yes                               | 5      | 0   | 16     |             | 30       | 30   | 0       |       |
| 81                 | Redmond          | Totem Lake       | Willow's Road                           | 930DART                 | 685    | 2                            | 2885   | 4                  | 68%                                    | 5      | 12%        | 0      | Yes                               | 10     | 21  |        | 15          | 30       | 30   | 0       |       |
| 82                 | Redmond          | Fall City        | Duwall, Carnation                       | 224                     | 188    | 0                            | 236    | 0                  | 36%                                    | 0      | 17%        | 0      | Yes                               | 0      | 5   |        | 60          | 60       | 0    | 0       |       |
| 83                 | Renton           | Burien           | S 154th St                              | 140                     | 513    | 0                            | 1503   | 4                  | 97%                                    | 5      | 100%       | 5      | 0                                 | Yes    | 10  | 24     | Yes         | <15      | 15   | 15      | 15    |
| 84                 | Renton           | Seattle CBD      | MLK Jr WY, I-5                          | 101                     | 876    | 2                            | 6362   | 8                  | 94%                                    | 5      | 100%       | 5      | 0                                 | Yes    | 10  | 30     |             | 15       | 15   | 30      | 0     |
| 85                 | Renton           | Rainier Beach    | West Hill, Rainier View                 | 107                     | 837    | 2                            | 518    | 2                  | 100%                                   | 5      | 94%        | 5      | 0                                 | 0      | 14  |        | 30          | 30       | 0    | 0       |       |
| 86                 | Renton           | Seattle CBD      | Skyway, S. Beacon Hill                  | 106                     | 1065   | 2                            | 6492   | 8                  | 92%                                    | 5      | 80%        | 5      | Yes                               | 5      | 0   | 25     |             | 15       | 15   | 30      | 0     |
| 87                 | Renton           | Renton Highlands | NE 4th St, Union Ave NE                 | 105                     | 1215   | 4                            | 2747   | 4                  | 98%                                    | 5      | 90%        | 5      | Yes                               | 5      | 0   | 23     |             | 15       | 30   | 30      | 0     |
| 88                 | Renton           | Enumclaw         | Maple Valley, Black Diamond             | 907DART                 | 183    | 0                            | 243    | 0                  | 14%                                    | 0      | 19%        | 0      | Yes                               | 5      | 0   | 5      |             | 60       | 60   | 0       | 0     |
| 89                 | Renton Highlands | Renton           | NE 7th St, Edmonds Av NE                | 908DART                 | 994    | 2                            | 554    | 2                  | 87%                                    | 5      | 77%        | 5      | 0                                 | 0      | 14  |        | 30          | 30       | 0    | 0       |       |
| 90                 | Richmond Beach   | Northgate        | Richmond Bch Rg, 15th Ave NE            | 348                     | 1320   | 4                            | 1237   | 2                  | 56%                                    | 5      | 52%        | 0      | Yes                               | 5      | 0   | 16     |             | 30       | 30   | 0       | 0     |
| 91                 | S. Vaashon       | N. Vaashon       | Valley Center                           | 118                     | 38     | 0                            | 75     | 0                  | 0%                                     | 0      | 0%         | 0      | 0                                 | 0      | 0   |        | 60          | 60       | 0    | 0       |       |
| 92                 | Sand Point       | U. District      | NE 53th St                              | 30                      | 1856   | 6                            | 13231  | 10                 | 13%                                    | 0      | 74%        | 5      | 0                                 | 0      | 21  |        | 15          | 30       | 30   | 0       | 0     |
| 93                 | Shoreline        | U. District      | Jackson Park, 15th Av NE                | 1148                    | 5760   | 8                            | 100%   | 5                  | 100%                                   | 5      | 49%        | 0      | 0                                 | 0      | 15  |        | 30          | 30       | 0    | 0       |       |
| 94                 | Shoreline CC     | Northgate        | N 130th St, Meridian Av N               | 345                     | 1239   | 4                            | 4069   | 6                  | 63%                                    | 5      | 64%        | 5      | Yes                               | 5      | 0   | 25     |             | 15       | 15   | 30      | 0     |
| 95                 | Shoreline CC     | Lake City        | N 155th St, Jackson Park                | 330                     | 1344   | 4                            | 2141   | 4                  | 28%                                    | 0      | 14%        | 0      | Yes                               | 5      | 0   | 13     |             | 30       | 30   | 0       | 0     |
| 96                 | Shoreline CC     | Greenwood        | Greenwood Av N                          | 5                       | 1822   | 6                            | 2529   | 4                  | 12%                                    | 0      | 38%        | 0      | Yes                               | 5      | 0   | 15     |             | 30       | 30   | 0       | 0     |
| 97                 | Totem Lake       | Seattle CBD      | Kirkland, SR-520                        | 255                     | 1128   | 2                            | 5834   | 8                  | 0%                                     | 0      | 4%         | 0      | Yes                               | 10     | 20  |        | 15          | 30       | 30   | 0       | 0     |
| 98                 | Totem Lake       | Kirkland         | Kingsgate                               | 236                     | 992    | 2                            | 1155   | 2                  | 27%                                    | 0      | 54%        | 0      | Yes                               | 5      | 0   | 9      |             | 60       | 60   | 0       | 0     |
| 99                 | Tukwila          | Seattle CBD      | Pacific Hwy S, 4th Ave S                | 124                     | 1412   | 4                            | 9564   | 8                  | 90%                                    | 5      | 85%        | 5      | 0                                 | Yes    | 10  | 32     |             | 15       | 15   | 30      | 0     |
| 100                | Tukwila          | Des Moines       | McMicken Heights, Sea-Tac               | 156                     | 524    | 0                            | 565    | 2                  | 93%                                    | 5      | 76%        | 5      | 0                                 | Yes    | 10  | 22     |             | 15       | 30   | 30      | 0     |
| 101                | Tukwila          | Fairwood         | S 180th St, Carr Road                   | 155                     | 585    | 0                            | 1201   | 2                  | 100%                                   | 5      | 20%        | 0      | Yes                               | 5      | 0   | 12     |             | 30       | 30   | 0       | 0     |
| 102                | Twin Lakes       | Federal Way      | SW Campus Dr, 1st Ave S                 | 903DART                 | 772    | 2                            | 1174   | 2                  | 96%                                    | 5      | 86%        | 5      | 0                                 | 0      | 14  |        | 30          | 30       | 0    | 0       |       |
| 103                | Twin Lakes       | Federal Way      | S 320th St                              | 187                     | 744    | 2                            | 593    | 2                  | 59%                                    | 5      | 59%        | 0      | 0                                 | 0      | 9   |        | 60          | 60       | 0    | 0       |       |
| 104                | U. District      | Seattle CBD      | Eastlake, Fairview                      | 73                      | 3142   | 10                           | 30237  | 10                 | 40%                                    | 0      | 89%        | 5      | 0                                 | Yes    | 10  | 35     |             | 15       | 15   | 30      | 0     |
| 105                | U. District      | Seattle CBD      | Broadway                                | 49                      | 3284   | 10                           | 18372  | 10                 | 45%                                    | 0      | 77%        | 5      | 0                                 | Yes    | 10  | 35     |             | 15       | 15   | 30      | 0     |
| 106                | U. District      | Bellevue         | SR-520                                  | 271                     | 885    | 2                            | 11765  | 10                 | 76%                                    | 5      | 52%        | 0      | 0                                 | Yes    | 10  | 27     |             | 15       | 15   | 30      | 0     |
| 107                | U. District      | Seattle CBD      | Lakewood                                | 25                      | 2539   | 8                            | 23079  | 10                 | 27%                                    | 0      | 71%        | 5      | 0                                 | 0      | 23  |        | 15          | 30       | 30   | 0       | 0     |
| 108                | UW Bothell       | Redmond          | Woodinville, Cottage Lake               | 931DART                 | 348    | 0                            | 1034   | 2                  | 6%                                     | 0      | 23%        | 0      | Yes                               | 5      | 0   | 7      |             | 60       | 60   | 0       | 0     |
| 109                | UW Bothell/CCC   | Kirkland         | 132nd Ave NE, Lk Wash Voch Tech         | 238                     | 874    | 2                            | 1873   | 4                  | 0%                                     | 0      | 27%        | 0      | Yes                               | 5      | 0   | 11     |             | 30       | 30   | 0       | 0     |
| 110                | Wedgwood         | Cowen Park       | View Ridge, NE 65th St                  | 71                      | 1382   | 4                            | 434    | 0                  | 0%                                     | 0      | 23%        | 0      | 0                                 | 0      | 4   |        | 60          | 60       | 0    | 0       |       |
| 111                | West Seattle     | Seattle CBD      | Fauntleroy, Alaska Junction             | 673                     | 2125   | 6                            | 8268   | 8                  | 15%                                    | 0      | 15%        | 0      | Yes                               | 5      | 0   | 19     | Yes         | <15      | 15   | 15      | 15    |
| 112                | White Center     | Seattle CBD      | 16th Ave SW, S5CC                       | 125                     | 683    | 2                            | 4444   | 6                  | 94%                                    | 5      | 15%        | 0      | Yes                               | 5      | 0   | 18     |             | 30       | 30   | 0       | 0     |

| Threshold | Points | Threshold | Points | Threshold | Points | Threshold | Points |
|-----------|--------|-----------|--------|-----------|--------|-----------|--------|
| > 3000    | 10     | > 10250   | 10     | >= 51%    | 5      | >= 60%    | 5      |
| > 2400    | 8      | > 5500    | 6      | DART 53%  | 5      | DART 47%  | 5      |
| > 1800    | 6      | > 3000    | 6      | < 51%     | 0      | < 60%     | 0      |
| > 1200    | 4      | > 1400    | 4      |           |        |           |        |
| > 600     | 2      | > 500     | 2      |           |        |           |        |

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

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

| CORRIDOR ID NUMBER | BETWEEN          | AND          | VIA   | Connections |         | Preliminary Service Level | 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 Target Service Levels and Family |      |         |      |         |      |         |               |
|--------------------|------------------|--------------|---|-------------|---------|---------------------------|------------------------------------|---------|---------------------------------------|---------|--|---------|--|---------|-------------------------|---------|------|---------|----------------------------|---------|------|--|------|---------|------|---------|------|---------|---------------|
|                    |                  |              |   | PEAK        | OFFPEAK |                           | PEAK                               | OFFPEAK | PEAK                                  | OFFPEAK | PEAK                                       | OFFPEAK | PEAK   | OFFPEAK | PEAK                    | OFFPEAK | PEAK | OFFPEAK | PEAK                       | OFFPEAK | PEAK | OFFPEAK                                | PEAK | OFFPEAK | PEAK | OFFPEAK | PEAK | OFFPEAK | PEAK          |
| 1                  | Admiral District | Southcenter  | California Ave SW, Military Rd, TIBS            | 128         | 0.77    | 0.84                      | 1                                  | 1       | 41%                                   | 27%     | 0  | 0       | 0  | 0       | 0                       | 30      | 30   | 30      | 30                         | 1       | 1    | 1                                      | 15   | 15      | 30   | 30      | 30   | 30      | Very Frequent |
| 2                  | Alki             | SODO         | Alaska Junction                                 | 50          | 0.89    | 0.47                      | 1                                  | 0       | 25%                                   | 14%     | 0  | 0       | 0  | 0       | 0                       | 60      | 30   | 30      | 30                         | 1       | 0    | 0                                      | 15   | 15      | 30   | 30      | 30   | 30      | Frequent      |
| 3                  | Auburn           | Burien       | Kent, SeaTac                                    | 180         | 0.42    | 0.87                      | 0                                  | 1       | 13%                                   | 26%     | 0  | 0       | 0  | 0       | 0                       | 60      | 30   | 30      | 30                         | 0       | 1    | 0                                      | 15   | 15      | 30   | 30      | 30   | 30      | Very Frequent |
| 4                  | Auburn/GRCC      | Federal Way  | 15th St, SW, Lea Hill Rd                        | 181         | 0.55    | 0.54                      | 0                                  | 0       | 23%                                   | 21%     | 0  | 0       | 0  | 0       | 0                       | 60      | 30   | 30      | 30                         | 0       | 0    | 0                                      | 30   | 30      | 30   | 30      | 30   | 30      | Local         |
| 5                  | Aurora Village   | Seattle CBD  | Aurora Ave N                                    | 358EX       | 1.09    | 0.77                      | 1                                  | 1       | 53%                                   | 47%     | 1  | 0       | 0  | 0       | 0                       | 30      | 30   | 30      | 30                         | 1       | 1    | 0                                      | <15  | <15     | 15   | 15      | 15   | 15      | Very Frequent |
| 6                  | Aurora Village   | Northgate    | Meridian Av N                                   | 346         | 0.70    | 0.69                      | 0                                  | 0       | 50%                                   | 47%     | 0  | 0       | 0  | 0       | 0                       | 60      | 30   | 30      | 30                         | 0       | 0    | 0                                      | 30   | 30      | 30   | 30      | 30   | 30      | Local         |
| 7                  | Avondale         | Kirkland     | NE 85th St, NE Redmond Wy, Avondale Wy NE       | 248         | 0.30    | 0.27                      | 0                                  | 0       | 17%                                   | 15%     | 0  | 0       | 0  | 0       | 0                       | 30      | 30   | 30      | 30                         | 0       | 0    | 0                                      | 30   | 30      | 30   | 30      | 30   | 30      | Local         |
| 8                  | Ballard          | U. District  | Green Lake, Greenwood                           | 48N         | 1.19    | 1.48                      | 1                                  | 1       | 57%                                   | 76%     | 1  | 1       | 1  | 1       | 1                       | 0       | 30   | 30      | 30                         | 30      | 1    | 1                                      | <15  | <15     | 15   | 15      | 15   | 15      | Very Frequent |
| 9                  | Ballard          | Northgate    | Holman Road, Northgate                          | 40          | 0.97    | 1.22                      | 1                                  | 1       | 50%                                   | 58%     | 0  | 1       | 0  | 0       | 0                       | 60      | 30   | 30      | 30                         | 1       | 1    | 1                                      | <15  | <15     | 15   | 15      | 15   | 15      | Very Frequent |
| 10                 | Ballard          | Seattle CBD  | 15th Ave W                                      | 674         | 1.00    | 1.25                      | 1                                  | 1       | 51%                                   | 69%     | 1  | 1       | 0  | 0       | 0                       | 60      | 30   | 30      | 30                         | 1       | 1    | 0                                      | <15  | <15     | 15   | 15      | 15   | 15      | Very Frequent |
| 11                 | Ballard          | U. District  | Wallingford (N 45th St)                         | 44          | 1.26    | 0.57                      | 1                                  | 0       | 63%                                   | 39%     | 1  | 0       | 0  | 0       | 0                       | 30      | 30   | 30      | 30                         | 1       | 0    | 1                                      | <15  | <15     | 15   | 15      | 15   | 15      | Very Frequent |
| 12                 | Ballard          | Seattle CBD  | Ballard/Interbay/MC, Fremont, South Lake Union  | 40          | 0.97    | 0.61                      | 1                                  | 0       | 33%                                   | 29%     | 0  | 0       | 0  | 0       | 0                       | 60      | 30   | 30      | 30                         | 1       | 0    | 0                                      | <15  | <15     | 15   | 15      | 15   | 15      | Very Frequent |
| 13                 | Beacon Hill      | Seattle CBD  | Beacon Ave                                      | 36          | 1.71    | 1.09                      | 2                                  | 1       | 103%                                  | 59%     | 2  | 1       | 1  | 1       | 1                       | 0       | 30   | 30      | 30                         | 2       | 1    | 1                                      | <15  | <15     | 15   | 15      | 15   | 15      | Very Frequent |
| 14                 | Bellevue         | Eastgate     | Lake Hills, Connector                           | 271         | 0.44    | 0.29                      | 0                                  | 0       | 16%                                   | 10%     | 0  | 0       | 0  | 0       | 0                       | 60      | 30   | 30      | 30                         | 0       | 0    | 0                                      | 15   | 15      | 30   | 30      | 30   | 30      | Very Frequent |
| 15                 | Bellevue         | Redmond      | NE 8th St, 156th Ave NE                         | 672         | 0.66    | 0.54                      | 0                                  | 0       | 49%                                   | 27%     | 0  | 0       | 0  | 0       | 0                       | 60      | 30   | 30      | 30                         | 0       | 0    | 0                                      | <15  | <15     | 15   | 15      | 15   | 15      | Very Frequent |
| 16                 | Bellevue         | Renton       | Newcastle, Factoria                             | 240         | 0.17    | 0.58                      | 0                                  | 0       | 10%                                   | 17%     | 0  | 0       | 0  | 0       | 0                       | 60      | 30   | 30      | 30                         | 0       | 0    | 0                                      | 15   | 15      | 30   | 30      | 30   | 30      | Very Frequent |
| 17                 | Burien           | Seattle CBD  | Delridge, Ambaum                                | 120         | 1.58    | 0.63                      | 2                                  | 0       | 89%                                   | 36%     | 1  | 0       | 0  | 0       | 0                       | 60      | 30   | 30      | 30                         | 2       | 0    | 0                                      | <15  | <15     | 15   | 15      | 15   | 15      | Very Frequent |
| 18                 | Burien           | Seattle CBD  | 1st Ave S, South Park, Airport Wy               | 131         | 0.42    | 0.29                      | 0                                  | 0       | 24%                                   | 13%     | 0  | 0       | 0  | 0       | 0                       | 30      | 30   | 30      | 30                         | 0       | 0    | 0                                      | 15   | 15      | 30   | 30      | 30   | 30      | Very Frequent |
| 19                 | Burien           | Seattle CBD  | Des Moines Mem Dr, South Park                   | 132         | 0.52    | 0.35                      | 0                                  | 0       | 22%                                   | 11%     | 0  | 0       | 0  | 0       | 0                       | 60      | 30   | 30      | 30                         | 0       | 0    | 0                                      | 15   | 15      | 30   | 30      | 30   | 30      | Very Frequent |
| 20                 | Capitol Hill     | White Center | South Park, Georgetown, Beacon Hill, First Hill | 60          | 0.72    | 0.57                      | 0                                  | 0       | 30%                                   | 19%     | 0  | 0       | 0  | 0       | 0                       | 60      | 30   | 30      | 30                         | 0       | 0    | 0                                      | <15  | <15     | 15   | 15      | 15   | 15      | Very Frequent |
| 21                 | Capitol Hill     | Seattle CBD  | 15th Ave E                                      | 10          | 1.43    | 0.69                      | 1                                  | 0       | 115%                                  | 40%     | 2  | 0       | 0  | 0       | 0                       | 30      | 30   | 30      | 30                         | 2       | 0    | 0                                      | <15  | <15     | 15   | 15      | 15   | 15      | Very Frequent |
| 22                 | Capitol Hill     | Seattle CBD  | Madison St                                      | 12          | 1.13    | 0.52                      | 1                                  | 0       | 114%                                  | 29%     | 1  | 1       | 1  | 1       | 1                       | 0       | 30   | 30      | 30                         | 2       | 2    | 1                                      | <15  | <15     | 15   | 15      | 15   | 15      | Very Frequent |
| 23                 | Central District | Seattle CBD  | E Jefferson St                                  | 35/45       | 1.54    | 1.61                      | 2                                  | 2       | 81%                                   | 72%     | 1  | 1       | 1  | 1       | 1                       | 0       | 60   | 30      | 30                         | 2       | 2    | 1                                      | <15  | <15     | 15   | 15      | 15   | 15      | Very Frequent |
| 24                 | Coiman Park      | Seattle CBD  | Leschi, Yeater                                  | 27          | 0.80    | 0.54                      | 1                                  | 0       | 24%                                   | 25%     | 0  | 0       | 0  | 0       | 0                       | 60      | 30   | 30      | 30                         | 1       | 0    | 0                                      | <15  | <15     | 15   | 15      | 15   | 15      | Very Frequent |
| 25                 | Cowen Park       | Seattle CBD  | University Way, I-5                             | 73          | 1.80    | 1.69                      | 2                                  | 2       | 105%                                  | 92%     | 2  | 1       | N/A  | N/A     | 60                      | 30      | 30   | 30      | 2                          | 2       | 0    | <15                                    | <15  | 15      | 15   | 15      | 15   | 15      | Very Frequent |
| 26                 | Discovery Park   | Seattle CBD  | Gilman Ave W, 22nd Ave W, Thornold Ave W        | 33          | 1.38    | 0.47                      | 1                                  | 0       | 57%                                   | 24%     | 1  | 0       | 0  | 0       | 0                       | 30      | 30   | 30      | 30                         | 1       | 0    | 0                                      | 15   | 15      | 30   | 30      | 30   | 30      | Very Frequent |
| 27                 | Eastgate         | Bellevue     | Newport Wy, S. Bellevue, 112th                  | 241         | 0.13    | 0.18                      | 0                                  | 0       | 7%                                    | 12%     | 0  | 0       | 0  | 0       | 0                       | 60      | 30   | 30      | 30                         | 0       | 0    | 0                                      | <15  | <15     | 15   | 15      | 15   | 15      | Very Frequent |
| 28                 | Eastgate         | Bellevue     | Somersert, Factoria, Woodridge                  | 246         | 0.21    | 0.12                      | 0                                  | 0       | 9%                                    | 5%      | 0  | 0       | 0  | 0       | 0                       | 30      | 30   | 30      | 30                         | 0       | 0    | 0                                      | 15   | 15      | 30   | 30      | 30   | 30      | Very Frequent |
| 29                 | Eastgate         | Overlake     | Phantom Lake                                    | 226         | 0.45    | 0.38                      | 0                                  | 0       | 33%                                   | 20%     | 0  | 0       | 0  | 0       | 0                       | 60      | 30   | 30      | 30                         | 0       | 0    | 0                                      | <15  | <15     | 15   | 15      | 15   | 15      | Very Frequent |
| 30                 | Enunclaw         | Auburn       | Auburn Wy S, SR 164                             | 186/915DART | 0.51    | 0.18                      | 0                                  | 0       | 10%                                   | 6%      | 0  | 0       | 0  | 0       | 0                       | N/A     | 0    | N/A     | 0                          | 0       | 0    | 60                                     | 60   | 60      | 60   | 60      | 60   | 60      | Hourly        |
| 31                 | Fairwood         | Renton       | S Puget Dr, Royal Hills                         | 148         | 0.47    | 0.37                      | 0                                  | 0       | 20%                                   | 13%     | 0  | 0       | 0  | 0       | 0                       | 60      | 30   | 30      | 30                         | 0       | 0    | 0                                      | <15  | <15     | 15   | 15      | 15   | 15      | Very Frequent |
| 32                 | Federal Way      | SeaTac       | SR-99   | 671         | 0.69    | 0.75                      | 0                                  | 1       | 40%                                   | 42%     | 0  | 0       | 0  | 0       | 0                       | 60      | 30   | 30      | 30                         | 0       | 1    | 0                                      | <15  | <15     | 15   | 15      | 15   | 15      | Very Frequent |
| 33                 | Federal Way      | Kent         | Military Road                                   | 183         | 0.27    | 0.24                      | 0                                  | 0       | 13%                                   | 8%      | 0  | 0       | 0  | 0       | 0                       | N/A     | 0    | N/A     | 0                          | 0       | 0    | 15                                     | 15   | 30      | 30   | 30      | 30   | 30      | Very Frequent |
| 34                 | Fremont          | Seattle CBD  | Dexter Ave N                                    | 26/28       | 1.40    | 0.70                      | 1                                  | 0       | 62%                                   | 28%     | 1  | 0       | 1  | 0       | 1                       | 60      | 30   | 30      | 30                         | 1       | 0    | 1                                      | <15  | <15     | 15   | 15      | 15   | 15      | Very Frequent |
| 35                 | Fremont          | Fremont      | N 40th St                                       | 32          | 1.19    | 1.56                      | 1                                  | 2       | 69%                                   | 56%     | 1  | 1       | 1  | 1       | 1                       | 0       | 30   | 30      | 30                         | 30      | 1    | 2                                      | <15  | <15     | 15   | 15      | 15   | 15      | Very Frequent |
| 36                 | Fremont          | Whittier Hts | 8th Av NW, 3rd Av NW                            | 28          | 1.40    | 0.70                      | 1                                  | 0       | 62%                                   | 28%     | 1  | 0       | 0  | 0       | 0                       | 30      | 30   | 30      | 30                         | 1       | 0    | 0                                      | 15   | 15      | 30   | 30      | 30   | 30      | Very Frequent |
| 37                 | Green River CC   | Kent         | 132nd Ave SE                                    | 164         | 0.80    | 0.78                      | 1                                  | 1       | 54%                                   | 35%     | 1  | 0       | 0  | 0       | 0                       | 60      | 30   | 30      | 30                         | 1       | 0    | 0                                      | <15  | <15     | 15   | 15      | 15   | 15      | Very Frequent |
| 38                 | Greenwood        | Seattle CBD  | Greenwood Ave N                                 | 5           | 1.13    | 0.56                      | 1                                  | 0       | 46%                                   | 38%     | 0  | 0       | 0  | 0       | 0                       | 30      | 30   | 30      | 30                         | 1       | 0    | 0                                      | <15  | <15     | 15   | 15      | 15   | 15      | Very Frequent |
| 39                 | High Point       | Seattle CBD  | 35th Ave SW                                     | 21          | 0.54    | 0.51                      | 0                                  | 0       | 32%                                   | 25%     | 0  | 0       | 0  | 0       | 0                       | 30      | 30   | 30      | 30                         | 0       | 0    | 0                                      | 15   | 15      | 15   | 15      | 15   | 15      | Very Frequent |

| Load Factor* | Off  |     | Peak |     |
|--------------|------|-----|------|-----|
|              | Peak | Off | Peak | Off |
| 1.50         | 2    | 2   | 2    | 2   |
| 0.75         | 1    | 1   | 1    | 1   |

| Cost Recovery* | Off  |     | Peak |     |
|----------------|------|-----|------|-----|
|                | Peak | Off | Peak | Off |
| >= 100%        | 2    | 2   | 2    | 2   |
| >= 50%         | 1    | 1   | 1    | 1   |
| >= 33%         | 1    | 1   | 1    | 1   |
| >= 16%         | 1    | 1   | 1    | 1   |
| >= 8%          | 1    | 1   | 1    | 1   |

Above Target  
Below Target

\* 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, >10% warrants 30 min.





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