

# **Strategic Plan for Public Transportation**

## **2007 - 2016**



**King County Department of Transportation**  
**Metro Transit Division**  
October 24, 2007



# Table of Contents

<b>Section One: Executive Summary .....</b>	<b>1-1</b>
<b>Strategic Plan Strategies for 2007 to 2016 .....</b>	<b>1-3</b>
Monitoring and Management Strategies .....	1-3
Service Strategies .....	1-4
Capital Strategies .....	1-9
Implementation Strategies .....	1-11
Financial Strategies .....	1-18
<b>Section Two: Planning Context .....</b>	<b>2-1</b>
<b>Policies Affecting King County Metro Services and Facilities .....</b>	<b>2-1</b>
<b>Transit System Trends .....</b>	<b>2-3</b>
<b>Projected Changes in the Transit Operating Environment.....</b>	<b>2-9</b>
<b>Emerging Issues .....</b>	<b>2-14</b>
<b>Section Three: Plan Objectives, Monitoring System Performance....</b>	<b>3-1</b>
<b>Policy Framework, Plan Concept and Consistency .....</b>	<b>3-1</b>
<b>Monitoring and Management Strategies .....</b>	<b>3-6</b>
Strategy M-1: Monitoring Plan Progress .....	3-6
Strategy M-2: Customer Satisfaction.....	3-8
Strategy M-3: Service Performance Evaluation.....	3-9
<b>Section Four: Improving the System – Service Strategies .....</b>	<b>4-1</b>
Strategy S-1: Service Consolidation .....	4-2
Strategy S-2: Service Design .....	4-5
Strategy S-3: Core Service Connections .....	4-7
Strategy S-4: Transit Improvements and Land Use.....	4-13
Strategy S-5: Bus Rapid Transit .....	4-14
Strategy S-6: Transit Access in Rapidly Developing Areas .....	4-18
Strategy S-7: Community Mobility .....	4-20
Strategy S-8: Specialized Transportation Services .....	4-21
Strategy S-9: Partnerships.....	4-25
Strategy S-10: Regional System Coordination .....	4-29
Strategy S-11: Student Mobility .....	4-32
Strategy S-12: Special Events .....	4-33
Strategy S-13: Activity Center Mobility.....	4-34
Strategy S-14: Vanpooling and Ridesharing Services .....	4-36
Strategy S-15: Marketing and Ridership Development .....	4-37

**Section Five: Building the System - Capital.....5-1**

Strategy C-1: Maintain, Replace and Upgrade Transit Facilities, Equipment and Systems.....	5-2
Strategy C-2: Passenger Facilities .....	5-3
Strategy C-3: Speed, Reliability and Safety.....	5-7
Strategy C-4: Park-and-Ride Facilities .....	5-9
Strategy C-5: Replacement and Expansion of the Transit Fleet .....	5-12
Strategy C-6: Operating Base Expansion .....	5-15
Strategy C-7: Terminals & Layover .....	5-14
Strategy C-8: Transit-Oriented Development .....	5-17

**Section Six: Developing Improvements – Implementation Strategies 6-1**

Strategy IM-1: <i>Transit Now</i> Program .....	6-1
Strategy IM-2: Service Implementation Phasing .....	6-3
Strategy IM-3: Service Resource Allocation .....	6-7
Strategy IM-4: Subarea and Community-Based Planning .....	6-9

**Section Seven: Paying for the System – Financial Strategies .....7-1**

Strategy F-1: Operating Revenue.....	7-3
Strategy F-2: Grants .....	7-4
Strategy F-3: Financial Partnerships .....	7-5
Strategy F-4: Financial Management.....	7-6

**Appendices**

(to be added in final version to incorporate  
the adopting ordinance)

<b>A: Ordinances .....</b>	<b>A-Error! Bookmark not defined.</b>
<b>B. <i>Transit Now</i> Program Description .....</b>	<b>B-Error! Bookmark not defined.</b>

## Table of Exhibits

Exhibit 1-1 Transit Now Program.....	1-15
Exhibit 1-2 Transit Now Investments for Core Service Routes.....	1-16
Exhibit 1-3 Transit Now Phasing Plan – Targeted Increases in Annual Service Hours by Program .....	1-17
Exhibit 2-1 Transit Boardings on King County Metro and King County-operated Sound Transit Routes .....	2-5
Exhibit 2-2: Year 2000 Commute to Work by Destination .....	2-6
Exhibit 2-3 Rider Satisfaction between 1998 and 2006.....	2-7
Exhibit 2-4 On-time Performance between 2002-2006 for Fall Service Change .....	2-8
Exhibit 2-5 Percentage of Bus Trips that are Overloaded or have Standing Passengers .....	2-8
Exhibit 2-6 Projected Population Growth.....	2-9
Exhibit 2-7 Projected Employment Growth.....	2-10
Exhibit 3-1 King County Metro Objectives Defined in the Comprehensive Plan for Public Transportation.....	3-2
Exhibit 3-2 Metro Transit Service Area, and Locations that are Accessible to Transit Service.....	3-5
Exhibit 4-1 Example of Route Consolidation Strategy to Enhance Transit Now Improvements.....	4-3
Exhibit 4-2 Transit Now Investments for Core Service Routes.....	4-9
Exhibit 4-3 Other Core Service Corridors .....	4-10
Exhibit 4-4 Transit Now Investments in Core Service Routes .....	4-11
Exhibit 4-5 Core Service Corridors .....	4-12
Exhibit 4-6 RapidRide Corridors .....	4-16
Exhibit 4-7 Developing Areas.....	4-19
Exhibit 4-8 Specialized Transportation Service Areas .....	4-22
Exhibit 5-1 2007 Budget: Capital Cash Flow by Program, 2006-2015 .....	5-1
Exhibit 5-2 Focus of Capital Investment in RapidRide and Core Service Connection Corridors .....	5-4
Exhibit 6-1 Transit Now Program.....	6-2
Exhibit 6-2 Transit Now Phasing Plan – Targeted Increases in Annual Service Hours by Program .....	6-4
Exhibit 6-3 King County Public Transportation Planning Subareas .....	6-8
Exhibit 6-4 Strategic Plan Roles and Responsibilities.....	6-11
Exhibit 6-5 Service Change Process .....	6-13

## Section One:

---

### Executive Summary

The Strategic Plan for Public Transportation 2007-2016 (“strategic plan”) describes how the Transit Division of the King County Department of Transportation (King County Metro) will implement the goals, objectives and policies included in the Comprehensive Plan for Public Transportation over the next ten years. Strategies in this strategic plan build on previous six-year transit development plans to make transit more relevant to changing travel needs at all levels—regionally, locally, and among the numerous cities and neighborhoods of King County. The plan sets forth strategies for transit, paratransit, rideshare services and supporting capital facilities in King County, and guides annual operating and capital program decisions that define Metro Transit services.

This document continues the strategies included in the Six Year Transit Development Plan for 2002-2007, and incorporating the improvements adopted by ordinance and voter approval as the *Transit Now* ballot measure. This plan, as well as the Comprehensive Plan for Public Transportation, will be more thoroughly updated during 2008, subject to a comprehensive public outreach and involvement program, and will be published together as a single document. Many of the issues that may be addressed in the 2008 update are discussed in Section 2.

Since the mid 1990’s, King County Metro public transportation services have been evolving. Sound Transit began service during that timeframe, providing all-day regional transit connections in selected corridors. King County Metro continues to provide many regional connections and maintains peak-period express services to major centers as it has since Metro Transit service was initiated in the 1970’s, but the focus of new Metro Transit services over the past decade has been primarily to improve connections to and between activity centers within the county. Given limited resources, King County Metro aims to develop and deliver new services efficiently, putting the greatest investment into improving the frequency and span of service for high-ridership routes, and consolidating parallel or redundant services where possible.

The proposed program is consistent with King County Metro’s financial plan through 2015 and adopted budget assumptions through 2012. When this strategic plan is updated in 2008, it will be revised as needed to reflect new budget and financial plan assumptions.

The financial plan reflects a baseline program that is augmented by the voter-approved 0.1% sales tax that will be dedicated to funding the construction and implementation of improvements identified in the *Transit Now* proposal. Funding from the 0.1% sales tax will be used to fund additional transit service starting in 2007. In addition, funds will be used to purchase vehicles and construct bus rapid transit improvements and other capital investments. By the end of the 10-year period, all of the additional 0.1% sales tax will be used to support transit service added from 2007-2016.

Improvements to public transportation service incorporated in this strategic plan include the services described in the *Transit Now* voter initiative, which will increase transit service by up to about 800,000 annual hours by 2016, including *Transit Now* service investments, local service partnership contributions, and added hours to maintain reliable schedules through congested traffic. *Transit Now* included these major initiatives:

- More service (greater frequency or increased span of service) on high ridership routes throughout King County. These are described in Strategy S-3, “Core Service Connections.”
- Implementation of RapidRide bus rapid transit service in five corridors. These are described in Strategy S-5, “Bus Rapid Transit.”
- A service partnership program to leverage investment by other public or private entities in transit service or street improvements that provide improved transit speed and reliability. This program is described in Strategy S-9, “Partnerships.”
- New or improved service in rapidly developing areas, as described in Strategy S-6, “Transit Access in Rapidly Developing Areas.”
- Expanded service area for Access paratransit service, as described in Strategy S-8, “Specialized Transportation Services.”
- Improved ridesharing services and capacity to double the vanpool program, as described in Strategy S-14. “Vanpool and Ridesharing Services.”

The strategies and priorities in the strategic-year plan are consistent with the King County Comprehensive Plan for Public Transportation (formerly known as the Long-Range Policy Framework), the King County Comprehensive Plan, the King County Countywide Planning Policies and the Metropolitan Transportation Plan “Destination 2030” adopted by the Puget Sound Regional Council. The plan also takes into account other regional planning efforts completed or underway in the region including Sound Transit’s regional transit system plan, and state and local plans for major transportation facility investments.

Consistent with the State Growth Management Act requirement that transportation planning be coordinated with local comprehensive plans, this plan focuses the improvement of transit services and facilities in the designated Urban Growth Area (UGA) of King County. The plan also establishes strategies to make development as well as transit services and facilities more efficient. The continued support of development within the UGA with higher levels of transit service is a central component of the region's growth strategy and of this plan.

## Strategic Plan Strategies for 2007 to 2016

Thirty-four plan strategies provide the direction for service and system development from 2007 to 2016. These strategies fall into five categories, each of which is described in a separate section of this strategic plan:

- Monitoring and Management (described in Section 3)
- Service (described in Section 4)
- Capital (described in Section 5)
- Implementation (described in Section 6)
- Financial (described in Section 7)

### Monitoring and Management Strategies

The plan's monitoring and management strategies provide methods to assess the success of plan implementation and the development of service and system improvements through ongoing performance and outcome measurement.

#### Strategy M-1: Measuring Plan Progress

Establish ten-year targets and measures of success in meeting objectives defined in the Comprehensive Plan for Public Transportation. Monitor progress towards these targets periodically and at the time of Strategic Plan updates.

#### Strategy M-2: Customer Satisfaction

Regularly monitor customer satisfaction using measures that assess system changes and improvements through regular surveys of riders and non-riders.

### Strategy M-3: Service Performance Evaluation

Regularly monitor and report bus service performance and ridership system-wide and at the route level to identify services that may require modification, expansion or termination based on their performance. Where practical, identify how system-level measures compare with other peer agencies.

## Service Strategies

The plan continues the service direction of the previous Six-Year Transit Development Plan, 2002-2007, and identifies strategies that were strengthened through passage of the *Transit Now* measure. The plan continues to emphasize efficiency and improved service design; increases service levels on a core network of routes connecting major activity centers, implements bus rapid transit, enhances service in developing areas, and provides dedicated resources to a service partnership program. New or improved services in each subarea will be provided consistent with local priorities that will serve the highest ridership demand; and improve connections to employment areas. King County Metro will continue efforts to integrate bus, vanpool and rideshare services with new Sound Transit services, and to offer innovative and complementary services and programs to increase HOV use and establish commute partnerships with public and private partners. The paratransit program will continue efforts to provide and develop the most cost-effective transportation options for people who are transportation disadvantaged due to age, disability or income, and vanpool and ridesharing programs will be expanded.

### Strategy S-1: Service Consolidation

Pursue efficiencies in existing services in major transit corridors. Reinvest savings from these efforts within the planning subarea in which they are generated.

### Strategy S-2: Service Design

Improve transit on-time performance through: adjustments in routing, splitting of unreliable through-route pairs, adding of recovery time between trips, moving routes between operating bases, and adding time or trips to schedules to account for slower travel speeds or recurring overloads.



Schedule maintenance hours shall be reserved in amounts up to one-third of new service investments in any five-year period and up to 0.5% of total annual service hours in any given year. The schedule maintenance hour allocation shall be achieved without regard to subareas. If schedule maintenance requirements exceed the service hours available under this strategy, reduction of existing services within the same subarea will be used to fund schedule maintenance needs.

In the event that schedule maintenance hours are proposed at a level exceeding 0.5% of total annual service hours by the Department of Transportation, the Regional Transit Committee may recommend a one-year exemption of this policy to the King County Council.

#### Strategy S-3: Core Service Connections

Improve service levels on existing routes and create new routes serving established urban and manufacturing/industrial centers and urban areas where, because of population or employment clusters, ridership and transit use is projected to be the highest. Improve frequencies as listed in Exhibit 1-2 and shown in Exhibit 4-4 to support existing demand and attract more riders on a core network of key connections. Improvements in core services will be made consistent with *Transit Now* program.

#### Strategy S-4: Transit Improvements and Land Use

Give increased priority for new service to areas of urban King County when they meet the following criteria:

- By meeting or exceeding prorated established housing and population targets, and/or
- By encouraging higher density development and pedestrian activity through adopted regulations and policies that promote mixed-uses, reduce parking requirements, and carry out other efforts that support transit supportive development.

#### Strategy S-5: Bus Rapid Transit

Design, develop and implement RapidRide, a Bus Rapid Transit system identified in Exhibit 4-6. Pursue grant funds and work with local jurisdictions to leverage additional funds to enhance the service frequency, speed, reliability, amenity and identity of RapidRide services funding by the *Transit Now* program.

#### Strategy S-6: Transit Access in Rapidly Developing Areas

Expand service coverage in areas with rapidly developing population growth of sufficient density to support transit service, and with a street network that accommodates non-circuitous transit routing and pedestrian access. For developing areas that do not meet these criteria, provide service capacity at newly built, expanded or leased park-and-ride lots as warranted by ridership demand at those locations. When identified as a subarea priority, make a portion of the new service investment available for innovative vanpool programs to support park-and-ride lot based transit service.

#### Strategy S-7: Community Mobility

Provide community mobility options by maintaining a network of local transit routes in transit-supportive areas with high residential or employment densities. Within each subarea, develop service proposals to provide new or improved service to residential and employment areas with the highest ridership demand, designed to promote circulation within communities. Where flexible service and other King County Metro mobility products and services can be provided more cost-effectively than fixed-route service, those services should be expanded in conjunction with modifications and improvements to the existing system.

#### Strategy S-8: Specialized Transportation Services

Provide complementary paratransit services that comply with federal regulations to people who have disabilities that prevent use of regular public transportation in the service area shown in Exhibit 4-8.

Develop cost-effective alternatives to supplement federally mandated paratransit service and to provide transportation services to persons who are transportation-disadvantaged due to age, disability or income within King County. Explore ways to include paratransit-eligible persons and other persons with disabilities and seniors on mobility services available to the general public, such as vanpools.

#### Strategy S-9: Partnerships

Develop partnerships with local jurisdictions, employers and institutions to increase public transportation services and improve service effectiveness.

- Transit Now partnerships: Solicit and enter into partnership agreements with public or private entities to mutually fund new or improved transit services, where the partner contribution may be in the form of direct funding or investment that results in transit speed or reliability improvements. Dedicate a portion of new service hours for this purpose.
- Commute Partnerships: Enter into partnerships to improve public transportation use and reduce single-occupant commuting by developing and promoting alternate commute programs; and by managing parking and traffic to make public transportation options more attractive.

#### Strategy S-10: Streetcar System

Consider opportunities for system integration when planning improvements to the existing King County streetcar line, identify the factors contributing to successful streetcar service and develop criteria to guide decisions to initiate or participate in future streetcar projects or, where necessary, to authorize other entities to provide streetcar service. Criteria should address land use, economic, environmental and social equity considerations along with transportation impacts and other factors.

#### Strategy S-11: Regional System Coordination and Integration

Work with other agencies to achieve integrated, cost-effective and efficient operation of multi-modal public transportation services in King County to address the needs of current and potential riders. When new regional services are initiated, reduce or eliminate redundant services when transfers can be made

reliably without undue delays to existing riders, and reinvest any operating savings within the same subarea.

Coordinate schedules, fare collection and customer information where possible between local, regional and waterborne transit operators to improve service for rides that utilize multiple agency's services. Participate in transportation system planning efforts including state and regional projects of countywide significance to identify potential transit service and capital elements and funding.

#### Strategy S-12: Student Mobility

The mobility requirements of students are recognized on a par with the needs of all riders. A school district may supplement the transit network by agreement to improve service for students beyond what is provided for in this strategic plan if King County is reimbursed for all incremental expenses, which can be partially offset through purchase of student passes.

#### Strategy S-13: Special Events

Work with private and public agencies to develop strategies for using public transportation services to offer alternatives to single-occupancy vehicle travel to special events. Strategies may include street use, transit priority, and other strategies under the jurisdiction of King County Metro or local governments.

#### Strategy S-14: Activity Center Circulation

Enhance circulation within activity centers through changes in transit service design and other programs to encourage transit use including, but not limited to, proposals for consideration of ride free areas. Preserve existing revenues and encourage financial partnerships with others to cover additional expenses associated with the provision of new services and programs for this purpose.

#### Strategy S-15: Vanpooling and Ridesharing Services

Provide vanpool, vanshare and ridematch services; especially for trips that are not accessible or convenient by fixed-route transit service. Provide services to help form and maintain carpools and vanpools, and develop or promote other

innovative and/or customized ridesharing services that provide alternatives to driving alone.

#### Strategy S-16: Marketing and Ridership Development

King County Metro will focus its marketing and promotional resources on activities that generate additional ridership on all modes other than single-occupant vehicles. The following principles will guide how King County Metro allocates its resources to generate additional ridership:

- Increase use of existing capacity in both service and pass programs,
- Achieve ridership goals from service investments and new facilities,
- Attend to all sources of customer satisfaction in marketing projects,
- Tailor projects to specific market segments,
- Use major construction projects as an opportunity to build ridership and secure partnership resources,
- Leverage marketing investment to support partner programs and services that meet King County Metro service delivery goals and objectives, and
- Execute a consistent brand identity and position in the marketplace.

### Capital Strategies

The plan's capital strategies provide for the necessary maintenance, expansion and improvement of transit facilities and equipment to support the objectives of the plan. The strategies provide for capital infrastructure and operating environment improvements integrated with the delivery of service, including the ongoing maintenance of transit assets and the expansion of maintenance base capacity. Investments in facilities and systems will take advantage of opportunities to improve efficiency by using cost-effective technology as projects for electronic fare collection, radio system replacement and integrating on-bus systems are completed. The plan also calls for investments in an environmentally friendly fleet and capital facilities.

The plan directs capital resources to expanding passenger facilities through more shelter installations and construction of passenger waiting and boarding areas along the bus rapid transit corridors. Investments are identified to improve transit speed and reliability while

making route and passenger facility improvements on corridors with higher service levels and ridership.

#### Strategy C-1: Maintenance, Replacement and Upgrade of Transit Capital Assets

Maintain, replace, and upgrade current facilities, equipment and systems based on ongoing condition assessments, industry standards and King County policies and procedures.

#### Strategy C-2: Passenger Facilities

Improve transit passenger facility access, shelter, lighting, bus stop locations and other amenities to enhance the waiting environment. In addition to general improvements throughout the system, focus a portion of resources on RapidRide and Core Service Connection corridors identified in Exhibit 5-2, through cooperation and coordination with local jurisdictions.

#### Strategy C-3: Transit Speed, Safety and Reliability

Partner with state and local governments to improve transit operating efficiency, and to create speed, safety, and reliability improvements on important transit corridors. In cooperation with local jurisdictions, focus on the target corridors identified in Exhibit 5-2.

#### Strategy C-4: Park-and-Ride Facilities

Coordinate with regional transit agencies and the Washington State Department of Transportation to expand park-and-ride capacity in congested corridors with full or overcrowded park-and-ride facilities. Support development of a series of small leased park-and-ride lots along low density suburban routes in order to enhance the ridership base. Where these lots have unused capacity, encourage their use of vanpools and park-and-pools.

#### Strategy C-5: Replacement and Expansion of the Transit Fleet

Replace and expand the transit bus fleet so that the size, fleet mix and fleet age are consistent with service projections and operating characteristics of the regular bus system. Replace and expand Vanpool fleet to maintain the appropriate mix of vehicle sizes to encourage and support vanpool program participants. Replace and expand Access paratransit vehicles to support efficient operations. Achieve more efficient and energy-friendly operations with features including efficient propulsion systems and non-traditional fuels.

#### Strategy C-6: Operating Base Expansion

Expand transit operating base capacity at Central, Atlantic and Ryerson bases as described in the adopted financial plan to support transit fleet growth projected to occur through the year 2030. Continue to examine fleet requirements in response to evolving service needs and commitments, including potential freeway construction mitigation service.

#### Strategy C-7: Terminals and Layover

Work with local jurisdictions to secure long-term agreements for use of on-street layover spaces. Coordinate with other transportation agencies and private developers to incorporate layover space and turnaround facilities into transit stations, transit centers, transportation projects and new development proposals where needed to support or improve current transit service. Consider off-street facilities for layover when on-street layover capacity is not available, and when dedicated layover space would result in significant operating savings, improved routing and/or operator safety.

#### Strategy C-8: Transit-Oriented Development

Encourage and support transit-oriented development at or near transit facilities to increase transit ridership by increasing activity and density in centers, and by increasing affordable housing and an appropriate mix of other land uses. Reduce transit facility development costs through joint development and/or public-private partnerships.

For the purpose of establishing benchmarks by which to later measure the impacts of a project, estimate the anticipated benefits of each proposed TOD including:

- expected ridership increase attributable to the project
- existing and potential residential and office density
  - within the project, and
  - within reasonable walking distance of the transit facility
- amount of affordable housing
- amount of retail that supports nearby resident and transit user needs
- design elements that facilitate transit operations
- design elements that promote walking and bicycling
- partner participation
  - city
  - developer
  - other transit agencies
- project contribution to reduced greenhouse gas emissions

Assess the extent to which each existing TOD, and future projects two and five years after completion, provide the anticipated benefits and other project specific benefits related to transit operating or facilities enhancements, local jurisdictional goals and other transportation goals identified in this plan.

## Implementation Strategies

The implementation strategies of the plan provide a phasing timeline and establish priorities for the use of new service resources.

### Strategy IM-1: *Transit Now* Program

King County Metro's priority is to implement the *Transit Now* program passed by voters in 2006 and shown in Exhibit 1-1, which includes service and capital support for these initiatives:

- RapidRide BRT. Use a target of 100,000 annual service hours between 2007 and 2016 to implement RapidRide BRT service in five corridors, consistent with service strategy S-5. The RapidRide corridors are:
  - Shoreline/Downtown Seattle via Aurora Avenue North
  - West Seattle/Downtown Seattle via West Seattle Bridge



- Ballard/Seattle Center/south downtown stadium area via 15th Ave Northwest and West Mercer Street with service or frequent connections to Ballard High School and the Ballard business district.
- Federal Way/Tukwila via Pacific Highway South
- Bellevue/Redmond via Crossroads and Overlake
- High Ridership Routes. Use a target of 350,000 annual service hours between 2007 and 2016 to improve service frequency and/or span of service on high ridership corridors on the core connections network, consistent with service strategy S-3 and shown in Exhibit 1-2.
- Service Partnerships. Enter into partnerships with public and/or private entities to serve established or emerging ridership markets, consistent with service strategies S-9 and F-3. A sustained fund supporting up to 90,000 annual service hours will be provided for this purpose, to be implemented between 2007 and 2013, matched by an additional 30,000 to 45,000 annual service hours funded by partner direct financial contributions, and by partner investments that will result in quantifiable transit speed and reliability improvements.

- New Service for Developing Areas. Add new service or improve existing services in rapidly developing areas in East and South King County within the Urban Growth Area, consistent with service strategy S-6. A target of 50,000 new annual hours of service will be deployed for developing areas between 2007 and 2016.
- Expanded paratransit service. Expand the service area for paratransit service to cover gaps within the fixed-route coverage areas as shown in Exhibit 4-3 and provide service to disabled users not served by Access through the Community Access Transportation Program.
- Expanded ridesharing and the vanpool program. Expand outreach efforts and provide incentives to increase program participation and facilitate ridesharing opportunities; promote ridesharing to smaller employers in King County, and in areas not served or underserved by the fixed-route transit system.

#### Strategy IM-2: Service Implementation Phasing

Provide a predictable schedule of service expansions that expand all elements of the *Transit Now* program concurrently and in all subareas, as show in Exhibit 1-3.

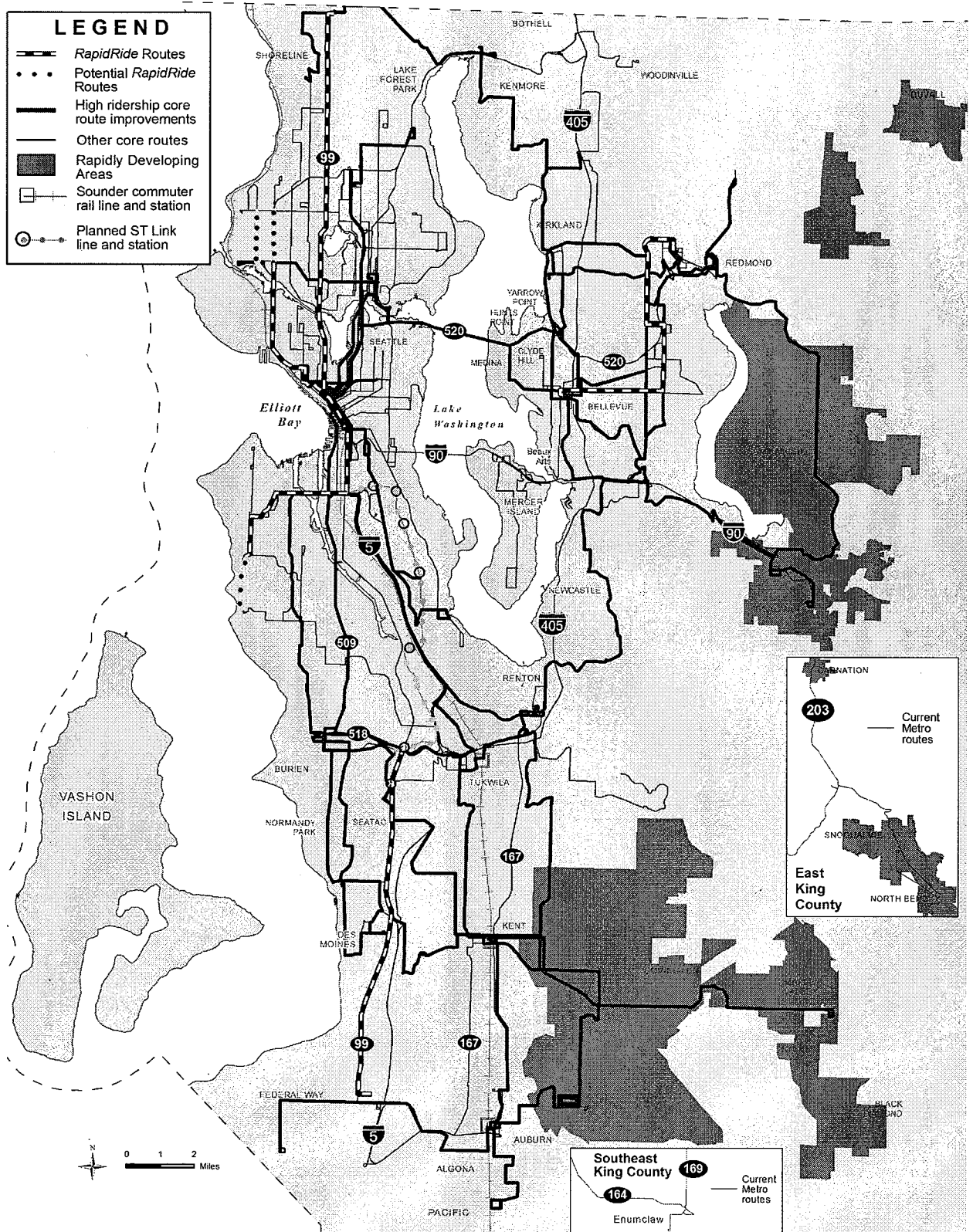
#### Strategy IM-3: Service Resource Allocation

The implementation of transit service hours as stated in strategy IM-1 and IM-2 above shall use the following framework for transit service allocation. Service hours used for service partnerships, schedule maintenance, contracted services or partnership agreements are exempted from subarea allocation requirements.

With the implementation of each 200,000 annual hours of service investments that are subject to the subarea allocation requirement and at the end of the 2007-2010 *Transit Now* program investments, each King County Metro planning subarea would receive a share of actual service hours implemented: East 40%, South 40% and Seattle/North King County 20%.

# Exhibit 1-1

## Transit Now Program



**Exhibit 1-2**  
**Transit Now Investments for Core Service Routes**

			2016 Target Frequency		
Between		Corridor	Peak	Midday & Sat	Eve & Sun
<b>Level 3 Improvements</b> (More than 15,000 annual hours): Major weekday frequency upgrades, new bus routes and/or route extensions					
Auburn	Kent	Auburn Way	30	30	30
Bellevue	Eastgate/BCC	Lake Hills Connector, 148th Av SE	10-15	15	30
Bellevue	University District	SR-520	10-15	15	30
Des Moines	Downtown Seattle	1st Ave S, SR-509, E Marginal Way	30	60	60
Issaquah	Bellevue	I-90, BCC	30	30	60
Issaquah	Redmond	228th Av SE, NE Sammamish	30	30-60	60
Kent	GRCC	E James St, 124th Av SE	30	30	60
Kent	Burien	KDM rd., S 240th St, 1st Av S	30	30	60
Kent	Four Corners	SE Kent Kangley Rd	30	30	60
Kent	Renton	Smith St., Benson Rd, Carr Rd	15	15-30	30-60
Kent	SeaTac	Orillia Rd, S 212th St	30	30	30
Kirkland	Eastgate/Factoria	156th Ave, Overlake, Crossroads Mall, BCC, Eastgate	15	15	30
Kirkland	Redmond	Avondale Rd NE, NE 85th St	30	30	30
Queen Anne	Downtown Seattle	Queen Anne Ave N	5-7	10-15	30
Renton	Burien	SW Grady Way, S 154th St	15	15	30
<b>Level 2 Improvements</b> (5,000 - 15,000 annual hours): Minor weekday frequency upgrades, expanded weekday hours of operations and/or added weekend service.					
Ballard	University District	NW Market St, N and NE 45th St	10	15	15-30
Beacon Hill	Downtown Seattle	Othello/New Holly Station, Beacon Av S	5-7	10-15	15-30
Bellevue	Bear Creek	Overlake	15	15-60	60
Bellevue	Kenmore	Finn Hill, Juanita, Kirkland, South Kirkland P&R	30	30	60
Bellevue	Renton	Coal Creek Pkwy, Factoria, Newcastle	15	30	30
Capitol Hill	Seattle Center	Denny Way	15	15	30
Kirkland	Bellevue	Lake Washington Blvd NE, Bellevue Way NE	15	30	60
Redmond	Eastgate/Factoria	148th Ave, Crossroads Mall, BCC, Eastgate	15	15	30
Renton	Downtown Seattle	MLK JR Way S, I-5	5-10	15-30	30
Redmond	Eastgate/Factoria	148th Ave, Crossroads Mall, BCC, Eastgate	15	15	30
University District	Downtown Seattle	Eastlake Ave E, Fairview Av N	12	15	15-20
<b>Level 1 Improvements</b> (5,000 annual hours or less): Added trips, expanded hours of operation and/or weekend frequency upgrades					
Auburn/GRCC	Federal Way	15th St SW, Lea Hill Rd	30	30	30
Burien	Downtown Seattle	Ambaum Blvd SW, Delridge Way SW	7-10	15	30
Kenmore	Shoreline	Ballinger Way, Aurora Village	15-30	30	60
Kent	Downtown Seattle	W Valley Hwy, Southcenter Blvd, Interurban Ave S, I-5	15	15	30
Kirkland	Downtown Seattle	108th Ave NE, SR-520	15	30	30-60
Northgate	Downtown Seattle	I-5	4-15	15	30

Measurement of the resulting share of hours will be based on the baseline bus route allocations that assign one-way routes that originate in a subarea or two-way routes that operate wholly within a subarea to that subarea. Further, all-day, two-way routes that operate between two subareas will be attributed in hours at 50 percent to each subarea. Any system-wide reduction in service investment shall be distributed among the subareas in proportion to each sub area's share of the total service investment.

**Exhibit 1-3**  
***Transit Now Phasing Plan –***  
**Targeted Increases in Annual Service Hours by Program**  
(In Thousands of Annual Hours)

Hours Categories	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
Developing Areas		13	8	4	5	7	13				50
RapidRide				34	42	19	5				100
High Ridership/Core	45	9	8	4	9	38	43	68	86	40	350
<b>Total 40-40-20 Adds</b>	<b>45</b>	<b>22</b>	<b>16</b>	<b>42</b>	<b>56</b>	<b>64</b>	<b>61</b>	<b>68</b>	<b>86</b>	<b>40</b>	<b>500</b>
<b>Service Partnerships</b>	<b>5</b>	<b>23</b>	<b>12</b>	<b>35</b>	<b>6</b>	<b>5</b>	<b>5</b>				<b>90</b>
<b>TOTAL</b>	<b>50</b>	<b>45</b>	<b>28</b>	<b>77</b>	<b>62</b>	<b>68</b>	<b>66</b>		<b>86</b>	<b>40</b>	<b>590</b>

**RapidRide Implementation:**

Pacific Highway S. in 2010, Bellevue-Redmond & West Seattle in 2011, Ballard/Uptown in 2012, and Aurora in 2013.

#### Strategy IM-4: Subarea and Community Based Planning

Conduct a community planning process in which transit riders, local jurisdictions, unincorporated area councils, employers, and educational institutions participate in the design and implementation of significant changes to existing service. Use service and capital strategies consistent with the service priorities described in Strategy IM-1. Involve the community, local jurisdictions and subarea groups in the development of recommendations for updates of the Strategic Plan at least every two years or more frequently if changing conditions or priorities dictate. Utilize overall roles and responsibilities as shown in Exhibit 6-3 and the service change process shown in Exhibit 6-4.

Plan updates shall address significant operating changes and capital improvements anticipated in the next ten years as well as any revision to adopted strategies necessitated by significantly changed circumstances affecting the transit program.

### Financial Strategies

A central goal of King County Metro's financial planning activities is stability of the transit system and financial integrity of the Public Transportation Fund. This goal is accomplished through prudent planning that uses reasonable economic assumptions along with specific programmatic plans to project future revenues, expenditures and resulting fund balances.

The financial strategies of the plan include pursuit of available state and federal grant sources and continues the long-standing policy of pursuing financial partnerships and economic development with local jurisdictions and other public and private entities.

#### Strategy F-1: Revenue-to-Operating Expense Ratio

Pursue a combination of farebox and other operations revenue to maintain a target bus operating revenue-to-operating expense ratio of at least 25 percent.

#### Strategy F-2: Grants

Pursue grants to fund projects that have been identified as necessary to support system service priorities or maintain the system as outlined in this plan.

#### Strategy F-3: Financial Partnerships

Pursue opportunities for partnerships and economic development with communities, employers, other transit agencies, federal and state governments and vendors to expand resources to support transit services and supporting capital facilities. Explore the use of advertising to support shelter program expansion and enhancements.

#### Strategy F-4: Financial Management

Ensure the maximum benefit is derived from available transit revenues by:

- Focusing capital expenditures on projects that directly support service investments;
- Utilizing a structured Life Cycle Costing model to evaluate new capital investment;
- Prioritizing capital investments in a manner that ensures that transit infrastructure is maintained to maximize operations; and
- Increasing the amount of transit service in the operating program by reducing discretionary costs and implementing cost savings techniques.





## Section Two:

---

### Planning Context

The Strategic Plan for Public Transportation, 2007-2016 identifies King County Metro's strategies for providing reliable, convenient and safe public transportation services throughout the region. It builds on the goals, objectives and strategies of prior plans while also recognizing new challenges and changing conditions King County faces over the next decade. This section discusses the many factors that affect King County Metro's priorities and constraints, divided into the following topics:

- Policies affecting Metro Transit services and facilities
- Transit system trends
- Projected changes in the transit operating environment
- Emerging trends that will receive more attention in the 2008 update to this plan

### Policies Affecting King County Metro Services and Facilities

The Strategic Plan is founded upon the King County Comprehensive Plan for Public Transportation which establishes the long-range policy framework for transit, discussed further in Section 3.

Metro Transit service is also governed by a body of state, regional and county policies and legislation that affect the services and facilities offered and the methods used to deliver them. The strategies contained in this Strategic Plan have been developed to respond to the legislative framework and are consistent with state and federal law. Key legislation and policies are identified below.

- **Growth Management Act:** The Growth Management Act (GMA) requires state and local governments to manage growth by identifying and protecting critical areas and natural resource lands, designating urban growth areas, preparing comprehensive plans and implementing them through capital investments and development regulations. Higher levels of transit service are central to the region's growth strategy to support the continued development within King County's Designated Urban Growth Area.

- **Commute Trip Reduction Act:** Enacted in 1991 as part of Washington's Clean Air Act, the Commute Trip Reduction (CTR) law requires major employers to provide employee transportation programs that encourage more employees to not drive alone to work every day. In 2006, the legislature created the concept of Growth and Transportation Efficiency Centers (GTEC) as part of the CTR Act extending CTR programs to a broader range of employers in designated corridors and activity centers. GTEC designation is an ongoing process and King County Metro will further address the impact of these designations in the 2008 strategic plan.
- **King County County-wide Planning Policies:** The King County Countywide Planning Policies were developed by the Growth Management Planning Council to serve as the framework for jurisdiction comprehensive plans. They guide implementation of the Growth Management Act and address a range of issues, including transportation, land use development, affordable housing and economic development. The transportation policies promote a coordinated multi-modal transportation system, with an aggressive transit component.
- **Vision 2020:** This plan establishes the long-range growth management strategy for the region, produced by the Puget Sound Regional Council. The vision promotes the development of compact urban areas connected by high-capacity transportation. The Vision 2020 plan is currently being revised and updated to extend the planning horizon to 2040.
- **Destination 2030:** The four-county regional plan addresses growth management and transportation coordination. It promotes compact urban areas supported by high-capacity transportation; and the development of integrated, multi-modal transportation systems. It places priority on preservation and the development of a balanced transportation system.

In addition to existing legislation, King County has developed a Climate Change Plan. The King County Climate Change Plan identifies goals and actions in strategic focus areas including Climate-Friendly Transportation Choices; Clean Fuels, Clean Energy and Energy Efficiency; and Land Use, Building Design and Materials. Many of King County Metro's current practices support and promote goals in these areas. The 2008 update to this strategic plan will allow further opportunity to explore additional measures to support goals related to climate change.

## Transit System Trends

King County Metro's previous plan, the 2002-2007 Six-Year Transit Development Plan, was developed in the context of rapid change for transit. When the plan was under development, both transit ridership and new transit service were increasing rapidly due to a strong economy, and a significant expansion was envisioned over the six-year planning period. An unexpected economic downturn, along with employment and investment decreases, brought about a decline in transit ridership and transit revenue. Transit revenues were further reduced due to repeal of the state motor vehicle excise tax, which provided state funding for transit service. An increase in the King County transit sales tax partially offset this loss in revenues.

With the limited resources available, service expansions focused on improvements to peak express service from newly developed park-and-ride lots in the east and south county areas, and on the network of core service routes discussed further in Section 4 of this plan. Service changes during this period focused on improving service reliability and efficiency through service restructures as well as integration with Sound Transit services.

These improvements continue to produce positive results. Ridership levels, which slowed early in the 2002-2007 period, have continued to grow since 2004, reaching a record-setting 103 million riders in 2006. A recovering economy and increasing gas prices have contributed to this ridership increase. Operational efficiencies gained through service restructures and consolidations also helped spark ridership growth. Access to the system was increased by the addition of more than 5,000 spaces to the park-and-ride system through new construction and expansion.

### **New Challenges, New Opportunities**

Amidst continued successes, new challenges are also emerging. Ridership is at a high, but there are also more riders standing and on-time performance is down. With the county poised to gain more than 250,000 new jobs and add more than 150,000 additional residents over the next decade, more transit will be needed to maintain and increase the current percentage of residents riding Metro Transit. To achieve the region's goals for land use, employment, and environmental, King County Metro needs to carry a growing proportion of trips to support the county's mobility, economy, and quality of life.

To boost its ability to respond to increasing demand, King County Metro developed the *Transit Now* program to expand transit service by 15 to 20 percent over the next decade. Approved by voters, *Transit Now* provides new revenue for transit and creates an opportunity to make significant investment in King County Metro services. Funded by a one-tenth of one percent sales-tax increase, *Transit Now* identifies a program of transit investments to be implemented over 10 years. It includes major bus, paratransit and vanpool improvements, including implementation of RapidRide bus rapid transit; more frequent service in high-demand corridors; new service for rapidly developing areas; and service partnerships with other agencies. The implementation of the *Transit Now* program will be the primary focus of this Strategic Plan, along with continued delivery of King County Metro's existing services. The shift from a six-year transit plan to a ten-year plan coincides with the ten-year investment plan identified by *Transit Now*.

In the coming decade, one of the most significant challenges may be related to freeway construction. Major freeway construction projects in the core of the region have potential to create significant traffic congestion during the construction period, creating both challenges and opportunities for transit. The challenge will be to maintain transit speeds and reliability in the face of increased congestion, but if that challenge can be met, the opportunity is to expand the transit market by providing a competitive alternative to waiting in construction-related traffic. Additional transit fleet and service hours will be required for this opportunity to be realized.

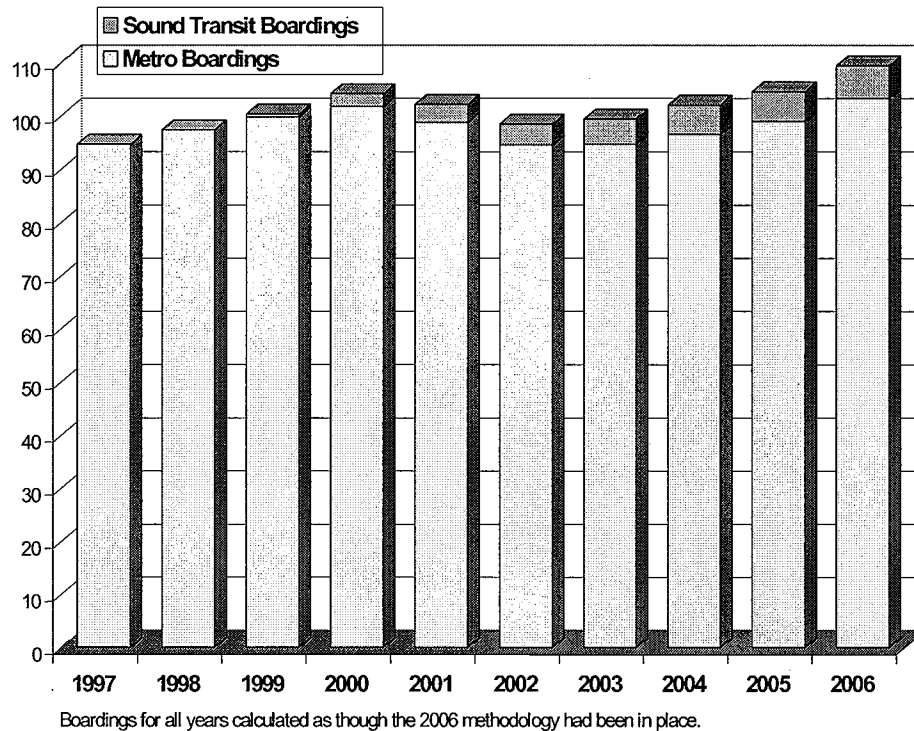
### **Transit Successes**

- **Transit Ridership:** Metro Transit ridership continues to grow steadily with over 103 million riders in 2006. Combined Metro Transit and Metro-operated Sound Transit boardings were 109.4 million. Ridership trends over the past ten years are shown in Exhibit 2-1. Metro Transit ridership increased by 4.3 percent in 2006, compared with the average increase of 1.9 percent among large transit agencies reporting to the American Public Transit Association.

Many factors have contributed to recent ridership increases including:

- Higher gasoline prices
- Healthy employment growth
- Changes to service
- Route promotion activities

**Exhibit 2-1**  
**Transit Boardings on King County Metro and**  
**King County-operated Sound Transit Routes**  
**(in Millions of annual boardings)**



<sup>1</sup> Total Transit Boardings for Metro Transit and Sound Transit service provided by MetroTransit, including ride free area boarding.

- **Vanpool ridership.** Vanpool use has increased at a rate even faster than fixed-route service in the past two years. Ridership on vanpools jumped 9 percent in 2006, to about 1.96 million annual riders. At year-end there were 801 vanpool groups and 133 vanshare groups for a total of 934 commuter vans in service.
- **Transit Use Per Capita.** The number of boardings per capita and the number of households using transit has remained mostly steady since 2000. The total percentage of households with residents reporting to have used transit is 26 percent. Overall usage of the system, measured by boardings per capita was 56.3 in 2006<sup>1</sup>.

<sup>1</sup> King County Metro data- 2006 Rider/Nonrider Survey

- **Commuting and Mode Split.** Transit is drawing an increasing share of commuters, while the share of those driving alone is decreasing. Exhibit 2.2 identifies the share of commuters driving alone, carpooling and taking transit to key employment centers in King County. All the business districts have seen a growth in transit market share since 1990. Nearly 37 percent of work trips being made by transit into the Seattle Central Business District (CBD) are made by transit. The Bellevue CBD draws the biggest transit share of the east King County business districts with 8.0 percent of work trips made by transit<sup>2</sup>. According to the 2000 U.S. Census Journey to Work data, Seattle residents report the highest transit usage, with 17 percent of residents commuting to work by transit. 6.6 percent of Bellevue residents take public transportation to work.

**Exhibit 2-2: Year 2000 Commute to Work by Destination<sup>3</sup>**

Destination	Drove Alone		Carpool		Transit	
	1990 Share	2000 Share	1990 Share	2000 Share	1990 Share	2000 Share
Seattle CBD	46%	41%	13%	13%	34%	37%
Bellevue CBD	82%	77%	12%	13%	5%	8%
Denny Regrade	56%	50%	16%	14%	21%	25%
Overlake CBD	84%	78%	11%	14%	2%	4%
Redmond CBD	86%	81%	8%	12%	1%	2%

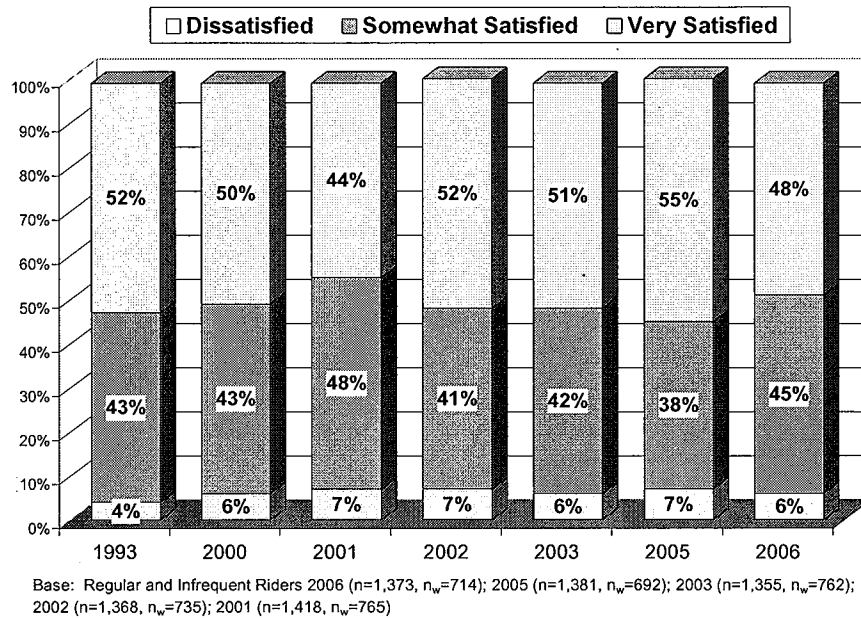
Note: not all travel mode categories shown

- **Customer Satisfaction.** King County Metro samples rider and non-rider perceptions about transit annually. Customer satisfaction remains high, with 93 percent of riders expressing satisfaction with Metro Transit services. Exhibit 2-3 shows the portion of riders who report being very satisfied, satisfied, or dissatisfied over the past ten-year period.

<sup>2</sup> Puget Sound Regional Council. *Puget Sound Trends*. March 2004.

<sup>3</sup> Puget Sound Regional Council. *Puget Sound Trends*. March 2004

**Exhibit 2-3**  
**Rider Satisfaction between 1998 and 2006**

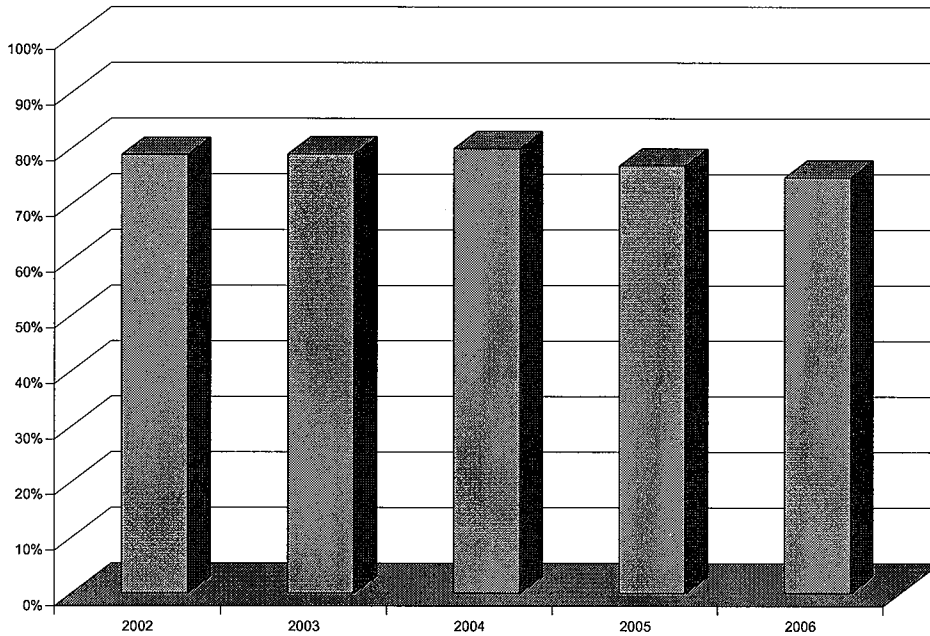


## Challenges

- **Operating Costs:** Transit operating costs have grown at rates higher than revenues. Since 2001, diesel fuel prices have more than tripled. Employee benefits have been growing at annual rates in excess of 10 percent. Since 2003, costs per platform hour have risen more than 14 percent.
- **On-time Performance.** The improving economy is a double edged sword –it is also resulting in increasing traffic congestion, which is moving King County Metro’s on-time performance and accident rates back towards levels experienced in the late 1990s. During the 2006 fall service change, on-time performance decreased slightly, showing 74.8 percent of all trips operating no more than one minute early and no more than five minutes late. Overall speed of service is also decreasing, making it necessary to adjust schedules to keep service on time. Since 2004, the average speed of service has dropped from 13.2 miles per hour to 12.8 miles per hour. Prior to that, the average speed of service held steady at roughly 13.2 miles per hour between 2000 and 2004. Exhibit 2-4 shows trends in on-time performance between 2002 and 2006. Each bar shows performance during the four-month period between September and January.

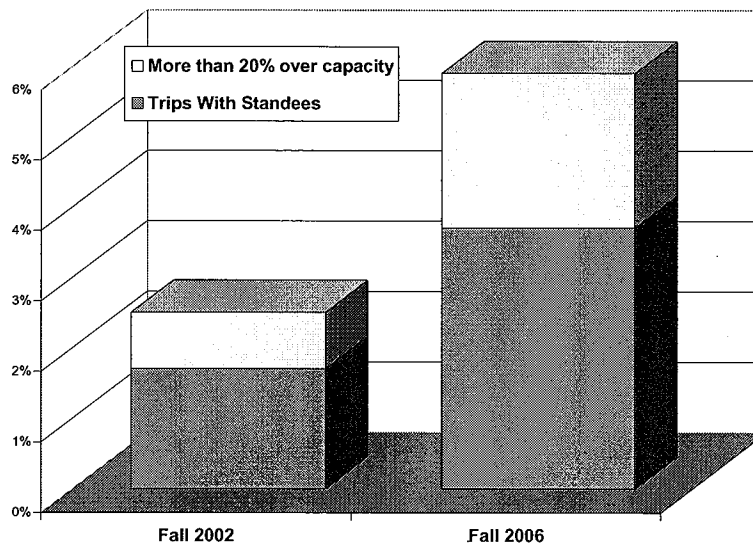
### Exhibit 2-4

#### On-time Performance between 2002-2006 for Fall Service Change (On-time = no more than one minute early or five minutes late)



### Exhibit 2-5

#### Percentage of Bus Trips that are Overloaded or have Standing Passengers





- **System Constraints.** Service capacity is currently limited by the number of operators and transit vehicles available for service. This issue is discussed further in Section 5. Base capacity could potentially impact service if there is growth in bus fleet beyond what is identified by *Transit Now*.
- **Overloads.** With rapid ridership increases due primarily to employment and gas price increases, the number of bus trips experiencing standing passengers has been an increasing problem. Exhibit 2-5 shows the number of bus trips with loads more than 20 percent over seated capacity and standees between 2002 and 2006.

## Projected Changes in the Transit Operating Environment

External factors impact Metro Transit service and affect King County Metro's strategic planning process, including demographics, traffic, transit financing, and proposals and plans to change the region's transportation system.

### Economics and Demographics

- **Population and Urban Growth Trends.** King County's population is expected to grow to over 2 million by 2022, a 13 percent increase over 2004, as shown in Exhibit 2-6. According to these projections, the West subarea will add the greatest number of people - 89,800 - while the East subarea will grow by the highest percentage, (16 percent). As a result of the growth patterns, the proportion of people living in the South will dip slightly.

**Exhibit 2-6<sup>4</sup>**

### Projected Population Growth

Subarea	2005		2022		Growth	
	Persons	% of Total	Persons	% of Total	Persons	% of Total
West	638,200	35%	728,000	36%	89,800	37%
East	501,700	28%	584,000	29%	82,300	34%
South	668,300	37%	736,000	36%	67,700	28%
King County	1,808,200	100%	2,048,00	100%	239,800	100%

<sup>4</sup> Population and employment data source: Countywide Planning Policies, Puget Sound Regional Council and King County Office of Management and Budget; latest official forecasts available

- **Employment Growth.** Employment is also projected to grow to 1.4 million in King County by 2022, a 26 percent increase over 2004, with 250,000 of the total added over the next ten years. King County has already seen a 3 percent increase in employment from 2005 to 2006, one of the largest increases in the nation<sup>5</sup>. Exhibit 2-7 shows employment growth between 2004 and 2022 by subarea.

**Exhibit 2-7**  
**Projected Employment Growth**

Subarea	2004		2022		Growth	
	Jobs	% of Total	Jobs	% of Total	Jobs	% of Total
West	476,000	45%	614,000	43%	138,000	37%
East	295,000	28%	410,000	28%	115,000	31%
South	298,000	28%	419,000	29%	121,000	32%
King County	1069,000	100%	1,443,00	100%	374,000	100%

- **Other Demographic Changes.** The average age of King County's population is projected to increase over the coming decades. As of 2006, 10 percent of the King County population was age 65 and older<sup>6</sup>. As this percentage grows, the aging population will likely demand more transit services and an increasing share of specialized services.

### **Regional Freeway and Arterial Congestion**

As population and employment grow, traffic congestion is projected to increase. Operating conditions for transit deteriorate as congestion grows. Traffic congestion is reported to cost the average Seattle-Everett area commuter 46 hours of delay per year, which translates to a cost of \$792 annually in excess fuel and lost time.<sup>7</sup>

The amount that people drive, measured as vehicle miles traveled (VMTs) has increased significantly. During the 1980's, there was a dramatic rise in total VMT in King County

<sup>5</sup> United States Department of Labor, Bureau of Labor Statistics, July 2007.

<sup>6</sup> State of Washington, Office of Financial Management. State and County Population Age 65 and older: 1980-2006.

<sup>7</sup> The 2005 Urban Mobility Report, Texas Transportation Institute, May 2005;  
<http://mobility.tamu.edu/ums/>

due to more dispersed work site locations and the increase of 2-worker households. Between 1980 and 1992, vehicle miles traveled increased 78.5 percent in the region while population increased by 28.9 percent and employment increased 39.4 percent. Since 1990, the rate of increase in VMTs has leveled off to a rate comparable to the increase in population and employment. From 1992 to 2005, vehicle miles traveled increased 24.1 percent, more closely aligned with the population increase of 19.8 percent and employment increase of 22.5 percent.<sup>8</sup>

While total VMT continues to increase, in part because more people are driving as population increases, the average VMT per person has recently declined. In 2003, the reported VMT per capita was 9,124 miles per year, the lowest miles traveled per capita reported since 1995. This decline may be related to a rise of the cost of gasoline.

### **Changes to the Region's Transportation System**

There are many plans and proposals for improvements and expansions to the transportation system. King County Metro actively participates in regional transportation planning and the development of transportation system changes to ensure coordinated efforts that include transit-supportive elements. King County Metro also participates in regional planning efforts to make certain that transit service implications of regional transportation projects are integrated into King County Metro's strategic plan.

Changes to the transportation system prompt King County Metro to make adjustments in order to take advantage of new opportunities and avoid negative impacts. Responding to these changes can be a challenge, since King County Metro has a fixed revenue stream and requires a lead time to add new fleet or base capacity. Changes can also create new opportunities however, as some changes such as expanded Sound Transit services enable redeployment of service hours.

King County Metro's *Transit Now* measure, passed in 2006, funds a defined investment plan for the next ten years. It authorized an additional sales and use tax of one-tenth of one percent for operations, maintenance and capital needs of King County Metro. *Transit Now* will provide funding for transit improvements defined for an initial ten-year period through 2016. *Transit Now* creates an opportunity to make significant investment in Metro Transit services to allow the system to expand by 15-20 percent.

---

<sup>8</sup> PSRC Trends: no. T2, September 2006

Other funded projects that will impact Metro Transit service include:

- **Sound Transit (ST) Services.** As Sound Transit begins to operate light rail service in King County, Metro Transit services will be adjusted to reduce parallel services and to provide better feeder connections to the light rail line. ST will open a Link light rail line between downtown Seattle and Sea-Tac Airport in 2009, and from downtown Seattle to the University District in 2016. ST will also implement its full service levels on Sounder commuter lines to Tacoma and Everett, and will continue to complete new bus facilities.
- **Joint Bus-Rail Use of Downtown Seattle Transit Tunnel.** The retrofitted Downtown Seattle Transit Tunnel reopens for bus service September 2007. Although only buses will operate in the tunnel until Link LRT start-up in 2009, buses will run under joint bus/LRT operating rules. Joint operation limits the peak number of buses per hour to sixty per direction, and King County Metro will observe this limit when the tunnel reopens in 2007. Once LINK light rail begins operations, King County Metro will maximize the use of the tunnel up to allowable limits based on operating experience with joint bus and rail use, and continue to utilize transit priority measures on 3rd Avenue and throughout downtown Seattle to promote efficient and reliable transit.
- **SR-99/ Alaskan Way Viaduct Early Construction Projects.** Projects to improve segments of the Alaskan Way Viaduct have been funded by the state Legislature and are in the design process. These projects may provide improved transit access into downtown Seattle when completed, but may also have significant impacts on service during construction, including extended closures or delays in the Battery Street tunnel, on SR-99 south of Seattle and First Ave S.
- **South Lake Union Streetcar.** The City of Seattle is implementing a streetcar service between downtown Seattle and South Lake Union. The project is under construction and is scheduled to open in December 2007. King County Metro will operate the streetcar, and the city will pay for a portion of the operating cost.

## Major Transportation Corridor Projects

There are numerous large-scale transportation projects planned for the region that are not yet fully funded. Many of these would be implemented if the joint Sound Transit/Regional Transportation Investment District (RTID) roads and transit ballot measure passes in November 2007. Many of the investments in the proposed package would have an impact on transit service when complete.

During the ten-year horizon of this strategic plan, the impacts that the construction program would have on both traffic and transit may perhaps be a more important issue. With extended construction underway on multiple corridors concurrently, maintaining mobility through the construction period may be one of the region's more significant transportation challenges.

Implications of these construction projects for King County Metro are multi-layered. Foremost, Metro will be faced with the challenge of keeping buses moving through construction-related congestion that will affect the whole region. Secondly, King County Metro service could potentially be an important part of efforts to mitigate construction-related congestion. King County Metro's role in mitigating construction traffic impacts will be considered further in the 2008 update to this strategic plan.

Some of the major transportation projects and proposals include:

- **Alaskan Way Viaduct (AWV) Replacement, or a Streets and Transit Alternative.** No decision has been reached about how the middle mile of the Alaskan Way Viaduct will be replaced. When this decision is made, it will have a strong impact on Metro Transit services, influencing overall accessibility into downtown Seattle, transit operating speed and costs into and through downtown, and the amount of transit service needed in the affected corridors during and after project construction. Since a majority of Metro Transit service passes through downtown Seattle, small increases in travel speed or reliability have a large impact on both ridership and the cost of operation.
- **SR-520 Bridge Replacement and HOV Project.** State and local governments continue to work with neighborhoods and local organizations to refine designs for a bridge replacement and decisions about freeway options through the Montlake area. Although construction is not scheduled to begin until 2013, King County Metro will

work actively with local groups and the state to maintain transit-friendly features of the project and address potential impacts to transit.

- **Urban Partnership.** Related to the SR 520 project, and in partnership with the Puget Sound Regional Council and the Washington State Department of Transportation, King County is one of the metropolitan areas selected for federal funding and technical assistance for planning innovative approaches to congestion reduction. The proposal would implement tolls on SR-520 subject to legislative authorization, and fund transit improvements in the corridor. Experience gained from the urban partnership program could affect plans to implement tolls on other freeways, providing increases in ridership demand and, potentially, in revenues for transit.
- **Roads and Transit Ballot Measure.** In November 2007, the roads and transit package proposed by the Regional Transportation Investment District (RTID) and Sound Transit (ST) will go before voters in Snohomish, King and Pierce Counties. The proposal includes the addition of 0.6 percent sales tax to fund Sound Transit Phase 2 (ST2) which includes 50 miles of light rail construction and expanded regional bus and commuter rail services; and the RTID program of improvement projects on state highways, bridges and local roads.
  - The ST2 program will extend Link light rail north into Snohomish County, south to Tacoma in Pierce County, and across the I-90 Bridge to Bellevue and Overlake. Most of this investment would be completed after the ten-year horizon of this strategic plan, but preliminary plans for service integration are already beginning.
  - The RTID package includes \$100M in funds that could be used by Sound Transit and King County Metro to mitigate traffic congestion related to the major freeway construction projects also included in the package. This program will be considered further in the 2008 update of this strategic plan if the RTID package passes.

## Emerging Issues

There is increasing interest in how transit can play a role in several emerging and related issues, some of which will be a focus for King County as a whole and will be addressed in King County's 2008 update to its Comprehensive Plan. The 2008 update to this Strategic Plan will identify additional transit actions and strategies that will have a positive impact on each of these issues.

- **Global Climate Change.** King County Executive Ron Sims has developed an action plan and set goals to address the issue of global climate change. King County Metro will be expected to play an important role in regional efforts to reduce greenhouse gas emissions. The King County Climate Plan finds that “Climate change is real, but we have an opportunity now to prevent its worst impacts. If we act effectively during the next ten years—to take these steps to reduce global greenhouse gas emissions and to prepare our region for the physical impacts of climate change—we will be able to limit the severity of climate change consequences for 21<sup>st</sup> century and beyond.” The 2008 update to this strategic plan will confront transit’s role in responding to that challenge as well as address how King County Metro will meet the goals established in emerging plans such as the King County Energy Plan.
  
- **Community Health.** King County has identified the health impacts of an automobile-captive lifestyle to be a significant public health issue, and concluded that the county must regionally coordinate and integrate its decisions in transportation, land use, environment and health to bring about approaches to community design that consider multiple environmental and health factors. Transit is a part of developing walkable communities and healthier lifestyles. Transit’s role to develop healthier communities will be developed further in the 2008 update.
  
- **Transportation System Pricing and Management.** King County supports further exploration in conjunction with federal, state and local governments of congestion mechanisms for the region. Road pricing can play an important role in managing congestion, raising revenue and reducing greenhouse gas emissions from transportation. Road pricing has been successfully implemented in other areas of the world, such as the City of London. Freeway management, possibly including pricing, will also be needed to maintain the speed and reliability of freeway HOV lanes and the buses that use them.





## Section Three:

### Plan Objectives, and Monitoring System Performance

This section describes the policy framework that defines King County Metro's goals and objectives for public transportation, and how the service concept will advance them. It also addresses the strategies King County Metro will use to monitor achievement of its objectives, performance of its services and satisfaction of its customers in order to manage the public transportation system effectively. King County Metro uses several quantitative methods applied over time to assess how well its services are performing and perceived, and uses this information to direct investments and adjust services to improve the quality of public transportation and its impacts on the communities we serve.

#### Policy Framework, Plan Concept and Consistency

King County Metro's long-range goals and objectives are defined in the Comprehensive Plan for Public Transportation (formerly known as the Long-Range Policy Framework). King County Metro's goals are to improve mobility, economic vitality and environmental quality; to support growth management; to be a responsible regional partner; and to work with other jurisdictions to ensure that land use and transportation planning and implementation are coordinated.

Twelve objectives are established to further these goals, shown in Exhibit 3-1. These objectives drive King County Metro's plans and priorities and are reflected in strategies included elsewhere in this strategic plan. These objectives also inform the performance measures developed to assess the implementation of the plan.

#### System Development Concept

The improvements implemented by this strategic plan are enabled by the voter-approved *Transit Now* program. This program continues a shift toward a more multi-destination network. The concept maintains the quality of existing investments, and adds new resources to programs that have the greatest potential to achieve King County Metro's objectives: high ridership core service connections, RapidRide bus rapid transit, service partnership programs, and transit access in rapidly developing areas.

**Exhibit 3-1**  
**King County Metro Objectives Defined in the**  
**Comprehensive Plan for Public Transportation**

**Market Share**

---

- Increase the portion of trips by people using transit and ridesharing within King County.

**Mobility**

---

- Reduce average HOV travel time relative to SOV travel by increasing HOV speed and reliability.
- Improve transit access to jobs and other activities
- Increase travel opportunities on public transportation by developing a range of integrated and complementary services and facilities, and making the system easier to use and understand.

**Cost and Efficiency**

---

- Provide the most efficient and effective services and facilities possible within available resources.

**Social, Economic and Environmental Benefits**

---

- Provide improved HOV services that support local and regional comprehensive plans and policies consistent with the Growth Management Act.
- Encourage creation and enhancement of pedestrian-friendly and HOV-supportive communities.
- Increase transportation options that use less energy, consume less land resources and produce fewer air pollutants.
- Reduce the average miles and hours traveled per day per person in single-occupant vehicles.
- Provide services and facilities that benefit all socio-economic groups.

**Financial Feasibility**

---

- Develop a system that is affordable to build, run and use with available funding.
- Identify new funding sources through cooperation with public jurisdictions and the private sector.

In the mid-1990's, King County Metro participated, along with other transit operators in Pierce and Snohomish counties, in development of a regional transit system plan which led to the creation of Sound Transit and high capacity transit connections throughout the three-county region. Development of regional services has given King County Metro the opportunity to invest in improved local service connections in all areas of the county. While Metro Transit service was historically considered "Seattle-centric," over time both Metro Transit and Sound Transit services have evolved to serve activity centers throughout the county consistent with the Puget Sound Regional Council's Vision 2020 and growth management goals.

A key element of this transition to a more multi-destinational system was King County Metro's development of a network of high-ridership core service connections, and these constitute the largest service investment in *Transit Now*. Core connection routes are primary two-way, all-day connections between activity centers throughout the county. Because core routes have transit attractions at both ends, they are productive in both directions.

The development of RapidRide bus rapid transit service complements Sound Transit rail and regional express bus by providing fast and frequent intermediate capacity transit services that serve more local trips of all sorts using arterial streets. RapidRide has potential to increase ridership for the shorter-distance trips that constitute the majority of trips by providing faster speeds, more frequent service, and a more convenient and comfortable experience.

The service partnership program provides an opportunity for King County Metro to work with public and private organizations to share the costs and responsibilities of providing additional transit service. The program also provides an opportunity for local jurisdictions and employers to provide a higher level of transit service than is possible through regular transit revenues, or to provide service in advance of new development, allowing jurisdictions a new tool to use transit service to help address transportation and land use coordination requirements under the Growth Management Act.

As part of *Transit Now* implementation, King County Metro plans to increase service to growing residential areas within the Urban Growth Area (UGA). King County Metro has previously been able to expand service to respond to rapid development in both the East and South areas of the county only to a limited extent. Investment in park-and-ride lots and service capacity on major corridors has been a priority over the past six years.

*Transit Now* enabled an additional boost of service to areas where development and population growth have out-paced service growth. The transit system currently provides extensive service coverage to people who live within King County, particularly within the designated Urban Growth Area (UGA). As shown in Exhibit 3-2, nearly 94 percent of all households within this area fall within one-quarter mile of a bus stop, within one and one-half miles of a permanent park-and-ride lot, or within the service area of Metro DART dial-a-ride service.

Additionally, King County Metro extends other transit and high-occupancy vehicle (HOV) services and products, including vanpool, rideshare services, and employer partnership programs, to all King County residents in order to provide them with options to driving alone. Paratransit service that meets or exceeds federal requirements is provided to qualified persons with disabilities in a service area comparable to King County Metro's non-commuter fixed route service.

### **Supporting Growth Management**

King County, in accordance with the Washington State Growth Management Act and in coordination with local jurisdictions, has implemented growth management policies to strengthen the link between transit service levels and land use. Development that creates higher concentrations of people and jobs provides economies of scale in the delivery of service. Implementation of related policies, such as limiting parking supply and establishing parking fees, increases the demand for transit alternatives. Within King County, areas where growth and growth management policies have combined to create strong, transit-supportive conditions include downtown Seattle and environs, the University District, and downtown Bellevue. These areas are the strongest transit ridership destinations in the county.

In recent years, policies directing growth into the Urban Growth Area (UGA) have begun to show results. Rapid growth in many cities and in urban, unincorporated King County is increasing pressure on the transportation system to provide additional bus and other transit services within the UGA.

## Metro Transit Service Area, and Locations that are Accessible to Transit Service



The concept of a “transit-supportive area” developed by the Transportation Research Board<sup>9</sup>, is used in the plan to more closely link land use and transit investment where higher population, employment density and potential ridership support a higher level of transit service operating all day. In areas where land use is not transit-supportive, attempts will be made to work with jurisdictions to improve land uses, and to design and provide service most appropriate to the transit market.

Transit-oriented, more densely developed areas can sustain higher levels of transit service. This is especially true of areas that are on track to successfully reach their housing and employment targets established by the Countywide Planning Policies and those areas with limited parking supply, parking charges and/or good pedestrian environment.

By using the concept of a “transit-supportive area”, King County Metro can better work with local jurisdictions to identify how best to provide transit-supportive environments and land use to foster the development of convenient and well-used public transportation.

## Monitoring and Management Strategies

### Strategy M-1: Monitoring Plan Progress

**Establish ten-year targets and measures of success in meeting objectives defined in the Comprehensive Plan for Public Transportation. Monitor progress towards these targets periodically and at the time of Strategic Plan updates.**

This strategic plan does not establish measures or targets for plan achievement between 2007 and 2016. The 2008 update to this strategic plan will re-evaluate the measures and targets used to assess plan progress, as well as the frequency and mechanism used for reporting.

---

<sup>9</sup> Transit Capacity and Quality of Service Manual, Second Edition. Transit Cooperative Research Program, Report 100. 2003

The following measures have been developed and assessed periodically to evaluate plan progress, based on plan objectives and targets established for 2002 through 2007.

### **Cost and Efficiency**

- **Ridership.** Transit ridership is defined as the number of annual boardings on the bus system at the countywide level. The changes and improvements proposed in the plan are expected to increase ridership over time, as both existing and new customers benefit from more and improved travel choices.
- **Bus Cost.** The cost of service per platform hour (relative to inflation) provides an overall measure of system cost efficiency. Various factors influence the labor, capital and administrative cost of service delivery. This indicator measures the average cost of the service supplied to the public per unit of service.
- **Bus Service Effectiveness.** Two measures of service effectiveness are boardings per platform hour of service and total bus passenger miles traveled. The measure of boardings per platform hour indicates transit's effectiveness in the number of travel occurrences served per unit of service. A measure of total passenger miles indicates transit's effectiveness in limiting the private vehicle miles that might otherwise be driven on limited roadway space.

### **Growth Management**

- **Service Orientation.** Shifts in service orientation show how the overall system structure is changing. Service orientation shifts are measured by changes in the amount (total annual platform hours) of service investment during the plan period made for core connections, peak-only services and local/other services.

### **Market Share**

- **Work Trip high occupancy vehicle (HOV) Mode Split.** The state Commute Trip Reduction Act is intended to increase the portion of commuters who use public transportation. Efforts are targeted at commuters to make their trips to and from work at designated sites within employment target areas where CTR requirements apply. King County Metro will focus resources to capture a higher percentage of total trips taken and reduce reliance on the single-occupant automobile. Progress toward meeting CTR targets to increase the percentage of HOV work trip is expected to occur over time.

## **Mobility**

- **Market Penetration.** The changes and improvements proposed in the plan are intended to increase market penetration by increasing service levels (frequency and span of service) in transit markets with strong ridership or indicators of strong demand. If the changes are effective, the number of households with people who have used transit in the last month will increase over time.
- **Overall Use.** The usefulness of public transportation to people throughout King County is increasingly important. An upward trend in transit boardings per capita is expected over time and is indicative of how well public transportation is capturing all kinds of travel demand.

## **Strategy M-2: Customer Satisfaction**

**Regularly monitor customer satisfaction using measures that assess system changes and improvements through regular surveys of riders and non-riders.**

Customer satisfaction provides a measure of service quality and acceptance of system changes and improvements. It is particularly important in retaining riders who have other transportation options (almost 75 percent of current riders) and in attracting new riders to the system.

### **Rider/Non-Rider Survey**

King County Metro's Rider/Non-Rider Survey will be used to assess satisfaction levels with system changes and improvements overall and at the subarea level in areas including:

- Directness of travel
- Wait time between transfers
- Safety, comfort, and convenience
- On time performance
- Service frequency (headway) - the time between buses



Additionally, customer satisfaction should be considered in the context of service evaluation, as an element of each area that is evaluated. This approach will utilize the information gained from regular customer surveys to link the evaluation of service with a corresponding evaluation of the customer's viewpoint under Strategy M-3.

### **Strategy M-3: Service Performance Evaluation**

**Regularly monitor and report bus service performance and ridership system-wide and at the route level to identify services that may require modification, expansion or termination based on their performance. Where practical, identify how system-level measures compare with other peer agencies.**

King County Metro monitors service performance on an ongoing basis, incorporating detailed route characteristics and data as well as system level indicators such as the customer satisfaction research described in Strategy M-2. The service evaluation process looks at both existing and new services and should include the following:

- Selection of reliable long-term data sources
- Consistent monitoring, evaluation, and reporting procedures
- High performance threshold(s) above which services should be improved to serve more riders
- Minimum performance threshold(s) below which service will be modified or eliminated
- Use of both traditional service performance indicators, customer research data and comparison with peer agencies



## Section Four:

### Improving the System – Service Strategies

King County Metro provides an array of services to meet the many different travel needs of passengers, and supports the varying land uses throughout the county. All-day, limited stop express services operated by Metro and Sound Transit are supplemented by Metro's additional express service during peak periods, local services to and between activity centers, vanpools and ridesharing for trips that are less convenient by bus and *Access* service for citizens that are ADA eligible.

The backbone of Metro Transit service is a network of high ridership “core service connections;” transit routes with frequent, two-way, all-day service that connect concentrations of activity throughout King County. Local routes support the core network by extending transit coverage to residential areas, connecting more areas to transit hubs and activity centers. Peak-only routes, which include many express services, provide additional speed and capacity to expand the county's transportation options during commute periods. These services, along with vanpool, rideshare and *Access* paratransit, are designed to meet a variety of user needs that are the focus of service strategies within this section.

Planned improvements to Metro Transit service over the next ten years were funded by voter approval of the *Transit Now* initiative in November 2006. Service improvements are a core component of the *Transit Now* plan, which will increase the frequency and span of service on many core service corridors, implement five RapidRide bus rapid transit routes, and provide new service in developing areas. *Transit Now* also initiates a service partnership program that provides public and private partners an opportunity to improve specific services by contributing a portion of the cost, either financially or through speed and reliability investments that improve service and reduce costs.

The following fifteen service strategies describe how King County Metro plans to address the many public transportation service needs within King County. While these strategies describe discrete actions, in practice King County Metro attempts to advance multiple strategies whenever a service change is proposed. The process King County Metro uses to implement service and capital improvements is described in Section 6.

## **Strategy S-1: Service Consolidation**

**Pursue efficiencies in existing services in major transit corridors.  
Reinvest savings from these efforts within the planning subarea in  
which they are generated.**

Reducing or eliminating poorly performing routes can free up service hours to improve more productive routes and address unmet service needs. And by consolidating services on parallel routes into a single route, it is often possible to create corridor service that is more frequent, productive and reliable. Service consolidation describes the continual improvement to service that results from using each service change as an opportunity to shift resources to stronger routes and more productive uses.

Recent experience implementing the service consolidation strategy points to principles that contribute to successful consolidations. First, the main segments of routes must be as direct and frequent as practical. Frequent service mitigates the inconvenience of transferring by minimizing wait time and facilitating convenient connections to other markets. Secondly, sufficient capacity must be provided on the main segment of routes so those riders can avoid having to stand for extended periods. And, finally, trips should be more evenly spaced throughout the day as is the case with a headway-based system rather than the “work start-quit time” system that was historically used by King County Metro. The earlier system had emphasized the arrival and departure times at major centers at presumed shift change times.

A recent example of a successful service consolidation was demonstrated in the Ambaum-Delridge corridor, where a restructure of core service provided higher frequency service in the corridor. Other service in the area was also restructured and connections between bus routes were improved through higher frequencies. The higher frequency service achieved through consolidation resulted in increased ridership and more efficient operations. Following the restructure, ridership along the Ambaum-Delridge corridor increased by over 40 percent on weekdays and the overall ridership in the area increased by 8 percent, notably higher than the system ridership growth of 2-3 percent for the same period.

King County Metro will continue to consider service consolidations for areas where there is a positive impact on service efficiency and transit ridership.

Service consolidations allow King County Metro to maximize service improvements and will play a role in the implementation of *Transit Now* investments. Exhibit 4-1 below illustrates how combining new resources from the *Transit Now* program with resources from existing services will create an improved Eastside transit network in February 2008. New *Transit Now* resources totaling 15,500 annual platform hours have been combined with existing hours to fund a more significant system improvement to the Eastside transit network.

#### Exhibit 4-1

##### Example of Route Consolidation Strategy to Enhance *Transit Now* Improvements

Route(s)	Description
220, 221 (new), 222	Discontinue Route 220; <b>create new north-South Route 221 between Redmond's Education Hill neighborhood and Eastgate Park-and-Ride</b> ; shorten Route 222 to operate between Bellevue Transit Center and Eastgate Park-and-Ride.
232, 233, 248 (new), 254, 266	Revise Route 232 to operate along Avondale Road NE, and revise service levels; shorten Route 233 to operate between Bear Creek Park-and-Ride and Bellevue Transit Center; <b>create new east-west Route 248 to operate between the Avondale neighborhood and Kirkland Transit Center via Redmond Transit Center, Redmond Park-and-Ride, and NE 85th Street</b> ; discontinue Route 254; shorten Route 266 to operate between Redmond Park-and-Ride and downtown Seattle.
238	Revise routing to operate via NE 80th Street, Lake Washington High School, and Houghton Park-and-Ride.
249, 921	Revise Route 249 to operate between Overlake Transit Center and Bellevue Transit Center via NE 40th Street, and extend service during weekday peak hours to serve South Kirkland Park-and-Ride; revise Route 921 to operate via 139th Avenue SE and Kamber Road, and revise routing in downtown Bellevue to operate via Main Street and 108th Avenue NE.
251	Revise routing to operate between the University of Washington-Bothell/Cascadia Community College and Redmond Park-and-Ride via NE 124th/128th streets on English Hill.



The service consolidation strategy is considered for all Metro Transit service changes. The changes shown in Exhibit 4-1 added new routes and enhanced others, using service resources that were freed up from other less productive uses. Other opportunities for service consolidation will be explored during the 2008 Strategic Plan update.

## **Strategy S-2: Service Design**

**Improve transit on-time performance through: adjustments in routing, splitting of unreliable through-route pairs, adding of recovery time between trips, moving routes between operating bases, and adding time or trips to schedules to account for slower travel speeds or recurring overloads.**

**Schedule maintenance hours shall be reserved in amounts up to one-third of new service investments in any five-year period and up to 0.5% of total annual service hours in any given year. The schedule maintenance hour allocation shall be achieved without regard to subareas. If schedule maintenance requirements exceed the service hours available under this strategy, reduction of existing services within the same subarea will be used to fund schedule maintenance needs.**

**In the event that schedule maintenance hours are proposed at a level exceeding 0.5% of total annual service hours by the Department of Transportation, the Regional Transit Committee may recommend a one-year exemption of this policy to the King County Council.**

This strategy addresses the role of route design and planning in improving service reliability. The capital elements of transit speed and reliability are addressed in Strategy C-3. Many factors impact service reliability including traffic congestion and changes in ridership. As traffic and ridership change, schedules must be adjusted to maintain on-time performance, and sometimes routes must be changed to maintain or restore reliable service.

Transit operates in increasingly congested traffic conditions throughout King County, especially in the urban centers, on freeways approaching urban centers, and on arterial roads approaching freeway interchanges. Traffic congestion slows transit and does so in an irregular manner that causes trip times to vary – so schedules need constant adjusting. Poor on-time performance discourages transit ridership by increasing the risk that trips will take longer to complete, that connecting transfers will not be made, or that a scheduled bus will not arrive on time or at all. Riders respond to this risk by catching earlier trips, increasing overall trip time, or by reducing their use of transit.

When traffic congestion delays a specific service on an ongoing basis, schedule maintenance resources may be added to the route. Time is added in between bus trips in work assignment to ensure that each bus begins its next trip at the scheduled time. At any given time, traffic congestion affects many routes in the system, and these resources are added where and when they are needed most. These adjustments provide increased reliability for riders on currently scheduled service.

Route design also impacts service reliability. Longer routes have a greater cumulative exposure to traffic incidents, wheelchair lift deployments, and other sources of intermittent delay that become more severe as traffic worsens. Unreliable service also tends to be unevenly loaded, since a bus that is delayed starts to pick up passengers who were intending to take the following bus, while the following bus now has a lighter load causing it to operate ahead of schedule. When this occurs, buses bunch together, decreasing the effective frequency of the service.

Bus trips that enter downtown Seattle as one route and leave as another (known as “through-routing”) are especially susceptible to reliability problems, because the combined trip covering two routes can be very long. Many downtown-oriented all-day routes are through-routed, and the practice does also have advantages, it: reduces operating costs, uses fewer buses to provide the same amount of service, distributes passenger loads from both routes throughout the central business district, and it provides one trip access for riders to go from one side of the city to the other. Through-routing also reduces downtown bus volumes and the need for layover space in downtown areas where curbspace is difficult to obtain. Most trolley routes and many diesel routes operate this way. This practice works well as long as traffic congestion does not unduly delay service. But as traffic congestion worsens, through-routes become more difficult to operate reliably.



Schedule reliability is an important factor in the quality of transit service. The implementation of *Transit Now* will provide an increase in schedule maintenance hours, providing expanded resources for King County Metro to improve service reliability. These resources will be used to adjust schedules as congestion or overloads makes trip times longer, and to redesign routes when they can no longer operate reliably.

### **Strategy S-3: Core Service Connections**

**Improve service levels on existing routes and create new routes serving established urban and manufacturing/industrial centers and urban areas where, because of population or employment clusters, ridership and transit use is projected to be the highest. Improve frequencies as listed in Exhibit 4-2 and shown in Exhibit 4-4 to support existing demand and attract more riders on a core network of key connections. Improvements in core services will be made consistent with the *Transit Now* program.**

The largest service investment in *Transit Now* in this strategic plan is dedicated to improvements to the high ridership core service connections. Core routes are primary two-way, all-day connections between activity centers throughout the county. Because core routes have transit attractions at both ends, they are productive in both directions. Core routes are strengthened by the service consolidation strategy, which aims to consolidate parallel routes to develop a stronger and more frequent all-day connection. By providing service to and between the county's activity centers, the core connection network advances the land use and transportation objectives of local and regional comprehensive plans.

*Transit Now* high ridership core service investments target routes serving and connecting urban and manufacturing centers. Service improvements include added trips, frequency upgrades and expanded hours of operation. When service is frequent, it is more likely to be available when customers need it and reduces wait time between buses for riders who transfer. When service becomes very frequent, some riders will find they can use it spontaneously, without having to consult a timetable.

Service frequency is an important factor in ridership levels. National research on travel behavior suggests that, in decision-making regarding whether to use the bus, time spent waiting for the bus is twice as important as time spent getting to or riding the bus<sup>10</sup>. Ridership levels are typically more responsive to changes in service frequency<sup>11</sup>. The target frequency for service on routes selected for *Transit Now* investment is every 15 minutes, seven days a week. Improvements funded by *Transit Now* are shown in Exhibit 4-2, and illustrated in Exhibit 4-4. All other core corridors are listed in Exhibit 4-3 and shown in Exhibit 4-5.

King County Metro investments in core service routes support land use and growth management objectives by focusing transit service improvements on routes that serve transit and pedestrian-friendly activity centers. Improved transit service levels can also promote complementary actions by local jurisdictions and private developers to make transit service more attractive and effective, and to make improvements to pedestrian access and walkability. Local jurisdictions can improve transit by promoting density near transit lines, by providing queue jumps or transit signal priority at intersections to improve the speed and reliability of service, or by improving the pedestrian environment that help transit users get to and from their bus stop. Local jurisdictions and employers can make transit more effective through commute trip reduction programs and by managing the supply of parking. By identifying corridors where transit improvements will occur, local jurisdictions can adopt comprehensive plans that will focus development and improvements in places that will complement and support planned transit services.

---

<sup>10</sup> Patrick Mayworm, Armando Lago, and J. Matthew McEnroe. *Patronage Impacts of Changes in Transit Fares and Services*. Urban Mass Transportation Administration, Washington D.C., 1980.

<sup>11</sup> John E. Evans *Traveler Response to Transportation System Changes*. Transportation Research Board, 2004.

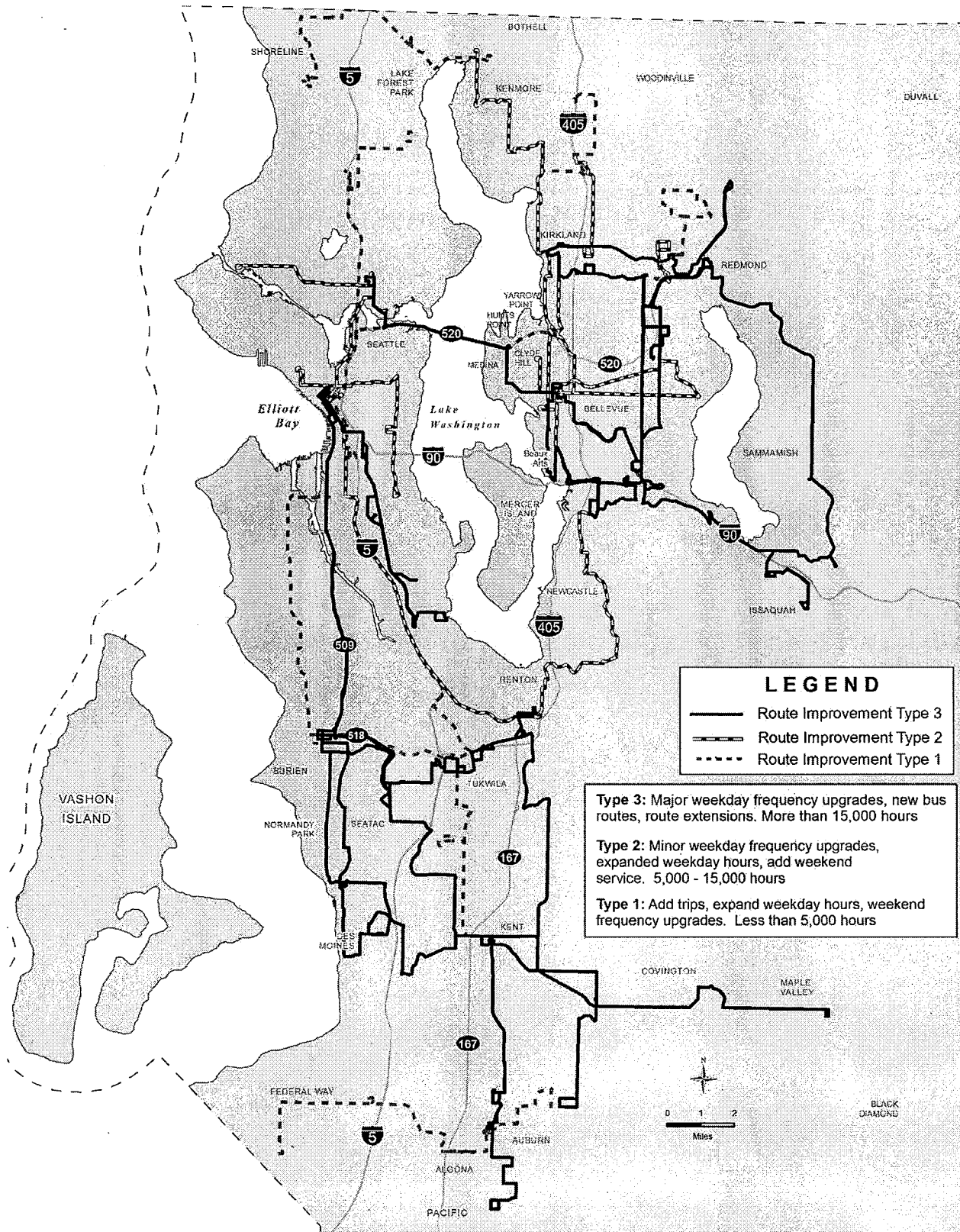
**Exhibit 4-2**  
**Transit Now Investments for Core Service Routes**

			2016 Target Frequency		
Between		Corridor	Peak	Midday & Sat	Eve & Sun
<b>Level 3 Improvements</b> (More than 15,000 annual hours): Major weekday frequency upgrades, new bus routes and/or route extensions					
Auburn	Kent	Auburn Way	30	30	30
Bellevue	Eastgate/BCC	Lake Hills Connector, 148th Av SE	10-15	15	30
Bellevue	University District	SR-520	10-15	15	30
Des Moines	Downtown Seattle	1st Ave S, SR-509, E Marginal Way	30	60	60
Issaquah	Bellevue	I-90, BCC	30	30	60
Issaquah	Redmond	228th Av SE, NE Sammamish	30	30-60	60
Kent	GRCC	E James St, 124th Av SE	30	30	60
Kent	Burien	KDM rd., S 240th St, 1st Av S	30	30	60
Kent	Four Corners	SE Kent Kangley Rd	30	30	60
Kent	Renton	Smith St., Benson Rd, Carr Rd	15	15-30	30-60
Kent	SeaTac	Orillia Rd, S 212th St	30	30	30
Kirkland	Eastgate/Factoria	156th Ave, Overlake, Crossroads Mall, BCC, Eastgate	15	15	30
Kirkland	Redmond	Avondale Rd NE, NE 85th St	30	30	30
Queen Anne	Downtown Seattle	Queen Anne Ave N	5-7	10-15	30
Renton	Burien	SW Grady Way, S 154th St	15	15	30
<b>Level 2 Improvements</b> (5,000 - 15,000 annual hours): Minor weekday frequency upgrades, expanded weekday hours of operations and/or added weekend service.					
Ballard	University District	NW Market St, N and NE 45th St	10	15	15-30
Beacon Hill	Downtown Seattle	Othello/New Holly Station, Beacon Av S	5-7	10-15	15-30
Bellevue	Bear Creek	Overlake	15	15-60	60
Bellevue	Kenmore	Finn Hill, Juanita, Kirkland, South Kirkland P&R	30	30	60
Bellevue	Renton	Coal Creek Pkwy, Factoria, Newcastle	15	30	30
Capitol Hill	Seattle Center	Denny Way	15	15	30
Kirkland	Bellevue	Lake Washington Blvd NE, Bellevue Way NE	15	30	60
Redmond	Eastgate/Factoria	148th Ave, Crossroads Mall, BCC, Eastgate	15	15	30
Renton	Downtown Seattle	MLK JR Way S, I-5	5-10	15-30	30
Redmond	Eastgate/Factoria	148th Ave, Crossroads Mall, BCC, Eastgate	15	15	30
University District	Downtown Seattle	Eastlake Ave E, Fairview Av N	12	15	15-20
<b>Level 1 Improvements</b> (5,000 annual hours or less): Added trips, expanded hours of operation and/or weekend frequency upgrades					
Auburn/GRCC	Federal Way	15th St SW, Lea Hill Rd	30	30	30
Burien	Downtown Seattle	Ambaum Blvd SW, Delridge Way SW	7-10	15	30
Kenmore	Shoreline	Ballinger Way, Aurora Village	15-30	30	60
Kent	Downtown Seattle	W Valley Hwy, Southcenter Blvd, Interurban Ave S, I-5	15	15	30
Kirkland	Downtown Seattle	108th Ave NE, SR-520	15	30	30-60
Northgate	Downtown Seattle	I-5	4-15	15	30

**Exhibit 4-3**  
**Other Core Service Corridors**

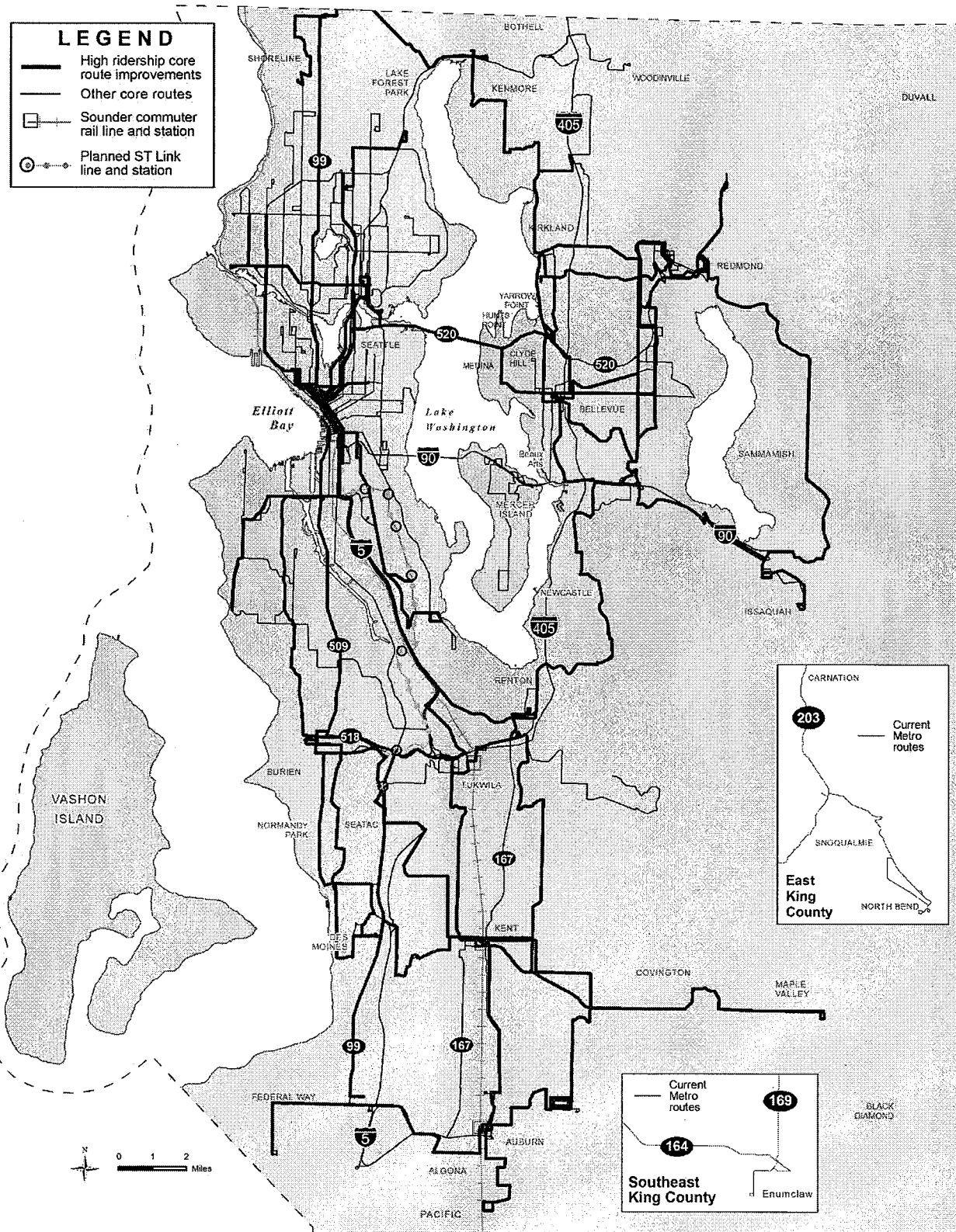
			2016 Target Frequency		
Between		Corridor	Peak	Midday & Sat	Eve & Sun
Other Core Corridors served by Metro Transit					
Admiral	White Center	California Ave SW	30	30	30
Aurora Village	Downtown Seattle	Aurora Ave N	10	15	30
Ballard	Northgate	24 <sup>th</sup> Ave NW, Holman Road	30	30	60
Ballard	Downtown Seattle	15 <sup>th</sup> Ave NW	10	10	30
Bellevue	Factoria	112 <sup>th</sup> Ave NE, South Bellevue P&R	30	30	60
Bellevue	Redmond	Crossroads, Overlake	15	15	30
Capitol Hill	Downtown Seattle	15 <sup>th</sup> Ave E, Pine St.	10	15	30
Capitol Hill	Downtown Seattle	Broadway E, Pine St.	10	10	15-30
Capitol Hill	Downtown Seattle	Madison St.	10	15	30
Central Area	Seattle CBD	Jefferson-James	7-8	10	15
Federal Way	Downtown Seattle	I-5	30	30	30
Federal Way	SeaTac	SR-99	20	30	30
Fremont	Downtown Seattle	Dexter Ave N	10-15	15	30
Greenwood	Downtown Seattle	Greenwood Ave N	15	15	30
Kirkland	Totem Lake	124 <sup>th</sup> Ave NE, Kingsgate P&R	30	30	60
Loyal Heights	University District	NW 85 <sup>th</sup> St, 15 <sup>th</sup> Ave NE	10	15	30
Madrona	Downtown Seattle	Union St	15	15	30
Northgate	Downtown Seattle	Wallingford Ave N, Aurora Ave N	20	20	30
Northgate	University District	Roosevelt Way NE, 5 <sup>th</sup> Ave NE	10-15	15	30
Queen Anne	Downtown Seattle	5 <sup>th</sup> Ave N, Taylor Ave N	10-15	20	15-30
Rainier Beach	Downtown Seattle	Rainier Ave S	10	10	15-30
Sea-Tac Airport	Downtown Seattle	I-5	15-30	15	30
University District	Downtown Seattle	Pine St. 23rd Ave NE	10-15	15	30
University District	Downtown Seattle	I-5	5-8	7-10	--
University District	Columbia City	23rd Ave NE, MLK Jr Way S	10	15	30
University District	Woodinville	SR-522, Bothell	30	60	---
West Seattle	Downtown Seattle	Fauntleroy Ave SW, W. Seattle Bridge	15	15	30
White Center	Southcenter	Military Rd, S 144th St	30	30	30
Core Service Connections in King County served by Sound Transit					
Redmond	Kirkland	NE 85 <sup>th</sup> St	30	30	60
Bellevue	Downtown Seattle	I-90, Bellevue Way NE	5-8	15	30
Issaquah	Downtown Seattle	I-90	30	30	60
Bothell	Bellevue	I-405	15	30	30
Lynnwood	Bellevue	I-405	15	30	60
Bellevue	Sea-Tac	Renton, I-405	30	30	30
Bellevue	Auburn	Renton, Kent	15	30	60
Redmond	Downtown Seattle	SR-520	10-15	30	30
Woodinville	Downtown Seattle	SR-522, I-5	30	30	30
Federal Way	Sea-Tac	I-5	15	--	--

# **Exhibit 4-4** **Transit Now Investments in Core Service Routes**



# Exhibit 4-5

## Core Service Corridors



## **Strategy S-4: Transit Improvements and Land Use**

**Give increased priority for new service to areas of urban King County to when they meet the following criteria:**

- **By meeting or exceeding prorated established housing and population targets, and/or**
- **By encouraging higher density development and pedestrian activity through adopted regulations and policies that promote mixed-uses, reduce parking requirements, and carry out other efforts that support transit supportive development.**

A major cornerstone of the Growth Management Act (GMA) is that transportation planning be consistent and complementary with local comprehensive plans, which include neighborhood plans for some cities. More densely developed areas require higher levels of transit service, and areas of contiguous urban development emerge as significant transit markets. This is especially true of those areas that will reach or exceed housing and employment targets as established by the Countywide Planning Policies.

Consistent with Destination 2030, additional transportation infrastructure and service is to be targeted to those areas that are accepting an increased share of the region's growth. In support of Destination 2030 and the GMA, *Transit Now* service improvements are targeted on core connection and RapidRide bus rapid transit routes that serve and connect centers and concentrations of population or employment in the Urban Growth Area (UGA). Additionally, transit service will be offered as an incentive to those jurisdictions that promote areas of higher density development, reduce parking requirements, and improve the pedestrian environment of their communities.

As transit investments are made to implement the *Transit Now* program, or as additional resources are freed up due to route consolidation or efficiency improvements, areas meeting the criteria cited in Strategy S-4 will be considered for enhanced transit service along with other criteria, such as strong ridership demand. Those areas that are able to satisfy many criteria simultaneously, such as strong ridership demand, meeting or exceeding targets, and promoting higher density development will be given the greatest preference for additional transit service if additional resources become available.

## Strategy S-5: Bus Rapid Transit

**Design, develop and implement RapidRide, a Bus Rapid Transit system identified in Exhibit 4-6. Pursue grant funds and work with local jurisdictions to leverage additional funds to enhance the service frequency, speed, reliability, amenity and identity of RapidRide services funding by the *Transit Now* program.**

King County Metro is developing RapidRide in five corridors over the next ten years as part of *Transit Now*. RapidRide will provide improved frequency and a high quality of service that will significantly improve the customer's transit experience and make the transit system easier to understand and use. RapidRide incorporates transit service and facility improvements that achieve higher rider satisfaction than traditional bus services and will be designed to reduce travel times by 10-30 percent. Key features of RapidRide include:

- High frequency operation (target of 10 minutes or less during most hours of weekday operation)
- Faster, more reliable trip times obtained through HOV or Business Access and Transit (BAT) lanes, and/or priority at intersections through transit signal priority and queue jumps
- Improved shelter waiting areas with real-time information at stations
- Low emission hybrid diesel-electric buses
- Branded buses and facilities with a unique look and feel

Since the approval of *Transit Now* by King County voters, King County Metro has worked to further define further key attributes of RapidRide. This interdisciplinary planning work has including evaluation of other bus rapid transit projects elsewhere and multiple analyses evaluating how common attributes will affect Metro Transit service delivery. Planning and design work is currently underway to efficiently incorporate additional attributes of bus rapid transit, including:

- The option of three passenger doors and possible changes to the configuration of the coach interior in order to reduce delay caused by passenger turnover
- A potential change in fare payment policy to reduce dwell by allowing full utilization of passenger doors on inbound and outbound trips



- A potential proof-of-payment policy associated with changes in boarding, that enhances passenger security
- Stations and stops spacing similar to rapid transit systems elsewhere which allows for improvements of RapidRide to speed and reliability as well as to passenger safety and comfort

Further development of the RapidRide program will be a key focus of the 2008 update to this strategic plan.

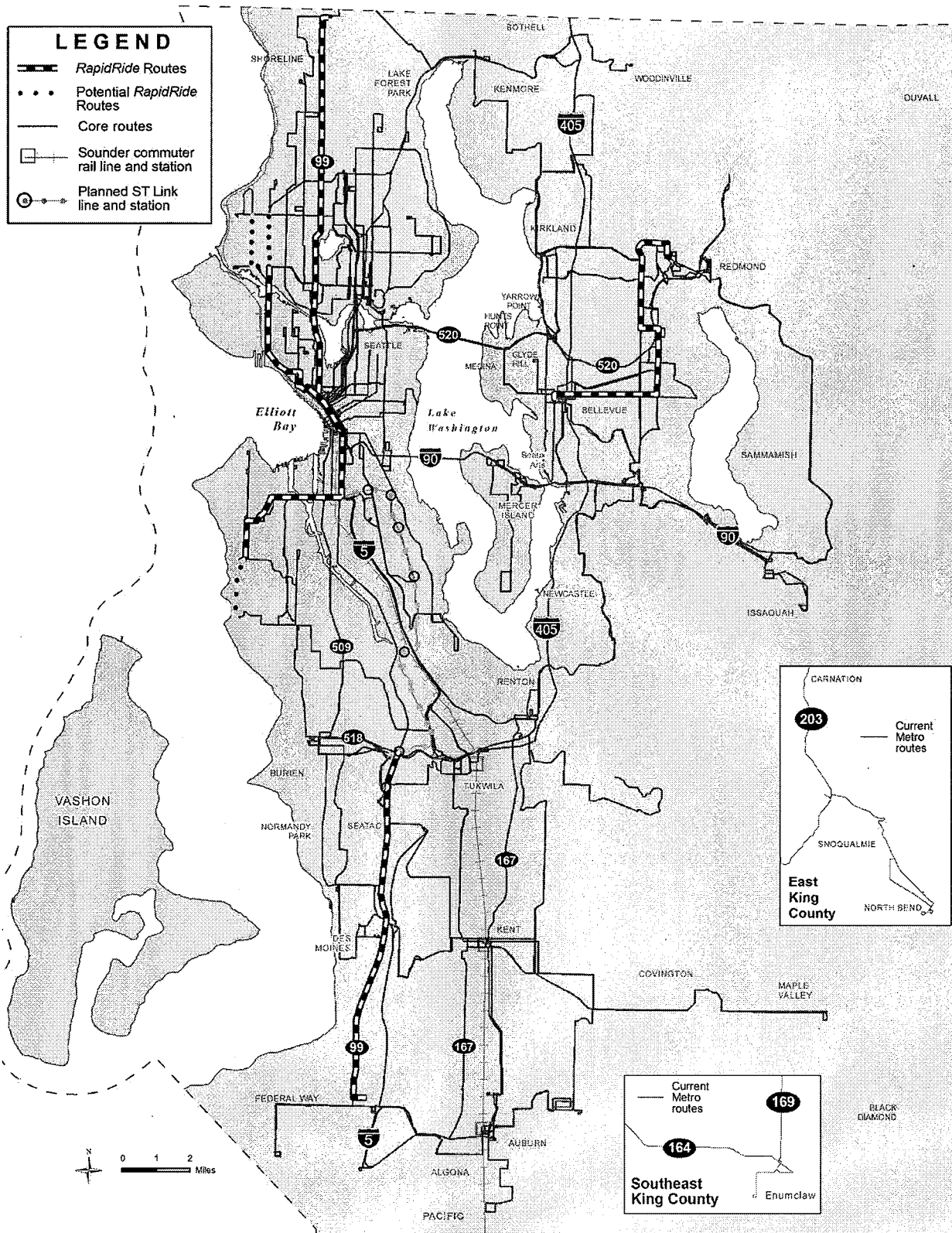
As identified in Exhibit 4-6, the five Metro Transit RapidRide corridors are:

- Aurora RapidRide, connecting Shoreline, north Seattle and downtown Seattle
- Ballard/Uptown RapidRide, connecting Ballard to downtown Seattle along 15<sup>th</sup> Ave NW and W Mercer Place
- Pacific Highway South RapidRide, connecting Federal Way, Midway, SeaTac and the South 154<sup>th</sup> Street Link light rail station.
- Bel-Red RapidRide, operating on Northeast 8th Street, 156th Avenue Northeast and 148<sup>th</sup> Ave NE, connecting downtown Bellevue Crossroads, Overlake and downtown Redmond
- West Seattle RapidRide, connecting West Seattle to downtown Seattle via the West Seattle Bridge

Besides numerous national and international examples of the benefits of bus rapid transit, King County Metro already has experienced the positive benefits of implementing some of the attributes of bus rapid transit. Enhancements in the Aurora Avenue N corridor have already provided more efficient bus service through the area in preparation for RapidRide implementation. Frequency improvements to popular routes serving the corridor have increased ridership in the area. The addition of transit signal priority technology at some intersections along Aurora Ave N and consolidation of stops has also improved transit speed and reliability. The provision of Business Access and Transit (BAT) Lanes on portions of the corridor will provide opportunities for implementing RapidRide services.

The Pacific Highway South RapidRide line is scheduled to be the first RapidRide line in operation, with implementation targeted for early 2010. RapidRide implementation in other corridors will continue throughout the ten-year period of *Transit Now*.

## Exhibit 4-6 RapidRide Corridors



Generally, RapidRide will provide enhanced service in corridors already served by Metro Transit, though modifications to existing transit route paths are expected. The financing and staging plan has assumed that existing service investments will go towards RapidRide implementation. Because in most cases this means changes to existing routes, King County Metro is undertaking a planning process with community members in advance of final approval of RapidRide route paths and station/stop locations. An affirmative and advanced recognition of these basic corridor-specific attributes is a prerequisite for applying specific capital investments in each corridor that will improve the speed, reliability and passenger interface of RapidRide.

Beginning in Fall 2007, King County Metro and jurisdiction staff will establish advisory panels and technical advisory groups to consider technical and public feedback associated with route design attributes. Current work is focused on RapidRide lines that are scheduled for earlier implementation, namely Pacific Highway South, Bel-Red, and West Seattle. King County Metro will seek King County council approval of the specific RapidRide line travel alignment and stop/station locations for these three corridors by early 2008 in order to begin necessary capital improvements in these corridors.

RapidRide implementation for each route will occur in two phases. The first phase will establish the final route, street and facility improvements that require a significant lead time to complete. The second phase will occur between 12 and 18 months prior to implementation of each route, and will consider potential restructures of other Metro Transit routes in conjunction with RapidRide service startup, following King County Metro's regular service change process and public outreach process.

## **Strategy S-6: Transit Access in Rapidly Developing Areas**

**Expand service coverage in areas with rapidly developing population growth of sufficient density to support transit service, and with a street network that accommodates non-circuitous transit routing and pedestrian access. For developing areas that do not meet these criteria, provide service capacity at newly built, expanded or leased park-and-ride lots as warranted by ridership demand at those locations. When identified as a subarea priority, make a portion of the new service investment available for innovative vanpool programs to support park-and-ride lot based transit service.**

As part of *Transit Now* implementation, King County Metro plans to increase service to growing residential areas within the Urban Growth Area (UGA). These developing areas are illustrated in Exhibit 4-7. The addition of peak service in areas not currently served and the expansion of midday service in some areas with peak only service will provide developing areas with increased transit service. Specific improvements in developing areas will be developed as part of the 2008 update to this Strategic Plan.

King County Metro operates service to 130 permanent and leased park-and-ride lots containing over 23,000 parking spaces. From 2002 - 2007, park-and-ride capacity in King County was expanded by nearly 7,000 spaces. Park-and-ride locations provide access to the bus system for people who do not live near a bus route or who might otherwise commute by auto. These lots also serve as a meeting place for carpool and vanpool partners.

In 2007, park-and-ride system-wide utilization reached 68 percent of capacity. Peak period demand for service and/or parking still exists in some regional corridors where there are overcrowded trips or park-and-ride lots at or over capacity. The park-and-ride facilities with the most frequent service are filled beyond capacity. New service hours were added to serve park-and-ride lots throughout 2004-2006. Further improvements to park-and-ride transit service will be evaluated as needed as a result of ridership trends.

