

# 2009 Mobility Report Card

## Redmond's Transportation Performance Monitoring System





15670 NE 85<sup>th</sup> St. • PO Box 97010 • Redmond, WA • 98073-9710

#### INTRODUCTION

The Mobility Report Card is the performance monitoring system used by the City to track implementation of the Transportation Master Plan (TMP). The City uses these reports to provide accurate information to the public about the City's progress implementing the TMP and the current condition of the transportation system. The reports also set the stage for future updates of the TMP.

The Mobility Report Card is related to *Redmond Community Indicators*, a document that serves a similar purpose for Redmond's Comprehensive Plan, and includes many of the measures found here.

#### **UNDERSTANDING INDICATORS**

Each indicator (also known as a measure) measures some aspect of transportation that is topically related to the Transportation Master Plan. For each indicator there is a *baseline* value, a current year *observed* value, and in many cases a target, or *objective*. Redmond's goal is to move toward achieving the objectives of all of the indicators included here, which would indicate successful implementation of the Transportation Master Plan.

#### TABLE OF CONTENTS

•	uge
Key Findings & Observations	3
Concurrency	4
Concurrency	4
Completion of 2022 Transportation Facilities Plan	4
Mode Share During AM Commute	5
School Bus Ridership	5
Transit	6
Downtown Transit	6
Overlake Transit	6
Metro & Sound Transit Ridership	7
Service Hour Targets	7
Connection Frequency Targets	8
Traffic	8
PM Peak Hour Vehicle Miles Traveled	8
Traffic Growth at Screenlines	9
Traffic Growth by Transportation Management District	10
Roadway Level of Service by Screenline	10
Multimodal Environment	11
Pedestrian Environment	11
Bicvcle Environment	11
Collisions	12
Planning for the Future	13
Status of Three-Year Priority Action Plan	13

#### **KEY FINDINGS & OBSERVATIONS**



Provide convenient, safe and environmentally friendly transportation connections within Redmond, and between Redmond and other communities, for people and goods

Overall positive trend.

Transit: Ridership on Metro routes increased by 20% in 2008, the largest increase since 2003. Ridership on Sound Transit (ST) routes grew 18.8% in 2008, exceeded only by a 60% increase in 2006. Service is improving, with 13 of 15 key local routes being served at least 18 hours each weekday, up from 11 routes in 2007. In terms of travel time and service frequency, regional transit service quality remained about the same in 2008.

Traffic: Average daily traffic has increased 6.8% at selected intersections around Redmond since 1996. Traffic has decreased most in the Willows area, and has increased most in the Northeast Redmond area. Traffic at 8 of 11 screenlines in Redmond decreased from 2005-06 to 2007-08.

**Safety**: After decreasing in 2007, vehicle collisions and collisions involving pedestrians or bicyclists increased in 2008.

Pedestrian & Bicycle Environments: Half of Downtown's pedestrian environment now meets "pedestrian supportive" standards, up from 45% in 2007. The percentage of the pedestrian environment meeting that standard in the Overlake Village area and in Redmond's multi-modal corridors increased slightly in 2008. Just over half of the city's 2022 bicycle system priorities are constructed.

**Mode Split**: Approximately 31% percent of commuters surveyed in the Commute Trip Reduction survey chose an alternative to driving alone to work in 2007. The next survey will be conducted in 2009.



Cyclists participate in Bike to Work Day



Numbers at your fingertips

How Much/Many?	Of What?	Trend
7,729	Students riding the bus to school	$\downarrow$
862	Traffic collisions	$\leftrightarrow$
38	Collisions involving pedestrians or bicyclists	$\leftrightarrow$
7.6%	Traffic growth for selected intersections since 1996	1
31%	AM commuters traveling by non-single occupancy vehicle (2007)	↑

www.redmond.gov/intheworks/redmond2022/implbenchmark.asp for more information about the above figures



Observed: TBD Trend: TBD Objective: 1

The City is currently developing a plan-based concurrency system. What this means is that the City will track its implementation of transportation facilities relative to the pace of growth in Redmond.

The objective is to keep funding for transportation facilities and pace of growth in balance. Adoption is estimated for late summer or fall 2009.

Source: Public Works and Planning Departments

Updated March 2009



A functioning transportation system is critical to Redmond's quality of life and economic vitality. Investment in transportation in Redmond includes the obvious, such as lane paving and sidewalk extensions. It also includes unseen projects like signal synchronization and planning for the undergrounding of utilities.

The reported figure includes dollar amounts from TFP projects or programs that are complete, funded, or partially funded. This indicator helps determine the extent to which Redmond is achieving the transportation network envisioned to exist in 2022.

*Note: Previous years' figures only included completed projects. Therefore, such figures are not comparable with this year's figure.* 

Source: Public Works Department

Objective ('22): 100%

Updated April 2009

Mode Share During AM Commute City role: Indirect

Percentage of "CTR-affected" (generally full-time, day shift employees in organizations with more than 100 employees) employees arriving to work by a method other than single-occupancy vehicle.

Baseline ('03): 25% Observed ('07): 31% Objective ('22): 30%

Redmond city government strives to provide mobility choices for people who live in, work in, and visit Redmond. The City achieves this by planning for multi-modal transportation infrastructure that complements the community's long-term land-use plan, and by partnering with agencies such as Metro and Sound Transit that provide public transit.

According to a survey conducted by the state Department of Transportation, 31% of "CTRaffected" (see definition in box above) employees arrived at work by a mode other than driving alone.



The graph does not capture "from work" commute trips. In addition, very large employers sample fewer employees and so are weighted less.

*Source: Planning Department, State Department of Transportation* 

Updated March 2008



Baseline ('04):	42%	
Observed ('08):	31%	Trend
Objective:		

The Lake Washington School District reports in its 2008-09 bus ridership survey that 7,429 of 23,769 (31%) students ride the bus to school. This is slightly less than the 32% reported for 2007-08.

Mobility options for students depend on a number of factors, including state funding for public school transportation, the local transportation network, and locations of schools, which in turn are influenced by the City's land use policies and regulations.

Note: LWSD encompasses Redmond, Kirkland, and portions of Sammamish and unincorporated King County. The cited survey is conducted annually for the purpose of state transportation fund allocation. Bus passenger counts during the survey period may not represent typical passenger counts. Figures include students using Metro Transit passes for transportation to/from school.

Source: Lake Washington School District

Updated February 2009



#### Travel Time Targets Met

Baseline ('03): 2 Observed ('08): 2 Objective ('22): 4

Trend:  $\leftrightarrow$ 

#### Service Frequency Targets Met

$\mathbf{D}_{\mathbf{r}}$	
Baseline (103): 1	
Observed ('08): 1	$Trend \leftrightarrow$
Objective ('22): 4	

Transit from Downtown to:						
	Downtown Seattle	Bellevue Transit Center	Downtown Kirkland			
Travel Time (fastest)	35	25	25+	15		
Service Frequency (best)	10	30	10	30		
Route #	545	232	545*	248		

\*With one transfer or ½-mile walk

Achieved targets are bolded and italicized.

Bus service from Downtown Redmond to key regional centers remained about the same during 2008. In early 2009, Sound Transit increased midday service frequency on the popular 545 route between Downtown Seattle and Redmond. The 268 route also changed to no longer operate on 185th Ave NE between NE Redmond Way and NE 65th St in Redmond. Instead, it will operate both directions on 188th Ave NE and NE 65th St.

Source: Metro Transit

Updated March 2009



#### Travel Time Targets Met

Baseline ('03): 1 Observed ('08): 3 Objective ('22): 4	Trend: $\leftrightarrow$
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#### Service Frequency Targets Met

Baseline ('03): 2 Observed ('08): 2	Trend·↔
Objective ('22): 4	nenu. V /

Transit from Overlake to:						
	Downtown Seattle	Bellevue Transit Center	University District (Seattle)	Downtown Kirkland		
Travel Time (fastest)	25	15	15+	25		
Service Frequency (best)	10	30	10	30		
Route #	545	232	545*	245		

\*With one transfer or ½-mile walk

Achieved targets are bolded and italicized.

Bus service from the Overlake Transit Center to key regional centers remained largely unchanged in 2008. As noted at left, Sound Transit increased midday service on the 545 to/from Downtown Seattle.

Source: Metro Transit



#### Metro

Baseline ('03): 2,296	
Ohere march (100) = 4.204	•
Observed (108): 4,394	Trend 1
Objective (22): 4 133	

#### Sound Transit

Baseline ('03): 1,133 Observed ('08): 3,148	Trend: ↑
Objective ('22): 2,399	

Ridership on Metro and Sound Transit in Redmond increased by 20.0% and 18.8%, respectively. Ridership has increased each year since 2003.



Source: Metro Transit

Updated March 2009



Service to and from the Overlake Park & Ride and Northeast Redmond is least developed; service between the two does not exist.

Local Destination Service Hours					
to/from:	Redmond Town Center	Northeast Redmond	Overlake Transit Center	Overlake Park & Ride	Bear Creek Park & Ride
Downtown Transit Center	18	18	19	19	18
Route #	545, 253, 248	248	230	230	545, 253
Redmond Town Center		18	18	18	18
Route #		248	545, 221	253	545, 248, 253
Northeast Redmond			18	0	0
Route #			221		
Overlake Transit Center				19	18
Route #				230	545
Overlake Park & Ride					18
Route #					253

*Target service hours = 18; bolded indicates target met* 

Sources: Metro Transit, Sound Transit



Service frequency to/from Redmond's major transit centers to other areas in the City was mostly unchanged from 2007 to 2008. Service from the Overlake Park & Ride to/from the Overlake Transit Center continues to be somewhat circuitous. Better service exists for those willing to walk from transit stops on 156<sup>th</sup> Avenue NE to the Overlake Park & Ride area on 152<sup>nd</sup> Avenue NE.

Local Destination Service Frequency					
to/from:	Overlake Transit Center	Overlake Park & Ride	Northeast Redmond	Redmond Town Center	
Downtown Transit Center	10	29	30	10	
Route #	545	253	221	545	
Overlake Transit Center	NS	30-60	NS	NS	
Route #		249			

Target frequency = 15 minutes; bold and italicized indicates target met. NS = no standard.

Source: Metro Transit, Sound Transit

Updated February 2009



One "vehicle mile of travel" (VMT) represents one vehicle traveling one mile within the City on the Redmond arterial street network (including state routes). This measure cannot be directly observed or counted and thus must be estimated from other data. The estimate is for an average PM peak hour. It is obtained most readily by running the most recent update of the Bellevue-Kirkland-Redmond (BKR) traffic model.

VMT is the best variable for measuring trends in the amount of vehicular traffic in Redmond. It is also utilized in estimating air pollution, congestion and other dependent variables.

Variation between the 2000 base and 2005-2007 data reflect variations in the street network included in the model. This measure was updated using the latest available model data which represents 2007 conditions.



*Source: Public Works Department Updated March* 2009

Annual Traffic Growth at Screenlines City role: Indirect Change in traffic volumes across key screenlines in Redmond, based on average daily weekday traffic counts. Updated biennially

The map below shows eleven screenlines utilized in the Transportation Master Plan. The same links will be counted each year, and reported every two years. These screenlines are also used to monitor the city's traffic volume-to-capacity ratios. Thus, this data helps provide context for interpreting changes in the screenline service levels.



Traffic volume changes are average annual change from 2005-06 to 2007-08.

Source: Public Works Department Updated February 2009



#### Citywide Traffic Volume Change

Baseline ('96):
0.0%

Observed ('08):
6.8%

Objective:
-

This data is obtained from the City's annual traffic count program. Count locations are summed within Transportation Management Districts and compared to previous years. Data is for the arterials only; local streets are not included in this measure.

Occasionally, specific count locations are unavailable due to construction or for other reasons. Also, from time to time the City will revise count locations. When this occurs, the annual comparison is made using only data from count stations represented in both data sets.

Counts for the Viewpoint, Willows, and Grass Lawn TMDs are from three or fewer intersections, and so may be more volatile from year to year.





Updated March 2009



The City has set Level of service (LOS) objectives for Redmond's arterials. These are described in Chapter 4 of the Transportation Master Plan.

Most screenlines experienced lower V/C ratios in 2008 vs. 2006. Screenline 2 showed a decrease of 0.45 and Screenline 8 showed a decrease of 0.17. Screenline 3, in the Overlake neighborhood, is above the V/C ratio forecasted for 2022.



Source: Public Works Department



Multimodal Corridors (% Supportive or Better)

Baseline ('07): 5%	
Observed ('08): 6%	Trend: 1
Objective ('22): 100%	

Overlake Village (% Supportive or Better)

Baseline ('07):	<b>9</b> %	
Observed ('08):	10%	Trend: 1
Objective ('22):	100%	

#### Downtown (% Supportive or Better)

$Decoline\left((O7), AE0\right)$	
baseline (107): 45%	
Observed ('08): 50%	Trend· ↑
Objective ('22): 100%	

The City has set objectives for improvements in its pedestrian environment. The highest priorities are the two urban centers – Downtown and Overlake, and commercial portions of multi-modal corridors: pedestrian environments in these areas should be 100% "supportive" or "pedestrian place" by 2022. Citywide the objective is to reach 100% "tolerant" or better pedestrian environments.



*Source: Public Works Department Updated March 2009* 



Redmond's Bicycle System Plan (chapter 5B of the Transportation Master Plan) identifies primary bicycle corridors, secondary bicycle corridors, and priorities for completion by 2022. Below is a map of the 2022 priority areas - 52% of bicycle system mileage targeted to be complete by 2022 is now complete.

In 2008 the City completed bicycle facilities along  $150^{th}$  Ave. NE between NE  $40^{th}$  St. and NE  $36^{th}$  St., and along SR-202.



*Source: Public Works Department Updated March 2009* 



Vehicle Collisions not involving pedestrians or bicyclists

Baseline ('00): 899	
Observed ('08): 862	$Trend \leftrightarrow$
Objective ('22): <900	frend. v /

#### Vehicle collisions involving pedestrians or bicyclists

Baseline ('00): 34	
Observed ('08): 38	$Trend \leftrightarrow$
Objective ('22): <20	

The primary objective of the City's Transportation Master Plan is to ensure the health and safety of users of the transportation system. This indicator reflects the extent to which the City is achieving that objective. Many projects and programs that improve pedestrian and bicycle safety will also encourage travel by those modes. Note that many bicycle and pedestrian "incidents" (minor collisions and near misses) go unreported. The number of collisions may increase in the future because of the increase in the number of trips taking place in Redmond.



Source: Public Works Department

### 7.9: Status of Three-Year Priority Action Plan Cityrole: Direct

Status of actions scheduled to begin in 2005-07 (from Transportation Master Plan, chapter 9).

Complete:	23	68% of total
In Progress:	10	29% of total
Future:	1	3% of total

	Action	Status as of March 2008	
1. Ordin	1. Ordinance and Council Actions		
1.a	TMP Adoption/Update Transportation Element	Complete	
1.b	Concurrency Management	Study Complete, Implementation 2009	
1.c	Business Tax Extension	Complete	
1.d	Impact Fee Ordinance Update	Complete	
2. Studie	es and Plans		
2.a	Downtown HCT Corridor/Station	Complete	
2.b	Impact Fee Update	Last updated in 2007	
2.c	Overlake Plan	Phase I Complete, Phase II Underway	
2.d	Adequate Maintenance	Update Underway	
2.e	Street Design Standards	Update Underway	
2.f	Targeted Safety Program	Complete	
Z.g	Union Hill/Novelty Hill Network	Study Underway	
Z.h	Local Transit Service Study	Study Underway	
2.i	2006 Mobility Report Card	Complete	
Z.j	Freight and Goods Study	Study Underway	
Z.k	North South Study - Willows North	Complete	
3. DESIGN ONLY			
3.a	164 <sup>th</sup> Extension Across RR Right-of-Way	Complete	
3.b	Design Downtown Couplet Conversion (Downtown East- West Corridor Study)	Complete	
3.c	West Lake Sammamish Parkway	Preliminary Design Complete	

3.d	Red-Wood Road	Complete
3.e	BNSF Corridor	In Progress
3.f	172 <sup>nd</sup> Extension	Complete
4. CONST	RUCTION PROJECTS	
4.a	SR 520 Bikeway Connection to Sammamish River Regional Trail	Complete
4.b	156th Ave NE Sidewalk Improvements from NE 59th St to NE 61st St	Complete
4.c	Union Hill Rd Phase II from Avondale Rd to 178 <sup>th</sup> PI NE	Complete
4.d	NE 116th St Phase I	Complete
4.e	Redmond Way/NE 76 <sup>th</sup> St. Intersection Modifications	Complete
4.f	East Lake Sammamish Pkwy Intersection Improvements	Complete
4.g	NE 83rd St Improvements from 160th Ave NE to 161st Ave NE	Complete
4.h	Old Redmond Rd Improvements from 132 <sup>nd</sup> Ave. NE to 140 <sup>th</sup> Ave. NE	Complete
4.i	Redmond Intelligent Transportation System Phase I (Overlake)	Complete
4.j	Redmond Intelligent Transportation System Phase II (Redmond Way)	Complete
4.k	NE 85 <sup>th</sup> St. Re-channenlization from 156 <sup>th</sup> Ave. NE to 164 <sup>th</sup> Ave. NE	Complete
4.1	164 <sup>th</sup> Ave NE Re-channelization from NE 80 <sup>th</sup> St to NE 87 <sup>th</sup> St	Future
4.m	Bear Creek Parkway Extension	Complete summer 2009

Source: Public Works Department