

V. Roads and Transit

Roads

Background

All of the roads in the demonstration area were constructed and remain at rural standards with open ditches and no curbs, gutters, or sidewalks. Traffic through and within the area is focused primarily on NE Woodinville-Duvall Road and Avondale Road NE, both of which are categorized as principal arterials. Outside of these two major roads, access to the demonstration area is limited by dead-ends and cul-de-sacs. NE 165th Street from the east, 204th Avenue SE from the north, and Mink Road NE along the eastern edge are the main alternatives. The local roads that connect neighborhoods both within and outside of the demonstration area tend to be narrow and indirect.

King County classifies roads by four main types: principal arterial, minor arterial, collector arterial, and local roadways. These categories are then separated between rural and urban standards. [Arterial classifications](#) are mapped and included in the technical appendix of the King County Comprehensive Plan. Descriptions of each classification type can be found in chapter two of the [2007 Road Design and Construction Standards](#). Within and at the borders of the demonstration area there are over 3 miles each of principal and collector arterials and over 23 miles of local roadways.

Although the demonstration area is shown as failing concurrency in the Transportation Concurrency Attachment A to the 2008 update of the King County Comprehensive Plan, changes made to the program resulted in the Rural Neighborhood Commercial Center zoned properties meeting concurrency.

Traffic Volume

For demonstration area intersections recorded in the [Average Weekday Daily Traffic \(AWDT\) volume data](#), the increase in traffic at recorded intersections has been approximately 13-21% from 1997 to 2005. Larger increases in traffic have been recorded within the project area at Avondale Road NE at both Mink Road NE and NE 165th Street.

The busiest intersections in the demonstration area are along NE Woodinville-Duvall Road as it connects to the City of Woodinville. The east and west side of both 182nd Avenue NE and Avondale Road NE have traffic counts over 20,000 in 2005. These numbers reduce to approximately 12,000 at the western side of Mink Road NE as vehicles filter into the demonstration area and onto Avondale Road NE.

In contrast to the intersection at NE Woodinville-Duvall Road and 182nd Avenue NE, where traffic counts remained fairly static from 1997 to 2005, the recorded intersections along Avondale Road NE all had increases. Traffic on the west side of the intersection of Avondale Road NE and NE 165th Street doubled in counts. South of the intersection with Bear Creek Road also saw a sizable increase.

The busiest intersection in the project area is at NE Woodinville-Duvall Road and Avondale Road NE. The majority of traffic at this intersection continues on NE Woodinville-Duvall Road. Fewer vehicles turn on or from Avondale Road NE; especially to and from the north which leads only into the Cottage Lake Rural Neighborhood, the fire station and Bear Creek Elementary School.

Driveways per Mile

Higher numbers of driveways per mile of roadway increase conflict points and can lead to higher accident rates. This is especially true for roads that are heavily used or have higher levels of speed.

The majority of the roads in the demonstration area have less than 70 driveways per mile, with much lower amounts on NE Woodinville-Duvall Road, Avondale Road NE, Mink Road NE, and NE 165th Street. This equates to seven driveways on a 500 foot long block. Streets with higher intersection density are limited to local streets within neighborhoods. These streets are typically dead-ends or cul-de-sacs.

Transportation Needs Report

The Transportation Needs Report (TNR) is a list of improvements recommended by the King County Road Services Division and approved by the Metropolitan King County Council to serve unincorporated King County transportation needs, updated to the year 2022. The 2006 update of the TNR has the following needs listed for the demonstration area. More information on a specific demonstration can be found on the [TNR website](#).

Table 4: Transportation Needs Report

Transportation Needs Report Demonstrations for Bear Creek FBC Demonstration Area			
Location	Corridor	Priority	Preliminary Elements of the Demonstration
Woodinville-Duvall Road and 176 th Avenue NE	Woodinville-Duvall Road	Low	Preliminary suggested scope - Add left-turn lane in EB/WB directions
Woodinville-Duvall Road, phase I from 168 th Avenue NE to 212 Avenue NE	Woodinville-Duvall Road	High	Provide Intelligent Transportation System improvements which could include synchronized signals; cameras; vehicle detection; fiber optic communications; dynamic message signs
Woodinville-Duvall Rd From NE 183 St To 185 Ave NE	Woodinville-Duvall Road	Medium	Preliminary suggested scope - Widen road for TWLTL
Woodinville-Duvall Rd From 171 Ave NE To Avondale Rd	Woodinville-Duvall Road	Medium	Widen roadway to increase capacity
Woodinville-Duvall Rd & Avondale Rd NE	Avondale Road	TBD	Widen the intersection for additional turn lanes, signal improvements, illumination, curb, gutter, sidewalks, bike lanes
Woodinville-Duvall Rd & 194 th Ave NE	Woodinville-Duvall Road	High	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope
Paradise Lake Rd From Woodinville-Duvall Rd To County Line	Misc	TBD	Provide Nonmotorized Facility
Woodinville-Duvall Rd & Mink Rd NE	Woodinville-Duvall Road	Medium	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope

Transportation Needs Report Demonstrations for Bear Creek FBC Demonstration Area			
Location	Corridor	Priority	Preliminary Elements of the Demonstration
Mink Rd From Bear Creek Rd To Woodinville-Duvall Rd	Misc	TBD	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope
Bear Creek Rd From Avondale Rd To Seidel Rd	Misc	TBD	Provide Nonmotorized Facility
Avondale Rd & Bear Creek Rd	Avondale Road	Medium	Realign Intersection--Improve Sight Distance
Avondale Road Phase III From NE 133 St To NE 155 St	Avondale Road	High	Widen To Three Lanes--Construct Bridge
Avondale Road ITS Phase 2 From NE 132 St To Woodinville-Duvall Road	Avondale Road	High	Provide Intelligent Transportation System improvements which could include synchronized signals; cameras; vehicle detection; fiber connection
Avondale Road NE Ph II From NE 155 St to NE 168 St	Avondale Road	Medium	Widen roadway to 3 lanes including 2 eight foot shoulders and a walkway
Avondale Road NE & NE 159th St	Avondale Road	Medium	Preliminary suggested scope - Install signal. Add left-turn lane in NB/SB direction
Avondale Road & NE 165th St	Avondale Road	Medium	Provide North and South bound Left Turn Lanes
Cottage Lake Creek Bridge #52B On NE 165th St Crossing Cottage Lake Creek	NE 165 th Street	Low	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope
NE 165th St From 179 Pl NE To 183 Ave NE	NE 165 th Street	Low	Reconstruct Roadway

Transit

The demonstration area is served by three Metro Transit routes: 311, 251, and 232.

Route [311](#) runs through the demonstration area along NE Woodinville-Duvall Road. The route makes six trips during both the morning and evening commute, running between Duvall and Seattle. There is no reverse commute or weekend service.

Connecting the Redmond Transit Center and Woodinville, route [251](#) runs through the demonstration area along NE Woodinville-Duvall Road and Avondale Road NE. Trips in both directions are available throughout the day during the week and on Saturdays. There is no Sunday service.

Route [232](#) services the demonstration area along Avondale Road NE and east on Woodinville-Duvall Road NE towards Duvall. Five trips during both the morning and evening commute service the area. There are no reverse commute or weekend service.

The closest Park and Ride locations for the demonstration area are within Duvall or Woodinville.

Bike Lanes

There are no bike lanes within the demonstration area. The [King County Bicycling Guide Map](#) labels NE Woodinville-Duvall Road and Avondale Road NE as having “heavy street traffic without wide curb lane or shoulder.” Other roads, including NE 165th Street and Mink Road NE, are labeled “low traffic street with or without wide curb lane.”