



720 SW Washington St.
Suite 500
Portland, OR 97205
503.243.3500
www.dksassociates.com

MEMORANDUM

DATE: September 8, 2016
TO: Dayna Webb, P.E., City of Oregon City
FROM: Kevin Chewuk, P.T.P., DKS Associates
SUBJECT: Oregon City Transportation SDC Improvement Fee Update

P16084-002

This memorandum summarizes an update to the Transportation System Development Charge (SDC) Improvement Fee, based on the projects included in the adopted 2013 Oregon City Transportation System Plan and other recently completed planning studies subsequent to its adoption. This memorandum is based on the methodology from the 2009 Oregon City Transportation SDC study¹, and includes new projects and updated cost estimates, and growth shares.

Utilizing the improvement fee methodology from the 2009 report, the improvement fee is the eligible dollar cost of capacity-increasing capital projects divided by the capacity they will serve. The unit of capacity used becomes the basis of the fee. The overriding issue to consider in the improvement fee calculation is the identification and separation of capacity-increasing capital costs.

Transportation SDC Inputs

The associated inputs for calculating the transportation SDC improvement fees are summarized below.

Eligible Cost of Planned Capacity Increasing Improvements

The updated project cost estimates completed as part of this work, include the projects from the 2013 Transportation System Plan, as well as the South End Concept Plan, Linn Avenue, Leland Road & Meyers Road Corridor Plan, Willamette Falls Legacy Project and the Meyers Road Extension Concept Plan. Cost estimates to more accurately depict expected project elements were updated by using current unit costs.

An updated analysis of the of the projects was done to determine the extent to which each improvement project provided capacity for future development, and how much of the project was addressing an existing deficiency. This was done by comparing existing link volumes to forecasted link volumes in the travel demand model. Existing traffic volumes on each link in the travel demand model were subtracted from

¹ 2009 Oregon City Transportation SDC study, April 3, 2009, FCS Group.



forecasted volumes, to determine the share of traffic that was growth or non-growth related. As an example, if a link had 100 trips in the existing travel demand model and 200 forecasted trips, the growth would be 100 trips and the project growth share would be 50 percent.

The updated project cost, along with the percent growth share and percent City responsibility is used to determine the SDC eligible cost.

Motor Vehicle Trip Ends

Motor vehicle trip ends were estimated for the p.m. peak period using the Metro 2010 and 2035 regional travel demand model. The p.m. peak period forecast for the Oregon City Urban Growth Boundary (UGB) included 33,012 motor vehicle trip ends for 2010, and 54,461 motor vehicle trip ends for 2035. This corresponds to an additional 21,449 p.m. peak period motor vehicle trip ends through the planning horizon.

Pedestrian and Bicycle Trips

Pedestrian and bicycle trips were estimated based on average daily motor vehicle trip activity (see Table 1). The p.m. peak period motor vehicle trips were assumed as 10 percent of daily motor vehicle trips². This corresponds to an additional 214,490 daily motor vehicle trip ends through the planning horizon (i.e., 21,449 * 10 = 214,490). Pedestrian and bicycle average daily trip growth was assumed as 12 percent of the total daily trip growth³. Total daily trip growth was estimated at 243,739 trips through the planning horizon (i.e., 214,490 / 0.88 = 243,739). This corresponds to an additional 29,249 daily pedestrian and bicycle trips through the planning horizon (i.e., (243,739 - 214,490) = 29,249).

Table 1: Calculation of Pedestrian and Bicycle Trips

Input	Calculation	Amount
Motor Vehicle P.M. Peak Period Trips	n/a	21,449
Motor Vehicle Average Daily Trip Growth	(21,449 * 10) =	214,490
Total Average Daily Trip Growth (motor vehicle and pedestrian/bicycle) ^a	(214,490 / 0.88) =	243,739
Pedestrian and Bicycle Average Daily Trip Growth	(243,739 - 214,490) =	29,249

Note: ^a Pedestrian and bicycle average daily trip growth was assumed as 12 percent of the total daily trip growth

² Ibid.

³ Ibid.



Transportation SDC Improvement Fee Calculation

The following summarizes the calculations for the motor vehicle and pedestrian and bicycle SDC improvement fees.

Motor Vehicle SDC

- Total motor vehicle improvement project costs were estimated at \$261,340,000, of which the City is responsible for \$233,105,500. Other agencies are responsible for \$28,234,500 in motor vehicle improvement project costs.
- Of the City responsible motor vehicle improvement project costs, \$67,068,284 would support existing motor vehicle traffic and would not be SDC eligible.
- Motor vehicle SDC eligible project costs that would support growth were estimated at \$166,037,216 (i.e., $\$233,105,500 - \$67,068,284 = \$166,037,216$).
- Based on forecasted growth of 21,449 p.m. peak period motor vehicle trip ends, the resulting improvement fee was estimated at \$7,741.02 per peak-hour vehicle trip (i.e., $\$166,037,216 / 21,449 = \$7,741.02$).

Pedestrian and Bicycle SDC

- Total pedestrian and bicycle improvement project costs were estimated at \$114,845,000, of which the City is responsible for \$111,576,000. Other agencies are responsible for \$3,269,000 in pedestrian and bicycle improvement project costs.
- The pedestrian and bicycle project costs that would support growth were estimated based on growths share of total future peak-hour trips, or 39.4 percent (i.e., $21,449 / 54,461 = 39.4\%$).
- Of the City responsible pedestrian and bicycle improvement project costs, \$43,960,944 would support pedestrian and bicycle trip growth and would be SDC eligible (i.e., $\$111,576,000 * 39.4\% = \$43,960,944$).
- Based on forecasted growth of 29,249 pedestrian and bicycle, the resulting improvement fee was estimated at \$1,503.01 per pedestrian and bicycle trip (i.e., $\$43,960,944 / 29,249 = \$1,503.01$).