

City of Bellevue

TRANSPORTATION IMPACT FEE PROGRAM 2009 UPDATE



April 2009

Prepared for:



Prepared by:



FEHR & PEERS
TRANSPORTATION CONSULTANTS

11410 NE 122nd Way
Suite 320
Kirkland, WA 98034

Henderson,
Young &
Company

8060 165th Ave NE
Suite 220
Redmond, WA 98052

Transportation Impact Fee Program For Bellevue, Washington 2009 Update

Prepared for:

City of Bellevue



Prepared by:



Fehr & Peers

11410 NE 122nd Way, Suite 320
Kirkland, Washington 98034-6927
(425) 820-0100

April 2009

Table of Contents

Chapter 1. Introduction..... 1
Chapter 2. Impact Fee Project List 4
Chapter 3. Cost Allocation..... 8
Chapter 4. Impact Fee Schedule..... 14
Appendix A - Cost Allocation Results 22
Appendix B - Land Use Definitions..... 23

List of Figures

Figure 1. Traffic Impact Fee Program Development Steps.....3
Figure 2. Transportation Impact Fee Projects7
Figure 3. Impact Fee Cost Allocation Concept.....8
Figure 4. Impact Fee Cost Allocation Results..... 12
Figure 5. Estimated Funding Sources (\$114.3 million) 13

List of Tables

Table 1. Transportation Impact Fee Projects5
Table 2. Comparison of 2-Hour Average LOS in Annual Concurrency as of 9/15/079
Table 3. Bellevue Land Use Growth.....10
Table 4. Impact Fee Schedule Components.....16
Table 5. Impact Fee Schedule (Maximum Allowable Rates).....19
Table 6. Example Calculations of Impact Fee Rate (Maximum Allowable Rate).....21

CHAPTER 1. INTRODUCTION

This report provides an update to the Transportation Impact Fee Program for the City of Bellevue. The update was prepared for the following reasons:

- The Growth Management Act requires regular updates to impact fee programs. The original program was adopted in 1989. The most recent update to the City's Transportation Impact Fee program was adopted by the City Council in 2005.
- New projects have been added to the City's Transportation Impact Fee Program and other projects on the previous Transportation Impact Fee Program have been completed.
- The construction costs for projects on the impact fee project list have increased substantially due to inflation and project scope changes over the past 4 years.
- The patterns of traffic growth, land use, and redevelopment have changed.
- The methodology of how impact fees are calculated has changed.

The following sections describe the impact fee program methodology, the analyses performed, and the resulting recommendations.

DEFINITION OF IMPACT FEES

Impact fees are a broad category of charges on new development assessed to pay for capital improvements (e.g., parks, schools, roads, etc.) necessitated by new development. Cities collect transportation impact fees to fund improvements that add capacity to the transportation system accommodating the travel demand added by new development.

The City developed the program based on the following findings:

- Development activity in the City, including residential, commercial, retail, office, and industrial development, will create additional demand and need for public road facilities.
- Bellevue is authorized under the state's Growth Management Act (Chapter 82.02.050 RCW) to require new growth and development within the City to pay a proportionate share of the cost of new road facilities serving that new growth and development through the imposition of impact fees.
- Impact fees may be collected and spent for public road facilities needed for system improvements that are included within the capital facilities plan in the City's comprehensive plan.

LEGAL BASIS

The primary enabling mechanism for imposing impact fees in Washington State is the Growth Management Act (GMA). Prior to the passage of the GMA, local agencies primarily relied on the State Environmental Policy Act (SEPA) process to require developers to fund mitigation projects necessitated by new development.

The GMA, passed in 1990, modified the portion of RCW 82.05.050 regarding impact fees and specifically authorized the use of impact fees for jurisdictions planning under the Growth Management Act. The GMA allows impact fees for system improvements that reasonably relate to the impacts of new development, and specifies that fees are not to exceed a proportionate share of the costs of improvements.

For a city to impose GMA impact fees, the following specific provisions are required:

- The city must have an ordinance authorizing impact fees;
- Fees may apply only to improvements identified in a Capital Facilities Plan;
- The agency must establish one or more service areas for fees;
- A formula or other method for calculating impact fees must be established;
- The fees cannot be used to finance the portion of improvements needed to pay for existing capacity deficiencies. (Note: the fees can be used to recoup the cost of improvements already made to address the needs of future development);
- The fees may not be arbitrary or duplicative;
- The fees must be earmarked specifically and be retained in special interest-bearing accounts;
- Fees may be paid under protest; and,
- Fees not expended within six years must be refunded with interest.

An accounting system is important to ensure that the impact fees collected are assigned to the appropriate improvement projects and the developer is not charged twice for the same improvement.

GUIDING PRINCIPLES

A set of guiding principles provides consistent direction for development of the transportation impact fee program. The program should:

- Be legally and technically defensible (provide a nexus to impact);
- Be financially constrained;
- Be fair, consistent and predictable in its development and application;

Transportation Impact Fee Program 2009 Update

- Have reasonable rates based on improvements necessary to accommodate new growth and development under the Comprehensive Plan;
- Be simple to administer and not preclude other requirements of SEPA such as safety issues, access improvements, etc.; and,
- Address multi-jurisdictional issues as much as practicable.

These guiding principles were used to test alternative ideas and select an appropriate method of calculating impact fees for the City.

IMPACT FEE STRUCTURE

The key steps involved in the impact fee process are shown in **Figure 1**. Steps include developing a list of road improvements and costs, allocating growth-related costs within the City, and identifying available funding. The remaining costs can be charged as impact fees, which are displayed in the form of a fee schedule. Each step is described in more detail in subsequent sections of this report.

ORGANIZATION OF REPORT

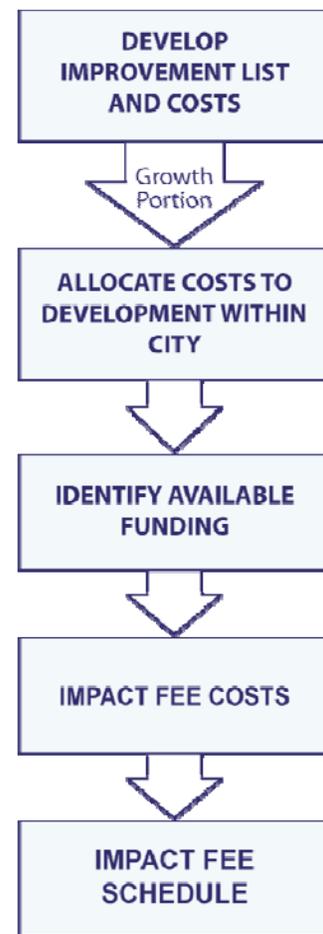
This report includes the following sections:

- Introduction
- Impact Fee Project List
- Cost Allocation
- Impact Fee Schedule

DATA ROUNDING

The data in this study were prepared using computer spreadsheet software. In some tables in this study, there will be very small variations from the results that would be obtained using a calculator to compute the same data. The reason for these insignificant differences is that the spreadsheet software calculated the results to more places after the decimal than is reported in the tables in the report.

Figure 1. Traffic Impact Fee Program Development Steps



CHAPTER 2. IMPACT FEE PROJECT LIST

Washington State law RCW 82.02.050 specifies that Transportation Impact Fees are to be spent on ‘system improvements.’ System improvements can include physical or operational changes to existing roadways, as well as new roadway connections that are built in one location to benefit projected needs at another location. These are generally projects that add capacity (new streets, additional lanes, widening, signalization, et al).

The impact fee structure for the City of Bellevue was designed to determine the fair share of road improvement costs that may be charged to new developments. During the City's transportation planning process, the City identified projects needed by 2020 to meet the transportation needs of the adopted land use in the Comprehensive Plan. The task was accomplished by examining existing roadway deficiencies and forecasting future needs. The City of Bellevue used a city cost model to estimate the costs for these capacity improvements. These capital projects form the basis for the impact fees project list, which includes public and private sources.

The impact fee project list was composed of selected capacity projects from the City's 2009-2020 Transportation Facilities Plan (TFP). The project list, shown in **Table 1** and illustrated in **Figure 2** includes 34 projects, totaling \$381.5 million. The total project costs will be reduced during the analysis to account for previously collected impact fees and projected revenues from new Local Improvement Districts (LID's).

Table 1. Transportation Impact Fee Projects

#	TFP # (Map ID)	Project Group	Project Location	Project Description	Total Cost
1	TFP-079	A	Northup Way/Bellevue Way to NE 24th Street	Construct a two-way center turn lane, complete sidewalks and bike lanes on both sides.	\$15,000,000
2	TFP-090	B	116th Avenue NE/NE 12th Street to 1600 block	Widen to five lanes north of the existing intersection. Add a second eastbound left turn and northbound right turn at 116th Avenue NE and NE 12th Street.	5,000,000
3	TFP-091 TFP-106	B	Northup Way/120th Avenue NE to 124th Avenue NE	Construct a second eastbound lane, and widen Northup Way/124th Avenue NE intersection to provide a northbound right turn lane and a second eastbound left-turn lane to the SR-520 ramp.	7,472,000
4	TFP-094	E	148th Avenue NE at Bel-Red Road	Construct an eastbound right turn lane and second westbound left turn lane.	6,977,000
5	TFP-101	E	148th Avenue NE at NE 20th Street	Construct second eastbound and westbound left turn lanes.	3,778,000
6	TFP-102	E	Bel-Red Road/NE 24th Street	Add southbound right turn and northbound left turn lanes.	2,290,000
7	TFP-110	C	110th Avenue NE/NE 4th Street to NE 8th Street	An incomplete segment remains between NE 6th and NE 8th Streets. Funding allocation may be used to finalize project design only for a five-lane roadway section with sidewalks where missing.	971,000
8	TFP-120	G	Factoria Boulevard at Newport Way	Construct a second southbound left-turn lane at Newport Way and modify the eastern leg of the Factoria Blvd/Newport Way intersection to receive the two lanes of turning traffic; reconfigure the intersection between Factoria Blvd and the access to Newport High School, including relocation of the Factoria Blvd access to St. Margaret's church to become an eastern leg of the intersection.	4,600,000
9	TFP-154	F	148th/150th Avenue SE/I-90 westbound on-ramp to I-90 westbound off-ramp	Widen by extending the third southbound lane on 148th Avenue SE from the on-ramp to westbound I-90 to south of Eastgate Way at the I-90 westbound off ramp.	1,900,000
10	TFP-157	E	148th Avenue NE/NE 24th Street	Lengthen the westbound right turn lane on NE 24th Street and provide second westbound left turn lane.	4,170,000
11	TFP-160	F	145th PI SE/SE 16th St to SE 24th St and SE 22nd St/145th	Construct a two-way center left-turn lane where needed and, five foot bike lanes. Modify the 145th Place SE/SE 24th Street intersection.	6,780,000
12	TFP-162	F	156th Avenue SE at SE Eastgate Way (I-90 westbound off-ramp)	Widen the I-90 westbound off-ramp to provide two dedicated left turn lanes and a shared through/right lane with a channelized right turn.	\$780,000
13	TFP-168	E	148th Avenue NE/NE 8th Street	Add 2nd eastbound and westbound left turn lanes on NE 8th Street.	5,060,000
14	TFP-184	C	NE 8th Street/106th Avenue NE to 108th Avenue NE	Construct third westbound lane on NE 8th Street becoming right turn lane at 106th Avenue NE; no widening west of 106th Avenue NE.	4,002,000
15	TFP-190	C	NE 2nd Street/Bellevue Way to 112th Avenue NE	Widen from three lanes with parking and turn pockets to five lanes. The design will accommodate left turn movements with a center turn lane where needed and dedicated right-turn pockets are also possible at some intersections.	42,000,000
16	TFP-192	G	Lakemont Blvd (Phase 1)/Cougar Mountain Way to Lewis Creek Park and 164th Avenue SE to 171st Avenue SE	Install signal and turn lanes at Cougar Mtn. Way/Lakemont Blvd. intersection; construct northbound left turn lane on Lakemont Blvd. at SE 62nd Street; add sidewalk and bike lanes on east side between Cougar Mtn. Way and the park.	2,920,000
17	TFP-195	F	150th Avenue SE/SE 37th Street/I-90 off-ramp widening	Widen I-90 off-ramp 300' west of 150th Avenue SE and add a through lane. Widen SE 37th Street approximately 500' to the east of 150th Avenue SE to allow for a bypass lane.	\$1,430,000

Transportation Impact Fee Program 2009 Update

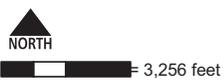
Table 1. Transportation Impact Fee Projects (Continued)

#	TFP # (Map ID)	Project Group	Project Location	Project Description	Total Cost
18	TFP-198	E	Bel-Red Road/NE 20th Place	Install signal, eastbound left turn pocket and pedestrian crossing.	\$1,960,000
19	TFP-205	G	Lakemont Blvd (Phase 2)/Lewis Creek Park to 164th Ave SE	Install signal at 164th Ave SE/Lakemont Blvd; construct sidewalk and bike lane on east side.	1,860,000
20	TFP-207	D	NE 4th Street Extension / 116th Avenue NE to 120th Avenue NE and widening of 120th Avenue / NE 4th Street to NE 8th Street	The 4th St Extension will consist of 5 vehicle lanes, bike lanes, sidewalks and will require construction of a sunken roadway and bridge(s) for BNSF RR tracks and pedestrian over crossings. 120th Avenue NE will be widened to 5 lanes with bike lanes between the 4th St. Ext. and NE 8th Street.	31,000,000
21	TFP-208	B	120th Avenue NE/NE 8th Street to Northup Way	Widen to five lanes with sidewalks and bike lanes. Extend/realign roadway between NE 8th Street and Old Bel-Red Rd. Key intersection improvements at NE 8th St, NE 12th St, the proposed 15th/16th St, and Northup Way.	37,200,000
22	TFP-209	B	NE 15th/16th Street (Phase I)/116th Avenue at NE 12th Street to 124th Avenue NE	Construct a five lane roadway from 116th Avenue NE to 124th Avenue NE. The overall roadway cross-section will also include a frontage road, parking, ped/bike facilities, and an HOV transit corridor.	85,000,000
23	TFP-210	B	124th Ave NE/Proposed NE 15th/16th Street Extension to Northup Way	Widen to five lanes with sidewalks. Key intersections at NE 15th/16th Street and Northup Way.	19,000,000
24	TFP-211	D	NE 6th Street Extension	Extend NE 6th Street, as an HOV only facility, from the I-405 HOV interchange to the east over 116th Avenue NE, crossing BNSF right-of-way, and terminating at 120th Ave NE. Improvements include two lanes in each direction with left turn lanes at signalized intersections of I-405 and 120th Avenue NE, and a 14' wide non-motorized pathway.	68,000,000
25	TFP-213	B	124th Avenue NE/Bel-Red Road to Planned NE 15th/16th Street Extension	Widen to 5 lanes with sidewalks.	9,200,000
26	TFP-214	B	124th Avenue NE/Bel-Red/Old Bel-Red Road	Provide a second westbound left turn lane, a southbound right turn lane and widen 124th Avenue NE to provide a second southbound lane between Bel-Red Rd. and Old Bel-Red Rd.	3,000,000
27	TFP-216	C	112th Avenue NE/NE 2nd Street	Straighten and realign NE 2nd Street between 112th and 114th Avenues NE, add dual southbound left turn lanes and a northbound right turn lane.	1,880,000
28	TFP-219	C	NE 8th Street/106th Avenue NE	Realignment of the roadway to the south will better utilize the new westbound travel lane (between 108th and 106th Avenues NE; funded in CIP). This realignment will allow NE 8th Street three through lanes westbound from I-405 to Bellevue Way.	1,740,000
29	TFP-220	G	SE 40th Lane/Factoria Boulevard	Lengthen the southbound to eastbound left turn lane and lengthen the westbound left turn lane.	280,000
30	TFP-222	C	Bellevue Way/NE 4th Street	Add a southbound right turn lane and a westbound right turn lane. Dual westbound left turn lanes.	1,690,000
31	TFP-223	C	Bellevue Way/NE 8th Street	Add southbound right turn lane.	1,260,000
32	TFP-224	E	Bel-Red Road/NE 20th Street	Add southbound right turn lane; convert westbound lanes on NE 20th Street to provide left turn, left turn/through and through/right turn lanes.	1,450,000
33	TFP-225	C	Bellevue Way/NE 2nd Street	Add a northbound right turn lane and a second southbound left turn lanes.	890,000
34	TFP-239	E	156th Avenue NE/NE 24th Street	Construct an eastbound right turn lane.	990,000
			Total Project Costs		\$381,530,000

Figure 2: Transportation Impact Fee Projects



C:\temp\TFP_CIP_09-20_MMA_ForTransComm11x17.mxd



City of Bellevue
IT Department
GIS Services
Plot Date: 2/24/2009

Legend

- — Capacity projects included in Impact Fee Project List
- Mobility Management Areas (MMAs)

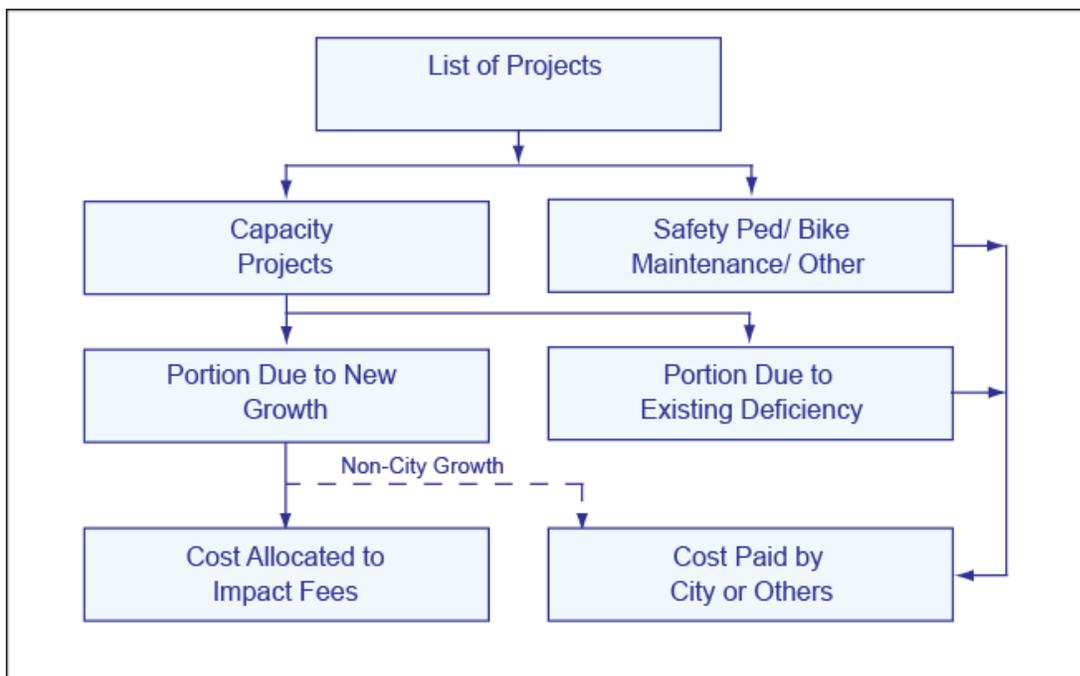
This data is a geographic representation derived from the City of Bellevue Geographic Information System. The City of Bellevue does not guarantee that the information provided herein is accurate or complete. This information is provided on an "as is" basis and disclaims all warranties, express or implied, including but not limited to warranties of merchantability, fitness for a particular purpose and non-infringement. Any commercial use or sale of the information and data provided herein, or portions thereof, is prohibited without express written authorization by the City of Bellevue. The City of Bellevue is not responsible for any damages arising from the use of this data. Users should verify the information before making project commitments.

CHAPTER 3. COST ALLOCATION

METHODOLOGY

The cost allocation methodology is called a ‘marginal cost’ approach. This approach calculates the marginal growth cost of the project by determining, up front, the proportion of the project associated with growth. The impact fee methodology distinguishes between facility improvements that address existing deficiencies and those that are needed to serve new growth. For growth-related projects, this method assumes that traffic generated by future development is the reason for the improvement project(s). **Figure 3** diagrams the process.

Figure 3. Impact Fee Cost Allocation Concept



The following sections describe each step in the process.

TRANSPORTATION DEFICIENCIES

RCW 82.02.050(4) (a) requires that the Capital Facilities Element of a jurisdiction’s comprehensive plan identify ‘deficiencies in public facilities serving existing development.’ Under the GMA, future development cannot be held responsible for the portion of added roadway capacity needed to serve existing development.

To adequately assess both the extent of the existing roadway deficiencies and the magnitude of the future needs on arterial roadways, the City developed a standard evaluation criterion as part of its concurrency management program. The criterion selected is defined by the Highway Capacity Manual (HCM) as the average volume/capacity (v/c) ratio for

Transportation Impact Fee Program 2009 Update

intersections during the PM peak 2-hour period. The methodology calculates the v/c ratios for 104 'system intersections' with 14 Mobility Management Areas (MMAs). System intersections are arterial street intersections controlled by traffic signals, and MMAs are geographic sub-areas of the city, designated for traffic analysis purposes.

Using this methodology, the City has two standards that must be met for its concurrency test. The first standard is that the intersection v/c ratios are averaged for the system intersections in each MMA and then compared with the adopted standards for each MMA to estimate the reserve capacity. The second standard is that each MMA subarea has a 'congestion allowance', which is the maximum number of intersections allowed to exceed the standard v/c ratio for that MMA. These standards are documented in the adopted Transportation Element of the City's Comprehensive Plan.

According to the annual concurrency update (9/15/07), the number of intersections failing the level of service MMA standards was four. This quantity of failing intersections does not approach the maximum number of failing intersections allowed in any MMA. Also, all MMAs were within the average v/c ratio allowed and met the City's adopted standards. Therefore, up to 100 percent of the project costs can potentially be allocated to new growth. **Table 2** is from the City of Bellevue Concurrency Update and summarizes the analysis findings.

Table 2. Comparison of 2-Hour Average LOS in Annual Concurrency as of 9/15/07

Based on existing 2-hour PM peak average counts				2006 Existing Based on 2006 Counts			
MMA #	MMA Name	LOS Standard (Volume/Capacity Ratios)	No of Intersections Allowed Over the Standard	Average V/C Ratio	% Capacity Available	No of Intersections Over the Standard	Meets LOS Standards
1	North Bellevue	0.85	3	0.619	27%	0	Yes
2	Bridle Trails	0.80	2	0.532	34%	0	Yes
3	Downtown	0.95	9	0.660	31%	1	Yes
4	Bel-Red/Northup	0.90	10	0.666	26%	0	Yes
5	Crossroads	0.90	2	0.663	26%	0	Yes
6	North-East Bellevue	0.80	2	0.632	21%	0	Yes
7	South Bellevue	0.85	4	0.600	29%	0	Yes
8	Richards Valley	0.85	5	0.598	30%	1	Yes
9	East Bellevue	0.85	5	0.749	12%	1	Yes
10	Eastgate	0.90	4	0.607	33%	0	Yes
11	Newcastle	0.80	3	0.732	9%	0	Yes
12	Overlake	0.95	9	0.663	30%	0	Yes
13	Factoria	0.95	5	0.782	18%	1	Yes
TOTAL			63			4	

Notes: 2000 Highway Capacity Manual (HCM) 209/Two-Hour Method.
MMA 14, Newport Hills has no signalized intersections, and so is not considered.

Transportation Impact Fee Program 2009 Update

TRAVEL GROWTH

To match the 2009-2020 Transportation Facilities Plan, the City used a 13-year land use growth estimate. **Table 3** shows Bellevue land use forecasts in terms of single family housing, multi-family housing, office, retail, industrial and lodging units for the years 2008 and 2020.

The housing and employment growth estimates were converted to PM peak hour vehicle trip ends¹ using trip generation rates from the Institute of Transportation Engineers (ITE) *Trip Generation* (8th Edition, 2008). These growth estimates result in an increase of 24,108 PM peak hour vehicle trip ends within the City during the 13-year period. This growth in vehicle trip ends was used to calculate the impact fee rates.

Table 3. Bellevue Land Use Growth

Land Use Category	Unit of Measure	2008	2020	Growth
Single Family Housing	Dwelling Units	29,324	29,672	348
Multi-Family Housing	Dwelling Units	25,450	37,741	12,291
Office	Square Feet	30,761,219	41,445,336	10,684,117
Retail	Square Feet	10,576,131	12,511,173	1,935,042
Industrial	Square Feet	6,441,029	4,534,049	(1,906,980)
Lodging	Rooms	3,414	6,213	2,799

Source: City of Bellevue, 2008

COST ALLOCATION RESULTS

The cost allocation process distributes the growth costs for each project based upon the travel patterns within and outside the City limits. A 'select link' assignment procedure using the City's travel demand forecasting model provided the origin and destination information for each vehicle trip traveling through a particular improvement project group. The grouping of projects for the select link assignments is shown in the third column of Table 1. Trips that pass through Bellevue, but do not have any origins or destinations internal to Bellevue, were not allocated to Bellevue growth. Trips that have one end in Bellevue and the other end outside of Bellevue were allocated 50 percent to Bellevue growth.

1-A vehicle trip travels between an origin and a destination. Each vehicle trip has two trip ends, one each at the origin and destination. Trip ends represent the traffic coming to and from a given land use. The trip ends were calculated with trip generation formulas used by the *Institute of Transportation Engineers*.

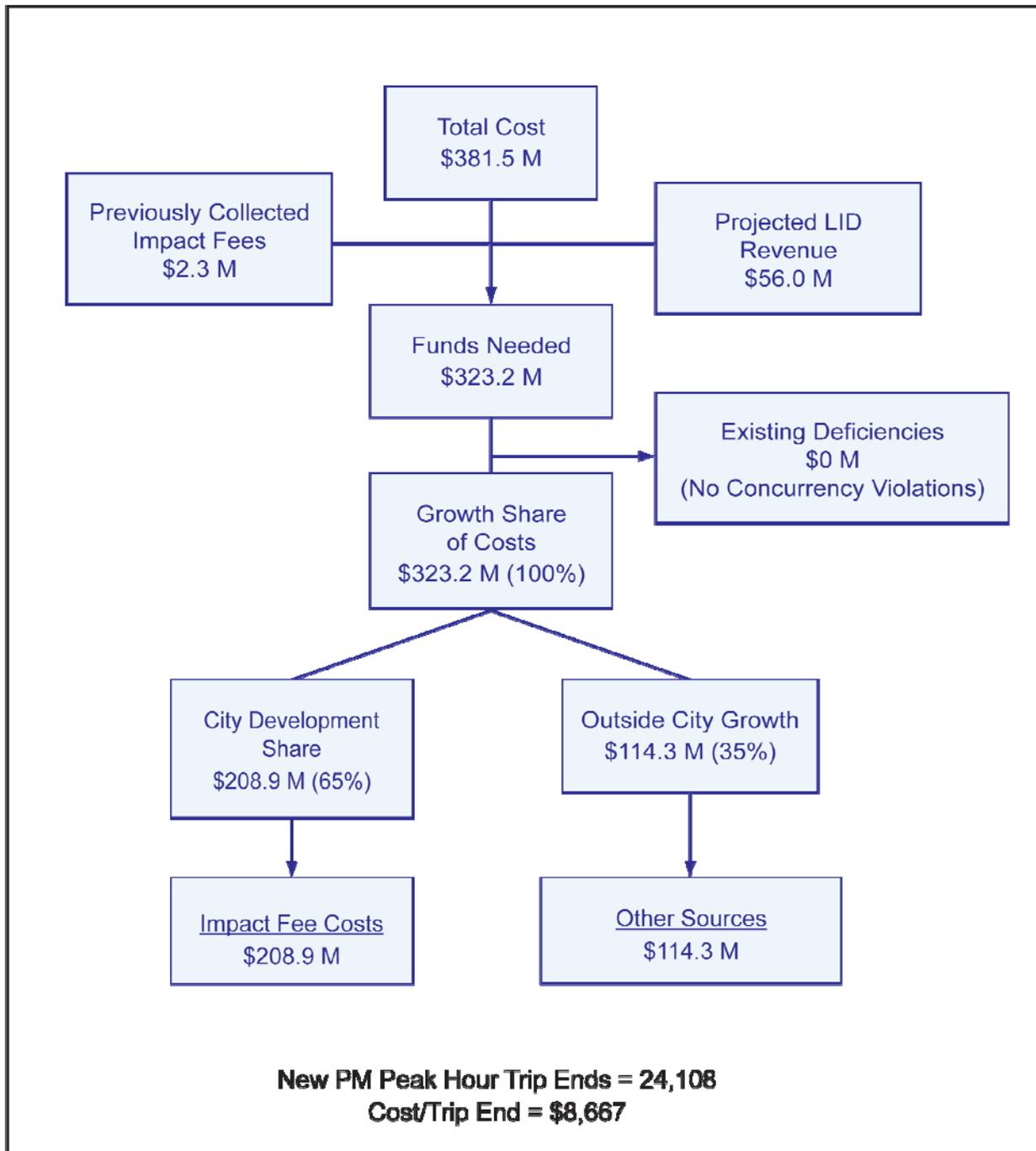
Transportation Impact Fee Program 2009 Update

Figure 4 summarizes the cost allocation results. For discussion purposes, the dollar amounts shown in this figure and the following text descriptions are approximate values expressed in million dollars. The actual amounts used in the calculations are accurate to a single dollar.

The total cost of the capacity projects on the capacity project list is \$381.5 million as shown in Table 1. The City has previously collected impact fee funds equaling \$2.3 million. The City also has projected \$56.0 million in Local Improvement District (LID) revenues for selected projects on the impact fee list. Removing these two revenue sources from the total cost, leaves \$323.2 million remaining to be funded. This cost is referred to as the 'growth share of costs'.

The \$323.2 million was split into 'city growth' and 'outside city growth' components using the City's travel demand model data. **Appendix A** - Exhibit A-1 shows the details of this calculation. Using these data, the average percent of 'city growth' equaled 65 percent. This percentage is referred to as the 'City development share of cost'. The City development share, applied to the \$323.2 million of needed funds, yields an amount equal to \$208.9 million. This is the maximum allowable amount that can be charged to new development using impact fees.

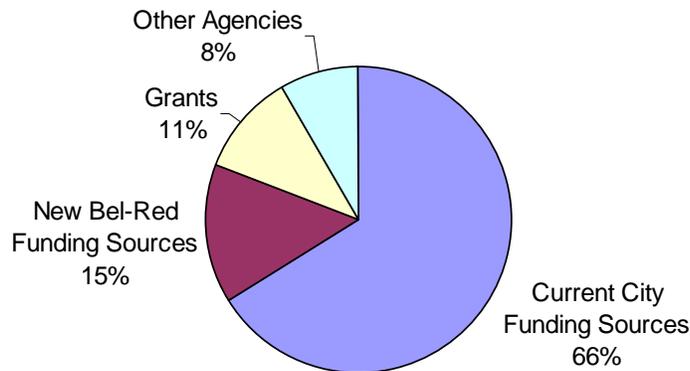
Figure 4. Impact Fee Cost Allocation Results



Transportation Impact Fee Program 2009 Update

The City of Bellevue’s 2009-2020 Transportation Facilities Plan (TFP) documents sufficient funds available to cover the remaining \$114.3 million needed for growth occurring outside the City. **Figure 5** shows the approximate percent of funds by source. Current City funds, new Bel-Red funding sources, grants, and other agency contributions would comprise the funding package.

Figure 5. Estimated Funding Sources (\$114.3 million)



The final step in the cost allocation process dealt with calculating the ‘cost per new trip end’ within Bellevue, derived by dividing the total eligible project cost by the total number of new PM peak hour trip ends based in Bellevue. A total of 24,108 new PM peak hour vehicle trip ends are estimated to occur within the City between 2008 and 2020.

The analysis produced the following results.

Impact fee costs	\$ 208,936,981
Divided by:	
PM peak hour trip ends	÷ 24,108
Equals:	
Impact fee per PM Peak Hour trip end ²	\$ 8,667

The \$8,667 value represents the maximum allowable impact fee rate to meet the GMA requirements.

2-BCC 22.16 uses the term ‘trip’ rather than ‘trip end’. This is done for ease of understanding by the public. For purposes of the code, the term trip and trip end are the same.

CHAPTER 4. IMPACT FEE SCHEDULE

The impact fee schedule was developed by adjusting the 'cost per trip end' information to reflect differences in trip-making characteristics for a variety of land use types within the study area. The rates in the fee schedule represent dollars per unit for each land use category. **Table 4** shows the various components of the fee schedule (trip generation rates, new trip percentages, trip lengths, and trip length adjustment for each land use).

TRIP GENERATION COMPONENTS

Trip generation rates for each land use type are derived from the Institute of Transportation Engineers (ITE) *Trip Generation* (8th Edition). The rates are expressed as vehicle trips entering and leaving a property during the PM peak hour.

Pass-by Trip Adjustment

Trip generation rates represent the total traffic entering and leaving a property at the driveway points. For certain land uses (e.g., retail), a substantial amount of this traffic is already passing by the property and merely turns into and out of the driveway. These pass-by trips do not significantly impact the surrounding street system and therefore are subtracted out prior to calculating the impact fee. The resulting trips are considered 'new' to the street system and are therefore subject to the impact fee calculation. The 'new' trip percentages are derived partially from ITE data and from available surveys conducted around the country.³

Trip Length Adjustment

Another variable that affects traffic impacts is the length of the trip generated by a particular land use. The 'cost per trip' calculated in the impact fee program represents an average for all new trips generated within Bellevue. Being an average, there will be certain land uses that generate trips of different lengths. If a given trip length is shorter than the average, then its relative traffic impacts on the street system will be lower than average. Conversely, longer trips will impact a larger proportion of the transportation network. To account for these differences, an adjustment factor is used, calculated as the ratio between the trip length for a particular land use type and the 'average' trip length for the city. Trip length data were estimated using limited national survey results.³ The average trip length estimated for Bellevue was 4.0 miles, based upon the 2020 mix of land use types within the study area and the geographic size of the city.

³-Trip Generation Sources: ITE *Trip Generation* (8th Edition); ITE *Trip Generation Handbook*, (March 2001); *Pinellas County (FL) Impact Fee Study* (1991), *Osceola County (FL) Alternative Traffic Generation Rate Study* (2004), *Polk County (FL) Transportation Impact Fee Study* (2005).

DOWNTOWN BELLEVUE TRIP GENERATION ADJUSTMENTS

Localized survey results from National Highway Cooperative Research Program (NCHRP) Report 323, *Travel Characteristics at Large-Scale Suburban Activity Centers* document lower trip generation rates in city centers for several land use types including office, hotel, retail and residential. The lower trip generation rates are due to the higher density of buildings, a diverse mixture of land uses, and the proximity to substantial transit. The reduced trip generation rates for downtown Bellevue are shown at the bottom of Table 4.

Table 4. Impact Fee Schedule Components

Land Use	ITE Land Use Code	Unit of Measure	Basic Trip Rate	New Trip %	New Trip Rate	Avg. Trip Length (miles)	Trip Length Adjustment
Residential							
Single Family	210	dwelling	1.01	100%	1.01	3.5	0.88
Multi-Family	220-232	dwelling	0.49	100%	0.49	3.7	0.93
Senior Citizen Dwelling	252	dwelling	0.16	100%	0.16	2.8	0.70
Commercial - Services							
Bank/ S&L without Window	911	sf/GFA	12.13	60%	7.28	2.9	0.73
Bank/ S&L with Window	912	sf/GFA	25.82	55%	14.20	2.9	0.73
Hotel/Motel	310, 320	room	0.54	80%	0.43	4.0	1.00
Day Care Center	565	sf/GFA	12.46	75%	9.35	2.0	0.50
Service Station w or wo Convenience Mkt	944, 945	VFP	13.38	45%	6.02	1.7	0.43
Quick Lubrication Vehicle Shop	941	serv pos	5.19	70%	3.63	1.7	0.43
Car Wash - Self Service	947	stall	5.54	65%	3.60	1.6	0.40
Movie Theater w/ Matinee	444	screen	45.91	85%	39.02	2.3	0.58
Commercial - Institutional							
Elementary/ Middle School	520, 522	student	0.15	80%	0.12	3.7	0.93
High School	530	student	0.13	80%	0.10	3.7	0.93
Junior College	540	student	0.12	90%	0.11	3.7	0.93
Religious Institution	560	sf/GFA	0.55	100%	0.55	3.7	0.93
Nursing Home	620	bed	0.22	100%	0.22	2.8	0.70
Congregate Care/Assisted Living	253	dwelling	0.17	100%	0.17	2.8	0.70
Medical Clinic	630	sf/GFA	5.18	75%	3.89	4.8	1.20
Hospital	610	sf/GFA	1.14	80%	0.91	5.0	1.25
Commercial - Restaurant							
Quality Restaurant	931	sf/GFA	7.49	60%	4.49	3.4	0.85
High Turnover Restaurant	932	sf/GFA	11.15	60%	6.69	2.3	0.58
Fast Food Restaurant without Window	933	sf/GFA	26.15	50%	13.08	2.0	0.50
Fast Food Restaurant with Window	934	sf/GFA	33.84	50%	16.92	2.0	0.50
Commercial - Retail Shopping							
Shopping Center	820	sf/GLA	3.73	70%	2.61	2.1	0.53
Supermarket	850	sf/GFA	10.50	65%	6.83	2.1	0.53
Convenience Market	851	sf/GFA	52.41	40%	20.96	1.3	0.33
Convenience Market with Gas Pumps	853	sf/GFA	59.69	35%	20.89	1.3	0.33
Discount Supermarket	854	sf/GFA	8.90	70%	6.23	2.1	0.53
Discount Store	815	sf/GFA	5.00	80%	4.00	1.7	0.43
Discount Superstore	813	sf/GFA	4.61	75%	3.46	1.7	0.43
Miscellaneous Retail	814, 820	sf/GFA	3.73	60%	2.24	1.7	0.43
Retail Warehouse (Hardware)	862	sf/GFA	2.37	55%	1.30	3.2	0.80
Retail Warehouse (General Merchandise)	857,863, 864	sf/GFA	4.24	70%	2.97	3.2	0.80

See next page for notes

Table 4. Impact Fee Schedule Components (Continued)

Land Use	ITE Land Use Code	Unit of Measure	Basic Trip Rate	New Trip %	New Trip Rate	Avg. Trip Length (miles)	Trip Length Adjustment
Commercial - Retail Shopping (Continued)							
Furniture Store	890	sf/GFA	0.45	50%	0.23	1.7	0.43
Pharmacy with or without Drive-Through	880, 881	sf/GFA	8.52	50%	4.26	1.7	0.43
Auto Parts Store	943	sf/GFA	4.46	55%	2.45	2.1	0.53
Car Sales -New/ Used	841	sf/GFA	2.59	80%	2.07	4.6	1.15
Commercial - Office							
Office	710	sf/GFA	1.49	90%	1.34	5.1	1.28
Medical/ Dental Office	720	sf/GFA	3.46	75%	2.60	4.8	1.20
Industrial							
Light Industry/Manufacturing	110, 140	sf/GFA	0.97	100%	0.97	5.1	1.28
Industrial Park	130	sf/GFA	0.86	100%	0.86	5.1	1.28
Warehousing	150	sf/GFA	0.32	100%	0.32	5.1	1.28
Mini-Warehouse	151	sf/GFA	0.26	100%	0.26	5.1	1.28
Downtown Land Uses							
Multi-Family (D)	220-232	dwelling	0.37	100%	0.37	3.7	0.93
Hotel/Motel (D)	310, 320	room	0.41	80%	0.33	4.0	1.00
Office (D)	710	sf/GFA	1.12	90%	1.01	5.1	1.28

Notes:

sf/GFA = square feet Gross Floor Area

sf/GLA = square feet Gross Leasable Area

For uses with Unit of Measure given in sf, trip rate is given as trips per 1,000 sf

VFP = Vehicle Fueling Station (Maximum number of vehicles that can be fueled simultaneously)

serv pos = Service Position

SCHEDULE OF RATES

The impact fee schedule using maximum allowable rates is shown in **Table 5**. Separate fees for downtown Bellevue are listed for Multi-Family, Hotel/Motel and Office land uses at the bottom of the Table 5. In the fee schedule, fees are shown as dollars per unit of development for various land use categories, as defined in **Appendix B**. The impact fee program is flexible in that if a use does not fit into one of the categories, the City may calculate an impact fee based on the development's projected trip generation.

Transportation Impact Fee Program 2009 Update

Table 5. Impact Fee Schedule (Maximum Allowable Rates)

Land Use	ITE Land Use Code	Unit of Measure	Impact Fee Rate
Residential			
Single Family	210	dwelling	\$7,659
Multi-Family	220-232	dwelling	\$3,928
Senior Citizen Dwelling	252	dwelling	\$971
Commercial - Services			
Bank/ S&L without Window	911	sf/GFA	\$45.73
Bank/ S&L with Window	912	sf/GFA	\$89.23
Hotel/Motel	310, 320	room	\$3,744
Day Care Center	565	sf/GFA	\$40.50
Service Station w or wo Convenience Mkt	944, 945	VFP	\$22,178
Quick Lubrication Vehicle Shop	941	serv pos	\$13,382
Car Wash - Self Service	947	stall	\$12,484
Movie Theater w/ Matinee	444	screen	\$194,475
Commercial - Institutional			
Elementary/ Middle School	520, 522	student	\$962
High School	530	student	\$834
Junior College	540	student	\$866
Religious Institution	560	sf/GFA	\$4.41
Nursing Home	620	bed	\$1,335
Congregate Care/Assisted Living	253	dwelling	\$1,031
Medical Clinic	630	sf/GFA	\$40.41
Hospital	610	sf/GFA	\$9.88
Commercial - Restaurant			
Quality Restaurant	931	sf/GFA	\$33.11
High Turnover Restaurant	932	sf/GFA	\$33.34
Fast Food Restaurant without Window	933	sf/GFA	\$56.66
Fast Food Restaurant with Window	934	sf/GFA	\$73.32
Commercial - Retail Shopping			
Shopping Center	820	sf/GLA	\$11.88
Supermarket	850	sf/GFA	\$31.05
Convenience Market	851	sf/GFA	\$59.05
Convenience Market with Gas Pumps	853	sf/GFA	\$58.85
Discount Supermarket	854	sf/GFA	\$28.35
Discount Store	815	sf/GFA	\$14.73
Discount Superstore	813	sf/GFA	\$12.74
Miscellaneous Retail	814, 820	sf/GFA	\$8.24
Retail Warehouse (Hardware)	862	sf/GFA	\$9.04
Retail Warehouse (General Merchandise)	857, 863, 864	sf/GFA	\$20.58

See next page for notes

Transportation Impact Fee Program 2009 Update

Table 5. Impact Fee Schedule (Maximum Allowable Rates) Continued

Land Use	ITE Land Use Code	Unit of Measure	Impact Fee Rate
Commercial - Retail Shopping (Continued)			
Furniture Store	890	sf/GFA	\$0.83
Pharmacy with or without Drive-Through	880, 881	sf/GFA	\$15.69
Auto Parts Store	943	sf/GFA	\$11.16
Car Sales -New/ Used	841	sf/GFA	\$20.65
Commercial - Office			
Office	710	sf/GFA	\$14.82
Medical/ Dental Office	720	sf/GFA	\$26.99
Industrial			
Light Industry/Manufacturing	110, 140	sf/GFA	\$10.72
Industrial Park	130	sf/GFA	\$9.50
Warehousing	150	sf/GFA	\$3.54
Mini-Warehouse	151	sf/GFA	\$2.87
Downtown Land Uses			
Multi-Family (D)	220-232	dwelling	\$2,966
Hotel/Motel (D)	310, 320	room	\$3,625
Office (D)	710	sf/GFA	\$11.74

Notes:

sf/GFA = square feet Gross Floor Area

sf/GLA = square feet Gross Leasable Area

For uses with Unit of Measure given in sf, trip rate is given as trips per 1,000 sf

VFP = Vehicle Fueling Station (Maximum number of vehicles that can be fueled simultaneously)

serv pos = Service Position

Table 6 provides two examples (residential and office) of the calculation.

Table 6. Example Calculations of Impact Fee Rate (Maximum Allowable Rate)

	Calculations	Residential: Single Family	Commercial Office
	PM Peak Hour Trip Generation (per unit) ¹	1.01/ dwelling	1.49/ 1,000 sq ft
x	Percent New Trips	100%	90%
x	New Trip Rate	= 1.01/ dwelling	= 1.34/ 1,000 sq ft
	Trip Length (miles)	3.5	5.1
÷	÷	÷	÷
	Average Trip Length (miles)	4.0	4.0
x	Trip Length Adjustment	= 0.88	= 1.28
x	Average Cost per Trip End	\$8,667	\$8,667
÷	Divide by 1,000 for rate per square foot	NA	1,000
=	Impact Fee Rate (per unit)	\$7,659/ dwelling	\$14.82/ sq ft

¹ ITE Trip Generation, 8th Edition, 2008

APPENDIX A – COST ALLOCATION RESULTS

The cost allocation results are summarized in this Appendix. **Exhibit A-1** illustrates how the impact fee project costs (shown in Table 1) were divided into growth-related costs attributable to the City. In order to determine this proportion, the City’s travel demand model was used to identify the portion of trip-making associated with existing and growth-related traffic. A technique called ‘select-link’ analysis was used to isolate the vehicle trips using each of the impact fee projects. The first column of Exhibit A-1 shows several ‘project groups’, which represent the grouping of impact fee projects used in the select link traffic forecasts. Each project group includes impact fee projects that are located within close proximity to each other, representing similar traffic patterns. The grouping of projects is shown at the bottom of Exhibit A-1.

Exhibit A-1. Cost Allocation by Project Group

Project Group #	Project Costs (Total)	Existing Deficiency Portion	Previously Collected Impact Fees	Projected LID Revenues	Project Costs minus Deficiencies, Previously Collected Impact Fees and LID Revenues	Percent of New Project Traffic due to Growth within City	Project Costs Allowable for Impact Fees
A	\$15,000,000	\$0	\$0	\$0	\$15,000,000	46.2%	\$6,937,207
B	\$165,872,000	\$0	\$1,200,000	\$45,890,000	\$118,782,000	68.3%	\$81,095,790
C	\$54,433,000	\$0	\$1,171,000	\$0	\$53,262,000	75.0%	\$39,954,401
D	\$99,000,000	\$0	\$0	\$10,075,000	\$88,925,000	67.8%	\$60,312,759
E	\$26,675,000	\$0	\$0	\$0	\$26,675,000	31.5%	\$8,389,511
F	\$10,890,000	\$0	\$0	\$0	\$10,890,000	51.6%	\$5,614,720
G	\$9,660,000	\$0	\$0	\$0	\$9,660,000	68.7%	\$6,632,593
Total	\$381,530,000	\$0	\$2,371,000	\$55,965,000	\$323,194,000		\$208,936,981
Total					\$323,194,000	64.6%	\$208,936,981

Project Group Definitions (used for grouping capacity projects for travel modeling)

A	NE Northup Way
B	Bel-Red Area
C	Downtown Bellevue
D	Area East of Downtown and South of Bel-Red
E	Northeast Bellevue
F	I-90/148th Ave SE & 145th Ave SE Area
G	Factoria/South Bellevue

APPENDIX B – LAND USE DEFINITIONS

The following land use definitions are derived from the *ITE Trip Generation* (8th Edition). They have been modified as appropriate for the City of Bellevue. Where multiple land use codes are listed, the code marked with an asterisk (*) was selected for use in the Impact Fee Schedule. Rates for other land uses were selected as indicated in the definitions.

RESIDENTIAL

Single Family: One or more detached housing units located on an individual lot. Also includes accessory dwelling units and duplexes. (ITE # 210)

Multi-Family: A building or buildings designed to house two or more families living independently of each other. Includes apartments, condos, attached duplexes and attached townhouses. Includes accessory dwelling units (separate structure) and single room occupancy, if additional parking provided. (ITE #s 220–232. Uses weighted average of rates)

Senior Citizen Dwelling: Residential units similar to apartments or condominiums restricted to senior citizens. Separate from congregate care/assisted living and nursing home facilities. (ITE # 252)

COMMERCIAL-SERVICES

Bank/ Savings and Loan without Drive-In Window: A financial institution without a drive-up window. Includes banks, savings and loans, and credit unions. May or may not be a free-standing building. (ITE # 911)

Bank/ Savings and Loan with Drive-In Window: A financial institution with a drive-up window. Includes banks, savings and loans, and credit unions. May or may not be a free-standing building. (ITE # 912)

Hotel/ Motel: A place of lodging providing sleeping accommodations. May include restaurants, cocktail lounges, meeting and banquet rooms or convention facilities. (ITE #s 310, 320. Uses weighted average of rates)

Day Care Center: A facility for the care of infant and preschool age children during the daytime hours. Generally includes classrooms, offices, eating areas, and a playground. (ITE # 565) **Exempt from impact fees per concomitant agreement per BCC 22.16.070 B1.**

Service Station with or without Convenience Market: A facility used for the sale of gasoline, oil, and lubricants. May sell convenience food items along with gasoline and other car products; gas pumps are primarily or completely self-service. May include areas for servicing, repairing, and washing vehicles. (ITE #s 944, 945*)

Quick Lubrication Vehicle Shop: A facility where the primary activity is to perform oil change services for vehicles. Automobile repair service is generally not provided. (ITE # 941)

Car Wash - Self Service: A Facility where a driver parks and washes the vehicle in a stall. Automated car washes will need to be analyzed on a case by case basis. (ITE # 947)

Movie Theater with Matinee: Consists of audience seating, one or more screens and auditoriums, and a lobby and refreshment stand. (ITE # 444)

COMMERCIAL-INSTITUTIONAL

Elementary/ Middle School: These are facilities of education serving students attending kindergarten through students who have not yet entered high school. Elementary School and Middle School are grouped together with common trip-making characteristics during the PM peak period. (ITE # 520*, 522) **Publicly funded educational facilities are exempt from impact fees.**

High School: High Schools serve students who have completed middle or junior high school. (ITE # 530) **Publicly funded educational facilities are exempt from impact fees.**

Junior College: Two-year facilities of higher education (ITE # 540) **Publicly funded educational facilities are exempt from impact fees.**

Religious Institution: A building providing public worship facilities. May house an assembly hall or sanctuary, meeting rooms, classrooms, and occasionally dining facilities. Religious institutions which hold major activities or services on weekdays or which provide day care may need to be analyzed on a case by case basis. (ITE # 560)

Nursing Home: A facility whose primary function is to care for persons unable to care for themselves. Applies to rest homes, chronic care, and convalescent centers. Residents do little or no driving. Traffic is generated primarily by employees, visitors, and deliveries. (ITE # 620)

Congregate Care/ Assisted Living: One or more multiunit buildings designed for the elderly or those who are unable to be completely independent due to physical or mental handicap. The level of care provided is generally less than in a nursing home. May contain dining rooms, medical facilities, and recreational facilities. (ITE # 253)

Medical Clinic: A facility which provides diagnoses and outpatient care on a routine basis but which is unable to provide prolonged in-house medical/surgical care. Differs from medical/dental office in that a medical clinic is generally affiliated with a large group or hospital. (ITE # 630)

Hospital: A building or buildings designed for the medical, surgical diagnosis, treatment and housing of persons under the care of doctors and nurses. Rest homes, nursing homes, convalescent homes and clinics are not included. (ITE #610) **Non-profit hospitals are exempt from impact fees.**

COMMERCIAL-RESTAURANT

Quality Restaurant: A high quality eating establishment, which sells prepared food or beverages and generally offers accommodations for consuming the food or beverage on the premises. Usually serves breakfast, lunch, and/or dinner; generally does not have a drive-up window. Includes bars/ taverns. (ITE # 931)

High Turnover Restaurant: A sit-down, full-service eating establishment with a turnover rate of approximately one hour or less. This type of restaurant is usually moderately priced

Transportation Impact Fee Program 2009 Update

and frequently belongs to a restaurant chain. Generally, these restaurants serve lunch and dinner; they may also be open for breakfast and are sometimes open 24 hours per day. (ITE # 932)

Fast Food Restaurant without Window: An eating establishment that offers quick food service and a limited menu of items. Food is generally served in disposable wrappings or containers, and may be consumed inside or outside the restaurant building. Restaurants in this category do not have a drive-up window. (ITE # 933)

Fast Food Restaurant with Window: An eating establishment that offers quick food service and a limited menu of items. Food is generally served in disposable wrappings or containers, and may be consumed inside or outside the restaurant building. Restaurants in this category have a drive-up window. (ITE # 934)

COMMERCIAL-RETAIL SHOPPING

Shopping Center: An integrated group of commercial establishments that is planned, developed, owned, or managed as a unit. On-site parking facilities are provided, and administrative office areas are usually included. In addition to the integrated unit of shops in one building or enclosed around a mall, include peripheral buildings located on the perimeter of the center adjacent to the streets and major access points. Supermarkets should typically be separated for calculation purposes from the rest of the shopping center. Small malls with fewer than four different businesses may be analyzed as miscellaneous retail. (ITE # 820)

Supermarket: Retail store (greater than 5,000 gsf) that sells a complete assortment of food, food preparation and wrapping materials, and household cleaning and servicing items. May also contain money machines or small bank, photo center, pharmacy, and video rental. (ITE # 850)

Convenience Market: A use (less than 5,000 gsf) that combines retail food sales with fast foods or take-out food service; generally open long hours or 24 hours a day. Does not include fuel pumps. (ITE # 851)

Convenience Market with Gas Pumps: A use (less than 5,000 gsf) that combines retail food sales with fast foods or take-out food service; generally open long hours or 24 hours a day. Includes fuel pumps, but fuel is not the primary purpose. (ITE # 853)

Discount Supermarket: Retail store, typically free-standing, which sells a complete assortment of food, food preparation and wrapping materials, and household cleaning and servicing items. May also contain money machines or small bank, photo center, pharmacy, and video rental. Typically larger than a supermarket. Items often sold in bulk at discounted prices. (ITE # 854)

Discount Store: Typically a free-standing store with off-street parking. Usually offers centralized cashiering and a wide range of products (may include groceries). Often the only store on a site, but can be found in mutual operation with its own or other garden center or service station. (ITE # 815)

Discount Superstore: Same as Discount Store, but includes a full service grocery department under the same roof, which shares entrances and exits with the discount store area. Fred Meyer stores are an example of this land use. (ITE # 813)

Miscellaneous Retail: Establishments primarily engaged in selling goods or merchandise to the general public for personal or household consumption and rendering services incidental to the sales of such goods. Included in this category are florists, liquor stores, and other small shops specializing in apparel or hard goods. Miscellaneous retail is intended for retail land uses that cannot be readily related to another retail category. The closest comparative land use is a shopping center. (ITE # 820. Uses average rate for shopping center.)

Retail Warehouse (Hardware): A free-standing warehouse type facility (typically 25,000-150,000 gsf) with off-street parking. Generally offers a variety of customer services, centralized cashiering, and sales of home improvement merchandise including lumber, tools, paint, lighting, wallpaper, kitchen and bathroom fixtures, lawn equipment, and garden equipment. Home Depot and Lowe's are examples of this land use. (ITE # 862)

Retail Warehouse (General Merchandise): A warehouse-type facility, typically free-standing, with off-street parking. Generally offers a variety of customer services and centralized cashiering. May include electronics, computers, toys, food, and general merchandise. Stores typically have long hours seven days a week. Good Guys, CompUSA, Costco, and Toys R Us are examples of this land use. (ITE #s 857*, 863, and 864)

Furniture Store: Furniture stores specialize in the sale of furniture, and often, carpeting. The stores are generally large and include storage areas. (ITE # 890)

Pharmacy with or without Drive-Through: A pharmacy which sells prescriptions and non-prescription drugs, cosmetics, toiletries, medications, stationery, personal care products, limited food products, and general merchandise. The drug stores may contain drive-through windows. (ITE # 880*, 881)

Auto Parts Store: A facility that specializes in the sale of automobile parts for do-it-yourself maintenance and repair. These facilities are not equipped for on-site vehicle repair. (ITE # 943)

Car Sales - New and Used: Facilities are generally located as strip development along major arterial streets that already have a preponderance of commercial development. Generally included are auto services and parts sales along with a sometimes substantial used-car operation. Some dealerships also include leasing activities and truck sales and servicing. (ITE # 841)

COMMERCIAL-OFFICE

Office: An office building houses one or more tenants and is the location where affairs of a business, commercial or industrial organization, professional person or firm are conducted. The building or buildings may be limited to one tenant, either the owner or lessee, or contain a mixture of tenants including professional services, insurance companies, investment brokers, and company headquarters. Services such as a bank or savings and loan, a restaurant or cafeteria, miscellaneous retail facilities, and fitness facilities for building tenants may also be included. (ITE #s 710*, 714, 715, 733 and 750)

Medical Office/ Dental Clinic: A facility which provides diagnoses and outpatient care on a routine basis but which is unable to provide prolonged in-house medical/surgical care. A medical office is generally operated by either a single private physician/dentist or a group of doctors and/or dentist. (ITE # 720)

INDUSTRIAL

Light Industry/ Manufacturing: A facility where the primary activity is the conversion of raw materials or parts into finished products. Generally also have offices and associated functions. Typical uses are printing plants, material testing laboratories, bio-technology, medical instrumentation or supplies, communications and information technology, and computer hardware and software. (ITE #s 110*, 140)

Industrial Park: Areas containing a number of industrial or related facilities. They are characterized by a mix of manufacturing, service, and warehouse facilities with a wide variation in the proportion of each type of use from one location to another. Industrial parks include research centers facilities or groups of facilities that are devoted nearly exclusively to research and development activities. They may also contain offices and some light fabrication areas; the primary function is that of research and development. (ITE # 130)

Warehousing: Facilities primarily devoted to the storage of materials, manufactured goods and vehicles. They may also include office and maintenance areas. (ITE # 150)

Mini-Warehouse: Buildings in which a number of storage units or vaults are rented for the storage of goods. Such facilities typically contain a large number of relatively small units. (ITE # 151)