Snoqualmie Impact Fee Rate Study

Prepared for:
City of Snoqualmie

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Introduction

Impact fees require all developers to pay for "transportation system improvements" to the transportation network. Growth in residents and workers from new development is expected to increase travel demand on public facilities, and the purpose of the impact fee is to fund improvements and expansion of the City's transportation infrastructure to manage this additional demand.

To calculate this impact fee rate for Snoqualmie, a project list was developed using the 2025-2030 Six-Year Transportation Improvement Program, Snoqualmie Riverwalk Master Plan, Snoqualmie Mills EIS, and the list of mitigation projects identified in the Snoqualmie Comprehensive Plan Update 2044. After determining the eligible contribution of each project to the impact fee calculation, this total was divided by the expected growth in PM peak hour person trips over the next 20 years.

Due to the multimodal nature of much of the City's transportation network, which includes trails, sidewalks, and bicycle facilities, and the potential increase in demand that new development will incur on these, multimodal projects were included in the impact fee calculation, and growth in "person trips" were determined, instead of growth in "vehicle trips," as is common in other jurisdictions.

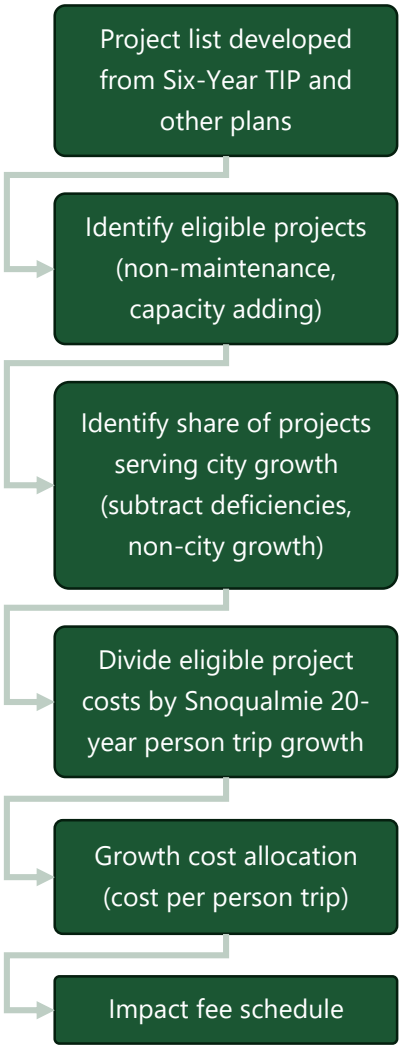
The final impact fee rate calculated for Snoqualmie is $5,922.80 per PM peak hour person trip (2024 dollars), based on the methodology explained in the following chapters.

The remaining sections of the report describe the impact fee program methodology, the analyses performed, and the resulting recommendations.

Methodology

The multimodal impact fee structure for Snoqualmie was designed to determine the fair share of multimodal transportation improvement costs that may be charged to new development. Growth in residents and workers from new development will increase travel demand on public facilities. Therefore, the nexus between new development and the need for capital improvements is based on maintaining the City's existing level of investment in the transportation infrastructure as the City grows. This existing level of investment, or *existing transportation system value*, represents new development's maximum potential contribution to expanded or new facilities needed to accommodate growth. Because the City is shifting away from a vehicle-trip based impact fee program to a multimodal program, the travel demand associated with the existing infrastructure and new growth is measured in person trips. Therefore, by this methodology, new development cannot be charged more than the existing level of investment per person trip.

Figure 1: Impact Fee Structure



The following key points summarize the standard impact fee structure (see *Figure 1*.)

- The initial project list was developed from the City of Snoqualmie 2025-2030 Six-Year Transportation Improvement Program. Additional projects were added from the Snoqualmie Riverwalk Master Plan, the Snoqualmie Mills EIS and the list of mitigation projects identified in the Snoqualmie Comprehensive Plan Update 2044.
- These projects were evaluated for impact fee eligibility; impact fees can only fund new capacity projects. Non-capacity investments, primarily maintenance projects, have been eliminated.
- Of the remaining eligible projects, the portion of those projects addressing existing deficiencies or carrying non-city growth were subtracted from eligible costs.
- The remaining list of eligible project costs were divided by Snoqualmie's expected growth in PM peak hour person trips over the next 15 years.

After determination of the allowable cost per PM peak hour person trip, a land use-based fee schedule was developed for the entire City. Person trip rates for multiple land use categories were estimated using vehicle trip generation rates from the Institute of Transportation Engineers (ITE) and the ratio of person trips to vehicle trips from household travel surveys conducted in Western Washington.

Impact Fee Project List

Washington State law specifies that transportation impact fees are to be spent on "transportation system improvements." Transportation system improvements can include physical or operational changes to existing transportation facilities, as well as new transportation connections built to benefit projected needs. Projects included in the calculation of the impact fee rate must add new multimodal capacity (new streets, additional lanes, sidewalks, bike lanes, low-stress bike routes, multipurpose trails, signalization, roundabouts, etc.). The primary limitation on multimodal impact fees is that they cannot be used to fund local access projects, private roads and trails, or purely recreational trails that do not connect to the larger transportation network.

Fehr & Peers worked with the City to develop the transportation impact fee (TIF) project list by compiling all projects included in the 2025-2030 Six-Year Transportation Improvement Program, Snoqualmie Riverwalk Master Plan, Snoqualmie Mill EIS, and the list of mitigation projects identified in the Snoqualmie Comprehensive Plan Update 2044 and removing those that were not eligible for TIF funding. Removed projects did not add multimodal capacity, addressed only maintenance, or addressed existing deficiencies. As a result, the TIF project list includes a network of biking, walking, and driving projects on the City's roadway system. The resulting project list is shown in *Table 1*.

The project list is aligned to support the growth identified in the Comprehensive Plan and has a total cost of $78 million if all projects were to be implemented. In the following chapters, we describe the proportion of project costs allocated to the impact fee program. The cost allocation considers the ability of the City to raise outside funding (e.g., grants) and technical limitations on how much of cost can be included in the TIF (e.g., excluding growth that is not outside of the City, excluding a portion of implementation that benefits current residents rather than growth, etc.).

Table 1: Impact Fee Eligible Project List

ID	Projects	Project Source	Assumed Total Cost
1	Americans with Disabilities Act (ADA) Program	TIP	$1,000,000
2	Town Center Improvement Project – Phase 3	TIP	$12,000,000
3	384th Sidewalk Improvements	TIP	$500,000
4	Newton Street connection	TIP	$462,600
5	King Street Rail Crossing Improvements	TIP	$650,000
6	Snoqualmie Parkway Rail Crossing Improvements	TIP	$1,000,000
7	Town Center Improvement Project – Phase 4	TIP	$2,500,000
8	Town Center South Parking	TIP	$250,000
9	Town Center North Improvement Project	TIP	$50,000
10	Complete Streets and Safety Improvements	TIP	$1,500,000
11	SR 202 Snoqualmie River Bridge[1]	TIP	$40,000,000
12	Comprehensive Plan Intersection Traffic Mitigation	Comprehensive Plan	$30,000,000
13	Snoqualmie Riverwalk	Riverwalk Master Plan	$1,064,000
14	Snoqualmie Mill: Pedestrian Trails	Snoqualmie Mill EIS	$600,000
15	Snoqualmie Mill: Mill Pond Road/Mill Street Roundabout	Snoqualmie Mill EIS	$5,000,000
16	Snoqualmie Mill: Mill Street	Snoqualmie Mill EIS	$1,500,000
		Total	**$98,076,600**

[1] A WSDOT Funded Project, listed to help promote enhanced multimodal improvements only if WSDOT funds replacement of bridge.

Person Trip Growth

Determining the existing travel demand, as well as growth in travel demand caused by new development, is a key requirement for a TIF program. Trip generation rates by land use category are a reasonable measure of travel demand, or the desire for mobility by residents and workers to access homes, jobs, shopping, recreation, and other activities. For this study, trip generation represents the movement by one person on a typical weekday from one activity to another, regardless of travel mode (driving, riding transit, biking, or walking.)

Fehr & Peers developed a method to calculate growth in PM peak hour person trips using data from the Puget Sound Regional Council (PSRC) household travel survey, trip rates from the Institute of Transportation Engineers (ITE), and land use data from the Puget Sound Regional Council and the 2018-2022 American Community Survey (ACS.)

In order to calculate PM peak hour person trips, a trip was defined as travel between an origin and a destination. Each trip has two "trip ends"—one at the origin of the trip and one at the destination. Traditional data collection methods like ITE trip generation rates document the number of trip ends at a given type of land use—for example, the number of vehicles entering and exiting a business during the PM peak hour.

Traditionally, TIF programs are built around vehicle trip generation and support the expansion of vehicle capacity. However, Washington State explicitly allows TIF programs to fund multimodal transportation projects (e.g., roads, bike lanes, sidewalks, multipurpose trails, etc.). With an emphasis on multimodal transportation projects, this TIF is based on "person" trip ends rather than "vehicle" trip ends. A person trip end is any trip made from or to a land use, regardless of the mode of travel taken. This is an important step since there can be a clear nexus established for assessing an impact fee on person trips for any type of transportation capacity expansion. As an example, it could be challenging to assess a vehicle-based impact fee while building sidewalk or bikeway improvements that do not add to vehicle capacity.

The calculation of person trips required several steps, summarized below:

1. Calculate growth assumed in the Comprehensive Plan update and translate the growth into a format that can be used for impact fees.
2. Estimate the trip ends associated with the land use growth using a format that can be applied at an individual project level. For this TIF program, we are using standard ITE vehicle trip generation rates since most new development projects in the City of Snoqualmie are required to prepare a traffic impact analysis and the ITE is nearly always used to estimate growth in trips. Using the ITE vehicle trip generation rate for the peak hour, vehicle trips are translated into person trips using data from the PSRC household travel survey.
3. Total forecast person trip growth is then calculated for the entire City. Impact fees are usually calculated based on peak hour trip growth, since that is the time period when the transportation

capacity is most utilized. For the purposes of estimating an impact fee rate, the PM peak hour is used, although the TIF can be applied to any peak hour, at the discretion of the Planning Director.

These three steps are summarized in the tables below.

Table 2 shows the growth forecast in the City of Snoqualmie assumed in the Comprehensive Plan update. Growth is allocated into generalized land uses based on the existing mix of single-family to multi-family homes, commercial, retail, government, and industrial land uses in the City. The allocation in the generalized land use categories was also informed by the land use allocation in the PSRC regional travel model. It is important to note that land use growth does not represent buildout of all land in the City, but rather forecasts how much growth will occur based on regional projections from PSRC and the State of Washington.

Table 2: Estimating Growth in Land Use

Land Use Category	2023 Snoqualmie Totals	2044 Snoqualmie Totals		Total New Growth in DU/KSF
Single Family	4,161 DU	4,704 DU	**2044 Total minus 2023 Total**	543
Multi-Family	399 DU	451 DU		52
Retail	357 KSF	600 KSF		243
Office	732 KSF	1,232 KSF		500
Government	362 KSF	580 KSF		218
Education	236 KSF	486 KSF		250
Industrial	499 KSF	879 KSF		380

DU = dwelling unit; KSF = thousand square feet.
Source: Fehr & Peers, 2024.

Table 3 summarizes how traditional ITE trip generation rates are converted into person trip rates using a factor of observed person trip rates and vehicle trip rates from the PSRC Household Travel Survey. It is worth noting that we apply ITE vehicle trip generation rates rather than using the person trip generation rates directly from the PSRC regional travel demand model because the ITE rates reflect how individual-project level rates are calculated. In other words, when a developer is applying for a permit, they do not submit a traffic study based on a travel model run, they submit a traffic study based off ITE rates. By using the same calculations used at the project-level, the overall number of estimated person trips will be consistent, and the overall impact fee rate will be more accurate.

Table 3: Translating ITE Vehicle Trip Generation Rates into Person Trip Generation Rates

Land Use	ITE Vehicle Trip Rate[1]		Vehicle-to-Person Trip Ratio[2]		Person Trip Rate
Single Family	0.94		1.45		1.36
Multi-Family	0.45		1.45		0.65
Retail	3.4	x	1.25	=	4.25
Office	1.72		1.22		2.10
Government	1.71		1.25		2.14
Education	0.16		1.25		0.19
Industrial	0.34		1.08		0.37

1. DU = dwelling unit; KSF = thousand square feet.
2. Vehicle-to-person trip generation rate factors from the PSRC household travel survey.
Source: Fehr & Peers, 2024.

Table 4 applies the person trip generation rates derived in *Table 3* to the land use growth from above. Pass-by trip adjustments (these are common adjustments to project-level trip generation applied in individual traffic studies) are applied to account for "net new" trip generation. Again, this is an important step since pass-by trips are not eligible to be included in an impact fee program. The net result is a forecast growth in PM peak hour person trips based on Comprehensive Plan land use growth rates.

Table 4: Growth in PM Peak Hour Person Trips (2023-2044)

Land Use Category	Growth in DU or KSF		Pass-by-Adjustment		Person Trip Rate		Growth in Person Trips
Single Family	543 DU		--		1.36		740
Multi-Family	52 DU		--		0.65		34
Retail	243 KSF	x	0.6	x	4.25	=	621
Office	500 KSF		0.9		2.10		944
Government	218 KSF		0.9		2.14		419
Education	250 KSF		0.9		0.19		44
Industrial	380 KSF		--		0.37		139
					Total Growth in Person Trips		**2,941**

Source: Fehr & Peers, 2024.

These total PM peak hour person trip estimates will be used in the calculation of transportation impact fees rate.

Calculating Eligible Costs

The Washington State Growth Management Act states that impact fees cannot be used to fund the entirety of the project list. This is based, in part, on practical matters: impact fees cannot be so high as to eliminate the potential for a person to develop their land. However, there are also technical issues that preclude impact fees from being a sole funding source for new capital projects. Namely, Snoqualmie cannot assess an impact fee on growth occurring outside of the City and development within the City cannot be responsible to pay for external growth. Additionally, Snoqualmie cannot have developers pay for "existing deficiencies" of the transportation system within the City. Snoqualmie must find other funds to build projects to bring the existing transportation system up to standard.

Therefore, the total cost of projects shown in *Table 1* are adjusted to account for assumed external funding, the share of growth that occurs outside of Snoqualmie, and the share of project costs needed to address existing deficiencies. These are explained below.

External Funding

Snoqualmie has received outside funding commitments for several near-term projects, largely in the form of grants. When known, these grants are specifically taken into account. However, as a strong steward of municipal finances, Snoqualmie generally does not undertake large capital projects without external funding. Therefore, for longer-range projects with no grant funding yet secured, the impact fee program assumes that a proportion of the overall project cost is assumed to come from external sources. These range from a high proportion for projects such as the SR 202 bridge replacement, which is largely the responsibility of WSDOT, to a lower proportion of smaller transportation facilities entirely owned and operated by the City of Snoqualmie.

Growth Outside Snoqualmie

As noted, development inside the City of Snoqualmie cannot pay for the impacts of growth occurring outside of the City. This is important considering that facilities like SR 202 and Snoqualmie Parkway are important regional roads and carry substantial amounts of non-local travel.

To account for growth occurring outside of the City, we used the PSRC travel model to specifically calculate the share of 2044 traffic on area roadways that have vehicle capacity improvement projects included in the project list. This share of future traffic not associated with the City of Snoqualmie was used to reduce the total costs of vehicle capacity projects included in the TIF program.

For pedestrian and bicycle projects, we are not able to use the regional travel model to determine the share of non-city travel that would occur on sidewalks, trails, and other active transportation improvements in 2044. However, given that walking and bicycling trips are considerably shorter in

distance than vehicle trips, and the relative isolation of Snoqualmie, we assumed 10% of all walk/bike person trip growth is attributable to new growth outside of the City.

Existing Deficiencies

For vehicle capacity projects, existing deficiencies are determined based on whether a roadway or intersection fails to meet the City's adopted level of service standard under existing conditions. Per the analysis performed for the Comprehensive Plan, all intersections in the City of Snoqualmie meet the level of service standard and therefore there are no existing deficiencies related to vehicle capacity that must be addressed. In other words, the City of Snoqualmie has expanded roadways and intersections concurrent with growth which has ensured that today's roadway system can accommodate the level of traffic present during peak hours. In fact, the only notable traffic congestion in Snoqualmie is related to congestion that spills back from the SR 18/I-90 interchange.

While Snoqualmie has built out the roadway network, there are large portions of the City that do not have sidewalks or comfortable bicycling facilities. Evaluating existing deficiencies for active mode infrastructure is typically done by comparing the proportion of existing roadways that have standard active mode infrastructure (e.g., sidewalks, bike paths, bike lanes, etc.). Through development agreements, nearly all of Snoqualmie Ridge has robust active mode infrastructure, but the same is not true for the historic parts of the City.

Snoqualmie does not have a detailed inventory of all active mode infrastructure, but we conservatively estimated that half of the roadways in Snoqualmie lack adequate pedestrian/bicycle infrastructure. Therefore, for active mode projects, we apply a 50% deficiency to any project cost that expands the capacity for walking and bicycling. The simplest way to think about the active mode existing deficiency is to say that new development is being asked to pay for 50% of future pedestrian and bicycle infrastructure, which is an equal share to how much prior growth has built to this point. The City of Snoqualmie will have to identify funding to pay for its share of existing deficiencies.

Cost Allocation Results

The steps in *Figure 2* and *Table 5* summarize how the total project costs are distilled down to the eligible costs that can be included in the multimodal TIF. As shown, the final cost to provide adequate future transportation infrastructure that will support new growth is $5,733.29 per peak hour trip. Note that while the program was calculated based on PM peak hour trip generation, this is a proxy to measure the overall impact on the transportation caused by new development. It is the intent of the TIF program that the peak hour trip generation (AM, midday, PM) be considered when calculating an appropriate impact fee.

Figure 2: Determination of Eligible Impact Fee Costs From Project List

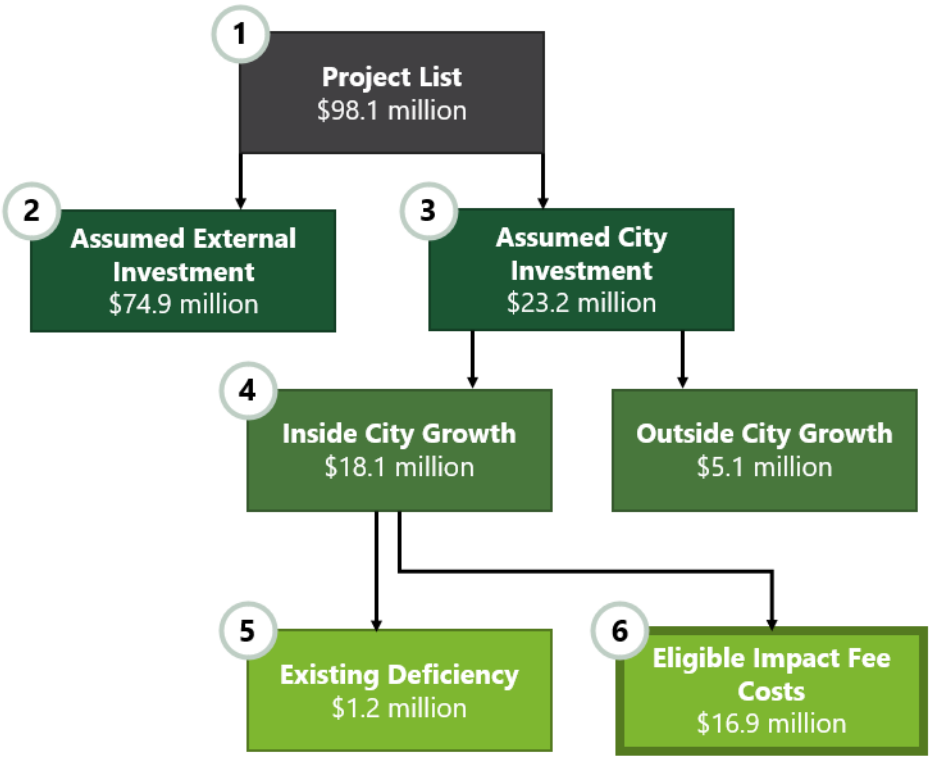


Table 5: Calculation of the Fee Per Trip

No	Calculation Step	Value
1	Eligible Project List Costs	$98,076,600
2	Subtract Estimated External Funding	- $74,892,500
3	Assumed City Investment	= $23,184,100.00
4	Growth Attributable to Snoqualmie	× 51%-100% (range, based on project type and location) = $18,080,474
5	Account for Existing Deficiencies	× 0%-50% (range, based on project)
6	Resulting Impact Fee Costs	= $16,859,174
7	Divide by Growth in PM Peak Hour Person Trip Ends	÷ 2,941
8	**Cost per Peak Hour Person Trip End**	**$5,733.29**

Source: Fehr & Peers, 2024.

Impact Fee Schedule

Table 5 highlights the most important calculation of the TIF, which is the cost per peak hour trip. Using this rate and the peak hour trip generation of any development project, the appropriate impact fee can be calculated. However, to assist project applicants in estimating their impact fees, we have developed a rate table that translated the impact fee rate into a cost per unit of development for a variety of land uses included in the ITE *Trip Generation Manual*. *Table 6* shows the various components of the fee schedule (vehicle trip generation rates, pass-by rates, and person trip rates.)

The impact fee schedule can be used to calculate impact fees for simple land use projects, but the City of Snoqualmie reserves the right to request a detailed trip generation analysis for any development proposal. Applicants also have the right to submit an independent impact fee assessment for review by the City. As noted, some land uses (e.g., coffee shop, bakeries) may need to assess their impact fee on the AM or other peak hour, as directed by the City of Snoqualmie.

Table 6: City of Snoqualmie Impact Fee Rate Schedule

ITE Land Use Category	ITE Code	Units	Vehicle PM Peak Trips/Unit[1]	Pass-by %[2]	Vehicle-to-Person Trip Ratio[3]	PM Peak Person Trip Rate	Impact Fee Per Development Unit
Single Family – Detached	210	per DU	0.94	0%	1.45	1.36	$7,814.47
Middle Housing[4]	215, 220	per DU	0.47	0%		0.78	$3,907.24
Retirement Community	251	per DU	0.30	0%		0.44	$2,493.98
Congregate Care/Asst Living	253	per DU	0.18	0%		0.26	$1,496.39
Elementary School	520	students	0.16	20%	1.26	0.16	$924.66
Middle/JR High School	522	students	0.15	20%		0.15	$866.87
High School	525	students	0.14	20%		0.14	$809.08
Day Care Center	565	per KSF	11.12	90%		1.40	$8,033.03
Church	560	per KSF	0.49	0%		0.62	$3,539.73
Nursing Home	620	per Bed	0.14	0%		0.18	$1,011.35
Light Industrial/Manufacturing	110, 140	per KSF	0.695	0%	1.08	0.75	$4,303.41
Industrial Park	130	per KSF	0.34	0%		0.37	$2,105.26
Mini-Warehouse/Storage	151	per KSF	0.15	0%		0.16	$928.79
Warehousing	150	per KSF	0.18	0%		0.19	$1,114.55
Hospital	610	per KSF	0.86	0%	1.26	1.08	$6,212.59
Medical/Dental Office	720	per KSF	3.93	0%	1.22	4.79	$27,488.82
General Office (200k-300k)	710	per KSF	1.44	0%		1.76	$10,072.24
General Office (300k)	710	per KSF	1.22	0%		1.49	$8,533.43
Single Tenant Office	715	per KSF	1.76	0%		2.15	$12,310.52

ITE Land Use Category	ITE Code	Units	Vehicle PM Peak Trips/Unit[1]	Pass-by %[2]	Vehicle-to-Person Trip Ratio[3]	PM Peak Person Trip Rate	Impact Fee Per Development Unit
Health Fitness Club	492	per KSF	3.45	25%	1.25	3.23	$18,543.60
Recreational Community Center	495	per KSF	2.5	25%		2.34	$13,437.39
Gasoline/Service Station	944	per VSP	13.91	62%	1.25	6.61	$37,881.27
Gas Station w/Convenience Market	945	per VSP	18.42	62%		8.75	$50,163.41
Self-Serve Car Wash	947	per stall	5.54	35%		4.50	$25,806.96
Auto Sales (New/Used)	840, 841	per KSF	3.09	20%		3.09	$17,687.19
Automobile Parts Sales	843	per KSF	4.9	43%		3.49	$20,016.34
Auto Service Center	943	per KSF	2.06	30%		1.80	$10,334.25
Variety Store	814	per KSF	6.7	50%	1.25	4.19	$24,008.15
Freestanding Discount Store	815	per KSF	4.86	27%		4.43	$25,425.70
Supermarket	850	per KSF	8.95	38%		6.94	$39,767.52
Shopping Center (>150k)	820	per KSF	3.4	29%		3.02	$17,300.20
Shopping Plaza (40 – 150k)	821	per KSF	9.03	40%		6.77	$38,828.70
Strip Retail Plaza (<40k)	822	per KSF	6.59	34%		5.44	$31,170.46
Hardware/Paint Store	816	per KSF	2.98	60%		1.49	$8,542.60
Convenience Market	851	per KSF	49.11	61%		23.94	$137,261.37
Pharmacy/Drug Store w/o Drive-Thru	880	per KSF	8.51	53%		5.00	$28,664.29
Pharmacy/Drug Store w/Drive-Thru	881	per KSF	10.25	49%		6.53	$37,463.46
Furniture Store	890	per KSF	0.52	40%		0.39	$2,235.98
Drive-In Bank	912	per KSF	21.01	35%		17.07	$97,870.82
Walk-In Bank	911	per KSF	12.13	47%		8.04	$46,073.42
Fine Dining Restaurant	931	per KSF	7.8	44%		5.46	$31,303.75
High Turnover Restaurant	932	per KSF	9.05	43%		6.45	$36,968.96
Fast Food w/o Drive-Thru	933	per KSF	33.21	49%		21.17	$121,381.60
Fast Food w/Drive-Thru	934	per KSF	33.03	55%		18.58	$106,520.92
Hotel	310	per room	0.59	0%	1.45	0.86	$4,904.83
Motel	320	per room	0.36	0%		0.52	$2,992.78

1. Source: ITE Trip Generation Manual, 11th Edition. Vehicle trip rates for weekday, peak hour of adjacent street traffic (4-6pm).
2. A pass-by trip is any trip that may go to a land use but is part of a larger overall "trip tour." The defining feature of the pass-by trip is that it is an interim stop that did not initiate the overall need to travel.
3. Vehicle-to-person trip generation rate factors were developed from the 2017-2019 Puget Sound Regional Council Household Travel Survey.
4. Consistent with HB 1337, ADUs cannot have an impact fee of more than 50% of the fee for single family housing. To encourage middle housing, all forms of non-single family housing not otherwise listed in this table are eligible for this reduced impact fee rate.
Sources: ITE Trip Generation Handbook, 11th Edition; Fehr & Peers, 2024.