RATE STUDY

FOR

IMPACT FEES

FOR

ROADS

CITY OF PUYALLUP, WASHINGTON

November 8, 2007

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EXECUTIVE SUMMARY

The purpose of this study is to establish the rates for impact fees for roads in the City of Puyallup, Washington.

Rates

The impact fee for roads is based on $4,502.39 per p.m. peak hour trip. Rates for road impact fees for new development are listed in Table 7. The following is a summary of the rates for residential properties.

Type Dwelling Unit	Impact Fee
Single Family	$ 4,547.41 per dwelling unit
Apartment	2,791.48 per dwelling unit
Condominium	2,341.24 per dwelling unit
All Other Land Uses	See Table 7

Impact Fees vs. Other Developer Contributions

Impact fees are charges paid by new development to reimburse local governments for the capital cost of public facilities that are needed to serve new development and the people who occupy or use the new development. Throughout this study, the term "developer" is used as a shorthand expression to describe anyone who is obligated to pay impact fees, including builders, owners or developers.

The impact fees that are described in this study do not include any other forms of developer contributions or exactions, such as mitigation or voluntary payments authorized by SEPA (the State Environmental Policy Act, RCW 43.21C), local improvement districts or other special assessment districts, linkage fees, or land donations or fees in lieu of land.

Adjustments for Other Sources of Revenue for Road Capital Improvements

The impact fees in this study recognize the existence of other sources of revenue that are available to pay for the capital cost of roads. These other revenues are accounted for by adjusting (i.e., reducing) the amount of the impact fee rates to account for the portion of road capital project costs that are paid by new development with the other sources of revenue.

Credits for Other Contributions by Developer

A developer who contributes land or improvements to the projects on the impact fee project list may receive a "credit" which reduces the amount of impact fee that is due. This credit is in addition to the adjustment for other revenues described in the preceding paragraph.

Who Pays Impact Fees

Impact fees are paid by all types of new development[1]. Impact fee rates for new development are based on, and vary according to the type of land use.

Service Areas for Impact Fees

Impact fees in some jurisdictions are collected and expended within service areas that are smaller than the jurisdiction that is collecting the fees. Impact fees are not required to use multiple service areas unless such "zones" are necessary to establish the relationship between the fee and the development. Road impact fees are collected and expended within a single service area throughout the boundaries of the City of Puyallup because of the compact size of the City and the accessibility of its road system to all property within the City.

Timing of Payment of Impact Fees

Impact fees are usually collected at the time the local government issues a permit or order allowing structures to be built (i.e., building permit). Specifically, impact fees are assessed (i.e., calculated) at the time the complete application for a building permit is submitted for each unit in the development, and the fee is collected at the time the building permit is issued.

Uses of Impact Fee Revenue

Impact fee revenue will be used for the capital cost of public facilities. Impact fees cannot be used for operating or maintenance expenses. The cost of public facilities that can be paid for by impact fees include design studies, engineering, land surveys, right of way acquisition, engineering, permitting, financing, administrative expenses, construction, applicable mitigation costs, and capital equipment (i.e., signals) pertaining to road capital improvements.

The public facilities that can be paid for by impact fees are "system improvements" (which are typically outside the development), and "designed to provide service to service areas within the community at large" as provided in

[1] The impact fee ordinance may specify exemptions for low-income housing and/or "broad public purposes", but such exemptions must be paid for by public money, not other impact fees. The ordinance may specify if impact fees apply to changes in use, remodeling, etc.

RCW 82.02.050(9)), as opposed to "project improvements" (which are typically provided by the developer on-site within the development or adjacent to the development), and "designed to provide service for a development project, and that are necessary for the use and convenience of the occupants or users of the project" as provided in RCW 82.02.050(6).

Expenditure Requirements for Impact Fees

Impact fees must be spent on capital projects contained in an adopted capital facilities plan (CFP), or they can be used to reimburse the government for the unused capacity of existing facilities. Impact fee payments that are not expended or obligated within 6 years must be refunded unless the City Council makes a written finding that an extraordinary and compelling reason exists to hold the fees for longer than 6 years. In order to verify these two requirements, impact fee revenues must be deposited into separate accounts of the government, and annual reports must describe revenue and expenditures.

Developer Options

Developers who are liable for impact fees can submit data and or/analysis to demonstrate that the impacts of the proposed development are less than the impacts calculated in this rate study. Developers can pay impact fees under protest and appeal impact fee calculations. Developers can obtain a refund of the impact fees if the local government fails to expend the impact fee payments within 6 years, or terminates the impact fee requirement, or the developer does not proceed with the development (and creates no impacts).

ORGANIZATION OF THE STUDY

This impact fee rate study contains four chapters, and an appendix:

- Chapter 1 summarizes the statutory basis for developing impact fees, discusses issues presents the methodology and formulas for determining the amount of the impact fee.
- Chapter 2 documents the capital improvement project costs of system improvements to roads, and subtracts existing deficiencies and non-impact fee revenues to determine the unfunded net cost of eligible road projects.
- Chapter 3 documents the growth in trips attributable to new development, and calculates the cost per growth trip.
- Chapter 4 documents the trip generation rate for each type of land use, and calculates the road impact fee for each of the land use types.
- Appendix A documents the need for additional road capacity.

1. STATUTORY BASIS AND METHODOLOGY

Local governments charge impact fees for several reasons: 1) to obtain revenue to pay for some of the cost of new public facilities; 2) to implement a public policy that new development should pay a portion of the cost of facilities that it requires, and that existing development should not pay all of the cost of such facilities; and 3) to assure that adequate public facilities will be constructed to serve new development.

This study of impact fees for roads for Puyallup, Washington describes the methodology that is used to develop the fees, presents the formulas, variables and data that are the basis for the fees, and documents the calculation of the fees. The methodology is designed to comply with the requirements of Washington state law.

This study uses data and levels of service standards from the Transportation Element of the City's Comprehensive Plan.

DEFINITION AND RATIONALE OF IMPACT FEES

Impact fees are charges paid by new development to reimburse local governments for the capital cost of public facilities that are needed to serve new development and the people who occupy the new development. New development is synonymous with "growth".

Local governments charge impact fees on either of two bases. First, as a matter of policy and legislative discretion, they may want new development to pay the cost of its share of new public facilities because that portion of the facilities would not be needed except to serve the new development. In this case, the new development is required to pay for the cost of its share of new public facilities[2].

On the other hand, local governments may use other sources of revenue to pay for the new public facilities that are required to serve new development. If, however, such revenues are not sufficient to cover the entire costs of new facilities necessitated by new development, the new development may be required to pay an impact fee in an amount equal to the difference between the total cost and the other sources of revenue.

There are many kinds of "public facilities" that are needed by new development, including streets and roads, park land and recreational facilities, water and sewer plants, fire protection facilities, and schools. This study covers

[2] RCW 82.02.050(2) prohibits impact fees that charge 100% of the cost, but does not specify how much less than 100%, leaving that determination to local governments.

streets and roads in the City of Puyallup. Impact fees for streets and roads are charged to all residential and commercial development within the City of Puyallup.

STATUTORY BASIS FOR IMPACT FEES

RCW 82.02.050 - 82.02.090 authorizes local governments in Washington to charge impact fees. The impact fees that are described in this study are not mitigation payments authorized by the State Environmental Policy Act (SEPA). There are several important differences between impact fees and SEPA mitigations. Two aspects of impact fees that are particularly noteworthy are: 1) the ability to charge for the cost of public facilities that are "system improvements" (i.e., that provide service to the community at large) as opposed to "project improvements" (which are "on-site" and provide service for a particular development); and 2) the ability to charge small-scale development their proportionate share, whereas SEPA exempts small developments.

The following synopsis of the most significant requirements of the law includes citations to the Revised Code of Washington as an aid to readers who wish to review the exact language of the statutes.

Types of Public Facilities

Four types of public facilities can be the subject of impact fees: 1) public streets and roads; 2) publicly owned parks, open space and recreation facilities; 3) school facilities; and 4) fire protection facilities (in jurisdictions that are not part of a fire district). *RCW 82.02.050(2) and (4), and RCW 82.02.090(7)*

Types of Improvements

Impact fees can be spent on "system improvements" (which are typically outside the development), as opposed to "project improvements" (which are typically provided by the developer on-site within the development). *RCW 82.02.050(3)(a) and RCW 82.02.090(6) and (9)*

Benefit to Development

Impact fees must be limited to system improvements that are reasonably related to, and which will benefit new development. *RCW 82.02.050(3)(a) and (c).* Local governments must establish reasonable service areas (one area, or more than one, as determined to be reasonable by the local government), and local governments must develop impact fee rate categories for various land uses. *RCW 82.02.060(6)*

Proportionate Share

Impact fees cannot exceed the development's proportionate share of system improvements that are reasonably related to the new development. The impact fee amount shall be based on a formula (or other method of calculating the fee) that determines the proportionate share. *RCW 82.02.050(3)(b) and RCW 82.02.060(1)*

Reductions of Impact Fee Amounts

Impact fees rates must be adjusted to account for other revenues that the development pays (if such payments are earmarked for or proratable to particular system improvements). *RCW 82.02.050(1)(c) and (2) and RCW 82.02.060(1)(b)* Impact fees may be credited for the value of dedicated land, improvements or construction provided by the developer (if such facilities are in the adopted CFP as system improvements eligible for impact fees and are required as a condition of development approval). *RCW 82.02.060(3)*

Exemptions from Impact Fees

Local governments have the discretion to provide exemptions from impact fees for low-income housing and other "broad public purpose" development, but all such exempt fees must be paid from public funds (other than impact fee accounts). *RCW 82.02.060(2)*

Developer Options

Developers who are liable for impact fees can submit data and or/analysis to demonstrate that the impacts of the proposed development are less than the impacts calculated in this rate study. *RCW 82.02.060(5).* Developers can pay impact fees under protest and appeal impact fee calculations. *RCW 82.02.060(4) and RCW 82.02.070(4) and (5).* The developer can obtain a refund of the impact fees if the local government fails to expend the impact fee payments within 6 years, or terminates the impact fee requirement, or the developer does not proceed with the development (and creates no impacts). *RCW 82.02.080*

Capital Facilities Plans

Impact fees must be expended on public facilities in a capital facilities plan (CFP) element (or used to reimburse the government for the unused capacity of existing facilities). The CFP must conform to the Growth Management Act of 1990, and must identify existing deficiencies in facility capacity for current development, capacity of existing facilities available for new development, and additional facility capacity needed for new development. *RCW 82.02.050(4), RCW 82.02.060(7), and RCW 82.02.070(2).*

New Versus Existing Facilities

Impact fees can be charged for new public facilities *(RCW 82.02.060(1)(a)* and for the unused capacity of existing public facilities *(RCW 82.02.060(7)* subject to the proportionate share limitation described above.

Accounting Requirements

The local government must separate the impact fees from other monies, expend the money on CFP projects within 6 years, and prepare annual reports of collections and expenditures. *RCW 82.02.070(1)-(3)*

ISSUES RELATING TO IMPACT FEES

Prior to calculating impact fee rates, several issues must be addressed in order to determine the need for, and validity of such fees: responsibility for public facilities, the need for additional road capacity, the need for revenue for additional road capacity, and the benefit of roads to new development.

Responsibility for Public Facilities

In general, local governments that are authorized to charge impact fees are responsible for specific public facilities for which they may charge such fees. The City of Puyallup is legally and financially responsible for the roads it owns and operates within its jurisdiction.

In no case may a local government charge impact fees for private facilities, but it may charge impact fees for some public facilities that it does not administer if such facilities are "owned or operated by government entities" *(RCW 82.02.090 (7).* Thus, a city or county may charge impact fees for roads, and enter into an agreement with the State of Washington for the transfer, expenditure, and reporting of road impact fees for state roads. A city may only charge and use impact fees on State roads if it has an agreement with the State, and the City CFP includes the state road projects.

Capital Facilities Plan

There are many references in RCW to the "capital facilities plan" (CFP) as the basis for projects that are eligible for funding by impact fees. Cities often adopt documents with different titles that fulfill the requirements of RCW 82.02.050 et. seq pertaining to a "capital facilities plan". The Transportation Element of the City of Puyallup Comprehensive Plan fulfills the requirements in RCW, and is considered to be the "capital facilities plan" (CFP) for the purpose of this impact fee rate study. All references to a CFP in this study are interpreted as referring to the City's CFP or the Transportation Element of the City of Puyallup Comprehensive Plan.

Need for Additional Road Capacity

The need for additional road capacity is determined by using standards for levels of service for roads and other metrics, such as increase in traffic volume. The analysis of needed roads must comply with the statutory requirements of identifying existing deficiency, reserve capacity and new capacity requirements for facilities. An analysis of the need for additional roads in Puyallup is presented in Appendix A.

Need for New Revenue for Additional Road Capacity

The need for new revenue for road capacity is demonstrated by comparing the cot of additional road capacity through 2014 to other revenue forecast for the same time period. Chapter 2 includes an analysis of the other sources of revenue the City has to pay needed costs.

Determining the Benefit to Development

The law imposes three tests of the benefit provided to development by impact fees: 1) proportionate share, 2) reasonably related to need, and 3) reasonably related to expenditure (*RCW 80.20.050(3)*).

1. Proportionate Share.

First, the "proportionate share" requirement means that impact fees can be charged only for the portion of the cost of public facilities that is "reasonably related" to new development. In other words, impact fees cannot be charged to pay for the cost of reducing or eliminating deficiencies in existing facilities.

Second, there are several important implications of the proportionate share requirement that are not specifically addressed in the law, but which follow directly from the law:

- Costs of facilities that will benefit new development and existing users must be apportioned between the two groups in determining the amount of the fee. This can be accomplished in either of two ways: (1) by allocating the cost between new and existing users, or (2) calculating the cost per trip and applying the cost only to new development when calculating impact fees.

- Impact fees that recover the costs of existing unused capacity should be based on the government's actual cost, rather than the replacement cost of the facility in order to account for carrying costs of the government's actual or imputed interest expense.

The third aspect of the proportionate share requirement is its relationship to the requirement to provide adjustments and credits to impact fees, where appropriate. These requirements ensure that the amount of the impact fee does not exceed the proportionate share.

- The "adjustments" requirement reduces the impact fee to account for past and future payments of other revenues (if such payments are earmarked for, or proratable to, the system improvements that are needed to serve new growth).

- The "credit" requirement reduces impact fees by the value of dedicated land, improvements or construction provided by the developer (if such facilities are in the adopted CFP and are required as a condition of development approval). The law does not prohibit a local government from establishing reasonable constraints on determining credits. For example, the location of dedicated right of way and the quality and design of a donated road improvement can be required to conform to local standards for such facilities.

Without such adjustments and credits, the fee-paying development might pay more than its proportionate share.

2. Reasonably Related to Need.

There are many ways to fulfill the requirement that impact fees be "reasonably related" to the development's need for public facilities, including personal use and use by others in the family or business enterprise (direct benefit), use by persons or organizations who provide goods or services to the fee-paying property (indirect benefit), and geographical proximity (presumed benefit). These measures of relatedness are implemented by the following techniques:

- Impact fees for roads are charged to properties which need (i.e., benefit from) new roads. The City of Puyallup provides its road network to all kinds of property throughout the City regardless of the type of use of the property.

- The relative needs of different types of growth are considered in establishing fee amounts (i.e., different trip generation rates for different types of land use).

- Feepayers can pay a smaller fee if they demonstrate that their development will have less impact than is presumed in the calculation of the impact fee schedule for their property classification. Such reduced needs must be permanent and enforceable (i.e., through land use restrictions).

- Washington law requires one or more service areas as a way of connecting a unit of development and the benefits of public facilities paid for by impact fees. All impact fees paid by new development in the service area would be required to be spent on new road capacity in the same service area. Puyallup's roads serve the entire City, therefore the impact fees for these road capital improvements are based on a single service area.

3. Reasonably Related to Expenditures.

Two provisions of the law tend to reinforce the requirement that expenditures be "reasonably related" to the development that paid the impact fee. First, the requirement that fee revenue must be earmarked for specific uses related to public facilities ensures that expenditures are on identifiable projects, the benefit of which can be demonstrated. Second, impact fee revenue must be expended within 6 years, thus requiring timeliness to the benefit to the feepayer.

Methodology and Relationship to Capital Facilities Plan

Impact fees for roads begin with the list of projects in the Transportation Element of City's Comprehensive Plan (the "CFP", as noted earlier). The projects in the Transportation Element are analyzed to identify capacity costs attributable to new development. The costs are apportioned between existing deficiencies (if any) and growth capacity. The costs are adjusted to reflect other sources of revenue paid by the new development (and any payments that reduce the cost of the facility that is to be paid by impact fees). The costs are calculated per growth trip. The costs per growth trip are applied to the unique trip generation rates for each type of land use. The amount of the fee is determined by charging each fee-paying development for cost of the number of growth trips that it generates.

Calculation of Impact Fee Amounts

Five formulas are used to determine the amount of impact fees for roads that are required as a result of new development:

1. Growth Share of Project Costs

Cost of projects	-	Deficiency portion (if any)	=	Growth share of project costs

2. Growth Cost Eligible for Impact Fee

Growth share of project costs	-	Revenue from other sources	=	Growth share of project costs eligible for impact fees

3. Growth Trips

Future trips on road network	-	Current trips on road network	=	Growth trips

4. Cost per Growth Trip

Growth share of project costs eligible for impact fees	÷	Growth trips	=	Cost per growth trip

5. Impact Fee

Cost per growth trip	x	Trip generation rate of each land use	=	Impact fee rate for each land use

IMPACT FEE ISSUES ADDRESSED BY ORDINANCE

There are several issues pertaining to impact fees that need to be addressed by ordinance, rather than in this rate study, because they are issues of law or policy rather than technical transportation or financial issues.

Exemptions from Impact Fees

As noted above in the summary of impact fee statutes, local governments have the discretion to provide exemptions from impact fees for low-income housing and other "broad public purpose" development, but all such exempt fees must be paid from public funds (other than impact fee accounts). The impact fee ordinance specifies whether or not such exemptions are to be granted, and how to pay for any exempt fees. If low-income housing is exempted, the ordinance specifies the income threshold and/or housing price. If "broad public purpose" development is exempted, the ordinance specifies whether or not this applies to projects built by public agencies, such as cities, counties, school districts, etc.

Updating Impact Fees

The impact fee ordinance specifies how often the impact fee rates are updated. A typical approach is to provide for annual inflation adjustments, and to perform a full review and update every 3 years.

Process for Challenging Impact Fees

State statutes require that the impact fee ordinance provide for an appeals procedure. The procedure can be the same as for other land development challenges (i.e., the hearing examiner), or it can be a different procedure.

Data Sources

The data in this study of impact fees for roads in Puyallup, Washington was provided by the City of Puyallup, unless a different source is specifically cited.

Data Rounding

The data in this study was prepared using computer spreadsheet software. In some tables in this study, there may 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 was allowed to calculate results to more places after the decimal than is reported in the tables of these reports. The calculation to extra places after the decimal increases the accuracy of the end results, but causes occasional differences due to rounding of data that appears in this study.

2. ROAD SYSTEM IMPROVEMENT COSTS ELIGIBLE FOR IMPACT FEES

This chapter includes a description of the first two formulas and each variable that is used in each formula, an explanation of the use of data in the formulas, and the calculation of the unfunded capital cost of system improvements to roads that are eligible for impact fees.

The road projects listed in this chapter are eligible for impact fees because the needs analysis of the Transportation Element projects presented in Appendix A meets the requirements of RCW 82.02.

FORMULA 1: GROWTH SHARE OF ROAD PROJECT COSTS

The growth costs of eligible road projects are calculated by subtracting the cost attributable to existing deficiencies from the total cost of each road project as shown in the City's Transportation Element.

Cost of projects	-	Deficiency portion (if any)	=	Growth share of project costs

There are two variables that require explanation: (A) the costs of road projects, and (B) deficiency costs.

Variable (A) Costs of Road Projects

Puyallup's Transportation Element identifies capital projects needed to maintain the City's current road system, and to meet the additional demands from growth. The projects in the Transportation Element were analyzed to determine which projects are needed to serve growth. Appendix A presents the results of that analysis. The costs in this study are the same costs of the projects in the City's CFP.

The costs of road projects used in this study include the full cost of the project, including engineering, right of way, and construction costs.

The cost of road projects does not include any costs for interest or other financing. If the City decides in the future to borrow money for roads, the carrying costs for financing can be added to the costs in this study, and the impact fee can be recalculated to include such costs.

Variable (B): Deficiency Costs

Existing deficiencies are determined by comparing existing traffic volume to existing capacity of each road that is planned for improvement. If current traffic exceeds current capacity, the "excess" trips is the number of deficient trips.

The number of deficient trips is divided by the number of additional trips that can be accommodated by the improved road or intersection. The resulting percentage is the percent of the improvement project that is attributable to the existing deficiency. Multiplying the deficiency percentage times the project cost determines the cost that is attributable to the deficiency.

CALCULATION OF ROAD PROJECT GROWTH COSTS

The calculation of growth costs of road projects that are eligible for impact fees are presented in Tables 1 - 3.

Table 1 lists roads that need to be widened. The projects are numbered R-1 through R-16. Projects R-9, and R-11 through R-13 were determined not to be eligible for impact fees at this time due to their predicted service standard in the year 2014.

Table 2 lists new roads ("links") that need to be built. The projects are numbered L-1 through L-6.

Table 3 lists intersections that need to be signalized (or existing signals need to be upgraded). The projects are numbered I-1 through I-19. Project I-15 was determined not to be eligible for impact fees at this time because it is currently outside the City's current boundaries, but within the City's Urban Growth Area.

In each table, columns 1 and 2 list the eligible projects and total costs from the CFP. The deficiency percent is listed in Column 3, and the deficiency cost appears in Column 4. The deficiency costs are subtracted from the total costs, and the balance ("growth cost") is shown in Column 5.

Table 1: Growth Cost of Road Widening Projects Eligible for Impact Fees

Proj #	(1) Description of Eligible Projects	(2) Total Cost	(3) Deficiency Percent	(4) Deficiency Cost	(5) Growth Cost
R-1	9th/94th Ave 39th Ave SW to city limits	$2,000,000	58.29%	$1,165,714	$ 834,286
R-2	31st Ave SW Meridian to 9th St SW	10,000,000	13.55%	1,355,000	8,645,000
R-3	43rd Ave SE (with signal @ 5th) Meridian to 5th St SW	1,600,000	55.38%	886,000	714,000
R-4	39th Ave SW 14th St to 17th St SW	2,500,000	17.21%	430,357	2,069,643
R-5	Shaw Road 23rd Ave to 39th Ave SW	4,100,000	13.86%	568,143	3,531,857
R-6	39th Ave SW Meridian to 9th St SW	2,000,000	3.93%	78,571	1,921,429
R-7	39th Ave SW 9th St to 14th St SW	1,250,000	none	0	1,250,000
R-8	Shaw Road 23rd Ave to Pioneer	6,500,000	none	0	6,500,000
R-10	Stewart 4th St to 12th St NW	100,000	none	0	100,000
R-14	Stewart – Phase 1 at Ashley Meadows	550,000	none	0	550,000
R-15	Stewart – Phase 2 Ashley Meadow to 66th Ave E	3,000,000	none	0	3,000,000
R-16	23rd Ave SE 17th to Shaw missing section	460,000	none	0	460,000
	GRAND TOTAL	34,060,000		4,483,786	29,576,214

Table 2: Growth Cost of New Link Projects Eligible for Impact Fees

Proj #	(1) Description of Eligible Projects	(2) Total Cost	(3) Deficiency Percent	(4) Deficiency Cost	(5) Growth Cost
L-1	Shaw Road Ex E Pioneer to E Main	22,000,000	none	$ 0	22,000,000
L-2	5th / 9th St SW Connector 9th Ave to 15th Ave SW	5,076,000	none	0	5,076,000
L-3	5th Street SE 37th Ave to 43rd Ave SE	1,600,000	none	0	1,600,000
L-4	39th Ave SE Extension Meridian to 9th St SE	14,700,000	none	0	14,700,000
L-5	47th Ave SE Meridian to 10th St SE	1,900,000	none	0	1,900,000
L-6	5th Street SE 43rd Ave to 47th Ave SE	2,850,000	none	0	2,850,000
	GRAND TOTAL	48,126,000		0	48,126,000

Table 3: Growth Cost of Intersection Projects Eligible for Impact Fees

Proj #	(1) Description of Eligible Projects	(2) Total Cost	(3) Deficiency Percent	(4) Deficiency Cost	(5) Growth Cost
I-1	River Road & 11th Street NW New signal	$ 858,000	none	$ 0	$ 858,000
I-2	River Road Signal interconnect	350,000	none	0	350,000
I-3	River Road & 7th Street NW Add NB & SB prot/perm left turn	25,000	none	0	25,000
I-4	9th/94th Ave @ 39th Ave SW New signal and additional lanes	6,300,000	none	0	6,300,000

Proj #	(1) Description of Eligible Projects	(2) Total Cost	(3) Deficiency Percent	(4) Deficiency Cost	(5) Growth Cost
I-5	Valley Ave & Meridian Signal upgrade	592,000	none	0	592,000
I-6	39th Ave SW & Wildwood Dr SE New signal & left turn lanes	500,000	none	0	500,000
I-7	9th St SW & SR 512 on ramp NB dual left turn land widen ramp	500,000	none	0	500,000
I-8	43rd Ave SE & 10th St SE New signal & additional lanes	1,300,000	none	0	1,300,000
I-9	43rd Ave SE & Meridian New signal	cost in corridor project	none	0	cost in corridor project
I-10	39th Ave & 5th St SE New signal	250,000	none	0	250,000
I-11	23rd Ave SE & 7th St SE New signal & lanes – north leg	650,000	none	0	650,000
I-12	9th Ave SW & 5th St SW New signal	500,000	0.52%	2,592	497,408
I-13	7th Ave SW & 5th St SW New signal & left turn lanes	500,000	none	0	500,000
I-14	Stewart & 5th St NW Signal upgrade	500,000	none	0	500,000
I-16	31st Ave & 5th St SW New signal	500,000	none	0	500,000
I-17	Pioneer & 5th St SW Signal upgrade	500,000	none	0	500,000
I-18	West Stewart & 7th St NW New signal	500,000	none	0	500,000
I-19	Main & 5th Ave NE New signal	350,000	none	0	350,000
	GRAND TOTAL	14,675,000		2,592	14,672,408

FORMULA 2: GROWTH COSTS ELIGIBLE FOR IMPACT FEES

The unfunded growth costs of eligible road projects are calculated by adjusting the growth costs to reflect other funding shown in the City's Transportation Element.

Growth share of project costs	-	Revenue from other sources	=	Growth share of project costs eligible for impact fees

There is one new variable that requires explanation: (C) adjustments.

Variable (C): Adjustments

Impact fee rate calculations must recognize and reflect all known sources of revenue from new development which are earmarked or proratable to a particular impact fee project. These sources of revenue can include locally generated revenues (e.g., taxes, fees or charges, interest, etc.), state and/or federal grants, bonds, or other revenue sources, which are committed to road capital improvement projects. The City of Puyallup's impact fee calculations include adjustments for all non-impact fee revenue, whether paid by new development, or paid by existing residents and businesses.

Revenues that are used for repair, maintenance or operating costs are not included because impact fees are not used for such expenses. Revenues for payments of *past* taxes paid on vacant land prior to development are not included because new capital projects do not have prior costs, therefore prior taxes did not contribute to such projects.

If a developer believes that significant prior payments were made that meet the criteria of RCW 82.02.060(1)(b), the City's ordinance provides that an applicant can submit supporting information and request a special review.

CALCULATION OF ADJUSTED COST OF GROWTH

The calculation of the adjusted (unfunded) costs of road projects that are eligible for impact fees is presented in Table 4.

Table 4, Section A, lists the revenues the City has in the CFP totaling $61.1 million.

Table 4, Section B, lists the cost of projects not eligible for impact fees, including projects that are not eligible for mitigation ($18.8 million) and the deficiency portion ($4.5 million) of the cost of projects that are otherwise eligible, for a total of $23.3 million of project costs that are not eligible for impact fees.

Table 4, Section C, calculates the revenue that is available for impact fee projects by subtracting the cost of the other projects (see Section B) from the total other revenues (see Section A). The result is $37.8 million other revenue that can pay for a portion of the cost of the projects that are eligible for impact fees.

Table 4, Section D, calculates the adjusted cost of growth: the $37.8 million of other revenue (see Section C) is subtracted from the eligible cost of impact fee projects ($92.3 million from Tables 1 3). The resulting unfunded $54.5 million is the adjusted cost of growth.

Table 4: Adjustment for Other Revenues for Projects Eligible for Impact Fees

	(1) Description	(2) Amount
A.	Other Revenues Available for Road Projects	
	Cash	$ 5,058,528
	Motor Vehicle Fuel Tax	4,460,539
	Interest	1,500,000
	General Fund (Construction Sales Tax)	7,500,000
	REET 2 (Annual Allocation)	5,731,940
	REET 2 (One-time Transfer)	854,286
	Transfers In from Funds driving projects	300,000
	Storm Utility	2,403,500
	Frontage Improvements (In-Kind)	3,000,000
	Capital Contributions	1,325,809
	Current Transportation Fees	80,724
	Local Improvement District	1,400,000
	Grants – Confirmed	15,650,482
	Grants – Unconfirmed	+ 11,890,000
	Total Other Revenues	61,155,808
B.	Cost of Projects Not Eligible for Impact Fees	
	Projects Not Eligible for Mitigation	18,814,229
	Deficiency Cost of Capacity Projects	+ 4,486,377
	Cost of Projects Not Eligible	23,300,606
C.	Other Revenue Available for Impact Fee Projects	
	Total Other Revenue (from Section A)	61,155,808
	Cost of Projects Not Eligible (from Section B)	- 23,300,606
	Other Revenue Available for Impact Fee Projects	37,855,202

(1) Description	(2) Amount
D. Adjusted Cost of Growth	
Eligible Cost of Impact Fee Projects (Tables 1-3)	$ 92,374,623
Other Revenue Available for Impact Fee Projects	- 37,855,202
Adjusted Cost of Growth	54,519,421

3. COST PER GROWTH TRIP

In this chapter the adjusted (unfunded) growth cost of eligible road projects from Chapter 2 is converted to an unfunded cost per growth trip. As in the previous chapter, this chapter includes a description of each formula and each variable that is used in the formulas, an explanation of the use of data in the formula, and the calculation of the unfunded cost per growth trip, using formulas 3 and 4.

FORMULA 3: GROWTH TRIPS

The growth of trips on Puyallup's roads is calculated by subtracting the number of trips on the roads in the baseline year (2002) from the number of trips that are forecast to be on the roads in the year 2014:

Future trips on road network	-	Current trips on road network	=	Growth trips

There is one new variable used in formula 3 that requires explanation: (D) trips.

Variable (D) Trips (Current and Future)

Puyallup's traffic demand model is used to analyze traffic on roads. The model was run and the results used to calculate current and future trips on Puyallup's roads. The data from the model measures p.m. peak hour trips.

CALCULATION OF GROWTH TRIPS

Table 5 shows the future and current trips and calculates the growth trips.

Table 5: Growth Trips

Year	P.M. Peak Hour Trips
2014 Trips	48,127
2002 Trips	36,018
Growth Trips	12,109

FORMULA 4: COST PER GROWTH TRIP

The adjusted cost of road projects per growth trip is calculated by dividing the adjusted cost of road projects by the number of growth trips:

Growth share of project costs eligible for impact fees	÷	Growth trips	=	Cost per growth trip

CALCULATION OF COST PER GROWTH TRIP

Table 6 shows the calculation of the cost per growth trip by dividing the cost of road projects that are eligible for impact fees (from Table 4) by the number of growth trips (from Table 5).

Table 6: Cost per Growth Trip

Adjusted Cost of Projects for Growth	$ 54,519,421
Growth Trips	÷ 12,109
Cost per Growth Trip	$ 4,502.39

4. IMPACT FEE RATES FOR SPECIFIC LAND USES

In this chapter the cost per growth trip (from chapter 3) is converted to an impact fee rate per unit of development for a variety of land use categories. As in the previous chapter, this chapter includes a description of the formula and each variable that is used in the formula, an explanation of the use of data in the formula, and the calculation of the impact fee, using formula 5.

FORMULA 5: IMPACT FEE RATES FOR SPECIFIC LAND USES

The impact fee for each category of land use is determined by multiplying the cost per growth trip times the number of trips generated per unit of development of each category of land use:

Cost per growth trip	x	Trip generation rate of each land use	=	Impact fee rate for each land use

The formula uses different trip generation rates for different types of land uses (i.e., single family houses, office buildings, etc.). There is one new variable used in formula 5 that requires explanation: (E) trip generation rates.

Variable (E) Trip Generation Rates.

This rate study uses the data reported in Trip Generation, compiled and published by the Institute of Transportation Engineers (ITE). The report is currently in its 7th edition. The report is a detailed compilation of data from hundreds of surveys of trip origins and destinations conducted throughout the United States. The data is reported on several variables (i.e., type of land use, units of development, number of employees, hour of day, etc.). The data used in this impact fee rate study is for trips generated during the p.m. peak hour, since that is the same basis as the trip data from the model (described above, see Growth Trips). Impact fee rates are calculated in this study for many frequently used types of land use (i.e., dwellings, offices, retail, restaurants, etc.). Impact fees can be calculated for other land uses not listed in this rate study by referring to the data in the ITE report.

Trip generation data is reported initially as the total number of trips leaving and arriving at each type of land use. There are two adjustments made to each trip generation rate before it is used to calculate the impact fee.

The first adjustment is to reduce the number of trips charged to land uses that are incidental attractors and generators of trips. For example, if a person leaves work to return home at the end of the work day, the place of employment is the origin, and the home is the destination. But if the person stops enroute to run an

errand at a store, the ITE data counts the stop at the store as a new destination (and a new origin when the person leaves the store). In reality, the work-to-home trip was going to occur regardless of the incidental stop, therefore the trip rate of the store should not be charged as an additional impact on the road system. The adjustment is based on the number of "pass-by" trips that stop at the store instead of "passing by." In the rate table these trips are eliminated by counting only the trips that are truly "new" trips (i.e., a person made a special trip to the store). The adjustment is shown in Table 7 as "Percent New Trips."

CALCULATION OF IMPACT FEE RATES FOR SPECIFIC LAND USES (Examples)

Table 7 shows examples of the calculation of impact fee rates for frequently used categories of land use that are listed in column 1. The ITE trip rate in column 2 is multiplied times the percent new trips in column 3. Column 4 reports the net new trips that are the result of these calculations. The impact fee rates in column 5 are calculated by multiplying the net new trips from column 4 times the cost per growth trip (from Table 6, and repeated in the column heading of column 5).

Applicants for building permits who propose development consistent with the examples in Table 7, impact fees can be assessed as follows:
1. Select the appropriate land use category from Table 7, and find the impact fee rate per unit in column 5. If the proposed development is not covered by any of the categories in Table 7, the City can select the category that is most similar to the proposed development, or the applicant can submit a trip generation study of its proposed development.
2. Determine the number of "units" of development the applicant proposes to build. ("Units" are listed in the right portion of column 5).
3. Multiply the rate per unit by the number of units to be built. The result is the impact fee.

EXAMPLE CALCULATIONS OF IMPACT FEE RATES FOR HYPOTHETICAL LAND USES

A 6 Lot Subdivision. ITE code 210: $4,547.41 per dwelling unit times 6 lots = $27,284.46.

A mixed use development of 6,000 square feet of retail on the ground floor and 5 condominiums on upper floors. ITE code 820, shopping center: $11.14 per square foot times 6,000 square feet = $66,840, plus ITE code 230, condo: $2,341.24 times 5 units = $11,706. Total fee is $66,840 + $11,706 = $78,546.

Table 7: Impact Fee Rates (Examples)

ITE Code	(1) ITE Land Use Category	(2) Trip Rate[3]	(3) % New Trips[4]	(4) Net New Trips per Unit of Measure		(5) Impact Fee Per Unit @ $ 4,502.39 per Trip	
110	Light Industrial	0.98	100%	0.98	1,000 sq ft	$ 4.41	per square foot
140	Manufacturing	0.74	100%	0.74	1,000 sq ft	3.33	per square foot
151	Mini-warehouse	0.26	100%	0.26	1,000 sq ft	1.17	per square foot
210	Single family house	1.01	100%	1.01	dwelling	4,547.41	per dwelling unit
220	Apartment	0.62	100%	0.62	dwelling	2,791.48	per dwelling unit
230	Condominium	0.52	100%	0.52	dwelling	2,341.24	per dwelling unit
240	Mobile Home	0.59	100%	0.59	dwelling	2,656.41	per dwelling unit
251	Senior adult housing-detach	0.26	100%	0.26	dwelling	1,170.62	per dwelling unit
252	Senior adult housing-attach	0.11	100%	0.11	dwelling	495.26	per dwelling unit
253	Congregate care facility	0.17	100%	0.17	dwelling	765.41	per dwelling unit
254	Assisted living	0.22	100%	0.22	dwelling	990.53	per dwelling unit
310	Hotel	0.59	100%	0.59	room	2,656.41	per room
320	Motel	0.47	100%	0.47	room	2,116.12	per room
420	Marina	0.19	100%	0.19	berth	855.45	per boat berth
430	Golf course	0.30	100%	0.30	acre	1,350.72	per acre
443	Movie theater without matinee	0.07	100%	0.07	seat	315.17	per seat
445	Multiplex movie theater	5.22	100%	5.22	1,000 sq ft	23.50	per square foot
522	Middle/junior hi	1.19	100%	1.19	1,000 sq ft	5.36	per square foot
530	High school	0.97	100%	0.97	1,000 sq ft	4.37	per square foot
560	Church	0.66	100%	0.66	1,000 sq ft	2.97	per square foot
565	Day care center	13.18	100%	13.18	1,000 sq ft	59.34	per square foot
610	Hospital	1.18	100%	1.18	1,000 sq ft	5.31	per square foot
620	Nursing home	0.22	100%	0.22	bed	990.53	per bed
710	Office	1.49	100%	1.49	1,000 sq ft	6.71	per square foot

[3] ITE Trip Generation (7th Edition): 4-6 PM Peak Hour Trip Ends Weighted Average. When the R^2 is greater than or equal to 0.75 and there is 20 data points or more, trip rate shall be determined by the ITE regression equation.

[4] The % New Trips excludes pass-by trips by using the pass-by rate for the appropriate land use category in ITE Trip Generation Handbook; An ITE Recommended Practice (2001).

ITE Code	(1) ITE Land Use Category	(2) Trip Rate	(3) % New Trips	(4) Net New Trips per Unit of Measure	(5) Impact Fee Per Unit @ $ 4,502.39 per Trip
720	Medical office	3.72	100%	3.72 1,000 sq ft	$ 16.75 per square foot
760	R&D center	1.08	100%	1.08 1,000 sq ft	4.86 per square foot
812	Building materials & lumber	4.49	100%	4.49 1,000 sq ft	20.22 per square foot
814	Specialty retail	2.71	100%	2.71 1,000 sq ft	12.20 per square foot
820	Shopping Center	3.75	66%	2.48 1,000 sq ft	11.14 per square foot
850	Supermarket	10.45	64%	6.69 1,000 sq ft	30.11 per square foot
851	Convenience market-24 hr	52.41	39%	20.44 1,000 sq ft	92.03 per square foot
890	Furniture store	0.46	47%	0.22 1,000 sq ft	0.97 per square foot
896	Video rental	13.60	100%	13.60 1,000 sq ft	61.23 per square foot
911	Bank: walk-in	33.15	100%	33.15 1,000 sq ft	149.25 per square foot
912	Bank: drive-in	45.74	53%	24.24 1,000 sq ft	109.15 per square foot
931	Quality restaurant	7.49	56%	4.19 1,000 sq ft	18.88 per square foot
932	Restaurant: sit-down	10.92	57%	6.22 1,000 sq ft	28.02 per square foot
933	Fast food, no drive-up	26.15	50%	13.08 1,000 sq ft	58.87 per square foot
934	Fast food, w/ drive-up	34.64	50%	17.32 1,000 sq ft	77.98 per square foot
936	Drinking place	11.34	100%	11.34 1,000 sq ft	51.06 per square foot
943	Auto parts & service center	4.46	57%	2.54 1,000 sq ft	11.45 per square foot
944	Service station	13.86	34%	4.71 vfp	21,217.06 per vfp[5]
947	Self-service car wash	5.54	100%	5.54 wash stall	24,943.23 wash stall
949	Automated car wash	14.12	100%	14.12 1,000 sq ft	63.57 per square foot

[5] vfp: vehicle fueling position

APPENDIX A

NEEDS ANALYSIS OF PUYALLUP ROADS

Need for Roads to Serve Growth in Puyallup

RCW 82.02 requires impact fees to be based on the City's Capital Facilities Plan (which must identify existing deficiencies in road capacity for current development, capacity of existing roads available for new development, and additional road capacity needed for new development). The purpose of this appendix is to summarize the need for additional capacity for new development (based on data provided in the City's comprehensive plan). Existing deficiencies were analyzed separately, and the cost of the deficiencies were listed in Tables 1 – 3.

Like many other local governments, the City of Puyallup has some roads that are congested, and as growth occurs more roads will become congested. The City analyzes its roads using a common measure of congestion, the ratio of traffic volume to the capacity of the roads (the "v/c ratio"). The volume is the number of trips on the road, and the capacity is the number of trips that the road is designed to accommodate.

The "design" capacity corresponds to a specific service standard. As the service standard improves, the design capacity decreases (in order to accommodate more vehicles, thus improving the service standard).

When the volume is significantly less than the capacity the traffic flows freely, and the v/c ratio is low. When a road becomes congested, the volume is close to (or even exceeds) the capacity, and the v/c ratio is high. A ratio of 0.75 is considered moderate, a ratio of 1.0 is the threshold at which the road "fails".

The City of Puyallup has established service standards for acceptable v/c ratios on its road system. These standards are adopted in the City's Comprehensive Plan, and they are the basis for the "concurrency" requirement that would prohibit approval of a development that causes the roads to become so congested that they would fall below the City's adopted standards.

The City uses a computer traffic model to analyze the current and future volume of traffic on the City roads. The model includes the existing road system, data about current traffic, population and employment, and forecasts of future population and employment. The model uses this information to calculate current and future volume and capacity (from which v/c ratios are calculated).

In order to identify the need for additional road capacity to serve growth, the City used the traffic model to create detailed lists of current and 2014 v/c ratios

for significant arterial and collector roads in the City. The current ratios form a baseline to identify any existing deficiencies (that cannot be corrected by new impact fees). The future ratios identify which roads will become congested as a result of future growth, and are therefore eligible to be funded by impact fees.

The model analyzes roads in "segments" that represent specific sections of a road that have different characteristics from other segments of the same road. Characteristics that change include the number of lanes, or the characteristics of a cross street.

The results of the modeling were examined carefully. There are four possible combinations of current and future v/c ratios for trips on existing roads, as shown in the four outcomes listed in Table 8. Any road segments that have outcomes #1 or 3 were excluded from consideration for impact fees. Any road segments with outcome #2 were included in the list of roads eligible for impact fees. Any road segments with outcome #4 were further analyzed to determine the portion of their costs that are attributable to existing deficiencies (not eligible for impact fees) and the portion of their costs are attributable to future growth, and therefore eligible for impact fees.

Table 8: Road Congestion Analysis Outcomes

Current and Future Traffic	Eligibility for Impact Fees
1. Current v/c is acceptable, and future v/c will be acceptable.	No improvement is needed, therefore no costs are eligible for impact fees.
2. Current v/c is acceptable, but future v/c will be congested.	Improvement is needed only because of growth, therefore the entire improvement is eligible for impact fees.
3. Current v/c is congested, but future v/c will be acceptable.	Improvement is needed for current deficiency, or future traffic uses other roads, therefore no costs are eligible for impact fees.
4. Current v/c is congested, and future v/c will be more congested.	Improvement is needed for both current deficiency and future growth, therefore only the growth portion of the project is eligible for impact fees.

[Note: It is possible for a road improvement project to create enough capacity to eliminate an existing deficiency and also provide capacity to serve growth. The portion of a project's cost that is attributable to existing deficiency is

calculated by dividing the amount of deficient traffic volume by the design capacity of the road improvement project.]

The result of this analysis is identification of road segments that need improvement in order to avoid unacceptable congestion from growth, as measured by v/c ratios along road segments and level of service (LOS) at intersections. Improving these segments and/or intersections will ensure that the City will not have a concurrency problem because City road segments and intersections that are needed have been identified, planned, and funded.

The segments and intersections that were identified as a result of this analysis were organized into 35 road improvement projects. The results are presented in Tables 9 – 11.

Table 9 lists existing roads that need to be widened. The projects are numbered R-1 through R-16. Projects R-9, and R-11 through R-13 were determined not to be eligible for impact fees. Column 1 lists the eligible projects from the CFP. The existing capacity is listed in Column 2, the 2014 traffic volume appears in Column 3, and the v/c ratio in 2014 if the road is not improved is listed in Column 4. Puyallup's adopted service (v/c) ratio is 0.85, which equates to LOS D. In Table 9, all Puyallup roads with 2014 v/c ratios higher than 0.85 without improvements are eligible for improvement because of future growth.

Table 10 lists new roads ("links") that need to be built. The projects are numbered L-1 through L-6. Column 1 lists the eligible projects from the CFP. Since these new roads are intended to relieve congestion on existing roads, the name and to/from of the existing road is listed in Columns 2 and 3. Column 4 reports the v/c ratio for the road in Column 2 if the new link in Column 1 was not constructed.

Table 11 lists intersections that need to be signalized (or existing signals need to be upgraded). The projects are numbered I-1 through I-19. Project I-15 was determined not to be eligible for impact fees. Column 1 lists the eligible projects from the Transportation Element. The existing capacity or LOS is listed in Column 2, the 2014 LOS with the improvements completed appears in Column 3, and the LOS ratio in 2014 if the road is not improved is listed in Column 4. Puyallup's adopted standard is LOS "D" for intersections except along the Meridian corridor where a lower LOS has been adopted.

Table 9: Needs Analysis Road Widening Projects

Proj #	(1) Description of Eligible Projects	(2) Existing Capacity	(3) *2014 Volume	(4) V/C with No Improvement
R-1	9th/94th Ave 39th Ave SW to city limits	1,000	1,821	1.82
R-2	31st Ave SW Meridian to 9th St SW	1,000	1,416	1.42
R-3	43rd Ave SE (with signal @ 5th) Meridian to 5th St SW	850	691	0.81
R-4	39th Ave SW 14th St to 17th St SW	1,000	1,265	1.27
R-5	Shaw Road 23rd Ave to 39th Ave SW	1,000	942	0.94
R-6	39th Ave SW Meridian to 9th St SW	1,000	983	0.98
R-7	39th Ave SW 9th St to 14th St SW	1,400	1,351	0.97
R-8	Shaw Road 23rd Ave to Pioneer	1,000	959	0.96
R-10	Stewart 4th St to 12th St NW	1,000	953	0.95
R-14	Stewart – Phase 1 at Ashley Meadows	1,000	2,000	2.00
R-15	Stewart – Phase 2 Ashley Meadow to 66th Ave E	1,000	2,000	2.00
R-16	23rd Ave SE 17th to Shaw missing section	850	735	0.86

* 2014 traffic volumes from travel Mode on existing network.

Table 10: Needs Analysis New Link Projects

Proj #	(1) Description of Eligible Projects	(2) Road to be Relieved	(3) Limits of Road to be Relieved	(4) 2014 V/C No Imp
L-1	Shaw Road Ex E Pioneer to E Main	15th St SW	E Pioneer to E Main	1.31
L-2	5th / 9th St SW Connector 9th Ave to 15th Ave SW	S. Meridian	7th Ave to 15th Ave SW	0.91
L-3	5th Street SE 37th Ave to 43rd Ave SE	S. Meridian	37th Ave to 43rd Ave SE	1.13
L-4	39th Ave SE Extension Meridian to 9th St SE	S. Meridian	37th Ave to 39th Ave SE	1.35
L-5	47th Ave SE Meridian to 10th St SE	S. Meridian	43rd Ave to 47th Ave SE	1.84
L-6	5th Street SE 43rd Ave to 47th Ave SE	S. Meridian	43rd Ave to 47th Ave SE	1.84

Table 11: Needs Analysis Intersection Projects

Proj #	(1) Description of Eligible Projects	(2) Existing LOS	(3) 2014 LOS With Project	(4) 2014 LOS Without Project
I-1	River Road & 11th Street NW New signal	F Approach LOS	C	F
I-2	River Road Signal interconnect	F Varies B-F	A-D Varies	F
I-3	River Road & 7th Street NW Add NB & SB prot/perm left turn	F	A	F
I-4	9th/94th Ave @ 39th Ave SW New signal and additional lanes	F	D	F
I-5	Valley Ave & Meridian Signal upgrade	D	D	F

Proj #	(1) Description of Eligible Projects	(2) Existing LOS	(3) 2014 LOS With Project	(4) 2014 LOS Without Project
I-6	39th Ave SW & Wildwood Dr SE New signal & left turn lanes	F	A	F
I-7	9th St SW & SR 512 on ramp NB dual left turn land widen ramp	C	E	F
I-8	43rd Ave SE & 10th St SE New signal & additional lanes	D Approach LOS	B	F
I-9	43rd Ave SE & Meridian Signal improvement	D	E	F
I-10	39th Ave & 5th St SE New signal	E Approach LOS	C	F
I-11	23rd Ave SE & 7th St SE New signal & lanes – north leg	F Approach LOS	B	F
I-12	9th Ave SW & 5th St SW New signal	C Approach LOS	A	F
I-13	7th Ave SW & 5th St SW New signal & left turn lanes	D	B	F
I-14	Stewart & 5th St NW Signal upgrade	D	D	F
I-16	31st Ave & 5th St SW New signal	E Approach LOS	B	F
I-17	Pioneer & 5th St SW Signal upgrade	D	C	B*
I-18	West Stewart & 7th St NW New signal	E Approach LOS	B	F
I-19	Main & 5th St NE New signal	F Approach LOS	B	F

* Without the 5/th/9th connector, the traffic volumes reduce over time at this intersection, as other routes are used in place of this circuitous route.