Presented by:

DONOVAN enterprises, inc.

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2019

Transportation System Development Charge Update

Final Report

Prepared for:

CITY OF SISTERS INCORPORATED 1946

Donovan Enterprises, Inc.
9600 SW Oak Street, Suite 335
Tigard, Oregon 97223-6596
☎ 503.517.0671
www.donovan-enterprises.com

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City of Sisters
2019 Transportation SDC Methodology Update

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Introduction

The City of Sisters conducts periodic updates to its Comprehensive Plan and its various Public Facility Plans to provide orderly and sustainable growth of local roads, water, sewer, and parks. A key component to funding these public facilities is the system development charge (SDC) program. SDCs are one-time charges for new development—designed to recover the costs of infrastructure capacity needed to serve new development. This section describes the policy context and project scope upon which the body of this report is based. It concludes with a non-numeric overview of the calculations presented in subsequent sections of this report.

The city's current transportation SDC methodology was established 2008. In June, 2018, the City completed the task of updating the capital improvement plan (CIP) for the transportation system. With the preparation/adoption of the new transportation CIP, the City commissioned this update of its transportation SDCs to get the methodology and rates current. With this review and update, the City has stated several objectives:

- Review the basis for transportation charges to ensure a consistent methodology;
- Address specific policy, administrative, and technical issues which had arisen from application of the existing transportation SDCs;
- Determine the most appropriate and defensible fees, ensuring that development is paying its way;
- Consider possible revisions to the structure or basis of the charges which might improve equity or proportionality to demand;
- Provide clear, orderly documentation of the assumptions, methodology, and results, so that City staff could, by reference, respond to questions or concerns from the public.

This report provides the documentation of that effort and was done in close coordination with City staff and available facilities planning documents. The transportation SDC update complies with Sisters Municipal Code Title 13: Chapter 13.25, subsection Systems Development Charges.

Table 1 gives a component breakdown for the current and proposed residential equivalent SDCs for transportation. Appendix A to this report shows the detailed calculations that were used to arrive at the proposed SDCs for transportation services.

Table 1 - Component Breakdown of the Proposed Single Family Residential Equivalent Transportation SDC

Transportation SDC Components	Proposed	Current	Difference
Reimbursement fee	$ 475		
Improvement fee	1,687		
Administration fee @ 5%	108		
Total transportation SDC	$ 2,270	$ 1,016	$ 1,254

The framework for SDC calculation is established by Oregon Revised Statute (ORS) 223.297-314 which is the basis for this review. Under ORS 223.299, SDC's are defined as one-time fees imposed on new development and have two components: reimbursement and improvement.

The reimbursement fee considers the cost of existing facilities, prior contributions by existing users of those facilities, the value of the unused/available capacity, and generally accepted ratemaking principles. The objective is future system users contribute no more than an equitable share to the cost of existing facilities. The reimbursement fee can be spent on capital costs or debt service related to the systems for which the SDC is applied.

The improvement fee portion of the SDC is based on the cost of planned future facilities that expand the system's capacity to accommodate growth or increase its level of performance. In developing an analysis of the improvement portion of the fee for transportation, each project in the respective service's capital improvement plan is evaluated to exclude costs related to correcting existing system deficiencies or upgrading for historical lack of capacity. An example is a facility which improves system capacity to better serve current customers. The costs for this type of project must be eliminated from the improvement fee calculation. Only capacity increasing/level of performance costs provide the basis for the SDC calculation. The improvement SDC is calculated as a function of the estimated number of PM Peak Hour Vehicle Trips (PMPHVT's) to be served by the City's facilities over the planning period. Such a fee represents the greatest potential for future SDC changes.

SDC Legal Authorization

SDCs are authorized by Oregon Revised Statute (ORS) 223.297-314. The statute is specific in its definition of system development charges, their application, and their accounting. In general, an SDC is a one-time fee imposed on new development or expansion of existing development and assessed at the time of development approval or increased usage of the system. Overall, the statute is intended to promote equity between new and existing customers by recovering a proportionate share of the cost of existing and planned/future capital facilities that serve the developing property. Statute further provides the framework for the development and imposition of SDCs and establishes that SDC receipts may only be used for capital improvements and/or related debt service.

The methodology used to determine the improvement fee portion of the SDC must consider the cost of projected capital improvements needed to increase system capacity or level of performance. In other words, the cost of planned projects that correct existing deficiencies or do not otherwise increase capacity would not be SDC eligible. The improvement fee must also provide a credit for construction of a qualified public improvement.

Finally, two cost basis adjustments are potentially applicable to both reimbursement and improvement fees: fund balance and compliance costs.

Fund Balance - To the extent that SDC revenue is currently available in fund balance, that revenue should be deducted from its corresponding cost basis. For example, if the city has transportation improvement fees that it has collected but not spent, then those unspent improvement fees should be deducted from the transportation system's improvement fee cost basis to prevent charging twice for the same capacity.

Compliance Costs - ORS 223.307(5) authorizes the expenditure of SDCs on "the costs of complying with the provisions of ORS 223.297 to 223.314, including the costs of developing system development charge methodologies and providing an annual accounting of system development charge expenditures." To avoid spending monies for compliance that might otherwise have been spent on growth-related projects, this report includes an estimate of compliance costs in its SDCs. All estimates of compliance costs in this report are based on historical transfers from the appropriate SDC fund to the General Fund.

SDC Methodology

The essential ingredient in the development of an SDC methodology for transportation services is valid sources of data. For this project, the consultant team has relied on a number of data sources. The primary sources have been the adopted 2018 TSP Refinement for these municipal facilities. We have supplemented these data sources with City utility billing records, certified census data, and other documents that we deemed helpful, accurate, and relevant to this study. Table 2 contains a bibliography of the key documents/sources that we relied upon to facilitate our analysis and hence the resulting SDCs.

Table 2 - Data Sources for the Calculation of Transportation SDC

Service	Master Plan Document and/or Corroborating Source Documentation
Transportation	• Transportation System Plan Refinement for the City of Sisters; June 2018; Kittelson & Associates. • 2019 Sisters Transportation Facilities Plan Amendment and Capital Improvement Plan Update; September 2017; Sisters City Staff. • 2019 updated forecast of PM Peak Hour Vehicle Trips; Transight Consulting, LLC, May 22, 2019 • Sisters transportation system fixed asset schedule; June 30, 2018; City records. • City of Sisters Utility Billing System – active utility accounts and Equivalent Dwelling Units in service report; June 30, 2018. • Portland State University, College of Urban Affairs, Population Research Center; Certified census for Sisters, Oregon; June 2018 • U.S. Bureau of the Census; American Community Survey; multiple data sets.

Reimbursement Fee Methodology

The reimbursement fee represents a buy-in to the cost, or value, of infrastructure capacity within the existing system. Generally, if a system were adequately sized for future growth, the reimbursement fee might be the only charge imposed, since the new customer would be buying existing capacity. However, staged system expansion is needed, and an improvement fee is imposed to allocate those growth-related costs. Even in those cases, the new customer also relies on capacity within the existing system, and a reimbursement component is warranted.

To determine an equitable reimbursement fee to be used in conjunction with an improvement fee, two points should be highlighted. First, the cost of the system to the City's customers may be far less than the total plant-in-service value. This is because elements of the existing system may have been contributed, whether from developers, governmental grants, and other sources. Therefore, the net investment by the customer/owners is less. Second, the value of the existing system to a new customer is less than the value to an existing customer, since the new customer must also pay, through an improvement fee, for expansion of some portions of the system.

The method used for determining the reimbursement fee accounts for both points. First, the charge is based on the net investment in the system, rather than the gross cost. Therefore, donated facilities, typically including local collector streets, minor arterials, and grant-funded facilities, would be excluded from the cost basis. Also, the charge should be based on investments clearly made by the current users

of the system, and not already supported by new customers. Tax supported activities fail this test since funding sources have historically been from general revenues, or from revenues which emanate, at least in part, from the properties now developing. Second, the cost basis is allocated between used and unused capacity, and, capacity available to serve growth. This approach reflects the philosophy, consistent with the City's updated TSP, that facilities have been sized to meet the demands of the customer base within the established planning period.

Improvement Fee Methodology

There are three basic approaches used to develop improvement fee SDCs: "standards driven", "improvements-driven", and "combination/hybrid" approaches. The "standards-driven" approach is based on the application of Level of Service (LOS) standards for facilities. Facility needs are determined by applying the LOS standards to projected future demand, as applicable. SDC-eligible amounts are calculated based on the costs of facilities needed to serve growth. This approach works best where level of service standards has been adopted but no specific list of projects is available. The "improvements-driven" approach is based on a specific list of planned capacity increasing capital improvements. The portion of each project that is attributable to growth is determined, and the SDC-eligible costs are calculated by dividing the total costs of growth-required projects by the projected increase in projected future demand, as applicable. This approach works best where a detailed master plan or project list is available, and the benefits of projects can be readily apportioned between growth and current users. Finally, the combination/hybrid-approach includes elements of both the "improvements driven" and "standards-driven" approaches. Level of Service standards may be used to create a list of planned capacity-increasing projects, and the growth required portions of projects are then used as the basis for determining SDC eligible costs. This approach works best where levels of service have been identified and the benefits of individual projects are not easily apportioned between growth and current users.

This study is using the "improvements-driven" method and has relied on the capital improvement plans that are incorporated in the 2018 plan updates for transportation services.

For this SDC methodology update, the improvement fee represents a proportionate share of the cost to expand the systems to accommodate growth. This charge is based on the capital improvement plans established by the City in the master plans for transportation services. The costs that can be applied to the improvement fees are those that can reasonably be allocable to growth. Statute requires that the capital improvements used as a basis for the charge be part of an adopted capital improvement schedule, whether as part of a system plan or independently developed, and that the improvements included for SDC eligibility be capacity or level of service expanding. The improvement fee is intended to protect existing customers from the cost burden and impact of expanding a system that is already adequate for their own needs in the absence of growth.

The key step in determining the improvement fee is identifying capital improvement projects that expand the system and the share of those projects attributable to growth. Some projects may be entirely attributable to growth, such as a new street to serve a developing area. Other projects, however, are of mixed purpose, in that they may expand capacity, but they also improve service or correct a deficiency for existing customers. An example might be an intersection that both expands transportation collection system capacity and corrects a chronic capacity issue for existing users. In this case, a rational allocation basis must be defined.

The improvement portion of the SDC is based on the proportional approach toward capacity and cost allocation in that only those facilities (or portions of facilities) that either expand the transportation system capacity to accommodate growth or increase its respective level of performance have been

included in the cost basis of the fee. As part of this SDC update, City Staff and their engineering consultants were asked to review the planned capital improvement lists to assess SDC eligibility. The criteria in Figure 1 were developed to guide the City's evaluation:

Figure 1 - SDC Eligibility Criteria

City of Sisters

Steps Toward Evaluating

Capital Improvement Lists for SDC Eligibility

ORS 223

1. Capital improvements mean the facilities or assets used for:
    a. Transit, intersections, driving, walking, biking, and shared use/path projects

    This definition DOES NOT ALLOW costs for operation or routine maintenance of the improvements;
2. The SDC improvement base shall consider the cost of projected capital improvements needed to increase the capacity of the systems to which the fee is related;
3. An increase in system capacity is established if a capital improvement increases the "level of performance or service" provided by existing facilities or provides new facilities.

Under the City' approach, the following rules will be followed

1. Repair costs are not to be included;
2. Replacement costs will not be included unless the replacement includes an upsizing of system capacity and/or the level of performance of the facility is increased;
3. New regulatory compliance facility requirements fall under the level of performance definition and should be proportionately included;
4. Costs will not be included which bring deficient systems up to established design levels.

In developing the improvement fee, the project team in consultation with City staff evaluated each of its high priority CIP projects to exclude costs related to correcting existing system deficiencies or upgrading for historical lack of capacity. Only capacity increasing/level of performance costs were used as the basis for the SDC calculation, as reflected in the capital improvement schedules developed by the City. The improvement fee is calculated as a function of the estimated number of projected additional PMPHVTs for transportation to be served by the City's facilities over the planning horizon.

Once the future costs to serve growth have been segregated (i.e., the numerator), they can be divided into the total number of new PMPHVTs that will use the capacity derived from those investments (i.e., the denominator).

Methodology for the Granting of Credits, Exemptions, and Discounts

SDC Credits Policy

ORS 223.304 requires that credit be allowed for the construction of a "qualified public improvement" which is required as a condition of development approval, is identified in the Capital Improvement Plan, and either is not located on or contiguous to property that is the subject of development approval or is located on or contiguous to such property and is required to be built larger or with greater capacity than is necessary for the development project. The credit for a qualified public improvement may only be applied against an SDC for the same type of improvement and may be granted only for the cost of that portion of an improvement which exceeds the minimum standard facility size or capacity needed to serve the project. For multi-phase projects, any excess credit may be applied against SDCs that accrue in subsequent phases of the original development project. In addition to these required credits, the City may, if it so chooses, provide a greater credit, establish a system providing for the transferability of credits, provide a credit for a capital improvement not identified in the Capital Improvement Plan, or provide a share of the cost of an improvement by other means.

The City has adopted a policy for granting SDC credits and has codified this policy in the Sisters Municipal Code (SMC) §13.25.120. The adopted SDC credit policy consists of eight (8) items as follows:

1. A permittee is eligible for credit against the system development charge constructing a qualified public improvement. This credit shall be only for the improvement fee charged for the type of improvement being constructed. Credit under this section may be granted only for the cost of that portion of the improvement that exceeds the facility size or capacity needed to serve the development project.

2. Applying the adopted methodology, the city may grant a credit against the improvement charge for capital facilities provided as part of the development that reduces the development's demand upon existing capital improvements or the need for further capital improvements or that would otherwise have to be constructed at city expense under the then-existing council policies.

3. When the construction of a qualified public improvement gives rise to a credit amount greater than the improvement fee that would otherwise be levied against the project receiving development approval, the excess credit may be applied against improvement fees that accrue in subsequent phases of the original development project.

4. All credit requests must be in writing and filed with the city before the issuance of a building permit. Improvement acceptance shall be in accordance with the usual and customary practices, procedures and standards of the city of Sisters. The amount of any credit shall be determined by the city and based upon the subject improvement construction contract documents, or other appropriate information, provided by the applicant for the credit. Upon a finding by the city that the contract amounts exceed prevailing market rate for a similar project, the credit shall be based upon market rates. The city shall provide the applicant with a credit on a form provided by the city. The credit shall state the actual dollar amount that may be applied against any system development charge imposed against the subject property. The applicant has the burden of demonstrating qualification for a credit.

5. Credits shall be apportioned against the property which was subject to the requirements to construct an improvement eligible for credit. Unless otherwise requested, apportionment against lots or parcels constituting the property shall be proportionate to the anticipated

public facility service requirements generated by the respective lots or parcels. Upon written application to the city, however, credits shall be reapportioned from any lot or parcel to any other lot or parcel within the confines of the property originally eligible for the credit. Reapportionment shall be noted on the original credit form retained by the city.

6. Any credits are assignable; however, they shall apply only to that property subject to the original condition for land use approval upon which the credit is based or any partitioned or subdivided parcel or lots of such property to which the credit has been apportioned. Credits shall only apply against system development charges, are limited to the amount of the fee attributable to the development of the specific lot or parcel for which the credit is sought and shall not be a basis for any refund.

7. Any credit request must be submitted before the issuance of a building permit.

8. The applicant is responsible for presentation of any credit and no credit shall be considered after issuance of a building permit. Credits shall be used by the applicant within 10 years of their issuance by the city.

Partial and Full SDC Exemptions Policy

The City may exempt certain types of development, from the requirement to pay SDCs. Exemptions reduce SDC revenues and, therefore, increase the amounts that must come from other sources, such as user fees and property taxes. As in the case of SDC credits, the City has articulated a policy relative to partial and full SDC exemption. This SDC exemption policy is codified in SMC §13.25.110, and is as follows:

1. Structures and uses established and existing on or before the effective date of the resolution.

2. Additions to single-family dwellings that do not constitute the addition of a dwelling unit, as defined by the city's building code, are exempt from all portions of the system development charge.

3. An alteration, addition, replacement or change in use that does not increase the parcel's or structure's use of a capital improvement is exempt from all portions of the system development charge.

SDC Discount Policy

The City, at its sole discretion may discount the SDC rates by choosing not to charge a reimbursement fee for excess capacity, or by reducing the portion of growth-required improvements to be funded with SDCs. A discount in the SDC rates may also be applied on a pro-rata basis to any identified deficiencies, which must to be funded from sources other than improvement fee SDCs. The portion of growth-required costs to be funded with SDCs must be identified in the CIP. Because discounts reduce SDC revenues, they increase the amounts that must come from other sources, such as user fees or general fund contributions, in order to acquire the facilities identified in the Updated Master Plan

Conclusions and Recommendations

Fee Recommendation

The 2019 transportation SDC methodology update was done in accordance with SMC Chapter 13.25, and with the benefit of adopted master plans and plan updates for transportation services. We recommend the City update the SDC charge and methodology to reflect the current capital improvement program and to incorporate the reimbursement fee component. This will provide additional revenues to help fund the utility's future capital needs. Our analysis indicates the City can charge a maximum of $2,270 as applied to a new single-family residential unit per PMPHVT for transportation. The components of this fee are as follows:

Reimbursement fee	$ 475
Improvement fee	1,687
Administration fee	108
Total SDC per PMPHVT	$2,270

Policy for Granting Transportation SDC Credits in Sisters

As part of this engagement, the project team was asked to craft a policy for City Staff to use when transportation SDC credit applications are submitted by developers. Itemized below is our policy guidance for Staff to use for granting such SDC credits.

Policy for Granting Transportation SDC credits in Sisters
Recommendation of Consultant

The City may grant a credit against the transportation SDC, which is otherwise assessed for a new development, for eligible capital improvements constructed or dedicated as part of the new development. SMC §13.25.121(1) clearly states this credit shall be only for the improvement fee charged for the type of improvement being constructed. In all cases, the applicant bears the burden of evidence and persuasion in establishing entitlement to a transportation SDC credit and to a particular value of SDC credit.

Any credits are assignable; however, they shall apply only to that property subject to the original condition for land use approval upon which the credit is based or any partitioned or subdivided parcel or lots of such property to which the credit has been apportioned. Credits shall only apply against system development charges, are limited to the amount of the fee attributable to the development of the specific lot or parcel for which the credit is sought and shall not be a basis for any refund.

To obtain an SDC credit, the applicant must specifically request a credit within 180 days after building permit issuance for the new development. In the request, the applicant must identify the improvement(s) for which credit is sought and explain how the improvement(s) meet the requirements for a qualified public improvement or other eligible improvement pursuant to ORS 223.304. The applicant shall also document, with credible evidence, the value of the improvement(s) for which credit is sought, as follows:

1. For dedicated lands, value shall be based upon a written appraisal of fair market value by a qualified, professional appraiser based upon comparable sales of similar property between unrelated parties in an arms-length transaction.
2. For improvements yet to be constructed, value shall be based upon the anticipated cost of construction. Any such cost estimates shall be certified by a professional architect or engineer or based on a fixed price bid from a contractor ready and able to construct the improvement(s) for which SDC credit is sought.
3. For improvements already constructed, value shall be based on the actual cost of construction as verified by receipts submitted by the applicant.

If, in the Public Works Director's opinion, the improvement(s) are qualified public improvements, and the Public Works Director concurs with the proposed value of the improvement(s), an SDC credit shall be determined by the Public Works Director as follows:

1. For improvements on or contiguous to the new development site, only the costs for the over-capacity portion of the improvement as described in the definition of qualified public improvement are eligible for SDC credit. There is an inherent presumption that improvements built to the City's minimum standards are required to serve the applicant's new development and to mitigate for transportation system impacts attributable to the applicant's new development.
2. For qualified public improvements not located on or contiguous to the new development site, the full cost of the improvement may be eligible for SDC credit.

The Public Works Director may grant credit for all or a portion of the costs of capital improvements constructed or dedicated as part of the new development that do not meet the requirements of qualified public improvements, provided that the improvements are listed on the City's transportation SDC project list. In such case, the Public Works Director may determine what portion of the costs are eligible for SDC credit.

Granting SDC credits to new development prior to commencing construction of new development. When an eligible improvement is built by a developer prior to an applicant applying for building permits for the new development, the City may grant a credit for any eligible improvement(s). Credits issued are pursuant to the following requirements and conditions:

1. The developer must specifically request a credit prior to the first application for a building permit, but after the issuance of the public works/land use order or permit for the eligible improvement;
2. For improvements yet to be constructed, the developer shall provide the City with an enforceable mechanism to guarantee completion of the eligible improvement, either in the form of a performance bond or other financial guarantee acceptable to the Public Works Director; and
3. The developer shall submit written confirmation to the Public Works Director on the form provided acknowledging: (1) That SDC credits issued pursuant to this policy are in lieu of any other credits that could be claimed by the developer or other applicants on account of the eligible improvement; and (2) that it is the developer's obligation to advise subsequent applicants of the new development that SDC credits associated with the eligible improvement have already been issued and that no further credits are available.

Indexing Transportation SDCs for Inflation

Finally, we recommend the City adopt a policy of reviewing its suite of SDCs every five years. Between the review dates, the city should apply a cost adjustment index to the SDC rates annually to reflect changes in costs for land and construction. This policy should be codified in the Sisters Municipal Code. We suggest the City consider the following language for that code change:

1. Notwithstanding any other provision, the dollar amounts of the SDC set forth in the SDC methodology report shall on January 1st of each year be adjusted to account for changes in the costs of acquiring and constructing facilities. The adjustment factor shall be based on:

    a. The change in construction costs according to the Engineering News Record (ENR) Northwest (Seattle, Washington) Construction Cost Index (CCI).

    b. The system development charges adjustment factor shall be used to adjust the system development charges, unless they are otherwise adjusted by the city based on a change in the costs of materials, labor, or real property; or adoption of an updated methodology.

Appendix A
SDC Calculations

Transportation SDC Calculations

Existing and Future Transportation Demands in PMPHVTs

Demand for transportation facilities is measured in PMPHVTs. One PMPHVT represents one person beginning or ending a vehicular trip at a certain property during the afternoon rush hour. Based on data from the 2018 TSP refinement, and from the additional work done by Transight Engineering on behalf of the City, we estimate the transportation system is currently serving 3,062 PMPHVTs. The statistical process that was used to arrive at the current and 2030 demand is attached in Appendix B. We are estimating the City's transportation system will serve 4,435 PMPHVTs in 2030. These estimates imply growth of 1,373 PMPHVTs over the planning period, as shown in Table 3. A graphic rendering of existing and growth PMPHVTs is shown below in Figure 2.

Figure 2

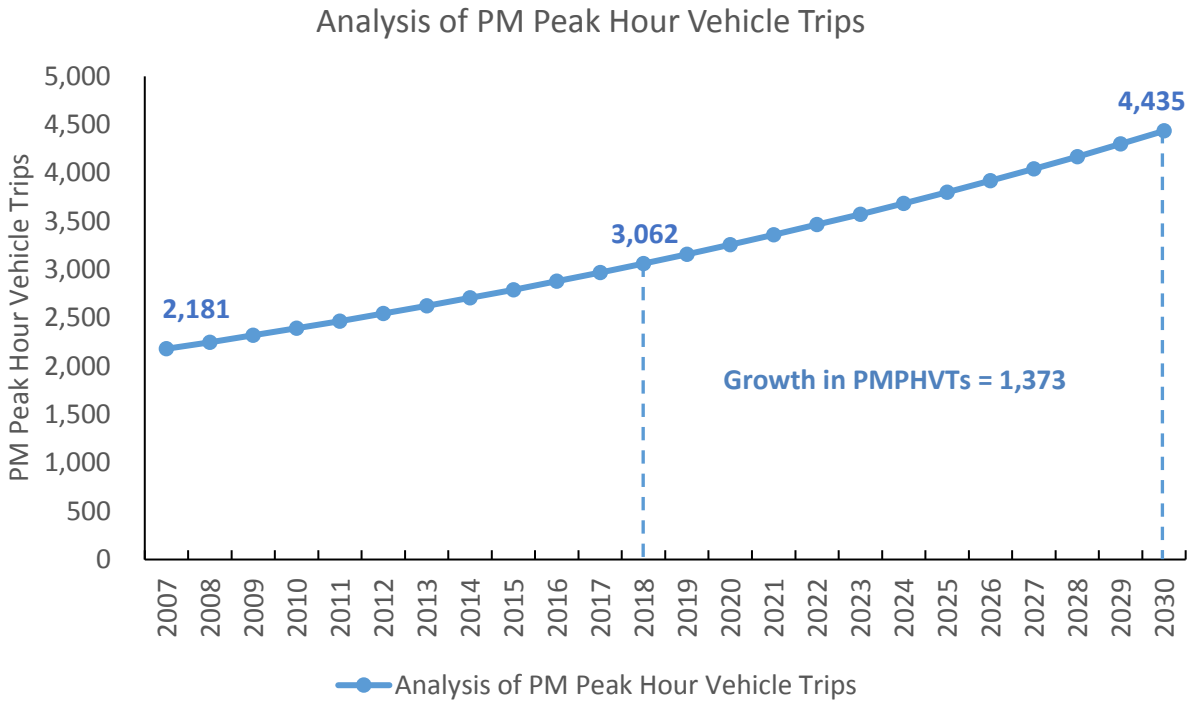


Table 3 – Estimated Existing and Future Trip Generation - PMPHVTs

Year	Beginning	3.1339% Additions	Ending
2007			2,181
2008	2,181	68	2,249
2009	2,249	70	2,320
2010	2,320	73	2,393
2011	2,393	75	2,468
2012	2,468	77	2,545
2013	2,545	80	2,625
2014	2,625	82	2,707
2015	2,707	85	2,792
2016	2,792	87	2,879
2017	2,879	90	2,969
2018	2,969	93	3,062
2019	3,062	96	3,158
2020	3,158	99	3,257
2021	3,257	102	3,360
2022	3,360	105	3,465
2023	3,465	109	3,573
2024	3,573	112	3,685
2025	3,685	116	3,801
2026	3,801	119	3,920
2027	3,920	123	4,043
2028	4,043	127	4,170
2029	4,170	131	4,300
2030	4,300	135	4,435
		2,254	

Existing conditions PMPHVTs (2018)	3,062
Estimated additions in PMPHVTs (2018-2030)	1,373
Future conditions PMPHVTs (2030)	4,435

Transportation Reimbursement Fee Calculations

Derivation of the transportation reimbursement fee methodology is a six (6) step process. The methodological steps in its construction are restated here.

Step 1: Calculate the original cost of transportation fixed assets in service. From this starting point, eliminate any assets that do not conform to the ORS 223.299 definition of a capital improvement. This results in the **adjusted original cost of transportation fixed assets**.

Step 2: Subtract from the adjusted original cost of transportation fixed assets in service the accumulated depreciation of those fixed assets. This arrives at the **modified book value of transportation fixed assets in service**.

Step 3: Subtract from the modified book value of transportation assets in service any grant funding or contributed capital. This arrives at the **modified book value of transportation fixed assets in service net of grants and contributed capital**.

Step 4: Subtract from the modified book value of transportation fixed assets in service net of grants and contributed capital any principal outstanding on long term debt used to finance those assets. This arrives a **gross transportation reimbursement fee basis**.

Step 5: Subtract from the gross transportation reimbursement fee basis the fund balance held in the Transportation Reimbursement SDC fund (if available). This arrives at the **net transportation reimbursement fee basis**.

Step 6: Divide the net transportation reimbursement fee basis by the sum of existing and future PMPHVTs to arrive at the **unit net reimbursement fee**.

The actual data that was used to calculate the total transportation reimbursement fee is shown below in Table 4.

Table 4 - Transportation Reimbursement Fee Calculations

Transportation Utility Plant-in-Service (original cost):[1]		
Land, Easements & Right of Way	$	15,500
Land improvements		-
Street improvements and Construction		8,160,371
Tools and Equipment		eliminated
Construction Work-in-Progress		80,611
Total Utility Plant-in-Service	$	8,256,482
Accumulated depreciation[1]		
Land, Easements & Right of Way		-
Land improvements		-
Street improvements and Construction		1,541,997
Tools and Equipment		eliminated
Construction Work-in-Progress		-
Total accumulated depreciation		1,541,997
Book value of transportation utility plant-in-service @ June 30, 2018	$	6,714,485
Eliminating entries:		
Principal outstanding on bonds, notes, and loans payable		-
Contributed Capital:		
Urban renewal TIF net of depreciation and amortization		749,840
Grants net of depreciation and amortization		3,121,970
Developer contributions net of depreciation and amortization		735,862
Total eliminating entries		4,607,673
Net basis in transportation utility plant-in-service available to serve future customers	$	2,106,812
Estimated existing and future pm peak hour vehicle trips:		
Estimated existing PMPHVT's - June 30, 2018		3,062
Estimated additional weekday PMPHVTs (2018 - 2030)		1,373
Total estimated existing and future PMPHVTs		4,435
Transportation reimbursement fee per PM peak hour vehicle trip		$475

[1] *Source: Sisters Accounting Summary Report - Capitalized Assets as of June 30, 2018*

2019 TSP Project Costs and Funding Sources

For this transportation SDC update, the project team has only included high priority TSP projects identified in the Plan for inclusion in the calculation of the improvement fee. These high priority projects are segregated into three transportation categories; pedestrian, bicycle, and motor vehicle. Itemized in Tables 5, 6, and 7 are the specific projects that were analyzed, and the projected funding source for each project by category.

Table 5 - High Priority Pedestrian Capital Improvement Project Costs and Funding Sources

		Funding Source			
Project Description	Total Cost in 2018 Dollars	General Fund and Gas Tax	Developers	ODOT	SDCs
Pedestrian MP Projects:					
Intersection of Hwy 20 and Locust St	28,000	9,556	9,556	-	8,888
South leg of Locust St/E. Cascade Ave Interse	20,000	6,826	6,826	-	6,349
Intersection of Barclay Dr and Pine St	20,000	6,826	6,826	-	6,349
Intersection of Locust St and Barclay Dr	10,000	3,413	3,413	-	3,174
Intersection of Hwy 20 and Hwy 126	30,000	10,238	10,238	-	9,523
Washington Ave from Pine St to Locust St	300,000	102,385	102,385	-	95,230
Adams Ave Streetscape Improvements	925,000	315,687	315,687	-	293,626
Hood Ave from Hwy 20 to Cedar St	20,000	13,651	-	-	6,349
Pine St from Barclay Dr to Main Ave	250,000	-	250,000	-	-
McKinney Butte Rd from Sisters High School	30,000	-	30,000	-	-
Downtown Commercial and Multi-Family Co	840,000	286,678	286,678	-	266,645
Citywide Spot Improvement Program	-	-	-	-	-
Subtotal pedestrian MP projects	2,473,000	755,259	1,021,608	-	696,133

Table 6 - High Priority Bicycle Capital Improvement Project Costs and Funding Sources

Project Description	Total Cost in 2018 Dollars	Funding Source: General Fund and Gas Tax	Developers	ODOT	SDCs
Bicycle MP Projects:					
Hood Ave from Pine St to Hwy 242	5,000	1,706	1,706	-	1,587
Washington Ave from Locust St to Pine St	900,000	307,155	307,155	-	285,691
Washington Ave from Cottonwood St to Pine	50,000	17,064	17,064	-	15,872
Pine St from Cascade Ave to Washington Ave	1,000	683	-	-	317
Pine St from Main St north to trailhead	250,000	-	250,000	-	-
E. Cascade Ave from Locust St to east city lim	60,000	20,477	20,477	-	19,046
Larch St from Jefferson Ave to Barclay Drive	40,000	13,651	13,651	-	12,697
McKinney Butte Rd from Sisters High School	30,000	-	30,000	-	-
Mutli-Use Connector Path from Hwy 20/Barcl	175,000	-	175,000	-	-
Brooks Camp Dr from Rail Way to Hwy 242	80,000	27,303	27,303	-	25,395
Hwy 242	-	-	-	-	-
Bicycle Wayfinding Signage Plan	25,000	8,532	8,532	-	7,936
Network Connections	-	-	-	-	-
Subtotal bicycle MP projects	1,616,000	396,571	850,888	-	368,541

Table 7 - High Priority Motor Vehicle Capital Improvement Project Costs and Funding Sources

Project Description	Total Cost in 2018 Dollars	Funding Source: General Fund and Gas Tax	Developers	ODOT	SDCs
Motor Vehicle MP Projects:					
US 20/Locust St - Design	300,000	-	-	51,000	249,000
US 20/Locust St - Roundabout	3,700,000	-	-	3,552,000	148,000
US 20/Locust St - mini-roundabout	-	-	-	-	-
US 20/OR 126	7,200,000	-	-	6,480,000	720,000
Hwy 20/Oak St	-	-	-	-	-
Barclay Dr/Locust St	-	-	-	-	-
Barclay Dr/Locust St	300,000	-	-	-	300,000
Barclay Dr from US 20 to Locust St, Locust St f	750,000	-	-	-	750,000
Subtotal motor vehicle MP projects	12,250,000	-	-	10,083,000	2,167,000

Transportation Improvement Fee Calculations

The calculation of the transportation improvement fee also follows the logic discussed in the body of this report. As earlier stated, this study uses the improvements-driven method, and has relied on the capital improvement plans, and plan updates for the transportation infrastructure. Under this methodology, only three steps are required to arrive at the improvement fee. These steps are:

Step 1: Accumulate the future cost of planned improvements needed to serve growth. This arrives at **the gross improvement fee basis**.

Step 2: Subtract from the gross improvement fee basis the fund balance held in the Transportation Improvement SDC Fund. This arrives at **the net transportation improvement fee basis**.

Step 3: Divide the net transportation improvement fee basis by the forecasted number of growth PMPHVTs over the planning period. This arrives at **the total transportation improvement fee**.

The actual data that was used to calculate the total transportation improvement fee is shown below in Table 8.

Table 8 - Transportation Improvement Fee Calculations

		Funding Source			
Project Description	Total Cost in 2018 Dollars	General Fund and Gas Tax	Developers	ODOT	SDCs
Pedestrian MP Projects:					
Subtotal pedestrian MP projects	2,473,000	755,259	1,021,608	-	696,133
Bicycle MP Projects:					
Subtotal bicycle MP projects	1,616,000	396,571	850,888	-	368,541
Motor Vehicle MP Projects:					
Subtotal motor vehicle MP projects	12,250,000	-	-	10,083,000	2,167,000
Total	$ 16,339,000	$ 1,151,830	$ 1,872,496	$ 10,083,000	$ 3,231,674

Total Improvement Fee Eligible Costs for Future System Improvements	$ 3,231,674
less: Transportation SDC Fund balance as of June 30, 2018	916,850
Adjusted Improvement Fee Eligible Costs for Future System Improvements	$ 2,314,824
Future PM peak hour vehicle trips created by growth	1,373
Transportation improvement fee per PM peak hour vehicle trip	$ 1,687

Transportation SDC Model Summary

The 2019 transportation SDC methodology update was done in accordance with Sisters City Code Chapter 13.25, and with the benefit of adopted capital improvement plans and plan updates for transportation services. We recommend the City update the SDC charge and methodology to reflect the current capital improvement program. Our analysis indicates the City can charge a maximum of $2,270 per PMPHVT. To charge the appropriate SDC, the City must estimate how many PMPHVTs will be generated by the development in question. That number can then be multiplied by $2,270 to determine the amount of SDC owed by new development projects.

The number of PMPHVTs that a property will generate is a function of the increase in scope and scale of activities that will occur on that property. By "scope of activities," we mean land use. For example, a new single-family residence will generate trip-ends differently from a new retail store of the same size. By "scale of activities," we mean some measure of quantity. For residential land uses, the number of dwelling units is an appropriate measure of scale. For many commercial and industrial land uses, building floor area is the best measure. For example, a 20,000-square-foot store is likely to generate twice the number of trip-ends as a 10,000-square-foot store of the same type. Table 9 presents proposed transportation SDCs per unit of scale for several land uses in the 9th edition of Trip Generation Manual, published by the Institute of Transportation Engineers (ITE):

Table 9 - Transportation SDCs by Sample ITE Code

ITE Code	Land Use	Primary Trip Ends	Improve.	Reimb.	Compliance	Total SDC	Basis for Calculating a Customer's SDC
Port and Terminal (Land Uses 000-099)							
010	Waterport/Marine Terminal*	17.15	28,935	8,148	1,854	38,938	Berth
021	Commercial Airport	5.75	9,700	2,731	622	13,053	Average flights per day
022	General Aviation Airport	1.46	2,463	694	158	3,314	Employee
030	Intermodal Truck Terminal	6.55	11,050	3,112	708	14,869	Acre
090	Park-an-Ride Lot with Bus Service	0.62	1,046	295	67	1,407	Parking space
093	Light Rail Transit Station with Parking	1.24	2,092	589	134	2,815	Parking space
Industrial (Land Uses 100-199)							
110	General light industrial	0.97	1,636	461	105	2,202	1,000 square feet of gross floor area
120	General heavy industrial	0.68	1,147	323	74	1,544	1,000 square feet of gross floor area
130	Industrial park	0.85	1,434	404	92	1,930	1,000 square feet of gross floor area
140	Manufacturing	0.73	1,232	347	79	1,657	1,000 square feet of gross floor area
150	Warehousing	0.32	540	152	35	726	1,000 square feet of gross floor area
151	Mini-warehouse	0.26	439	124	28	590	1,000 square feet of gross floor area
152	High-Cube Warehouse/Distribution Center	0.12	202	57	13	272	1,000 square feet of gross floor area
160	Data center	0.09	152	43	10	204	1,000 square feet of gross floor area
170	Utilities	0.76	1,282	361	82	1,725	1,000 square feet of gross floor area
Residential (Land Uses 200-299)							
210	Single family detached housing	1.00	1,687	475	108	2,270	Dwelling unit
220	Apartment	0.62	1,046	295	67	1,407	Dwelling unit
221	Low-Rise Apartment	0.58	978	276	63	1,317	Occupied dwelling unit
222	High-Rise Apartment	0.35	590	166	38	795	Dwelling unit
223	Mid-Rise Apartment	0.39	658	185	42	885	Dwelling unit
224	Rental Townhouse	0.72	1,215	342	78	1,635	Dwelling unit
230	Residential condominium/townhouse	0.52	877	247	56	1,180	Dwelling unit
231	Low-Rise Residential Condominium/Townhouse	0.78	1,316	371	84	1,771	Dwelling unit
232	High-Rise Residential Condominium/Townhouse	0.38	641	181	41	863	Dwelling unit
233	Luxury Condominium/Townhouse	0.55	928	261	59	1,249	Occupied dwelling unit
240	Mobile home park	0.59	995	280	64	1,339	Occupied dwelling unit
251	Senior Adult Housing - Detatched	0.27	455	128	29	613	Dwelling unit
252	Senior Adult Housing - Attached	0.25	422	119	27	568	Dwelling unit
253	Congregate Care Facility	0.17	287	81	18	386	Dwelling unit
254	Assisted living	0.22	371	105	24	499	Bed
255	Continuing Care Retirement Community	0.16	270	76	17	363	Unit
260	Recreational Homes	0.26	439	124	28	590	Dwelling unit
265	Timeshare	0.75	1,265	356	81	1,703	Dwelling unit
270	Residential Planned Unit Development	0.62	1,046	295	67	1,407	Dwelling unit
Lodging (Land Uses 300-399)							
310	Hotel	0.60	1,012	285	65	1,362	Room
311	All Suites Hotel	0.40	675	190	43	908	Room
312	Business Hotel	0.62	1,046	295	67	1,407	Occupied Room
320	Motel	0.47	793	223	51	1,067	Room
330	Resort Hotel	0.42	709	200	45	953	Room

Table 9 Continued - Transportation SDCs by Sample ITE Code

ITE Code	Land Use	Primary Trip Ends	Improve.	Reimb.	Compliance	Total SDC	Basis for Calculating a Customer's SDC
Recreational (Land Uses 400-499)							
411	City Park*	0.19	319	90	20	429	Acre
412	County Park	0.09	152	43	10	204	Acre
413	State Park*	0.07	110	31	7	148	Acre
414	Water Slide Park	1.92	3,239	912	208	4,359	1,000 square feet of gross floor area
415	Beach Park	1.30	2,193	618	141	2,951	Acre
416	Campground/Recreational Vehicle Park	0.27	455	128	29	613	Occupied camp site
417	Regional park	0.20	337	95	22	454	Acre
418	National Monument	0.42	709	200	45	953	Acre
420	Marina	0.19	321	90	21	431	Berth
430	Golf course	0.30	506	143	32	681	Acre
431	Miniature Golf Course	0.33	557	157	36	749	Hole
432	Golf Driving Range	1.25	2,109	594	135	2,838	Tees/Driving Position
433	Batting Cages	2.22	3,745	1,055	240	5,040	Cage
435	Multipurpose Recreational Facility	3.58	6,039	1,701	387	8,127	1,000 square feet of gross floor area
437	Bowling Alley	1.71	2,885	812	185	3,882	1,000 square feet of gross floor area
440	Adult Cabaret	38.67	65,236	18,370	4,180	87,787	1,000 square feet of gross floor area
441	Live Theater	0.02	34	10	2	45	Seat
443	Movie Theater without Matinee	24.00	40,488	11,401	2,594	54,483	Movie Screen
444	Movie Theater with Matinee - Friday pm peak hou	45.91	77,450	21,809	4,963	104,222	Movie screen
445	Multiplex Movie Theater - Friday pm peak hour	22.76	38,396	10,812	2,460	51,669	Movie screen
452	Horse Racetrack	0.06	101	29	6	136	Seat
453	Automobile Racetrack - Saturday peak hour	0.28	472	133	30	636	Attendee
454	Dog Racetrack	0.15	253	71	16	341	Attendee
460	Arena*	3.33	5,623	1,583	360	7,566	Acre
465	Ice Skating Rink	2.36	3,981	1,121	255	5,358	1,000 square feet of gross floor area
466	Snow Ski Area	26.00	43,862	12,351	2,811	59,024	Lift
473	Casino/Video Lottery Establishment	13.43	22,656	6,380	1,452	30,488	1,000 square feet of gross floor area
480	Amusement Park	3.95	6,664	1,876	427	8,967	Acre
481	Zoo*	11.49	19,380	5,457	1,242	26,079	Acre
488	Soccer Complex	17.17	28,966	8,156	1,856	38,978	Field
490	Tennis Courts	3.88	6,546	1,843	419	8,808	Court
491	Racquet/Tennis Club	3.35	5,651	1,591	362	7,605	Court
492	Health/Fitness Club	3.53	5,955	1,677	382	8,014	1,000 square feet of gross floor area
493	Athletic Club	5.96	10,055	2,831	644	13,530	1,000 square feet of gross floor area
495	Recreational Community Center	2.74	4,622	1,302	296	6,220	1,000 square feet of gross floor area
Institutional (Land Uses 500-599)							
501	Military Base	0.39	658	185	42	885	Employee
520	Elementary School	1.21	2,041	575	131	2,747	1,000 square feet of gross floor area
522	Middle School/Junior High School	1.19	2,008	565	129	2,701	1,000 square feet of gross floor area
530	High School	0.97	1,636	461	105	2,202	1,000 square feet of gross floor area
534	Private School (K-8) - pm peak hour generator	6.53	11,016	3,102	706	14,824	1,000 square feet of gross floor area
536	Private School (K-12) - pm peak hour generator	5.50	9,279	2,613	595	12,486	1,000 square feet of gross floor area
540	Junior/Community College	2.54	4,285	1,207	275	5,766	1,000 square feet of gross floor area
550	University/College	0.79	1,333	375	85	1,793	Employee
560	Church	0.55	928	261	59	1,249	1,000 square feet of gross floor area
561	Synagogue	1.69	2,851	803	183	3,837	1,000 square feet of gross floor area
562	Mosque - pm peak hour generator	11.02	18,591	5,235	1,191	25,017	1,000 square feet of gross floor area
565	Day Care Center	12.34	20,818	5,862	1,334	28,014	1,000 square feet of gross floor area
566	Cemetary	0.84	1,417	399	91	1,907	Acre
571	Prison	2.91	4,909	1,382	315	6,606	1,000 square feet of gross floor area
580	Museum	0.18	304	86	19	409	1,000 square feet of gross floor area
590	Library	7.30	12,315	3,468	789	16,572	1,000 square feet of gross floor area
591	Lodge/Fraternal Organization	0.03	51	14	3	68	Member

Table 9 Continued - Transportation SDCs by Sample ITE Code

ITE Code	Land Use	Primary Trip Ends	Improve.	Reimb.	Compliance	Total SDC	Basis for Calculating a Customer's SDC
Medical (Land Uses 600-699)							
610	Hospital	0.93	1,569	442	101	2,111	1,000 square feet of gross floor area
620	Nursing Home	0.74	1,248	352	80	1,680	1,000 square feet of gross floor area
630	Clinic	5.18	8,739	2,461	560	11,759	1,000 square feet of gross floor area
640	Animal Hospital/Veterinary Clinic	4.72	7,963	2,242	510	10,715	1,000 square feet of gross floor area
Office (Land Uses 700-799)							
710	General office building	1.49	2,514	708	161	3,383	1,000 square feet of gross floor area
714	Corporate Headquarters Building	1.41	2,379	670	152	3,201	1,000 square feet of gross floor area
715	Single Tenant Office Building	1.74	2,935	827	188	3,950	1,000 square feet of gross floor area
720	Medical-dental office building	3.57	6,023	1,696	386	8,104	1,000 square feet of gross floor area
730	Government Office Building	1.21	2,041	575	131	2,747	1,000 square feet of gross floor area
731	State Motor Vehicles Department	17.09	28,831	8,118	1,847	38,797	1,000 square feet of gross floor area
732	United States Post Office	11.22	18,928	5,330	1,213	25,471	1,000 square feet of gross floor area
733	Government Office Complex	2.85	4,808	1,354	308	6,470	1,000 square feet of gross floor area
750	Office park - pm peak hour	1.48	2,497	703	160	3,360	1,000 square feet of gross floor area
760	Research and development center - pm peak hour	1.07	1,805	508	116	2,429	1,000 square feet of gross floor area
770	Business park - pm peak hour	1.26	2,126	599	136	2,860	1,000 square feet of gross floor area
Retail (Land Uses 800-899)							
810	Tractor Supply Store	1.40	2,362	665	151	3,178	1,000 square feet of gross floor area
811	Construction Equipment Rental Store	0.99	1,670	470	107	2,247	1,000 square feet of gross floor area
812	Building Materials and Lumber Store	4.49	7,575	2,133	485	10,193	1,000 square feet of gross floor area
813	Free Standing Discount Super Store	3.13	5,284	1,488	339	7,110	1,000 square feet of gross floor area
814		6.82	11,505	3,240	737	15,482	1,000 square feet of gross floor area
815	Free Standing Discount Store	2.38	4,012	1,130	257	5,398	1,000 square feet of gross floor area
816	Hardware/Paint Store	2.15	3,633	1,023	233	4,889	1,000 square feet of gross floor area
817	Nursery (Garden Center)	6.94	11,708	3,297	750	15,755	1,000 square feet of gross floor area
818	Nursery (Wholesale)	5.17	8,722	2,456	559	11,737	1,000 square feet of gross floor area
820	Shopping Center	1.86	3,138	884	201	4,223	1,000 square feet of gross leasable area
823	Factory Outlet Center	2.29	3,863	1,088	248	5,199	1,000 square feet of gross floor area
826	Specialty Retail Center	2.71	4,572	1,287	293	6,152	1,000 square feet of gross leasable area
841	Automobile Sales	2.62	4,420	1,245	283	5,948	1,000 square feet of gross floor area
842	Recreational Vehicle Sales	2.54	4,285	1,207	275	5,766	1,000 square feet of gross floor area
843	Automobile Parts Sales	2.63	4,439	1,250	284	5,973	1,000 square feet of gross floor area
848	Tire Store	2.85	4,807	1,354	308	6,469	1,000 square feet of gross floor area
849	Tire Superstore	2.11	3,560	1,002	228	4,790	1,000 square feet of gross floor area
850	Supermarket	3.67	6,197	1,745	397	8,339	1,000 square feet of gross floor area
851	Convenience Market (Open 24 Hours)	17.05	28,758	8,098	1,843	38,699	1,000 square feet of gross floor area
852	Convenience Market (Open 15-16 Hours)	8.42	14,210	4,001	911	19,121	1,000 square feet of gross floor area
853	Convenience Market with Gasoline Pumps	8.25	13,916	3,919	892	18,727	1,000 square feet of gross floor area
854	Discount Supermarket	4.49	7,569	2,131	485	10,186	1,000 square feet of gross floor area
857	Discount Club	4.18	7,052	1,986	452	9,489	1,000 square feet of gross floor area
860	Wholesale Market	0.88	1,485	418	95	1,998	1,000 square feet of gross floor area
861	Sporting Goods Superstore	1.84	3,104	874	199	4,177	1,000 square feet of gross floor area
862	Home Improvement Superstore	1.03	1,730	487	111	2,327	1,000 square feet of gross floor area
863	Electronics Superstore	1.22	2,050	577	131	2,758	1,000 square feet of gross floor area
864	Toy/Children's Superstore	4.99	8,418	2,370	539	11,328	1,000 square feet of gross floor area
865	Baby Superstore	1.82	3,070	865	197	4,132	1,000 square feet of gross floor area
866	Pet Supply Superstore	3.38	5,702	1,606	365	7,673	1,000 square feet of gross floor area
867	Office Supply Superstore	3.40	5,736	1,615	368	7,718	1,000 square feet of gross floor area
868	Book Superstore	15.82	26,688	7,515	1,710	35,914	1,000 square feet of gross floor area
869	Discount Home Furnishing Superstore	1.57	2,649	746	170	3,564	1,000 square feet of gross floor area
872	Bed and Linen Superstore	2.22	3,745	1,055	240	5,040	1,000 square feet of gross floor area
875	Department Store	1.87	3,155	888	202	4,245	1,000 square feet of gross floor area
876	Apparel Store	3.83	6,461	1,819	414	8,695	1,000 square feet of gross floor area
879	Arts and Crafts Store	6.21	10,476	2,950	671	14,098	1,000 square feet of gross floor area
880	Pharmacy/Drugstore without Drive-Through	3.56	5,999	1,689	384	8,073	1,000 square feet of gross floor area
881	Pharmacy/Drugstore with Drive-Through	3.77	6,353	1,789	407	8,549	1,000 square feet of gross floor area
890	Furniture Store	0.17	278	78	18	375	1,000 square feet of gross floor area
896	DVD/Video Store	13.60	22,943	6,461	1,470	30,874	1,000 square feet of gross floor area
897	Medical Equipment Store	1.24	2,092	589	134	2,815	1,000 square feet of gross floor area

Table 9 Continued - Transportation SDCs by Sample ITE Code

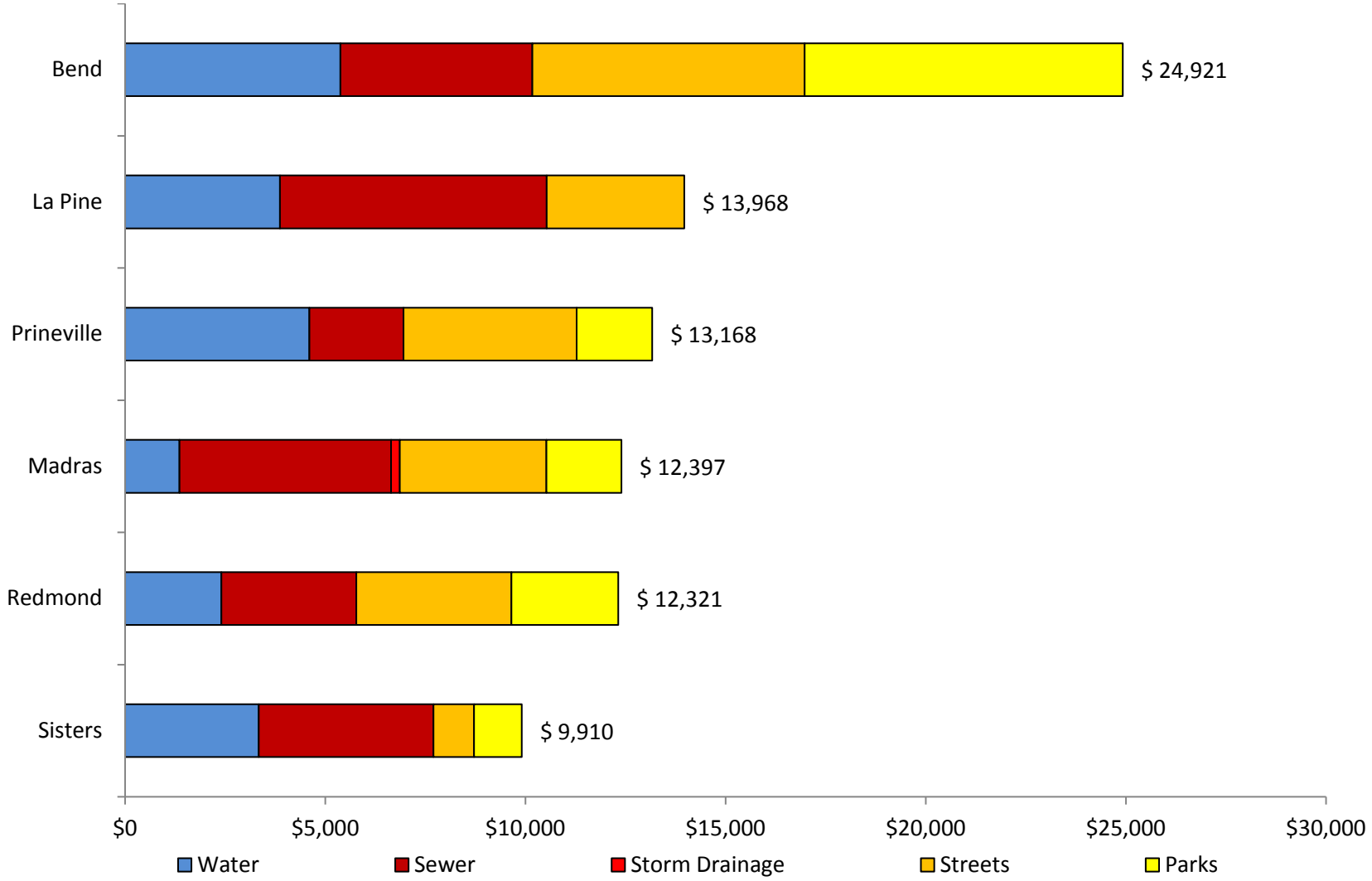
ITE Code	Land Use	Primary Trip Ends	Improve.	Reimb.	Compliance	Total SDC	Basis for Calculating a Customer's SDC
Services (Land Uses 900-999)							
911	Walk-in Bank	12.13	20,463	5,762	1,311	27,537	1,000 square feet of gross floor area
912	Drive-in Bank	6.64	11,205	3,155	718	15,078	1,000 square feet of gross floor area
918	Hair Salon	1.45	2,446	689	157	3,292	1,000 square feet of gross floor area
920	Copy, Print and Express Ship Store	7.41	12,501	3,520	801	16,822	1,000 square feet of gross floor area
925	Drinking Place	11.34	19,131	5,387	1,226	25,743	1,000 square feet of gross floor area
931	Quality Restaurant	3.18	5,370	1,512	344	7,226	1,000 square feet of gross floor area
932	High-Turnover (Sit Down) Restaurant	3.92	6,605	1,860	423	8,888	1,000 square feet of gross floor area
933	Fast-food restaurant without drive-through	10.39	17,536	4,938	1,124	23,597	1,000 square feet of gross floor area
934	Fast-food restaurant with drive-through	13.37	22,552	6,351	1,445	30,348	1,000 square feet of gross floor area
935	Fast-food restaurant with drive-through and no in	4.95	8,349	2,351	535	11,235	1,000 square feet of gross floor area
936	Coffee/donut shop without drive-through	16.20	27,326	7,695	1,751	36,772	1,000 square feet of gross floor area
937	Coffee/donut shop with drive-through	17.52	29,563	8,325	1,894	39,783	1,000 square feet of gross floor area
938	Coffee/donut kiosk	30.71	51,805	14,588	3,320	69,712	1,000 square feet of gross floor area
939	Bread/Donut/Bagel Shop without Drive-Through W	28.00	47,236	13,301	3,027	63,564	1,000 square feet of gross floor area
940	Bread/Donut/Bagel Shop with Drive-Through Win	18.99	32,036	9,021	2,053	43,110	1,000 square feet of gross floor area
941	Quick Lubrication Vehicle Shop	5.19	8,756	2,465	561	11,782	Servicing Position
942	Automobile Care Center	3.11	5,247	1,477	336	7,060	1,000 sq. ft. of occupied gross leasable area
943	Automobile Parts and Service Center	4.46	7,524	2,119	482	10,125	1,000 square feet of gross floor area
944	Gasoline/service station	4.85	8,190	2,306	525	11,020	Vehicle fueling position
945	Gasoline/service station with convenience market	1.73	2,912	820	187	3,919	Vehicle fueling position
946	Gasoline/service station with convenience market	3.31	5,586	1,573	358	7,516	Vehicle fueling position
947	Self-Service Car Wash	5.54	9,346	2,632	599	12,577	Wash stall
948	Automated Car Wash	14.12	23,820	6,708	1,526	32,054	1,000 square feet of gross floor area
950	Truck Stop	13.63	22,994	6,475	1,473	30,942	1,000 square feet of gross floor area

* No ITE PM peak hour trip generation for this code/category, the trip generation shown is ITE weekday average divided by ten.

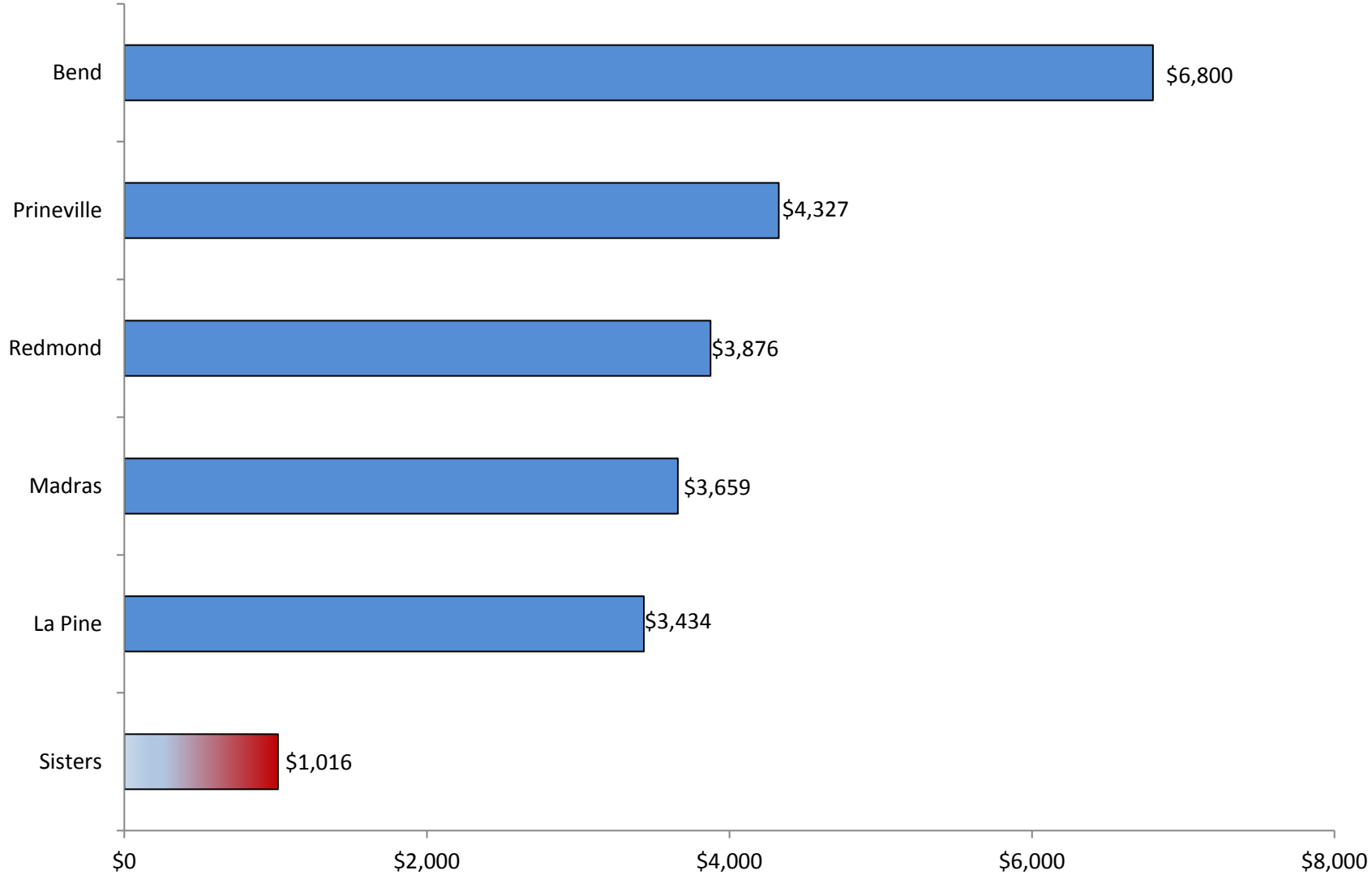
Source: ITE, Trip Generation Manual, 9th edition
PM peak vehicle trips expressed in trip ends on a weekday, peak hour of adjacent street traffic, one hour, between 4:00 pm and 6:00 pm unless otherwise noted

Neighboring Communities' SDCs

Total Single Family Residential SDCs by Component



Single Family Residential SDCs for Streets



Appendix B
PM Peak Hour Vehicle Trip Forecasting Methodology

2019 Transight Engineering, LLC PMPHVT Forecasting Methodology

Date:	July 1, 2019
To:	Paul Bertagna, City of Sisters
From:	Joe Bessman, PE
Project Reference No.:	1237
Project Name:	Transportation System Development Charges Review

The purpose of this memorandum is to provide information on the future weekday p.m. trips for use in the City of Sisters updated calculations of Transportation System Development Charges (TSDC). The City's TSDC has been based on a trip denominator prepared as part of a customized model from the City's previously adopted 2010 Transportation System Plan (TSP). With the recent TSP update in 2018 and resulting project list, the TSDC requires an update to address the City's current transportation needs.

The recent 2018 TSP update reviewed current system needs but did not extend the planning horizon identified within the 2010 TSP, nor did it update any of the older growth projections. The growth projections for the 2010 TSP were prepared in 2006/2007 and were based on pre-recession conditions when the City was anticipating very aggressive continued population and employment growth. At the time, they were expecting the number of total households to grow 132% and total employees to grow 72% between 2007 to 2030. A review of the more recent coordinated population forecasts prepared in 2015 by the Portland State University (PSU) Population Forecast Program indicates that the projected level of growth is unlikely to occur until closer to the year 2040. Figure 1 depicts the comparison between the two population forecasts.

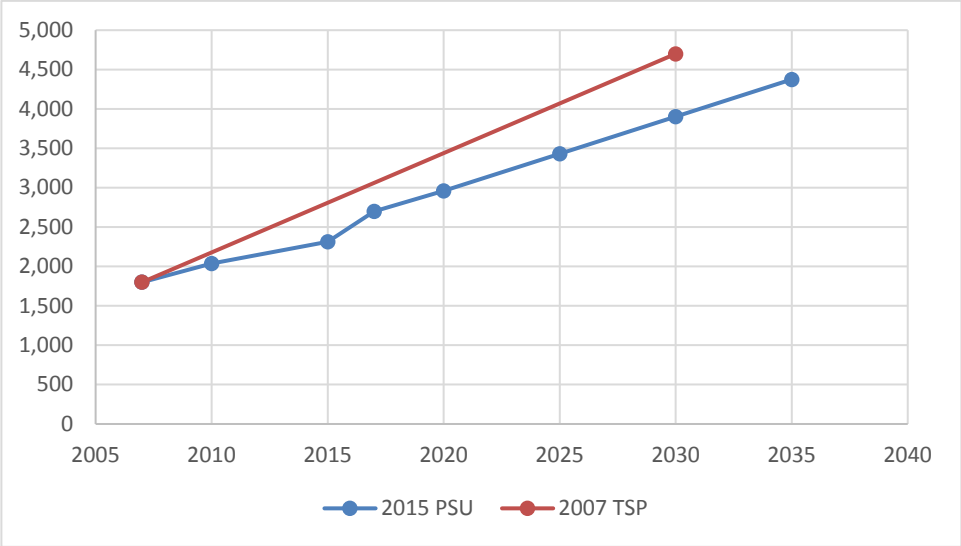


Figure 1. Population Forecast Comparison for the City of Sisters.

As shown in the figure, the TSP is currently planning for growth of 2,900 persons over the 2007 to 2030 timeframe, which is approximately 800 more persons than is currently projected. Additionally, the PSU Coordinated Population projections show the growth rate in Deschutes County positive but declining between 2020 to 2030.

Applying these forecasts, the 2010 TSP identified an increase of 4,470 additional weekday p.m. trips on the City's roadways through the year 2030 planning horizon. In comparing the number of trips to the population this equates to every single member of the population (regardless of age) in the City making over two trips during the weekday p.m. peak hour. As the City's Transportation SDCs are a means of calculating a cost per projected trips, this provides an unreasonably high denominator in the City's TSDC calculation.

Review of the TSP shows that these projections, included within the finance section of the TSP, vary from the growth projections applied to look at system needs. It appears that this could be attributed to inclusion of through highway trips on US 20 or double-counting of each "trip end". However, there was no correlation identified in the TSP between this total estimate of weekday p.m. peak hour trip ends as included in the finance section and the system needs analysis that was prepared using separate model outputs.

To better calibrate the total number of weekday p.m. peak hour trips we coordinated with ODOT's Transportation Planning and Analysis Unit (TPAU) to review general trip trends by population and employment categories. In 2013 ODOT prepared a State-reviewed travel demand model for the City of Prineville that was used as the basis of their Transportation System Plan and Transportation System Development Charge. This travel demand model was calibrated with Central Oregon area census data on demographics and trip characteristics that closely resemble the "per person" rates of the City of Sisters.

Table 1 provides a summary of the City's growth by employment category and what an equivalent "trip per unit" for each employee or person would generate. This shows that Prineville's increase of 4,000 persons (1,647 households) and 1,747 jobs would only generate 2,788 additional weekday p.m. peak hour trips. For comparison, Sisters' projected growth included the addition of 2,900 persons and 1,310 jobs with 4,470 additional p.m. peak hour trips. Effectively, Sisters projections show ¾ of Prineville's growth with 60 percent more trips.

Table 1. Summary of City of Prineville Weekday PM Peak Hour Growth Trips

Growth Type	2010 to 2035 Growth	Weekday PM Peak Hour Trips	Trips per Unit
Aggregated Employment	1,747	1,141	0.65/Emp
Agriculture	*0*	*0*	-
Industrial	*955*	*401*	0.42/Emp
Retail	*317*	*353*	1.11/Emp
Service	*299*	*138*	0.46/Emp
Education	*71*	*138*	1.94/Emp
Government	*0*	*0*	-
Other	*105*	*111*	1.06/Emp
Housing *(+4,000 Persons)*	1,647 *2.43 persons/HH*	1,647	1.00/Household
Additional Weekday PM Trips in Prineville		**+2,788**	

Review of the City's 2019 Employment Lands Development Summary was reviewed to estimate how the projected increase of 1,310 employees would be divided into each of the available employment classifications. Table 2 summarizes how the vacant acres are expected to allocate this overall employment.

Table 2. Summary of City of Sisters Employment Growth by Classification

Employment Subdivision	Developable Acres	Employee Classification	Estimated Employees	Total Employees	Allocated Employees
Mountain View Industrial Park	2.35	Industrial	56	431 35.2%	461
Light Industrial	2.37	Industrial	57		
Sisters Industrial Park	2.03	Industrial	49		
Sun Ranch Industrial Park	9.94	Industrial	239		
Three Sisters Business Park	5.57	Industrial	134		
Downtown Commercial	15.24	Retail	366	654 53.4%	700
Relco Station	2.77	Retail	67		
Three Winds Shopping Center	8.1	Retail	195		
Fivepine	2.59	Service	62	139 11.3%	149
Green Ridge	1.27	Service	31		
New Sisters Village	2.52	Service	61		
Ponderosa Lodge	0.0	Service	0		
West View Business Park	0.0	Service	0		

Industrial FAR of 0.20 assumed with one employee per 450 SF
Retail FAR of 0.23 assumed with one employee per 400 SF
Service FAR of 0.20 assumed with one employee per 400 SF

Applying the same general trip rates that were prepared as part of ODOT's forecast for the City of Prineville updated with the projected change in population and employment provides the revised total weekday p.m. peak hour trip estimates shown in Table 3.

Table 3. Revised City of Sisters Weekday PM Peak Hour Growth Trips[1]

Growth Type	Existing Year 2007 Land Use	Reallocated Year 2030 Land Use	2010 to 2030 Employee Growth	PM Trips per Unit	Added Weekday PM Peak Hour Trips
Aggregated Employment	1,824	3,134	+1,310		
Other/Industrial	755	1,216	461	0.42/Emp	+194
Retail	695	1,395	700	1.11/Emp	+777
Service	375	524	139	0.46/Emp	+68
Housing *(+2,900 Persons)*	920	2,135	1,215 *2.39 persons/HH[2]*	1.00/Household	+1,215
Additional Weekday PM Trips in Sisters					**+2,254**

[1]Transportation System Plan Table 4-1: Land Use Projection within Sisters Urban Growth Boundary
[2]City of Sisters Residential Lands Inventory

This forecast shows that by 2030 the total travel forecasts should be reduced from prior estimates of 4,470 additional weekday p.m. peak hour trips to 2,254[1] weekday p.m. peak hour trips (50%). To remain consistent with the adopted TSP this maintains the population projections prepared as part of the 2006/2007 Transportation System Plan efforts that were retained in the 2018 update. This equates to a trip rate of 0.78 weekday p.m. peak hour trips per additional person, which is still likely to be additively counting both household and employee trips. However, this provides a more reasonable estimate of trips and a methodology that is consistent with other agencies within Central Oregon. As these overall trip estimates were not used as the basis for assessing travel growth or intersection/roadway improvement needs this is expected to only require changes to the finance section of the adopted Transportation System Plan.

Thank you for the opportunity to provide this calibration of the weekday p.m. peak hour growth trip basis. Please let me know if you have any questions or comments on this memorandum at (503) 997-4473 or via email at joe@transightconsulting.com.

Attachments:

- City of Sisters Residential Lands Inventory
- City of Sisters Employment Lands Inventory

[1] Using the Prineville trip calibration data would equate to 2,181 existing (year 2007) weekday PM peak hour trips increasing to 4,435 weekday PM peak hour trips, or a change of 2,254 additional weekday PM peak hour trips.