Tigard, Oregon

TRANSPORTATION SYSTEM DEVELOPMENT CHARGE METHODOLOGY REPORT

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FCS GROUP
Solutions-Oriented Consulting

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SECTION I: BACKGROUND

This section describes the policy context and project scope upon which the body of this report is based.

A. POLICY

Oregon Revised Statutes (ORS) 223.297 to 223.314 authorize local governments to establish system development charges (SDCs). These are one-time fees on new development, and they are paid at the time of development. SDCs are intended to recover a fair share of the cost of existing and planned facilities that provide capacity to serve future growth.

ORS 223.299 defines two types of SDC:

- A reimbursement fee that is designed to recover "costs associated with capital improvements already construct, or under construction when the fee is established, for which the local government determines that capacity exists"
- An improvement fee that is designed to recover "costs associated with capital improvements to be constructed"

ORS 223.304(1) states, in part, that a reimbursement fee must be based on "the value of unused capacity available to future system users or the cost of existing facilities" and must account for prior contributions by existing users and any gifted or grant-funded facilities. The calculation must "promote the objective of future system users contributing no more than an equitable share to the cost of existing facilities." A reimbursement fee may be spent on any capital improvement related to the system for which it is being charged (whether cash-financed or debt-financed) and on the costs of compliance with Oregon's SDC law.

ORS 223.304(2) states, in part, that an improvement fee must be calculated to include only the cost of projected capital improvements needed to increase system capacity for future users. In other words, the cost of planned projects that correct existing deficiencies or do not otherwise increase capacity for future users may not be included in the improvement fee calculation. An improvement fee may be spent only on capital improvements (or portions thereof) that increase the capacity of the system for which it is being charged (whether cash-financed or debt-financed) and on the costs of compliance with Oregon's SDC law.

B. PROJECT

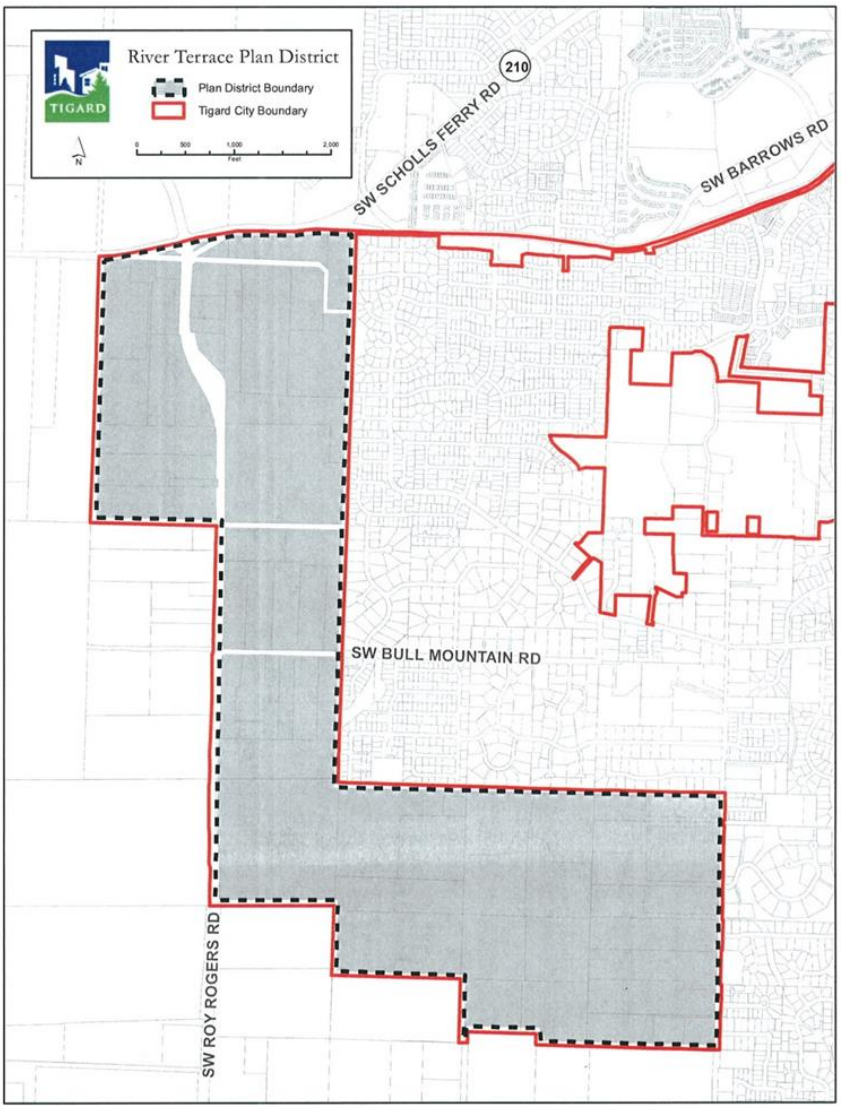
In August 2014, the City of Tigard (City) contracted with FCS GROUP to prepare a new local SDC for transportation facilities that take into account the projects identified in the Tigard Transportation System Plan and the River Terrace TSP Addendum, June 2014. This report documents our findings and recommendations.

We approached this project as a series of three steps:

- **Framework for Charges**. In this step, we worked with City staff to identify the approach to be used and the components to be included in the analysis.
- **Technical Analysis**. In this step, we worked with City staff to isolate the recoverable portion of planned facility costs and calculate draft SDC rates.
- **Draft Methodology Report Preparation**. In this step, we documented the calculation of the draft SDC rates included in this report.

For analysis purposes, the new Tigard Transportation SDC is intended to be consistent with the River Terrace Funding Strategy, adopted by Tigard City Council in December 2014. This Transportation SDC Methodology Report supports the creation of a special SDC overlay district within the River Terrace Plan District boundary (**Exhibit 1.1**). Please refer to City of Tigard Community Development Code: Map 18.660 for tax lots that are included in the River Terrace Plan District. With the adoption of this SDC methodology, future development in Tigard would be subject to a citywide SDC and development within River Terrace would also be subject to the River Terrace SDC overlay fee.

Exhibit 1.1



SECTION II: METHODOLOGY

This section provides a non-numeric overview of the calculations that result in SDC rates.

A. REIMBURSEMENT FEE COST BASIS

The reimbursement fee is the cost of available capacity per unit of growth that such available capacity can serve. In order for a reimbursement fee to be calculated, excess transportation infrastructure capacity must be available to serve future growth. For facility types that have no excess capacity, no reimbursement fee may be charged. This analysis uses the original cost of all SDC or Transportation Development Tax (TDT) infrastructure less the amount currently used as the basis for the reimbursement fee.

B. IMPROVEMENT FEE COST BASIS

The improvement fee is the cost of capacity-increasing capital projects per unit of growth that those projects will serve. Since the capacity added by most projects serves a dual purpose of both meeting existing demand and serving future growth, growth-related costs for each project must be isolated and costs that meet current demand or repair a deficiency must be excluded.

We have used the capacity approach to allocate costs to the improvement fee basis. Under this approach, the cost of a given project is allocated to growth in proportion to the growth-related capacity that projects of a similar type will create. 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 demand.

C. COMPLIANCE FEE COST BASIS

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 assumes that compliance costs are equal to 3% of the SDC improvement fee basis.

D. GROWTH

Growth for SDCs is in units that most directly reflect the source of demand. In the case of transportation, the most applicable unit of growth is trips on the infrastructure. In this methodology we have analyzed growth in terms of average daily person trips (ADPT) and P.M. peak hour vehicle trip ends (PHVT).

E. GEOGRAPHIC ALLOCATION

SDCs are often calculated and applied uniformly throughout a municipality, but such uniformity is not a legal requirement. Municipalities can calculate and impose area-specific SDCs. Area-specific SDCs allow a municipality to identify and isolate differential costs to serve particular areas within its jurisdiction. SDCs are calculated separately for each area, and improvement fees must be spent on projects in the improvement fee cost basis for the area in which those improvement fees were earned.

Area-specific SDCs can be implemented in two ways. The first way is to divide the municipality into a set of non-overlapping areas. Under this method, the SDCs for a particular area are determined by the assets, projects, and projected growth in that area. The second method is a layered approach. The first layer consists of a citywide SDC based on assets and projects of citywide benefit. The second layer consists of one or more overlays. Each overlay is a separate list of assets and projects that benefit a particular area within the city. Development within an overlay pays both the citywide SDC and the overlay SDC. Development outside of any overlay pays only the citywide SDC.

Given the City's desire to isolate the costs of serving certain areas and findings in the River Terrace Funding Strategy adopted by Tigard City Council in December 2014, we recommend (and have calculated in this report) both a citywide SDC and an overlay SDC for River Terrace.

F. SUMMARY

In general, SDC rates are calculated by adding the reimbursement fee component, improvement fee component, and compliance cost component. Each component is calculated by dividing the eligible cost by the growth of units of demand. The unit of demand becomes the basis of the charge. **Exhibit 2.1** shows this calculation in equation format:

Exhibit 2.1: SDC Equation

$$\frac{\text{Eligible costs of available capacity in existing facilities} + \text{Eligible costs of capacity-increasing capital improvements} + \text{Costs of complying with Oregon SDC law}}{\text{Units of growth in demand}} = \text{SDC per unit of growth in demand}$$

Section III of this report provides detailed calculations related to growth in demand, which is the denominator in the SDC equation. **Section IV** of this report provides detailed calculations on eligible costs, which is the numerator in the SDC equation. **Section V** identifies SDC recommendations.

SECTION III: GROWTH CALCULATION

This section provides detailed calculations related to growth in demand, which is the denominator in the SDC equation.

A. RELEVANT TYPES OF GROWTH

Transportation engineers commonly use peak-hour trip or average person trip estimates to assess transportation performance and determine system needs. This transportation SDC methodology utilizes both average daily person trips (ADPT) and P.M. peak hour vehicle trip ends (PHVT) in the calculation of the SDC fee.

ADPTs include vehicle trips on collector and arterial streets and non-motor vehicle trips that utilize bicycle, pedestrian, and transit facilities. The proposed SDC charges provide a PHVT to ADPT conversion factor so that non-residential SDCs can also take into account linked trips for certain types of developments, such as fast food restaurants and fuel stations, which have relatively high rates of linked-trip activity.

B. GROWTH IN TRIP ENDS

Having established relevance of ADPT and PHVT, we now quantify expected growth rates.

B.1 Expected Growth Levels

As mentioned above, this methodology utilizes a citywide SDC with a River Terrace overlay.

Exhibits 3.1 and 3.2 show the growth in person trips (ADPT) and vehicle trips (PHVT) between now and 2035 for River Terrace and the rest of Tigard. The modeled trip growth forecasts result in a factor of approximately 0.047 for converting average daily person trips (ADPT) into peak hour vehicle trips (PHVT). Conversely, for every 21 average daily person trip-ends that originate or terminate in Tigard (including trips by vehicles, bicycle, pedestrian and transit), there is one P.M peak-hour vehicle trip-end expected (PHVT).

B.2 Calculating the Eligible SDC Cost Share

The growth share for any project varies by the project type and the percent of the project that serves future growth. See **Appendix A** for a complete list of projects with the appropriate growth shares. In general, new collector or arterial facilities (including the roadways, bicycle, and pedestrian facilities) that are needed only to serve growth are 100% SDC eligible. Existing roadways and bicycle/pedestrian facilities that are planned for expansion to accommodate growth may only be partially eligible for SDC funding.

The share of existing transportation facilities that are planned for capacity upgrades to serve future growth needs varies by type of project and the rubric to determine future growth share is shown in **Appendix B.**

Exhibit 3.1: Average Daily Person Trip-End (ADPT) Growth

Area	2010	2015	2035	Growth - 2015 to 2035
River Terrace	469	1,083	30,737	29,654
Rest of Tigard	525,451	560,100	733,130	173,030
All Tigard	525,920	561,183	763,867	202,684

Source: Trip growth estimates and forecasts were compiled by DKS Associates using data derived from the Metro Regional Transportation Plan model that's consistent with the River Terrance Community Plan Transportation System Plan Addendum (June 2014).

Exhibit 3.2: Tigard Peak-Hour Vehicle Trip-End (PHVT) Growth

Area	2010	2015	2035	Growth - 2015 to 2035
River Terrace	63	119	1,536	1,417
Rest of Tigard	28,319	30,019	38,341	8,322
All Tigard	28,382	30,379	39,877	9,498

Source: Trip growth estimates and forecasts were compiled by DKS Associates using data derived from the Metro Regional Transportation Plan model that's consistent with the River Terrance Community Plan Transportation System Plan Addendum (June 2014).

SECTION IV: COST CALCULATION

This section provides detailed calculations on eligible costs, which is the numerator in the SDC equation.

A. REIMBURSEMENT FEE

As noted in **Section II**, the reimbursement fee is based on the present value of unused capacity that the City has funded in Tigard. For analysis purposes, we have based the reimbursement SDC cost basis on the actual amount of prior capacity investments the city has made using Transportation Development Tax funds over the past nine fiscal years. The expenditures from previous years have been discounted by the trip growth rate in this report to account for increased use since initial construction. **Exhibit 4.1** summarizes the cost basis for the reimbursement fee. Detailed calculations are included in **Appendix C**.

Exhibit 4.1: Reimbursement Fee Basis Calculation

Reimbursement Fee Calculation	Total
Capital Project Expenditures	$4,955,023
Less Capacity Used Up	$369,470
Reimbursement fee basis	$4,585,553

Source: City of Tigard, compiled by FCS GROUP.

Using the calculated growth in PHVT from the previous section and the reimbursement fee basis, **Exhibit 4.2** shows the calculated reimbursement fee. Note that the reimbursement fee is charged irrespective of the SDC overlay district.

Exhibit 4.2: Reimbursement Fee Calculation

Reimbursement Fee per PMPHT	Total
Cost of SDC/TDT Capital Project Expenditures	$4,585,553
Change in ADPT (2015-2035)	202,684
Reimbursement Fee per ADPT	**$23**
Equivalent Reimbursement Fee per PHVT*	**$483**

Source: Previous tables and Appendix C, compiled by FCS GROUP. *Assumes ADPT to PHVT conversion factor of 21.34

B. IMPROVEMENT FEE

City staff identified a list of project needs for the transportation SDC using several sources:

- The Tigard Transportation System Plan
- The River Terrace Transportation System Plan Addendum
- The Metro's Regional Transportation Plan
- The Tigard's Capital Improvement Plan

In addition, the current Transportation Development Tax Road Project List has been considered to ensure that potential SDC project expenditures are not included on the TDT project list as well.

Exhibit 4.3 shows a summary list of the Tigard transportation project costs. Overall, the City identified a total need of $625 million. For a detailed list of Tigard transportation projects see **Appendix A**.

Exhibit 4.3: Transportation Project Capital Costs, City of Tigard, 2015-2035 (in $1,000s)

Project Location	Arterial	Collector	Bridge	Bike/Ped	TSM*	Total
Citywide	$479,592	$39,000	$15,000	$34,030	$17,500	**$585,122**
River Terrace	$0	$37,850	$0	$1,800	$0	**$40,150**
Total	**$479,592**	**$76,850**	**$15,000**	**$35,830**	**$17,500**	**$625,272**

Source: City of Tigard, compiled by FCS GROUP. * TSM = transportation system management.

B.1 SDC-Eligible Costs

Total SDC-eligible costs are a percentage of total projects. The percent of each individual project is calculated and then summed by infrastructure type. Because there is an overlay districts, each project is categorized as either benefitting the overlay district or the entire city. **Exhibit 4.4** shows a summary table by SDC overlay and type of transportation costs. See **Appendix A** for detailed calculations of SDC-eligible costs.

Exhibit 4.4: Transportation SDC Project Capital Costs, City of Tigard, 2015-2035 (in $1,000s)

Project Location	Arterial	Collector	Bridge	Bike/Ped	TSM*	Total
Citywide	$222,818	$19,669	$5,250	$5,911	$13,882	**$267,530**
River Terrace	$0	$14,623	$0	$0	$0	**$14,623**
Total	**$222,818**	**$34,292**	**$5,250**	**$5,911**	**$13,882**	**$282,153**

Source: City of Tigard, compiled by FCS GROUP. * TSM = transportation system management (e.g., traffic signal synchronization and turning movement/access modifications).

B.2 Adjustment for SDC Fund Balance

There is no existing local transportation SDC in Tigard and therefore no fund balances to consider at this time.

B.3 Improvement Fee Summary by District

Similar to the reimbursement fee cost basis above, we calculate the improvement fee cost basis by district in PHVT using growth estimates from the previous section and the SDC-eligible projects shown above. **Exhibit 4.5** shows the potential improvement fee by district before discounts or adjustments.

Exhibit 4.5: SDC Improvement Fee by District

Improvement Fee Calculations (before discounts)	SDC-Eligible Project Costs	Growth in ADPT	Fee per ADPT	Equivalent Fee per PHVT*	SDC Fee per Single-Family Residence
Citywide base charge	$267,530,222	202,684	$1,320	$28,168	**$15,924**
River Terrace Overlay	$14,622,750	29,654	$493	$10,523	**$5,949**
Total River Terrace SDC	$282,152,972	232,339	$1,813	$38,690	**$21,873**

Source: Previous tables and Appendix, compiled by FCS GROUP. *Assumes ADPT to PHVT conversion factor of 21.34; compiled by FCS Group.

C. COMPLIANCE FEE COST BASIS

For the purpose of this study, we assume the compliance costs equal 3% of the SDC improvement fee.

D. SUMMARY CALCULATED SDCS

Exhibit 4.6 shows the calculated SDC per person trip (ADPT) by each fee basis and by district. Note that this is the maximum defensible SDC that Tigard can charge based on forecasted growth in person-trips.

Exhibit 4.6: Total SDC per ADPT (SDC per person trip before discounts)

Area	Reimbursement Fee per ADPT	Improvement Fee per ADPT	Compliance Fee per ADPT	Total SDC per ADPT	SDC Fee per Dwelling Unit
Citywide	**$23**	**$1,320**	**$40**	**$1,382**	**$16,675**
River Terrace Overlay		$493	$15	$508	$6,127
River Terrace Total	**$23**	**$1,813**	**$54**	**$1,890**	**$22,802**

Source: Previous tables and Appendix, compiled by FCS GROUP.

Exhibit 4.7 expresses the maximum SDC that Tigard can charge in terms of growth in P.M peak-hour vehicle trip-ends (PHVT) by each fee basis and by district. This is also the maximum defensible SDC that Tigard can charge based on vehicle trip growth.

Exhibit 4.7: Equivalent Total SDC per PHVT (before discounts)

Area	Reimbursement Fee	Improvement Fee	Compliance Fee	Total SDC per PHVT	SDC Fee per Dwelling Unit
Citywide	**$483**	**$28,168**	**$845**	**$29,495**	**$16,675**
River Terrace Overlay		$10,523	$316	$10,839	$6,127
River Terrace Total	**$483**	**$38,690**	**$1,161**	**$40,334**	**$22,802**

Source: Previous tables and Appendix, compiled by FCS GROUP. *Assumes ADPT to PHVT conversion factor of 21.34; compiled by FCS Group.

SECTION V: RECOMMENDATIONS

This section provides calculations of the residential and non-residential SDCs and recommended SDCs after accounting for credit and discount policies.

A. TRANSPORTATION SDC CALCULATION

The transportation SDC is based on the number of trips that a change in land use generates. The Institute of Transportation Engineers (ITE) *Trip Generation Manual* contains trip rates based on studies conducted nationwide and provides the base data of unadjusted counts of trips generated by various types of land use.

Unadjusted trip counts mean that certain land use types will have high trip counts including all traffic entering or leaving a location but does not account for traffic that passes by or interrupts a primary trip between origin and destination. Trips that interrupt a primary trip are called linked trips and this SDC methodology recommends removing them from the non-residential calculation because they would occur regardless of development activity.

A.1 Residential SDC Calculation

The proposed SDCs identified in this report include specific recommendations for initial SDCs to be charged based on new single family detached and multifamily/other dwellings added to the City. These types of calculations are relatively simple and take into account the net new dwellings added multiplied by the SDC per dwelling unit. Residential land use types do not entail a linked trip adjustment factor.

SDC rates for specific developments are to be determined using the ITE Trip Generation Handbook in which there are land use categories depicting single family detached (code #210), apartments (code #220), rental townhouses (code #224), and other residential types.

A.2 Non-Residential SDC Calculation

The proposed SDCs identified in this report include specific recommendations for initial SDCs to be charged based on new PHVT added for non-residential development. New non-residential development in Tigard may include land use types with linked trips. The number of new PHVTs generated for non-residential land use should take into account the following formula:

$$\textbf{\textit{ITE Vehicle Trip Rate}} \times (\mathbf{1} - \%\ \textbf{\textit{Linked Trips}}) = \textbf{\textit{Net New PHVT}}$$

The SDC per unit of development is calculated for each type of land use by multiplying the new PHVT for each land use by the SDC per PHVT. It is important to note that the *Trip Generation Manual* may not contain some land use categories or may not include trip rates or number of net new trips generated. For such land use categories without data, the City administrator shall use her/his judgment to calculate the transportation SDC.

B. ANNUAL ADJUSTMENT

Annual adjustment of transportation SDCs as summarized in the City's "Master Fees & Charges Schedule" shall be made with City Council approval. The index to be used for adjusting transportation SDCs will based on the weighted average of the year over year escalation for two measurements: 90 percent multiplied by the Engineering News Record Construction Cost Index for the Seattle Area percent change plus 10 percent multiplied by the Oregon Department of Transportation monthly asphalt price (annualized) percent change.

C. CREDITS AND EXEMPTIONS

The Tigard SDC Procedures Guide will establish local policies for issuing credits and exemptions, annual adjustments, and other administrative procedures.

C.1 Credits

A credit is a reduction in the amount of SDCs paid for a specific development. The Oregon SDC Act requires that credit be allowed for the construction of a "qualified public improvement" which (1) is required as a condition of development approval, (2) is identified in the City's capital improvements program, and (3) 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 particular development project.

The credit for a qualified public improvement may only be applied against an SDC for the same type of improvement (e.g., transportation right of way or improvements provided by a developer can only be used for a credit for towards transportation SDC improvement fee payments), and must 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 particular project up to the amount of the improvement fee. 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 City's SDC Capital Improvements Plan, or provide a share of the cost of an improvement by other means (i.e., partnerships, other City revenues, etc.).

C.1.a Credit Policy

The City will establish the following credit policy for the transportation SDC.

The Tigard credit policy assumes that the City implements a credit policy which applies the Washington County Transportation Development Tax (TDT) credit policy to SDC eligible projects in the city with an exception made for the planned River Terrace Boulevard project. By expanding the creditable portion of River Terrace Boulevard to 50% of the roadway improvement cost, the city would need to fund the difference by increasing its SDC improvement fee.

The City also stipulates that credits provided within the River Terrace district cannot be used in another part of the City. However, citywide SDC credits could be utilized anywhere within the City. This would help ensure that any transportation SDC credits issued in River Terrace will result in continued development investment in River Terrace.

C.2 Exemptions

The City may exempt specific classes of development (i.e., minor additions, etc.) from the requirement to pay SDCs.

D. DISCOUNTS

This Tigard Transportation SDC Methodology Report has documented the maximum defensible SDC that can be established in Tigard (provided earlier in **Exhibits 4.6 and 4.7**).

The City can discount the SDC amount by reducing the portion of growth-required improvements to be funded with SDCs and the City can decide to charge only a percentage (i.e., 50%, 75%, etc.) of the SDC rates required to fund identified growth-related facility costs. The SDC Procedures Manual will specify how discounts should apply to certain developments, such as transit-oriented development. If the City discounts SDCs, revenues will decrease and amounts that must come from other sources, such as general fund contributions, will increase in order for the City to maintain levels of service.

In accordance with the River Terrace Funding Strategy, the City of Tigard desires to establish its Transportation SDC at a level that is below the maximum amount that it can charge. The City's currently policy objective for transportation SDCs is to establish an initial citywide average SDC of $5,000 per dwelling unit; and a River Terrace average SDC of $7,312 per dwelling unit. For SDC analysis purposes, this SDC methodology study analysis assumes that the residential and non-residential SDC rate discounts are equal among the customer groups.

Since the Citywide and River Terrace SDCs would be lower than the maximum SDC the City can justify, additional funding sources would be needed to ensure that all projects contained in the long term capital project list can be funded by year 2035.

E. EXISTING AND PROPOSED SDCS

Exhibit 5.1 summarizes the existing and proposed total Transportation SDCs for the City of Tigard for reimbursement, improvement, and compliance charges after accounting for discounts.

Once this Methodology Report is adopted, Transportation SDCs would vary by location. SDCs within the city (outside River Terrace) would initially be charged $5,714 per single family dwelling, and $3,333 per multifamily/other dwelling, and $2,872 per P.M. peak-hour vehicle trip-end (PHVT) for non-residential uses.

Note that the City Council may decide to defer some of the SDC charges identified in the following tables (for example, the City Council could vote to defer implementation of the SDC reimbursement fees but charge SDC improvement fees).

E.1 SDCs with 50% Credit Policy for River Terrace Boulevard

This scenario assumes that the cost of constructing River Terrace Boulevard is 50% credit eligible for "local street" elements and 100% credit eligible for improvements beyond "local street" elements; and all other transportation facilities would rely upon the current TDT credit policy.[1] The resulting

[1] Please refer to the Tigard Parks and Transportation Systems Development Charge Procedures Manual for additional information.

SDCs within River Terrace would initially be charged $8,356 per single family dwelling, $4,875 per multifamily dwelling, and $2,944 per PHVT for non-residential uses **(Exhibit 5.1**).

Exhibit 5.1: Tigard Transportation SDCs (Option B2)*

Development Type	SDC Current	Citywide Base SDC-r	SDC-i (after discount) [1]		Total SDC (after discount)	
			Citywide	River Terrace Overlay	Citywide Total	River Terrace Total
Residential Development [2]						
Avg. charge per dwelling	n/a	$273	$4,727	$2,312	**$5,000**	**$7,312**
Charge per single family detached dwelling	n/a	$312	$5,402	$2,642	**$5,714**	**$8,356**
Charge per multifamily dwelling	n/a	$182	$3,151	$1,541	**$3,333**	**$4,875**
Non-Residential Development [3]						
Avg. charge per PHVT [4]	n/a	$483	$2,389	$72	**$2,872**	**$2,944**

Notes: This option discounts the non-residential TSDC to be on par with the residential TSDC discounts. It increases the citywide transportation capital funding gap by $19.7 M (from $423 M to $443 M) over 20 years.

* Credit policy assumes River Terrace Blvd. "local" elements are 50% credit eligible and elements beyond local streets are 100% credit eligible; with increase in cost basis being recovered through SDCs and TDTs collected by future River Terrace development. All other facilities would be subject to the current credit policy.

[1] Includes compliance fee.

[2] Variance between single family detached and multifamily dwelling unit charges take into account peak trip adjustment factors derived from the ITE Handbook.

[3] Non-residential SDCs include similar discounts as the residential SDCs and will be based on average charges by PHVT and shall vary by land use type using procedures established in the Tigard SDC Procedures Guide. Adjustments may include reductions for linked-trips.

[4] Average charge per P.M. peak-hour vehicle trip-end (PHVT) is shown before making potential adjustments for linked-trips.

Source: compiled by FCS GROUP based on preceding tables.

APPENDIX

Appendix A – Transportation Capital Project List

Project ID	Road	Road Classification	Description	Project Costs	% City Share	Local Private Funding	ODOT/County Funding	Total City Cost	City Cost After Identified Local Funding	Capacity Related Percent	Growth Percent of Capacity	Total SDC/TDT Eligible Costs	Capacity Related City Cost (TDT)	Capacity Related City Cost (SDC)	TDT % of Eligible Project Costs	SDC % of Eligible Project Costs	Source
River Terrace Benefit																	
Project ID 23A	150th Ave	Collector	Improve 150th Ave. from Bull Mountain Rd. to Beef Bend Rd.	$400,000	24%	$306,000		$94,000	$94,000	50%	50%	$23,500	$0	$23,500	0%	100%	RT TSP Addendum
Project ID 21A	Bull Mountain Rd	Collector	Upgrade to urban standards	$1,200,000	29%	$850,000		$350,000	$350,000	50%	50%	$87,500	$350,000	$0	100%	0%	RT TSP Addendum
Project ID 18	Intersection	Collector	Bull Mountain Rd. / N-S collector intersection or roundabout	$1,500,000	100%			$1,500,000	$1,500,000	100%	100%	$1,500,000	$0	$1,500,000	0%	100%	RT TSP Addendum
Project ID 20	Intersection	Collector	Woodhue St. / 161st Ave. extension intersection or roundabout	$2,000,000	0%	$2,000,000		$0	$0	100%	100%	$0	$0	$0			RT TSP Addendum
Project ID NA 2 1	Intersection	Street	Improvements where new streets meet existing streets - Phase 1	$500,000	100%			$500,000	$0	50%	100%	$0	$0	$0			RT TSP Addendum
Project ID 2	Lorenzo Ln	Collector	Extend Lorenzo Ln. from West UGB to Roy Rodgers Rd.	$2,500,000	5%	$2,380,000		$120,000	$120,000	100%	100%	$120,000	$0	$120,000	0%	100%	RT TSP Addendum
Project ID 3	Lorenzo Ln	Collector	Extend Lorenzo Ln. from Roshak Rd. to Roy Rodgers Rd.	$3,500,000	100%			$3,500,000	$3,500,000	100%	100%	$3,500,000	$0	$3,500,000	0%	100%	RT TSP Addendum
Project ID NA 1 1	River Terrace Trail	Bike/Ped	River Terrace Trail from Roy Rodgers Rd. to 150th Ave.	$1,800,000	100%			$1,800,000	$1,800,000	0%	100%	$0	$0	$0			RT TSP Addendum
Project ID 5A	RT Blvd	Collector	3 lane N-S collector from Scholls Ferry to Lorenzo Ln. extension - Phase 1	$6,030,000	43%	$3,417,000		$2,613,000	$2,613,000	100%	100%	$2,613,000	$653,250	$1,959,750	25%	75%	RT TSP Addendum
Project ID 5B	RT Blvd	Collector	3 lane N-S collector from Scholls Ferry to Lorenzo Ln. extension - Phase 2	$2,970,000	100%			$2,970,000	$2,970,000	100%	100%	$2,970,000	$742,500	$2,227,500	25%	75%	RT TSP Addendum
Project ID 6A	RT Blvd	Collector	3 lane N-S collector from Lorenzo Ln. extension to Bull Mountain Rd. - Phase 1	$4,875,000	48%	$2,550,000		$2,325,000	$2,325,000	100%	100%	$2,325,000	$581,250	$1,743,750	25%	75%	RT TSP Addendum
Project ID 7A	RT Blvd	Collector	3 lane N-S collector from Bull Mountain Rd. to the south City limit - Phase 1	$4,125,000	46%	$2,244,000		$1,881,000	$1,881,000	100%	100%	$1,881,000	$470,250	$1,410,750	25%	75%	RT TSP Addendum
Project ID 7B	RT Blvd	Collector	3 lane N-S collector from south City limit to the south UGB (phase 2)	$6,250,000	46%	$3,400,000		$2,850,000	$2,850,000	100%	100%	$2,850,000	$712,500	$2,137,500	25%	75%	RT TSP Addendum
Project ID 8		Collector	2 lane E-W collector between Roy Rodgers Rd. and N-S collector	$2,500,000	0%	$2,500,000		$0	$0	0%	0%	$0	$0	$0			RT TSP Addendum
Downtown Benefit (included in citywide)																	
Metro Project ID	Ash Ave	Collector	Extend Ash Avenue from Burnham, across the RR, to Commercial Street	$10,000,000	100%			$10,000,000	$10,000,000	50%	100%	$5,000,000	$0	$5,000,000	0%	100%	TSP, RTP, CIP
Tigard Triangle Benefit (included in citywide)																	
Beveland St 70th to 7117 Beveland)	Beveland St	Bike/Ped	Fill 330' Sidewalk Gap	$40,000	100%			$40,000	$40,000	50%	100%	$20,000	$0	$20,000	0%	100%	City staff
Red Rock Creek Greenway	Trail	Bike/Ped	New trail parallel to and south of 99W in triangle	$3,000,000	100%			$3,000,000	$3,000,000	25%	50%	$375,000	$0	$375,000	0%	100%	City staff

Project ID	Road	Road Classification	Description	Project Costs	% City Share	Local Private Funding	ODOT/County Funding	Total City Cost	City Cost After Identified Local Funding	Capacity Related Percent	Growth Percent of Capacity	Total SDC/TDT Eligible Costs	Capacity Related City Cost (TDT)	Capacity Related City Cost (SDC)	TDT % of Eligible Project Costs	SDC % of Eligible Project Costs	Source
Citywide Benefit																	
121st Ave, Whistler to Tippitt	121st Ave	Bike/Ped	Add Sidewalks and Bike Lanes	$3,500,000	100%			$3,500,000	$3,500,000	50%	100%	$1,750,000	$3,500,000	$0	100%	0%	City staff
121st Ave over Summer Creek	121st Ave	Bike/Ped	Pedestrian bridge on west side of road	$50,000	100%			$50,000	$50,000	50%	100%	$25,000	$0	$25,000	0%	100%	City staff
121st Street Widening	121st St	Collector	Walnut Street to North Dakota Street – two lanes with turn lanes where necessary plus bike lanes and sidewalks	$6,000,000	100%			$6,000,000	$6,000,000	50%	100%	$3,000,000	$6,000,000	$0	100%	0%	City staff
Metro Project ID 10755	72nd Ave	Arterial	Widen 72nd Ave. to 5 lanes from Hunziker Rd. to Hwy. 99	$35,000,000	100%			$35,000,000	$35,000,000	80%	100%	$28,000,000	$9,269,598	$18,730,402	33%	67%	TSP, RTP, CIP
Metro Project ID 10756	72nd Ave	Arterial	Widen 72nd Ave. to 5 lanes from Hunziker Rd. to Bonita	$28,166,850	100%			$28,166,850	$28,166,850	80%	100%	$22,533,480	$7,261,185	$15,272,295	32%	68%	TSP, RTP, CIP
Metro Project ID 10757	72nd Ave	Arterial	Widen 72nd Ave. to 5 lanes from Bonita Rd. to Durham Rd.	$15,425,000	100%			$15,425,000	$15,425,000	80%	100%	$12,340,000	$9,269,598	$3,070,402	75%	25%	TSP, RTP, CIP
72nd Avenue	72nd Ave	TSM	Provide Arterial Corridor Management along Corridor #19 (Hwy 217) (Hwy 217) in the Metro TSMO Plan	$1,700,000	100%			$1,700,000	$1,700,000	100%	100%	$1,700,000	$0	$1,700,000	0%	100%	City staff
72nd Avenue	72nd Ave	TSM	Provide Arterial Corridor Management on 72nd Avenue along Corridor #2 (I-5) (I-5) near the Upper Boones Ferry Road Interchange in the Metro TSMO Plan	$1,600,000	100%			$1,600,000	$1,600,000	100%	100%	$1,600,000	$1,368,928	$231,072	86%	14%	City staff
Barrows Road	Barrows Rd	Bike/Ped	Add Sidewalks and bike lanes	$3,000,000	100%			$3,000,000	$3,000,000	50%	100%	$1,500,000	$0	$1,500,000	0%	100%	City staff
Metro Project ID 10752	Bonita Rd	Arterial	Widen Bonita Rd. to 4 lanes from Bangy to Hall Blvd.	$45,000,000	100%			$45,000,000	$45,000,000	80%	90%	$32,400,000	$5,272,615	$27,127,385	16%	84%	TSP, RTP, CIP
Bull Mountain Road (Hwy 99W to Benchview Terr)	Bull Mountain Rd	Collector	Widen to three lanes with bike lanes and sidewalks	$8,000,000	100%			$8,000,000	$8,000,000	50%	100%	$4,000,000	$8,000,000	$0	100%	0%	RT TSP Addendum
Cascade Ave	Cascade Ave	Bike/Ped	Pave northbound bike lane gap	$30,000	100%			$30,000	$30,000	50%	100%	$15,000	$0	$15,000	0%	100%	City staff
Metro Project ID 10759	Dartmouth St	Collector	Widen Dartmouth St. to 4 lanes from 72nd Ave. to 68th Ave.	$5,000,000	100%			$5,000,000	$5,000,000	80%	100%	$4,000,000	$1,853,920	$2,146,080	46%	54%	TSP, RTP
Metro Project ID 10753	Durham Rd	Arterial	Widen Durham Rd. to 5 lanes from Boones Ferry to Hall Blvd.	$20,000,000	100%			$20,000,000	$20,000,000	80%	90%	$14,400,000	$0	$14,400,000	0%	100%	TSP, RTP, CIP
Metro Project ID 10764	Durham Rd	Arterial	Widen Durham Rd. to 5 lanes from Hall Blvd. To Hwy. 99	$25,000,000	100%			$25,000,000	$25,000,000	80%	95%	$19,000,000	$0	$19,000,000	0%	100%	TSP, RTP, CIP
Durham Road	Durham Rd	TSM	Provide Arterial Corridor Management along Corridor #19 (Hwy 217) in the Metro TSMO Plan	$1,500,000	100%			$1,500,000	$1,500,000	100%	95%	$1,425,000	$0	$1,425,000	0%	100%	City staff
Fanno Creek Trail	Fanno Creek Trail	Bike/Ped	Durham Rd to Tualatin River Trail	$1,500,000	100%			$1,500,000	$1,500,000	25%	100%	$375,000	$0	$375,000	0%	100%	City staff
Metro Project ID 10748	Greenburg Rd	Arterial	Widen Greenburg Rd. from Shady Lane to North Dakota	$7,000,000	100%			$7,000,000	$7,000,000	80%	95%	$5,320,000	$6,745,098	$0	100%	0%	"Project Request"
Metro Project ID 10750	Greenburg Rd	Arterial	Widen Greenburg Rd. to 5 lanes from Tideman Ave. to Hwy. 99	$12,000,000	100%			$12,000,000	$12,000,000	80%	100%	$9,600,000	$9,269,598	$330,402	97%	3%	TSP, RTP
Metro Project ID 11220	Hall Blvd	Arterial	Hall Blvd. Improvements from Locust to Durham	$16,000,000	100%			$16,000,000	$16,000,000	50%	100%	$8,000,000	$0	$8,000,000	0%	100%	TSP, RTP, CIP
Hall Blvd / Fanno Creek Bridge	Hall Blvd	Bridge	Replace with wider bridge with sidewalks and bike lanes	$6,000,000	100%			$6,000,000	$6,000,000	50%	100%	$3,000,000	$0	$3,000,000	0%	100%	City staff

Project ID	Road	Road Classification	Description	Project Costs	% City Share	Local Private Funding	ODOT/County Funding	Total City Cost	City Cost After Identified Local Funding	Capacity Related Percent	Growth Percent of Capacity	Total SDC/TDT Eligible Costs	Capacity Related City Cost (TDT)	Capacity Related City Cost (SDC)	TDT % of Eligible Project Costs	SDC % of Eligible Project Costs	Source
Citywide Benefit (continued)																	
Hall Boulevard	Hall Blvd	TSM	Provide Arterial Corridor Management and Transit Signal Priority on Hall Boulevard from Highway 217 to Highway 99W	$3,700,000	100%			$3,700,000	$3,700,000	100%	100%	$3,700,000	$0	$3,700,000	0%	100%	City staff
Hall Boulevard	Hall Blvd	Arterial	Add an eastbound through lane on Hall Blvd. from Pamelad Road to Greenburg Road	$500,000	100%			$500,000	$500,000	100%	95%	$475,000	$0	$475,000	0%	100%	City staff
Hunziker St (72nd to 77th) Sidewalk	Hunziker St	Bike/Ped	Add sidewalk on north side; completes sidewalk from 72nd to Hall	$1,000,000	100%			$1,000,000	$1,000,000	50%	100%	$500,000	$0	$500,000	0%	100%	City staff
Hwy 217 Northbound Aux Lane	Hwy 217	Arterial	Add a northbound through lane under the Hwy 99W overpass to address a capacity pinch point	$20,000,000	0%		$20,000,000	$0	$0	50%	100%	$0	$0	$0			City staff
Metro Project ID 10770	Hwy 99	Arterial	Hwy. 99 intersection improvements from 64th Ave. to Durham Rd.	$50,000,000	100%			$50,000,000	$50,000,000	80%	95%	$38,000,000	$9,860,000	$28,140,000	26%	74%	TSP, RTP
Project ID 13	Intersection	Arterial	Roy Rogers Road / E-W collector traffic signal	$1,000,000	100%			$1,000,000	$1,000,000	100%	100%	$1,000,000	$0	$1,000,000	0%	100%	RT TSP Addendum
Project ID 14	Intersection	Arterial	Roy Rogers Road / Bull Mountain Rd traffic signal	$1,000,000	100%			$1,000,000	$1,000,000	100%	95%	$950,000	$0	$950,000	0%	100%	RT TSP Addendum
Project ID 16	Intersection	Arterial	Scholls Ferry Road / N-S collector traffic signal	$1,000,000	100%			$1,000,000	$1,000,000	100%	100%	$1,000,000	$0	$1,000,000	0%	100%	RT TSP Addendum
Metro Project ID 10769	Intersection	Arterial	Intersection improvements at Hall Blvd. And Tiedman Ave.	$8,000,000	100%			$8,000,000	$8,000,000	25%	80%	$1,600,000	$0	$1,600,000	0%	100%	TSP, RTP
Metro Project ID 11223	Intersection	Arterial	Hall/Hunziker/Scoffins Intersection Realignment	$5,000,000	100%			$5,000,000	$5,000,000	75%	100%	$3,750,000	$3,862,332	$0	100%	0%	TSP, RTP, CIP
Metro Project ID 11224	Intersection	Arterial	Greenburg/Tiedeman/N. Dakota Reconfiguration	$10,000,000	100%			$10,000,000	$10,000,000	50%	80%	$4,000,000	$0	$4,000,000	0%	100%	TSP
Hwy 99W/72nd Ave Intersection	Intersection	Arterial	Turn lanes, aux lanes, sidewalks, bike lanes, crossings; transit improvements	$8,000,000	100%			$8,000,000	$8,000,000	80%	100%	$6,400,000	$772,466	$5,627,534	12%	88%	City staff
Highway 217 SB / Hall Blvd Interchange Improvements	Intersection	Arterial	SB right-turn lane at Hall Blvd/OR 217 ramp	$5,000,000	100%			$5,000,000	$5,000,000	25%	100%	$1,250,000	$0	$1,250,000	0%	100%	City staff
Hwy 99W/68th Ave	Intersection	Arterial	Intersection Improvements. Provide protected left at 68th; transit queue bypass	$4,000,000	100%			$4,000,000	$4,000,000	80%	100%	$3,200,000	$2,394,646	$805,354	75%	25%	City staff
Hall Blvd / Pfaffle St Traffic Signal	Intersection	TSM	Install new traffic signal; maintain existing lane configuration	$1,000,000	100%			$1,000,000	$1,000,000	100%	100%	$1,000,000	$1,000,000	$0	100%	0%	City staff
68th/Atlanta/Haines	Intersection	TSM	Install a traffic signal and add turn lanes where necessary	$500,000	100%			$500,000	$500,000	100%	100%	$500,000	$173,805	$326,195	35%	65%	City staff
I-5 / Upper Boones / Carman Interchange	Intersection	Arterial	Add turn lanes and/or auxiliary through lanes, sidewalks, etc	$10,000,000	100%			$10,000,000	$10,000,000	80%	90%	$7,200,000	$0	$7,200,000	0%	100%	City staff
Scholls Ferry / Nimbus Intersection Improvements	Intersection	Arterial	Retain eastbound right-turn lane when 3rd lane added on Scholls Ferry Rd; Retain westbound right-turn lane when 3rd lane added on Scholls Ferry Rd; southbound right-turn lane; Reconfigure northbound and southbound lanes to create exclusive left-turn lanes	$6,000,000	20%		$4,800,000	$1,200,000	$1,200,000	100%	100%	$1,200,000	$1,200,000	$0	100%	0%	City staff
Scholls Ferry Rd / North Dakota St / 125th Ave	Intersection	Arterial	Intersection Improvement	$1,500,000	100%			$1,500,000	$1,500,000	80%	100%	$1,200,000	$0	$1,200,000	0%	100%	City staff

Project ID	Road	Road Classification	Description	Project Costs	% City Share	Local Private Funding	ODOT/County Funding	Total City Cost	City Cost After Identified Local Funding	Capacity Related Percent	Growth Percent of Capacity	Total SDC/TDT Eligible Costs	Capacity Related City Cost (TDT)	Capacity Related City Cost (SDC)	TDT % of Eligible Project Costs	SDC % of Eligible Project Costs	Source
Citywide Benefit (continued)																	
72nd/Upper Boones Ferry (Carman)	Intersection	Arterial	Intersection Improvement	$1,000,000	100%			$1,000,000	$1,000,000	100%	100%	$1,000,000	$1,000,000	$0	100%	0%	City staff
Bonita / Sequoia Intersection	Intersection	TSM	Traffic Signal	$1,000,000	100%			$1,000,000	$1,000,000	80%	100%	$800,000	$1,000,000	$0	100%	0%	City staff
Tiedeman Street/Tigard Street	Intersection	Collector	Install a traffic signal; construct left-turn lanes, sidewalk, and bike lanes	$1,000,000	100%			$1,000,000	$1,000,000	100%	100%	$1,000,000	$0	$1,000,000	0%	100%	City staff
121st/ North Dakota	Intersection	Bike/Ped	Traffic signal	$500,000	100%			$500,000	$500,000	100%	100%	$500,000	$231,740	$268,260	46%	54%	City staff
McDonald/Hall RT Lane	Hall Blvd	Collector	Add turn lanes and auxiliary lanes with bike lanes nd sidewalks on Hall, McDonald, and Bonita to improve traffic flow	$9,000,000	100%			$9,000,000	$9,000,000	90%	90%	$7,290,000	$766,702	$6,523,298	11%	89%	City staff
Durham/Upper Boones	Intersection	Bike/Ped	Sidewalk on NW Corner, Curb Ramp	$40,000	100%			$40,000	$40,000	50%	100%	$20,000	$0	$20,000	0%	100%	City staff
Greenburg Rd / Shady Ln	Intersection	Bike/Ped	Pedestrian Islands to facilitate crossing Shady Ln on east side of Greenburg	$30,000	100%			$30,000	$30,000	50%	100%	$15,000	$0	$15,000	0%	100%	City staff
Bonita Rd near 79th Ave	Intersection	Bike/Ped	Enhanced Ped Crossing - RRFB?	$20,000	100%			$20,000	$20,000	25%	100%	$5,000	$0	$5,000	0%	100%	City staff
Greenburg Rd	Intersection	Bike/Ped	Enhanced Crossing between Tiedeman and Center St - at 95th?	$20,000	100%			$20,000	$20,000	25%	100%	$5,000	$0	$5,000	0%	100%	City staff
Hwy 217 SB Ramps/Highway 99W	Intersection	Arterial	Intersection Capacity Improvements including 2nd right turn lane from off ramp	$2,500,000	100%			$2,500,000	$2,500,000	100%	100%	$2,500,000	$0	$2,500,000	0%	100%	City staff
Hwy 217 NB Ramps/Highway 99W	Intersection	Arterial	Add a second northbound left turn lane	$1,500,000	100%			$1,500,000	$1,500,000	100%	100%	$1,500,000	$0	$1,500,000	0%	100%	City staff
Metro Project ID 11217	McDonald Rd	Arterial	Mcdonald Rd. improvements from Hall Bvld. To Hwy. 99	$8,000,000	100%			$8,000,000	$8,000,000	50%	50%	$2,000,000	$0	$2,000,000	0%	100%	TSP, RTP, CIP
McDonald St	McDonald Rd	Bike/Ped	Enhanced Crossing between Hall and Hwy 99W - at O'Mara? 97th?	$30,000	100%			$30,000	$30,000	25%	50%	$3,750	$0	$3,750	0%	100%	City staff
Project ID 22A	Roy Rodgers Rd	Arterial	Widen Roy Rogers Rd. to 5 Ln. from N of Scholls Ferry Rd. to S. of Beef Bend Rd. , Phase 1 (half-treet segments)	$4,000,000	100%			$4,000,000	$4,000,000	100%	100%	$4,000,000	$3,000,000	$1,000,000	75%	25%	RT TSP Addendum
Project ID 22B	Roy Rodgers Rd	Arterial	Widen Roy Rogers Rd. to 5 Ln. from N of Scholls Ferry Rd. to S. of Beef Bend Rd. , Phase 2 (half-treet segments)	$4,000,000	100%			$4,000,000	$4,000,000	100%	100%	$4,000,000	$3,000,000	$1,000,000	75%	25%	RT TSP Addendum
Scholls Ferry Rd Widening, Hwy 217 to 121st	Scholls Ferry Rd	Arterial	Widen to 7 lanes with bike lanes and sidewalks	$50,000,000	75%		$12,500,000	$37,500,000	$37,500,000	100%	100%	$37,500,000	$18,745,186	$18,754,814	50%	50%	City staff
Scholls Ferry Rd	Scholls Ferry Rd	TSM	Provide Arterial Corridor Management from River Road to Hall Boulevard	$4,200,000	100%			$4,200,000	$4,200,000	100%	100%	$4,200,000	$0	$4,200,000	0%	100%	City staff
Tiedeman Ave	Tiedeman Ave	Bike/Ped	Sidewalks from Tigard St to Greenburg Rd	$1,000,000	100%			$1,000,000	$1,000,000	50%	50%	$250,000	$0	$250,000	0%	100%	City staff
Tigard St (Fanno Creek) Bridge Replacement	Tigard St	Bridge	New bridge with bike lanes and sidewalks	$3,000,000	100%			$3,000,000	$3,000,000	50%	50%	$750,000	$0	$750,000	0%	100%	City staff
Metro Project ID 11227	Trail	Bike/Ped	Neighborhood Trails & Regional Trail Connections	$1,100,000	100%			$1,100,000	$1,100,000	25%	50%	$137,500	$0	$137,500	0%	100%	TSP, RTP

Project ID	Road	Road Classification	Description	Project Costs	% City Share	Local Private Funding	ODOT/County Funding	Total City Cost	City Cost After Identified Local Funding	Capacity Related Percent	Growth Percent of Capacity	Total SDC/TDT Eligible Costs	Capacity Related City Cost (TDT)	Capacity Related City Cost (SDC)	TDT % of Eligible Project Costs	SDC % of Eligible Project Costs	Source
Citywide Benefit (continued)																	
Metro Project ID 11228	Trail	Bike/Ped	Portland & Western Rail Trail from Tideman Ave. to Main St.	$1,250,000	100%			$1,250,000	$1,250,000	25%	50%	$156,250	$0	$156,250	0%	100%	TSP, RTP
Tualatin River Trail	Trail	Bike/Ped	Complete multiuse path from Cook Park to the Powerlines Corridor	$10,000,000	100%			$10,000,000	$10,000,000	25%	50%	$1,250,000	$0	$1,250,000	0%	100%	City staff
Fanno Creek Trail	Trail	Bike/Ped	Woodard Park to Grant	$670,000	100%			$670,000	$670,000	25%	50%	$83,750	$670,000	$0	100%	0%	City staff
Fanno Creek Trail	Trail	Bike/Ped	Tiedeman Crossing Realignment	$250,000	100%			$250,000	$250,000	25%	50%	$31,250	$0	$31,250	0%	100%	City staff
Fanno Creek Trail	Trail	Bike/Ped	Complete gaps along the Fanno Creek multiuse path from the Tualatin River to City Hall and from Highway 99W to Tigard Street	$6,000,000	100%			$6,000,000	$6,000,000	25%	50%	$750,000	$0	$750,000	0%	100%	City staff
Upper Boones (Durham to Sequoia)	Upper Boones	Arterial	Widen to five lanes with bike lanes and sidewalks	$10,000,000	100%			$10,000,000	$10,000,000	90%	90%	$8,100,000	$4,106,784	$3,993,216	51%	49%	City staff
Upper Boones Ferry Road	Upper Boones Ferry Rd	TSM	Provide Arterial Corridor Management along Corridor #2 (I-5) in the Metro TSMO Plan	$1,300,000	100%			$1,300,000	$1,300,000	100%	100%	$1,300,000	$0	$1,300,000	0%	100%	City staff
Metro Project ID 11229	Walnut St	Arterial	Widen Walnut St. to 3 lanes from Hwy. 99 to Tiedeman Ave	$8,000,000	100%			$8,000,000	$8,000,000	40%	100%	$3,200,000	$4,325,812	$0	100%	0%	TSP, RTP, CIP
Metro Project ID 10751		Arterial	Hwy. 217 overcrossing Hunziker-72nd Ave.	$30,000,000	100%			$30,000,000	$30,000,000	80%	100%	$24,000,000	$0	$24,000,000	0%	100%	TSP
Hwy 99W/Dartmouth St.		Arterial	Turn lanes, aux lanes, sidewalks, bike lanes, crossings; transit improvements	$6,000,000	100%			$6,000,000	$6,000,000	100%	100%	$6,000,000	$308,987	$5,691,013	5%	95%	City staff
Greenburg Rd. (Hwy 217 to Hall Blvd)		Arterial	Widen to 5 lanes from Locust St to Greenburg Rd; add turn/aux lanes; add bike lanes and sidewalks throughout corridor	$20,000,000	20%		$16,000,000	$4,000,000	$4,000,000	80%	100%	$3,200,000	$0	$3,200,000	0%	100%	City staff
108th Street Crossing of Tualatin River		Bridge	New bridge crossing north-south over the Tualatin River near 108th Avenue	$3,000,000	100%			$3,000,000	$3,000,000	50%	50%	$750,000	$0	$750,000	0%	100%	City staff
North Dakota St / Fanno Creek		Bridge	Replace with wider bridge with sidewalks and bike lanes	$3,000,000	100%			$3,000,000	$3,000,000	50%	50%	$750,000	$0	$750,000	0%	100%	City staff
Dirksen - 121st Ave Trail	Trail	Bike/Ped	New trail along Summer Creek from Dirksen Nature Park to 121st Ave	$1,000,000	100%			$1,000,000	$1,000,000	25%	50%	$125,000	$0	$125,000	0%	100%	City staff
Washington Square Area Signals		TSM	Adaptive Signal Coordination	$1,000,000	100%			$1,000,000	$1,000,000	100%	100%	$1,000,000	$0	$1,000,000	0%	100%	City staff
Totals				$625,271,850		$19,647,000	$53,300,000	$552,324,850	$551,824,850			$392,345,980	$127,738,750	$277,069,222			

Notes:
1. Project ID's are consistent with existing local or regional transportation plan project listings.
2. All projects listed are assumed to be completed by year 2035.
3. All widening and newly constructed road projects will include bikelanes and sidewalks, even if not called out specifically.
4. Capacity related portions of projects are consistent with parameters shown in Appendix B.
5. Growth shares are estimated by City staff using Metro 2035 travel demand model, comparing 2010 to 2035 volume/capacity ratios.

Appendix B – Capacity Share Assumptions

Improvement Type	Proportion of Project related to capacity
New travel lanes added	100%
Turn lanes or new traffic signals	100%
New interconnected traffic signals	100%
Road upgrades (widen from 3 to 5 lanes)	80%
Road upgrades (change from local to collector standard)	75%
Traffic signal upgrades	75%
Road upgrades (widening & adding double left turn lanes)	50%
Road upgrades (widening with new bike/pedestrian facilities)	50%
Road upgrades (widening from 2 to 3 lanes)	40%
Access management & center turn lanes	25%
Roadway realignment	25%

***Source**: consistent with Washington County methodology per Appendix C, Amended TDT Road Project List, Jan. 2014*

Appendix C – Reimbursement Fee Calculation

Transportation Capital Project Expenditures

Reimbursement Fee Calculation	FY 2005-06	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	Reim-bursement Fee Basis
Tigard Traffic Impact Fee Fund	$408,826	$460,540	$1,283,017	$611,167	$953,489	$0	$0	$0	$359,140	
Urban Services Traffic Impact Fee Fund	$450	$2,554								
Tigard Transportation Development Tax Fund					$0	$0	$0	$0	$875,840	
Total	$409,276	$463,094	$1,283,017	$611,167	$953,489	$0	$0	$0	$1,234,980	
Discount Factor (trip growth rate)	12.98%	11.46%	9.96%	8.48%	7.01%	5.57%	4.15%	2.75%	1.37%	
Net Present Value of Capacity Investment	$356,155	$410,034	$1,155,273	$559,366	$886,604	$0	$0	$0	$1,218,120	**$4,585,553**

Source: City of Tigard, compiled by FCS GROUP.

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