



Methodology Report
Park System Development Charges

Prepared for CITY OF MILLERSBURG | June 7, 2021



Table of Contents

INTRODUCTION	1
SDC Legislation in Oregon	1
SDC Structure	1
Credits	2
Update and Review	2
Other Provisions	2
PARK SDC METHODOLOGY	4
Determine Capacity Needs	4
Develop Cost Basis	5
Reimbursement Fee	5
Improvement Fee	5
Develop Unit Costs	7
Compliance Costs	7
SDC Schedule	8
Inflationary Adjustments	9
APPENDIX A – PARKS RESIDENTIAL EQUIVALENCY	A-1

Tables

PARK SDC POPULATION AND EMPLOYMENT DATA	4
PARK SDC EQUIVALENT POPULATION ALLOCATION	4
PARK SDC REIMBURSEMENT FEE COST BASIS	5
PARK SDC PROJECT LIST.....	6
PARK SDC UNIT COST CALCULATION	7
PARK SDC COMPLIANCE COSTS	8
PARKS SDC SCHEDULE	8

Introduction

Oregon legislation establishes guidelines for the calculation of system development charges (SDCs). Within these guidelines, local governments have latitude in selecting technical approaches and establishing policies related to the development and administration of SDCs. A discussion of this legislation follows.

SDC Legislation in Oregon

In the 1989 Oregon state legislative session, a bill was passed that created a uniform framework for the imposition of SDCs statewide. This legislation (Oregon Revised Statute [ORS] 223.297-223.314), which became effective on July 1, 1991, (with subsequent amendments), authorizes local governments to assess SDCs for the following types of capital improvements:

- Drainage and flood control
- Water supply, treatment, and distribution
- Wastewater collection, transmission, treatment, and disposal
- Transportation
- Parks and recreation

The legislation provides guidelines on the calculation and modification of SDCs, accounting requirements to track SDC revenues and expenditures, and the adoption of administrative review procedures.

SDC Structure

SDCs can be developed around two concepts: (1) a reimbursement fee, and (2) an improvement fee, or a combination of the two. The **reimbursement fee** is based on the costs of capital improvements *already constructed or under construction*. The legislation requires the reimbursement fee to be established or modified by an ordinance or resolution setting forth the methodology used to calculate the charge. This methodology must consider the cost of existing facilities, prior contributions by existing users, gifts or grants from federal or state government or private persons, the value of unused capacity available for future system users, rate-making principles employed to finance the capital improvements, and other relevant factors. The objective of the methodology must be that future system users contribute no more than an equitable share of the capital costs of *existing* facilities. Use of reimbursement fee revenues are restricted only to capital expenditures for the specific system which they are assessed, including debt service.

The methodology for establishing or modifying an **improvement fee** must be specified in an ordinance or resolution that demonstrates consideration of the *projected costs of capital improvements identified in an adopted plan and list*, that are needed to increase capacity in the system to meet the demands of new or expanded development. Use of revenues generated through improvement fees are dedicated to capacity-increasing capital improvements or the repayment of debt on such improvements. An increase in capacity is established if an

improvement increases the level of service provided by existing facilities or provides new facilities.

In many systems, growth needs will be met through a combination of existing available capacity and future capacity-enhancing improvements. Therefore, the law provides for a **combined fee** (reimbursement plus improvement component).

Credits

The legislation requires that a credit be provided against the improvement fee for the construction of “qualified public improvements” by a developer or other private party. Qualified public improvements are improvements that are required as a condition of development approval, identified in the system’s capital improvement program, and either (1) not located on or contiguous to the property being developed, or (2) located in whole or in part, on or contiguous to, property that is the subject of development approval and required to be built larger or with greater capacity than is necessary for the particular development project to which the improvement fee is related.

Update and Review

The methodology for establishing or modifying improvement or reimbursement fees shall be available for public inspection. The local government must maintain a list of persons who have made a written request for notification prior to the adoption or amendment of such fees. The legislation includes provisions regarding notification of hearings and filing for reviews. “Periodic application of an adopted specific cost index or... modification to any of the factors related to the rate that are incorporated in the established methodology” are not considered “modifications” to the SDC methodology. As such, the local government is not required to adhere to the notification provisions under these circumstances. The criteria for making adjustments to the SDC rate, which do not constitute a change in the methodology, are further defined as follows:

- “Factors related to the rate” are limited to changes to costs in materials, labor, or real property as applied to projects in the required project list.
- The cost index must consider average change in costs in materials, labor, or real property and must be an index published for purposes other than SDC rate setting.

The notification requirements for changes to the fees that *do* represent a modification to the methodology are 90-day written notice prior to first public hearing, with the SDC methodology available for review 60 days prior to public hearing.

Other Provisions

Other provisions of the legislation require:

- Preparation of a capital improvement program or comparable plan (prior to the establishment of an SDC), that includes a list of the improvements that the jurisdiction intends to fund in whole or in part with SDC revenues and the estimated timing, cost, and eligible portion of each improvement.

- Deposit of SDC revenues into dedicated accounts and annual accounting of revenues and expenditures, including a list of the amount spent on each project funded, in whole or in part, by SDC revenues.
- Creation of an administrative appeals procedure, in accordance with the legislation, whereby a citizen or other interested party may challenge an expenditure of SDC revenues.

The parks SDC methodology presented in this report has been prepared in accordance with Oregon SDC requirements.

Note: The calculations contained in this report were produced using numbers that extend beyond the decimal places shown in the tables presented, so slight variations exist due to rounding. These variations are not material.

Park SDC Methodology

The methodology used to calculate parks SDCs begins with determination of the “cost basis” (the costs in aggregate associated with meeting the capacity needs of growth). Then, growth costs are divided by the projected growth units (population and employees) to determine the system-wide unit costs of capacity. Finally, the SDC schedule is developed which identifies how the system-wide costs will be assessed to individual development types.

Determine Capacity Needs

Park capacity is measured in terms of people served – resident population and nonresident employees. **Table 1** provides population and employment data derived from the United States (U.S.) Census Bureau and other sources.

Table 1

City of Millersburg Parks SDC Analysis
Park SDC Population and Employment Data

Year	Population ¹	Employment ²	Equivalent Population
Current	2,850	2,050	3,418
2040	5,436	3,927	6,524
Future Growth	2,586	1,877	3,106
<i>% Of 2040</i>			<i>47.6%</i>

¹Source: Certified Population Forecast Portland State University.

²Current from U.S. Census 2018 “On the Map” Inflow Outflow analysis.

Future from Albany Area MPO Regional Transportation Plan (2018 - 2040).

The concept of *equivalent population* is used to recognize different utilization levels of parks by the general population (to estimate residential development needs) and employees (to estimate nonresidential development needs). Employees are assumed to have an equivalency factor significantly less than residents, owing to the limited number of hours available outside of work for park use. Equivalent population assumptions are shown in **Table 2** based on more detailed calculation shown in Appendix A.

Table 2

City of Millersburg Parks SDC Analysis
Park SDC Equivalent Population Allocation

	Growth Units	Equivalency Factors ¹	Residential Equivalents ²	% Total
Population	2,586	1.00	2,586	83.3%
Employment	1,877	0.28	520	16.7%
Total	4,463		3,106	100%

¹ Based on hours available for park use and portion of workers from outside the city (Appendix A).

² Growth units X equivalency factor.

Develop Cost Basis

The parks SDC methodology is based on a combined reimbursement and improvement fee. The **reimbursement fee** is based on the costs of capital improvements *already constructed or under construction*. The **improvement fee** is based on the *projected* costs of capital improvements identified in an adopted plan and list, that are needed to increase capacity in the system to meet the demands of new or expanded development.

Reimbursement Fee

The reimbursement fee is based on the costs of park improvements and amenities included in the City’s historical bid tabs. The original construction costs have been brought forward to 2020 dollars based on the Engineering News Record (ENR) construction cost index. The improvements shown in **Table 3** were constructed at City Park which is a community-wide park that has capacity to serve both existing and future development. The reimbursement fee cost basis includes 47.6 percent of City Park improvements and amenities, based on new development’s share of projected future equivalent population, from Table 1.

Table 3
City of Millersburg Parks SDC Analysis
Park SDC Reimbursement Fee Cost Basis

	Replacement	Reimbursement	
	Cost	%	\$
City Park			
Landscape	\$81,513	47.6%	\$38,808
Additional rock	\$70,897	47.6%	\$33,753
Park Improvements	\$140,036	47.6%	\$66,670
Park shelter	\$248,207	47.6%	\$118,170
Jogging path improvements	\$120,257	47.6%	\$57,253
Total	\$660,909		\$314,655

Source: City of Millersburg Bid Tabs
April 2020 ENR = 11991

As shown in **Table 3**, the reimbursement cost basis is \$314,655.

Improvement Fee

Table 4 (next page) provides the parks SDC Project List and improvement fee cost basis. The Project List includes improvements to existing parks, new park acquisition, and additional facilities. The majority of the planned improvements will benefit both existing and future development through enhanced levels of service of park and recreation facilities. Therefore, the costs for most improvements are all allocated between existing and future development in proportion to each group’s share of the total future equivalent population (47.6 percent for growth).

CITY OF MILLERSBURG | Park System Development Charges

Table 4

City of Millersburg Parks SDC Analysis
Parks SDC Analysis
Park SDC Project List

Name	Timing	Total Cost	Future Growth %	Future Growth \$
City Park				
Additional paved access pathways (playground & picnic tables)	2021	\$25,000	47.6%	\$11,902
Replace benches with ADA compliant models	2021	\$10,000	47.6%	\$4,761
Tree replacement/planting & landscape enhancements	2021	\$35,000	0.0%	\$0
North ballfield renovation (regrading & drainage improvements)	2023	\$50,000	47.6%	\$23,805
South ballfield infield mix	2023	\$15,000	47.6%	\$7,141
Playground ramp	2020	\$1,500	47.6%	\$714
Play safety surface refills (engineered wood chips)	2020	\$4,500	47.6%	\$2,142
Volleyball sand (refill)	2022	\$2,000	47.6%	\$952
Tennis court resurfacing	2021	\$30,000	47.6%	\$14,283
Tennis court landscape renovation	2022	\$20,000	0.0%	\$0
Picnic shelter	2025	\$45,000	47.6%	\$21,424
Basketball court & parking lot striping	2023	\$8,000	47.6%	\$3,809
Beyond 5 years				
Pickleball court installation	5+	\$60,000	47.6%	\$28,566
Property acquisition for expansion of City Park (east)	5+	\$450,000	47.6%	\$214,242
Reconfigure park layout to accommodate 2 baseball fields and a soccer field, and additional parking	5+	\$1,250,000	47.6%	\$595,117
City Park Subtotal		\$2,006,000		\$928,859
Acorn Park				
Paved pathways (universal access to all amenities)	2022	\$15,000	47.6%	\$7,141
Playground upgrades	2022	\$20,000	47.6%	\$9,522
Play safety surface refills (engineered wood chips)	2021	\$4,500	47.6%	\$2,142
Accessible benches & picnic tables	2022	\$10,000	47.6%	\$4,761
Picnic shelter (small)	2023	\$25,000	47.6%	\$11,902
Picnic table pads	2022	\$3,000	47.6%	\$1,428
Acorn Park Subtotal		\$77,500		\$36,897
Neighborhood Park Site				
New park acquisition	2021	\$750,000	51.7%	\$387,676
New park acquisition	2024	\$400,000	51.7%	\$206,761
Neighborhood park master plan & development	2026-30	\$750,000	51.7%	\$387,676
Neighborhood Park Site Subtotal		\$1,900,000		\$982,113
Future Sites				
Sports fields and parking in property behind City Hall	5+	\$1,500,000	47.6%	\$714,140
Splash pad installation	5+	\$350,000	47.6%	\$166,633
Future Sites Subtotal		\$1,850,000		\$880,773
Trails/Multi-Use Paths				
Nature Trails	5+	\$300,000	47.6%	\$142,828
Multi-use path between Park and City Hall	5+	\$350,000	47.6%	\$166,633
Multi-use path south of Conser	5+	\$850,000	47.6%	\$404,680
Trails/Multi-Use Paths Subtotal		\$1,500,000		\$714,140
Total		\$7,333,500		\$3,542,782

Source: Parks System Master Plan (April 2020).

In the case of new park acquisition and development, growth is allocated a slightly higher share of costs (51.7 percent) as the existing 0.6 acres associated with Acorn Park is credited against existing development's future capacity needs. Renovation improvements that do not enhance park capacity are excluded from the improvement fee cost basis (e.g., some landscape improvements).

As shown in Table 4, the total improvement fee cost basis is about \$3.5 million

Develop Unit Costs

To determine the SDC schedule, the system-wide unit costs of capacity are first determined, as shown in **Table 5**. The unit cost calculations begin with allocation of the cost basis between residential and nonresidential development based on each group’s share of future equivalent population. As shown in Tables 1 and 2, total growth in equivalent population is estimated to be 3,106, including 2,586 new residents (83.3 percent) and 520 nonresidential equivalents (16.7 percent). Based on these allocations, residential development is responsible for almost \$3.2 million in project costs, and nonresidential is allocated \$645,841.

Table 5
City of Millersburg Parks SDC Analysis
Park SDC Unit Cost Calculation

	Capital	Growth Compliance	Costs	Growth Res/Emp	\$/Unit
Improvement Fee					
Growth Costs					
Residential	\$2,949,624		\$2,949,624	2,586	\$1,141
Nonresidential	\$593,159		\$593,159	1,877	\$316
Total	\$3,542,782	\$0	\$3,542,782		
Reimbursement Fee					
Growth Costs					
Residential	\$261,973	\$0	\$261,973	2,586	\$101
Nonresidential	\$52,682		\$52,682	1,877	\$28
Total	\$314,655	\$0	\$314,655		
Total					
Growth Costs					
Residential	\$3,211,597	\$0	\$3,211,597	2,586	\$1,242
Nonresidential	\$645,841	\$0	\$645,841	1,877	\$344
Total	\$3,857,437	\$0	\$3,857,437		

The growth capacity units for both residential and nonresidential developments are people; in the case of residential it is total growth in population, and in the case of nonresidential the unit of measure is employment. The growth in population and employment during the 20-year planning period is estimated to be 2,586 and 1,877, respectively. Dividing the residential cost by the total growth in population yields a unit cost per person of \$1,242. Similarly, the unit cost for nonresidential is determined to be \$344 per employee.

Compliance Costs

Compliance costs generally include costs associated with developing the SDC methodology and project list (i.e., a portion of parks planning costs). **Table 6** shows the calculation of the compliance charge per person. SDC methodology updates and annual accounting costs are 100 percent related to new growth, while the parks planning costs are allocated in proportion to equivalent population. Total compliance costs are estimated to be \$115,000 during the

planning period. As with improvement costs, annual compliance costs are allocated to residential and nonresidential in proportion to the equivalent population.

Table 6
City of Millersburg Parks SDC Analysis
Park SDC Compliance Costs

	Total	Amortize	Annual \$	Growth %	Growth \$
Parks Plan Update	\$100,000	10	\$10,000	48%	\$4,761
SDC Methodology Updates	\$14,000	10	\$1,400	100%	\$1,400
Annual Accounting, Reporting	\$1,000	1	\$1,000	100%	\$1,000
Total	\$115,000		Total		\$7,161
Residential Share					\$5,962
Nonresidential Share					\$1,199
Annual Growth					
Residential Share					129
Nonresidential Share					94
Compliance \$/person					
Residential Share					\$46
Nonresidential Share					\$13

SDC Schedule

SDCs are assessed to different development types based on average dwelling occupancy and employee density (employees per thousand square feet), as estimated by local or regional data. Data from the American Community Survey for Millersburg were used to determine the average occupants per household shown in **Table 7**. Estimated employment per 1,000 square feet (sf) reflects regional data for low density communities in Oregon.

Table 7
City of Millersburg Parks SDC Analysis
Parks SDC Schedule

Development Type	Units	SDCr	SDCi	Compliance	Total SDC
Residential (\$/dwelling unit)	pphh¹				
Single-Family	2.82	\$285	\$3,212	\$130	\$3,627
Multifamily	2.14	\$217	\$2,444	\$99	\$2,760
Mobile Home	1.29	\$131	\$1,477	\$60	\$1,668
Nonresidential (\$/1,000 sf)	emp/1000 sf²				
Office	2.9	\$80	\$903	\$37	\$1,020
Retail	2.0	\$56	\$632	\$26	\$714
Industrial & Institutional	1.7	\$47	\$527	\$21	\$595
Warehousing	0.5	\$15	\$171	\$7	\$193

pphh = persons per household

¹ Source: 2017 American Community Survey 5-Year Estimates.

² Metro Urban Growth Report Appendix 6 (Rev. 10/2015); based on outer ring (lowest) densities.

As shown in Table 7, single family dwellings are estimated to average 2.82 persons per household, compared to an average of 2.14 for multifamily and 1.29 for mobile homes. Based on these occupancy levels and the combined park unit cost and compliance charge of about \$1,288 per person, the SDCs for residential dwellings range from \$1,668 (for mobile home) to \$3,627 for single family.

For nonresidential development, the SDC per 1,000 square feet for each nonresidential type is computed by multiplying the cost per employee (\$357 including compliance charge) by the estimated employees per 1,000 sf (ranging from 0.5 to 2.9). The SDC per 1,000 square feet of building area ranges from \$193 for warehouse to \$1,020 for office developments.

Except when the City Engineer has approved an applicant's alternative employment density estimate, the City shall apply the SDCs included in Table 7 (as adjusted for future inflation or changes to the Project List). The SDC rates for any large nonresidential developments where the applicant provides sufficient data to support an alternative estimate of employees per 1,000 sf will be determined based on the cost per employee in effect at the time and the development's specific estimate of employees per 1,000 square feet.

Inflationary Adjustments

In accordance with Oregon statutes, it is recommended that the SDCs be adjusted annually based on a standard inflationary index. Specifically, the City uses the ENR Seattle Construction Cost Index (CCI) as the basis for adjusting the SDCs annually. Costs in this report are based on published data from 2020 (ENR CCI for Seattle = 11,991).

Appendix A – Parks Residential Equivalency

Introduction

Nonresidential development creates demand for parks through employees (living inside or outside the city) that use parks in conjunction with commuting, lunch or other breaks during the workday, company picnics, or other activities, and through overnight visitors that come to the area to recreate or otherwise participate in park-related activities in conjunction with their visit.

While the nexus between nonresidential development and park system capacity needs is accepted, specific assumptions of how much park usage may be attributable to nonresidential development relative to residential development vary across jurisdictions and often reflect local policy considerations. The impact on parks from employees and visitors relative to residents is referred to as the “residential equivalency.”

Hours of Opportunity Model

The SDC methodology determines the residential equivalency for employees based on an “hours of opportunity” model. This approach establishes estimated park usage based on the number of hours different types of users have available during the day to visit parks. It assumes that employees – both resident and nonresident – have opportunities to use parks during the weekdays for a limited time (generally right before or after work and during breaks). In comparison, residents are assumed to have potential use of parks during non-work or school hours (for employed adults or school age children), or throughout the day (in the case of residents who are unemployed or otherwise not in the work force). Nonresident employees are generally assumed to have the lowest potential park use opportunity due to the need to travel from outside the service area.

Table A-1 (next page) provides the detailed assumptions related to hours of park use available to resident and nonresident groups. The assumptions shown in the table are identical to those used by many other agencies in Oregon. The calculated residential equivalency factors from an hours of opportunity approach vary based on the demographics of the specific service area, and whether the nonresidential development impact is assumed to include park usage from both workers living inside the service area and outside, or just outside the area (as in the case of the City’s SDC methodology).

CITY OF MILLERSBURG | Park System Development Charges

Table A-1

City of Millersburg Parks SDC Analysis
Weighted Average Park Availability Hours by Class

Season/Period	Residents				
	Not-Employed Adult	Kids (5-17)	Employed Inside	Employed Outside	Non-Resident Employee
Summer (Jun-Sep)					
Weekday					
Before Work			1		1
Breaks			1		1
After Work			2		2
Other Leisure	12	12	2	2	0
Subtotal	12	12	6	2	4
Weekend					
Leisure	12	12	12	12	0
Subtotal	12	12	12	12	0
Hours/Day	12.00	12.00	7.71	4.86	2.86
Spring/Fall (Apr/May, Oct/Nov)					
Weekday					
Before Work			0.5		0.5
Breaks			1		1
After Work			1		1
Other Leisure	10	4	2	2	0
Subtotal	10	4	4.5	2	2.5
Weekend					
Leisure	10	10	10	10	0
Subtotal	10	10	10	10	0
Hours/Day	10.00	5.71	6.07	4.29	1.79
Winter (Dec-Mar)					
Weekday					
Before Work			0.5		0.5
Breaks			1		1
After Work			0.5		0.5
Other Leisure	8	2	1	1	0
Subtotal	8	2	3	1	2
Weekend					
Leisure	8	8	8	8	0
Subtotal	8	8	8	8	0
Hours/Day	8.00	3.71	4.43	3.00	1.43
Annual Average					
Weighted Hours	10.00	7.14	6.07	4.05	2.02

Application of Model to Millersburg Demographic Data

Table A-2 (next page) provides the demographic data used to determine the seasonally weighted average number of hours available for park use per person per day for residents (7.22) and nonresident employees (2.02).

Table A-2
City of Millersburg Parks SDC Analysis
Estimation of Potential Park Use

Category	Persons	Avg. Hours/ Person/Day	Person Hours/Day	% Total
Residents				
Kids (5-17) ²	335	7.14	2,392	14%
Non-Employed Adults ³	778	10.00	7,779	45%
Employed Adults ¹				
Work In City	23	6.07	140	1%
Work out of City	664	4.05	2,687	16%
Subtotal	1,800	7.22	12,998	76%
Nonresidents				
Employed Adults	2,027	2.02	4,101	24.0%
Total in Jobs City	2,050		17,100	100%

¹U.S. Census 2019 ACS 5-Year Estimates Table S0101

²U.S. Census 2018 On the Map Inflow Outflow analysis

Table A-3 shows the calculation of the residential equivalency per employee based on the assumptions in Table A-1 and A-2. The residential equivalency of 0.28 is the product of the nonresident employee usage factor ($7.22/2.02 = 0.28$) and the portion of employees that work in the area but live outside (99 percent).

Table A-3
City of Millersburg Parks SDC Analysis
Residential Equivalency per Employee

Category	Value	Factor
Average Hours/person/day		
Resident weighted average	7.22	
Nonresident employee	2.02	0.28
Employees working in District ¹		
Living in City	23	
Living outside City	2,027	99%
Total	2,050	
Residential Equivalency per Employee		0.28

¹U.S. Census 2018 On the Map Inflow Outflow analysis