Capital Expansion Fee Study

for the City of Fort Collins, Colorado

prepared by

duncan associates

April 2017

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EXECUTIVE SUMMARY

This study updates the City's capital expansion fees for neighborhood parks, community parks, and fire, police and general government facilities. The City's capital expansion fees are impact fees that assess new developments for the proportionate share of the cost of new capital facilities required to serve them at the same level of service provided to existing developments.

Background

The City's capital expansion fees were originally adopted in June 1996, based on a study prepared by City staff.[1] The fees have been updated periodically to account for inflation, but the first update of the study did not occur until 2013.[2] This is the second update of the impact fee study for the capital expansion fees.

Methodology

This update includes an evaluation of alternative methodologies that could be used. The analysis is provided in the Methodology chapter, and includes a review of legal requirements and alternative approaches.

The methodology employed in the 1996 and 2013 studies is known as "standards-based" (also called "incremental expansion"). The standards-based methodology bases the fees on the existing level of service. The concept behind the standards-based methodology is simple: as a community grows, capital facilities and equipment will need to be expanded proportional to the growth. The existing level of service, whether measured directly in terms of cost per service unit or indirectly in terms of an intervening variable, such as acres of parkland, is assumed to be adequate to serve existing development, but with little or no excess capacity to serve growth.[3]

Impact fees cannot exceed the cost to maintain the existing level of service. The "standards-based" methodology meets that requirement by basing the fees on the existing level of service. Plan-based methodologies generally will not result in higher fees. The standards-based methodology also has the advantage of not being tied to a master plan and allowing greater flexibility to meet changing needs and priorities. The recommendation is to retain the standards-based approach in this update.

The previous draft of this study calculated two alternative fees schedules for fire, police and general government. One based the replacement cost of buildings on insured values, the other on estimated current construction costs. The City has decided that insured values are not reflective of replacement costs, and this draft bases those fees on estimated construction costs.

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[1] City of Fort Collins, *Capital Expansion Cost Study*, May 21, 1996.
[2] Duncan Associates, *Capital Expansion Fee Study for the City of Fort Collins, Colorado*, June 2013.
[3] The exceptions are that the new police station is estimated to have about 20% excess capacity to serve future development, and the new Fire Station #4 is estimated to have some excess capacity.

The City has also conducted additional analysis on park development and land acquisition costs since the previous draft. This draft incorporates the results of that analysis, which more accurately reflect the cost of acquiring additional park land and building new parks.

This study also calculates potential residential fees by housing type (e.g., flat rate per unit for single-family detached and multi-family), as opposed to the current fees based on unit size, in case the City is interested in this optional assessment method.

Change in Fees

Current and updated capital expansion fees are shown in Table 1. Total updated capital expansion fees are 84-92% higher for residential uses, and 86-87% higher for nonresidential. Alternative residential fees by housing type are also calculated in this report, but are not shown here.

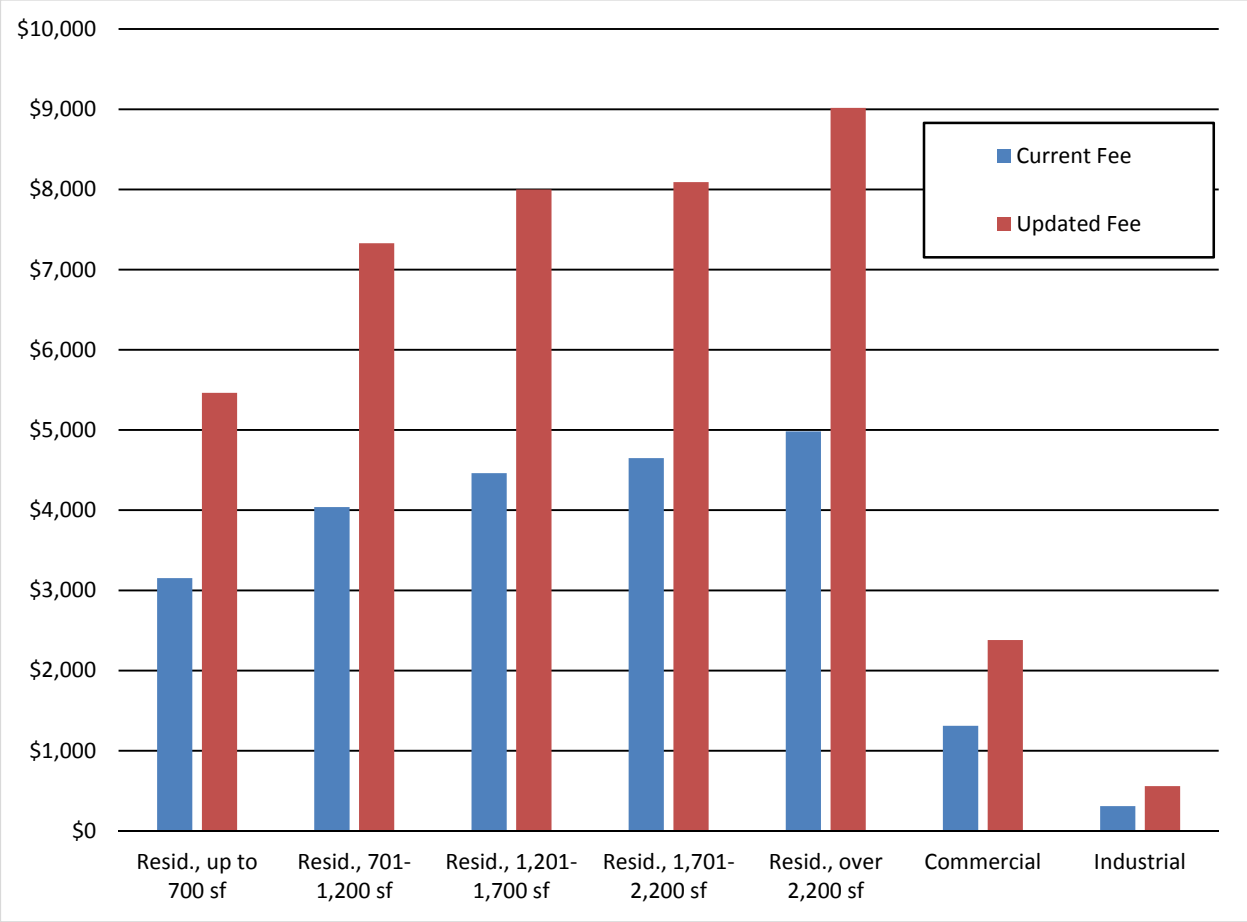
Table 1. Current and Updated Capital Expansion Fees

Land Use Type	Unit	N'hood Park	Comm. Park	Fire	Police	Gen. Gov't	Total
Updated Fees							
Resid., up to 700 sf	Dwelling	$1,721	$2,430	$502	$236	$574	$5,463
Resid., 701-1,200 sf	Dwelling	$2,304	$3,253	$679	$319	$774	$7,329
Resid., 1,201-1,700 sf	Dwelling	$2,516	$3,552	$739	$347	$845	$7,999
Resid., 1,701-2,200 sf	Dwelling	$2,542	$3,589	$751	$352	$858	$8,092
Resid., over 2,200 sf	Dwelling	$2,833	$4,001	$836	$392	$955	$9,017
Commercial	1,000 sf	$0	$0	$633	$297	$1,451	$2,381
Industrial	1,000 sf	$0	$0	$148	$69	$342	$559
Current Fees							
Resid., up to 700 sf	Dwelling	$1,300	$1,102	$281	$141	$330	$3,154
Resid., 701-1,200 sf	Dwelling	$1,667	$1,414	$357	$178	$423	$4,039
Resid., 1,201-1,700 sf	Dwelling	$1,842	$1,562	$395	$198	$465	$4,462
Resid., 1,701-2,200 sf	Dwelling	$1,919	$1,628	$410	$206	$487	$4,650
Resid., over 2,200 sf	Dwelling	$2,056	$1,743	$440	$220	$523	$4,982
Commercial	1,000 sf	$0	$0	$339	$169	$803	$1,311
Industrial	1,000 sf	$0	$0	$80	$41	$188	$309
Change							
Resid., up to 700 sf	Dwelling	$421	$1,328	$221	$95	$244	$2,309
Resid., 701-1,200 sf	Dwelling	$637	$1,839	$322	$141	$351	$3,290
Resid., 1,201-1,700 sf	Dwelling	$674	$1,990	$344	$149	$380	$3,537
Resid., 1,701-2,200 sf	Dwelling	$623	$1,961	$341	$146	$371	$3,442
Resid., over 2,200 sf	Dwelling	$777	$2,258	$396	$172	$432	$4,035
Commercial	1,000 sf	$0	$0	$294	$128	$648	$1,070
Industrial	1,000 sf	$0	$0	$68	$28	$154	$250
Percent Change							
Resid., up to 700 sf	Dwelling	32%	121%	79%	67%	74%	73%
Resid., 701-1,200 sf	Dwelling	38%	130%	90%	79%	83%	81%
Resid., 1,201-1,700 sf	Dwelling	37%	127%	87%	75%	82%	79%
Resid., 1,701-2,200 sf	Dwelling	32%	120%	83%	71%	76%	74%
Resid., over 2,200 sf	Dwelling	38%	130%	90%	78%	83%	81%
Commercial	1,000 sf	n/a	n/a	87%	76%	81%	82%
Industrial/Warehouse	1,000 sf	n/a	n/a	85%	68%	82%	81%

Source: Updated fees from Table 14 (parks), Table 19 (fire); Table 25 (police), and Table 31 (general government; existing fees from City of Fort Collins.

The changes in the total capacity expansion fee (sum of parks, fire, police and general government) by land use category are illustrated in Figure 1.

Figure 1. Change in Total Fee by Land Use



Note: residential fees are per dwelling unit, nonresidential fees are per 1,000 sq. ft.

Comparative Fees

The City's current and updated fees are compared with current fees charged by four peer cities in the tables below. The survey includes all impact fees or similar charges, including capital expansion fees, plant investment fees, development excise taxes and fees in lieu of land dedication, with the exception of electrical connection fees, which are not assessed by cities served by private electrical utility companies. The highlighted subtotal in each table represents the sum of the types of fees addressed in this study. The final column represents all development fees designed to recover municipal capital costs.

Table 2. Comparative Fees per Single-Family Detached Unit

Jurisdiction	Park	Fire	Police	Gen. Gov't	Subtotal	Other	Total
Fort Collins (current)	$3,547	$410	$206	$487	$4,650	$13,527	$18,177
Fort Collins (updated)	$6,131	$751	$352	$858	$8,092	$13,527	$21,619
Loveland	$6,562	$895	$881	$1,092	$9,430	$19,441	$28,871
Greeley	$3,224	$845	$122	$0	$4,191	$20,298	$24,489
Longmont	$5,333	$0	$0	$1,121	$6,454	$17,028	$23,482
Boulder	$4,483	$220	$310	$452	$5,465	$31,091	$36,556

Source: See Appendix C.

Table 3. Comparative Fees per Multi-Family Unit

Jurisdiction	Park	Fire	Police	Gen. Gov't	Subtotal	Other	Total
Fort Collins (current)	$3,081	$357	$178	$423	$4,039	$7,905	$11,944
Fort Collins (updated)	$5,557	$679	$319	$774	$7,329	$7,905	$15,234
Loveland	$4,560	$622	$613	$759	$6,554	$7,150	$13,704
Greeley	$2,419	$409	$92	$0	$2,920	$10,829	$13,749
Longmont	$2,616	$0	$0	$1,121	$3,737	$2,525	$6,262
Boulder	$3,537	$297	$256	$370	$4,460	$18,582	$23,042

Source: See Appendix C.

Table 4. Comparative Fees per 1,000 sq. ft. of Retail

Jurisdiction	Park	Fire	Police	Gen. Gov't	Subtotal	Other	Total
Fort Collins (current)	$0	$339	$169	$803	$1,311	$14,693	$16,004
Fort Collins (updated)	$0	$633	$297	$1,451	$2,381	$14,693	$17,074
Loveland	$0	$300	$390	$420	$1,110	$14,894	$16,004
Greeley	$0	$667	$149	$0	$816	$6,547	$7,363
Longmont	$0	$0	$0	$401	$401	$7,041	$7,442
Boulder	$0	$400	$500	$150	$1,050	$20,178	$21,228

Source: See Appendix C.

Table 5. Comparative Fees per 1,000 sq. ft. of General Office

Jurisdiction	Park	Fire	Police	Gen. Gov't	Subtotal	Other	Total
Fort Collins (current)	$0	$339	$169	$803	$1,311	$14,693	$16,004
Fort Collins (updated)	$0	$633	$297	$1,451	$2,381	$14,693	$17,074
Loveland	$0	$300	$390	$420	$1,110	$6,945	$8,055
Greeley	$0	$313	$70	$0	$383	$6,216	$6,599
Longmont	$0	$0	$0	$401	$401	$7,041	$7,442
Boulder	$0	$610	$170	$210	$990	$18,323	$19,313

Source: See Appendix C.

Table 6. Comparative Fees per 1,000 sq. ft. of Light Industrial

Jurisdiction	Park	Fire	Police	Gen. Gov't	Subtotal	Other	Total
Fort Collins (current)	$0	$80	$41	$188	$309	$6,074	$6,383
Fort Collins (updated)	$0	$148	$69	$342	$559	$6,074	$6,633
Loveland	$0	$30	$50	$60	$140	$5,669	$5,809
Greeley	$0	$124	$28	$0	$152	$3,726	$3,878
Longmont	$0	$0	$0	$401	$401	$5,335	$5,736
Boulder	$0	$80	$60	$120	$260	$19,968	$20,228

Source: See Appendix C.

METHODOLOGY

The City of Fort Collins' Capital Expansion Fees were originally adopted in 1996, and were updated for the first time in 2013. The 2013 study used the same "standards-based" methodology employed in the original study. The City has expressed concern that impact fees based on this methodology will not generate sufficient funds to construct needed capital improvements, such as the build-out of the parks system or a planned new city hall, and would like to know if an alternative, "plan-based" approach would generate more revenue for planned improvements.

The City's Capital Expansion Fees are a form of impact fee. This chapter describes the legal framework for impact fees, describes the alternative methodologies that can be used in the current update, and recommends an approach for this project. For the ease of the reader, we start with the analysis and recommendation, followed by the legal framework and alternative methodology discussions.

Analysis and Recommendations

A fundamental requirement of any impact fee methodology is that it does not charge new development for a higher level of service (LOS) than what is currently being provided to existing development. Basing the fees on a higher LOS creates existing deficiencies with respect to that LOS. As cited below, Colorado statutes require that: "No impact fee or other similar development charge shall be imposed to remedy any deficiency in capital facilities that exists without regard to the proposed development."

The "standards-based" methodology meets this requirement, because it bases the fees on the existing LOS. In the 2013 study, for example, the existing LOS was quantified as the replacement value of existing capital improvements per service unit (e.g., per person).

An alternative "plan-based" methodology would also need to meet this requirement. For example, assume that the facility master plan on which the study is based is a build-out plan, and that population is the service unit. It would not be sufficient to simply divide future planned costs by anticipated new population to determine the fee per person. Some of the future improvements may be needed today, even if there were to be no future growth. Consequently, an analysis would need to be done to ensure that all of the planned improvement cost is attributable to future development, and will not raise the LOS for existing development.

To provide a more specific example of the required LOS analysis, consider a park fee. The LOS for parks is often quantified in terms of acres per 1,000 residents. Suppose the City currently provides a LOS of 5 acres of park land per 1,000 people, but the build-out plan would provide 10 acres per 1,000. Impact fees could not be used to require new development to pay all remaining future project costs, because many of those improvements are needed today to provide the desired LOS to existing development. In other words, they are existing deficiencies which by State law cannot be funded with impact fees.

For the types of facilities addressed in this study, the standards-based methodology is almost universally used. The types of methodologies used by a number of Colorado jurisdictions are summarized in Table 7 below. While plan-based methodologies are used for roads, water, wastewater and stormwater fees, none of the jurisdictions surveyed use a plan-based methodology for parks, libraries, fire, police or general government fees.

Table 7. Methodologies Used by Selected Colorado Jurisdictions

Jurisdiction	Roads	Water	Sewer	Storm Water	Park/ Trail	Library	Fire	Police	Gen. Gov't
Fort Collins	Plan	Standard	Standard	Standard	Standard	n/a	Standard	Standard	Standard
Loveland	Plan	Standard	Standard	Plan	Standard	Standard	Standard	Standard	Standard
Greeley	Standard	Standard	Standard	Mix	Standard	n/a	Standard	Standard	n/a
Windsor	Standard	Standard	Standard	Plan	Unknown	n/a	n/a	n/a	n/a
Weld Co.	Standard	n/a	n/a	Standard	n/a	n/a	n/a	n/a	Standard
Larimer Co.	Standard	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Longmont	Plan	Standard	Standard	n/a	Standard	n/a	n/a	n/a	n/a
Thornton	n/a	Standard	Standard	n/a	n/a	n/a	n/a	n/a	n/a
Boulder	Mix	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Broomfield	n/a	Plan	Plan	n/a	n/a	n/a	n/a	n/a	n/a

Source: Duncan Associates, *Impact Fee Study for Greeley, Colorado*, December 2014, Table 6.

In sum, impact fees cannot exceed the cost to maintain the existing level of service. The "standards-based" methodology meets that requirement by basing the fees on the existing level of service. Plan-based methodologies generally will not result in higher fees. The standards-based methodology also has the advantage of not being tied to a master plan and allowing greater flexibility to meet changing needs and priorities. Our recommendation is to retain the standards-based approach in this update.

Legal Framework

Impact fee methodology must comply with certain legal principles. Impact fees were pioneered by local governments in the absence of explicit state enabling legislation. Impact fees were originally defended as an exercise of local government's broad "police power" to protect the health, safety and welfare of the community. The courts gradually developed guidelines for constitutionally valid impact fees, based on a "rational nexus" that must exist between the regulatory fee or exaction and the activity that is being regulated. The guiding principles developed in case law were subsequently incorporated into state impact fee enabling acts, at least to some degree. Some state acts have just borrowed terminology from case law, while others elaborate on the guidelines more explicitly.

Colorado Statutes

In Colorado, the state legislature has adopted explicit impact fee enabling legislation, which is codified in Sec. 29-20-104.5, Colorado Revised Statutes. Key provisions of this section include the following:

(1) "A local government shall quantify the reasonable impacts of proposed development on existing capital facilities and establish the impact fee or development charge at a level no greater than necessary to defray such impacts directly related to proposed development." (§ 29-20-104.5(2))

(2) "No impact fee or other similar development charge shall be imposed to remedy any deficiency in capital facilities that exists without regard to the proposed development." (§ 29-20-104.5(2))

(3) "Any schedule of impact fees or other similar development charges adopted by a local government pursuant to this section shall include provisions to ensure that no individual landowner is required to provide any site specific dedication or improvement to meet the same need for capital facilities for which the impact fee or other similar development charge is imposed." (§ 29-20-104.5(3))

(4) Impact fees may be charged for capital facilities that have "an estimated useful life of five years or longer." (§ 29-20-104.5(4)(b))

(5) Cities "may waive an impact fee or other similar development charge on the development of low- or moderate- income housing or affordable employee housing." (§ 29-20-104.5(5))

(6) "Nothing in this section shall be construed to prohibit a local government from deferring collection of an impact fee or other similar development charge until the issuance of a building permit or certificate of occupancy." (§ 29-20-104.5(6))

Additional accounting requirements are imposed pursuant to Sec. 29-1-803, which requires that impact fees be deposited in "an interest-bearing account which clearly identifies the category, account, or fund of capital expenditure for which such charge was imposed. Each such category, account, or fund shall be accounted for separately. … Any interest or other income earned on moneys deposited in said interest-bearing account shall be credited to the account."

Finally, Sec. 22-54-102(3)(a) prohibits school impact fees: "Nothing in this article shall be construed to prohibit local governments from cooperating with school districts through intergovernmental agreements to fund, construct, maintain, or manage capital construction projects or other facilities …, as long as funding for such projects is provided solely from a source of local government revenue that is otherwise authorized by law except impact fees or other similar development charges or fees."

Case Law Requirements

In addition to statutory provisions, national impact fee case law also governs impact fees. One of the key principles enunciated by the courts is that impact fees should only charge new developments for the capital costs that they actually impose on the community. Almost all of the state enabling acts contain words or phrases that acknowledge this principle. Colorado's act uses the phrase "impacts directly related to the proposed development."

Another principle of case law is that impact fees should not charge new development for a higher level of service than is provided to existing development. If the fees are based on a higher level of service than is provided to existing development in the community, other funding must be identified to remedy the existing deficiencies. This principle is expressed colloquially in the saying, "impact

fees should not be used to pay for the sins of the past." On this point, Colorado's act states that "No impact fee or other similar development charge shall be imposed to remedy any deficiency in capital facilities that exists without regard to the proposed development."

A corollary principle is that new development should not have to pay more than its proportionate share when multiple sources of payment are considered. This principle is often expressed informally as "new development should not be charged twice for the same facilities." Virtually all of the state enabling acts require construction credits for developments that make in-kind contributions, such as the dedication of property or construction of improvements. The reduction of impact fees on a case-by-case basis for a particular development to account for such contributions is known as a "construction credit." All but four of the 28 state acts explicitly require that developers be given reimbursements or credits for in-kind contributions for the same type of capital facility costs covered by the impact fee. Colorado's act words this principle as follows: "Any schedule of impact fees or other similar development charges adopted by a local government pursuant to this section shall include provisions to ensure that no individual landowner is required to provide any site specific dedication or improvement to meet the same need for capital facilities for which the impact fee or other similar development charge is imposed."

In addition to in-kind contributions, other sources of potential double-payment could include future property taxes that will be generated by the new development and used to pay debt service on existing facilities, or sales tax revenues earmarked to remedy existing deficiencies in facilities serving existing development. Since there is no way to charge new development a lower property or sales tax rate than existing development, the solution is to reduce the impact fees by an amount equivalent to the future payments. Such a reduction is referred to as a "revenue credit." A majority of the state enabling acts explicitly require consideration of revenue credits, although Colorado's does not. Nevertheless, this principle should be adhered to in the development of impact fees in Colorado.

Alternative Methodologies

A wide range of methodologies have been developed to calculate impact fees, consistent with the legal requirements and guidelines described in the previous section. Despite variations, there are two primary types of methodologies, which can be referred to as "standards-based" and "plan-based." Standards-based methodologies use a system-wide level of service standard, such as the system-wide ratio of road capacity to demand, the number of park acres per 1,000 residents, or the existing capital investment per service unit. Plan-based methodologies are generally based on modeling and geographically-specific level of service standards (e.g., "all road segments and intersections shall function at LOS D or better"), and rely on a facility master plan to create the nexus between the cost of planned improvements and the projected growth over a defined time period. In general, the standards-based approach provides greater flexibility in expenditures (a plan-based approach requires a master plan update when planned projects change). The two approaches are described in more detail below.

Standards-Based

The "standards-based" methodology uses a generalized level-of-service standard to determine the costs to accommodate new development. This approach does not require that there be a master plan, or even a list of specific planned projects that will funded with the impact fees.

Most often, the standards-based approach uses the actual level of service (LOS) that exists at the time the study is prepared. This LOS standard can be expressed in terms of a physical ratio (e.g., park acres per 1,000 population), or in dollar terms (e.g., park cost per person). When based on the existing LOS, this approach is sometimes referred to as "incremental expansion." The basic assumption is that, as the community grows, it will be necessary to expand capital facilities proportional to growth. Basing the fees on the existing LOS assumes that there is little or no excess capacity in existing facilities to accommodate future growth.

However, a standards-based methodology can also be based on a LOS that is lower or higher than the current existing LOS. When there is a significant amount of excess capacity, a lower-than-existing LOS may be used. This is most often the case with roads, water and wastewater facilities. However, it can also be a consideration for parks, trails, fire and police facilities, particularly if the impact fee study follows a recent major expansion of those types of facilities.

Plan-Based

In contrast to standards-based methodologies, which rely on generalized, system-wide LOS standards, plan-based methodologies rely on a specific list of planned improvements. A plan-based methodology basically divides the cost of planned improvements over a fixed time period by the anticipated growth in service units over the same time period. The least defensible of these approaches are those based on a Capital Improvements Plan, because there is not necessarily any strong correlation between short-term planned improvement costs and long-term costs to accommodate new development. Much more defensible are those based on a long-range master plan or build-out plan.

As discussed above, plan-based methodologies seldom account for the cost of existing excess capacity. Instead, they focus solely on future costs to be incurred, and generally exclude any future costs to retire debt on existing capacity.

Regardless of the methodology used, an impact fee calculation must comply with the legal principles established by impact fee case law, as described earlier. The most fundamental principle is that impact fees should only charge new development for the costs attributable to growth, and should not charge for the correction of existing capacity deficiencies. In addition, the fees should be proportional to the impact of the development. Finally, new development should not be required to pay twice for the same improvements through other taxes and fees.

Plan-based approaches are not exempt from the fundamental requirement that the fees do not exceed the existing level of service. For example, a transportation fee based on a master plan that determines the cost maintain LOS D on all roadways over the next 20 years should identify any existing road-ways that currently function at a LOS worse than D and develop a funding plan to remedy the deficiencies. Because new development will generally contribute toward whatever funding source is used for this purpose, it is usually necessary to calculate a revenue credit that accounts for such contribution. Many impact fee studies that use the plan-based approach omit this critical component.

Plan-based methodologies can result in higher fees if a long-range master plan shows that the geographic distribution of future development will result in higher costs than the current average

cost required to serve existing development. This is more likely to be the case with road impact fees than it is for the type of facilities addressed in this update. For parks, fire, police and general government facilities, the plan-based approach is seldom used and would be unlikely to result in higher fees, even if the City had the necessary long-range master plans.

Summary

To reiterate, impact fees cannot exceed the cost to maintain the existing level of service. The "standards-based" methodology meets that requirement by basing the fees on the existing level of service. Plan-based methodologies generally will not result in higher fees. The standards-based methodology also has the advantage of not being tied to a master plan and allowing greater flexibility to meet changing needs and priorities. Retaining the standards-based approach is recommended for this update.

PARKS

The City provides a number of public park facilities for the benefit of residents. This section calculates updated community and neighborhood park capital expansion fees.

Service Units

The demand for City park facilities is generated by people. However, it is preferable to base the service unit on housing units, since the number of housing units can be more easily determined than the number of people, which is affected by highly variable occupancy rates. The proposed service unit for the park impact fee update is an equivalent dwelling unit or EDU. An EDU represents the average number of people living in a single-family detached dwelling unit. The average single-family home is by definition one park service unit. The number of service units associated with other types and sizes of dwelling units is determined by dividing average household size of that housing type by the average household size of a single-family unit. The resulting service unit multipliers are presented in Table 8.

Table 8. Park Service Unit Multipliers

Housing Type	Unit	Average HH Size	Single-Family Avg. HH Size	EDUs/ Unit
Single-Family Detached	Dwelling	2.75	2.75	1.00
Multi-Family	Dwelling	1.93	2.75	0.70
Residential, up to 700 sq. ft.	Dwelling	1.78	2.75	0.65
Residential, 701-1,200 sq. ft.	Dwelling	2.40	2.75	0.87
Residential, 1,201-1,700 sq. ft.	Dwelling	2.61	2.75	0.95
Residential, 1,701-2,200 sq. ft.	Dwelling	2.65	2.75	0.96
Residential, over 2,200 sq. ft.	Dwelling	2.95	2.75	1.07

Source: Average household size from Table 39 and Table 40 in Appendix A; EDUs/unit is average household size divided by single-family average household size.

The existing number of service units can be determined by multiplying the estimated number of housing units by the service unit multipliers for each housing type and summing. Existing service units (EDUs) in the City of Fort Collins are calculated in Table 9.

Table 9. Park Service Units, 2016

Housing Type	Unit	Existing Units	EDUs/ Unit	Existing EDUs
Single-Family Detached	Dwelling	38,022	1.00	38,022
Multi-Family	Dwelling	28,372	0.70	19,860
Total				57,882

Source: Existing units from Table 34 in Appendix A; EDUs per unit from Table 8.

Cost per Service Unit

The City of Fort Collins provides a variety of parks and recreation facilities for it residents. The existing acreages by type of park are summarized in Table 10.

Table 10. Existing Park Acres

	Neighborhood/ Pocket Parks	Community Parks	Total Parks
Developed Acres	356	563	919
Undeveloped Acres	40	58	98
Total Park Acres	396	621	1,017

Source: City of Fort Collins Park Planning, March 30, 2017.

The cost per acre to develop a park is based on development costs (excluding land and maintenance facilities) for the three most recent neighborhood and community parks. The City's outside consultant (Ditesco) took original costs for components of each park and updated them to current day prices. As shown in Table 11, park development costs average $235,411 per acre for neighborhood parks and $193,062 per acre for community parks.

Table 11. Park Development Cost per Acre

Park Name	2016 Cost	Acres	Cost/Acre
Waters Way Park	$2,065,624	10.00	$206,562
Registry Park	$1,804,743	7.10	$254,189
Radiant Park	$2,452,396	10.00	$245,240
Total, Neighborhood Parks	$6,322,763	27.10	$233,312
Southeast Community Park	$15,791,868	52.60	$300,226
Spring Canyon Park	$17,902,266	103.00	$173,808
Fossil Creek Park	$12,706,533	99.50	$127,704
Total, Community Parks	$46,400,667	255.10	$181,892

Source: City of Fort Collins Finance Department, March 31, 2017.

An additional cost of new parks is additional maintenance facilities. Based on a detailed valuation of the cost of two of the existing maintenance facilities by an outside consultant (Ditesco), and the City's determination that 80% of the maintenance facility cost is attributable to community parks, the maintenance facility cost is $2,334 per acre for neighborhood parks and $10,415 per acre for community parks, as shown in Table 12.

Table 12. Park Maintenance Facility Cost per Acre

	Spring Canyon Maint. Shop	Fossil Creek Maint. Shop	Weighted Average
Total Facility Cost	$1,426,689	$2,062,212	$3,488,901
Neighborhood Park Share (20%)	$285,338	$412,442	$697,780
Neighborhood Park Acres Served	132	167	299
Neighborhood Park Cost/Acre	$2,162	$2,470	$2,334
Community Park Share (80%)	$1,141,351	$1,649,770	$2,791,121
Community Park Acres Served	103	165	268
Community Park Cost/Acre	$11,081	$9,999	$10,415

Source: City of Fort Collins Parks Department, March 31, 2017.

The current cost of acquiring additional park is based on an analysis done by City of Fort Collins Real Estate Services. The City searched each district area for residential developed land comparables. An outside consultant (Ditesco) applied the cost for each district to the existing City park land in that district, summed all the park land costs and divided by the acres to determine weighted average costs per acre.

The existing level of service can be expressed in terms of the current cost per service unit, as shown in Table 13. The total cost represents the capital expenditure that would be required to acquire the amount of existing park land, develop that land for parks at today's prices, and construct necessary maintenance facilities. The total cost is divided by the existing number of service units to determine the cost per service unit to provide the same level of service to future residents.

Table 13. Park Cost per Service Unit

	Neighborhood/ Pocket Parks	Community Parks
Development Cost per Acre	$233,312	$181,892
x Developed Acres	356	563
Existing Park Facility Cost	$83,059,072	$102,405,196
Land Cost per Acre	$175,085	$174,090
x Total Acres	396	621
Existing Park Land Value	$69,382,728	$108,153,348
Maintenance Shop Cost per Acre	$2,334	$10,415
x Developed Acres	356	563
Maintenance Shop Cost per Acre	$830,904	$5,863,645
Total Existing Park Cost	$153,272,704	$216,422,189
÷ Existing EDUs	57,882	57,882
Park Cost per EDU	$2,648	$3,739

Source: Developed and total acres from Table 10; development costs per acre from Table 11; land costs from City of Fort Collins, March 31, 2017; maintenance shop cost per acres from Table 12; existing EDUs from Table 9.

Net Cost per Service Unit

Impact fees should be reduced in order to account for other types of revenues that will be generated by new development and used to fund capacity-expanding improvements of the same type as those to be funded by the impact fees. Cases in which such a credit is warranted include funding of existing deficiencies and outstanding debt payments on existing facilities. Since the fees are based on the existing level of service, there are no deficiencies. The City has no outstanding debt on past park improvements. The City has not received any State or Federal grants for neighborhood or community parks during the last five years. Consequently, no credits against the park impact fee are required, and the net cost per service unit is the same as the cost per service unit calculated above.

Potential Fees

The maximum neighborhood and community park capital expansion fees that may be adopted by the City based on this study are determined by multiplying the number of service units generated by a dwelling unit by the net cost per service unit. The resulting fee schedules are presented in Table 14. Two options are shown: fees by housing type (single-family and multi-family) and fees by unit size.

Table 14. Potential Park Capital Expansion Fees

Land Use Type	Unit	EDUs/ per Unit	Net Cost/ EDU	Net Cost/ Unit
Neighborhood Parks				
Single-Family Detached	Dwelling	1.00	$2,648	$2,648
Multi-Family	Dwelling	0.70	$2,648	$1,854
Residential, up to 700 sq. ft.	Dwelling	0.65	$2,648	$1,721
Residential, 701-1,200 sq. ft.	Dwelling	0.87	$2,648	$2,304
Residential, 1,201-1,700 sq. ft.	Dwelling	0.95	$2,648	$2,516
Residential, 1,701-2,200 sq. ft.	Dwelling	0.96	$2,648	$2,542
Residential, over 2,200 sq. ft.	Dwelling	1.07	$2,648	$2,833
Community Parks				
Single-Family Detached	Dwelling	1.00	$3,739	$3,739
Multi-Family	Dwelling	0.70	$3,739	$2,617
Residential, up to 700 sq. ft.	Dwelling	0.65	$3,739	$2,430
Residential, 701-1,200 sq. ft.	Dwelling	0.87	$3,739	$3,253
Residential, 1,201-1,700 sq. ft.	Dwelling	0.95	$3,739	$3,552
Residential, 1,701-2,200 sq. ft.	Dwelling	0.96	$3,739	$3,589
Residential, over 2,200 sq. ft.	Dwelling	1.07	$3,739	$4,001

Source: EDUs per unit from Table 8; net cost per EDU is cost per EDU from Table 13.

The updated park fees by unit size are compared to current fees in Table 15. The updated neighborhood park fees are 37-43% higher, and community park fees are 141-151% higher. Total park fees (sum of neighborhood and community park fees) are 85-93% higher than current fees.

Table 15. Comparative Park Capital Expansion Fees

Land Use Type	Unit	Current Fee per Unit	Updated Fee per Unit	Fee Change per Unit	Percent Change
Neighborhood Parks					
Residential, up to 700 sq. ft.	Dwelling	$1,300	$1,721	$421	32%
Residential, 701-1,200 sq. ft.	Dwelling	$1,667	$2,304	$637	38%
Residential, 1,201-1,700 sq. ft.	Dwelling	$1,842	$2,516	$674	37%
Residential, 1,701-2,200 sq. ft.	Dwelling	$1,919	$2,542	$623	32%
Residential, over 2,200 sq. ft.	Dwelling	$2,056	$2,833	$777	38%
Community Parks					
Residential, up to 700 sq. ft.	Dwelling	$1,102	$2,430	$1,328	121%
Residential, 701-1,200 sq. ft.	Dwelling	$1,414	$3,253	$1,839	130%
Residential, 1,201-1,700 sq. ft.	Dwelling	$1,562	$3,552	$1,990	127%
Residential, 1,701-2,200 sq. ft.	Dwelling	$1,628	$3,589	$1,961	120%
Residential, over 2,200 sq. ft.	Dwelling	$1,743	$4,001	$2,258	130%
Total Parks					
Residential, up to 700 sq. ft.	Dwelling	$2,402	$4,151	$1,749	73%
Residential, 701-1,200 sq. ft.	Dwelling	$3,081	$5,557	$2,476	80%
Residential, 1,201-1,700 sq. ft.	Dwelling	$3,404	$6,068	$2,664	78%
Residential, 1,701-2,200 sq. ft.	Dwelling	$3,547	$6,131	$2,584	73%
Residential, over 2,200 sq. ft.	Dwelling	$3,799	$6,834	$3,035	80%

Source: Current fees from Table 1; updated fees from Table 14.

FIRE

Fire protection and rescue service in Fort Collins is provided by the Poudre Fire Authority pursuant to an intergovernmental agreement. The fee is based on the total replacement cost of the Authority's fire stations, apparatus, and administrative and training facilities, and the City's share of total fire calls. The City collects the fees from new development in the city limits and provides the funds to the Fire Authority to be used for capacity-expanding improvements serving the city. This section calculates updated fire capital expansion fees.

Service Units

The two most common methodologies used in calculating public safety (fire and police) service units and impact fees are the "calls-for-service" approach and the "functional population" approach. The 1996 and 2013 studies used the functional population approach, and this update retains this methodology. This approach is a generally-accepted methodology for both fire and police impact fee types, and is based on the observation that demand for public safety facilities tends to be proportional to the presence of people. This approach generates service unit multipliers that are similar to those based on call data, but are more stable over time.[4] The service unit is functional population. The description of the functional population methodology, the calculation of the service unit multipliers and the determination of existing fire and police service units are presented in Appendix B. Because fire rescue service is provided around-the-clock, 24-hour functional population is used as the service unit.

Cost per Service Unit

The cost per service unit to provide fire protection to new development is based on the current level of service provided to existing development. The level of service is quantified as the ratio of the replacement cost of existing fire capital facilities serving Fort Collins to existing fire service units in Fort Collins.

The total replacement cost of the Poudre Fire Authority's land, buildings and structures is summarized in Table 16.

[4] See Clancy Mullen, *Fire and Police Demand Multipliers: Calls-for-Service versus Functional Population*, proceedings of the National Impact Fee Roundtable, Arlington, VA, October 5, 2006 http://growthandinfrastructure.org/proceedings/2006_proceedings/fire%20police%20multipliers.pdf

Table 16. Existing Fire Stations

Facility	Address	Acres	Building Sq. Feet	Land Value	Est. Constr. Cost
Fire Station # 1	505 Peterson	0.54	8,516	$352,836	$3,236,080
Fire Station # 2	415 S. Bryan	0.31	4,376	$94,390	$1,662,880
Fire Station # 3	2000 Mathews	0.55	6,500	$167,466	$2,470,000
Fire Station # 4	1945 W. Drake	3.54	15,380	$741,714	$5,844,400
Fire Station # 5	4615 Hogan	1.18	8,773	$513,494	$3,333,740
Fire Station # 6	2511 Donella Ct.	1.70	11,267	$233,264	$4,281,460
Fire Station # 7	2817 N. Overalnd Trail	0.50	5,160	$152,242	$1,331,280
Fire Station # 8	4100 S. Main	0.20	15,449	$27,443	$5,870,620
Fire Station # 9	4903 Shoreline Dr.	1.90	4,670	$578,520	$1,204,860
Fire Station # 10	2067 Vermont	0.62	9,830	$330,838	$3,735,400
Fire Station # 11	16248 N. C.R. 25E	n/a	1,200	n/a	$309,600
Fire Station # 12	321 E. Country Club Rd.	1.09	9,800	$379,368	$3,724,000
Fire Station # 14	2109 Westchase Rd.	0.89	10,800	$348,528	$4,104,000
Administration	102 Remington	0.60	8,375	$653,400	$3,182,500
Training Center	3400 W. Vine	4.00	10,888	$548,856	$3,266,400
Offices	3400 W. Vine	n/a	10,134	n/a	$730,278
Fire Tower	3400 W. Vine	n/a	3,152	n/a	$606,748
Burn Building	3400 W. Vine	n/a	9,256	n/a	$383,906
Total		17.62	153,526	$5,122,359	$49,278,152

Source: City of Fort Collins Finance Department, August 9, 2016; construction costs from City of Fort Collins, August 8, 2016 (construction cost of stations 7, 9 and 10 based on $257/sq. ft., which was the cost of the new station in Timnath).

The portion of the total net replacement value of the Poudre Fire Authority's land, capital facilities and equipment is based on the City's share of the Authority's total annual call volume. In 2015, 84% of the Authority's calls for fire service originated within the City of Fort Collins, as shown in Table 17.

Table 17. City Share of Call Volume

Call Location	2015 Calls	Percentage
City of Fort Collins	16,044	84.0%
Other	3,056	16.0%
Total for Poudre Fire Authority	19,100	100.0%

Source: Poudre Fire Authority, February 11, 2016.

The Poudre Fire Authority's fire stations, land, administrative buildings and capital equipment serving existing development in Fort Collins have a total estimated net replacement cost of $66.5 million, as summarized in Table 18. The Poudre Fire Authority issued debt to finance its newest fire station in the city (Fire Station #4, which was completed in 2011) and is using the capital expansion fees to retire the debt. The amount of the outstanding principal on the debt represents capacity to serve future development, and this amount is excluded from the fee calculation. Multiplying the net replacement cost by the City's share of total calls yields the net cost attributable to Fort Collins. Dividing the net cost of existing capital facilities and equipment attributable to Fort Collins by the City's existing functional population results in a net cost of $422 per service unit.

Table 18. Existing Fire Cost per Service Unit

Fire Facility Building Replacement Cost	$49,278,152
Fire Facility Land Cost	$5,122,359
Fire Vehicle Replacement Cost	$14,126,633
Total Replacement Cost	$68,527,144
– Outstanding Station 4 Lease Purchase Payments	-$2,043,237
Net Replacement Cost	$66,483,907
x City Share of Fire District Calls	84.0%
Net Replacement Cost Attributable to City	$55,846,482
÷ Existing Functional Population (24-Hour)	157,626
Net Cost per Functional Population	$422

Source: Building cost and land value from Table 16; vehicle replacement cost and outstanding capital lease from Poudre Fire Authority, March 24, 2016; City share of calls from Table 17; existing 24-hour functional population from Table 43.

Net Cost per Service Unit

Impact fees should be reduced in order to account for other types of revenue that will be generated by new development and used to fund capacity-expanding improvements of the same type as those to be funded by the impact fees. Cases in which such a credit is warranted include funding of existing deficiencies and outstanding debt payments on existing facilities.

Because the fees have been based on the existing level of service, there are no deficiencies. While there is some debt on existing facilities, as noted above, this debt has been excluded from the value of the facilities used in determining the existing level of service, and the Poudre Fire Authority can continue to use the updated capital expansion fees to retire the debt on Fire Station 4.

Potential Fees

The maximum fire capital expansion fees that may be adopted by the City based on this study are determined by multiplying the number of service units generated by a unit of development by the net cost per service unit. The resulting fee schedule is presented in Table 19. Two residential fee options are shown: fees by housing type (single-family and multi-family) and fees by unit size.

Table 19. Potential Fire Capital Expansion Fees

Land Use Type	Unit	Func. Pop. per Unit	Net Cost/ Func. Pop.	Net Cost/ Unit
Single-Family Detached	Dwelling	1.84	$422	$776
Multi-Family	Dwelling	1.29	$422	$544
Residential, up to 700 sq. ft.	Dwelling	1.19	$422	$502
Residential, 701-1,200 sq. ft.	Dwelling	1.61	$422	$679
Residential, 1,201-1,700 sq. ft.	Dwelling	1.75	$422	$739
Residential, 1,701-2,200 sq. ft.	Dwelling	1.78	$422	$751
Residential, over 2,200 sq. ft.	Dwelling	1.98	$422	$836
Commercial	1,000 sq. ft.	1.50	$422	$633
Industrial/Warehouse	1,000 sq. ft.	0.35	$422	$148

Source: Functional population (24-hour) per unit from Table 41 and Table 43 in Appendix B; net cost per functional population from Table 18.

Table 20 compares the current fire fees with the updated fire fees. The updated fees are 85-96% higher than current fees.

Table 20. Comparative Fire Fees

Land Use Type	Unit	Current Fee/Unit	Updated Fee/Unit	Percent Change
Residential, up to 700 sq. ft.	Dwelling	$281	$502	79%
Residential, 701-1,200 sq. ft.	Dwelling	$357	$679	90%
Residential, 1,201-1,700 sq. ft.	Dwelling	$395	$739	87%
Residential, 1,701-2,200 sq. ft.	Dwelling	$410	$751	83%
Residential, over 2,200 sq. ft.	Dwelling	$440	$836	90%
Commercial	1,000 sq. ft.	$339	$633	87%
Industrial/Warehouse	1,000 sq. ft.	$80	$148	85%

Source: Current fees from Table 1; updated fees from Table 19.

POLICE

The City of Fort Collins Police Department provides police protection throughout the city. This section calculates updated police capital expansion fees.

Service Units

The two most common methodologies used in calculating public safety (fire and police) service units and impact fees are the "calls-for-service" approach and the "functional population" approach. The 1996 and 2013 studies used the functional population approach, and this update retains this methodology. This approach is a generally-accepted methodology for both fire and police impact fee types, and is based on the observation that demand for public safety facilities tends to be proportional to the presence of people. This approach generates service unit multipliers that are similar to those based on call data, but are more stable over time. The service unit is functional population. The description of the functional population methodology, the calculation of the service unit multipliers and the determination of existing fire and police service units are presented in Appendix B. The appendix calculates both 24-hour and daytime functional population. Because police services are provided around-the-clock, 24-hour functional population is used as the service unit.

Cost per Service Unit

The cost per service unit to provide police protection to new development is based on the existing level of service provided to existing development. The level of service is quantified as the ratio of the replacement cost of existing police capital facilities to existing police service units. The estimated replacement values of existing police buildings and land are shown in Table 21.

Table 21. Police Building and Land Cost

Facility	Address	Acres	Land Value	Building Sq. Feet	Building Cost
Police Headquarters	2221 S Timberline	7.53	$1,967,779	98,878	$39,551,200
Indoor Shooting Range	2554 Midpoint	0.80	$109,771	7,580	$2,274,000
Total		8.33	$2,077,550	106,458	$41,825,200

Source: City of Fort Collins, July 27, 2016 and August 8, 2016.

The City's recently-completed new police station was built with some excess capacity to serve future growth. According to the City, approximately 20% of the building represents excess capacity. Consequently, only 80% of the cost will be included in determining the current level of service (cost per service unit) for existing development. Including vehicles and equipment, the portion of the City's existing police facilities serving existing development has a total estimated replacement cost of $50.3 million, as summarized in Table 22. Dividing the cost of existing capital facilities and equipment serving existing development by existing service units results in a cost of $319 per functional population.

Table 22. Police Cost per Service Unit

Police Building Cost (80%)	$33,460,160
Police Land Value (80%)	$1,662,040
Telephone/Electronic Equipment Value	$6,245,310
Police Vehicle Replacement Value	$8,909,679
Total Police Facility/Equipment Value	$50,277,189
÷ Existing Functional Population (24-Hour)	157,626
Police Cost per Functional Population	$319

Source: Building and land costs are 80% of total replacement values from Table 21; vehicle replacement value from fixed asset listings and telephone and electronic data processing equipment cost from insured values from City of Fort Collins, February 11, 2016; existing functional population from Table 43.

Net Cost per Service Unit

Impact fees should be reduced in order to account for other types of revenues that will be generated by new development and used to fund capacity-expanding improvements of the same type as those to be funded by the impact fees. Cases in which such an offset is warranted include funding of existing deficiencies and outstanding debt payments on existing facilities. Since the updated fees are based on the existing level of service, there are no existing deficiencies.

The City has some outstanding debt on the police station, as well as outstanding capital lease payments on some vehicles. A relatively simple way to calculate a credit for outstanding debt is to divide the debt by the number of existing service units. This places new development on an equal footing with existing development in terms of the proportion of their costs that are funded through debt. Since 20% of the new police station represents excess capacity available to serve, only 80% of the debt is eligible for credit. The other 20% of the debt represents the cost of facilities that will serve future development, and this portion of the debt service could be retired with police capital expansion fees. As shown in Table 23, the police debt credit is $121 per functional population.

Table 23. Police Debt Credit

Outstanding Debt on Police Station (80%)	$16,165,374
Outstanding Vehicle Capital Lease Payments	$2,847,269
Total Police Facility Debt	$19,012,643
÷ Existing Functional Population (24-Hour)	157,626
Police Debt Credit per Functional Population	$121

Source: Outstanding debt and capital lease payments from City of Fort Collins, February 25, 2016; existing functional population from Table 43 in Appendix B.

The credit for outstanding debt is subtracted from the cost per service unit to determine the net cost per service unit (see Table 24 below). The net cost per service unit is $198 per functional population.

Table 24. Police Net Cost per Service Unit

Police Cost per Functional Population	$319
– Police Debt Credit per Functional Population	-$121
Net Police Cost per Functional Population	$198

Source: Cost per functional population from Table 22; debt credit from Table 23.

Potential Fees

The maximum police capital expansion fees that may be adopted by the City based on this study are the product of the number of service units generated by a unit of development and the net cost per service unit calculated above. The resulting fee schedule is presented in Table 25. Two residential fee options are shown: fees by housing type (single-family and multi-family) and fees by unit size.

Table 25. Potential Police Capital Expansion Fees

Land Use Type	Unit	Func. Pop. per Unit	Net Cost/ Func. Pop.	Net Cost/ Unit
Single-Family Detached	Dwelling	1.84	$198	$364
Multi-Family	Dwelling	1.29	$198	$255
Residential, up to 700 sq. ft.	Dwelling	1.19	$198	$236
Residential, 701-1,200 sq. ft.	Dwelling	1.61	$198	$319
Residential, 1,201-1,700 sq. ft.	Dwelling	1.75	$198	$347
Residential, 1,701-2,200 sq. ft.	Dwelling	1.78	$198	$352
Residential, over 2,200 sq. ft.	Dwelling	1.98	$198	$392
Commercial	1,000 sq. ft.	1.50	$198	$297
Industrial/Warehouse	1,000 sq. ft.	0.35	$198	$69

Source: Functional population (24-hour) per unit from Table 41 and Table 43 in Appendix B; net cost from Table 24.

Table 26 compares the current police fees with the updated fees (using the residential option of fees by housing type). The updated fees are 72-84% higher than current fees.

Table 26. Comparative Police Fees

Land Use Type	Unit	Current Fee/Unit	Updated Fee/Unit	Percent Change
Residential, up to 700 sq. ft.	Dwelling	$141	$236	67%
Residential, 701-1,200 sq. ft.	Dwelling	$178	$319	79%
Residential, 1,201-1,700 sq. ft.	Dwelling	$198	$347	75%
Residential, 1,701-2,200 sq. ft.	Dwelling	$206	$352	71%
Residential, over 2,200 sq. ft.	Dwelling	$220	$392	78%
Commercial	1,000 sq. ft.	$169	$297	76%
Industrial/Warehouse	1,000 sq. ft.	$41	$69	68%

Source: Current fees from Table 1; updated fees from Table 25.

GENERAL GOVERNMENT

The City provides a number of administrative facilities that will need to be expanded as the community grows. To ensure that new development pays its fair share of the cost of these facilities, the City charges a general government capital expansion fee. This section calculates updated general government capital expansion fees.

Service Units

One of the most common methodologies used in calculating general government impact fees is the "functional population" approach. This allocates the cost of growth to different types of new development based on the presence of people at the site of the land use. The description of the functional population methodology, the calculation of the service unit multipliers and the determination of existing general government service units are presented in Appendix B. Because many general government facilities do not provide service around-the-clock, daytime functional population is used, rather than the 24-hour function population used for fire and police.

Cost per Service Unit

The City's existing general government facilities and estimated replacement costs are summarized in Table 27.

Table 27. Existing General Government Facilities

Facility	Address	Acres	Land Value	Building Sq. Feet	Constr. Cost
City Hall	300 Laporte Ave	2.00	$56,164	31,553	$12,621,200
OPS Service Facility	300 Laporte Bldg B	n/a	n/a	26,564	$5,976,900
Main Administration Bldg.	281 N. College	0.75	$21,061	37,603	$15,041,200
City Office Building	215 N. Mason	2.00	$56,164	71,500	$28,600,000
Streets Office/Storage	625 Ninth St	11.72	$329,120	51,300	$12,825,000
Storage Building	518 N. Loomis	1.20	$156,816	10,050	$2,261,250
Offices	321 Maple	n/a	n/a	1,954	$439,650
Traffic Control	626 Linden	3.20	$3,484,800	9,500	$3,800,000
Total		20.87	$4,104,125	240,024	$81,565,200

Source: City of Fort Collins, August 8, 2016.

The existing level of service (cost per service unit) is determined by dividing the replacement cost of existing facilities by the existing service units being served by those facilities. As shown in Table 28, the cost per service unit for general government facilities is $683 per functional population.

Table 28. General Government Cost per Service Unit

Building Replacement Value	$81,565,200
Land Value	$4,104,125
Electronic Data Processing Equpment Value	$8,861,429
Streets Vehicle/Equipment Value	$12,459,578
Total Replacement Cost	$106,990,332
÷ Existing Functional Population (Daytime)	156,636
Cost per Functional Population	$683

Source: Building and land replacement costs from Table 27; EDP equipment value from insured values; streets vehicle-equipment value is sum of original costs from City fixed asset listings, February 17, 2016; existing functional population from Table 43 in Appendix B.

Net Cost per Service Unit

Impact fees should be reduced in order to account for other types of revenues that will be generated by new development and used to fund capacity-expanding improvements of the same type as those to be funded by the impact fees. Cases in which such an offset is warranted include funding of existing deficiencies and outstanding debt payments on existing facilities. Since the updated fees are based on the existing level of service, there are no existing deficiencies.

The City has some outstanding debt on general government facilities. A relatively simple way to calculate a credit for outstanding debt is to divide the debt by the number of existing service units. This places new development on an equal footing with existing development in terms of the proportion of their costs that are funded through debt. As shown in Table 29, the debt credit is $38 per functional population.

Table 29. General Government Debt Credit

2012 COPS - Streets Salt Storage	$1,055,000
Capital Lease - Rolling Stock, Heavy Equipment	$4,944,079
Outstanding General Government Debt	$5,999,079
÷ Existing Functional Population (Daytime)	156,636
Debt Credit per Functional Population	$38

Source: Outstanding debt principal from City of Fort Collins, February 25, 2016; existing functional population from Table 43 in Appendix B.

The credit for outstanding debt is subtracted from the cost per service unit to determine the net cost per service unit, as shown in Table 30.

Table 30. General Government Net Cost per Service Unit

Cost per Functional Population	$683
– Debt Credit per Functional Population	-$38
Net Cost per Functional Population	$645

Source: Cost per functional population from Table 22; debt credit from Table 23.

Potential Fees

The maximum general government capital expansion fees that may be adopted by the City based on this study are determined by multiplying the number of service units generated by a unit of development by the net cost per service unit calculated above. The resulting fee schedule is presented in Table 31. Two residential fee options are shown: fees by housing type (single-family and multi-family) and fees by unit size.

Table 31. Potential General Government Capital Expansion Fees

Land Use Type	Unit	Func. Pop. per Unit	Net Cost/ Func. Pop.	Net Cost/ Unit
Single-Family Detached	Dwelling	1.38	$645	$890
Multi-Family	Dwelling	0.97	$645	$626
Residential, up to 700 sq. ft.	Dwelling	0.89	$645	$574
Residential, 701-1,200 sq. ft.	Dwelling	1.20	$645	$774
Residential, 1,201-1,700 sq. ft.	Dwelling	1.31	$645	$845
Residential, 1,701-2,200 sq. ft.	Dwelling	1.33	$645	$858
Residential, over 2,200 sq. ft.	Dwelling	1.48	$645	$955
Commercial	1,000 sq. ft.	2.25	$645	$1,451
Industrial/Warehouse	1,000 sq. ft.	0.53	$645	$342

Source: Functional population (daytime) per unit from Table 41 and Table 43 in Appendix B; net cost per functional population from Table 30.

Table 32 compares the current general government capital expansion fees with the updated fees (using the residential fee option by unit size). The updated fees are 79-89% higher than current fees.

Table 32. Comparative General Government Fees

Land Use Type	Unit	Current Fee/Unit	Updated Fee/Unit	Percent Change
Residential, up to 700 sq. ft.	Dwelling	$330	$574	74%
Residential, 701-1,200 sq. ft.	Dwelling	$423	$774	83%
Residential, 1,201-1,700 sq. ft.	Dwelling	$465	$845	82%
Residential, 1,701-2,200 sq. ft.	Dwelling	$487	$858	76%
Residential, over 2,200 sq. ft.	Dwelling	$523	$955	83%
Commercial	1,000 sq. ft.	$803	$1,451	81%
Industrial/Warehouse	1,000 sq. ft.	$188	$342	82%

Source: Current fees from Table 1; updated fees from Table 31.

APPENDIX A: HOUSING DATA

Existing Housing Units by Type

The mix of housing units by type in Fort Collins cam be estimated based on the distribution of units from sample data collected by the U.S. Census Bureau. These data indicate that there has been little change in the distribution of units by housing type since 2000, as summarized in Table 33.

Table 33. Dwelling Unit Distribution by Housing Type, 2000-Current

	Total Units		% of Total Units	
Housing Type	2000	Current	2000	Current
Single-Family Detached	26,706	33,488	55.9%	56.3%
Single-Family Attached	3,613	5,260	7.6%	8.8%
Multi-Family	16,163	19,179	33.8%	32.2%
Mobile Home	1,284	1,591	2.7%	2.7%
Total	47,766	59,518	100.0%	100.0%
Single-Family Detached/Mobile Home	27,990	35,079	58.6%	58.9%
Multi-Family/Single-Family Attached	19,776	24,439	41.4%	41.1%

Source: 2000 units from 2000 US Census SF3 1-in-6 sample data; most current data from 5% sample data from US Census, American Community Survey, collected in 2009-2014 (all data from US Census American FactFinder website).

The current number of dwelling units in Fort Collins by housing type is estimated based on the total number of units enumerated in the 2010 census, the current distribution of units from the previous table, and the number of building permits issued by the City over the last six years, as shown in Table 34.

Table 34. Dwelling Units by Housing Type, Fort Collins, 2016

Housing Type	Housing Share	Est. 2010 Units	2010-2015 Permits	Est. 2016 Units
Single-Family Detached/MH	58.9%	35,636	2,386	38,022
Multi-Family/SF Attached	41.1%	24,867	3,505	28,372
Total	100.0%	60,503	5,891	66,394

Source: Housing shares from Table 33; 2010 total units from 2010 Census, 2010 units by housing type estimated based on housing share; 2010-2015 permits are number of permits issued by City in 2010 through 2015 calendar years from City of Fort Collins, February 16, 2016.

Average Household Size by Housing Type

A key input into impact fee analysis is the average number of people residing in different types of dwelling units. This statistic, known as average household size, is the ratio of household population to households (households are the same as occupied dwelling units).

The most reliable data on average household size comes from the decennial census counts. However, these 100%-count data are only available for all housing units, with no distinction by housing type. Overall, the trend between the 2000 and 2010 census was one of a slight decline in overall average household size, as can be seen in Table 35.

Table 35. Average Household Size, 2000 and 2010

Housing Type	Total Units	Occupied Units	Household Population	Average HH Size
All Housing Types, 2000	47,755	45,882	112,597	2.45
All Housing Types, 2010	60,503	57,829	136,901	2.37

Source: 2000 and 2010 US Census for Fort Collins, CO, SF1 (100% counts).

The 2000 Census included a robust 1-in-6 sample (about 17%) of housing units that included information on housing type. The 2000 Census data on average household size in Fort Collins is summarized in Table 36. Average household sizes for various combinations of housing types are shown in the last three rows.

Table 36. Average Household Size by Housing Type, 2000

Housing Type	Total Units	Occupied Units	Household Population	Average HH Size
Single-Family Detached	26,706	25,941	73,943	2.85
Single-Family Attached	3,613	3,464	7,031	2.03
Multi-Family	16,163	15,190	28,522	1.88
Mobile Home	1,284	1,233	2,880	2.34
Total	47,766	45,828	112,376	2.45
Single-Family Detached/Att./MH	31,603	30,638	83,854	2.74
Multi-Family/Single-Family Att.	19,776	18,654	35,553	1.91
Single-Family Detached//MH	27,990	27,174	76,823	2.83

Source: 2000 U.S. Census for Fort Collins, SF-3 data (1-in-6 sample data).

Unfortunately, in 2010 the Census Bureau has discontinued providing robust sample data as part of the decennial census, and instead collects annual data from 1% samples, which has been aggregated into a 5% sample for the 2009-2014 period. These data are based on a much smaller sample than the 2000 census, and also collapse single-family detached and attached housing into the same category. They are shown in Table 37.

Table 37. Average Household Size by Housing Type, Current

Housing Type	Total Units	Occupied Units	Household Population	Average HH Size
Single-Family Detached/Att./MH	40,339	39,088	103,953	2.66
Multi-Family	19,179	18,058	34,864	1.93
Total	59,518	57,146	138,817	2.43

Source: US Census Bureau, 2009-2014 American Community Survey data (5% sample) for Fort Collins, CO from American FactFinder website.

The changes in average household sizes by housing type from the 2000 Census to the most current sample data indicate that single-family units have experienced a small reduction in household size, while multi-family units have seen an even smaller increase, as shown in Table 38.

Table 38. Change in Average Household Size by Type, 2000-Current

Housing Type	Average HH Size 2000	Current	Percent Change
Single-Family, Detached/Attached/MH	2.74	2.66	-2.92%
Multi-Family	1.91	1.93	1.05%
Total	2.45	2.43	-0.82%

Source: 2000 data from Table 36; current data from Table 37.

Average household sizes by housing type from the 2000 Census are adjusted by the percentage change from the previous table to estimate current average occupancies, shown in Table 39.

Table 39. Average Household Size by Housing Type, 2016

Housing Type	2000 AHHS	Percent Change	Estimated AHHS 2016
Single-Family Detached/Mobile Home	2.83	-2.92%	2.75
Multi-Family/Single-Family Attached	1.91	1.05%	1.93

Source: 2000 average household size from Table 36; percent change from Table 38.

Average Household Size by Unit Size

In the 2013 study, average household size by dwelling unit size was estimated using regional data from the American Housing Survey, sponsored by the U.S. Department of Housing and Urban Development and conducted by the U.S. Census Bureau. The most recent survey, completed in 2013, was not available at the time of the 2013 study. This survey provides data on the number of residents and the square footage of a sample of individual housing units. The data from the Western Census Region, which includes Colorado, was used. Average household sizes by dwelling unit size from the western U.S. were converted to Equivalent Dwelling Units (EDUs), with one EDU representing the average number of persons residing in an occupied single-family detached unit. These EDU multipliers were then multiplied by the average household size of a single-family unit in Fort Collins to estimate local average household sizes by dwelling unit size, as summarized in Table 40.

Table 40. Average Household Size by Dwelling Unit Size, Western U.S., 2013

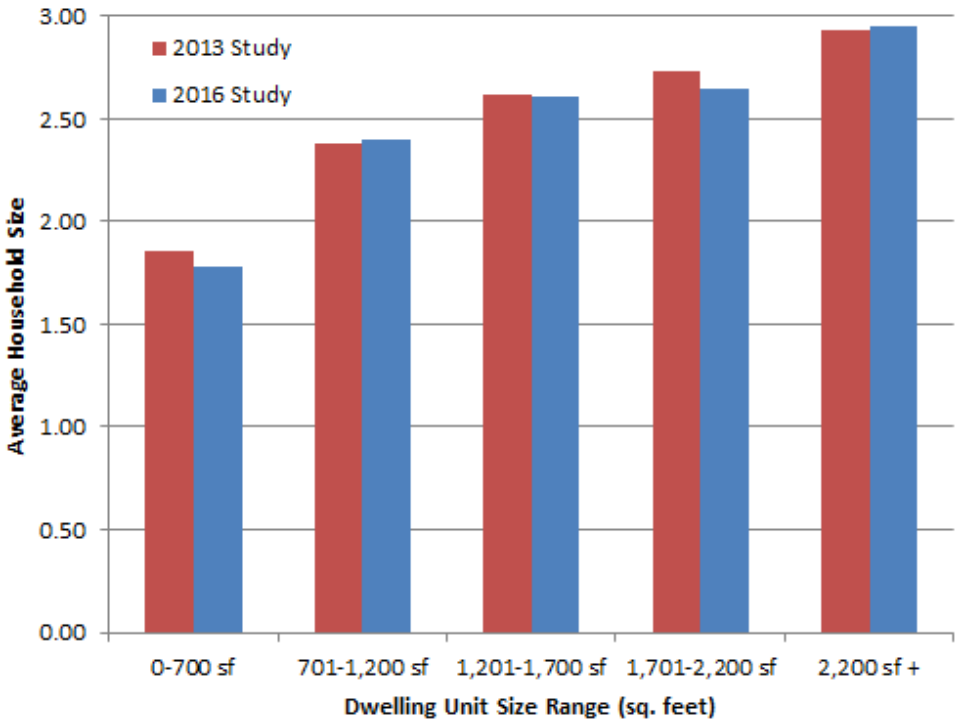
odata.html

Housing Type/Size	American Housing Survey, 2013 Sample	HH Pop.	House-Holds	Avg. HH Size	EDUs/ Unit	Ft. Collins Avg. HH Size
0-700 sf	1,374	5,132,892	2,757,716	1.86	0.648	1.78
701-1,200 sf	3,011	18,273,825	7,314,554	2.50	0.871	2.40
1,201-1,700 sf	2,205	15,442,616	5,670,694	2.72	0.948	2.61
1,701-2,200 sf	1,559	11,070,145	3,996,864	2.77	0.965	2.65
2,200 sf +	1,881	15,170,463	4,923,946	3.08	1.073	2.95
All Units	10,030	65,089,942	24,663,774	n/a	n/a	n/a
All Single-Family Det.	5,986	44,650,330	15,539,758	2.87	1.000	2.75

Source: U.S. Department of Housing and Urban Development, American Housing Survey, 2013, Western Census Region; Fort Collins average household size by unit size based on average household size for a single-family detached unit in Fort Collins from Table 39 and EDUs/unit from the American Housing Survey.

The updated average household sizes confirm the tendency of larger units to have more residents, as illustrated in Figure 2. The smallest size units, and units in the 1,701-2,200 range, experienced small decreases in average household size compared to the 2013 study.

Figure 2. Average Household Size by Unit Size, 2013 and 2016



APPENDIX B: FUNCTIONAL POPULATION

A common methodology used in calculating public safety (fire and police) and general government service units and impact fees is the "functional population" approach. This approach is a generally-accepted methodology for these impact fee types and is based on the observation that demand for public safety and general government facilities tends to be proportional to the presence of people at a particular site.

Functional population is analogous to the concept of "full-time equivalent" employees. It represents the number of "full-time equivalent" people present at the site of a land use, and it is used for the purpose of determining the impact of a particular development on the need for facilities. For residential development, functional population is simply average household size times the percent of time people spend at home. For nonresidential development, functional population is based on a formula that factors trip generation rates, average vehicle occupancy and average number of hours spent by visitors at a land use.

Two types of functional population are used in impact fee analysis: "24-hour" functional population and "daytime" functional population. 24-hour functional population is most appropriate for services, like fire and police protection, that operate on a 24-hour per day basis. Daytime functional population is more appropriate for general government facilities, which do not operate around the clock.

Residential Functional Population

For residential land uses, the impact of a dwelling unit on the need for capital facilities is generally proportional to the number of persons residing in the dwelling unit. This can be measured for different housing types in terms of either average household size (average number of persons per occupied dwelling unit) or persons per unit (average number of persons per dwelling unit, including vacant as well as occupied units). In this analysis, average household size is used to develop the functional population multipliers, as it avoids the need to make assumptions about occupancy rates.

Determining residential functional population multipliers is considerably simpler than the nonresidential component. It is estimated that people, on average, spend 16 hours, or 67 percent, of each 24-hour weekday at their place of residence and the other 33 percent away from home. For daytime functional population, a 16-hour day is used, and it is estimated that people spend half of the 16-hour day at home. The functional population per unit for residential uses is shown in Table 41.

Table 41. Functional Population per Unit for Residential Uses

Housing Type	Unit	Average HH Size	Occupancy 24-Hour	Occupancy Daytime	Func. Pop. Per Unit 24-Hour	Func. Pop. Per Unit Daytime
Single-Family Detached	Dwelling	2.75	0.67	0.50	1.84	1.38
Multi-Family	Dwelling	1.93	0.67	0.50	1.29	0.97
Residential, up to 700 sq. ft.	Dwelling	1.78	0.67	0.50	1.19	0.89
Residential, 701-1,200 sq. ft.	Dwelling	2.40	0.67	0.50	1.61	1.20
Residential, 1,201-1,700 sq. ft.	Dwelling	2.61	0.67	0.50	1.75	1.31
Residential, 1,701-2,200 sq. ft.	Dwelling	2.65	0.67	0.50	1.78	1.33
Residential, over 2,200 sq. ft.	Dwelling	2.95	0.67	0.50	1.98	1.48

Source: Average household size from Table 39 (housing type) and Table 40 (unit size).

Nonresidential Functional Population

The functional population methodology for nonresidential land uses is based on trip generation and employee density data. Functional population per 1,000 square feet is derived by dividing the total number of hours spent by employees and visitors during a week day by 24 hours (16 hours for daytime functional population). Employees are estimated to spend 8 hours per day at their place of employment, and visitors are estimated to spend one hour per visit. The formulas used to derive the nonresidential functional population estimates are summarized in Figure 3.

Figure 3. Nonresidential Functional Population Formulas

24-HR FUNCPOP/UNIT	=	(employee hours/1000 sf + visitor hours/1000 sf) ÷ 24 hours/day
Where:		
Employee hours/1000 sf	=	employees/1000 sf x 8 hours/day
Visitor hours/1000 sf	=	visitors/1000 sf x 1 hour/visit
Visitors/1000 sf	=	weekday ADT/1000 sf x avg. vehicle occupancy – employees/1000 sf
Weekday ADT/1000 sf	=	one-way avg. daily trips (total trip ends ÷ 2)

DAYTIME FUNCPOP/UNIT	=	(employee hours/1000 sf + visitor hours/1000 sf) ÷ 16 hours/day
Where:		
Employee hours/1000 sf	=	employees/1000 sf x 8 hours/day
Visitor hours/1000 sf	=	visitors/1000 sf x 1 hour/visit
Visitors/1000 sf	=	weekday ADT/1000 sf x avg. vehicle occupancy – employees/1000 sf
Weekday ADT/1000 sf	=	one-way avg. daily trips (total trip ends ÷ 2)

Using this formula and information on trip generation rates, vehicle occupancy rates, and employee density, nonresidential functional population estimates per 1,000 square feet of gross floor area are calculated in Table 42.

Table 42. Functional Population per Unit for Nonresidential Uses

Land Use	Unit	Trip Rate	Persons/ Trip	Employee/ Unit	Visitors/ Unit	Func. Pop. Per Unit	
						24-Hour	Daytime
Retail	1,000 sq. ft.	21.35	1.96	1.02	40.83	2.04	3.06
Office	1,000 sq. ft.	5.52	1.24	2.31	4.53	0.96	1.44
Industrial	1,000 sq. ft.	3.42	1.24	1.05	3.19	0.48	0.72
Warehouse	1,000 sq. ft.	1.78	1.24	0.43	1.78	0.22	0.33

Source: Trip rates based on one-half of average daily trip rate from ITE, *Trip Generation*, 9th ed., 2012 (retail based on shopping center, office based on general office, industrial based on industrial park); persons/trip is average vehicle occupancy from Federal Highway Administration, *Nationwide Household Travel Survey*, 2009; employees/unit from U.S. Department of Energy, *Commercial Buildings Energy Consumption Survey*, 2003; visitors/unit is trips times persons/trip minus employees/unit; functional population/unit calculated based on formula from Figure 3.

Total Functional Population

The total functional population of Fort Collins is determined by multiplying the number of existing units of development by the functional population per unit, as shown in Table 43.

Table 43. Existing Functional Population

Land Use	Unit	Existing Units	Func. Pop./Unit		Total Func. Pop.	
			24-Hour	Daytime	24-Hour	Daytime
Single-Family Detached	Dwelling	38,022	1.84	1.38	69,960	52,470
Multi-Family	Dwelling	28,372	1.29	0.97	36,600	27,521
Commercial/Institutional	1,000 sq. ft.	31,891	1.50	2.25	47,837	71,755
Industrial/Warehouse	1,000 sq. ft.	9,226	0.35	0.53	3,229	4,890
Total Functional Population					157,626	156,636

Source: Existing dwelling units from Table 34; existing nonresidential building square footage from Larimer County Assessor's Office, February 16, 2016; functional population per unit from Table 41 and Table 42 (commercial/ institutional is average of retail and office; industrial/warehouse is average of industrial and warehouse).

APPENDIX C: COMPARATIVE FEE SURVEY

This section presents the results of a survey of impact fees charged by four Colorado cities that Fort Collins considers to be "peer" cities. The comparison cities are Loveland, Greeley, Longmont and Boulder. The survey includes all impact fees or similar charges, including capital expansion fees, plant investment fees, development excise taxes and fees in lieu of land dedication. Connection fees for electrical power were excluded, because these charges would not be counted for cities served by private electric utilities.

Fees were surveyed for five land use types. The following assumptions were used for the various land uses.

Single-family detached: 2,000 square foot, 3-bedroom unit; 8,000 square foot lot

Multi-family: 1,000 square foot, 2-bedroom unit; 12 units per acre; five 2" domestic water meters and two 2" irrigation meters to serve a 240-unit apartment complex

Shopping center: 100,000 square foot center; floor-area ratio of 0.15; one 3" water meter

General office: 100,000 square foot center; floor-area ratio of 0.25; one 3" water meter

Light industrial: 100,000 square foot building; floor-area ratio of 0.15; one 3" water meter

Table 44. Current Fees, City of Fort Collins

Land Use Type	Unit	Park	Fire	Police	Gen. Gov't	Roads	Water	Sewer	Storm Water	School	Total
Single-Family Det.	Dwelling	$3,547	$410	$206	$487	$3,414	$3,558	$3,500	$1,509	$1,546	$18,177
Multi-Family	Dwelling	$3,081	$357	$178	$423	$2,373	$1,411	$2,520	$685	$916	$11,944
Shopping Center	1,000 sq. ft.	$0	$339	$169	$803	$11,096	$1,291	$1,048	$1,258	$0	$16,004
Office, General	1,000 sq. ft.	$0	$339	$169	$803	$4,088	$1,291	$1,048	$755	$0	$8,493
Light Industrial	1,000 sq. ft.	$0	$80	$41	$188	$2,477	$1,291	$1,048	$1,258	$0	$6,383

Notes: School fee is fee in lieu of land dedication (average for the two school districts)

Source: City of Fort Collins website; roads includes Larimer County regional transportation fee from http://larimer.org/building/2015-TCEF-Calculation-and-Schedule-Form.pdf.

Table 45. Current Fees, City of Loveland

Land Use Type	Unit	Parks/ Trails	Fire	Police	Gen. Gov't	Roads	Water	Sewer	Storm Water	Lib./ Cult.	School	Total
Single-Family Det.	Dwelling	$6,562	$895	$881	$1,092	$2,519	$7,000	$6,700	$505	$1,335	$1,382	$28,871
Multi-Family	Dwelling	$4,560	$622	$613	$759	$1,760	$1,609	$1,540	$367	$928	$946	$13,704
Shopping Center	1,000 sq. ft.	$0	$300	$390	$420	$7,730	$1,569	$1,502	$673	$0	$0	$12,584
Office, General	1,000 sq. ft.	$0	$300	$390	$420	$3,470	$1,569	$1,502	$404	$0	$0	$8,055
Light Industrial	1,000 sq. ft.	$0	$30	$50	$60	$1,840	$1,569	$1,502	$758	$0	$0	$5,809

Notes: Water fee includes water plant investment fee and raw water development fee; school fee in lieu of dedication

Source: Communication with Alan Krcmarik, Executive Financial Advisor, April 18, 2016.

Table 46. Current Fees, City of Greeley

Land Use	Unit	Park	Trails	Fire	Police	Roads	Drain	Water	Waste-Water	Total
Single-Family Det.	Dwelling	$2,832	$392	$845	$122	$3,793	$355	$11,000	$5,150	$20,298
Multi-Family	Dwelling	$2,124	$295	$409	$92	$2,499	$255	$5,500	$2,575	$10,829
Retail	1,000 sq. ft.	$0	$0	$667	$149	$5,021	$457	$1,282	$603	$7,363
Office	1,000 sq. ft.	$0	$0	$313	$70	$4,440	$274	$1,282	$603	$6,599
Industrial	1,000 sq. ft.	$0	$0	$124	$28	$1,536	$457	$1,282	$603	$3,878

Source: City of Greeley, *Development Impact Fee Schedule*, effective March 1, 2016; *Water and Sewer Plant Investment Fees*, effective March 1, 2015.

Table 47. Current Fees, City of Longmont

Land Use Type	Unit	Parks	Public Bldgs	Roads	Water	Sewer	Storm Water	Total
Single-Family Det.	Dwelling	$5,333	$1,121	$901	$10,940	$4,390	$797	$23,482
Multi-Family	Dwelling	$2,616	$1,121	$448	$998	$701	$378	$6,262
Commercial	1,000 sq. ft.	$0	$401	$2,294	$3,393	$938	$416	$7,442
Office	1,000 sq. ft.	$0	$401	$2,294	$3,393	$938	$416	$7,442
Industrial	1,000 sq. ft.	$0	$401	$588	$3,393	$938	$416	$5,736

Source: City of Longmont, *Permit and Licensing Fees* (http://longmontcolorado.gov/departments/departments-a-d/building-inspection/permit-and-licensing-fees).

Table 48. Current Fees, City of Boulder

Land Use Type	Unit	Park	Lib.	Fire	Police	Gen. Gov't	Roads	Water	Sewer	Storm Water	Hous-ing	Total
Single-Family Det.	Dwelling	$4,483	$483	$220	$310	$452	$2,276	$16,807	$4,473	$6,592	$460	$30,608
Multi-Family	Dwelling	$3,537	$398	$297	$256	$370	$1,687	$9,224	$2,556	$4,487	$230	$18,184
Retail	1,000 sq. ft.	$0	$0	$400	$500	$150	$2,480	$2,689	$716	$9,613	$5,730	$21,228
Office	1,000 sq. ft.	$0	$0	$610	$170	$210	$2,480	$2,689	$716	$5,768	$7,660	$19,313
Light Industrial	1,000 sq. ft.	$0	$0	$80	$60	$120	$2,480	$2,689	$716	$9,613	$4,730	$20,228

Notes: Park fee is parks and recreation impact fee and park land excise tax; general government is human services and municipal facilities impact fees; housing is housing excise tax and nonresidential housing linkage fee

Source: City of Boulder, Planning and Development Services, *2016 Schedule of Fees*, eff. Jan 4, 2016, updated Mar. 7, 2016.