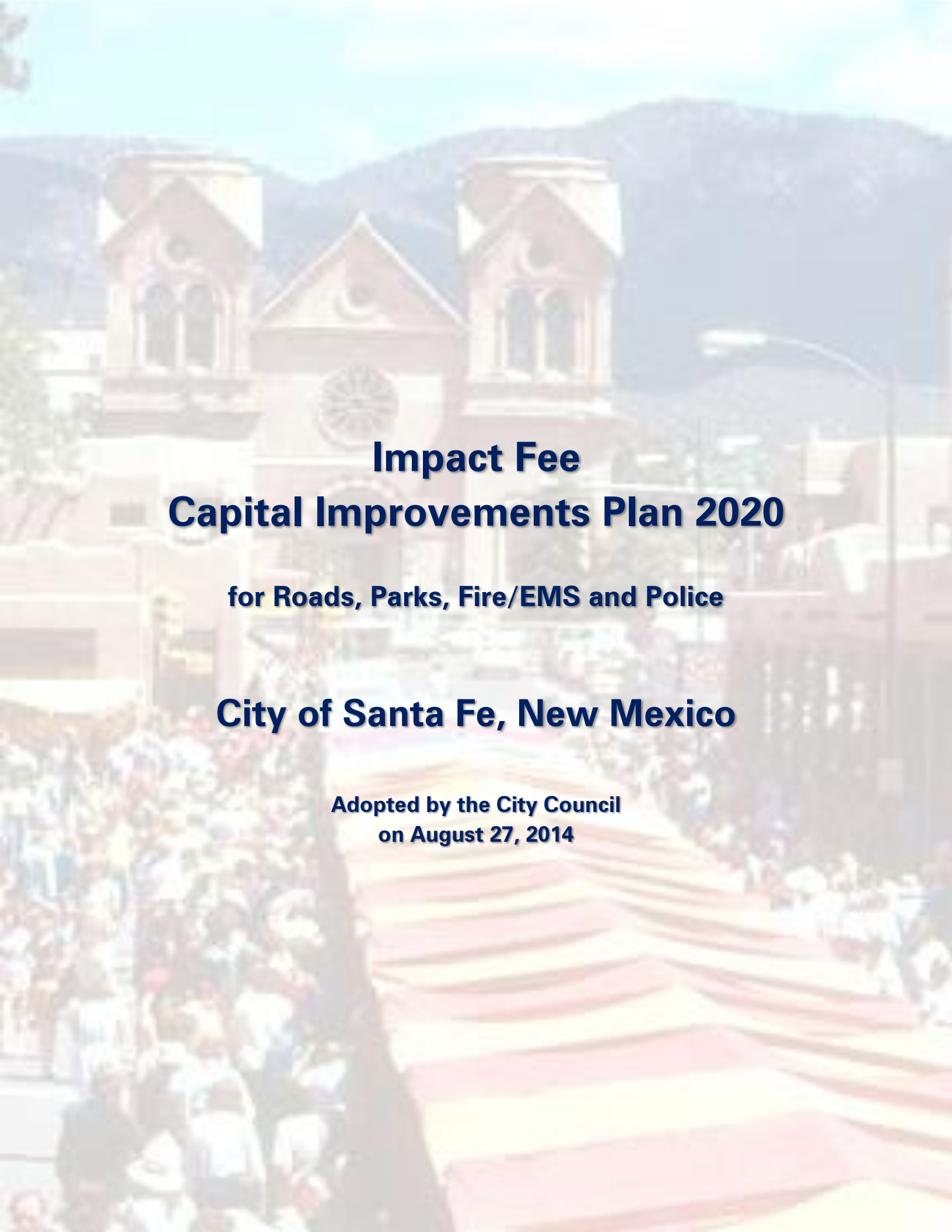

Impact Fee
Capital Improvements Plan 2020

for Roads, Parks, Fire/EMS and Police

City of Santa Fe, New Mexico

Adopted by the City Council
on August 27, 2014

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EXECUTIVE SUMMARY

Duncan Associates has been retained by the City of Santa Fe to update the City's capital improvements plans, land use assumptions and impact fees for roads, parks/trails, fire/EMS and police facilities. This study calculates maximum impact fees that Santa Fe can charge based on the existing levels of service.

Report Layout

The report begins with five chapters that have general applicability to all four fee types: legal framework, service areas, land use assumptions, methodologies and land use categories. The last four chapters address the four facility types: roads, parks/trails, fire/EMS and police. Appendices provide more detailed data and analysis to support the individual fee calculations. The final appendix contains the list of planned improvements, which may be amended prior to the next comprehensive impact fee update.

Background

The last comprehensive update of the City's impact fees was based on a 2008 study that was adopted by the City Council on January 9, 2008.[1] The fees were adopted at 60% of the calculated amounts.

Impact fees for residential uses were suspended for two years, effective January 22, 2012. Beginning February 27, 2014, residential impact fees are being collected at 50% of adopted amounts for the next two years.

The current adopted fees are summarized in Table 1 on the following page. The temporary 50% residential fee reduction is not reflected in the table.

In addition to impact fees, the City assesses Utility Expansion Charges (UECs) for water and wastewater. UECs are similar to impact fees, but are adopted under authority provided in state law to assess charges for water and wastewater facilities, rather than under the authority of the *Development Fees Act* that regulates impact fees. The City's UECs are addressed in a separate analysis.

Land Use Categories

It is recommended that the current 20 nonresidential land use categories in the impact fee schedules be reduced to six: retail/commercial, office, industrial, warehouse, mini-warehouse and public/institutional. This approach recognizes that commercial land uses often change, avoids extremely high fees for a small number of land uses (e.g., restaurants, convenience stores, medical offices), eliminates most impact fee charges for change of use, thereby encouraging reuse of existing buildings, and simplifies impact fee administration. This change, however, would result in impact fee revenues about 5% lower than under the more detailed land use categories (see page 16).

[1] Duncan Associates, *Impact Fee Capital Improvements Plan and Land Use Assumptions for Roads, Parks, Fire and Police*, approved by the Santa Fe City Council on January 9, 2008.

Table 1. Adopted Impact Fee Schedule

Land Use Type	Unit	Roads	Parks	Fire	Police	Total
Single Family Detached Units (heated living area):						
(0 to 1,500 sq. ft.)	Dwelling	$1,850	$1,111	$125	$44	$3,130
(1,501 to 2,000 sq. ft.)	Dwelling	$2,100	$1,214	$136	$48	$3,498
(2,001 to 2,500 sq. ft.)	Dwelling	$2,183	$1,328	$150	$53	$3,714
(2,501 to 3,000 sq. ft.)	Dwelling	$2,248	$1,379	$155	$55	$3,837
(3,001 to 3,500 sq. ft.)	Dwelling	$2,309	$1,418	$159	$56	$3,942
(3,501 to 4,000 sq. ft.)	Dwelling	$2,359	$1,444	$163	$58	$4,024
(more than 4,000 sq. ft.)	Dwelling	$2,424	$1,495	$169	$59	$4,147
Accessory Units (attached or detached)						
(0 to 500 sq. ft.)	Dwelling	$518	$324	$37	$13	$892
(501 to 1,000 sq. ft.)	Dwelling	$1,036	$647	$73	$26	$1,782
(1,000 to 1,500 sq. ft.)	Dwelling	$1,554	$971	$110	$39	$2,674
Other (Apts., Condos, S.F. Attached)	Dwelling	$1,554	$971	$110	$39	$2,674
Hotel/Motel	Room	$1,203	$0	$82	$29	$1,314
Retail/Commercial (gross floor area)						
Shopping Center/General Retail	1000 sq. ft.	$4,597	$0	$221	$78	$4,896
Auto Sales/Service	1000 sq. ft.	$2,180	$0	$221	$78	$2,479
Bank	1000 sq. ft.	$4,948	$0	$221	$78	$5,247
Convenience Store w/Gas Sales	1000 sq. ft.	$8,778	$0	$221	$78	$9,077
Health Club, Recreational	1000 sq. ft.	$4,394	$0	$221	$78	$4,693
Movie Theater	1000 sq. ft.	$10,412	$0	$221	$78	$10,711
Restaurant, Packaged Food	1000 sq. ft.	$4,597	$0	$221	$78	$4,896
Restaurant, Sit-Down	1000 sq. ft.	$5,083	$0	$221	$78	$5,382
Restaurant, Fast Food	1000 sq. ft.	$11,064	$0	$221	$78	$11,363
Office/Institutional (gross floor area)						
Office, General	1000 sq. ft.	$2,429	$0	$124	$44	$2,597
Medical Building	1000 sq. ft.	$3,903	$0	$124	$44	$4,071
Nursing Home	1000 sq. ft.	$1,354	$0	$124	$44	$1,522
Church	1000 sq. ft.	$1,521	$0	$124	$44	$1,689
Day Care Center	1000 sq. ft.	$3,202	$0	$124	$44	$3,370
Educational Facility	1000 sq. ft.	$586	$0	$124	$44	$754
Educational Facility Dorm Room	1000 sq. ft.	$1,203	$0	$82	$29	$1,314
Industrial/Warehousing (gross floor area)						
Industrial, Manufacturing	1000 sq. ft.	$1,610	$0	$74	$26	$1,710
Warehouse	1000 sq. ft.	$1,147	$0	$47	$16	$1,210
Mini-Warehouse	1000 sq. ft.	$417	$0	$47	$16	$480

Source: Santa Fe City Code, Sec. 14-8.14/E(a), as amended by Ordinance 2013-44 adopted February 27, 2014.

Updated Fees

While the updated fees are generally lower than those calculated in the 2008 study, the 2008 fees were adopted at only 60% of the full proportionate-share amounts. Consequently, the updated fees are higher than the current adopted fees for most land uses, as shown in Table 2. Note that a 67% increase from current levels would be necessary to bring the fees up to the levels calculated in 2008 (while it may not be intuitive, if fees are adopted with a 40% reduction, it takes a 67% increase to get back to 100%). Because the updated fees are generally lower than those calculated in 2008, the maximum percentage increases from current adopted fees are generally significantly below 67%.

Table 2. Updated Fees Compared to 2008 Calculated/Adopted Fees

Land Use Type	Unit	Roads	Parks	Fire	Police	Total
Single-Family Detached (avg.)	Dwelling	$3,009	$1,552	$247	$104	$4,912
1,500 sq. ft. or less	Dwelling	$2,706	$1,381	$220	$92	$4,399
1,501-2,000 sq. ft.	Dwelling	$2,949	$1,443	$230	$97	$4,719
2,001-2,500 sq. ft.	Dwelling	$3,059	$1,583	$252	$106	$5,000
2,501-3,000 sq. ft.	Dwelling	$3,207	$1,661	$265	$111	$5,244
3,001 sq. ft. or more	Dwelling	$3,395	$1,769	$282	$119	$5,565
Multi-Family	Dwelling	$1,855	$1,350	$214	$90	$3,509
Retail/Commercial	1,000 sq. ft	$5,723	$0	$384	$161	$6,268
Office	1,000 sq. ft	$3,431	$0	$180	$76	$3,687
Industrial	1,000 sq. ft	$2,651	$0	$78	$33	$2,762
Warehouse	1,000 sq. ft	$1,383	$0	$34	$14	$1,431
Mini-Warehouse	1,000 sq. ft	$535	$0	$31	$13	$579
Public/Institutional	1,000 sq. ft	$2,086	$0	$162	$68	$2,316
Percent Change from 2008 Calculated Fees						
Single-Family Detached						
1,500 sq. ft. or less	Dwelling	-12%	-25%	5%	24%	-16%
1,501-2,000 sq. ft.	Dwelling	-16%	-29%	1%	21%	-19%
2,001-2,500 sq. ft.	Dwelling	-16%	-29%	1%	19%	-19%
2,501-3,000 sq. ft.	Dwelling	-14%	-28%	3%	22%	-18%
3,001 sq. ft. or more	Dwelling	-12%	-25%	6%	27%	-15%
Multi-Family	Dwelling	-28%	-17%	17%	38%	-21%
Retail/Commercial	1,000 sq. ft	-25%	n/a	4%	24%	-23%
Office	1,000 sq. ft	-15%	n/a	-13%	4%	-15%
Industrial	1,000 sq. ft	-1%	n/a	-37%	-25%	-3%
Warehouse	1,000 sq. ft	-28%	n/a	-56%	-48%	-29%
Mini-Warehouse	1,000 sq. ft	-23%	n/a	-60%	-52%	-28%
Public/Institutional	1,000 sq. ft	-8%	n/a	-22%	-7%	-9%
Percent Change from Adopted Fees						
Single-Family Detached						
1,500 sq. ft. or less	Dwelling	46%	24%	76%	109%	41%
1,501-2,000 sq. ft.	Dwelling	40%	19%	69%	102%	35%
2,001-2,500 sq. ft.	Dwelling	40%	19%	68%	100%	35%
2,501-3,000 sq. ft.	Dwelling	43%	20%	71%	102%	37%
3,001 sq. ft. or more	Dwelling	47%	25%	77%	113%	41%
Multi-Family	Dwelling	19%	39%	95%	131%	31%
Retail/Commercial	1,000 sq. ft	24%	n/a	74%	106%	28%
Office	1,000 sq. ft	41%	n/a	45%	73%	42%
Industrial	1,000 sq. ft	65%	n/a	5%	27%	62%
Warehouse	1,000 sq. ft	21%	n/a	-28%	-13%	18%
Mini-Warehouse	1,000 sq. ft	28%	n/a	-34%	-19%	21%
Public/Institutional	1,000 sq. ft	54%	n/a	31%	55%	52%

Source: Updated fees from Table 24 (roads), Table 36 (parks), Table 47 (fire/EMS) and Table 58 (police); percentage comparison to 2008 fees based on fees calculated in Duncan Associates, *Impact Fee Capital Improvements Plan and Land Use Assumptions for Roads, Parks, Fire and Police*, approved by the Santa Fe City Council on January 9, 2008 and adopted fees from Table 1 (comparison uses shopping center for retail/commercial, general office for office and nursing home for public/institutional).

Adoption of the updated fees at a 70% implementation rate would essentially be revenue-neutral (see Table 4). The updated total impact fees are very similar to current adopted fees for most land uses, as illustrated in Table 3. The Impact Fee Capital Improvements Advisory Committee (CIAC) recommends adoption of the updated fees at this percentage.

Table 3. Updated Fees at 70% Compared to Adopted Fees

Land Use Type	Unit	Roads	Parks	Fire	Police	Total
Single-Family Detached (avg.)	Dwelling	$2,106	$1,086	$173	$73	$3,438
1,500 sq. ft. or less	Dwelling	$1,894	$967	$154	$64	$3,079
1,501-2,000 sq. ft.	Dwelling	$2,064	$1,010	$161	$68	$3,303
2,001-2,500 sq. ft.	Dwelling	$2,141	$1,108	$176	$74	$3,499
2,501-3,000 sq. ft.	Dwelling	$2,245	$1,163	$186	$78	$3,672
3,001 sq. ft. or more	Dwelling	$2,377	$1,238	$197	$83	$3,895
Multi-Family	Dwelling	$1,299	$945	$150	$63	$2,457
Retail/Commercial	1,000 sq. ft	$4,006	$0	$269	$113	$4,388
Office	1,000 sq. ft	$2,402	$0	$126	$53	$2,581
Industrial	1,000 sq. ft	$1,856	$0	$55	$23	$1,934
Warehouse	1,000 sq. ft	$968	$0	$24	$10	$1,002
Mini-Warehouse	1,000 sq. ft	$375	$0	$22	$9	$406
Public/Institutional	1,000 sq. ft	$1,460	$0	$113	$48	$1,621
Percent Change from Adopted Fees						
Single-Family Detached						
1,500 sq. ft. or less	Dwelling	2%	-13%	23%	45%	-2%
1,501-2,000 sq. ft.	Dwelling	-2%	-17%	18%	42%	-6%
2,001-2,500 sq. ft.	Dwelling	-2%	-17%	17%	40%	-6%
2,501-3,000 sq. ft.	Dwelling	0%	-16%	20%	42%	-4%
3,001 sq. ft. or more	Dwelling	3%	-13%	24%	48%	-1%
Multi-Family	Dwelling	-16%	-3%	36%	62%	-8%
Retail/Commercial	1,000 sq. ft	-13%	n/a	22%	45%	-10%
Office	1,000 sq. ft	-1%	n/a	2%	20%	-1%
Industrial	1,000 sq. ft	15%	n/a	-26%	-12%	13%
Warehouse	1,000 sq. ft	-16%	n/a	-49%	-38%	-17%
Mini-Warehouse	1,000 sq. ft	-10%	n/a	-53%	-44%	-15%
Public/Institutional	1,000 sq. ft	8%	n/a	-9%	9%	7%

Source: 70% of updated fees from Table 2; percentage comparison to adopted fees from Table 1 (comparison uses shopping center for retail/commercial, general office for office and nursing home for public/institutional).

Potential Revenue

If the updated fees are adopted at 100% of the proportionate fair-share costs identified in this study, total impact fee revenues over the next seven years would be about $14 million, assuming no residential fee waivers or reductions, other than for affordable housing. The revenue effects of 100%, 70% and 60% adoption rates are summarized in Table 4, based on the growth projections contained in the updated Land Use Assumptions, and compared to revenue from current fees.

Table 4. Potential Impact Fee Revenue, 2014-2020

	Adoption Rates (No Waivers)			Current
Fee Type	100%	70%	60%	Fees
Roads	$10,352,347	$7,246,643	$6,211,408	$8,140,027
Parks/Trails	$2,674,647	$1,872,253	$1,604,788	$2,192,480
Fire/EMS	$774,244	$541,971	$464,546	$455,399
Police	$325,566	$227,896	$195,340	$162,915
Total	$14,126,804	$9,888,763	$8,476,082	$10,950,821

Source: Revenue for updated fees at 100% from Table 26 (roads), Table 38 (parks), Table 49 (fire/EMS) and Table 60 (police); revenue from current fees assumes single-family fee for 2,001-2,500 sq. ft. unit; 95% shopping center rate plus 5% fast-food restaurant rate (fast-food restaurant was actually 9% of retail square footage over the last two years) for retail, general office for office, average of industrial/warehouse for industrial/warehouse and nursing home for institutional.

Recommendations

The consultant offers the following recommendations relating to the impact fee update:

1. **Consolidate/Reduce Number of Nonresidential Land Use Categories**. The City should consolidate the nonresidential land use categories as reflected in the updated fee schedules. Even though this is likely to result in slightly less revenue than would be received if the current detailed categories were retained, such consolidation will recognize that commercial land uses often change, avoid extremely high fees for a small number of land uses, eliminate most impact fee charges for change of use, thereby encouraging reuse of existing buildings, and simplify impact fee administration.

2. **Consider Single-Family Flat Rate**. The City could also consider adopting flat rate for single-family detached units in place of the current differentiated fees by dwelling unit size. Both options have been calculated in this study, and both options would generate about the same amount of revenue. This would result in somewhat higher fees for smaller units and lower fees for larger units. However, the difference between fees for the smallest and largest single-family size categories has gone down from a theoretical maximum of $3,089 when the differential fees were first calculated in 2003 to only $1,166 in this update,[2] due to switch to more reliable regional data. The City may well decide that this relatively small differential is no longer worth the additional complexity.

3. **Adopt Fees at the Same Percentage for All Land Uses.** The updated fees may be adopted at a percentage less than the proportionate fair-share amounts documented in this study. Different adoption percentages could be applied to the different types of fees (e.g., roads or parks), but the percentage for each fee type should be applied uniformly to all land use types in order to retain the proportionality of the fees to the impact of various types of development. Adoption of all fees at 70% would produce about the same revenue as current fees.

[2] Sum of road, park, fire and police fees, if adopted at 100% with no residential fee waivers.

LEGAL FRAMEWORK

Impact fees are a way for local governments to require new developments to pay a proportionate share of the infrastructure costs they impose on the community. In contrast to traditional "negotiated" developer exactions, impact fees are charges that are assessed on new development using a standard formula based on objective characteristics, such as the number and type of dwelling units constructed. The fees are one-time, up-front charges, with the payment usually made at the time of building permit issuance. Impact fees require each new development project to pay its pro-rata share of the cost of new capital facilities required to serve that development.

Impact fees were pioneered by local governments in the absence of explicit state enabling legislation. Consequently, such 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. To date, 28 states have adopted impact fee enabling legislation. These acts have tended to embody the constitutional standards that have been developed by the courts. Impact fees in New Mexico are governed by the New Mexico *Development Fees Act* (Sec. 5-8-1, et. seq., New Mexico Revised Statutes).

Service Area

The New Mexico *Development Fees Act* requires that Land Use Assumptions and Capital Improvements Plans must be prepared for each "service area." A service area is a geographic area within which a set of capital facilities provides roughly equivalent benefit to all development located within the area. In general, impact fees collected within a service area will be spent within the same service area, although there may be instances where the facility that serves development in the service area is actually physically located outside the service area.

Land Use Assumptions

An impact fee update must include land use assumptions (growth projections) for each service area. The *Development Fees Act* defines land use assumptions as "projections of changes in land uses, densities, intensities and population in the service area over at least a five-year period." Because the Capital Improvements Plan that must be prepared for each service area must identify improvement needs for a period not to exceed ten years, a 5-to-10-year time-frame is appropriate for an impact fee study. A seven-year time frame is used for the land use assumptions and capital improvements plans in this study. The land use assumptions are provided in Appendix F.

Capital Improvements Plan

According to the *Development Fees Act*, impact fees can only be spent on improvements identified in the Capital Improvements Plan. The Capital Improvements Plan required by the *Development Fees Act* is somewhat different from the traditional capital improvements program. Like a traditional capital improvements program, the Capital Improvements Plan required by the *Development Fees Act* must include a list of capital projects, their costs and anticipated sources of funding. However, the similarity stops there. Elements required in the Capital Improvements Plan but not found in a typical capital improvements program include an inventory of existing facilities, including an analysis of current usage and capacity of such facilities; a determination of the portion of the cost of planned improvements, as well as existing improvements with remaining excess capacity, that is attributable to growth; an equivalency table that estimates the service demand generated by different

land use types; and the projected growth in service demand based on the recommended Land Use Assumptions over a period not to exceed ten years. In essence, the impact fee Capital Improvements Plan is the impact fee study.

Capital Facilities Plans

While the Capital Improvements Plan includes much more than a list of planned projects, the project list has special relevance. Impact fees can only be spent on projects that are listed in the adopted Capital Improvements Plan. In addition, credits against the impact fees in return for dedications of land or improvements made by developers are only allowed if the dedication or improvement is listed in the Capital Improvements Plan. In order to distinguish between the full Capital Improvements Plan and the list of projects, the list of projects will be referred to as the Capital Facilities Plan. The Capital Facility Plans for each of the four fee types are provided in Appendix G.

Level of Service

The Act requires "an analysis of the total capacity [and] the level of current usage" of existing facilities, a relationship that is often referred to as "level of service" (although this term does not appear in the Act). The impact fee principle that is being referred to here is that new development should not be charged for a higher level of service than is being provided to existing development. If facilities are currently deficient with respect to the capacity standard that is being used to calculate the impact fees, a credit should be provided to new development to acknowledge tax or rate payments that will be made by new development and used to remedy the deficiency. In general, the necessity of providing a deficiency credit is avoided by basing the impact fees on the current level of service.

Service Unit

Both demand and capacity need to be expressed in terms of the same "service units" – defined by the Act as "a standardized measure of consumption, use, generation or discharge." The service unit for parks, for example, might be acres of park land. In order to translate land use projections into additional demands for service, the Capital Improvements Plan must include "an equivalency or conversion table establishing the ratio of a service unit to various types of land uses, including residential, commercial, and industrial." Such a table, which relates various land use categories and the service demands associated with them, is the basis for the fee schedule. The equivalency table for road impact fees, for example, would specify the typical travel demand generated by a single-family unit, 1,000 square feet of office space, etc.

Fee Schedule

The fee schedule brings together all of the fee calculation components. These include the land use categories, service demands associated with a unit of development, cost per service unit and revenue credits. Although the Act does not specifically mention credits for other revenue contributions (e.g., gross receipts taxes used to pay debt service on the same facility), established case law clearly indicates that double-charging must be avoided and that such contributions must be credited in the impact fee formulation.

Updates

The *Development Fees Act* requires that the land use assumptions and capital improvements plan be updated within five years from the date that the last capital improvements plan was adopted.

SERVICE AREAS

The New Mexico *Development Fees Act* defines "service area" as

> *the area within the corporate boundaries or extraterritorial jurisdiction of a municipality or the boundaries of a county to be served by the capital improvements or facility expansions specified in the capital improvements plan designated on the basis of sound planning and engineering standards.*

The service area for the City's current impact fees is the Santa Fe Urban Area (see Figure 1). The Urban Area is the geographic area that includes the City's incorporated area as well as some additional unincorporated area that is likely to be annexed into the city at some time in the future. In the future, comparisons between the "city" and "urban area" may be unnecessary as the city annexes most of the urban area. However, the Agua Fria Traditional Historic Community, containing 2,800 residents and 1,134 housing units according to the 2010 Census, is located within the urban area and is expected to remain unincorporated. City impact fees are charged only within the corporate limits and unincorporated areas within the Urban Area where the City has building permit authority.

The City currently has a single service area for all of the fees. In general, multiple service areas should be avoided where possible. Each service area requires the preparation of separate land use assumptions, facility inventories, impact fee calculations and capital improvements plans. In addition, multiple service areas limit the City's ability to accumulate sufficient funds to make improvements.

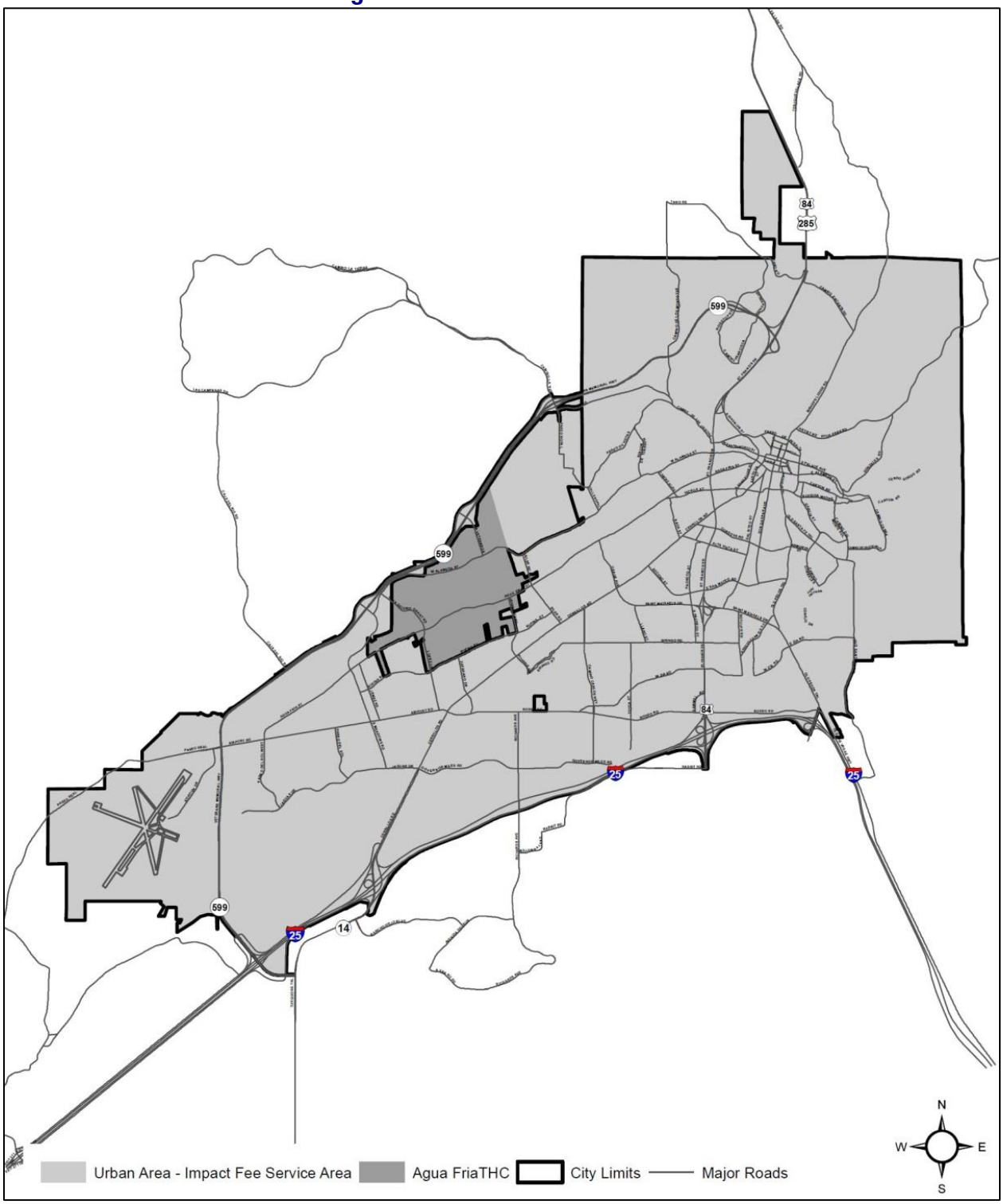
Multiple service areas are sometimes used to create fee differentials as an incentive to steer development to desired locations. Impact fee differentials by area, however, are unlikely to be large enough to have any significant effect on the location of development.

Benefit District Option. While multiple service areas are to be avoided, the City could consider the division of the service area (for one or more impact fee types) into two or more "benefit districts." Benefit districts are not described in the State's impact fee enabling act, but they are used in many impact fee systems around the country. A benefit district is simply a requirement that impact fees collected in a defined area be spent in the same area. Benefit districts use a requirement of geographic proximity to help ensure that the fees are spent on improvements that benefit the developments generating the fees.

Multiple benefit districts put the same restrictions on the expenditure of funds as multiple service areas would, but the preparation of separate land use assumptions, capital improvements plans and impact fee calculations for each benefit district is not required. Multiple benefit districts generally make the most sense for road and park impact fees. Fire and police facilities tend to be either more centralized (police) or more integrated (fire), and are generally not appropriate for multiple benefit districts.

The City has been experiencing significant growth in its recently-annexed southwest portion of the Urban Area, and some interest has been expressed in implementing two benefit districts (southwest/non-southwest) for road and park/trail impact fees.

Figure 1. Santa Fe Urban Area



Roads

The City's road impact fees fund improvements to the major roadway system, defined as arterial and collector roadways, excluding I-25 and NM 599. Because the major roadway system facilitates travel throughout the community, a single service area continues to be appropriate for road impact fees.

Parks/Trails

The City's park/trail impact fees fund improvements to the system of recreational facilities, including regional parks, neighborhood parks and trails. Regional parks and trails tend to serve relatively large areas, while neighborhood parks have more localized benefit. As long as the City makes a good faith effort to use park/trail impact fees to fund neighborhood park improvements in areas that are experiencing residential development, a single service area will continue to be appropriate for park/trail impact fees.

Fire and Police

A single service area continues to be appropriate for fire and police facilities. Police facilities tend to be centralized, and police protection is provided throughout the city from roving patrol cars. While fire facilities are by necessity more decentralized, responding units are not always located at the nearest station, and units respond to major incidents from all over the city. The City's fire and police facilities and equipment thus form integrated systems, and single service areas are appropriate.

LAND USE ASSUMPTIONS

Land Use Assumptions for the impact fees are provided in Appendix F. The land use assumption report provides growth projections for the Santa Fe Urban Area, a unified service area within which the city may expend impact fee monies for eligible capital improvement projects. The New Mexico Development Fees Act (§§ 5-8-1 through 5-8-43, NMSA 1978), specifies that land use assumptions must be adopted for a period of at least five years. The land use assumptions cover a period of seven calendar years from the beginning of 2014 through the end of 2020. Over this period, the land use assumptions anticipate that the service area will gain 2,100 new dwelling units with approximately 3,500 new residents and approximately 1.23 million square feet of new nonresidential development. The growth projections for housing, population and nonresidential floor area from 2014 through 2020 are summarized in Table 5.

Table 5. Land Use Assumptions Summary, 2014-2020

	2014	2020	Increase
Populaton	86,500	90,000	3,500
Single-Family Detached*	25,075	26,563	1,488
Multi-Family**	14,125	14,737	612
Moble Home	5,200	5,200	0
Total Housing Units	44,400	46,500	2,100
Retail (1,000 sf)	10,198	10,898	700
Office (1,000 sf)	8,972	9,322	350
Industrial (1,000 sf)	4,360	4,465	105
Institutional (1,000 sf)	2,960	3,030	70
Total Nonresidential (1,000 sf)	26,490	27,715	1,225

* 85% of combined single-family detached and attached provided in the *Land Use Assumptions* (percentage from U.S. Census, American Community Survey, 2008-2012 for City of Santa Fe)

** adjusted from *Land Use Assumptions* to include single-family attached, per note above

Source: City of Santa Fe Long Range Planning Division, *Santa Fe Urban Area, Impact Fee Land Use Assumptions 2014-2020*, August 2013 (see Appendix F).

METHODOLOGIES

This section reviews the existing methodologies for all four facility types, identifies potential alternatives and makes recommendations for changes.

There are a variety of methodologies that can be employed to calculate impact fees. Any methodology, however, must comply with the fundamental principle of impact fees, which is that new development should not be charged for a higher level of service than existing development. Impact fees can be based on a higher level of service than currently exists, but if they are based on a higher level of service a funding plan must be put in place to remedy the existing deficiencies and a credit must be provided for the portion of the funding used to remedy the deficiencies that will be generated by new development.

Alternative Methodologies

There are two basic types of impact fee methodologies: "standards-based" and "plan-based." Standards-based methodologies use a generalized, system-wide level of service measure, such as the number of park acres per 1,000 residents. With such a standard, appropriate impact fees can be calculated based on the cost of maintaining the existing level of service without a master plan specifying specific improvements to be constructed. This approach gives the City flexibility to modify its Capital Improvements Plan to respond to changing conditions without triggering the need for an impact fee update.

A plan-based methodology relies on a list of planned capital improvements, and is basically calculated by dividing the cost of needed improvements over a period of time by the anticipated new service units over the same time period. The essential requirement for a plan-based fee is that it must demonstrate the nexus between the cost of the planned improvements and the amount of anticipated development. Some plan-based fees use a master plan to establish this nexus. The master plan approach is generally based on an improvement-specific or geographically-based level of service standard, such as "all major roadways shall operate at LOS D or better," and often results in the identification of existing deficiencies. Other plan-based fees are based on a build-out plan or list of capital improvements that are not based on a master plan. These non-master plan approaches must generally be combined with a standards-based analysis that demonstrates that the plan-based fee does not exceed the existing level of service, in order to establish the nexus between the planned improvements and the amount of development to be served by those improvements.

Current Methodologies

The City's current impact fees are all based on a standards-based methodology, as described below. No changes from the basic methodologies are proposed.

Roads

The standards-based methodology for road impact fees is generally referred to as a "consumption-based" approach. In the standard consumption-based approach, the total cost of a representative set of improvements is divided by the capacity added by those improvements in order to determine an average cost per vehicle-mile of capacity (VMC). This cost per VMC is then multiplied by the

vehicle-miles of travel (VMT) generated by a unit of development of a particular land use type to determine the gross impact fee (i.e., before credits). A variant is the modified consumption-based approach, which uses a system-wide VMC/VMT ratio higher than the 1:1 ratio implicit in the standard approach.

The City's current road impact fees are based on the standard consumption-based methodology. This is a relatively conservative approach, because most roadway systems require a VMC/VMT ratio greater than one to operate effectively, due to the fact that vehicular travel does not always go where excess road capacity is located. Nevertheless, it is a widely-used, reliable approach to the calculation of road impact fees.

Parks

The standards-based methodology is sometimes referred to as "incremental expansion," because it uses the existing level of service to determine the cost required to serve future development. It is based on the reasonable assumption that facilities will need to be expanded proportional to the amount of growth that occurs. This approach is appropriate for facilities that do not have a significant amount of excess capacity to serve future development.

Park impact fees are typically only assessed on residential development, because the need for parks is related to the number of people residing in the community. Some park impact fees use the ratio of park acres to population as the level-of-service measure. However, rather than using population as the service unit for parks, the current fees use Equivalent Dwelling Units (EDUs). A typical single-family home is 1.00 EDU, while the EDUs for other housing types are based on the average household size relative to a typical single-family unit. Using EDUs rather than population has the advantage of taking volatile occupancy rates out of the equation.

While a ratio of acres to population may be a useful level-of-service measure for park planning purposes, it is less appropriate as the basis for impact fee calculation. An acre developed with ball fields represents a much lower capital investment than an acre developed with a community center or a swimming pool. The current park methodology uses the inventory of actual improvements and current replacement costs to quantify the capital investment in existing facilities. The existing LOS is defined in terms of capital investment per EDU.

Fire and Police

The current fire and police impact fees are also based on the incremental expansion approach, based on the existing city-wide level of service. The level of service is quantified in terms of the capital investment per service unit. The service unit for fire and police fees is "functional population." A functional person is similar to the concept of a full-time equivalent worker, and represents the equivalent of a person being present at the land use for 24 hours a day. The functional population approach is appropriate for fire and police services, since the demand for such services is strongly related to the number of people present at a land use.

LAND USE CATEGORIES

This section contains the consultant's recommendations relating to the land use categories to be included in the updated impact fee schedule.

Single-Family Fees by Unit Size

The analysis provided in Appendix B indicates that average household size does not increase for single-family detached units over about 3,000 square feet. Consequently, this update recommends collapsing the 3,001-3,500 square feet, 3,501-4,000 square feet, and over 4,000 square foot categories. Alternatively, the City Council could choose to charge single-family fees based on the average fee per dwelling unit.

Nonresidential Land Use Categories

The consultant recommends reducing the number of nonresidential land use categories in the impact fee schedule. In hindsight, the categories we initially prepared for the City in 2003, and updated in 2008, are probably too detailed. In recent years, we have been encouraging clients to simplify their impact fee systems, including reducing the land uses in their fee schedules to fewer, more general, categories. Fewer, broader land use categories are just as defensible from a legal standpoint and offer several advantages, including avoiding extremely high fees for a small number of land uses (e.g., restaurants, convenience stores, medical offices), eliminating most impact fee charges for change of use, thereby encouraging reuse of existing buildings, and simplifying impact fee administration. We most recently applied this approach in our 2012 update of Albuquerque's impact fees.[3]

The major suggested change is to simplify and reduce the number of nonresidential land use categories included in the impact fee schedule. Including many land use categories seems on the face of it to be more accurate and to make it easier to classify proposed uses. After all, if a use is specifically listed, that should make it easier to assess fees when that particular use is proposed. The problem is that it is impossible to list all potential uses, and including many land use categories does not necessarily improve accuracy. For example, while the Institute of Transportation Engineers (ITE) *Trip Generation* manual provides trip rates for many categories, the land uses are often not well defined, many of the rates are based on very small samples, and data on pass-by rates and average trip lengths for most of those uses are not readily available. In addition, short-term accuracy can end up overcharging for long-term impacts, because commercial uses change frequently and impact fees are not refunded when a use is changed to one that generates less impact.

The alternative approach of listing fewer, broader categories in the fee schedule is becoming increasing popular as a way to encourage the reuse of existing buildings and simplify impact fee administration. Such fee schedules list a few very general nonresidential categories, such as retail/commercial, office, public/institutional, industrial, warehouse and mini-warehouse. This approach may not generate as much revenue as the more detailed approach, but it is legally

[3] Duncan Associates, *Impact Fee Land Use Assumptions and Capital Improvements Plan, 2012-2022, prepared for the City of Albuquerque, New Mexico*, September 2012 (https://www.cabq.gov/council/documents/OC127.pdf).

defensible, reasonable and simpler to administer. It recognizes that the use of buildings often changes over time, and it focuses on average long-term impacts. Short-term impacts in the immediate vicinity of a use are a legitimate focus for traffic impact analyses designed to determine impacts on nearby intersections, but are not necessarily the most appropriate for road impact fees. Most commercial uses tend to be located in shopping centers, and the ITE trip generation rates for shopping centers are based on a broad mix of land uses. Shopping centers often include high-traffic uses such as movie theaters, banks, medical offices and restaurants, and the ITE manual notes that some of the studies of shopping centers include trips generated from outparcels, which tend to be occupied by the highest-traffic uses, such as convenience stores, gas stations and fast food restaurants. This approach recognizes that commercial land uses often change, avoids extremely high fees for a small number of land uses (e.g., restaurants, convenience stores), eliminates most impact fee charges for change of use, thereby encouraging reuse of existing buildings, and simplifies impact fee administration.

The proposed land use categories are compared to the current categories in Figure 2. In addition, this update calculates an average impact fee for single-family detached units, which would allow the City to update the current single-family fees by size category or use a single, average fee.

Figure 2. Current and Proposed Land Use Categories

Proposed Land Use Categories	Current Land Use Categories	
Single Family Detached	Single Family Detached	
Up to 1,500 sq. ft.	Up to 1,500 sq. ft.	
1,501 - 2,000 sq. ft.	1,501 - 2,000 sq. ft.	
2,001 - 2,500 sq. ft.	2,001 - 2,500 sq. ft.	
2,501 - 3,000 sq. ft.	2,501 - 3,000 sq. ft.	
More than 3,000 sq. ft.	3,001 - 3,500 sq. ft. More than 4,000 sq. ft.	3,501 - 4,000 sq. ft.
Guest Unit, 750 sf or less	Guest Unit, 500 sf or less	Guest Unit, 501-750 sf
Multi-Family/Guest Unit >750 sf	Multi-Family/Other	Guest Unit, > 750 sf
Retail/Commercial	Shopping Center/Gen. Retail Auto Sales/Service Bank Conv. Store w/Gas Sales Health Club	Hotel/Motel Movie Theater Restaurant, Packaged Food Restaurant, Sit-Down Restaurant, Fast Food
Office	Office, General	Medical Building
Public/Institutional	Nursing Home Church	Day Care Center Educational Facility/Dorm
Industrial	Industrial	
Warehouse	Warehouse	
Mini-Warehouse	Mini-Warehouse	

To estimate the potential revenue loss from moving to the more generalized nonresidential categories, permit data were reviewed for the last two years. Table 6 below shows the difference between the impact fees that would have been collected under the current adopted fee schedule (with no reduction or waiver of residential fees) versus under the proposed more general land use categories. Industrial and warehouse categories are not shown, because the City did not permit any developments of these types over the last two years. This comparison suggests that the more general land use categories would result in total impact fee revenue about 5% lower than under the more detailed categories.

Table 6. Impact Fee Revenue, Detailed vs. General Nonresidential Categories

Land Use Categories	Unit	No. of Units Permitted	Impact Fee Revenue				
			Roads	Parks	Fire	Police	Total
Residential (all)	Dwelling	455	$836,527	$505,610	$56,983	$20,143	$1,419,263
Shopping Center/Gen. Retail	1,000 sq. ft.	89.319	$410,599	$0	$19,740	$6,967	$437,306
Auto Sales	1,000 sq. ft.	8.852	$19,297	$0	$1,956	$690	$21,943
Bank	1,000 sq. ft.	6.267	$31,009	$0	$1,385	$489	$32,883
Restaurant, Sit-Down	1,000 sq. ft.	22.321	$113,458	$0	$4,933	$1,741	$120,132
Restaurant, Fast Food	1,000 sq. ft.	13.096	$144,894	$0	$2,894	$1,021	$148,809
Health Club	1,000 sq. ft.	2.740	$12,040	$0	$606	$214	$12,860
Office, General	1,000 sq. ft.	31.501	$76,516	$0	$3,906	$1,386	$81,808
Office, Medical	1,000 sq. ft.	3.328	$12,989	$0	$413	$146	$13,548
Nursing Home	1,000 sq. ft.	17.068	$23,110	$0	$2,116	$751	$25,977
Church	1,000 sq. ft.	32.897	$50,036	$0	$4,079	$1,447	$55,562
Mini-Warehouse	1,000 sq. ft.	3.106	$1,295	$0	$146	$50	$1,491
Total, Detailed Categories			$1,731,770	$505,610	$99,157	$35,045	$2,371,582
Residential (all)	Dwelling	455	$836,527	$505,610	$56,983	$20,143	$1,419,263
Retail/Commercial	1,000 sq. ft.	142.595	$655,509	$0	$31,513	$11,122	$698,144
Office	1,000 sq. ft.	34.829	$84,600	$0	$4,319	$1,532	$90,451
Public/Institutional	1,000 sq. ft.	49.965	$29,279	$0	$6,196	$2,198	$37,673
Mini-Warehouse	1,000 sq. ft.	3.106	$1,295	$0	$146	$50	$1,491
Total, General Categories			$1,607,210	$505,610	$99,157	$35,045	$2,247,022
Percentage Revenue Change			-7.2%	0.0%	0.0%	0.0%	-5.3%

Note: Approximate two-year revenue, based on 22 months of residential permits (1/23/12-11/23/13) and nonresidential permits for 2012-2013 calendar years

Source: Residential permits and revenue from Table 7; nonresidential permits for calendar years 2012 and 2013 from City of Santa Fe Long Range Planning Division, February 21, 2014; impact fee revenue based on current fees for detailed land use categories from Table 1 and general categories based on shopping center for retail, general office for office, and education for public/institutional.

Most of the reduced revenue is attributable to fast food restaurants, which would pay significantly less under the more generalized retail/commercial category. However, this may be a function of the fact that the City experienced a lot of fast food restaurant development over the last two years, but not any development in some other high-fee categories, such as convenience store/gas sales and movie theaters. While the distribution of land use types developed may change, the percentage shown in the above table is a reasonable estimate of the relative amounts of revenue likely to be received under the detailed versus general nonresidential land use categories.

While only modest changes are proposed to the residential categories, the City also has the option of charging a flat rate for single-family detached, rather than the tiered rates by dwelling size. The 2008 study did not calculate an average single-family fee, but the current fee for the 1,501-2,000 square feet category is a reasonable approximation (the City has been issuing an equal number of permits for smaller and larger units). Accessory units are treated as multi-family in the general categories, because fees for accessory units were not calculated in the 2008 study. The analysis suggests that collapsing the residential categories would have very little revenue impact, as shown in Table 7 below.

Table 7. Impact Fee Revenue, Detailed vs. General Residential Categories

Land Use Categories	Unit	No. of Units Permitted	Impact Fee Revenue				
			Roads	Parks	Fire	Police	Total
Single Family Detached							
(0 to 1,500 sq. ft.)	Dwelling	75	$138,750	$83,325	$9,375	$3,300	$234,750
(1,501 to 2,000 sq. ft.)	Dwelling	115	$241,500	$139,610	$15,640	$5,520	$402,270
(2,001 to 2,500 sq. ft.)	Dwelling	47	$102,601	$62,416	$7,050	$2,491	$174,558
(2,501 to 3,000 sq. ft.)	Dwelling	20	$44,960	$27,580	$3,100	$1,100	$76,740
(3,001 to 3,500 sq. ft.)	Dwelling	4	$9,236	$5,672	$636	$224	$15,768
(3,501 to 4,000 sq. ft.)	Dwelling	2	$4,718	$2,888	$326	$116	$8,048
(more than 4,000 sq. ft.)	Dwelling	3	$7,272	$4,485	$507	$177	$12,441
Accessory Units (attached or det.)							
(0 to 500 sq. ft.)	Dwelling	3	$1,554	$972	$111	$39	$2,676
(501 to 1,000 sq. ft.)	Dwelling	6	$6,216	$3,882	$438	$156	$10,692
(1,000 to 1,500 sq. ft.)	Dwelling	4	$6,216	$3,884	$440	$156	$10,696
Multi-Family	Dwelling	176	$273,504	$170,896	$19,360	$6,864	$470,624
Nonresidential (all)	1,000 sq. ft.	230.495	$895,243	$0	$42,174	$14,902	$952,319
Total, Detailed Categories			$1,731,770	$505,610	$99,157	$35,045	$2,371,582
Single-Family Detached	Dwelling	266	$558,600	$322,924	$36,176	$12,768	$930,468
Multi-Family/Accessory	Dwelling	189	$293,706	$183,519	$20,790	$7,371	$505,386
Nonresidential (all)	1,000 sq. ft.	230.495	$895,243	$0	$42,174	$14,902	$952,319
Total, General Categories			$1,747,549	$506,443	$99,140	$35,041	$2,388,173
Percentage Revenue Change			0.9%	0.2%	0.0%	0.0%	0.7%

Note: Approximate two-year revenue, based on 22 months of residential permits (1/23/12-11/23/13) and nonresidential permits for 2012-2013 calendar years

Source: Nonresidential permits and revenue from Table 6; residential permits for the 22-month period from 1/23/12-11/23/13 from City of Santa Fe Land Use Department, November 27, 2013 memorandum; impact fee revenue based on current fees for detailed residential land use categories from Table 1 and general categories based on single-family detached (1,501-2,000 sq. ft.) and multi-family.

ROADS

The New Mexico Development Fees Act authorizes local governments to impose impact fees for "roadway facilities," including traffic signals. In the 2008 update, the arterial impact fee was expanded to include collector roads and was combined with the traffic signal impact fee into comprehensive road impact fee.

Service Area

Road impact fees will be calculated in this section for the City's Urban Area, which includes the incorporated area of the City of Santa Fe and unincorporated areas around the city that will likely be provided with City service and may ultimately be annexed by the City. The road impact fees will be collected by the City only within the city limits and unincorporated areas within the Urban Area where the City has building permit authority, and will be limited to being spent within the Urban Area.

Service Unit

In impact fee analysis, capital costs, revenue credits and net costs are calculated on the basis of a "service unit," which is a common unit of measurement of facility demand and capacity. An appropriate service unit for roadway capital cost analysis is vehicle-miles of travel (VMT). Vehicle-miles is a combination of the number of vehicles traveling during a given time period and the distance (in miles) that these vehicles travel. The two time periods most often used in traffic analysis are the 24-hour day (average daily trips or ADT) and the single hour of the day with the highest traffic volume (peak hour trips or PHT). Since available traffic counts are in the form of daily volumes, the impact fees will continue to be based on ADT.

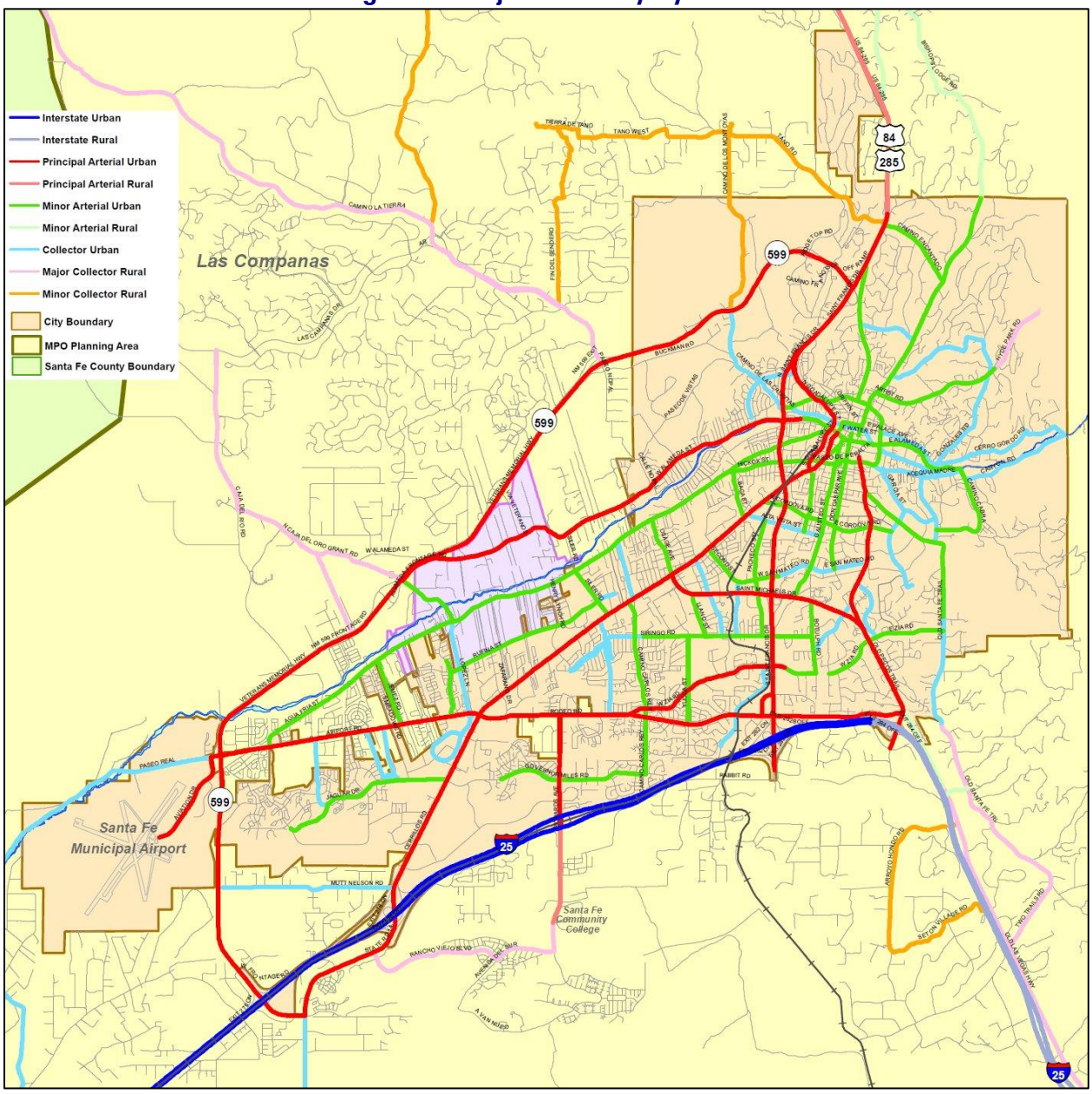
Major Road System

The New Mexico Development Fees Act limits the use of transportation impact fees to "roadway facilities," which are defined as:

> *…arterial or collector streets or roads that have been designated on an officially adopted roadway plan of the municipality or county, including bridges, bike and pedestrian trails, bus bays, rights of way, traffic signals, landscaping and any local components of state or federal highways.*

The City's road impact fee ordinance defines the major road system as all collector and arterial roads. The major road system excludes I-25, because this facility serves long-distance travel and it is unlikely that the City will make any contributions toward expanding its capacity. In this update, NM 599 is also excluded, because it is a State-maintained expressway that is on the border of its incorporated boundary. The City's major roadway system is illustrated in Figure 3. Traffic signals and intersection improvements that are associated with the major road system can be funded with the road impact fee.

Figure 3. Major Roadway System



An inventory of the major roadway system was prepared as part of this update and presented in Table 61 in Appendix A. The major purpose of the inventory is to determine the total amount of travel on the major road system, expressed in vehicle-miles of travel (VMT), and system-wide capacity, expressed as vehicle-miles of capacity (VMC). The system-wide VMT is used to calibrate national travel demand factors to local conditions.

Road impact fees will only be allowed to be spent to make improvements to the major road system. By the same token, no credit should be given unless the developer is required to improve the major road system being funded by the fee.

Methodology

As with the previous road impact fee calculation, the methodology for determining the road segment component of the road impact fee is based on a "consumption-based" model, which basically charges a new development the cost of replacing the capacity that it consumes on the major road system. That is, for every vehicle-mile of travel (VMT) generated by the development, the road impact fee charges the net cost to construct an additional vehicle-mile of capacity (VMC).

Since travel is never evenly distributed throughout a road system, actual road systems require more than one unit of capacity for every unit of demand in order for the system to function at an acceptable level of service. Suppose, for example, that the City completes a major arterial widening project. The completed arterial is likely to have a significant amount of excess capacity for some period of time. If the entire system has just enough capacity to accommodate all of the vehicle-miles of travel, then the excess capacity on this segment must be balanced by another segment being over-capacity. Clearly, road systems in the real world need more total aggregate capacity than the total aggregate demand, because the traffic does not always precisely match the available capacity. Consequently, the standard consumption-based model generally underestimates the full cost of accommodating new development at the existing level of service.

In most rapidly growing communities, some roads will be experiencing an unacceptable level of congestion at any given point in time. One of the principles of impact fees is that new development should not be charged for a higher level of service than is provided to existing development. In the context of road impact fees, this has sometimes been interpreted to mean that impact fees should not be spent on roads that are already over-capacity. However, it is not necessary to address existing deficiencies in a consumption-based system, which, unlike an improvements-driven system, is not designed to recover the full costs to maintain the desired LOS on all road segments. Instead, it is only designed to maintain a minimum one-to-one overall ratio between system demand and system capacity. Virtually all major road systems have more capacity (VMC) than demand (VMT) on a system-wide basis. Consequently, under a consumption-based system, the level of service standard is really a system-wide VMC/VMT ratio of one.

The existing system-wide VMC/VMT ratio is considerably higher than one, as shown in Table 8. Because the City's major road system currently operates at better than a one-to-one ratio, there are no existing deficiencies on a system-wide basis.

Table 8. System-Wide Ratio of Road Capacity to Demand

Daily Vehicle-Miles of Capacity (VMC)	2,813,450
÷ Daily Vehicle-Miles of Travel (VMT)	1,324,631
System-Wide Capacity/Demand Ratio	2.12

Source: Table 61 in Appendix A.

The road impact fee formula is presented in Figure 4.

Figure 4. Road Impact Fee Formula

FEE	=	VMT X NET COST/VMT
Where:		
VMT	=	TRIPS x % NEW x LENGTH x ADJUST
TRIPS	=	1/2 average daily trip ends during weekday
% NEW	=	Percent of trips that are primary trips
LENGTH	=	Average length of a trip
ADJUST	=	Local travel demand adjustment factor
NET COST/VMT	=	COST/VMT - CREDIT/VMT
COST/VMT	=	COST/VMC X VMC/VMT
COST/VMC	=	Average cost per new VMC
VMC/VMT	=	Ratio of vehicle-miles of capacity to vehicle-miles of travel
CREDIT/VMT	=	Credit per VMT based on revenues generated

The traffic signal portion of the road impact fee is based on the ratio of existing traffic demand to existing signals. The current traffic signal level of service is shown in Table 9.

Table 9. Traffic Signal Level Of Service

Existing Vehicle-Miles of Travel (VMT)	1,324,631
÷ Existing Traffic Signals	119
Existing VMT per Signal	11,131

Source: Existing Urban Area VMT from Table 8; existing signals from City of Santa Fe Long Range Planning Division, October 25, 2013.

Travel Demand

The travel demand generated by specific land use types is a product of three factors: 1) trip generation, 2) percent new trips and 3) trip length. The first two factors are well documented in the professional literature, and the average trip generation characteristics identified in studies of communities around the nation should be reasonably representative of trip generation characteristics in Santa Fe. In contrast, trip lengths are much more likely to vary between communities, depending on the geographic size and shape of the community and its major street system.

Trip Generation

Trip generation rates are based on information published in the most recent edition of the Institute of Transportation Engineers' (ITE) Trip Generation manual. Trip generation rates represent trip ends, or driveway crossings at the site of a land use. Thus, a single one-way trip from home to work counts as one trip end for the residence and one trip end for the work place, for a total of two trip ends. To avoid over-counting, all trip rates have been divided by two. This places the burden of travel equally between the origin and destination of the trip and eliminates double-charging for any particular trip.

As with the current impact fee schedule, the road impact fees calculated in this report will vary by the size of the dwelling unit for single-family detached units. The average household size of single-family detached units by unit size is available from the 2008-2012 American Community Survey

conducted by the U.S. Census Bureau for Santa Fe. This information is combined with the trip rate data by household size provided by the National Cooperative Highway Research Program to derive daily trip generation rates, as shown in Table 10.

Table 10. Single-Family Trip Generation Rates

Single-Family Unit Size (Heated Living Area)	Average HH Size	Daily Trips
1,500 sq. ft. or less	1.95	8.56
1,501-2,000 sq. ft.	2.04	9.33
2,001-2,500 sq. ft.	2.23	9.68
2,501-3,000 sq. ft.	2.35	10.15
3,001 sq. ft. or more	2.50	10.74
All Single-Family Detached Units	2.19	9.52
Guest Unit, 750 sq. ft. or less	1.66	5.80

Source: Average household sizes from Table 65; daily trips derived from Transportation Research Board, NCHRP Report 365, "Travel Estimation Techniques for Urban Planning," Washington, D.C.: National Academy Press, Table 9 (for urban areas with populations of 50,000 to 199,999), 1998.

New Trip Factor

Trip rates also need to be adjusted by a "new trip factor" to exclude pass-by and diverted-link trips. This adjustment avoids over-counting by only including primary trips generated by the development. Pass-by trips are those trips that are already on a particular route for a different purpose and simply stop at a particular development on that route. For example, a stop at a convenience store on the way home from the office is a pass-by trip for the convenience store. A pass-by trip does not create an additional burden on the street system and therefore should not be counted in the assessment of impact fees. A diverted-link trip is similar to a pass-by trip, but a diversion is made from the regular route to make an interim stop. The reduction for pass-by and diverted-link trips was drawn from ITE and other published information.

Average Trip Length

In the context of a road impact fee based on a consumption-based methodology, it is important to determine the average length of a trip on the local major road system. The point of departure in developing local trip lengths is to utilize national data. The U.S Department of Transportation's 2009 National Household Travel Survey identifies average trip lengths for specific land uses and trip purposes. However, these trip lengths are unlikely to be representative of travel on the major road system utilized in this study for Santa Fe, since the major road system does not include local roads or the interstate highway system. An adjustment factor for local trip lengths can be derived by dividing the VMT that is actually observed on the major road system by the VMT that would be expected using national average trip lengths and trip generation rates.

The first step in developing the adjustment factor for local travel demand is to estimate the total daily vehicle-miles of travel (VMT) that would be expected on Santa Fe's major road system based on national travel demand characteristics. Existing land use data from the Land Use Assumptions are multiplied by average daily trip generation rates, percent of primary trips and national average trip lengths and summed to estimate total city-wide VMT. As shown in Table 11, existing service area land uses, using national trip generation and trip length data, would be expected to generate approximately 2.9 million VMT every day.

Table 11. Expected Vehicle-Miles of Travel

Land Use Type	Unit	Existing Units	Trip Rate	New Trips	Trip Length	Expected VMT
Single-Family Detached	Dwelling	25,075	9.52	100%	9.75	1,163,731
Multi-Family	Dwelling	14,125	6.65	100%	8.62	404,844
Mobile Home/RV Park	Space	5,200	4.99	100%	6.03	78,233
Retail/Commercial	1,000 sf	10,198	42.70	42%	6.27	573,363
Office	1,000 sf	8,972	11.03	100%	9.61	475,508
Industrial/Warehouse*	1,000 sf	4,360	5.20	100%	11.98	135,805
Public/Institutional	1,000 sf	2,960	7.60	100%	8.47	95,271
Total Expected VMT						2,926,755

* Trip rate is average of industrial and warehouse from Table 14

Source: Existing units from Table 5; trip rates and percent new trips from Table 14; national average trip lengths from Table 13.

The next step in developing the local trip length adjustment factor is to determine actual service area VMT on the City of Santa Fe's major road system. Road segment lengths and recent traffic counts from Table 61 in Appendix A are used to determine actual daily VMT.

Annualized average daily traffic (AADT) volumes were obtained from the Santa Fe Metropolitan Planning Organization. Traffic volumes from 2008 and 2011 were available, with the most recent segment volume utilized in the analysis of system-wide volume. Lack of traffic counts for some road segments required use of estimated volumes; arterial road volume estimates were based on 75 percent of the volume for roads with counts, while collector road volume estimates were based on 50 percent of the volume for roads with counts. Where this occurred, it has been noted in the road inventory in Table 61 in Appendix A.

An adjustment of total VMT is sometimes necessary to take into account trips that travel on the major road system without an origin or destination in the urban area. However, since this study excludes I-25 and NM 599, which carry the vast majority of through trips, an adjustment is not deemed necessary.

The expected system-wide VMT based on existing land use data and national travel demand characteristics over-estimates VMT actually observed on the major road system. This is not surprising, given that the major road system excludes all local roads, I-25 and NM 599. Consequently, it is necessary to develop an adjustment factor to account for this variation. The local trip length adjustment factor is the ratio of actual to projected VMT on the major road system. As shown in Table 12, the average trip length for each land use should be multiplied by a local adjustment factor of 0.453.

Table 12. Local Trip Length Adjustment Factor

Actual Daily VMT on Major Road System	1,324,631
÷ Expected Daily VMT on Major Road System	2,926,755
Ratio of Expected to Actual VMT	0.453

Source: Actual daily VMT from Table 8; expected VMT from Table 11.

The U.S. Department of Transportation's 2009 National Household Travel Survey identifies average trips lengths for residential housing types and for specific trip purposes, including home-to-work trips, doctor/dentist, school/church and shopping trips. The national average trip lengths by trip

purpose have been adjusted by the local adjustment factor calculated in the preceding table to derive local trip lengths, as shown in Table 13.

Table 13. Average Trip Length by Trip Purpose

Land Use Type	Trip Type	National (miles)	Ratio of Local/National	Local (miles)
Single-Family Detached	Single-Family Detached	9.75	0.453	4.42
Multi-Family	Multi-Family	8.62	0.453	3.90
Mobile Home	Mobile Home	6.03	0.453	2.73
Retail/Commercial	Shopping	6.27	0.453	2.84
Office	Medical/Dental	9.61	0.453	4.35
Industrial	To or From Work	11.98	0.453	5.43
Warehouse	To or From Work	11.98	0.453	5.43
Mini-Warehouse	Family/Personal	6.61	0.453	2.99
Public/Institutional	School/Church	8.47	0.453	3.84

Source: National average trip lengths from US. Department of Transportation, National Household Travel Survey, 2009; local adjustment factor from Table 12.

Travel Demand Schedule

The result of combining trip generation rates, primary trip factors and average trip lengths is a travel demand schedule that establishes the VMT during the average weekday generated by various land use types per unit of development for Santa Fe. The recommended travel demand schedule is presented in Table 14.

Table 14. Travel Demand Schedule

Land Use Type	Unit	ITE Code	Trip Rate	New Trips	Trip Length	VMT/ Unit
Single-Family Detached (avg.)	Dwelling	210	9.52	100%	4.42	21.04
1,500 sq. ft. or less	Dwelling	210	8.56	100%	4.42	18.92
1,501-2,000 sq. ft.	Dwelling	210	9.33	100%	4.42	20.62
2,001-2,500 sq. ft.	Dwelling	210	9.68	100%	4.42	21.39
2,501-3,000 sq. ft.	Dwelling	210	10.15	100%	4.42	22.43
3,001 sq. ft. or more	Dwelling	210	10.74	100%	4.42	23.74
Guest Unit, 750 sf or less	Dwelling	n/a	5.80	100%	3.90	11.31
Multi-Family	Dwelling	220	6.65	100%	3.90	12.97
Mobile Home/RV Park	Space	240	4.99	100%	2.73	6.81
Retail/Commercial	1,000 sq. ft.	820	42.70	66%	2.84	40.02
Office	1,000 sq. ft.	710	11.03	100%	4.35	23.99
Industrial	1,000 sq. ft.	130	6.83	100%	5.43	18.54
Warehousing	1,000 sq. ft.	150	3.56	100%	5.43	9.67
Mini-Warehouse	1,000 sq. ft.	151	2.50	100%	2.99	3.74
Public/Institutional	1,000 sq. ft.	620	7.60	100%	3.84	14.59

Source: Trip rate is average daily trip ends during a weekday from Institute of Transportation Engineers (ITE), *Trip Generation*, 9th ed., 2012; trip rates for single-family by unit size from Table 10; new trip factor for shopping center from ITE, *Trip Generation Handbook*, 2004; average trip lengths from Table 13 (small guest unit uses multi-family trip length).

Cost per Service Unit

The road impact fee is designed to cover the cost of adding capacity to the road system and major intersections. All of the normal components of a road expansion or intersection improvement project are eligible for impact fee funding, including construction of new lanes, reconstruction of

existing lanes and relocation of utilities where necessary as part of a widening project, traffic signals and installation of sidewalks, street lighting, and landscaping along new roads and at intersections. However, transportation impact fees should not be used for ancillary components of an expansion project when not part of a capacity-expanding improvement. For example, installing sidewalks along an existing road, landscaping an existing median or reconstructing an existing road would not be eligible improvements.

The road segment component of the impact fee calculation is based on the cost of new capacity added by recent and planned road widening and extension projects. The road improvement costs exclude the cost of traffic signals, which are addressed in the calculation of the traffic signal component of the transportation impact fee calculation. Recent and planned road improvements are summarized in Table 15. The average cost of the capacity added by these projects, without the two Cerrillos Road projects, is $345 per vehicle-mile of capacity (VMC). This is double the cost per VMC identified in the 2008 study. The increase may be due in part to the fact that the projects are relatively short (all under one mile), and consequently lack economies of scale. In consideration of this, a more conservative estimate of $200 per VMC will be used in the impact fee calculations. Under the standard consumption-based methodology, the cost per VMC does not need to be adjusted by the actual VMC/VMT ratio to determine the cost per VMT, because a ratio of one-to-one is assumed.

Table 15. Road Segment Cost per Service Unit

			Capacity		New		Cost/
Road Improvement	Miles	Lanes	Before	After	VMC	Cost	VMC
Siler Rd, Agua Fria-W Alameda St (2010)	0.68	0-2	0	14,800	10,064	$4,000,000	$397
S Meadows, Agua Fria-NM 599 (2012)	0.91	0-2	0	14,800	13,468	$3,925,000	$291
Cerrillos, Cielo Ct-Camino Carlos Rey (2012)	0.57	6-8	50,000	67,300	9,861	$6,906,677	$700
Cerrillos, Camino Carlos Rey-St. Michaels	0.57	6-8	50,000	67,300	9,861	$10,300,000	$1,045
Calle P'o Ae Pi, Airport Rd-Rufina St	0.09	0-2	0	14,800	1,332	$500,000	$375
Rufina St, Harrison-Camino Carlos Rey	0.07	0-2	0	14,800	1,036	$500,000	$483
Total	2.89				45,622	$26,131,677	$573
Total without Cerrillos	1.75				25,900	$8,925,000	$345
Assumed in Fee Calculations							$200

Source: City of Santa Fe Long Range Planning Division, February 13, 2014; generalized daily capacity estimates from Florida Department of Transportation, *2011 Quality/Level of Service Handbook*, Table 1.

The traffic signal improvement component of the road impact fee calculation is based on the average cost of traffic signals, which is estimated to be $350,000. The cost per service unit is calculated by dividing the average cost of a traffic signal by the existing level of service, which is expressed as the ratio of existing traffic to existing traffic signals. As shown in Table 16, the traffic signal cost per service unit is $31 per VMT.

Table 16. Traffic Signal Cost per Service Unit

Average Cost per Traffic Signal	$350,000
÷ Existing Vehicle-Miles of Travel per Signal	11,131
Traffic Signal Cost per VMT	$31

Source: Cost per signal from City of Santa Fe Public Works Department, October 25, 2013; VMT per signal from Table 9.

The combined cost for the road segment and traffic signal components of the impact fee is $231 per VMT, as shown in Table 17.

Table 17. Total Road Cost per Service Unit

Road Segment Cost per Vehicle-Mile of Travel (VMT)	$200
Traffic Signal Cost per VMT	$31
Total Road Cost per VMT	$231

Source: Road segment cost per VMT from Table 15; traffic signal cost per VMT from Table 16.

Capital Facilities Plan

Projected growth from the Land Use Assumptions can be translated into projected impact on the major road system by multiplying existing and projected development in each major land use category by daily vehicle-miles of travel (VMT) associated with each land use. In Table 18, existing and future land uses within Santa Fe's Urban Area have been multiplied by VMT rates and summed to determine reasonable estimates of new daily travel demand that will be generated by anticipated new development within the Urban Area. As can be seen, new development is expected to increase travel demand by 78,160 daily VMT in the service area over the next seven years.

Table 18. Total Daily Travel Demand, 2014-2020

		Projected Units		VMT/	Projected VMT		
Land Use Type	Unit	2014	2020	Unit	2014	2020	New
Single-Family Detached	Dwelling	25,075	26,563	21.04	527,578	558,886	31,308
Multi-Family	Dwelling	14,125	14,737	12.97	183,201	191,139	7,938
Mobile Home	Dwelling	5,200	5,200	6.81	35,412	35,412	0
Retail/Commercial	1,000 sq. ft.	10,198	10,898	40.02	408,124	436,138	28,014
Office	1,000 sq. ft.	8,972	9,322	23.99	215,238	223,635	8,397
Industrial/Warehouse*	1,000 sq. ft.	4,360	4,465	14.11	61,520	63,001	1,481
Public/Institutional	1,000 sq. ft.	2,960	3,030	14.59	43,186	44,208	1,022
Total					1,474,259	1,552,419	78,160

Source: Projected development units from Table 5; VMT per unit from Table 14 (industrial/warehouse is average).

A conservative method of estimating growth-related capital needs uses an approach that is consistent with the consumption-based methodology used to calculate road impact fees in this study. This approach is to multiply new VMT by the capital cost per VMT to get an estimate of the cost of expanding the capacity of the major road system to accommodate projected growth. This technique is applied in Table 19, and it results in estimated capital road needs in the Urban Area of $18.1 million over the next seven years.

Table 19. Major Road Capital Needs, 2014-2020

New Vehicle-Miles of Travel, 2014-2020	78,160
x Capital Cost per VMT	$231
Road Capital Needs, 2014-2020	$18,054,960

Source: New VMT from Table 18; road and signal cost per VMT from Table 17.

The planned road, intersection and traffic signal improvements over the next seven years are summarized in Table 80 in Appendix G. The cost of the planned improvements ($24.8 million)

exceeds the anticipated capital cost attributed to growth. The actual pace of development may be faster or slower than anticipated by the Land Use Assumptions, resulting in greater or lesser growth-related capital needs. In addition, the planned capital projects and estimated costs may change over time, and some of the costs may be funded from other sources.

Net Cost per Service Unit

In the calculation of the impact of new development on infrastructure costs, credit should be given for non-local funding that will be generated by new development and used to pay for capacity-related capital improvements. Credit should also be provided for taxes that will be paid by new development and used to retire outstanding debt for past major road improvements.

Over the 2011-2014 fiscal year period, approximately $30.2 million in State and Federal highway funding was available to help pay for capacity-expanding improvements to the major road system in the urban area, as summarized in Table 20.

Table 20. Federal and State Transportation Funding, FY 2011-2014

Project Name	Fed/State
Design and Construction of the NM599/County Road 62 Interchange 1	$7,304,000
NM475/Washington Ave Intersection Reconstruction 1	$2,731,456
Cerrillos Road Reconstruction Phase IIC - Camino Carlos Rey to St Michaels Dr	$11,000,000
Design and Construction of improvements to the I-25/Cerrillos Rd Interchange 2	$9,060,683
Design of Guadalupe St & Defouri St Bridge Improvements	$150,000
Total, Road Funding	$30,246,139

Source: City of Santa Fe Public Works Department, October 22, 2013.

Based on recent trends, the projected annual State and Federal funding for capacity-expanding road projects is approximately $7.6 million. Dividing the anticipated annual State and Federal funding by existing travel on the major road system yields the annual State and Federal capital funding per VMT. Multiplying annual capacity funding per service unit by the appropriate present value factor provides the equivalent current value of the future stream of funding over the next 25 years, a period that generally corresponds to the period used for long-term debt repayment. The result is a Federal/State funding credit of $84 per VMT, as shown in Table 21.

Table 21. Federal/State Funding Credit per Service Unit

Federal and State Funding for Capacity, FY 2011-2014	$30,246,139
÷ Years in Funding Period	4
Annual Federal/State Capacity Funding	$7,561,535
÷ Existing VMT	1,324,631
Annual Federal/State Capacity Funding per VMT	$5.71
x Net Present Value Factor (25 years)	14.68
Federal/State Funding Credit per VMT	$84

Source: Federal/State capacity funding from Table 20; existing road VMT from Table 8; discount rate for present value factor is the average interest rate on state and local bonds for November 2013 from the Federal Reserve at http://www.federalreserve.gov/releases/h15/data/Monthly.

The City of Santa Fe has some outstanding debt for past street improvements. The principal and interest payments on the outstanding debt are funded with revenues from the City's one-half cent gross receipts tax dedicated for capital improvements. Dividing the City's outstanding debt by existing travel demand on the major road system results in a debt credit of $4 per service unit, as

shown in Table 22. This puts existing and new development on the same footing with respect to the portion of their attributable costs that will be paid through future debt service payments made by both existing and new development.

Table 22. Road Debt Credit

Total Outstanding Eligible Debt	$5,100,580
÷ Existing Major Road System Vehicle-Mies of Travel (VMT)	1,324,631
Road Debt Credit per VMT	$4

Source: Outstanding debt principal from Table 74; total VMT from Table 8.

Deducting the Federal/State funding credit per VMT and the debt credit per VMT from the capital cost per VMT yields the net cost per service unit, as summarized in Table 23.

Table 23. Road Net Cost per Service Unit

Road Cost per Vehicle-Mile of Travel (VMT)	$231
– Federal/State Funding Credit per VMT	-$84
– Debt Credit per VMT	-$4
Road Net Cost per VMT	$143

Source: Road cost per VMT from Table 17; federal/state funding credit per VMT from Table 21; debt credit per VMT from Table 22.

Potential Fee Schedule

The maximum road impact fees that could be charged by the City, based on the data, methodology and assumptions utilized in this report, are presented in Table 24. The updated fees are calculated by multiplying the daily vehicle-miles of travel (VMT) generated by the development by the net cost per VMT calculated above.

Table 24. Road Net Cost Schedule

Land Use Type	Unit	VMT/ Unit	Net Cost/ VMT	Net Cost/ Unit
Single-Family Detached (avg.)	Dwelling	21.04	$143	$3,009
1,500 sq. ft. or less	Dwelling	18.92	$143	$2,706
1,501-2,000 sq. ft.	Dwelling	20.62	$143	$2,949
2,001-2,500 sq. ft.	Dwelling	21.39	$143	$3,059
2,501-3,000 sq. ft.	Dwelling	22.43	$143	$3,207
3,001 sq. ft. or more	Dwelling	23.74	$143	$3,395
Guest Unit, 750 sf or less	Dwelling	11.31	$143	$1,617
Multi-Family	Dwelling	12.97	$143	$1,855
Mobile Home/RV Park	Space	6.81	$143	$974
Retail/Commercial	1,000 sq. ft.	40.02	$143	$5,723
Office	1,000 sq. ft.	23.99	$143	$3,431
Industrial	1,000 sq. ft.	18.54	$143	$2,651
Warehousing	1,000 sq. ft.	9.67	$143	$1,383
Mini-Warehouse	1,000 sq. ft.	3.74	$143	$535
Public/Institutional	1,000 sq. ft.	14.59	$143	$2,086

Source: Daily VMT per unit from Table 14; net cost per VMT from Table 23.

Comparative Road Fees

The updated road impact fees calculated in this report are compared with the City's current fees in Table 25. In general, the updated fees are lower than the fees calculated in the 2008 study. However, because the current fees were adopted at only 60% of the proportionate fair-share costs identified in the 2008 study, the updated fees are higher than the current adopted fees for most land uses. The comparison to adopted fees does not include the temporary 50% fee reduction for residential uses.

Table 25. Road Impact Fee Comparisons

Land Use Type	Unit	2008 Net Cost/Unit	Adopted Fee (60%)	Updated Fee/Unit	% Change From 2008 Net Cost/Unit	% Change From Adopted Fee (60%)
Single Family Detached						
Up to 1,500 sq. ft.	Dwelling	$3,084	$1,850	$2,706	-12%	46%
1,501 - 2,000 sq. ft.	Dwelling	$3,500	$2,100	$2,949	-16%	40%
2,001 - 2,500 sq. ft.	Dwelling	$3,639	$2,183	$3,059	-16%	40%
2,501 - 3,000 sq. ft.	Dwelling	$3,746	$2,248	$3,207	-14%	43%
3,001 - 3,500 sq. ft.	Dwelling	$3,848	$2,309	$3,395	-12%	47%
3,501 - 4,000 sq. ft.	Dwelling	$3,932	$2,359	$3,395	-14%	44%
More than 4,000 sq. ft.	Dwelling	$4,040	$2,424	$3,395	-16%	40%
Multi-Family	Dwelling	$2,590	$1,554	$1,855	-28%	19%
Retail/Commercial						
Shopping Center/General Retail	1,000 sq. ft.	$7,661	$4,597	$5,723	-25%	24%
Auto Sales/Service	1,000 sq. ft.	$3,634	$2,180	$5,723	57%	163%
Bank	1,000 sq. ft.	$8,246	$4,948	$5,723	-31%	16%
Convenience Store w/Gas Sales	1,000 sq. ft.	$14,630	$8,778	$5,723	-61%	-35%
Health Club	1,000 sq. ft.	$7,324	$4,394	$5,723	-22%	30%
Movie Theater	1,000 sq. ft.	$17,354	$10,412	$5,723	-67%	-45%
Restaurant, Sit-Down	1,000 sq. ft.	$8,471	$5,083	$5,723	-32%	13%
Restaurant, Fast Food	1,000 sq. ft.	$18,440	$11,064	$5,723	-69%	-48%
Office						
Office, General	1,000 sq. ft.	$4,049	$2,429	$3,431	-15%	41%
Medical Office	1,000 sq. ft.	$6,505	$3,903	$3,431	-47%	-12%
Industrial/Warehouse						
Industrial	1,000 sq. ft.	$2,683	$1,610	$2,651	-1%	65%
Warehouse	1,000 sq. ft.	$1,912	$1,147	$1,383	-28%	21%
Mini-Warehouse	1,000 sq. ft.	$695	$417	$535	-23%	28%
Public/Institutional						
Nursing Home	1,000 sq. ft.	$2,256	$1,354	$2,086	-8%	54%
Church	1,000 sq. ft.	$2,535	$1,521	$2,086	-18%	37%
Day Care Center	1,000 sq. ft.	$5,336	$3,202	$2,086	-61%	-35%
Elementary/Sec. School	1,000 sq. ft.	$976	$586	$2,086	114%	256%

Source: 2008 net cost per unit is 1.67 times adopted fees from Table 1; updated fees from Table 24.

Potential Revenue

Based on forecast residential and nonresidential construction, the City might expect the road impact fee revenue adopted at the full rate calculated in this report to generate $10.4 million over the next seven years, as shown in Table 26. These revenue projections assume that the fees are adopted at 100% and that there are no residential waivers or fee reductions, other than for affordable housing.

Table 26. Potential Road Impact Fee Revenue, 2014-2020

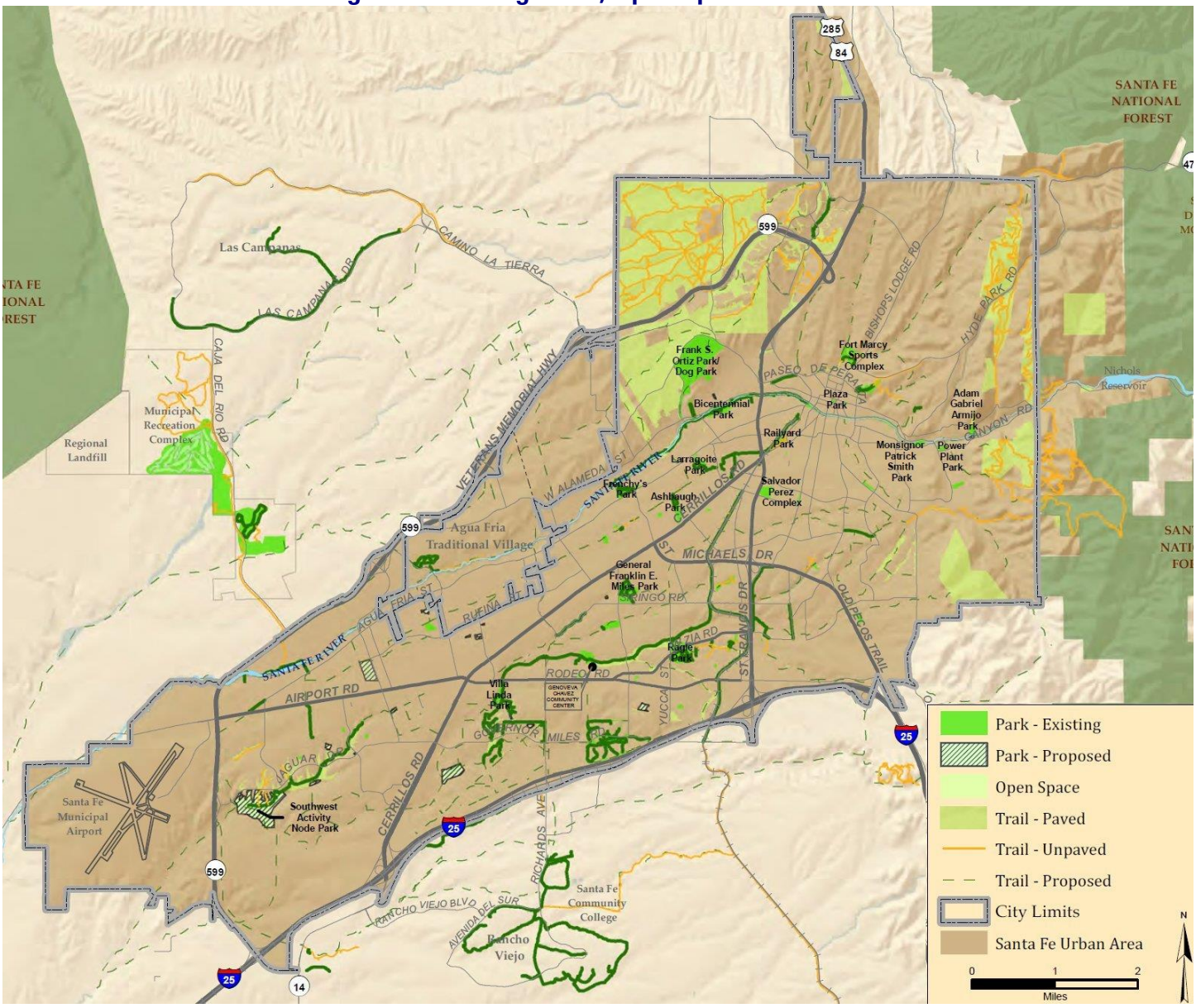
Land Use Type	Unit	New Units	Fee/ Unit	Potential Revenue
Single-Family Detached	Dwelling	1,488	$3,009	$3,819,215
Multi-Family	Dwelling	612	$1,855	$968,377
Subtotal, Residential				$4,787,592
Retail/Commercial	1,000 sq. ft.	700	$5,723	$4,006,100
Office	1,000 sq. ft.	350	$3,431	$1,200,850
Industrial/Warehouse	1,000 sq. ft.	105	$2,017	$211,785
Public/Institutional	1,000 sq. ft.	70	$2,086	$146,020
Subtotal, Nonresidential				$5,564,755
Total				$10,352,347

Source: New units from Table 5; fee per unit from Table 24 (industrial/warehouse is average of the two); potential revenue is units times fee per unit, except that residential revenue is reduced by 14.7%, which is the percentage of residential units from 2008-2013 that were exempted as affordable housing from City of Santa Fe Long Range Planning Division, March 11, 2014.

PARKS/TRAILS

This section of the study updates the City's park/trail impact fee. The primary purpose of this study is to update the fees to reflect the current level of service and current costs to provide park facilities. As is currently the practice, this study recommends that the entire Urban Area be included in the service area. The locations of the City's existing parks, open space and trails are illustrated in Figure 5.

Figure 5. Existing Parks, Open Space and Trails



Service Unit

Disparate types of development must be translated into a common unit of measurement that reflects the impact of new development on the demand for park facilities. This unit of measurement is called a "service unit." The most common service unit used in park impact fee analysis is population. Population estimates are based on three factors: the number of dwelling units, average household sizes for various types of units and occupancy rates. The number of dwelling units can be estimated with some degree of precision, and average household size has been declining somewhat predictably but has been stabilizing in recent years. Occupancy rates, on the other hand, tend to vary significantly over time, and not in predictable directions. Consequently, this report recommends the use of a service unit that avoids the need to make assumptions about occupancy rates. This service unit is the "equivalent dwelling unit" or EDU, which represents the impact of a typical single-family dwelling. By definition, a typical single-family unit represents, on average, one EDU. Other types of units each represent a fraction of an EDU, based on their relative average household sizes.

Because the level of service for park facilities is measured in terms of population, demand for park facilities is proportional to the number of people in a dwelling unit. Consequently, data on average household size for various types of units is a critical component of a park impact fee. These data are presented and analyzed in Appendix B.

As described earlier, the service unit for Santa Fe's park/trail impact fees is defined as an equivalent dwelling unit, or EDU. An EDU is a unit that has an average household size equivalent to a typical single-family unit in Santa Fe. The EDUs associated with each housing type and unit size category are shown in Table 27.

Table 27. Park/Trail Equivalent Dwelling Unit Multipliers

Housing Type	Avg. HH Size	EDUs/ Unit
Single-Family Detached (avg.)	2.19	1.00
1,500 sq. ft. or less	1.95	0.89
1,501-2,000 sq. ft.	2.04	0.93
2,001-2,500 sq. ft.	2.23	1.02
2,501-3,000 sq. ft.	2.35	1.07
3,001 sq. ft. or more	2.50	1.14
Guest Unit, 750 sq. ft. or less	1.66	0.76
Multi-Family	1.90	0.87
Mobile Home	3.04	1.39

Source: Average household size for single–family detached (average), multi-family and mobile home from Table 63; average household sizes by square feet for single-family units from Table 65.

The number of existing and future park/trail service units, as well as the growth in service units, based on the Land Use Assumptions can be determined by multiplying the number of dwelling units by housing type by the park/trail service units per dwelling unit for each housing type. As shown in Table 28, a total of 2,020 new park/trail service units is projected to be added in the Santa Fe Urban Area between 2014 and 2020.

Table 28. Park/Trail Service Units, 2014-2020

Housing Type	Dwelling Units 2014	Dwelling Units 2020	EDUs/ Unit	Park Service Units (EDUs) 2014	Park Service Units (EDUs) 2020	Park Service Units (EDUs) New
Single-Family Detached	25,075	26,563	1.00	25,075	26,563	1,488
Multi-Family	14,125	14,737	0.87	12,289	12,821	532
Mobile Home	5,200	5,200	1.39	7,228	7,228	0
Total	44,400	46,500		44,592	46,612	2,020

Source: Dwelling units from Table 5; EDUs/unit from Table 27.

Cost per Service Unit

This study bases the park/trail impact fees on the existing level of service for parks, open space and trails. The level of service is measured in terms of the ratio of the replacement value of existing facilities to the number of existing service units, or park EDUs. The level of service used in calculating the park/trail impact fee relies on the replacement value of existing park land and improvements, rather than on acres, since, for example, an acre of intensively-developed park land is not equivalent to an acre of open space or passive recreation land.

An initial step in determining the current level of service is to identify the current inventory of parks, open space and trails currently provided by the City. A detailed inventory of existing City parks, trails and opens space is presented in Appendix D. Based on current unit costs provided by the City, the total replacement cost of existing park land and facilities is about $128 million, as summarized in Table 29.

Table 29. Park/Trail Replacement Cost

Type of Park Capital Facility	Units	Unit Cost	Total Cost
Park Land and Open Space (acres)	3,073.26	$16,260	$49,971,208
Playground	32	$60,300	$1,929,600
Picnic Area	41	$54,300	$2,226,300
Activity Area	12	$24,100	$289,200
Tennis Court	25	$72,400	$1,810,000
Soccer Field	9	$241,200	$2,170,800
Basketball Court	22	$48,200	$1,060,400
Baseball Field	15	$253,300	$3,799,500
Softball Field	8	$253,300	$2,026,400
Trails - Paved (per mile)	26.09	$800,000	$20,872,000
Trails - Soft Surface (per mile)	69.36	$10,000	$693,600
Handball Court	1	$36,200	$36,200
Volleyball Court	5	$42,200	$211,000
Skateboard Park	2	$313,600	$627,200
Bicentenniel Pool	1	$1,929,600	$1,929,600
Salvador Perez Pool and Fitness Center	1	$3,376,800	$3,376,800
Genoveva Chavez Community Center	1	$30,150,000	$30,150,000
Fort Marcy Recreation Center	1	$5,065,200	$5,065,200
Total Replacement Cost			$128,245,008

Source: Acres and number of facilities from Appendix D, Table 70; miles of trail from Table 71; unit costs from City of Santa Fe Parks Department, January 7, 2014 (pools and community/recreation center costs are estimated replacement costs).

The cost to maintain the existing park level of service is the ratio of the total replacement cost of existing park land and improvements divided by the existing service units. The park cost per service unit is summarized in Table 30.

Table 30. Park/Trail Cost Per Service Unit

Total Replacement Cost	$128,245,008
÷ Existing Park Service Units (EDUs)	44,592
Park Cost per EDU	$2,876

Source: Cost from Table 29; existing EDUs from Table 28.

Capital Facilities Plan

A reasonable method of estimating growth-related capital needs is one that is consistent with the methodology used to calculate park/trail impact fees in this study. This approach is to multiply the projected new park EDUs by the capital cost per EDU to get an estimate of the cost of expanding the capacity of the park system to accommodate projected growth. As shown in Table 31, this results in estimated growth-related park capital improvement need over the next seven years of $5.8 million.

Table 31. Park/Trail Capital Needs, 2014-2020

New Park Service Units (EDUs), 2014-2020	2,020
x Park Cost per EDU	$2,876
Park Capital Needs, 2014-2020	$5,809,520

Source: New park EDUs from Table 28; cost per EDU from Table 30.

Park improvements currently planned over the next seven years are summarized in Table 81 in Appendix G. The cost of the planned improvements ($37.1 million) far exceeds the projected capital cost attributable to growth over the next seven years. The actual pace of development may be faster or slower than anticipated by the Land Use Assumptions, resulting in greater or lesser growth-related capital needs. In addition, the planned capital projects and estimated costs may change over time, and some of the costs may be funded from other sources.

Net Cost per Service Unit

As noted earlier, to avoid double-charging, credit against impact fees should be provided to account for debt service payments by new development that will be used to retire outstanding debt on existing facilities and for outside funding sources available to pay a portion of the capital costs of growth.

The City's primary funding source for park-related capital improvements is revenue bonds repaid primarily with revenues from the City's half-cent capital improvement gross receipts tax (GRT). An analysis of the City's outstanding debt indicates that the debt attributable to past park-related improvements equals 32% of the total estimated replacement cost of all of the City's parks, open space and recreational facilities. In order to account for the outstanding debt, the impact fees must be reduced to ensure that new development is placed on the same footing as existing development in terms of the portion of park costs funded through debt. As shown in Table 32, the debt credit is $917 per service unit.

Table 32. Park/Trail Debt Credit

Total Outstanding Debt Principal	$40,885,335
÷ Existing Park Service Units (EDUs)	44,592
Park Debt Credit per EDU	$917

Source: Outstanding debt from Table 73; EDUs from Table 28.

Although future grant funding is difficult to predict, it is reasonable to assume that the level of funding received over the next seven years will continue to the extent that growth rates are constant. Actual funding received over the last six fiscal years is shown in Table 35 on the following page.

As noted above, it is reasonable to assume that the grant funding received per park/trail service unit in the recent past will continue in the future. Based on this assumption, the City should receive the current present value equivalent of $407 in grant funding for parks, open space and trails for each new single-family home or park/trail service unit equivalent over the next 25 years, as shown in Table 33.

Table 33. Park/Trail Grant Funding Credit

State/County Funding for Capacity, FY 2008-2013	$7,411,295
÷ Years in Funding Period	6
Annual State/County Capacity Funding	$1,235,216
÷ Existing Park Service Units (EDUs)	44,592
Annual State/County Capacity Funding per EDU	$27.70
x Net Present Value Factor (25 years)	14.68
State/County Funding Credit per EDU	$407

Source: Capacity funding from Table 35; existing park EDUs from Table 28; discount rate for present value factor is the average interest rate on state and local bonds for November 2013 from the Federal Reserve at http://www.federalreserve.gov/releases/h15/data/Monthly.

The City does not have any additional dedicated funding for park capital improvements. As shown in Table 34, deducting the credits for outstanding debt and park grants results in a net park cost of $1,552 per service unit.

Table 34. Park/Trail Net Cost Per Service Unit

Park Cost per Service Unit (EDU)	$2,876
– Debt Credit per EDU	-$917
– Grant Funding Credit per EDU	-$407
Park Net Cost per EDU	$1,552

Source: Park cost per EDU from Table 30; debt credit from Table 32; grant credit from Table 33.

Table 35. Park/Trail Grant Funding, FY 2008-2013

Fiscal Year	Funding Source	Project Description	Amount
2011	County	Acequia Trails	$94,322
2008	State	Alto Park	$50,000
2010	State	Arroyo Chamiso Trail	$80,000
2011	County	Arroyo Chamiso Trail	$75,868
2012	State	Arroyo Chamiso Trail	$122,811
2013	State	Arroyo Chamiso Trail	$6,321
2008	State	Bikeways/Horse Trails, Grant	$489,640
2009	State	Bikeways/Horse Trails, Grant	$1,570,592
2010	State	Bikeways/Horse Trails, Grant	$1,119,244
2011	State	Bikeways/Horse Trails, Grant	$310,164
2008	State	Cathedral Park	$40,013
2008	State	Fort Marcy	$150,000
2008	State	Franklin Miles Park Improvements	$40,000
2009	State	Franklin Miles Park Improvements	$25,000
2008	State	Genoveva Chavez Center	$144,606
2009	State	Genoveva Chavez Center	$286,548
2010	State	Genoveva Chavez Center	$17,029
2013	State	Gonzales Road Pedestrian Trail	$258,330
2008	State	La Tierra Trails	$20,468
2008	State	Larragoite Park	$105,000
2010	State	Old Pecos Trail Design	$160,000
2011	State	Old Pecos Trail Design	$150,000
2009	State	Ortiz Park	$15,493
2009	State	Ragle Park Expansion	$67,714
2008	State	Santa Fe River and Rail Trails	$36,594
2008	County	Santa Fe River and Rail Trails	$226,066
2009	County	Santa Fe River and Rail Trails	$54,035
2010	State	Santa Fe River and Rail Trails	$610,840
2011	State	Santa Fe River and Rail Trails	$89,160
2012	State	Santa Fe River and Rail Trails	$4,899
2009	State	Santa Fe River Trail	$224,070
2010	State	Santa Fe River Trail	$192,757
2011	State	Santa Fe River Trail	$331,928
2008	State	Tierra Contenta Spine Trail	$94,130
2008	County	Trails and Bike Paths	$1,975
2010	State	Trails	$30,000
2011	County	Trails and Bike Paths	$102,282
2013	State	Trails and Bike Paths	$11,634
2013	State	Trails and Bike Paths	$1,762
Total Funding, FY 2008-2013			$7,411,295

Source: City of Santa Fe Finance Department, February 20, 2014.

Potential Fee Schedule

The maximum park fees that can be adopted by the City based on this study are derived by multiplying the number of equivalent dwelling units (EDUs) represented by each dwelling unit by the net cost per EDU, as shown in Table 36.

Table 36. Park/Trail Net Cost Schedule

Land Use Type	Unit	EDU/ Unit	Net Cost/ EDU	Net Cost/ Unit
Single-Family Detached (avg.)	Dwelling	1.00	$1,552	$1,552
1,500 sq. ft. or less	Dwelling	0.89	$1,552	$1,381
1,501-2,000 sq. ft.	Dwelling	0.93	$1,552	$1,443
2,001-2,500 sq. ft.	Dwelling	1.02	$1,552	$1,583
2,501-3,000 sq. ft.	Dwelling	1.07	$1,552	$1,661
3,001 sq. ft. or more	Dwelling	1.14	$1,552	$1,769
Guest Unit, 750 sf or less	Dwelling	0.76	$1,552	$1,180
Multi-Family	Dwelling	0.87	$1,552	$1,350

Source: EDUs per unit from Table 27; net cost per EDU from Table 34.

Comparative Fees

The updated park/trail impact fees calculated in this report are compared with the City's current fees in Table 37. In general, the updated fees are significantly lower than the fees calculated in the 2008 study, due to higher credits for outstanding debt and grant funding. Because the 2008 fees were adopted at only 60% of the proportionate fair-share costs identified in the 2008 study, the updated fees are higher than the current adopted fees. The comparison to adopted fees does not include the temporary 50% fee reduction for residential uses.

Table 37. Park/Trail Impact Fee Comparisons

Land Use Type	Unit	2008 Net Cost/Unit	Adopted Fee (60%)	Updated Fee/Unit	% Change From 2008 Net Cost/Unit	% Change From Adopted Fee (60%)
Single Family Detached						
Up to 1,500 sq. ft.	Dwelling	$1,852	$1,111	$1,381	-25%	24%
1,501 - 2,000 sq. ft.	Dwelling	$2,023	$1,214	$1,443	-29%	19%
2,001 - 2,500 sq. ft.	Dwelling	$2,214	$1,328	$1,583	-29%	19%
2,501 - 3,000 sq. ft.	Dwelling	$2,299	$1,379	$1,661	-28%	20%
3,001 - 3,500 sq. ft.	Dwelling	$2,363	$1,418	$1,769	-25%	25%
3,501 - 4,000 sq. ft.	Dwelling	$2,406	$1,444	$1,769	-26%	23%
More than 4,000 sq. ft.	Dwelling	$2,491	$1,495	$1,769	-29%	18%
Multi-Family	Dwelling	$1,618	$971	$1,350	-17%	39%

Source: 2008 net cost per unit is 1.67 times adopted fees from Table 1; updated fees from Table 36.

Potential Revenue

Under the updated fee structure, the City would expect to receive about $2.7 million in park/trail impact fees over the next seven years. This estimate assumes that the updated fees are adopted at the full net cost, that development occurs as anticipated in the Land Use Assumptions, that all new residential development in the Urban Area falls under the City's building permit authority, and that there are no residential fee waivers or reductions, other than for affordable housing.

Table 38. Potential Park/Trail Impact Fee Revenue, 2014-2020

Housing Type	Unit	New Units	Fee/ Unit	Potential Revenue
Single-Family Detached	Dwelling	1,488	$1,552	$1,969,898
Multi-Family	Dwelling	612	$1,350	$704,749
Total				$2,674,647

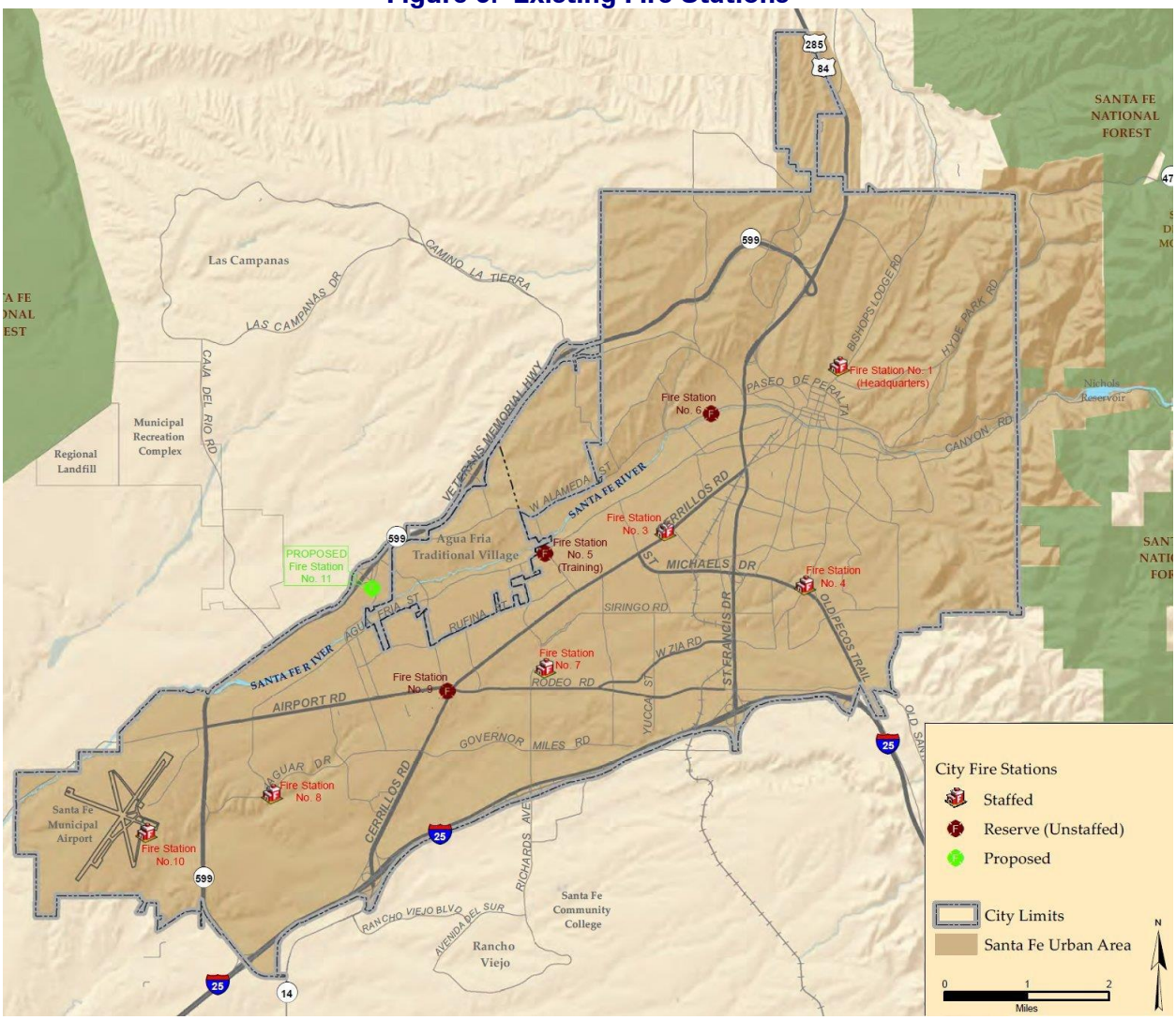
Source: New units from Table 28; fee per unit from Table 34; potential revenue is units times fee per unit, except that residential revenue is reduced by 14.7%, which is the percentage of residential units from 2008-2013 that were exempted as affordable housing from City of Santa Fe Long Range Planning Division, March 11, 2014.

FIRE/EMS

This section updates the City of Santa Fe fire/EMS impact fee. The scope of this update incorporates all eligible firefighting equipment as defined in the New Mexico Development Fees Act, which authorizes cities to establish impact fees for "buildings for fire, police and rescue, and essential equipment costing $10,000 or more and having a ten-year life expectancy."

The City of Santa Fe Fire Department operates five primary fire stations, one airport station that houses the aircraft rescue and firefighting apparatus, two supplemental facilities and a repair service center/ training facility. The existing fire/EMS facilities are shown in Figure 6.

Figure 6. Existing Fire Stations



Supplemental facilities provide back-up for the primary facilities. One of the supplemental facilities, located on West Alameda Street, is primarily a Police Department substation; the Fire Department uses it for the staging of an additional fire truck that can be used in the event of a major fire. The

other supplemental facility, located on Camino Entrada, was originally a primary fire station, but became a supplemental facility upon completion of the new Station #8 on Jaguar Drive. Fire Station #10 is located at the airport, and consists of one fire truck located in aircraft hangar space that is provided to the Fire Department.

In addition to fire suppression, the Fire Department provides emergency medical services (EMS), enforces City fire codes, reviews building plans, investigates fires and provides fire safety and injury prevention education. The Department is also responsible for response to and initial mitigation of reported hazardous materials incidents, technical rescues that include high angle rescue, trench rescue, swift-water rescue and building collapse and Wildland Urban Interface Fires to initiate incident command and initial fire attack.

Service Area

While fire and rescue units and ambulances may be dispatched from a station primarily to calls within that station's fire district, which is the station's primary response area, these units also respond to calls in neighboring districts when needed. In addition, the headquarters and training facilities are centralized. Consequently, fire/EMS facilities constitute an interrelated system that provides service throughout the City's jurisdiction, which is appropriately defined as a single service area.

Service Unit

Disparate types of development must be translated into a common unit of measurement that reflects the impact of new development on the demand for fire/EMS service. This common unit of measurement is referred to as a "service unit." Service units create the link between the supply of fire capital facilities and the demand for such facilities generated by new development.

The two most common methodologies used in calculating fire/EMS impact fees are the "calls-for-service" approach and the "functional population" approach. While annual call data are available for fire/EMS calls, this study continues to use functional population. Typically, the majority of fire calls are responses to emergencies, which are associated with the presence of people, rather than structural fires. In addition, almost 40 percent of calls in Santa Fe's Fire Department are not directly attributed to a land use; such calls are likely responses to motor-vehicle accidents, which are related to movement between land uses.

The functional population approach is a more generalized approach than calls-for-service, and it presumes that the demand for fire services is strongly related to the presence of people at the site of a land use. 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 fire facilities. For residential development, functional population is simply average household size times the percent of time people are assumed to 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. Functional population multipliers by land use type and total existing and projected functional population for the Urban Area are presented in Appendix C.

Cost per Service Unit

Fire/EMS impact fees are designed to charge new development the cost of providing the same level of service that is provided to existing development. The existing level of service for fire/EMS facilities is based on the replacement cost of existing facilities. The replacement cost of the existing Fire Department facilities can be determined based on the most recent construction costs related to the construction of Station No. 3. Based on the actual construction cost, this station cost $294 per square foot. However, because this station required a significant amount of site work, the Department estimates that the two new stations will cost somewhat less, about $238 per square foot. The total building and land replacement cost for the Fire Department's existing City-owned facilities is $19.4 million, as shown in Table 39.

Table 39. Fire/EMS Facility Replacement Cost

Station No.	Address	Building Sq. Feet	Land Acres	Building Value	Land Value	Total Value
1	200 Murales Road	11,440	1.20	$2,718,373	$204,000	$2,922,373
3A	1751 Cerrillos Road	3,124	1.00	$742,325	n/a	$742,325
3	1751 Cerrillos Road	10,605	1.00	$2,519,960	$189,600	$2,709,560
4	1130 Arroyo Chamiso	8,242	1.00	$1,958,464	$169,600	$2,128,064
5	1130 Siler Road	10,156	5.00	$2,413,269	$749,000	$3,162,269
6	1030 W. Alameda	470	0.20	$111,681	$34,000	$145,681
7	2391 Richards Ave	14,440	2.25	$3,431,233	$382,500	$3,813,733
8	6796 Jaguar Drive	10,241	2.52	$2,433,466	$342,000	$2,775,466
9	2501 Camino Entrada	2,100	3.00	$499,002	$540,000	$1,039,002
10	121 Aviation Drive (leased)	n/a	n/a	n/a	n/a	n/a
Total		70,818	17.17	$16,827,773	$2,610,700	$19,438,473

Source: Building square feet from City of Santa Fe Fire Department, November 4, 2013; land and land value from City of Santa Fe Fire Department, March 13, 2014; building value based on $237.62 per square foot from City of Santa Fe Fire Department, November 4, 2013.

The New Mexico Development Fees Act authorizes the use of impact fees for all essential fire-fighting and EMS equipment costing $10,000 or more and having a life expectancy of at least ten years. Table 40 lists the current capital equipment that is eligible for impact fee funding under the New Mexico Development Fees Act. The total replacement cost for eligible equipment is $8.3 million.

Table 40. Fire/EMS Equipment Replacement Cost

Apparatus/Equipment	Units	Cost per Unit	Total Cost
Pumper	8	$450,000	$1,500,000
Quint	3	$750,000	$1,400,000
Ambulance	10	$175,000	$175,000
Rescue Vehicle	1	$750,000	$175,000
Brush Truck	3	$160,000	$2,800,000
Haz. Mat. Truck & Trailer	1	$550,000	$1,100,000
Pump Simulator	1	$90,000	$750,000
Tire Machine	1	$10,000	$280,000
Posi-Check	1	$15,000	$90,000
Service Truck	1	$65,000	$10,000
Total Replacement Cost			$8,280,000

Source: Fire/EMS equipment, number of units and cost per unit from City of Santa Fe Fire Department, November 4, 2013.

The fire/EMS impact fee is based on the replacement value of existing capital facilities divided by the total number of service units associated with the City's functional population. As shown in Table 41, the replacement cost for fire and EMS facilities and equipment is $299 per service unit.

Table 41. Fire/EMS Cost Per Service Unit

Fire/EMS Facility Replacement Cost	$19,438,473
Fire/EMS Equipment Replacement Cost	$8,280,000
Total Fire/EMS Replacement Cost	$27,718,473
÷ Existing Functional Population	92,577
Fire/EMS Cost per Functional Population	$299

Source: Fire/EMS facility replacement cost from Table 39; fire/EMS equipment replacement cost from Table 40; existing functional population from Table 69.

Capital Facilities Plan

The magnitude of growth-related fire/EMS capital needs can be estimated by multiplying the anticipated growth in service units associated by the existing level of service cost per unit. As shown in Table 42, this results in estimated fire/EMS capital improvement needs over the next seven years of about $1.4 million.

Table 42. Fire/EMS Capital Needs, 2014-2020

New Functional Population, 2014-2020	4,557
x Fire/EMS Cost per Functional Population	$299
Fire/EMS Capital Needs, 2014-2020	$1,362,543

Source: New functional population Table 69, Appendix C; cost per functional population from Table 41.

According to the Fire Department, existing fire/EMS facilities and equipment are only marginally adequate based on the population served, travel distance, and call volume. Current plans call for the construction of one or two additional fire stations over the next seven years to better serve the expanding southern and southwestern areas, and to remodel and expand Station No. 5. New fire-fighting apparatus will be needed to equip the proposed stations.

As summarized in Table 82 in Appendix G, planned fire/EMS improvements identified and eligible to receive impact fee funding over the next seven years total about $7.4 million. All of the identified improvements would be eligible for funding with fire/EMS impact fees. However, only about 18% of the planned project costs can be attributed to projected growth over the next seven years, based on the Land Use Assumptions and the existing level of service.

Net Cost per Service Unit

In the calculation of the impact of new development on infrastructure costs, credit should be given for non-local funding that will be generated by new development and used to pay for capacity-related capital improvements. Credit should also be provided for taxes that will be paid by new development and used to retire outstanding debt for past fire/EMS facility improvements.

The City of Santa Fe has some outstanding debt for past fire/EMS capital improvements, including construction of a fire station and purchase of fire apparatus. As shown in Table 43, dividing the outstanding debt by existing service units results in the debt credit per service unit. This puts existing and new development on the same footing with respect to the portion of their attributable costs that will be paid through future debt service payments made by both existing and new development.

Table 43. Fire/EMS Debt Credit

Total Outstanding Eligible Debt	$3,895,495
÷ Existing Functional Population	92,577
Fire/EMS Debt Credit per Functional Population	$42

Source: Outstanding fire-related debt from Table 74 in Appendix E; existing functional population from Table 69, Appendix C.

The City has received some grants for fire protection, EMS and related services in recent years. However, some of these grants were for operating costs, or for equipment that is not eligible for impact fee funding under the Development Fees Act. Deducting the amounts for operational costs or minor equipment, the eligible grant amounts received over last six years for impact fee-eligible capital totaled $2.6 million, as shown in Table 44.

Table 44. Fire/EMS Grant Funding, FY 2008-2013

Fiscal Year	Funding Source	Project Description	Amount
2008	Federal	Assistance to Firefighters Grant	$137,167
2008	State	Fire Protection	$471,847
2009	State	Fire Protection	$461,076
2010	State	Fire Protection	$398,504
2011	State	Fire Protection	$616,322
2009	State	Fire Station #3	$138,600
2009	State	Fire Station #3	$346,500
2009	State	Emergency Medical Service	$20,000
2010	State	Emergency Medical Service	$29,000
Total Funding, FY 2008-2013			$2,619,016

Source: City of Santa Fe Finance Department, February 20, 2014.

Assuming that the grant funding received over the last six years for impact fee-eligible fire/EMS capital improvements will continue to increase proportional to the amount of development in Santa Fe, the City will receive the present value equivalent of $69 per service unit over the next 25 years, as shown in Table 45.

Table 45. Fire/EMS Grant Funding Credit Per Service Unit

Federal and State Funding for Capacity, FY 2008-2013	$2,619,016
÷ Years in Funding Period	6
Annual Federal/State Capacity Funding	$436,503
÷ Existing Functional Population	92,577
Annual Federal/State Funding per Functional Population	$4.72
x Net Present Value Factor (25 years)	14.68
Federal/State Funding Credit per Functional Population	$69

Source: Grant funding from Table 44; existing functional population from Table 69 in Appendix C; discount rate for present value factor is the average interest rate on state and local bonds for November 2013 from the Federal Reserve at http://www.federalreserve.gov/releases/h15/data/Monthly.

Deducting the credits for outstanding debt and grants from the capital cost yields the net fire/EMS cost per service unit, as summarized in Table 46.

Table 46. Fire/EMS Net Cost Per Service Unit

Fire/EMS Cost per Functional Population	$299
– Debt Credit per Functional Population	-$42
– Grant Funding Credit per Functional Population	-$69
Fire/EMS Net Cost per Functional Population	$188

Source: Cost from Table 41; debt credit from Table 43; grant credit from Table 44.

Potential Fee Schedule

The maximum fire/EMS impact fees that may be charged by the City of Santa Fe based on the data, assumptions and methodology used in this report are shown in Table 47.

Table 47. Fire/EMS Net Cost Schedule

Land Use Type	Unit	Func. Pop/ Unit	Net Cost/ Func. Pop.	Net Cost/ Unit
Single-Family Detached (avg.)	Dwelling	1.314	$188	$247
1,500 sq. ft. or less	Dwelling	1.170	$188	$220
1,501-2,000 sq. ft.	Dwelling	1.224	$188	$230
2,001-2,500 sq. ft.	Dwelling	1.338	$188	$252
2,501-3,000 sq. ft.	Dwelling	1.410	$188	$265
3,001 sq. ft. or more	Dwelling	1.500	$188	$282
Guest Unit, 750 sf or less	Dwelling	0.996	$188	$187
Multi-Family	Dwelling	1.140	$188	$214
Mobile Home/RV Park	Space	1.824	$188	$343
Retail/Commercial	1,000 sq. ft.	2.041	$188	$384
Office	1,000 sq. ft.	0.959	$188	$180
Industrial	1,000 sq. ft.	0.416	$188	$78
Warehousing	1,000 sq. ft.	0.180	$188	$34
Mini-Warehouse	1,000 sq. ft.	0.167	$188	$31
Public/Institutional	1,000 sq. ft.	0.863	$188	$162

Source: Functional population per unit from Table 68 in Appendix C; net cost per functional population from Table 46.

Comparative Fees

The updated fire/EMS impact fees calculated in this report are compared with the City's current fees in in Table 48. In general, the updated fees are slightly higher than the fees calculated in the 2008 study for residential and retail uses and lower for other nonresidential uses. Because the 2008 fees were adopted at only 60% of the proportionate fair-share costs identified in the 2008 study, the updated fees are significantly higher than the current adopted fees most land uses other than warehouse and mini-warehouse. The comparison to adopted fees does not include the temporary 50% fee reduction for residential uses.

Table 48. Fire/EMS Impact Fee Comparisons

Land Use Type	Unit	2008 Net Cost/Unit	Adopted Fee (60%)	Updated Fee/Unit	% Change From 2008 Net Cost/Unit	% Change From Adopted Fee (60%)
Single Family Detached						
Up to 1,500 sq. ft.	Dwelling	$209	$125	$220	5%	76%
1,501 - 2,000 sq. ft.	Dwelling	$227	$136	$230	1%	69%
2,001 - 2,500 sq. ft.	Dwelling	$250	$150	$252	1%	68%
2,501 - 3,000 sq. ft.	Dwelling	$258	$155	$265	3%	71%
3,001 - 3,500 sq. ft.	Dwelling	$265	$159	$282	6%	77%
3,501 - 4,000 sq. ft.	Dwelling	$271	$163	$282	4%	73%
More than 4,000 sq. ft.	Dwelling	$281	$169	$282	0%	67%
Multi-Family	Dwelling	$183	$110	$214	17%	95%
Retail/Commercial	1,000 sq. ft.	$368	$221	$384	4%	74%
Office	1,000 sq. ft.	$207	$124	$180	-13%	45%
Industrial	1,000 sq. ft.	$124	$74	$78	-37%	5%
Warehouse	1,000 sq. ft.	$78	$47	$34	-56%	-28%
Mini-Warehouse	1,000 sq. ft.	$78	$47	$31	-60%	-34%
Public/Institutional	1,000 sq. ft.	$207	$124	$162	-22%	31%

Source: 2008 net cost per unit is 1.67 times adopted fees from Table 1; updated fees from Table 47.

Potential Revenue

If adopted at the full updated amounts, the fire/EMS impact fees could generate $0.77 million over the next seven years, based on the development projected in the Land Use Assumptions, as shown in Table 49. These revenue projections assume no residential waivers or fee reductions, other than for affordable housing.

Table 49. Potential Fire/EMS Impact Fee Revenue, 2014-2020

Land Use Type	Unit	New Units	Fee/ Unit	Potential Revenue
Single-Family Detached	Dwelling	1,488	$247	$313,508
Multi-Family	Dwelling	612	$214	$111,716
Subtotal, Residential				$425,224
Retail/Commercial	1,000 sq. ft.	700	$384	$268,800
Office	1,000 sq. ft.	350	$180	$63,000
Industrial/Warehouse	1,000 sq. ft.	105	$56	$5,880
Public/Institutional	1,000 sq. ft.	70	$162	$11,340
Subtotal, Nonresidential				$349,020
Total				$774,244

Source: New units from Table 5; fee/unit from Table 47; potential revenue is units times fee per unit, except that residential revenue is reduced by 14.7%, which is the percentage of residential units from 2008-2013 that were exempted as affordable housing from City of Santa Fe Long Range Planning Division, March 11, 2014..

POLICE

This section updates the City of Santa Fe police impact fee. The Santa Fe Police Department was originally founded in 1851, and is responsible for upholding the law within the jurisdictional boundaries of the City of Santa Fe. The Police Department utilizes the "community policing" concept by operating two neighborhood community substations. Current substations include the Administrative Complex at Siringo Road and the West Alameda station. The West Alameda substation is a shared facility; the Fire Department stages a fire truck at this facility for use in cases of emergencies. In addition to utilizing community substations, the Police Department maintains two other facilities, the main headquarters and the professional standards/internal affairs building.

Service Area

While police substations do have a primary response area, officers respond to calls on a community-wide basis. In addition, the headquarters and training facilities are centralized. Consequently, police facilities constitute an interrelated system that provides service throughout the City's jurisdiction, which, combined with the City's Urban Area, is appropriately defined as a single service area.

Service Unit

Disparate types of development must be translated into a common unit of measurement that reflects the impact of new development on the demand for police protection. This common unit of measurement is referred to as a "service unit." Service units create the link between the supply of capital facilities and the demand for such facilities generated by new development.

The two most common methodologies used in calculating police impact fees are the "calls-for-service" approach and the "functional population" approach. While annual call data are available for police calls, this study uses functional population in order to allocate police capital costs among more specific land-use categories. The functional population approach is a more generalized approach than calls-for-service, and it presumes that the demand for police services is strongly related to the presence of people at the site of a land use. 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 police facilities. For residential development, functional population is simply average household size times the percent of time people are assumed to 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. Functional population multipliers by land use type and total existing and projected functional population for the Urban Area are presented in Appendix C.

Cost per Service Unit

Police impact fees are designed to charge new development the cost of providing the same level of service that is provided to existing development. The existing level of service for police facilities is based on the replacement cost of existing facilities. The total building and land replacement cost for the Police Department's existing facilities is $10.45 million, as shown in Table 50.

Table 50. Police Facility Replacement Cost

Station	Location	Building (sq. ft.)	Land (acres)	Building Value	Land Value	Total Value
Police Records	2651 Siringo Rd.	2,610	1.00	$430,650	$212,500	$643,150
Alameda Substation	1030 West Alameda St	760	0.90	$125,400	$191,250	$316,650
Frenchy's Park Substation	2011 Agua Fria St.	558	0.20	$78,120	$40,000	$118,120
Internal Affairs	2509 Camino Entrada	1680	0.60	$277,200	$112,500	$389,700
Police Headquarters	2515 Camino Entrada	25,560	2.30	$4,734,900	$2,761,875	$7,496,775
Police Evidence Impound Lot	4201 Huey Road	3,684	1.18	$1,300,000	$184,994	$1,484,994
Total		34,852	6.18	$6,946,270	$3,503,119	$10,449,389

Source: City of Santa Fe Facility Division, November 4, 2013.

The New Mexico Development Fees Act authorizes the use of impact fees for all essential police equipment costing $10,000 or more and having a life expectancy of at least ten years. The table below lists the current capital equipment that is eligible for impact fee funding under the New Mexico Development Fees Act. As shown in Table 51, the total replacement cost for eligible equipment is $2.02 million.

Table 51. Police Equipment Replacement Cost

Major Equipment	Total Cost
Firearms Training System	$91,000
Firearms Moving Target System	$14,000
SWAT Rescue Truck	$55,000
SWAT Equipment	$390,000
EOD Equipment	$663,000
FARBER Mobile Command Post	$600,000
Mobile Crime Scene Truck	$202,674
Total	$2,015,674

Source: City of Santa Fe Police Department, November 4, 2013.

The police protection impact fee is based on the replacement value of existing capital facilities divided by the total number of service units associated with the City's functional population. As shown in Table 52, the replacement cost for police facilities and equipment is $135 per service unit.

Table 52. Police Cost Per Service Unit

Police Facility Replacement Cost	$10,449,389
Police Equipment Replacement Cost	$2,015,674
Total Police Replacement Cost	$12,465,063
÷ Existing Functional Population	92,577
Police Cost per Functional Population	$135

Source: Police facility replacement cost from Table 50; police equipment replacement cost from Table 51; existing functional population from Table 69 in Appendix C.

Capital Facilities Plan

The magnitude of growth-related police protection capital needs can be estimated by multiplying the anticipated growth in service units by the existing level of service cost per unit. As shown in Table 53, this results in estimated police protection capital improvement needs over the next seven years of about $0.6 million.

Table 53. Police Capital Needs, 2014-2020

New Functional Population, 2014-2020	4,557
x Police Cost per Functional Population	$135
Police Capital Needs, 2014-2020	$615,195

Source: New functional population Table 69, Appendix C; cost per functional population from Table 52.

According to the Police Department, existing police facilities and equipment are only marginally adequate based on the population served and call volume. Current plans call for the construction of a new substation, expansion of professional standards and records facilities, and Phase III of the addition to the main police facility over the next seven years.

As summarized in Table 83 in Appendix G, planned police improvements identified and eligible to receive impact fee funding over the next seven years total about $0.65 million. All of the identified improvements would be eligible for funding with police impact fees. However, only about 95% of the planned project costs can be attributed to projected growth over the next seven years, based on the Land Use Assumptions and the existing level of service.

Net Cost per Service Unit

In the calculation of the impact of new development on infrastructure costs, credit should be given for non-local funding that will be generated by new development and used to pay for capacity-related capital improvements. Credit should also be provided for taxes that will be paid by new development and used to retire outstanding debt for past police facility improvements.

The City of Santa Fe has some outstanding debt for past police protection capital improvements. As shown in Table 54, dividing the outstanding debt by existing service units results in the debt credit per service unit. This puts existing and new development on the same footing with respect to the portion of their attributable costs that will be paid through future debt service payments made by both existing and new development.

Table 54. Police Debt Credit

Total Outstanding Eligible Debt	$2,465,460
÷ Existing Functional Population	92,577
Police Debt Credit per Functional Population	$27

Source: Outstanding police-related debt from Table 74 in Appendix E; existing functional population from Table 69, Appendix C.

The City has received some grants for police protection in recent years. However, some of these grants were for operating costs, or for equipment that is not eligible for impact fee funding under the Development Fees Act. Deducting the amounts for operational costs or minor equipment, the eligible grant amounts received over last six years for impact fee-eligible capital totaled $1.1 million, as shown in Table 55.

Table 55. Police Grant Funding, FY 2008-2013

Fiscal Year	Funding Source	Project Description	Amount
2008	State	Public Safety Building (Police Main Facility)	$691,502
2009	State	Public Safety Building (Police Main Facility)	$298,498
2013	State	Santa Fe Police Station	$107,766
Total Funding, FY 2008-2013			$1,097,766

Source: City of Santa Fe Finance Department, February 20, 2014.

Assuming that the grant funding received over the last six years for impact fee-eligible police protection capital improvements will continue to increase proportional to the amount of development in Santa Fe, the City will receive the present value equivalent of $29 per service unit over the next 25 years, as shown in Table 56.

Table 56. Police Grant Funding Credit Per Service Unit

Federal and State Funding for Capacity, FY 2008-2013	$1,097,766
÷ Years in Funding Period	6
Annual Federal/State Capacity Funding	$182,961
÷ Existing Functional Population	92,577
Annual Federal/State Funding per Functional Population	$1.98
x Net Present Value Factor (25 years)	14.68
Federal/State Funding Credit per Functional Population	$29

Source: Grant funding from Table 55; existing functional population from Table 69 in Appendix C; discount rate for present value factor is the average interest rate on state and local bonds for November 2013 from the Federal Reserve at http://www.federalreserve.gov/releases/h15/data/Monthly.

Deducting the credits for outstanding debt and grants from the capital cost yields the net police cost per service unit, as summarized in Table 57.

Table 57. Police Net Cost Per Service Unit

Police Cost per Functional Population	$135
– Debt Credit per Functional Population	-$27
– Grant Funding Credit per Functional Population	-$29
Police Net Cost per Functional Population	$79

Source: Cost from Table 52; debt credit from Table 54; grant credit from Table 55.

Potential Fee Schedule

The maximum police impact fees that may be charged by the City of Santa Fe based on the data, assumptions and methodology used in this report are shown in Table 58.

Table 58. Police Net Cost Schedule

Land Use Type	Unit	Func. Pop/ Unit	Net Cost/ Func. Pop.	Net Cost/ Unit
Single-Family Detached (avg.)	Dwelling	1.314	$79	$104
1,500 sq. ft. or less	Dwelling	1.170	$79	$92
1,501-2,000 sq. ft.	Dwelling	1.224	$79	$97
2,001-2,500 sq. ft.	Dwelling	1.338	$79	$106
2,501-3,000 sq. ft.	Dwelling	1.410	$79	$111
3,001 sq. ft. or more	Dwelling	1.500	$79	$119
Guest Unit, 750 sf or less	Dwelling	0.996	$79	$79
Multi-Family	Dwelling	1.140	$79	$90
Mobile Home/RV Park	Space	1.824	$79	$144
Retail/Commercial	1,000 sq. ft.	2.041	$79	$161
Office	1,000 sq. ft.	0.959	$79	$76
Industrial	1,000 sq. ft.	0.416	$79	$33
Warehousing	1,000 sq. ft.	0.180	$79	$14
Mini-Warehouse	1,000 sq. ft.	0.167	$79	$13
Public/Institutional	1,000 sq. ft.	0.863	$79	$68

Source: Functional population per unit from Table 68 in Appendix C; net cost per functional population from Table 57.

Comparative Fees

The updated police impact fees calculated in this report are compared with the City's current fees in in Table 59. In general, the updated fees are higher than the fees calculated in the 2008 study for residential and retail uses and the same or lower for other nonresidential uses. Because the 2008 fees were adopted at only 60% of the proportionate fair-share costs identified in the 2008 study, the updated fees are significantly higher than the current adopted fees for all land uses other than warehouse and mini-warehouse.

Table 59. Police Impact Fee Comparisons

					% Change From	
Land Use Type	Unit	2008 Net Cost/Unit	Adopted Fee (60%)	Updated Fee/Unit	2008 Net Cost/Unit	Adopted Fee (60%)
Single Family Detached						
Up to 1,500 sq. ft.	Dwelling	$74	$44	$92	24%	109%
1,501 - 2,000 sq. ft.	Dwelling	$80	$48	$97	21%	102%
2,001 - 2,500 sq. ft.	Dwelling	$89	$53	$106	19%	100%
2,501 - 3,000 sq. ft.	Dwelling	$91	$55	$111	22%	102%
3,001 - 3,500 sq. ft.	Dwelling	$94	$56	$119	27%	113%
3,501 - 4,000 sq. ft.	Dwelling	$96	$58	$119	24%	105%
More than 4,000 sq. ft.	Dwelling	$99	$59	$119	20%	102%
Multi-Family	Dwelling	$65	$39	$90	38%	131%
Retail/Commercial	1,000 sq. ft.	$130	$78	$161	24%	106%
Office	1,000 sq. ft.	$73	$44	$76	4%	73%
Industrial	1,000 sq. ft.	$44	$26	$33	-25%	27%
Warehouse	1,000 sq. ft.	$27	$16	$14	-48%	-13%
Mini-Warehouse	1,000 sq. ft.	$27	$16	$13	-52%	-19%
Public/Institutional	1,000 sq. ft.	$73	$44	$68	-7%	55%

Source: 2008 net cost per unit is 1.67 times adopted fees from Table 1; updated fees from Table 58.

Potential Revenue

If adopted at the full updated amounts, police impact fees could generate $0.33 million over the next seven years, based on the development projected in the Land Use Assumptions, as shown in Table 60. These revenue projections assume no residential waivers or fee reductions, other than for affordable housing.

Table 60. Potential Police Impact Fee Revenue, 2014-2020

Land Use Type	Unit	New Units	Fee/ Unit	Potential Revenue
Single-Family Detached	Dwelling	1,488	$104	$132,003
Multi-Family	Dwelling	612	$90	$46,983
Subtotal, Residential				$178,986
Retail/Commercial	1,000 sq. ft.	700	$161	$112,700
Office	1,000 sq. ft.	350	$76	$26,600
Industrial/Warehouse	1,000 sq. ft.	105	$24	$2,520
Public/Institutional	1,000 sq. ft.	70	$68	$4,760
Subtotal, Nonresidential				$146,580
Total				$325,566

Source: New units from Table 5; fee/unit from Table 58; potential revenue is units times fee per unit, except that residential revenue is reduced by 14.7%, which is the percentage of residential units from 2008-2013 that were exempted as affordable housing from City of Santa Fe Long Range Planning Division, March 11, 2014..

APPENDIX A: ROAD INVENTORY

Table 61. Major Roadway Inventory

Street Name	Street Segment	Lns	Mi.	Cap.	AADT	VMC	VMT
Agua Fria	Airport-Jemez	2	1.61	14,800	6,125	23,828	9,861
Agua Fria	Jemez-Lopez	2	0.98	14,800	3,257	14,504	3,192
Agua Fria	Lopez-Henry Lynch	2	1.23	14,800	11,900	18,204	14,637
Agua Fria	Henry Lynch-Siler	2	0.38	14,800	11,900	5,624	4,522
Agua Fria	Siler-Osage	2	1.08	14,800	13,033	15,984	14,076
Agua Fria	Osage-Cam. Alire	2	1.17	14,800	12,003	17,316	14,044
Agua Fria	Cam. Alire-St Francis	2	0.57	14,800	10,225	8,436	5,828
Agua Fria	St Francis-Guadalupe	2	0.57	14,800	6,100	8,436	3,477
Airport Rd	NM 599-Agua Fria Rd	4	0.52	32,400	10,800	16,848	5,616
Airport Rd	Agua Fria Rd-Country Club	4	0.50	32,400	17,200	16,200	8,600
Airport Rd	Country Club-S Meadows Rd	4	1.00	32,400	17,200	32,400	17,200
Airport Rd	S Meadows-Jemez Rd	4	0.12	32,400	28,012	3,888	3,361
Airport Rd	Jemez Rd-Cerrillos	4	0.91	32,400	28,012	29,484	25,491
Alameda	NM 599-Chicoma Vista	2	0.95	14,800	1,050	14,060	998
Alameda	Chicoma Vista-Calle Nopal	2	1.42	14,800	5,300	21,016	7,526
Alameda	Calle Nopal-Cam. Alire	2	0.95	14,800	6,400	14,060	6,080
Alameda	Cam. Alire-St Francis	2	0.85	14,800	11,404	12,580	9,693
Alameda	St Francis-Guadalupe	2	0.57	14,800	8,050	8,436	4,589
Alameda	Guadalupe-Paseo de Peralta	2	0.66	14,800	3,800	9,768	2,508
Alameda	Paseo de Peralta-Canyon Rd	2	0.95	14,800	3,800	14,060	3,610
Alta Vista	Cerrillos-St Francis	2	0.38	14,800	3,056	5,624	1,161
Alta Vista	St Francis-Galisteo	2	0.51	14,800	3,056	7,548	1,559
Armenta	Old Pecos Trail-Cam. Corrales	2	0.25	14,800	2,592	3,700	648
Baca Street	Hickox-Cerrillos	2	0.57	14,800	6,865	8,436	3,913
Bishop's Lodge Rd	Paseo Peralta-Cam. Encantado	2	1.70	14,800	2,169	25,160	3,687
Bishop's Lodge Rd	Cam. Encantado-City Limits	2	1.04	14,800	2,430	15,392	2,527
Botulph Rd	Siringo Rd-Zia St	2	0.40	14,800	4,200	5,920	1,680
Botulph Rd	Zia-St Michael's	2	0.85	14,800	4,200	12,580	3,570
Camino Carlos Rey	Gov. Miles-Rodeo	2	0.76	14,800	3,900	11,248	2,964
Camino Carlos Rey	Rodeo-Zia	4	0.09	32,400	4,200	2,916	378
Camino Carlos Rey	Zia-Siringo	2	0.85	14,800	5,600	12,580	4,760
Camino Carlos Rey	Siringo-Cerrillos	2	0.47	14,800	11,300	6,956	5,311
Camino Alire	Alameda-Agua Fria	2	0.38	14,800	7,137	5,624	2,712
Camino Cabra	Cam. Cruz Blanca-Canyon	2	0.66	14,800	*3,000*	9,768	1,980
Camino Cruz Blanca	Cam. Monte Sol-Cam. Cabra	2	0.38	14,800	*3,000*	5,624	1,140
Camino del Monte Sol	Cam. Cruz Blanca-Old Santa Fe	2	0.15	14,800	4,337	2,220	651
Cerrillos Rd	Beckner-Jaguar	6	1.14	50,000	25,650	57,000	29,241
Cerrillos Rd	Jaguar-Airport	6	0.85	50,000	26,458	42,500	22,489
Cerrillos Rd	Airport-Richards	6	1.17	50,000	45,991	58,500	53,809
Cerrillos Rd	Richards-St Michael's	6	1.65	50,000	46,375	82,500	76,519
Cerrillos Rd	St Michael's-2nd St	4	0.50	32,400	35,100	16,200	17,550
Cerrillos Rd	2nd St-Alta Vista	4	0.60	32,400	33,700	19,440	20,220
Cerrillos Rd	Alta Vista-St Francis	4	0.54	32,400	28,903	17,496	15,608
Cerrillos Rd	St Francis-Galisteo	4	0.76	32,400	9,250	24,624	7,030

Table 61. Continued

Street Name	Street Segment	Lns	Mi.	Cap.	AADT	VMC	VMT
Cordova	Cerrillos-St Francis	4	0.27	32,400	19,356	8,748	5,226
Cordova	St Francis-Don Diego	4	0.28	32,400	9,017	9,072	2,525
Cordova	Don Diego-Old Pecos Trail	4	0.80	32,400	9,017	25,920	7,214
Country Club	Airport-Jaguar	2	0.76	14,800	5,400	11,248	4,104
Galisteo	St Michael's-Cordova	2	0.95	14,800	9,350	14,060	8,883
Galisteo	Cordova-Alameda	2	0.95	14,800	3,216	14,060	3,055
Galisteo	Zia-Rodeo	2	0.73	14,800	3,306	10,804	2,413
Governor Miles	Cerrillos-Walking Sky	2	1.00	14,800	2,829	14,800	2,829
Governor Miles	Walking Sky-Richards	2	0.74	14,800	1,900	10,952	1,406
Governor Miles	Richards-Cliff Palace	2	0.57	14,800	11,250	8,436	6,413
Governor Miles	Cliff Palace-Cam. Carlos Rey	2	0.38	14,800	11,250	5,624	4,275
Guadalupe	Cerrillos-Alameda	2	0.57	14,800	10,661	8,436	6,077
Guadalupe	Alameda-Paseo de Peralta	4	0.38	32,400	14,709	12,312	5,589
Guadalupe	Paseo de Peralta-84/285	4	0.38	32,400	14,709	12,312	5,589
Henry Lynch Rd	Rufina-Agua Fria	2	0.47	14,800	3,700	6,956	1,739
Hickox St	Agua Fria-St Francis	2	0.57	14,800	8,800	8,436	5,016
Hyde Park Rd	Bishop's Lodge-Gonzales	2	1.38	14,800	4,050	20,424	5,589
Hyde Park Rd	Gonzales-City Limits	2	1.70	14,800	3,150	25,160	5,355
Jaguar Dr	NM599-Country Club	2	1.33	14,800	*3,000*	19,684	3,990
Jaguar Dr	Country Club-S Meadows	2	1.14	14,800	5,942	16,872	6,774
Jaguar Dr	S Meadows-Cerrillos	2	0.38	14,800	*3,000*	5,624	1,140
Jemez Rd	Agua Fria-Airport	2	0.80	14,800	3,477	11,840	2,782
Llano	Siringo-St Michaels	2	0.53	14,800	4,876	7,844	2,584
Lopez Ln.	Agua Fria-Airport	2	1.10	14,800	5,300	16,280	5,830
Old Pecos Trail	Rodeo Rd-Arroyo Chamiso	4	1.52	32,400	11,040	49,248	16,781
Old Pecos Trail	Arroyo Chamiso-Cordova	2	0.95	14,800	14,125	14,060	13,419
Old Pecos Trail	Cordova-Old Santa Fe Trail	2	0.42	14,800	7,382	6,216	3,100
Old Santa Fe Trail	City Limits-Zia Rd	2	1.14	14,800	2,746	16,872	3,130
Old Santa Fe Trail	Zia-Cam. del Monte Sol	2	1.08	14,800	2,550	15,984	2,754
Old Santa Fe Trail	Cam. del Monte Sol-Paseo Peralta	2	1.42	14,800	12,939	21,016	18,373
Osage	Agua Fria-Cerrillos	2	0.66	14,800	5,373	9,768	3,546
Pacheco St	Siringo-St Michael's	2	0.51	14,800	9,318	7,548	4,752
Pacheco St	St Michael's-Cam. Monte Rey	2	0.47	14,800	4,705	6,956	2,211
Pacheco St	Cam. de Monte Rey-Alta Vista	2	0.41	14,800	4,705	6,068	1,929
Paseo de Peralta	St Francis-Cerrillos	4	0.47	32,400	8,825	15,228	4,148
Paseo de Peralta	Cerrillos-Acequia Madre	4	0.63	32,400	16,350	20,412	10,301
Paseo de Peralta	Acequia Madre-Alameda	4	0.25	32,400	8,667	8,100	2,167
Paseo de Peralta	Alameda-Palace	2	0.15	14,800	9,200	2,220	1,380
Paseo de Peralta	Palace-Washington	2	0.32	14,800	8,050	4,736	2,576
Paseo de Peralta	Washington-St Francis	4	1.04	32,400	13,350	33,696	13,884
Paseo del Sol	Airport-Jaguar	2	0.75	14,800	11,200	11,100	8,400
Paseo del Sol	Jaguar-Herrera	2	0.25	14,800	*3,000*	3,700	750
Richards Ave	Rodeo-I-25	2	1.14	14,800	8,834	16,872	10,071
Richards Ave	Cerrillos-Rufina	4	0.32	32,400	8,090	10,368	2,589
Rodeo Rd	Cerillos-Richards	4	0.95	32,400	29,004	30,780	27,554
Rodeo Rd	Richards-Camino Carlos Rey	4	1.00	32,400	29,004	32,400	29,004
Rodeo Rd	Camino Carlos Rey-Galisteo	2	1.04	14,800	12,650	15,392	13,156
Rodeo Rd	Galisteo-Sawmill	4	0.28	32,400	8,025	9,072	2,247
Rodeo Rd	Sawmill-Old Pecos Trail	2	1.70	14,800	4,323	25,160	7,349

Table 61. Continued

Street Name	Street Segment	Lns	Mi.	Cap.	AADT	VMC	VMT
Rufina St	S Meadows Rd-Jemez	2	0.20	14,800	9,800	2,960	1,960
Rufina St	Jemez-Lopez	2	0.91	14,800	11,482	13,468	10,449
Rufina St	Lopez-Richards	2	1.40	14,800	5,850	20,720	8,190
Rufina St	Richards-Siler	2	0.55	14,800	5,016	8,140	2,759
Rufina St	Siler-Jorgensen Rd	2	0.25	14,800	9,800	3,700	2,450
San Mateo Rd	Calle Lorca-St Francis	2	0.42	14,800	3,200	6,216	1,344
San Mateo Rd	St Francis-Galisteo	2	0.47	14,800	4,450	6,956	2,092
San Mateo Rd	Galisteo-Old Pecos Trail	2	0.66	14,800	9,900	9,768	6,534
Second Street	Cerrillos-Calle Lorca	2	0.57	14,800	3,200	8,436	1,824
Siler Rd	Agua Fria-Cerrillos	4	0.64	32,400	15,250	20,736	9,760
Siler Rd	Agua Fria-West Alameda	2	0.40	14,800	*3,000*	5,920	1,200
Siringo Rd	Richards-Camino Carlos	2	0.91	14,800	7,700	13,468	7,007
Siringo Rd	Cam. Carlos Rey-Llano	2	0.63	14,800	12,504	9,324	7,878
Siringo Rd	Llano-St Francis	2	0.98	14,800	13,700	14,504	13,426
Siringo Rd	St Francis-Botulph	2	0.47	14,800	3,500	6,956	1,645
South Meadows	Jaguar-Airport	2	0.66	14,800	3,925	9,768	2,591
South Meadows	Airport-Agua Fria	2	0.80	14,800	3,800	11,840	3,040
South Meadows	Agua Fria-NM 599	2	1.00	14,800	*3,000*	14,800	3,000
St Francis	Rodeo-Siringo	4	0.95	32,400	45,212	30,780	42,951
St Francis	Siringo-San Mateo	4	0.70	32,400	43,687	22,680	30,581
St Francis	San Mateo-Cerrillos	6	0.98	50,000	42,162	49,000	41,319
St Francis	Cerrillos-Paseo de Peralta	6	0.28	50,000	44,850	14,000	12,558
St Francis	Paseo de Peralta-Agua Fria	6	0.20	50,000	37,300	10,000	7,460
St Francis	Agua Fria-Alameda	6	0.31	50,000	36,500	15,500	11,315
St Francis	Alameda-Alamo	6	0.57	50,000	20,450	28,500	11,657
St Francis	Alamo-NM599	6	1.33	50,000	33,450	66,500	44,489
St Francis	NM599-Tano Rd	4	0.76	32,400	37,800	24,624	28,728
St Francis	Tano Rd-1st Tesuque Exit	4	1.33	32,400	36,400	43,092	48,412
St Michael's Dr	Cerillos-St Francis	6	1.29	50,000	25,472	64,500	32,859
St Michael's Dr	St Francis-Old Pecos Trail	4	1.04	32,400	23,150	33,696	24,076
Yucca	Rodeo-Zia	2	0.40	14,800	5,000	5,920	2,000
Yucca	Zia-Siringo	2	0.63	14,800	5,322	9,324	3,353
Zafrano	Cerrillos-Rodeo	4	0.27	32,400	11,250	8,748	3,038
Zia Rd	Rodeo- St Francis	4	1.70	32,400	14,635	55,080	24,880
Zia Rd	St Francis-Botulph	2	0.51	14,800	3,674	7,548	1,874
Subtotal, Arterial Roads			95.84			2,140,736	1,216,683
2nd St	Cerrillos Rd-W San Mateo Rd	2	0.43	13,300	*1,700*	5,719	731
5th St	Cerrillos Rd-Saint Michaels Dr	2	0.43	13,300	3,711	5,719	1,596
5th St	Saint Michaels Dr-Siringo Rd	2	0.52	13,300	*1,700*	6,916	884
Acequia Madre	Paseo de Peralta-Garcia St	2	0.14	13,300	*1,700*	1,862	238
Acequia Madre	Garcia St-Camino del Monte Sol	2	0.48	13,300	*1,700*	6,384	816
Acequia Madre	Camino del Monte Sol-Canyon Rd	2	0.25	13,300	*1,700*	3,325	425
Alamo Dr	Camino de las Crucitas-Rio Vista St	2	0.47	13,300	*1,700*	6,251	799
Alamo Dr	Camino de las Crucitas-Rio Vista St	2	0.23	13,300	*1,700*	3,059	391
Alamo Dr	Rio Vista St-N St Francis Dr	2	0.07	13,300	*1,700*	931	119
Alamo Dr	N Saint Francis Dr-N Guadalupe St	2	0.13	13,300	*1,700*	1,729	221
Alto St	Camino Alire-N Saint Francis	2	0.72	13,300	*1,700*	9,576	1,224
Arroyo Chamiso Rd	Botulph Rd-Old Arroyo Chamiso Rd	2	0.28	13,300	*1,700*	3,724	476
Arroyo Chamiso Rd	Old Arroyo Chamiso Rd-St Michaels	2	0.30	13,300	*1,700*	3,990	510

Table 61. Continued

Street Name	Street Segment	Lns	Mi.	Cap.	AADT	VMC	VMT
Arroyo Chamiso Rd	Saint Michaels Dr-Old Pecos Trail	2	0.15	13,300	*1,700*	1,995	255
Ave de las Campanas	Siringo Rd-Rodeo Rd	2	0.84	13,300	*1,700*	11,172	1,428
Avenida Rincon	N Ridgetop Rd-NM 599	2	0.41	13,300	*1,700*	5,453	697
Avenida Rincon	NM 599-Calle David	2	0.63	13,300	*1,700*	8,379	1,071
Buckman Rd	Paseo Nopal-Camino de los Montoyas	2	1.60	13,300	*1,700*	21,280	2,720
Buckman Rd	Cam Los Montoyas-Cam Las Crucitas	2	0.12	13,300	*1,700*	1,596	204
Caja del Oro Grant Rd	Agua Fria St-Alameda Frontage Rd	2	0.81	13,300	4,550	10,773	3,686
Calle de Leon	Calle de Sebastian-Conejo Dr	2	0.20	13,300	*1,700*	2,660	340
Calle de Sebastian	Old Pecos Trail-Calle de Leon	2	0.40	13,300	*1,700*	5,320	680
Calle de Sebastian	Calle de Leon-E Zia Rd	2	0.37	13,300	*1,700*	4,921	629
Calle del Cielo	Siringo Rd-Cerrillos	2	0.26	13,300	2,499	3,458	650
Calle Estado	Bishops Lodge Rd-Old Taos Hwy	2	0.68	13,300	*1,700*	9,044	1,156
Calle Nopal	W Alameda St-Paseo de Vistas	2	0.34	13,300	*1,700*	4,522	578
Camino Carlos Real	Agua Fria St-W Alameda St	2	0.42	13,300	*1,700*	5,586	714
Camino Corrales	Fort Union Dr-Armenta St	2	0.57	13,300	*1,700*	7,581	969
Camino Corrales	Armenta St-Old Santa Fe Trail	2	0.15	13,300	*1,700*	1,995	255
Camino Corrales	Old Santa Fe Trail-Garcia St	2	0.18	13,300	*1,700*	2,394	306
Cam de las Crucitas	Buckman-Alamo Dr	2	2.03	13,300	*1,700*	26,999	3,451
Cam de las Crucitas	Alamo Dr-Rio Vista St	2	2.00	13,300	*1,700*	26,600	3,400
Cam de las Crucitas	Vista St-N Saint Francis Dr	2	0.13	13,300	*1,700*	1,729	221
Cam de los Arroyos	Zafarano Dr-Vegas Verde Dr	2	0.22	13,300	*1,700*	2,926	374
Cam de los Montoyas	Buckman-NM 599	2	0.53	13,300	*1,700*	7,049	901
Cam de los Montoyas	NM 599-Avenida de Sevilla	2	1.70	13,300	*1,700*	22,610	2,890
Camino Encantado	Circle Dr-Bishops Lodge Rd	2	0.97	13,300	1,781	12,901	1,728
Camino La Canada	Paseo de La Conquist.-Ave Chris. Colon	2	0.54	13,300	*1,700*	7,182	918
Canyon Rd	Garcia St-Camino del Monte Sol	2	0.48	13,300	2,106	6,384	1,011
Canyon Rd	Camino del Monte Sol-E Palace Ave	2	0.09	13,300	*1,700*	1,197	153
Canyon Rd	E Palace Ave-Acequia Madre	2	0.14	13,300	*1,700*	1,862	238
Canyon Rd	Acequia Madre-E Palace Ave	2	0.24	13,300	*1,700*	3,192	408
Canyon Rd	E Alameda St-Camino Cabra	2	0.10	13,300	*1,700*	1,330	170
Canyon Rd	Camino Cabra-Cerro Gordo Rd	2	1.30	13,300	3,800	17,290	4,940
Cerro Gordo Rd	Canyon Rd-Gonzales Rd	2	1.73	13,300	1,723	23,009	2,981
Cerro Gordo Rd	Gonzales Rd- E Palace Ave	2	0.11	13,300	*1,700*	1,463	187
Conejo Dr	E Zia Rd-Calle de Leon	2	0.33	13,300	*1,700*	4,389	561
Conejo Dr	Calle de Leon-Fort Union Dr	2	0.39	13,300	*1,700*	5,187	663
Don Diego Ave	Cordova Rd-Cam. de los Marquez	2	0.08	13,300	7,793	1,064	623
Don Diego Ave	Camino de los Marquez-Cerrillos	2	0.50	13,300	7,793	6,650	3,897
Don Gaspar Ave	E San Mateo Rd-Cordova Rd	2	0.50	13,300	*1,700*	6,650	850
Don Gaspar Ave	Cordova Rd-Paseo de Peralta	2	0.80	13,300	1,801	10,640	1,441
Don Gaspar Ave	Paseo de Peralta-W Alameda St	2	0.23	13,300	3,425	3,059	788
Don Gaspar Ave	W Alameda St-E Water St	2	0.10	13,300	4,250	1,330	425
Don Gaspar Ave	E Water St-W San Francisco St	2	0.05	13,300	*1,700*	665	85
E de Vargas Rd	Paseo de Peralta-Garcia St	2	0.07	13,300	*1,700*	931	119
E Palace Ave	Washington Ave Cathedral Pl	2	0.06	13,300	*1,700*	798	102
E Palace Ave	Cathedral Pl-Paseo de Peralta	2	0.17	13,300	5,000	2,261	850
E Palace Ave	Paseo de Peralta-Cerro Gordo	2	0.71	13,300	3,026	9,443	2,148
E Palace Ave	Cerro Gordo Rd-E Alameda St	2	0.07	13,300	3,026	931	212
E Palace Ave	E Alameda St-Canyon Rd	2	0.04	13,300	3,026	532	121
E Zia Rd	Old Pecos Tr-Calle de Sebastian	2	0.09	13,300	*1,700*	1,197	153
E Zia Rd	Calle de Sebastian-Conejo Dr	2	0.28	13,300	*1,700*	3,724	476

Table 61. Continued

Street Name	Street Segment	Lns	Mi.	Cap.	AADT	VMC	VMT
E Zia Rd	Conejo Dr-Old Santa Fe Trail	2	0.52	13,300	*1,700*	6,916	884
Fort Union Dr	Conejo Dr-Camino Corrales	2	0.18	13,300	*1,700*	2,394	306
Garcia St	Cam. del Monte Sol-Cam. Corrales	2	0.41	13,300	*1,700*	5,453	697
Garcia St	Camino Corrales-Acequia Madre	2	0.53	13,300	3,182	7,049	1,686
Garcia St	Acequia Madre-Canyon Rd	2	0.20	13,300	*1,700*	2,660	340
Gonzales Rd	Vallecita Dr-Hyde Park Rd	2	0.61	13,300	1,168	8,113	712
Gonzales Rd	Hyde Park Rd-Cerro Gordo Rd	2	1.26	13,300	*1,700*	16,758	2,142
Gonzales Rd	Cerro Gordo Rd-E Alameda St	2	0.07	13,300	*1,700*	931	119
Harrison Rd	Cerrillos Rd-Agua Fria Rd	2	0.65	13,300	2,650	8,645	1,723
Herrera Drive	Cerrillos Road-Paseo del Sol	2	0.50	13,300	*1,700*	6,650	850
Maez Rd	Cerrillos Rd-Agua Fria Rd	2	0.69	13,300	*1,700*	9,177	1,173
Murales Rd	Bishops Lodge Rd-Old Taos Hwy	2	0.29	13,300	*1,700*	3,857	493
Ocate Rd	Cerrillos Rd-Calle Caridad	2	0.43	13,300	*1,700*	5,719	731
Old Arroyo Chamiso	Arroyo Chamiso Rd-W Zia Rd	2	0.48	13,300	*1,700*	6,384	816
Old Taos Hwy	Paseo de Peralta-Murales Rd	2	0.39	13,300	1,684	5,187	657
Old Taos Hwy	Murales Rd-Calle Estado	2	0.55	13,300	1,684	7,315	926
Old Taos Hwy	Calle Estado-Calle Largo	2	0.47	13,300	1,684	6,251	791
Paseo Conquistadora	Camino Alire-Camino La Canada	2	0.63	13,300	*1,700*	8,379	1,071
Paseo Conquistadora	Camino La Canada-Alejandro St	2	0.20	13,300	*1,700*	2,660	340
Paseo de Vistas	Calle Nopal-Rincon de Torreon	2	1.02	13,300	4,700	13,566	4,794
Paseo de Vistas	Rincon de Torreon-Cam. de las Crucitas	2	0.74	13,300	4,700	9,842	3,478
Paseo Nopal	Paseo de Vistas-NM 599	2	1.40	13,300	3,084	18,620	4,318
Ridgetop Rd	NM 599-Avenida Rincon	2	0.45	13,300	*1,700*	5,985	765
Ridgetop Rd	Avenida Rincon-Tano Rd	2	0.49	13,300	*1,700*	6,517	833
Rincon de Torreon	W Alameda St-Paseo de Vistas	2	0.74	13,300	*1,700*	9,842	1,258
Rio Vista St	Solana Dr-Alamo Dr	2	0.05	13,300	*1,700*	665	85
Rio Vista St	Alamo Dr-Camino de las Crucitas	2	0.37	13,300	*1,700*	4,921	629
Rio Vista St	Camino de las Crucitas-Alamo	2	0.30	13,300	*1,700*	3,990	510
S Meadows Rd	Agua Fria St-Rufina St	2	2.27	13,300	*1,700*	30,191	3,859
S Ridgetop Rd	Camino Francisca-NM 599	2	0.38	13,300	*1,700*	5,054	646
Sawmill Rd	Rodeo Rd-S Saint Francis Dr	2	0.32	13,300	4,286	4,256	1,372
Sawmill Rd	S Saint Francis Dr-Rodeo Rd	2	0.68	13,300	*1,700*	9,044	1,156
Solana Dr	W Alameda St-Rio Vista St	2	0.08	13,300	*1,700*	1,064	136
Tano Rd	N Ridgetop Rd-Opera Dr	2	0.69	13,300	*1,700*	9,177	1,173
Vallecita Dr	Valley Dr-Gonzales Rd	2	0.76	13,300	*1,700*	10,108	1,292
Valley Dr	Bishops Lodge Rd-Vallecita Dr	2	0.38	13,300	*1,700*	5,054	646
Vegas Verde Dr	Camino de los Arroyos-Cerrillos	2	0.22	13,300	*1,700*	2,926	374
W Palace Ave	Grant Ave-Lincoln Ave	2	0.11	13,300	*1,700*	1,463	187
W Palace Ave	Lincoln Ave-Old Santa Fe Trail	2	0.05	13,300	*1,700*	665	85
W Palace Ave	Old Santa Fe Trail-Washington Ave	2	0.01	13,300	*1,700*	133	17
W Zia Rd	Old Arroyo Chamiso Rd-Old Pecos Tr	2	0.65	13,300	2,500	8,645	1,625
Subtotal, Collectors			50.58			672,714	107,948
Total			146.42			2,813,450	1,324,631

Source: City of Santa Fe Long Range Planning Division, November 25, 2013; generalized daily capacity estimates from Florida Department of Transportation, *2013 Quality/Level of Service Handbook*, Table 1: Generalized Annual Average Daily Volumes for Florida's Urbanized Areas; AADT is annualized averaged daily traffic from Santa Fe Metropolitan Planning Organization, *Santa Fe Traffic Counts*, 2011 (2008 if 2011 count not available); volume in italics are estimated based on 75% of the average AADT for 2, 4 and 6-lane arterials with counts and 50% of the average AADT for 2-lane collector roads.

APPENDIX B: AVERAGE HOUSEHOLD SIZE

The 2000 U.S. Census provided data on average household sizes by housing types based on a robust sample consisting of one in six dwelling units. The 2000 household sizes for the City of Santa Fe are shown in Table 62.

Table 62. Average Household Size by Housing Type, 2000

Housing Type	Household Population	Occupied Units	Average HH Size
Single-Family Detached	38,868	16,410	2.37
Single-Family Attached	5,177	2,913	1.78
Multi-Family	13,047	7,131	1.83
Mobile Home	3,239	1,065	3.04
Total	60,331	27,519	2.19

Source: 2000 U.S. Census SF-3 data (1-in-6 sample) for the City of Santa Fe.

The Census Bureau has since replaced the sample data collected during the decennial census with the annual American Housing Survey, which conducts a sample of 1% of dwelling units each year. The most current data from the American Housing Survey are provided in a 5% sample dataset, consisting of 1% samples collected in 2008 through 2012. These data do not provide household population for single-family detached units separately from single-family attached units (i.e., townhouses). However, the 2000 Census data presented in the preceding table shows that single-family attached units in Santa Fe have an average household size that is very similar to other types of multi-family units, such as apartments and condominiums. Using this knowledge, updated average household sizes by housing type for Santa Fe can be derived from the American Community Survey data, as shown in Table 63.

Table 63. Average Household Size by Housing Type, 2008-2012

Housing Type	Household Population	Occupied Units	Average HH Size
Single-Family Detached	n/a	18,618	2.19
Single-Family Attached	n/a	2,980	1.90
Single-Family Detached/Attached	46,361	21,598	2.15
Other Multi-Family	15,417	8,102	1.90
Mobile Home	4,707	1,546	3.04
Total	66,485	31,246	2.13

Source: U.S. Census, American Community Survey, 2008-2012 for City of Santa Fe (single-family attached assigned same average household size as other multi-family).

In the 2008 study, average household sizes by square footage ranges for single-family units were estimated using (1) census micro data for Santa Fe County and Los Alamos County to determine average household size by bedrooms (normalized for the City of Santa Fe overall average household size), and (2) realtor listings of homes for sale to determine average dwelling unit size by bedrooms. The two data sets were combined by taking the realtor data set and assuming the average household size for the number of bedrooms in the unit (e.g., each 3-bedroom unit was assumed to have the average number of residents for all 3-bedroom units). Finally, linear regression analysis was performed to develop an equation relating average household size to unit square feet, and the midpoints of the size categories was used as the average household size for each size range.

While the approach used in the 2008 study was reasonable and had the advantage of relying solely on local data, its weakness is that neither data set contains both of the key variables – the census data lack information on the size of the unit, and the realtor data lack information on the number of persons in the unit. Consequently, the 2008 analysis had to utilize an intervening variable – the number of bedrooms in the unit.

A simpler and more direct approach is to utilize regional or national 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 was done in 2011. This survey provides data on the number of residents and the square footage of a sample of individual housing units. Regional data for the Western Census Region, which includes New Mexico, can also be used and shows a very similar pattern. Average household sizes by dwelling unit size can be converted to Equivalent Dwelling Units (EDUs), with one EDU representing the average number of persons residing in an occupied single-family detached unit. These national and regional EDU multipliers are compared to those used in the 2008 study in Table 64.

Table 64. Equivalent Dwelling Unit Multipliers

Single-Family Unit Size (Heated Living Area)	2008 Study	Amer. Housing Survey Western Region	Amer. Housing Survey Entire U.S.
1,500 sq. ft. or less	0.87	0.89	0.88
1,501-2,000 sq. ft.	0.95	0.93	0.94
2,001-2,500 sq. ft.	1.04	1.02	1.01
2,501-3,000 sq. ft.	1.08	1.07	1.07
3,001-3,500 sq. ft.	1.11	1.16	1.12
3,501-4,000 sq. ft.	1.13	1.13	1.11
4,001 sq. ft. or more	1.17	1.13	1.11
Average, All Units	1.00	1.00	1.00
3,001 sq. ft. or more	n/a	1.14	1.11

Note: EDU multipliers by unit size are ratios of average household size to overall average household size for all single-family detached units.
Source: 2008 study data from Duncan Associates, *Impact Fee Capital Improvements Plan and Land Use Assumptions for the City of Santa Fe*, 2008; American Housing Survey data for units built 1990 or later from the *2011 American Housing Survey*.

The national and regional data are consistent with the 2008 study results for units up to 3,500 square feet. However, the national and regional data clearly show that household size plateaus at about 3,000 square feet. It is recommended that updated average household sizes by unit size categories be based on American Housing Survey data and that the upper size category include all units larger than 3,000 square feet, as shown in Table 65.

A similar approach is used to determine average household sizes for accessory or guest units built as attached or detached additions to single-family units. The current ordinance provides for fees that vary by the size of the guest unit, but the basis for these fees is unclear. In general, the multi-family fee would be reasonable to use for guest units, but consideration could be made for smaller guest units. Analysis of American Housing Survey data indicates that guest units of 750 square feet or less would have somewhat fewer residents than the average of all multi-family units, as shown in Table 65.

Table 65. Single-Family Average Household Size by Unit Size

Single-Family Unit Size (Heated Living Area)	EDU Multiplier	Avg. HH Size
1,500 sq. ft. or less	0.89	1.95
1,501-2,000 sq. ft.	0.93	2.04
2,001-2,500 sq. ft.	1.02	2.23
2,501-3,000 sq. ft.	1.07	2.35
3,001 sq. ft. or more	1.14	2.50
All Single-Family Detached	1.00	2.19
Guest Unit, 750 sq. ft. or less	0.76	1.66

Source: EDU multipliers for western U.S. from Table 64 (EDU multiplier for guest house of 750 sq. ft. or less derived from American Housing Survey data for multi-family units built in the Western Region in 1990 or later from the *2011 American Housing Survey*); average household size for all single-family detached units in Santa Fe from Table 63; household sizes by unit size for Santa Fe based on EDU multipliers.

APPENDIX C: FUNCTIONAL POPULATION

As previously mentioned, this study modifies the approach for determining service demand for fire/EMS and police impact fee calculations from a service call basis to a "functional population" approach. Under this approach, functional population is calculated for each major land use and then converted into "equivalent dwelling units." The equivalent dwelling unit, or EDU, represents the impact of a typical single-family dwelling on the demand for police and fire/EMS services.

To a large extent, the demand for police and fire/EMS functions are proportional to the presence of people. The functional population concept 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.

The residential functional population is considerably simpler than the nonresidential component. It is assumed that people spend 12 hours per day at home during week days and 20 hours per day during weekends. In total, people are assumed to spend 100 hours per week, or 60 percent of their time, at home. The other 40 percent of their time spent away from home accounts for working, shopping and other away-from-home activities. For residential uses, then, equivalent dwelling units are calculated by first multiplying average household size by 60 percent to determine functional population per unit. The functional population per unit multipliers for residential uses are shown in Table 66.

Table 66. Residential Functional Population per Unit

Housing Type	Unit	Average HH Size	Occupancy	Func. Pop./Unit
Single-Family, Detached (All)	Dwelling	2.19	0.60	1.314
Less than 1,500 sf	Dwelling	1.95	0.60	1.170
1,500 to 1,999 sf	Dwelling	2.04	0.60	1.224
2,000 to 2,499 sf	Dwelling	2.23	0.60	1.338
2,500 to 2,999 sf	Dwelling	2.35	0.60	1.410
3,000 sf or greater	Dwelling	2.50	0.60	1.500
Guest Unit, 750 sf or less	Dwelling	1.66	0.60	0.996
Multi-Family	Dwelling	1.90	0.60	1.140
Mobile Home/RV Park	Pad/Space	3.04	0.60	1.824

Source: Overall single-family, multi-family and mobile home average household size from Table 63; single-family average household size by housing size from Table 65; occupancy factor estimated (see text above).

Nonresidential Functional Population

The functional population methodology for nonresidential uses is based on trip generation data utilized in developing the transportation demand schedule prepared for the updated transportation impact fee update. Functional population per 1,000 square feet is derived by dividing the total number of hours spent by employees and visitors during a weekday by 24 hours. Employees are estimated to spend eight hours per day at their place of employment, and visitors are estimated to spend one-half to one hour per visit depending on land use. The formula used to derive the nonresidential functional population estimates is summarized in Figure 7.

Figure 7. Nonresidential Functional Population Formula

Functional population/1000 sf = (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 (retail/office/public) = visitors/1000 sf x 1 hour/visit

Visitors hours/1000 sf (industrial/warehouse) = visitors/1000 sf x 1/2 hour/visit

Visitors/1000 sf = ADT/1000 sf x avg. vehicle occupancy - employees/1000 sf

ADT/1000 sf = average daily trips (1/2 trip ends) on a weekday per 1000 sf

Using this formula and information on trip generation rates used in this study for the transportation impact fee update, vehicle occupancy rates from the *National Household Travel Survey* and other sources and assumptions, nonresidential functional population estimates per 1,000 square feet of gross floor area are calculated. Table 67 presents the results of these calculations for a number of nonresidential land use categories.

Table 67. Nonresidential Functional Population per Unit

Land Use	Unit	Trip Rate	Persons/ Trip	Employee/ Unit	Visitors/ Unit	Functional Pop./Unit
Retail/Commercial	1,000 sq. ft.	21.35	1.96	1.02	40.83	2.041
Office	1,000 sq. ft.	5.52	1.24	2.31	4.53	0.959
Industrial	1,000 sq. ft.	3.42	1.24	1.05	3.19	0.416
Warehouse	1,000 sq. ft.	1.78	1.24	0.43	1.78	0.180
Mini Warehouse	1,000 sq. ft.	1.25	1.24	0.43	1.12	0.167
Public/Institutional	1,000 sq. ft.	3.80	1.86	1.95	5.11	0.863

Source: Trip rates are one-half trip ends from Table 14; 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 7.

Functional Population Summary

The functional population multipliers for the residential and nonresidential land use categories are summarized in Table 68.

Table 68. Functional Population Multipliers

Land Use	Unit	Functional Pop./Unit
Single-Family, Detached (All)	Dwelling	1.314
Less than 1,500 sf	Dwelling	1.170
1,500 to 1,999 sf	Dwelling	1.224
2,000 to 2,499 sf	Dwelling	1.338
2,500 to 2,999 sf	Dwelling	1.410
3,000 sf or greater	Dwelling	1.500
Guest Unit, 750 sf or less	Dwelling	0.996
Multi-Family	Dwelling	1.140
Mobile Home/RV Park	Pad/Space	1.824
Retail/Commercial	1,000 sq. ft.	2.041
Office	1,000 sq. ft.	0.959
Industrial	1,000 sq. ft.	0.416
Warehouse	1,000 sq. ft.	0.180
Mini Warehouse	1,000 sq. ft.	0.167
Public/Institutional	1,000 sq. ft.	0.863

Source: Residential dwelling unit functional population per unit from Table 66; nonresidential functional population per unit from Table 67.

Existing and projected total functional population for the Urban Area are derived based on existing and projected land uses from the Land Use Assumptions and functional population per unit multipliers summarized above. The results are displayed in Table 69.

Table 69. Total Functional Population, 2014-2020

Land Use	Unit	No. of Units	Functional Pop. per Unit	Functional Pop. Total
Existing (2014)				
Single-Family Detached	Dwelling	29,500	1.314	38,763
Multi-Family	Dwelling	9,700	1.140	11,058
Mobile Home	Dwelling	5,200	1.824	9,485
Retail/Commercial	1,000 sq. ft.	10,198	2.041	20,814
Office	1,000 sq. ft.	8,972	0.959	8,604
Industrial/Warehouse	1,000 sq. ft.	4,360	0.298	1,299
Public/Institutional	1,000 sq. ft.	2,960	0.863	2,554
Total Functional Population, 2014				92,577
Projected (2020)				
Single-Family Detached	Dwelling	31,250	1.314	41,063
Multi-Family	Dwelling	10,050	1.140	11,457
Mobile Home	Dwelling	5,200	1.824	9,485
Retail/Commercial	1,000 sq. ft.	10,898	2.041	22,243
Office	1,000 sq. ft.	9,322	0.959	8,940
Industrial/Warehouse	1,000 sq. ft.	4,465	0.298	1,331
Public/Institutional	1,000 sq. ft.	3,030	0.863	2,615
Total Functional Population, 2020				97,134
New Functional Population, 2014-2020				4,557

Source: Existing and projected land uses from Table 5; functional population per unit from Table 68; total functional population is product of units and functional population per unit.

APPENDIX D: PARK/TRAIL INVENTORY

Table 70. Inventory of Existing Parks and Open Space

Park Facility	Acres	Play-grnd	Picnic	Activ. Area	Tennis Court	Hand-ball	Soccer Field	Bskt-ball	Base-ball	Soft-ball	Vball Ct	Skate-board	Swim Pool
Arroyo Sonrisa Park	0.26												
Cielo Vista	1.20												
Canada Gardens	0.89												
City Hall Park	0.68												
Don Diego Entrada Park	0.31												
Espinacitas Park	0.16												
Gregory Lopez Park	1.87	1	1										
Guadalupe Neighborhood Parcel	0.17												
John F. Griego Park (Vietnam Vets)	0.92	1	1					1					
Kiva Center	0.72												
La Farge Library	1.20												
La Vllla Serena Park	1.28												
Los Milagros Park	1.16												
Maclovia Park	1.19												
Main Library	0.93												
Maloof Park	2.62												
Melendez Park	0.45												
Monica Roybal Center	0.81	2	1	1				2					
Dancing Ground Community Park	1.66	1	1	1									
Orlando Fernandez Park	0.46		1										
Peralta Park	0.78			1									
Plaza Entrada	0.22												
Rancho Del Sol Phase II Park	0.48												
Rancho Siringo Park	0.31	1	1					1					
Resolana Park	1.58	1	1										
Santa Fe Riverside Park	0.72		1	1									
South Meadows	1.64												
Sunnyslope Meadows	0.41												
Thomas Macaione Park	0.40		1										
Valentine Park	0.67	1	1										
Young Park	0.91	1	1					1					
Subtotal, Pocket Parks	27.06	9	9	3	0	0	0	5	0	0	0	0	0
Adam Gabriel Armijo Park	5.68	1	1										
Alvarado Park	4.85	1	1										
Amelia E White Park	2.97		1										
Calle Lorca Park	6.94	1	1					2					
Candelero Park	6.60	1	1		2			1					
Frank S. Ortiz Park Playground	6.19	1	1										
Herb Martinez Park	7.64		1		6			2	1				
Las Acequias Park	5.59	2	1	1				2					
Las Acequias Park - Phase 4	2.47												
Las Estanclas #1	2.07												
Los Hermanos Rodriguez Park	3.76	1	1					1					
Martin Luther King Park	1.21	1	1	1									
Mark Brandt Park	5.27		1										
Monica Lucero Park	10.75	1	1							1			
Monsignor Patrick Smith Park	4.63	1	1				1	2					
Parque Del Rio	4.00												
Pueblos del Sol	5.30												
Santa Fe Estates	6.33												
Torreon Park	3.44	2	1					2					
Vllla Caballero Park	4.83												
Subtotal, Neighborhood Parks	100.52	13	14	2	8	0	1	12	1	1	0	0	0
Ashbaugh Park	16.12		1				1				1		
Bicentennial Park	15.92	1	1		4			1	3				
Fort Marcy Complex	25.32	1	1	1	2		2		1				
General Franklin E. Miles Park	28.60	2	1					2	7		2	1	
Larragoite Park	11.52	1	1		2			1		1	1		
Ragle Park	38.41	1	1			1				4			
Salvador Perez Park / Patio Park	15.12	2	1	1	4		1		3	2	1		
Villa Linda Park	16.12	1	1				1						
Subtotal, Community Parks	167.13	9	8	2	12	1	4	4	14	7	5	1	0

Table 70. Continued

Park Facility	Acres	Play-grnd	Picnic	Activ. Area	Tennis Court	Hand-ball	Soccer Field	Bskt-ball	Base-ball	Soft-ball	Vball Ct	Skate-board	Swim Pool
Municipal Recreation Complex	428.38						4						
Subtotal, Regional Parks	428.38	0	0	0	0	0	4	0	0	0	0	0	0
Boys and Girls Club	1.59												
Cathedral Park	0.62		1	1									
Cornell Park (Rose Garden)	2.06		1										
Cross of the Martyrs	2.35		1										
De Vargas Park (East/West)	2.93		1	1								1	
Dr Richard Engle Tennis Courts	0.72				3								
Frank S. Ortiz Park	134.29												
Plaza Park	1.07			1									
Prince Park	10.13		1	1									
Power Plant Park	3.40	1											
Railyard Park	10.54												
Santa Fe River Park	6.91												
Santa Fe River Park Downtown East	2.29		1										
Santa Fe River Park Downtown West	1.06		1										
Santa Fe River Park East	9.98		1										
Santa Fe River Park West	11.21		1										
Subtotal, Special Use Parks	201.15	0	9	4	3	0	0	0	0	0	0	1	0
Baca Street Cristobal Colon Parcels	1.27												
Bicentennial Pool	0.80												1
Boys and Girls Club	0.70												
Fort Marcy Rec. Center*	2.67												
Galisteo Tennis Courts	0.66				2								
Genoveva Chavez Community Center*	3.74												
Monica Roybal Center	0.40							1					
Salvador Perez Pool	1.33												1
Senior Citizens Center	1.15												
Subtotal, Recreation Facilities*	12.72	0	0	0	2	0	0	1	0	0	0	0	2
Airport Rd Open Space (Lot 9 Sec 7)	1.69												
Cerro Gordo O.s.	2.41												
Frenchy's Field Park & Commons	16.53	1		1									
Genoveva Chavez Park Land	17.29												
La Paz Open Space	3.82												
Mountain View Apartments Dedication	0.03												
Mountain View Apartments Dedication	0.11												
Municipal Recreation Center	1,291.94												
N Tract W Portion of Ne Quad. Of Sf	141.58												
Nava Ade	8.46												
Parque Escudero	0.65												
Pueblos Del Sol	64.30												
Rlo Vlsta	4.86												
Santa Fe Estates Open Space	25.63												
Sierra Del Norte	58.96												
Tierra Contenta	452.18												
Tierra Escondida Drainage Pond	0.47		1										
Tract A; E of Almeda Public Housing	0.12												
Vista De La Sierra Drainage and Rec	1.16												
Vista Del Prado Openspace	2.07												
Vista Del Sol	28.79												
Vistas De Santa Fe	0.90												
Wuest Parcel	0.83												
Yucca Park	2.07												
Zia Vista	9.45												
Subtotal, Open Space	2,136.30	1	1	1	0	0	0	0	0	0	0	0	0
Total, Neighborhood & Pocket Parks	127.58	22	23	5	8	0	1	17	1	1	0	0	0
Total, Community/Reg./Rec./Sp. Use	809.38	9	17	6	17	1	8	5	14	7	5	2	2
Total, Open Space	2,136.30	1	1	1	0	0	0	0	0	0	0	0	0
Grand Total, All Parks	3,073.26	32	41	12	25	1	9	22	15	8	5	2	2

* recreational facilities subtotal includes land but excludes facilities for Fort Marcy and Genoveva Chavez Community Center

Source: City of Santa Fe Long Range Planning, December 17, 2013.

Table 71. Existing Trail Inventory

Trails	Miles
Acequia Trail	3.60
Arroyo Chamisos Trail	5.68
Botulph Rd. Trail	0.25
Gonzales Road Trail	1.00
Marc Brandt Park - Siringo Rd	0.50
Museum Hill Trail	0.50
Nava Ade Trails	2.25
Old Pecos Trail ROW Trail	1.00
Pueblos del Sol Trails	1.60
Rail Trail	4.00
Santa Fe River Trail	3.21
St. Francis Drive Trail	1.00
Tierra Contenta	1.50
Subtotal, Paved Trails	26.09
Arroyo Mascaras Trail	0.33
Arroyo Mora (Polai) Trail	1.63
Atalaya Wilderness Trail	5.16
Dale Ball Trails	22.22
De Vargas Heights Bridle Paths	n/a
Dorothy Stewart Trail	1.45
Fullerton Legacy	0.27
La Tierra Trail System	25.00
Las Estrellas Trails - Santa Fe Estates	3.00
MRC Trails	7.00
MRC to Agua Fria	2.00
Prince Park Trail	1.00
Visto Del Prado	n/a
Zocalo	0.30
Subtotal, Soft Surface Trails	69.36
Total All Trails	95.45

Source: City of Santa Fe Long Range Planning, December 17, 2013.

APPENDIX E: OUTSTANDING DEBT

The City of Santa Fe's outstanding gross receipts tax (GRT) and general obligation (GO) bonds are summarized in Table 72. The 2013 GO bonds and the portion of the 2012A GRT bonds not used for refunding are not included, because none of the projects funded by these bond issues have been included in the existing facility inventories for the road, park, fire and police impact fee analyses. The debt for land acquisition for general government purposes, convention center, solid waste, wastewater and the Railyard are unrelated to the impact fee facilities and are excluded from the remainder of this analysis.

Table 72. Outstanding Non-Utility Debt Summary

Bond Issue	Purpose	Original	Outstanding
GRT Rev. Bonds 2006A	CIP	$17,710,000	$3,045,000
GRT Rev. Bonds 2008	CIP	$20,135,000	$19,840,000
GRT Refunding Bonds 2010A	Refund 2002	$15,005,000	$9,415,000
GRT Refunding Bonds 2012A*	Refund 2004A	$14,390,000	$14,390,000
GRT Rev. Bonds 2012A*	CIP	$18,335,000	$18,335,000
GRT Refunding Bonds 2013A	Refund 2006A	$10,880,000	$10,880,000
MRC 2005 Refunding Bonds	Parks	$15,315,000	$9,165,000
NMFA - Land Acquisition	Land Purch.	$3,610,000	$2,965,784
Total from 1/2% GRT		$115,380,000	$88,035,784
General Obligation 2008	Parks	$20,000,000	$17,070,000
General Obligation 2010	Parks	$10,300,000	$9,440,000
Total from Property Tax		$30,300,000	$26,510,000
GRT Rev. Bonds 2008-Con. Ctr	Conv. Ctr.	$8,570,000	$7,725,000
NMFA - Conv. Center (+ fees)	Conv. Ctr.	$42,220,000	$37,625,000
Total from Lodger's Tax		$50,790,000	$45,350,000
GRT Refunding Bonds 2006B	Solid Waste	$15,160,000	$10,190,000
Total from MGRT Infrastructure		$15,160,000	$10,190,000
GRT Rev. Ref. Bonds 2012B	WW	$14,280,000	$12,540,000
GRT/WW Bonds 2006C	WW	$9,780,000	$6,070,000
Total from MGRT Env & WW Rev		$24,060,000	$18,610,000
GRT Refunding Bonds 2010B	Railyard	$10,490,000	$9,785,000
GRT Refunding Bonds 2013B	Parking Garage	$13,780,000	$13,780,000
GRT Rev Bonds 2012C	Market Station	$4,685,000	$4,685,000
Total from Railyard GRT		$28,955,000	$28,250,000

* $32,725,000 bond split between refunding and new capital projects

Source: City of Santa Fe Finance Department, October 15, 2013.

The outstanding debt amounts attributable to refunding issues, as well as to original issues that funded a variety of improvement types, are allocated among facility types based on the original planned project costs for each bond issue. Only debt that was incurred for capacity-expanding improvements is included. The analysis of the individual bond issues is provided at the end of this appendix. The resulting distributions by facility type are summarized in Table 73.

Table 73. Distribution of Debt by Facility Type

Bond Issue	Streets	Parks	Police	Fire	Other	Total
Planned Project Costs						
GRT Revenue Bonds 2002	$250,000	$0	$0	$150,000	$17,595,000	$17,995,000
GRT Revenue Bonds 2004 A	$2,200,000	$3,960,000	$0	$1,700,000	$10,800,000	$18,660,000
GRT Revenue Bonds 2006 A	$1,740,000	$3,900,000	$670,000	$460,000	$11,730,000	$18,500,000
MRC 2005 Refunding	$0	$6,126,000	$0	$0	$9,189,000	$15,315,000
GRT Rev. Bonds 2008	$1,200,000	$2,450,000	$2,000,000	$2,200,000	$12,285,000	$20,135,000
GRT Rev. Bonds 2012A	$430,000	$2,300,000	$0	$0	$19,270,000	$22,000,000
Percentage of Bond Project Cost						
GRT Revenue Bonds 2002	1.4%	0.0%	0.0%	0.8%	97.8%	100.0%
GRT Revenue Bonds 2004 A	11.8%	21.2%	0.0%	9.1%	57.9%	100.0%
GRT Revenue Bonds 2006 A	9.4%	21.1%	3.6%	2.5%	63.4%	100.0%
MRC 2005 Refunding	0.0%	40.0%	0.0%	0.0%	60.0%	100.0%
GRT Rev. Bonds 2008 - CIP	6.0%	12.2%	9.9%	10.9%	61.0%	100.0%
GRT Rev. Bonds 2012A (CIP)	2.0%	10.5%	0.0%	0.0%	87.6%	100.0%

Source: Original planned project costs from the following tables: GRT 2002 (Table 75), GRT 2004A (Table 76), GRT 2006A (Table 77), GRT 2008 (Table 78) and GRT 2012A (CIP portion, Table 79); MRC 2005 refunding bond issued to refund the 1996C and 1998 MRC bonds that were used for parks (60% attributed to golf courses per City of Santa Fe Finance Department, August 15, 2002 – classified as "other").

The distributions from the table above are multiplied by the total outstanding debt for those mixed-facility bond issues to determine outstanding debt for each impact fee facility type.

Table 74. Outstanding Debt by Facility Type

Bond Issue (Refunded Issue)	Streets	Parks	Police	Fire	Total
GRT Refunding 2010A (2002)	$131,810	$0	$0	$75,320	$9,415,000
GRT Refunding 2012A (2004A)	$1,698,020	$3,050,680	$0	$1,309,490	$14,390,000
GRT Refunding 2013A (2006A)	$1,022,720	$2,295,680	$391,680	$272,000	$10,880,000
GRT 2006A	$286,230	$642,495	$109,620	$76,125	$3,045,000
GRT 2008	$1,190,400	$2,420,480	$1,964,160	$2,162,560	$19,840,000
GRT 2012A	$430,000	$2,300,000	$0	$0	$18,335,000
MRC 2005 Refunding	$0	$3,666,000	$0	$0	$9,165,000
General Obligation 2008	$341,400	$17,070,000	$0	$0	$17,070,000
General Obligation 2010	$0	$9,440,000	$0	$0	$9,440,000
Total	$5,100,580	$40,885,335	$2,465,460	$3,895,495	$111,580,000

Source: Total outstanding principal from Table 72; outstanding amount by facility for mixed-facility issues based on percent of original debt from Table 73.

Table 75. 2002 Gross Receipts Tax Bond Projects

Project	Amount	Eligible
Traffic Calming	$1,500,000	$0
Intersection Safety	$250,000	$250,000
Repaving	$1,000,000	$0
Unpaved Streets Rehabilitation	$150,000	$0
Small Sidewalks	$100,000	$0
Bridge Rehabilitation	$50,000	$0
Recycled Asphalt	$50,000	$0
Preventative Asphalt	$100,000	$0
Subtotal, Streets	$3,200,000	$250,000
Fire Station #8 Design	$150,000	$150,000
Subtotal, Fire	$150,000	$150,000
Water Management/ Conservation	$700,000	$0
Turf Rehabilitation	$870,000	$0
Subtotal, Parks	$1,570,000	$0
Maez Road Drainage	$500,000	n/a
Municipal Repairs	$600,000	n/a
Building Infrastructure Technology	$500,000	n/a
ITS Infrastructure	$200,000	n/a
Small Drainage	$100,000	n/a
Affordable Housing	$500,000	n/a
Arts	$180,000	n/a
Social Services Facility	$500,000	n/a
Water System Improvements	$10,500,000	n/a
Total	$18,500,000	$400,000

Source: City of Santa Fe Finance Department, June 15, 2002.

Table 76. 2004A Gross Receipts Tax Bond Projects

Project	Amount	Eligible
Parks and Median Maint.	$400,000	$0
Water Management	$500,000	$0
Artificial Turf	$500,000	$0
Tennis Court Rehab	$200,000	$0
Alto Park, Phase II	$700,000	$700,000
Trails	$1,500,000	$1,500,000
Railyard Infrastructure	$350,000	$350,000
Tierra Contenta Park	$200,000	$200,000
La Cieneguita Park	$200,000	$200,000
Plaza Improvements	$500,000	$500,000
State Game and Fish Property	$450,000	$450,000
Amelia White Park	$60,000	$60,000
Subtotal, Parks	$5,560,000	$3,960,000
Traffic Safety Improvements	$300,000	$300,000
Re-paving	$1,250,000	$0
Unpaved Rehab.	$150,000	$0
Small Sidewalks	$100,000	$0
Bridge Rehab.	$200,000	$0
Recycled Asphalt Paving Program	$250,000	$0
Siler Road Extension Design	$400,000	$400,000
Alire Bridge Rehab.	$400,000	$0
Traffic Calming	$1,500,000	$1,500,000
Subtotal, Streets	$4,550,000	$2,200,000
Fire Station #8	$1,700,000	$1,700,000
Subtotal, Fire	$1,700,000	$1,700,000
ADA Improvements	$300,000	n/a
Municipal Facility Repair	$600,000	n/a
Cerrillos Road IT Conduit	$100,000	n/a
Airport Matching Funds	$285,000	n/a
Small Drainage	$100,000	n/a
Ortiz Landfill Re-mediation	$200,000	n/a
South Side Library	$4,800,000	n/a
Affordable Housing	$500,000	n/a
Arts	$180,000	n/a
Total	$18,875,000	$7,860,000

Source: City of Santa Fe Finance Department, March 8, 2007.

Table 77. 2006A Gross Receipts Tax Bond Projects

Project	Amount	Eligible
Parks and Median Maint.	$400,000	$0
Water Management	$300,000	$0
Turf Rehabilitation	$300,000	$0
Tennis Court Rehab	$200,000	$0
Alto Park	$500,000	$500,000
Sports Facilities Improvements	$600,000	$600,000
Railyard Park Offsite Improvements	$800,000	$800,000
Santa Fe River Trail	$750,000	$750,000
Santa Fe Railyard Park	$250,000	$250,000
Amelia White Park	$100,000	$100,000
Dog Parks	$150,000	$150,000
Trails (Citywide)	$500,000	$500,000
Franklin Miles Park Improvements	$250,000	$250,000
Subtotal, Parks	$5,100,000	$3,900,000
Intersection/Signal Improvements	$350,000	$350,000
Traffic Safety Improvements	$300,000	$300,000
Signal Maint.	$200,000	$0
Sign and Striping Maint.	$200,000	$0
Paved Street Rehab.	$3,905,000	$0
Unpaved Rehab.	$150,000	$0
Small Sidewalks	$300,000	$0
Bridge Rehab.	$500,000	$0
Recycled Asphalt Paving Program	$100,000	$0
Camino Alire Bridge	$700,000	$700,000
Carson St. Bridge	$40,000	$40,000
Area Traffic Plan on Galisteo St.	$100,000	$100,000
Traffic Calming	$250,000	$250,000
Subtotal, Streets	$7,095,000	$1,740,000
Main Station Improvements	$600,000	$600,000
Alameda Substation Parking	$70,000	$70,000
Subtotal, Police	$670,000	$670,000
Fire Vehicle Access, Station #8	$300,000	$300,000
Fire Station #3 Design	$160,000	$160,000
Fleet Mechanic	$200,000	$0
Subtotal, Fire	$660,000	$460,000
ADA Improvements	$1,000,000	n/a
Municipal Facility Repair	$600,000	n/a
Telecommunications Improvements	$1,000,000	n/a
Airport Matching Funds	$100,000	n/a
Small Drainage	$300,000	n/a
Property Control–City Hall	$250,000	n/a
Fleet Expansion	$300,000	n/a
Night Sky Implementation	$200,000	n/a
Solid Waste Landfill Closure	$200,000	n/a
Community Services	$400,000	n/a
Warehouse 21	$200,000	n/a
La Familia	$100,000	n/a
PLUD Software	$25,000	n/a
Women's Health Services	$100,000	n/a
Arts	$200,000	n/a
Total	$18,500,000	$7,900,000

Source: City of Santa Fe Finance Department, February 26, 2007.

Table 78. 2008 Gross Receipts Tax Bond Projects

Project	Amount	Eligible
Intersection Safety	$350,000	$0
Safety Misc. Projects	$300,000	$0
Signal Maintenance	$200,000	$0
Sight, Paint & Signal	$200,000	$0
Municipal Facilities Repair	$600,000	$0
Paved Street Rehab.	$3,230,000	$0
Unpaved Street Rehab.	$150,000	$0
Small Sidewalks	$150,000	$0
Small Drainage	$300,000	$0
Bridge Rehab.	$500,000	$0
Cerrillos Road	$1,000,000	$1,000,000
Airport Road Safety Project	$100,000	$0
Paseo de Vista Prelim Design	$200,000	$200,000
Subtotal, Streets	$7,280,000	$1,200,000
Park Maintenance	$400,000	$0
Parks/Water Mgt.	$300,000	$0
Turf Rehab.	$300,000	$0
Bicentennial Pool	$300,000	$300,000
Santa Fe Railyard Park & Plaza	$1,000,000	$1,000,000
Trails City Wide (incl. Santa Fe Trail)	$1,000,000	$1,000,000
Old Power Plant Building & Park	$150,000	$150,000
Subtotal, Parks	$3,450,000	$2,450,000
Fire Station #3	$2,000,000	$2,000,000
Fire Station #4 (#9 Design NWQ)	$200,000	$200,000
Subtotal, Fire	$2,200,000	$2,200,000
Police Facility Design (Main Station)	$2,000,000	$2,000,000
Subtotal, Police	$2,000,000	$2,000,000
Effluent Line for SW Sector	$500,000	n/a
CIP for the Arts	$370,000	n/a
ADA Improvements	$300,000	n/a
Telecomm Imp City Wide	$500,000	n/a
Airport Matching Funds	$100,000	n/a
Court Rehab.	$200,000	n/a
GCCC-CIP Bond	$250,000	n/a
City Hall Renovations	$600,000	n/a
Warehouse 21 (Youth Center)	$1,000,000	n/a
Tino Griego Teen Ctr (La Farge Lib.)	$500,000	n/a
Farmers Market	$200,000	n/a
Affordable Housing	$500,000	n/a
Zona del Sol (Youth Consortium)	$750,000	n/a
ITT	$300,000	n/a
Total	$21,000,000	$7,850,000

Source: City of Santa Fe Finance Department, February 7, 2014.

Table 79. 2012A Gross Receipts Tax Bond Projects

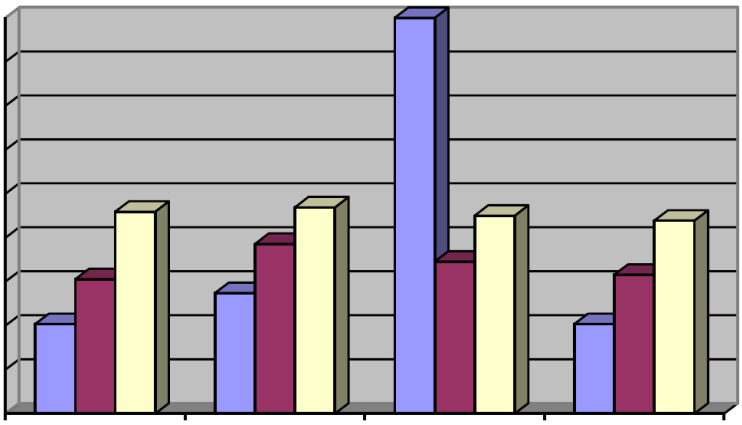
Project	Amount	Eligible
Intersection Safety	$350,000	$0
Traffic Miscellaneous Safety	$300,000	$0
Paved Street Rehabilitation	$4,000,000	$0
Unpaved Street Rehabilitation	$2,000,000	$0
Small Sidewalks	$500,000	$0
Small Drainage	$300,000	$0
Bridge Rehabilitation	$500,000	$0
Signal Replacement/Repair	$340,000	$0
Signing and Striping	$260,000	$0
Paseo de Peralta/Washington Intersection	$230,000	$230,000
Road Sharrows	$250,000	$0
Airport Road Landscaping	$200,000	$200,000
Butulph Rd Shoulders/Pedestrian Safety	$250,000	$0
LED Streetlights at Traffic Signals	$120,000	$0
Total, Streets	$9,600,000	$430,000
Parks and Medians	$2,000,000	$2,000,000
Poof Roof/HVAC Renovations	$300,000	$0
Gonzales Road Pedestrian Trail	$300,000	$300,000
Total, Parks	$2,600,000	$2,300,000
Municipal Facilities	$600,000	n/a
City Roofs	$200,000	n/a
GCCC	$500,000	n/a
Airport Matching Funds	$200,000	n/a
Transit Matching Funds	$500,000	n/a
Rodeo de SF Arena & Ag Disaster Relief	$100,000	n/a
Effluent Line SW Sector	$1,000,000	n/a
ITT Citywide	$1,000,000	n/a
Court ITT Improvements	$300,000	n/a
Zona del Sol	$100,000	n/a
ADA Improvements	$300,000	n/a
Bus Replacement	$2,000,000	n/a
Santa Fe Railyard	$600,000	n/a
2% for Arts	$400,000	n/a
Solar Loan Program	$200,000	n/a
Affordable Housing	$800,000	n/a
Broadband Infrastructure	$1,000,000	n/a
Total	$22,000,000	$2,730,000

Source: City of Santa Fe Finance Department, February 10, 2014.

APPENDIX F: LAND USE ASSUMPTIONS

Santa Fe Urban Area

Impact Fee Land Use Assumptions
2014–2020



City of Santa Fe
Housing & Community Development Department
Long Range Planning Division

August, 2013

INTRODUCTION

This report provides land use assumptions (growth projections) for the Santa Fe Urban Area, a unified service area, within which the city is planning to annex land and therefore expend impact fee monies for eligible capital improvement projects (see map). The New Mexico *Development Fees Act (§§ 5-8-1 through 5-8-43, NMSA 1978),* specifies that land use assumptions must be adopted for a period of at least five years. These land use assumptions cover a period of seven years from the beginning of 2014 through the end of 2020.

The projections assume that urban area growth through 2020 will generally reflect slower growth than occurred during the last decade (2000-2010), due to the slow recovery from the depth of the Great Recession and slower population growth.

Residential and Non-Residential Development, 2014–2020

The following table summarizes anticipated growth from the beginning of 2014 through 2020.

Table 1. Residential & Non-Residential Development, 2014–2020

Housing Units

	2014	Added	2020	(Annual Avg.)
City/Urban Area Total	**44,400**	**2,100**	**46,500**	**300**

Population

	2014	Added	2020	(Annual Avg.)
City/Urban Area Total	**86,500**	**3,500**	**90,000**	**500**

Housing Units, By Type

	2014	Added	2020	(Annual Avg.)
Single-Family (Detached; Attached)	29,500	1,750	31,250	250
Multi-Family	9,700	350	10,050	50
Mobile Homes	5,200	0	5,200	0
City/Urban Area Total	**44,400**	**2,100**	**46,500**	**300**

Commercial Development (square feet of gross floor area)

Land Use Category	2014	Added	2020	(Annual Avg.)
Retail	10,198,000	700,000	10,898,000	100,000
Office	8,972,000	350,000	9,322,000	50,000
Industrial	4,360,000	105,000	4,465,000	15,000
Institutional	2,960,000	70,000	3,030,000	10,000
Commercial Total	**26,490,000**	**1,225,000**	**27,715,000**	**175,000**

Source: *Santa Fe Trends, 2013*; city and county building permit data through July, 2013.

1.

Housing & Population Assumptions

Housing in the city/urban area will continue to grow slowly based on continued lower demand for new housing both from within the community and from those moving here from other places. Larger master-planned developments in the city will continue to account for much of the new housing. Projections of population growth are based on assumptions about the average number of new housing units built each year and the number of occupants in each new unit. The overall average number of occupants in each new housing unit is projected to be 1.67.

Commercial Assumptions

Commercial construction, which for these purposes includes all non-residential construction, is projected to continue at a modest, but healthy, annual average of 175,000 square feet. This represents the annual average of new commercial development from 2006-2012. Though much of this period includes the Great Recession, it is anticipated that an oversupply of commercial floor area leading up to the recession and the increase of computer-based retail sales will keep the annual levels of construction of commercial space moderate through the rest of the decade.

Historical Housing and Population Growth, 2000-2010

From 2000–2010, city population growth represented nearly all of the urban area growth, a dramatic change from the 1990s when the city accounted for less than half of the total urban area population growth. Meanwhile, city housing growth represented 97% of total urban area housing growth from 2000–2010 (compared to only 73% during the 1990s). When comparing the 2000 and 2010 Census, the city and urban area experienced the following population and housing growth:

Note: In the future, comparisons between the "city" and "urban area" may be unnecessary as the city annexes most of the urban area. The Agua Fria Traditional Historic Community (2,800 residents and 1,134 housing units; 2010 Census) located within the urban area is expected to remain part of county jurisdiction.

Table 2. Population & Housing Growth, 2000-2010

	Total Population 2000	Total Population 2010	2000-2010 Growth	Annual Average	Urban Area Growth
City of Santa Fe	62,203	67,947	+5,744	574	99%
Outside the City	16,897	16,930	+ 33	3	1%
Urban Area Total	79,100	84,877	+5,777	577	100%

	Total Housing Units 2000	Total Housing Units 2010	2000-2010 Growth	Annual Average	Urban Area Growth
City of Santa Fe	30,533	37,200	+6,667	667	97%
Outside the City	6,046	6,205	+ 159	16	3%
Urban Area Total	36,579	43,405	+6,826	683	100%

	Persons per Housing Unit 2000	Persons per Housing Unit 2010
City of Santa Fe	2.04	1.82
Outside the City	2.79	2.73
Urban Area Total	2.16	1.95

(not Persons-per-Household)

Source: U.S. Census

APPENDIX G: CAPITAL FACILITY PLANS

Table 80. Planned Major Road Improvements, 2014-2020

Project Name	Location	Cost Estimate
Cerrillos Rd, Phase IIC	Camino Carlos Rey to St. Michaels Dr.	$10,300,000
Calle P'o Ae Pi	Airport Road to Rufina St.	$500,000
Bike Lanes/Sidewalks	Reconstruction / Expansion	$4,000,000
Rufina St.	Harrison Rd. to Camino Carlos Rey	$500,000
West Alameda St.	La Joya Road to Siler Road	$3,000,000
Zia Station Infrastructure	Zia Road Rail Station	$300,000
Total, Road Improvements		$18,600,000
Agua Fria / South Meadows		$1,000,000
Agua Fria / Cottonwood		$1,000,000
Airport Road / Ca P'o Ae Pi		$350,000
Airport Road / Jemez		$100,000
Cerrillos / Sandoval / Manhattan		$1,000,000
Galisteo / St. Michaels		$350,000
Galisteo / Rodeo		$350,000
Galisteo / San Mateo		$350,000
Paseo de Peralta / Marcy		$350,000
Rufina / Ca P'o Ae Pi		$350,000
Rufina / Lopez		$500,000
Sandoval / Montezuma		$500,000
Total, Intersection/Signalization Improvements		$6,200,000
Total, All Road Projects		$24,800,000

Source: Planned improvements and costs from City of Santa Fe Long Range Planning Division, November 5, 2013 and April 1, 2014.

Table 81. Planned Park/Trail Improvements, 2014-2020

Project Name	Cost Estimate
Colonia Prisma Park	$50,000
Las Acequias Park Phase 2	$89,000
Los Soleras Park	$7,250,000
Nava Ade Park Development (Phase 2- South Park)	$2,115,000
San Isidro Park	$20,000
Southwest Activity Node (SWAN - Tierra Contenta) Ph 2-4	$18,670,000
Small Parks (new)	$500,000
Play Equipment (new)	$200,000
Neighborhood & Community Park, Subtotal	$28,894,000
Acequia Trail - Underpass at St. Francis/Cerrillos	$3,500,000
Acequia Trail - Otowi Rd. to Harrison Rd.	$535,000
Arroyo Chamiso Trail - Villa Linda Park to Governor Miles Road	$610,000
Cañada Rincon Trail - Calle Mejia to Cam. Francisca/Ave. Rincon	$250,000
Dale Ball Trail Improvements and Extensions	$50,000
La Tierra Trail - Connections to Camino de las Crucitas & Montoyas	$800,000
MRC Trail Improvements and Extension	$225,000
Rail Trail - Pen Road to Alta Vista	$660,000
River Trail & Parkway - St. Francis Drive to Canyon Road	$1,000,000
Tierra Contenta Trail - Buffalo Grass Road to Camino Entrada	$600,000
Trails, Subtotal	$8,230,000
Parks & Trails, Total	$37,124,000

Source: City of Santa Fe Long Range Planning Division, November 15, 2013.

Table 82. Planned Fire/EMS Improvements, 2014-2020

	Building Sq. Feet		Building	Equipment	Total
Improvement	Existing	Proposed	Cost	Cost	Eligible Cost
New Southwest (Agua Fria) Station	0	10,605	$2,520,000	$673,000	$3,193,000
Fire Station No. 5 Remodel*	10,156	15,000	$1,151,050	$0	$1,151,050
New Las Soleras Station	0	10605	$2,520,000	$525,000	$3,045,000
Total	10156	36,210	$6,191,050	$1,198,000	$7,389,050

* Construction cost represents share of expansion only.

Source: City of Santa Fe Fire Department, November 4, 2013 and February 17, 2014.

Table 83. Planned Police Improvements, 2014-2020

Improvement	Cost
Professional Standards-Camino Entrada	$125,000
Police Records	$220,000
Police Main Facility/Evidence Room	$300,000
Total	$645,000

Source: City of Santa Fe Police Department, November 4, 2013 and April 10, 2014.