

Draft Report

Fire Development Impact Fee Program Nexus Study Update— 2022

The Economics of Land Use



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City of Fresno

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1. Executive Summary

Overview

The City of Fresno (City) retained Economic & Planning Systems, Inc. (EPS) to prepare this 2022 Fire Development Impact Fee Program Nexus Study Update (2022 Nexus Study). The City implemented the Fire Development Impact Fee Program (Fire Fee Program) in 2005 and recently updated it in 2016 and 2019. EPS prepared the required Fire Development Impact Fee Nexus Studies (2016 Nexus Study and 2019 Nexus Study) for both recent updates. This 2022 Nexus Study provides an update to the existing Fire Facilities Development Impact Fees (Fire Fees) and establishes the legally required findings necessary to implement the updated Fire Fees.

Background

In December 2014, the City adopted a new General Plan that establishes growth projections through the General Plan Horizon year of 2035, as well as through buildout of the General Plan. The General Plan also includes policies and implementation actions for police and fire protection services. The 2016 Nexus Study was prepared to update the Fire Fee Program to reflect the development projections and public service policies laid out in the General Plan, as well as the associated updated Fresno Fire Department (FFD) Capital Improvement Plan (CIP) that outlined the planned capital costs for the FFD through 2035.

After approval of the 2016 Nexus Study, the City reviewed the Fire CIP costs used to derive the Fire Fees in that study and found that the fire station construction cost estimates were substantially lower than recent bids for similar facilities. In addition, to facilitate the timely construction of fire stations to serve new development, the City determined that additional bond funding would be needed over the level included in the 2016 Study. Consequently, the 2019 Nexus Study was prepared as an interim update to the Fire Fee Program to reflect increased facility construction costs and bond financing costs and to ensure that Fire Fees were set at levels that would provide adequate revenue for the City to construct stations when needed to serve new development.

After reviewing the 2019 Nexus Study and evaluating the amount of fees collected under the original fee, the City determined that the Fire Fees should be updated. This 2022 Nexus Study serves as the basis for updating the existing Fire Fees to reflect updated population and employment projections through 2035 and

updated fire facilities and equipment costs to be funded by the Fire Fees, while still reflecting the 2014 General Plan policies and standards. This report details the calculation of the new fees and provides the legal justification for updating the fees.

Purpose

The purpose of this 2022 Nexus Study is to update the Fire Fees and establish the legally required nexus (or reasonable relationship) between the City's projected population and employment (service population) in 2035 and the fire facilities that will be required to serve those residents and employees.

The nexus requirements for imposing development impact fees were established under Assembly Bill 1600 (AB 1600) legislation, as codified by the Mitigation Fee Act (California Government Code section 66000 et. seq.). This section of the Mitigation Fee Act sets forth the procedural requirements for establishing and collecting development impact fees. These procedures require that "a reasonable relationship, or nexus, must exist between a governmental exaction and the purpose of the condition."

Specifically, each local agency imposing a fee must perform the following tasks:

- Identify the purpose of the fee.
- Identify how the fee is to be used.
- Determine how a reasonable relationship exists between the fee's use and the type of development project on which the fee is imposed.
- Determine how a reasonable relationship exists between the need for the public facility and the type of development project on which the fee is imposed.
- Demonstrate a reasonable relationship between the amount of the fee and the cost of the public facilities or portion of the public facilities attributable to development on which the fee is imposed.

Further, Assembly Bill 602 was passed and signed by the Governor in 2021 detailing additional requirements required for nexus studies. Specifically, Government Code Section 66016.5 was added that establishes "standards and practices" for a local agency that conducts and impact fee nexus study. This nexus study includes requisite information to comply with the provisions of Government Code Section 66016.5.

Proposed Update to the Fire Fees

The proposed update to the Fire Fees is based on the allocation of the updated Fire CIP costs to the projected City population and employment in the General Plan Horizon year of 2035. The CIP costs include both the value of existing facilities and the estimated costs of new facilities. The total facilities costs are allocated to the total projected residents and employees in 2035. This cost allocation serves as the basis for updating the estimated Fire Fees charged to new development. The Fire Fee to be collected for each residential and commercial land use is calculated based on each land use's relative demand for fire services. The Fire Fees will not fund construction of capital facility improvements required to cure existing level-of-service deficiencies.

Table 1 summarizes the proposed fees by land use. The fees are collected per dwelling unit for residential uses and per 1,000 building square feet for nonresidential uses. The fees include a base amount and a 2 percent administrative component for the City to administer the fee program.

Table 2 compares the existing and proposed Fire Fees. The proposed Fire Fees reflect increases for the residential land uses and decreases for the commercial land uses. The overall cost per persons served (residents and employees) increased modestly by under 5 percent. However, there was a cost shift from commercial to residential uses because of updated persons per household factors and annual residential calls for service per dwelling unit used to calculate the Fire Fees. Each of these factors increased as compared to earlier estimates. These assumptions will be detailed in later chapters of this report.

Report Organization

This report is divided into 6 chapters and 5 appendices:

- **Chapter 1** is this introduction and executive summary.
- **Chapter 2** details the estimated population and employment projections.
- **Chapter 3** describes the FFD CIP, capital needs, and costs to be funded by the Fire Fee Program.
- **Chapter 4** provides the cost allocation methodology and calculates the Fire Fees.
- **Chapter 5** describes how the Fire Fee Program will be implemented and updated.
- **Chapter 6** provides the nexus findings for the Fire Fee Program.

Table 1
Fresno Fire Impact Fee Program Update
Summary of Proposed Fire Fees

Item	Fire Fee		
	Base Fee	Admin.	Total
<hr/>			
		2.0%	
Source	Table 12		
Residential	<i>per dwelling unit</i>		
	<hr/>		
Single-Family	\$2,240	\$45	\$2,285
Multifamily	\$1,709	\$34	\$1,743
Nonresidential	<i>per 1,000 bldg. sq. ft.</i>		
	<hr/>		
Retail	\$590	\$12	\$602
Office	\$675	\$13	\$688
Industrial	\$337	\$7	\$344
<hr/>			
			<i>summ_fee</i>

Source: City of Fresno and EPS

Table 2
Fresno Fire Impact Fee Program Update
Comparison of Existing and Proposed Fire Fees

	Proposed Fee [1]	Existing Fee [1]	Difference	Percentage Difference
Residential	<i>per dwelling unit</i>			
Single-Family	\$2,285	\$2,061	\$224	11%
Multifamily	\$1,743	\$1,556	\$187	12%
Nonresidential	<i>per 1,000 bldg. sq. ft.</i>			
Retail	\$602	\$721	(\$119)	(17%)
Office	\$688	\$824	(\$136)	(17%)
Industrial	\$344	\$413	(\$69)	(17%)
<i>fee comp</i>				

Source: City of Fresno and EPS

[1] Includes 2% administration fee.

- **Appendix A** includes population and employment backup calculations.
- **Appendix B** includes backup for land acquisition and facilities construction costs.
- **Appendix C** details the estimated financing costs for fire facilities construction.
- **Appendix D** contains the detailed FFD service call activity data.
- **Appendix E** is the CIP.

2. Service Population and Employees and Development Assumptions

Population and employment projections are a significant variable used in this 2022 Nexus Study Update. The base Fire Fees are established by allocating the costs of the facilities and equipment needed to serve the City in 2035 to the total projected residents and employees in 2035, estimating cost factors per resident and per employee, and then using these factors to estimate fees to charge to new development.

This chapter presents population and employment estimates for 2021 and 2035, as well as population and employment density factors used to establish the fees for the various land uses.

Existing and Future Population and Employment

Table 3 summarizes the population and employment estimates for 2021 and 2035 and estimates the growth between 2021 and 2035. The FFD serves the incorporated City and unincorporated areas fully enclosed in the City, which are referred to as “County Islands.”

Projected growth in the FFD service area through 2035 will occur in the following three areas:

1. Existing incorporated areas.
2. County Islands.
3. Unincorporated areas located beyond the City limits in the Sphere of Influence (SOI).

Map 1 is from the current Fresno General Plan and shows the entire Fresno Planning Area, including the City, County Island, and SOI boundaries. A key growth assumption in this report is that all development that occurs in unincorporated areas within the boundaries of the Fresno SOI but beyond the City limits will annex into the City by 2035. It is assumed that the County Islands will not incorporate, but the FFD will continue to serve these areas. In 2035, the FFD is projected to serve approximately 771,000 residents and 277,000 employees.

Table 3
Fresno Fire Impact Fee Program Update
Summary of Growth Projections (2021-2035) [1]

Item	Fresno SOI [2]	Fire Service Area [3]
Population		
Existing (2021)	593,980	586,770
Projected (2035) [4]	771,000	771,000
Projected Growth	177,020	184,230
Employment		
Existing (2021)	222,230	219,509
Projected (2035) [4]	276,529	276,529
Projected Growth	54,299	57,020

lu sum

Source: City of Fresno and EPS

[1] See Table 4 for detail.

[2] Fresno SOI includes incorporated City, County Islands, and other unincorporated areas outside the City boundaries.

[3] Fire Service Area includes incorporated City and County Islands.

[4] It is assumed that unincorporated areas except County Islands will incorporate by 2035.

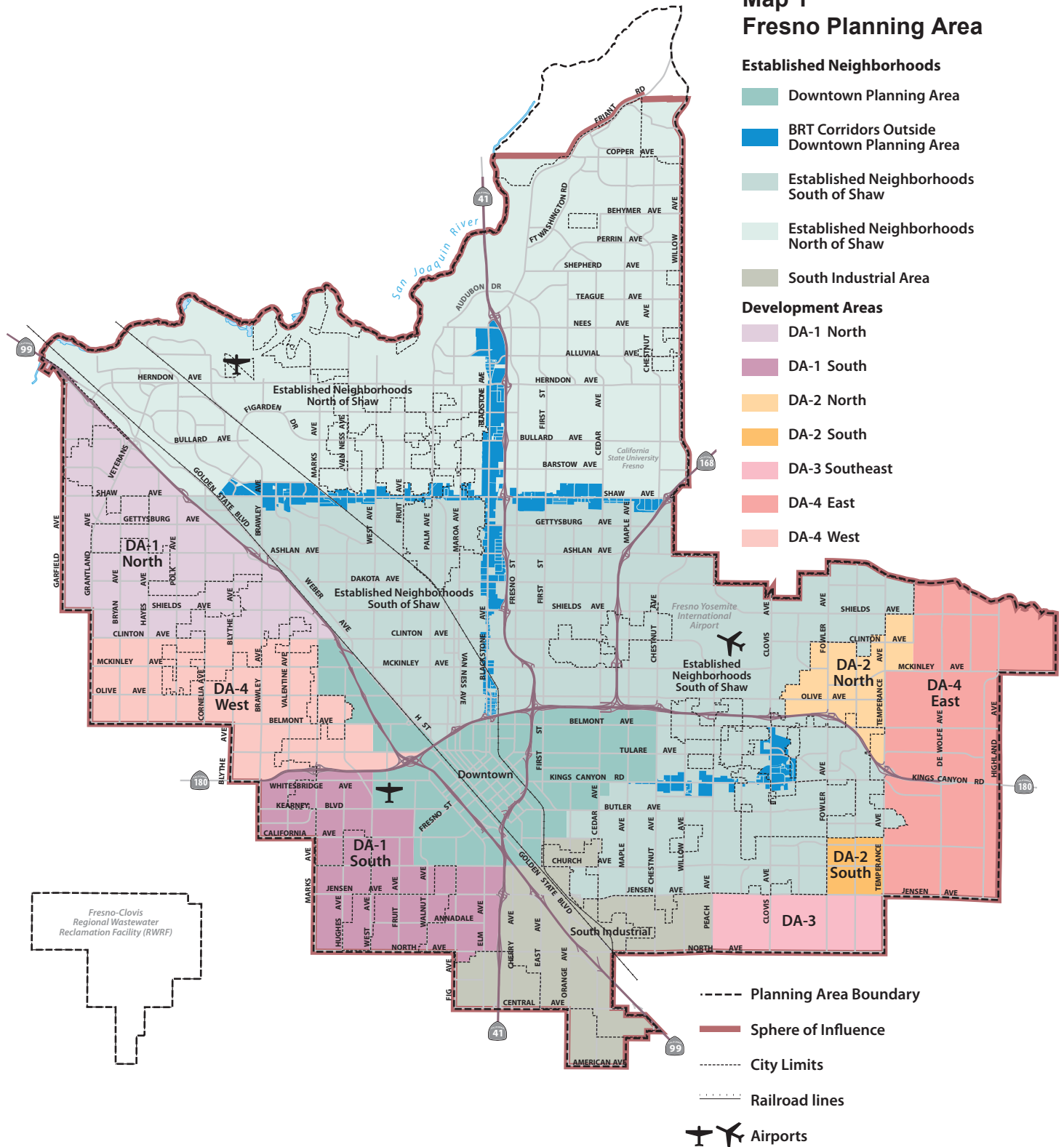
Map 1 Fresno Planning Area

Established Neighborhoods

- Downtown Planning Area
- BRT Corridors Outside Downtown Planning Area
- Established Neighborhoods South of Shaw
- Established Neighborhoods North of Shaw
- South Industrial Area

Development Areas

- DA-1 North
- DA-1 South
- DA-2 North
- DA-2 South
- DA-3 Southeast
- DA-4 East
- DA-4 West



Source: City of Fresno

Note: The Corridor along Shaw Avenue is to be supported by enhanced bus service.

Table 4 provides the details of the estimated 2021 and projected 2035 population and employment for the fire service area. This table includes a detailed accounting of the sources of the population and employment data, which are summarized below:

- Map Atlas Fresno Existing Conditions Report (August 2011).
- Population data from the California Department of Finance (DOF).
- Employment data from the California Employment Development Department (EDD).
- Employment data from the US Census Bureau.
- City General Plan.
- 2016 Nexus Study.

Note that the government and education employment estimates are deducted from the total employment estimates because public uses will not pay development impact fees. See **Appendix A** for details on City employment estimates.

Development Assumptions

The Fire Fee is assessed on several subcategories of new residential and nonresidential development. The fee rates are established by allocating costs to residents and employees, establishing a cost per resident and a cost per employee, and then using density factors to convert those costs to fees per dwelling unit or 1,000 nonresidential building square feet.

Table 5 shows the population and employment density assumptions used to establish the proposed Fire Fee for each residential and nonresidential development category. For the residential land uses, persons-per-household factors are used in the fee calculations. For the nonresidential land uses, building-square-feet-per-employee factors are used in the fee calculations. The calculation of the persons-per-household factors is detailed in **Appendix A**.

Table 4
Fresno Fire Impact Fee Program Update
Detailed Population and Employment Projections (2021-2035)

Item	Fresno SOI			Fire Service Area		
	Existing	2035	Growth	Existing	2035	Growth
Population						
Incorporated City	546,770	731,000	184,230	546,770	731,000	184,230
County "Islands" Located In City	40,000	40,000	0	40,000	40,000	0
Other Unincorporated Areas Outside City	7,210	0	(7,210)	0	0	0
TOTAL	593,980	771,000	177,020	586,770	771,000	184,230
Employment						
Incorporated City	251,705	321,242	69,537	251,705	321,242	69,537
County "Islands" Located In City	15,988	15,988	0	15,988	15,988	0
Other Unincorporated Areas Outside City	3,319	0	(3,319)	0	0	0
Subtotal	271,012	337,230	66,218	267,693	337,230	69,537
Less: Government and Education (approx. 18%)	(48,782)	(60,701)	(11,919)	(48,185)	(60,701)	(12,516)
TOTAL	222,230	276,529	54,299	219,509	276,529	57,021

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Sources of Data:

Population

City Existing Population: California Department of Finance (1/1/21)

2035 Projected Population: Fresno General Plan (12/18/14). Assumes General Plan projection excludes County Islands.

County Islands Existing Population: Map Atlas Fresno Existing Conditions Report (August 2011)

Other Unincorporated Areas Outside City Population: 2016 Fire and Police Nexus Study.

Employment

Existing

City: based on US Census Bureau and California EDD data: See Table A-2.

County Islands: assumed employment same as in 2016 Nexus Study.

Other Unincorporated Areas Outside City Existing Employment: same ratio of employment to population as for City.

Growth

City: Fresno General Plan (108,000: 50,000 retail, 32,500 office, 25,500: other) - growth from 2014-2021 + growth from unincorporated areas incorporating.

See Table A-2 for total employment growth from 2014-2021 in Fresno SOI.

2035

City: Existing plus growth employment.

Government and Education Employment (existing, growth, and 2035) estimated as follows:

1) County education and government employees as percent of total County employment from EDD (Sep. 2021)

2) Percent from previous step multiplied by total employment

Assumes that County Islands will not annex by 2035 and that all other unincorporated areas will annex by 2035.

Table 5
Fresno Fire Impact Fee Program Update
Key Demographic Assumptions

Item	Land Use Factor
Persons per Household	
Single-Family	3.33
Multifamily	2.54
Building Square Feet per Employee	
Retail	400
Office	350
Industrial	700

assump

Sources:

PPH: US Census American Community Survey 2015-2019

See Table A-1.

Bldg. Sq. Ft. per Emp.: 2016 Fresno Fire and Police Nexus Studies

3. Capital Improvement Program

Overview

The City provides fire services through an existing system of stations, vehicles, and equipment. Anticipated citywide development occurring through 2035 requires construction of new stations and procurement of additional vehicles and equipment so that the FFD can continue to provide timely responses to calls for medical, fire, and other emergencies. Planned facility needs are determined by the FFD based on response time requirements. The City General Plan includes an urban growth standard that requires new development to be located within a four-minute response service area of a fire station. This chapter details the costs of all existing and planned improvements included in the Fire CIP provided by the FFD.

Replacement costs are estimated for existing facilities, vehicles, and equipment. Some of the existing improvements were funded through bond financing, and the associated remaining financing costs are included in the existing improvements cost estimates.

The FFD provided inventories of planned facilities, vehicles, and equipment needed to serve development through 2035, and cost estimates were developed for all improvements. It is assumed that all future fire stations, other facilities, and vehicles will be partially funded through bond financing. The associated financing costs are estimated and included in the planned improvements cost estimates to be included in the Fire Fee Program.

All costs in this 2022 Nexus Study Update are expressed in 2022 dollars and are based on the best available cost estimates at this time. If costs change significantly, or if other funding sources become available, the cost estimates and fees will be adjusted accordingly. The City periodically will conduct a review of improvement costs and will make necessary adjustments to the fee.

Fire CIP and Nexus Study Capital Improvement Plan

The newly enacted AB 602 added California Government Code Section 66016.5 that requires "Large jurisdictions (as defined in Section 66016.5) shall adopt a capital improvement plan as part of the nexus study."

Appendix E includes the capital improvement plan that is being adopted by the City with this nexus study. This section, as well as the information in **Appendices C** and **E** describes the approximate location, size, time of availability and estimated cost of all facilities or improvements to be funded with the Fire

Fees. **Table E-1** identifies the planned size, location and estimated cost of proposed fire station facilities. Fire apparatus and equipment identified in **Table E-2** would be acquired as needed when stations are constructed, and as new firefighters and personnel are added, for which the equipment is identified. To derive estimated bond financing costs, the City provided estimates on the timing of future facilities. As shown on **Table C-5**, the City estimates every three years that one new facility, facility expansion and replacement station would be constructed.

Summary

Table 6 summarizes the existing and planned Fire CIP improvements and associated costs. The total cost estimate of \$583.9 million includes approximately \$206.7 million for existing improvements and \$377.2 million for future improvements. These costs include the costs of existing and planned facilities, apparatus, and equipment, as well as the associated financing costs for bond-funded facilities and apparatus. The financing costs for both existing and future bond debt service are detailed in **Appendix C** and summarized below.

In 2017, the City issued \$32.1 million in bonds to refund 2009 bonds for existing police and fire improvements, with \$15.5 million for fire facilities and the remainder for police facilities. Fire Fee Program revenues will be used to pay for 49 percent of the associated debt service, and the City General Fund will be used to pay for the remaining 51 percent. This percentage split is based on a deficiency analysis conducted as part of the 2005 Fire & Police Facilities Impact Fees Nexus Study. Consistent with this percentage split, the City provided a debt service schedule for 49 percent, or approximately \$7.6 million, of the existing fire facilities bonds. The remaining financing costs for this existing debt service are included in the Fire Fee Program costs.

For all future facility construction and apparatus, it is assumed that 70 percent of the costs will be bond-funded and that all of the associated financing costs will be funded by the Fire Fees. The bond funded construction costs include site improvement and parking, building construction, and soft costs. Future facility land acquisition costs are not assumed to be bond funded.

Table 6
Fresno Fire Impact Fee Program Update
Summary of Fire Capital Improvement Program (2022 \$)

Item	Source	Fire Facilities
Existing Improvements		
Facilities	Table 7	\$168,843,930
Apparatus and Equipment	Table 8	\$36,906,000
Financing Cost	Table C-1	\$940,000
Total		\$206,689,930
Planned Improvements		
Facilities	Table 9	\$244,455,100
Apparatus and Equipment	Table 10	\$31,274,000
Financing Cost	Table C-2	\$101,500,000
Total		\$377,229,100
Total Improvements		
Facilities		\$413,299,030
Apparatus and Equipment		\$68,180,000
Financing Cost		\$102,440,000
Total		\$583,919,030

sum cost

Source: Fresno Fire Department and EPS

Existing Improvements

Facilities

Table 7 details the existing FFD facilities and associated costs. The FFD currently operates out of the headquarters facility, 20 existing fire stations, a maintenance facility, and a training facility. However, the maintenance (shop) facility, training facility, and three stations are planned for replacement with new buildings by 2035. The costs of these facilities slated for replacement are excluded from **Table 7** because the estimated costs of the new replacement facilities are included in the total planned facilities cost. It is assumed that the existing facilities to be replaced will be sold and that the revenue generated will be used to offset the cost of existing deficiencies and to help fund the portion of facilities needed by the existing population.

The existing facility cost estimates include both land acquisition and construction costs. Backup for these costs is provided in **Appendix B** and is based on land and construction costs for recently acquired land and recently constructed stations, as well as estimates provided by the FFD. The land acquisition and construction cost assumptions used to estimate the replacement value of existing facilities are summarized below:

- Land acquisition cost: \$210,000 per acre
- Site improvement and parking cost: \$332,000 per acre.
- Building construction cost: \$736 per building square foot
- Soft cost: 25 percent of the sum of site improvement, parking, and building construction costs.

Apparatus and Equipment

Table 8 details the existing FFD apparatus and equipment and associated costs. As shown on this table, the FFD has several different types of vehicles, including fire engines, trucks and sports utility vehicles, water tenders, and other specialized vehicles. In addition, the FFD provides sets of personal protective equipment for all firefighters. The number of equipment sets shown on **Table 8** is based on the number of FFD sworn officers in 2021. All unit costs in this table were provided by the FFD.

Table 7
Fresno Fire Impact Fee Program Update
Existing Fire Facilities (2022 \$)

Existing
Fire Facilities

Item	Location	Acres	LAND ACQUISITION		CONSTRUCTION								TOTAL REPLACEMENT VALUE
			Cost per Acre	Total Land Value	Site Imp. & Parking		Building			Subtotal Structure Value	Soft Costs	Total Structure Value	
					Cost per Acre	Value	Sq. Ft.	Cost per Sq. Ft. [1]	Value				
Formula		A	B	C=A*B	D	E=A*D	F	G	H=F*G	I=E+H	J=I*25%	K=I+J	C+K
Planned to Remain													
Headquarters	Tulare & H Street	2.43	\$210,000	\$510,300	\$332,000	\$806,760	22,000	\$736	\$16,192,000	\$16,998,760	\$4,249,690	\$21,248,450	\$21,758,750
Station 1	Jackson & Hammond	0.83	\$210,000	\$174,300	\$332,000	\$275,560	7,625	\$736	\$5,612,000	\$5,887,560	\$1,471,890	\$7,359,450	\$7,533,750
Station 2	West & Fir	0.44	\$210,000	\$92,400	\$332,000	\$146,080	5,700	\$736	\$4,195,200	\$4,341,280	\$1,085,320	\$5,426,600	\$5,519,000
Station 3	Fresno & E Street	0.34	\$210,000	\$71,400	\$332,000	\$112,880	12,550	\$736	\$9,236,800	\$9,349,680	\$2,337,420	\$11,687,100	\$11,758,500
Station 4	First & Tulare	0.47	\$210,000	\$98,700	\$332,000	\$156,040	14,360	\$736	\$10,568,960	\$10,725,000	\$2,681,250	\$13,406,250	\$13,504,950
Station 5	Fresno & Shields	0.61	\$210,000	\$128,100	\$332,000	\$202,520	5,280	\$736	\$3,886,080	\$4,088,600	\$1,022,150	\$5,110,750	\$5,238,850
Station 7	Cherry & Jensen	1.10	\$210,000	\$231,000	\$332,000	\$365,200	5,915	\$736	\$4,353,440	\$4,718,640	\$1,179,660	\$5,898,300	\$6,129,300
Station 8	Cedar & Butler	0.40	\$210,000	\$84,000	\$332,000	\$132,800	6,956	\$736	\$5,119,616	\$5,252,416	\$1,313,104	\$6,565,520	\$6,649,520
Station 9	Clinton & Fruit	0.73	\$210,000	\$153,300	\$332,000	\$242,360	7,625	\$736	\$5,612,000	\$5,854,360	\$1,463,590	\$7,317,950	\$7,471,250
Station 11	Fresno & Wrenwood	0.67	\$210,000	\$140,700	\$332,000	\$222,440	12,400	\$736	\$9,126,400	\$9,348,840	\$2,337,210	\$11,686,050	\$11,826,750
Station 13	Millbrook & Nees	0.70	\$210,000	\$147,000	\$332,000	\$232,400	7,300	\$736	\$5,372,800	\$5,605,200	\$1,401,300	\$7,006,500	\$7,153,500
Station 14	Polk & Escalon	0.92	\$210,000	\$193,200	\$332,000	\$305,440	9,263	\$736	\$6,817,568	\$7,123,008	\$1,780,752	\$8,903,760	\$9,096,960
Station 15	Clovis & Park Cir Dr.	1.00	\$210,000	\$210,000	\$332,000	\$332,000	9,698	\$736	\$7,137,728	\$7,469,728	\$1,867,432	\$9,337,160	\$9,547,160
Station 16	Clinton & Polk	0.92	\$210,000	\$193,200	\$332,000	\$305,440	9,698	\$736	\$7,137,728	\$7,443,168	\$1,860,792	\$9,303,960	\$9,497,160
Station 17	Maple & International	1.10	\$210,000	\$231,000	\$332,000	\$365,200	9,698	\$736	\$7,137,728	\$7,502,928	\$1,875,732	\$9,378,660	\$9,609,660
Station 18	Shaw & Bryan	1.94	\$210,000	\$407,400	\$332,000	\$644,080	10,678	\$736	\$7,859,008	\$8,503,088	\$2,125,772	\$10,628,860	\$11,036,260
Station 19	Belmont & Marks	0.83	\$210,000	\$174,300	\$332,000	\$275,560	9,698	\$736	\$7,137,728	\$7,413,288	\$1,853,322	\$9,266,610	\$9,440,910
Station 20	Gettysburg & Wishon	0.50	\$210,000	\$105,000	\$332,000	\$166,000	6,260	\$736	\$4,607,360	\$4,773,360	\$1,193,340	\$5,966,700	\$6,071,700
Total		13.50		\$3,345,300		\$5,288,760	172,704		\$127,110,144	\$132,398,904	\$33,099,726	\$165,498,630	\$168,843,930
Planned to Be Replaced [2]													
Shop Facility	Fresno & E Street	1.04											
Training Facility	Fresno & E Street	0.70											
Station 6	Gettysburg & Rowell	0.39											
Station 10	Westover & Aircorp Way	1.00		Excluded [2]					Excluded [2]				Excluded [2]
Station 12	Marks & Acacia	0.34											
Total		3.47											\$0
TOTAL													\$168,843,930

CIP_fire1

Source: Fresno Fire Department

[1] Cost per building square foot based on costs for recently constructed public safety buildings and estimates from the FFD. See Table B-1.

[2] These facilities are planned for replacement by 2035 with permanent buildings. Therefore, they are excluded from the list of existing facilities.

Table 8
Fresno Fire Impact Fee Program Update
Existing Fire Apparatus and Equipment (2022 \$)

Existing Fire Apparatus and Equipment

Item	Number	Replacement Cost per Unit	Total Cost	Replacement Cost
Engines [1]	20	\$889,000	\$17,780,000	FFD estimate in 2021
Fire Trucks [1]	5	\$1,402,000	\$7,010,000	FFD estimate in 2021
Squads [1]	0	\$160,000	\$0	FFD estimate in 2021
Patrol Rigs [2]	2	\$345,000	\$690,000	FFD estimate in 2021
Breathing Support Super Vac [2]	1	\$265,000	\$265,000	2019 Fire Impact Fee Nexus Study; escalated at 3% a year for 2 years.
Brush Rigs [2]	2	\$371,000	\$742,000	2019 Fire Impact Fee Nexus Study; escalated at 3% a year for 2 years.
Decon Hazmat Trailer [2]	1	\$945,000	\$945,000	FFD estimate in 2021
Water Tenders [3]	2	\$451,000	\$902,000	2019 Fire Impact Fee Nexus Study; escalated at 3% a year for 2 years.
Super Vacs [2]	2	\$557,000	\$1,114,000	2019 Fire Impact Fee Nexus Study; escalated at 3% a year for 2 years.
SUVs/Trucks [2]	15	\$90,000	\$1,350,000	FFD estimate in 2021
COMM/Command Unit [2]	1	\$530,000	\$530,000	2019 Fire Impact Fee Nexus Study; escalated at 3% a year for 2 years.
Water Rescue Vehicle [3]	2	\$100,000	\$200,000	FFD Draft Master Plan 2020-2035 (6/13/19): 2022\$
Aircraft Rescue and Firefighting Vehicle [3]	2	\$881,000	\$1,762,000	FFD Draft Master Plan 2020-2035 (6/13/19): \$935,000 in 2023 discounted by 3% annually for 1 year.
Universal Search and Rescue (USAR) Vehicle [3]	1	\$840,000	\$840,000	FFD Draft Master Plan 2020-2035 (6/13/19): \$945,000 in 2025 discounted by 3% annually for 3 years.
Personal Equipment [4]	347	\$8,000	\$2,776,000	2019 Fire Impact Fee Nexus Study; escalated at 3% a year for 2 years.
TOTAL			\$36,906,000	

cip_fire2

Source: Fresno Fire Department; EPS.

[1] Number from 2021 Fresno Fire Department Response Maps

[2] Number from 2019 Fire Impact Fee Nexus Study.

[3] Number from 2020 Fresno Fire Department Annual Report.

[4] Number of personal equipment sets = number of sworn officers in 2021; provided by FFD.

Planned Improvements

Facilities

Table 9 details the future planned FFD facilities and associated costs needed to provide adequate service to the City's residents and employees through the General Plan buildout horizon year of 2035. The planned facilities include eleven new fire stations, the replacement of three existing stations, the replacement of the shop and training facilities, and the expansion of seven existing fire stations.

The estimated facilities costs include both land acquisition and construction costs. The land acquisition cost per acre and the site improvement and parking costs per acre are the same as those detailed above for existing facilities, with the exception that expanded facilities do not require land acquisition. The building construction cost estimates for new and replacement facilities are the same as those for existing facilities. For expanded facilities, a ten percent higher building construction cost of \$810 per square foot is assumed.

Apparatus and Equipment

Table 10 details the additional FFD apparatus and equipment, and associated costs, needed to provide adequate service to the City's residents and employees through the General Plan buildout horizon year of 2035. This planned apparatus and equipment include eleven fire engines, 6 fire trucks, 15 trucks and sports utility vehicles, several other specialized vehicles, and 278 personal equipment sets. The number of additional personal equipment sets needed is based on the General Plan standard of 0.81 firefighters per 1,000 residents. The planned apparatus and equipment unit costs were provided by the FFD.

Table 9
Fresno Fire Impact Fee Program Update
Planned Fire Facilities (2022 \$)

Planned Fire
Facilities

Item	Location	Improvement Type	LAND ACQUISITION			CONSTRUCTION					Subtotal Structure Value	Soft Costs	Total Structure Value	TOTAL VALUE	
			Acres	Cost per Acre	Total Land Value	Site Imp. & Parking		Building							
						Cost per Acre	Value	Sq. Ft.	Cost per Sq. Ft. [1]	Value					
Formula			A	B	C=A*B	D	E=A*D	F	G	H=F*G	I=E+H	J=I*25%	K=I+J	C+K	
New, Replacement, and Expansion															
Shop Facility	Undetermined	Replacement	5.00	\$210,000	\$1,050,000	\$332,000	\$1,660,000	40,000	\$736	\$29,440,000	\$31,100,000	\$7,775,000	\$38,875,000	\$39,925,000	
Training Facility [1]	Undetermined	Replacement	25.00	\$210,000	-	-	\$4,636,872	-	-	\$15,363,128	\$20,000,000	\$5,000,000	\$25,000,000	\$25,000,000	
Station 2	West & Fir	Expansion	-	\$210,000	\$0	\$332,000	\$0	3,450	\$810	\$2,794,500	\$2,794,500	\$698,625	\$3,493,125	\$3,493,125	
Station 5	Fresno & Shields	Expansion	-	\$210,000	\$0	\$332,000	\$0	3,450	\$810	\$2,794,500	\$2,794,500	\$698,625	\$3,493,125	\$3,493,125	
Station 6	Gettysburg & Rowell	Replacement	1.50	\$210,000	\$315,000	\$332,000	\$498,000	9,600	\$736	\$7,065,600	\$7,563,600	\$1,890,900	\$9,454,500	\$9,769,500	
Station 7	Cherry & Jensen	Expansion	-	\$210,000	\$0	\$332,000	\$0	4,000	\$810	\$3,240,000	\$3,240,000	\$810,000	\$4,050,000	\$4,050,000	
Station 8	Cedar & Butler	Expansion	-	\$210,000	\$0	\$332,000	\$0	4,000	\$810	\$3,240,000	\$3,240,000	\$810,000	\$4,050,000	\$4,050,000	
Station 9	Clinton & Fruit	Expansion	-	\$210,000	\$0	\$332,000	\$0	3,450	\$810	\$2,794,500	\$2,794,500	\$698,625	\$3,493,125	\$3,493,125	
Station 10	Clinton & Armstrong	Replacement	1.54	\$210,000	\$300,000	\$332,000	\$511,280	10,900	\$736	\$8,022,400	\$8,533,680	\$2,133,420	\$10,667,100	\$10,967,100	
Station 12	Marks & Acacia	Replacement	1.50	\$210,000	\$1,400,000	\$332,000	\$498,000	10,900	\$736	\$8,022,400	\$8,520,400	\$2,130,100	\$10,650,500	\$12,050,500	
Station 15	Clovis & Park Cir Dr.	Expansion	-	\$210,000	\$0	\$332,000	\$0	3,450	\$810	\$2,794,500	\$2,794,500	\$698,625	\$3,493,125	\$3,493,125	
Station 19	Belmont & Marks	Expansion	-	\$210,000	\$0	\$332,000	\$0	4,000	\$810	\$3,240,000	\$3,240,000	\$810,000	\$4,050,000	\$4,050,000	
Station 21	Belmont & Van Ness	New	1.50	\$210,000	\$315,000	\$332,000	\$498,000	10,900	\$736	\$8,022,400	\$8,520,400	\$2,130,100	\$10,650,500	\$10,965,500	
Station 22	North & Chestnut	New	1.50	\$210,000	\$315,000	\$332,000	\$498,000	10,900	\$736	\$8,022,400	\$8,520,400	\$2,130,100	\$10,650,500	\$10,965,500	
Station 23	Church & Fruit	New	1.50	\$210,000	\$315,000	\$332,000	\$498,000	10,900	\$736	\$8,022,400	\$8,520,400	\$2,130,100	\$10,650,500	\$10,965,500	
Station 24	Herndon & Brawley	New	1.50	\$210,000	\$315,000	\$332,000	\$498,000	10,900	\$736	\$8,022,400	\$8,520,400	\$2,130,100	\$10,650,500	\$10,965,500	
Station 25	McKinley & DeWolf	New	1.50	\$210,000	\$315,000	\$332,000	\$498,000	10,900	\$736	\$8,022,400	\$8,520,400	\$2,130,100	\$10,650,500	\$10,965,500	
Station 26	Calif. & Temperance	New	1.50	\$210,000	\$315,000	\$332,000	\$498,000	10,900	\$736	\$8,022,400	\$8,520,400	\$2,130,100	\$10,650,500	\$10,965,500	
Station 27	Teague & Chestnut	New	1.50	\$210,000	\$315,000	\$332,000	\$498,000	10,900	\$736	\$8,022,400	\$8,520,400	\$2,130,100	\$10,650,500	\$10,965,500	
Station 28	Champlain & Friant	New	1.50	\$210,000	\$315,000	\$332,000	\$498,000	10,900	\$736	\$8,022,400	\$8,520,400	\$2,130,100	\$10,650,500	\$10,965,500	
Station 29	Barstow & Brawley	New	1.50	\$210,000	\$315,000	\$332,000	\$498,000	10,900	\$736	\$8,022,400	\$8,520,400	\$2,130,100	\$10,650,500	\$10,965,500	
Station 30	Dakota & Brawley	New	1.50	\$210,000	\$315,000	\$332,000	\$498,000	10,900	\$736	\$8,022,400	\$8,520,400	\$2,130,100	\$10,650,500	\$10,965,500	
Station 31	Central & Cherry	New	1.50	\$210,000	\$315,000	\$332,000	\$498,000	10,900	\$736	\$8,022,400	\$8,520,400	\$2,130,100	\$10,650,500	\$10,965,500	
TOTAL						\$6,530,000		\$13,282,152	217,100		\$177,057,928	\$190,340,080	\$47,585,020	\$237,925,100	\$244,455,100

[1] Estimated fee-funded portion of training facility calculated below:

Training Facility

Grant-Funded Initial Phase	25.00	\$210,000	\$5,250,000	-	\$3,663,128	-	-	\$12,136,872	\$15,800,000	\$3,950,000	\$19,750,000	\$25,000,000
Fee-Funded Remainder	-	-	-	-	\$4,636,872	-	-	\$15,363,128	\$20,000,000	\$5,000,000	\$25,000,000	\$25,000,000
Total	25.00	\$210,000	\$5,250,000	\$332,000	\$8,300,000	-	-	\$27,500,000	\$35,800,000	\$8,950,000	\$44,750,000	\$50,000,000

Source: Fresno Fire Department and EPS.

CIP_fire3

[1] Cost per building square foot based on costs for recently constructed public safety buildings. Expansion costs assumed to be 10% higher than new construction costs.

Table 10
Fresno Fire Impact Fee Program Update
Planned Fire Apparatus and Equipment (2022 \$)

Planned Fire Apparatus and Equipment

Item	Number	Cost per Unit	Total Cost	Source of Cost per Unit
Engines [1]	11	\$889,000	\$9,779,000	FFD estimate in 2021 [1]
Fire Trucks [1]	6	\$1,402,000	\$8,412,000	FFD estimate in 2021 [1]
Squads [1]	15	\$160,000	\$2,400,000	FFD estimate in 2021 [1]
Patrol Rigs [2]	2	\$345,000	\$690,000	FFD estimate in 2021
Breathing Support Super Vac [2]	1	\$265,000	\$265,000	2019 Fire Impact Fee Nexus Study; escalated at 3% a year for 2 years.
Brush Rigs [2]	2	\$371,000	\$742,000	2019 Fire Impact Fee Nexus Study; escalated at 3% a year for 2 years.
Decon Hazmat Trailer [2]	1	\$945,000	\$945,000	FFD estimate in 2021
Water Tenders [2]	2	\$451,000	\$902,000	2019 Fire Impact Fee Nexus Study; escalated at 3% a year for 2 years.
Super Vacs [2]	2	\$557,000	\$1,114,000	2019 Fire Impact Fee Nexus Study; escalated at 3% a year for 2 years.
SUVs/Trucks [2]	15	\$90,000	\$1,350,000	FFD estimate in 2021
COMM/Command Unit [2]	1	\$530,000	\$530,000	2019 Fire Impact Fee Nexus Study; escalated at 3% a year for 2 years.
Water Rescue Vehicle [3]	1	\$100,000	\$100,000	FFD Draft Master Plan 2020-2035 (6/13/19); planned in 2022
Aircraft Rescue and Firefighting Vehicle [3]	1	\$881,000	\$881,000	FFD Draft Master Plan 2020-2035 (6/13/19): \$935,000 in 2023 discounted by 3% annually to 2022 \$
Universal Search and Rescue (USAR) Vehicle [3]	1	\$840,000	\$840,000	FFD Draft Master Plan 2020-2035 (6/13/19): \$945,000 in 2025 discounted by 3% annually to 2022 \$
USAR Tow Vehicle [3]	1	\$100,000	\$100,000	FFD Draft Master Plan 2020-2035 (6/13/19); planned in 2022
Personal Equipment [4]	278	\$8,000	\$2,224,000	2019 Fire Impact Fee Nexus Study; escalated at 3% a year for 2 years.
TOTAL			\$31,274,000	

CIP_fire4

Source: Fresno Fire Department; EPS.

[1] Number of vehicles derived from Current and Future Fire Stations with Daily Staffing Map (total vehicles less existing vehicles from Table 8).

[2] Number from 2019 Fire Impact Fee Nexus Study.

[3] Number from Fresno Fire Department Draft Master Plan 2020-2035 (6/13/19).

[4] Number based on standard of 0.81 firefighters per 1,000 residents. See Table 8 for number of current officers.

4. Cost Allocation

Introduction

The Fire Fees are estimated by allocating the FFD capital costs (detailed in the previous chapter) to the various land uses based on each land use's relative demand for fire services. The general process outlined below is used to allocate costs:

- Emergency call activity is used to estimate the relative demand for FFD services and to allocate capital costs to residents and employees. This allocation is used to establish a cost per resident and a cost per employee.
- For each residential land use, the cost per resident is converted to a cost per dwelling unit using average persons per household assumptions.
- For each nonresidential land use, the cost per employee is converted to a cost per thousand building square feet using average square feet per employee assumptions.
- The costs per dwelling unit and per thousand building square feet are equivalent to the base fees by land use. In addition, the City charges an administration fee to administer the fee program.

This methodology provides an appropriate estimate of the relative impact each land use has on the public safety system. The resulting fees are summarized in **Table 1** of this 2022 Nexus Study.

FFD Capital Costs Allocation

Table 11 details the allocation of FFD service calls to residents and employees and the resulting estimated FFD cost per resident and cost per employee.

Table 12 details the methodology used to convert the FFD cost per resident and cost per employee to costs per dwelling unit and thousand building square feet by land use.

As summarized in the introduction of this chapter, emergency call activity was used to estimate each land use's relative demand for fire services. FFD capital costs were allocated to the various land uses based on this relative demand.

Table 11
Fresno Fire Impact Fee Program Update
Fire Improvements Cost per Resident/Employee (2022 \$)

Item	Formula	Residential	Nonresidential	Total
Annual Calls for Service [1]	<i>A</i>	38,994	5,120	44,114
2021 Service Area Residents and Employees [2]	<i>B</i>	586,770	219,509	806,279
Calls per Resident or Employee	$C = A / B$	0.07	0.02	0.05
Allocation Factor [3]	$D = C / \text{Residential } C$	1.00	0.35	
2035 Residents/Employees [2]	<i>E</i>	771,000	276,529	1,047,529
2035 Persons Served	$F = D * E$	771,000	97,049	868,049
Percentage Distribution of Persons Served	<i>G</i>	89%	11%	100%
Total Costs [4]	$H = G * \text{Total Cost}$	\$518,636,257	\$65,282,773	\$583,919,030
Cost per Resident/Employee	H / E	\$673	\$236	

firepol

Source: City of Fresno and EPS

[1] See Table D-1.

[2] See Table 3.

[3] The allocation factor accounts for the relative impact of an employee as compared to that of a resident.

[4] See Table 6 for total costs.

Table 12
Fresno Fire Impact Fee Program Update
Fire Improvements Cost Allocation (2022 \$)

Item	Cost per Person [1]	Persons per Unit [2]	Bldg. Sq. Ft. per Employee [2]	Employees per 1,000 Bldg. Sq. Ft.	Cost per Unit/ 1,000 Bldg. Sq. Ft.
<i>Formula</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>D= 1000 / C</i>	<i>A*B or A*D</i>
Residential					
Single-Family	\$673	3.33	-	-	\$2,240
Multifamily	\$673	2.54	-	-	\$1,709
Subtotal Residential					
Nonresidential					
Retail	\$236	-	400	2.50	\$590
Office	\$236	-	350	2.86	\$675
Industrial	\$236	-	700	1.43	\$337
Subtotal Nonresidential					

fire_alloc

Source: EPS

[1] See Table 11.

[2] See Table 5.

The specific steps in allocating the FFD capital costs are outlined below. *Please refer to **Appendix D** for call activity detail referenced in Step 3, refer to **Table 11** for Steps 3 through 7, and refer to **Table 12** for Step 8:*

1. Identify the capital costs to be funded by the Fire Fee Program, as detailed in **Chapter 3**.
2. Identify the service population and employees for residential and nonresidential uses, respectively in the buildout horizon year of 2035, as detailed in **Chapter 2**.
3. Using the calls for service data provided by the FFD, determine the distribution of service calls between residential and nonresidential uses (see **Table D-1** through **Table D-3**). Then estimate the number of calls per resident or employee.
4. Divide the number of calls per employee by the number of calls per resident (both from Step 3) to determine the resident equivalent factor (shown in **Tables 11** as "Allocation Factor") for nonresidential uses. This factor is used to estimate the relative impact of an employee as compared to a resident.
5. Estimate residential and nonresidential persons served in 2035. For residential uses, the number of persons served equals the estimated 2035 population. For nonresidential uses, the number of persons served equals the estimated 2035 employees multiplied by the Allocation Factor from Step 4.
6. Allocate the capital costs from Step 1 to residential and nonresidential uses based on the percentage distribution of the estimated persons served from Step 5.
7. Divide the residential costs from step 6 by the estimated 2035 population from Step 2 to determine a cost per resident. Divide the nonresidential costs from Step 6 by the estimated 2035 employees from Step 2 to determine a cost per employee.
8. Multiply the cost per person from Step 7 by persons per household for each residential use and by employees per 1,000 building square feet for each nonresidential use. The result will be the base fee per residential dwelling unit and per thousand nonresidential building square feet.

Administration

In addition to the base Fire Fee for each developable land use, the City charges a fee to administer the Fire Fee Program. The administration fee charged per residential dwelling unit and thousand nonresidential building square feet is 2 percent of the base fee.

5. Implementation

The Fire Fees presented in this 2022 Nexus Study are based on the best cost estimates and land use information available at this time. If costs, development projections, or funding sources other than development impact fees change significantly, the fees should be adjusted accordingly.

The proposed updated Fire Fee schedule must be adopted by the City Council. The updated fees will be effective 60 days following final action on the adoption of this 2022 Nexus Study Update and any associated fee resolution(s) establishing the updated fees.

The City should conduct periodic reviews of the estimated development, costs, and associated funding sources. Based on these reviews, the City should make necessary adjustments to the fee. Each year the City should apply an appropriate inflation adjustment factor to the fee to reflect changes in construction costs. As required by AB 602, the City shall update the nexus study no later than every eight years.

Applicability of Fee Program

Once the updated Fire Fee Program takes effect, the updated Fire Fees will be collected from all new residential and nonresidential development within the boundary of the City prior to building permit issuance. The Fire Fees will be charged per dwelling unit and commercial building square foot.

Additions to Existing Development

An addition to existing development is considered new development for the purposes of this 2022 Nexus Study and will be included in the Fire Fee Program if the covered building square footage of the addition increases the existing structure size by more than 500 square feet.

Accessory Dwelling Units

In accordance with State of California (State) law, accessory dwelling units (ADUs) will be included in the Fire Fee Program and charged a fee if the ADU is 750 square feet or greater. The fees for ADUs shall be charged proportionately in relation to the square footage of the primary dwelling unit.

Fee Exemptions

The following types of development are specifically exempt from the Fire Fee Program:

- All public agencies, including federal and state agencies, public school districts, and the City, unless other arrangements or agreements are established with the City.
- Any internal or external alternation or modification to existing residential and nonresidential buildings when no change in use occurs and the square footage increase is 500 building square feet or less.
- Any replacement or reconstruction of any structure that is damaged or destroyed as a result of fire, flood, explosion, wind, earthquake, riot, or other calamity, or act of God. If the building replaced or reconstructed exceeds the documented total floor area of the damaged/destroyed building, the excess square footage is subject to the Fire Fee. If a structure has been vacant for more than one year, no exemption or credit shall apply. If a structure is replaced with an alternative land use, such as replacing a single family home with a commercial building, no exemption shall apply.
- Residential accessory structures that do not increase covered building square footage such as open decks and pools.
- ADUs that are under 750 square feet. These ADUs are currently exempted from development impact fee programs by State law. A change in the State law could result in ADUs under 750 square feet no longer being exempted.

With written approval from the FFD, any or all of the Fire Fees may be waived if the City determines that a proposed project will not impact the need for fire improvements for which the fee is being collected. Written fee waivers may be available on a case-by-case basis for certain agricultural facilities, temporary structures (including temporary mobile homes), or other facilities that are determined to have no impact on the need for fire improvements identified in the Fire Fee Program.

Fee Credits or Adjustments

The purpose of the Fire Fee Program is to provide funds to construct/acquire new fire protection improvements. Although it is not currently anticipated that developers will construct/acquire fire protection improvements included in the fee program (other than Station 18), should this occur, the developers may enter into a fee credit and reimbursement agreement with the City.

Reimbursement to Developers

In the event a developer or developers do construct/acquire any fire protection improvements included in the Fire Fee Program, fee credits and reimbursements will be provided under the following conditions.

- Developer-installed/acquired improvements shall be considered for credits and/or reimbursements. Only funds collected from the Fire Fee Program shall be used to reimburse a developer who installed eligible facility improvements or acquired eligible equipment identified in the CIP.
- The value of any developer-installed/acquired improvement for fee credit or reimbursement purposes shall be based upon the lesser of the actual costs or the cost estimates (as updated) used to establish the amount of the Fire Fees.
- The use of accumulated fee revenues shall be used in the following priority order: (1) critical projects, (2) repayment of inter-fund loans, and (3) repayment of accrued reimbursement to private developers.

A project is deemed to be a “critical project” when failure to complete the project prohibits further development within the City.

Periodic Inflation Adjustment and Fee Review

The Fire Fee schedule should be adjusted annually to account for the inflation of construction and land acquisition costs. It is recommended that the Fire Fees be adjusted on July 1 of each year beginning on July 1, 2023. The adjustment will be based on the percentage change in the 20-City Construction Cost Index (CCI) as reported in the Engineering News Record (ENR) for the 12-month period ending in May of the year of the adjustment.

In addition, the Fire Fees are subject to periodic adjustment based on changes in developable land, cost estimates, or other funding sources. The City should review the Fire Fees periodically to determine if any of the following adjustments to the fees are warranted:

- Changes to the required facilities or equipment listed in the CIPs.
- Changes in the cost to update or administer the fee.
- Changes in costs because of inflation.
- Changes in assumed development.
- Changes in other funding sources.

Any proposed changes to the Fire Fees based on the periodic review must be presented to City Council before any adjustment of the fee.

Fee Administration

Consistent with the current programs, the Fire Fees will be collected from new development within the City at the time of building permit issuance; however, use of these funds may need to wait until a sufficient fund balance can be accrued. Per Government Code Section 66006, the City is required to deposit, invest, account for, and expend the fee in a prescribed manner.

Five-Year Review

By the fifth fiscal year following the first deposit into the Fire Fee account or fund, and every 5 years thereafter, the City is required to make all of the following findings with respect to that portion of the account or fund remaining unexpended:

- Identify the purpose of the fee.
- Demonstrate a reasonable relationship between the fee and the purpose for which it is charged.
- Identify all sources and amounts of funding anticipated to complete financing for incomplete fire protection improvements.
- Designate the approximate dates that the funding referred to above is expected to be deposited in the appropriate account or fund.

The City must refund the unexpended or uncommitted revenue portion for which a need could not be demonstrated in the above findings, unless the administrative costs exceed the amount of the refund.

6. AB 1600 Nexus Findings

Authority

This report has been prepared to update the Fire Fees in accordance with the procedural guidelines established in AB 1600, which is codified in California Government Section 66000 et. seq. This code section sets forth the procedural requirements for establishing and collecting development impact fees. The procedures require that a “reasonable relationship or nexus must exist between a governmental exaction and the purpose of the condition.”¹ Specifically, each local agency imposing a fee must:

- Identify the purpose of the fee.
- Identify how the fee is to be used.
- Determine how a reasonable relationship exists between the fee’s use and the type of development project on which the fee is imposed.
- Determine how a reasonable relationship exists between the need for the public facility and the type of development project on which the fee is imposed.
- Demonstrate a reasonable relationship between the amount of the fee and the cost of the public facility or portion of the public facility attributable to the development on which the fee is imposed.

As documented in this report, AB 602 added a new California Government Code Section 66016.5 that establishes “standards and practices” that a local agency must follow when preparing a nexus study. This section identifies California Government Code Section 66016.5 provisions that have been addressed in this nexus study.

Summary of Nexus Findings

The development impact fees to be collected for each land use are calculated based on the proportionate share of the total facility use that each land use represents. With this approach, the following findings are made concerning the City’s Fire Fee Program.

¹ *Public Needs & Private Dollars*; William Abbott, Marian E. Moe, and Marilee Hanson, page 109.

Purpose of Fee

New development in the City will increase the service population and, therefore, the need for new fire capital improvements to adequately serve the new residents and employees. The purpose of the Fire Fee Program updated through this 2022 Nexus Study is to fund the new fire facilities, vehicles, and equipment necessary to serve new residential and nonresidential development in the City.

Use of Fees

Fire Fee revenue will be used to construct new development's proportionate share of fire buildings, as well as to acquire fire vehicles and equipment necessitated by new development. It also will be used to plan for and design fire facilities and fund the studies and administration needed to support the programs.

Relationship between Use of Fees and Type of Development

The Fire Fees will be used to construct new fire facilities and acquire the vehicles and equipment needed to provide fire protection to the projected new service population. A reasonable relationship exists between the use of the Fire Fees and the residential and commercial development on which the fees are charged because the fees will be used to provide the fire facilities, vehicles, and equipment needed to serve the new residents and employees generated by the new development.

Relationship between Need for Facility and Type of Project

New residential and nonresidential development will generate new residents and employees, resulting in the need for additional fire facilities, vehicles, and equipment to meet the new demand for fire services. A reasonable relationship exists between the need for the fire improvements and the type of new development projects because new fire facilities, vehicles, and equipment will be required to adequately serve the new development types that will result in an increased service population.

Relationship between Amount of Fees and Cost of or Portion of Facility Attributed to Development on which Fee is Imposed

The costs of fire facilities, vehicles, and equipment needed to serve new development are allocated among the new residential and nonresidential development based on service call activity. Using this method, fire costs per resident and per employee are estimated. These costs are converted to costs per dwelling unit and thousand nonresidential building square feet by land use using persons per household for residential development and employees per thousand

building square feet for nonresidential development. For each land use, the base Fire Fee is equal to the allocated cost per dwelling unit or thousand building square feet. A reasonable relationship exists between the amount of the Fire Fees and the costs of the improvements attributable to new residential and nonresidential development on which the fees are imposed because the fees are derived using appropriate cost allocation factors as measures of the proportional demand for fire services generated by each development type.

AB 602 Requirements

The following text includes specific language from the newly enacted AB 602 that applies to preparation of this nexus study.

On or after January 1, 2022, a local agency that conducts an impact fee nexus study shall follow all of the following standards and practices:

- When applicable, the nexus study shall identify the existing level of service for each public facility, identify the proposed new level of service, and include an explanation of why the new level of service is appropriate.
- If a nexus study supports the increase of an existing fee, the local agency shall review the assumptions of the nexus study supporting the original fee and evaluate the amount of fees collected under the original fee.
- Large jurisdictions (as defined in Section 66016.5) shall adopt a capital improvement plan as part of the nexus study.
- Studies shall be updated at least every eight years, from the period beginning on January 1, 2022.

Level of Service

Levels of service can be measured in a variety of ways. This section describes how various levels of service standards and evaluations have informed preparation of this nexus study. First, the Fresno General Plan sets forth the level of service standards of 0.81 firefighters per 1,000 City residents. This level of service standard informs both the number of fire stations required as well as the amount of equipment that is required.

Existing and Proposed Level of Service

The City has documented its existing and proposed level of service by evaluating the number of fire stations per capita. Presently, the City has 0.039 fire stations per 1,000 residents. The proposed level of service, at City General Plan buildout anticipates a service level of 0.051 fire stations per 1,000 residents.

Factoring both the existing and proposed level of service, this nexus study includes a proposed Fire Fees update based on a “buildout level of service” approach to calculating the maximum justifiable fee. This method evaluates the overall fire capital facility needs, both existing plus planned development, and allocates the costs of such facilities to the total planned City service population (residents and employees) at City General Plan buildout.

Nexus Study Review

Because this nexus study is proposing an increase to an existing fee, the City is required to review the assumptions of the nexus study that was prepared to support the original fee and evaluate the amount of fees collected under the original fee.

The City last prepared an update to the City’s Fire Fees in 2019. The City complies with California Government Code Section 66006 and prepares annual reports for the Fire Fees. Through preparation of these annual reports, the City has evaluated and tracked the amount of fees collected under the original fee that was last updated in 2019. In the course of preparing those annual updates, the City has reviewed the assumptions of the 2019 nexus study prepared for the last Fire Fees update and has determined the cost estimates in that study are not sufficient to fund the City’s planned fire facilities that are required to serve new service population in the City. Therefore, based on the review of the prior nexus study and tracking and evaluation of fees collected under the original fee, the City determined this Fire Fees nexus study update was warranted.

Capital Improvement Plan

Appendix E includes the CIP that is being adopted by the City with this nexus study. This section, as well as the information in **Appendices C** and **E**, describes the approximate location, size, time of availability, and estimated cost of all facilities or improvements to be funded with the Fire Fees. **Table E-1** identifies the planned size, location, and estimated cost of proposed fire station facilities. Fire apparatus and equipment identified in **Table E-2** would be acquired as needed when stations are constructed, and as new firefighters and personnel are added, for which the equipment is identified.

To derive estimated bond financing costs, the City provided estimates on the timing of future facilities. As shown on **Table C-5**, the City estimates every 3 years that one new facility, facility expansion, and replacement station would be constructed.

While the size, location, and approximate time of availability for fire capital facilities and equipment is indicated herein, the exact timing and location of planned improvements is contingent on myriad factors such as the amount, pace, and location of new development, availability and timing of impact fee revenues and other funding sources, and facility and design and construction schedules. As such, the size, location, and approximate timing of fire capital facilities may vary from the amounts included herein.

Nexus Study Updates

Beginning with January 1, 2022, AB 602 requires nexus studies to be updated at least once every 8 years.



APPENDICES:

- Appendix A: Population and
Employment Backup
- Appendix B: Land Acquisition and
Facilities Construction Costs
- Appendix C: Fire Facilities and
Apparatus Bond Financing
- Appendix D: Fresno Fire Department
Service Call Activity
- Appendix E: Capital Improvement Program



APPENDIX A: Population and Employment Backup

Table A-1	Estimated Persons per Household	A-1
Table A-2	Estimated City Employment—2021	A-2

Table A-1
Fresno Fire Impact Fee Program Update
Estimated Persons per Household

Item	Formula	Value
2019 US Census American Community Survey Data		
Occupied Housing Units		
Single Family (attached and detached)	<i>A</i>	109,431
Multifamily	<i>B</i>	55,631
Total		165,062
Population in Occupied Housing Units		
Single Family (attached and detached)	<i>C</i>	364,333
Multifamily	<i>D</i>	141,336
Total		505,669
Single Family Persons per Household	<i>C/A</i>	3.33
Multifamily Persons per Household	<i>D/B</i>	2.54

Source: US Census American Community Survey 2015-2019 Tables B25032 and B25033; EPS. *pph*

Table A-2
Fresno Fire Impact Fee Program Update
Estimated City Employment - 2021

Year	Employed Residents	City Employment	Percentage
<i>Formula</i>	<i>A</i>	<i>B</i>	<i>B/A</i>
U.S. Census Bureau (OnTheMap) Data - All Jobs			
2014	178,329	209,923	117.7%
2015	184,815	210,527	113.9%
2016	194,000	225,306	116.1%
2017	199,044	232,331	116.7%
2018	202,850	236,037	116.4%
2019	204,306	236,014	115.5%
Avg. City Employ. as Pct. of Employed Resid (rounded)			116.1%
California Employment Development Department Data			
2021 (September)	216,800	251,705	<i>est. as emp. resid. * 116%</i>
Employment Growth (2014-2021)		41,782	
<hr/>			
Total Employment Growth (2014-2035)		108,000	
<i>from General Plan</i>			
Less Estimated Employment Growth (2014-2021)		(41,782)	
Remaining Employment Growth (2021-2035)		66,218	

emp

Source: U.S. Census Bureau (OnTheMap); California EDD



APPENDIX B:

Land Acquisition and Facilities Construction Costs

Table B-1	Fire and Police Land Acquisition and Facilities Construction Cost	B-1
Table B-2	Construction Cost Inflation Factors	B-2

Table B-1
Fresno Fire Impact Fee Program Update
Fire and Police Land Acquisition and Facilities Construction Cost (2022 \$)

Item	Year	CCI Adjust. [1]	Site Size		Land Cost			Site Improvements		Building Construction Cost			Storage Facility Construction Cost				
			Square Feet	Acres	Total Cost	Cost per Acre	Adj. Cost per Acre	Total Cost	Cost per Acre	Bldg. Sq. Ft.	Total Cost	Cost per Sq. Ft.	Bldg. Sq. Ft.	Total Cost	Cost per Sq. Ft.	Adj. Cost per Sq. Ft.	
Fire Station Cost Estimates																	
Fire Station 6, 10, and 12 [2]	2018	3.6%	67,200	1.54	\$300,000	\$194,464	\$201,561	N/A	N/A	10,900	\$10,000,000	\$917	N/A	N/A	N/A	N/A	
Fire Station 18 [3]	2021	0.0%	84,506	1.94	\$400,000	\$206,186	\$206,186	N/A	N/A	10,678	\$8,500,000	\$796	N/A	N/A	N/A	N/A	
Site Improvement Cost Estimate																	
Southeast Police Substation [4]	2020	0.0%	109,513	2.51	N/A	N/A	N/A	\$834,232	\$331,825	10,318	\$6,445,245	\$625	N/A	N/A	N/A	N/A	
County Sheriff Substation [5]	2021	0.0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	22,700	\$9,500,000	\$419	35,520	\$1,968,875	\$55	N/A	
Storage Facility (2016 Nexus Study)	2016	14.3%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$121	\$138	
Fire Unit Costs to Use							\$210,000	\$332,000			\$920						
Fire Unit Costs to Use Net of 25% Soft Costs											\$736						
Police Unit Costs to Use [6]							\$210,000	\$332,000			\$520						\$140

unit cost

Source: City; EPS.

[1] See Table B-2.

[2] Land cost for Station 10. Total construction cost for replacement stations 6, 10, and 12 estimated by FFD. FFD estimates that construction cost for new stations will range from \$8.5 M to 12.5 M.

[3] Total construction cost provided by FFD based on actual costs.

[4] For Southeast Police Substation, total cost = \$7,279,477. Construction cost = construction contract amount. Site improvements cost = remaining cost.

[5] Construction and storage facility costs estimated by City based on total bid amount of \$11,468,875 for substation and storage facility.

[6] Building construction cost = average of cost per building square foot for Southeast Police Substation and County Sheriff Substation.

Table B-2
Fresno Fire Impact Fee Program Update
Construction Cost Inflation Factors

Year	Annual Average CCI	Change in CCI <i>(from year shown to 2020)</i>	
		Change	Pct. Change
20-City Annual Average CCI			
2015	10,031	1,435	14.3%
2016	10,339	1,127	10.9%
2017	10,737	729	6.8%
2018	11,062	404	3.6%
2019	11,281	185	1.6%
2020	11,466		

cci

Source: Engineering News Record



APPENDIX C:

Fire Facilities and Apparatus Bond Financing

Table C-1	Estimated Net Effective Financing Cost— Existing Fire Facilities.....	C-1
Table C-2	Debt Service and Financing Cost Summary	C-2
Table C-3	Debt Service and Financing Cost Detail.....	C-3
Table C-4	Future Facilities and Apparatus Bond Funding	C-4
Table C-5	Future Facilities and Apparatus Bond Construction Proceeds and Schedule	C-5

Table C-1
Fresno Fire Impact Fee Program Update
Estimated Net Effective Financing Cost - Existing Fire Facilities [1]

Existing Facilities

Item	Formula	Facilities
Total Existing Bond Size		7,590,000.00
Land Acquisition and Construction Proceeds		7,590,000.00
Facility Cost Percent of Total Bond Size	A	100.00%
Present Value of Remaining Debt Service (2023-2039) at 3.00%	B	\$7,613,383
Less Remaining Construction and Land Acquisition Proceeds		
Land Acquisition and Construction Proceeds	C	\$7,590,000
Less Const. & Land Acq. Proceeds Already Paid (100.% of principal payments made)	D=A*\$0.92M	(\$920,000)
Subtotal	E=C+D	\$6,670,000
Financing Costs	B-E	\$943,383
Financing Costs (Rounded)	B-E	\$940,000

PAYMENT SCHEDULE		Fiscal Year	Annual Debt Service	Principal Payment	Interest Payment
Assumption		Debt Service Paid			
Estimated Inflation Factor [2]	3.00%	2018	\$326,183	\$0	\$326,183
Bond Term (Years)	30	2019	\$575,813	\$210,000	\$365,813
		2020	\$580,313	\$225,000	\$355,313
		2021	\$579,063	\$235,000	\$344,063
		2022	\$582,313	\$250,000	\$332,313
		Subtotal	\$2,643,683	\$920,000	\$1,723,683
		Remaining Debt Service			
		2023	\$579,813	\$260,000	\$319,813
		2024	\$576,813	\$270,000	\$306,813
		2025	\$573,313	\$280,000	\$293,313
		2026	\$579,313	\$300,000	\$279,313
		2027	\$574,313	\$310,000	\$264,313
		2028	\$578,813	\$330,000	\$248,813
		2029	\$582,313	\$350,000	\$232,313
		2030	\$574,813	\$360,000	\$214,813
		2031	\$581,813	\$385,000	\$196,813
		2032	\$577,563	\$400,000	\$177,563
		2033	\$577,563	\$420,000	\$157,563
		2034	\$581,563	\$445,000	\$136,563
		2035	\$579,313	\$465,000	\$114,313
		2036	\$581,063	\$490,000	\$91,063
		2037	\$576,563	\$510,000	\$66,563
		2038	\$581,063	\$540,000	\$41,063
		2039	\$575,813	\$555,000	\$20,813
		2040	\$0	\$0	\$0
		Subtotal	\$9,831,813	\$6,670,000	\$3,161,813
		Total	\$12,475,495	\$7,590,000	\$4,885,495

ex bond¹

Source: Fresno 2017 Lease Revenue Bonds Debt Service Schedule for Fire Projects (Infrastructure Fee)

[1] Financing costs for Station 18 are excluded because the present value of the remaining loan payments is less than the remaining principal to be paid, resulting in remaining financing costs less than zero. This situation occurs because the annual loan interest rate (2.44%) is lower than the discount rate (3%) used to estimate the present value.

[2] Annual fee program inflation is recommended to be based on the annual change in ENR-CCI. This analysis assumes 3.00%.

Table C-2
Fresno Fire Impact Fee Program Update
Debt Service and Financing Cost Summary
Planned Fire Facilities and Apparatus

Planned Facilities

Item	Year	Bond Financing
<i>Source:</i>		<i>Table C-3</i>
	<u>Financing Costs</u>	
Present Value of Debt Service		\$288,371,113
Less Construction Proceeds		(\$186,882,570)
Financing Costs		\$101,488,543
Financing Costs (Rounded)		\$101,500,000
<u>Debt Service Schedule</u>		
	2023	\$0
	2024	\$0
	2025	\$1,518,541
	2026	\$1,518,541
	2027	\$1,518,541
	2028	\$3,037,082
	2029	\$3,037,082
	2030	\$3,037,082
	2031	\$4,555,624
	2032	\$4,555,624
	2033	\$6,214,831
	2034	\$6,214,831
	2035	\$9,251,740
	2036	\$9,251,740
	2037	\$13,053,273
	2038	\$13,053,273
	2039	\$14,712,481
	2040	\$14,712,481
	2041	\$14,712,481
	2042	\$14,712,481
	2043	\$14,712,481
	2044	\$14,712,481
	2045	\$14,712,481
	2046	\$14,712,481
	2047	\$14,712,481
	2048	\$14,712,481
	2049	\$14,712,481
	2050	\$14,712,481
	2051	\$14,712,481
	2052	\$14,712,481
	2053	\$14,712,481
	2054	\$14,712,481
	2055	\$13,193,939
	2056	\$13,193,939
	2057	\$13,193,939
	2058	\$11,675,398
	2059	\$11,675,398
	2060	\$11,675,398
	2061	\$10,156,857
	2062	\$10,156,857
	2063	\$8,497,650
	2064	\$8,497,650
	2065	\$5,460,741
	2066	\$5,460,741
	2067	\$1,659,207
	2068	\$1,659,207
	2069	\$0
	Total	\$441,374,418

bond1

Source: City of Fresno, Fresno Fire Department, and EPS.

Table C-3
Fresno Fire Impact Fee Program Update
Debt Service and Financing Cost Detail (2022 \$)
Planned Fire Facilities and Apparatus

Item	Source	Total	Year						
			2025	2028	2031	2033	2035	2037	2039
Bond Interest Rate		5.25%							
Bond Term (years)		30							
Const. Proceeds Pct.		85%							
Estimated Inflation Factor		3.00%							
Construction Proceeds	Table C-4	\$186,882,570	\$19,288,990	\$19,288,990	\$19,288,990	\$21,075,775	\$38,575,775	\$48,288,275	\$21,075,775
Total Bond Size		\$219,861,847	\$22,692,929	\$22,692,929	\$22,692,929	\$24,795,030	\$45,383,265	\$56,809,736	\$24,795,030
Annual Debt Service			\$1,518,541	\$1,518,541	\$1,518,541	\$1,659,207	\$3,036,909	\$3,801,533	\$1,659,207
First Year	Table C-4		2025	2028	2031	2033	2035	2037	2039
Last Year			2054	2057	2060	2062	2064	2066	2068
Present Value of Debt Service		\$288,371,113	\$29,764,078	\$29,764,078	\$29,764,078	\$32,521,196	\$59,524,755	\$74,511,730	\$32,521,196
Less Bond Proceeds		(\$186,882,570)	(\$19,288,990)	(\$19,288,990)	(\$19,288,990)	(\$21,075,775)	(\$38,575,775)	(\$48,288,275)	(\$21,075,775)
Financing Costs		\$101,488,543	\$10,475,088	\$10,475,088	\$10,475,088	\$11,445,421	\$20,948,980	\$26,223,455	\$11,445,421
Year			Annual Debt Service						
2023		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2024		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2025		\$1,518,541	\$1,518,541	\$0	\$0	\$0	\$0	\$0	\$0
2026		\$1,518,541	\$1,518,541	\$0	\$0	\$0	\$0	\$0	\$0
2027		\$1,518,541	\$1,518,541	\$0	\$0	\$0	\$0	\$0	\$0
2028		\$3,037,082	\$1,518,541	\$1,518,541	\$0	\$0	\$0	\$0	\$0
2029		\$3,037,082	\$1,518,541	\$1,518,541	\$0	\$0	\$0	\$0	\$0
2030		\$3,037,082	\$1,518,541	\$1,518,541	\$0	\$0	\$0	\$0	\$0
2031		\$4,555,624	\$1,518,541	\$1,518,541	\$1,518,541	\$0	\$0	\$0	\$0
2032		\$4,555,624	\$1,518,541	\$1,518,541	\$1,518,541	\$0	\$0	\$0	\$0
2033		\$6,214,831	\$1,518,541	\$1,518,541	\$1,518,541	\$1,659,207	\$0	\$0	\$0
2034		\$6,214,831	\$1,518,541	\$1,518,541	\$1,518,541	\$1,659,207	\$0	\$0	\$0
2035		\$9,251,740	\$1,518,541	\$1,518,541	\$1,518,541	\$1,659,207	\$3,036,909	\$0	\$0
2036		\$9,251,740	\$1,518,541	\$1,518,541	\$1,518,541	\$1,659,207	\$3,036,909	\$0	\$0
2037		\$13,053,273	\$1,518,541	\$1,518,541	\$1,518,541	\$1,659,207	\$3,036,909	\$3,801,533	\$0
2038		\$13,053,273	\$1,518,541	\$1,518,541	\$1,518,541	\$1,659,207	\$3,036,909	\$3,801,533	\$0
2039		\$14,712,481	\$1,518,541	\$1,518,541	\$1,518,541	\$1,659,207	\$3,036,909	\$3,801,533	\$1,659,207
2040		\$14,712,481	\$1,518,541	\$1,518,541	\$1,518,541	\$1,659,207	\$3,036,909	\$3,801,533	\$1,659,207
2041		\$14,712,481	\$1,518,541	\$1,518,541	\$1,518,541	\$1,659,207	\$3,036,909	\$3,801,533	\$1,659,207
2042		\$14,712,481	\$1,518,541	\$1,518,541	\$1,518,541	\$1,659,207	\$3,036,909	\$3,801,533	\$1,659,207
2043		\$14,712,481	\$1,518,541	\$1,518,541	\$1,518,541	\$1,659,207	\$3,036,909	\$3,801,533	\$1,659,207
2044		\$14,712,481	\$1,518,541	\$1,518,541	\$1,518,541	\$1,659,207	\$3,036,909	\$3,801,533	\$1,659,207
2045		\$14,712,481	\$1,518,541	\$1,518,541	\$1,518,541	\$1,659,207	\$3,036,909	\$3,801,533	\$1,659,207
2046		\$14,712,481	\$1,518,541	\$1,518,541	\$1,518,541	\$1,659,207	\$3,036,909	\$3,801,533	\$1,659,207
2047		\$14,712,481	\$1,518,541	\$1,518,541	\$1,518,541	\$1,659,207	\$3,036,909	\$3,801,533	\$1,659,207
2048		\$14,712,481	\$1,518,541	\$1,518,541	\$1,518,541	\$1,659,207	\$3,036,909	\$3,801,533	\$1,659,207
2049		\$14,712,481	\$1,518,541	\$1,518,541	\$1,518,541	\$1,659,207	\$3,036,909	\$3,801,533	\$1,659,207
2050		\$14,712,481	\$1,518,541	\$1,518,541	\$1,518,541	\$1,659,207	\$3,036,909	\$3,801,533	\$1,659,207
2051		\$14,712,481	\$1,518,541	\$1,518,541	\$1,518,541	\$1,659,207	\$3,036,909	\$3,801,533	\$1,659,207
2052		\$14,712,481	\$1,518,541	\$1,518,541	\$1,518,541	\$1,659,207	\$3,036,909	\$3,801,533	\$1,659,207
2053		\$14,712,481	\$1,518,541	\$1,518,541	\$1,518,541	\$1,659,207	\$3,036,909	\$3,801,533	\$1,659,207
2054		\$14,712,481	\$1,518,541	\$1,518,541	\$1,518,541	\$1,659,207	\$3,036,909	\$3,801,533	\$1,659,207
2055		\$13,193,939	\$0	\$1,518,541	\$1,518,541	\$1,659,207	\$3,036,909	\$3,801,533	\$1,659,207
2056		\$13,193,939	\$0	\$1,518,541	\$1,518,541	\$1,659,207	\$3,036,909	\$3,801,533	\$1,659,207
2057		\$13,193,939	\$0	\$1,518,541	\$1,518,541	\$1,659,207	\$3,036,909	\$3,801,533	\$1,659,207
2058		\$11,675,398	\$0	\$0	\$1,518,541	\$1,659,207	\$3,036,909	\$3,801,533	\$1,659,207
2059		\$11,675,398	\$0	\$0	\$1,518,541	\$1,659,207	\$3,036,909	\$3,801,533	\$1,659,207
2060		\$11,675,398	\$0	\$0	\$1,518,541	\$1,659,207	\$3,036,909	\$3,801,533	\$1,659,207
2061		\$10,156,857	\$0	\$0	\$0	\$1,659,207	\$3,036,909	\$3,801,533	\$1,659,207
2062		\$10,156,857	\$0	\$0	\$0	\$1,659,207	\$3,036,909	\$3,801,533	\$1,659,207
2063		\$8,497,650	\$0	\$0	\$0	\$0	\$3,036,909	\$3,801,533	\$1,659,207
2064		\$8,497,650	\$0	\$0	\$0	\$0	\$3,036,909	\$3,801,533	\$1,659,207
2065		\$5,460,741	\$0	\$0	\$0	\$0	\$0	\$3,801,533	\$1,659,207
2066		\$5,460,741	\$0	\$0	\$0	\$0	\$0	\$3,801,533	\$1,659,207
2067		\$1,659,207	\$0	\$0	\$0	\$0	\$0	\$0	\$1,659,207
2068		\$1,659,207	\$0	\$0	\$0	\$0	\$0	\$0	\$1,659,207
2069		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL		\$441,374,418	\$45,556,237	\$45,556,237	\$45,556,237	\$49,776,221	\$91,107,268	\$114,045,999	\$49,776,221

bond detail

Source: City of Fresno, Fresno Fire Department, and EPS.

Table C-4
Fresno Fire Impact Fee Program Update
Future Facilities and Apparatus Bond Funding (2022 \$)

Planned Facility	Location	Improvement Type	Land Costs	Construction Costs				Total Costs	Apparatus Cost		Total
				Site Imp. & Parking	Building	Soft excl land	Construction Subtotal		Pct. [1]	Cost	Bond/Loan Funded Cost [2]
Percentage Bond Funded Formula			0% A	70% B	70% C	70% D	E=B+C+D	F=A+E	G	H=G*Total H	F+H
New Stations (11)											
Station 21	Belmont & Van Ness	New	\$0	\$348,600	\$5,615,680	\$1,491,070	\$7,455,350	\$7,455,350	7.4%	\$1,511,592	\$8,966,942
Station 22	North & Chestnut	New	\$0	\$348,600	\$5,615,680	\$1,491,070	\$7,455,350	\$7,455,350	7.4%	\$1,511,592	\$8,966,942
Station 23	Church & Fruit	New	\$0	\$348,600	\$5,615,680	\$1,491,070	\$7,455,350	\$7,455,350	7.4%	\$1,511,592	\$8,966,942
Station 24	Herndon & Brawley	New	\$0	\$348,600	\$5,615,680	\$1,491,070	\$7,455,350	\$7,455,350	7.4%	\$1,511,592	\$8,966,942
Station 25	McKinley & DeWolf	New	\$0	\$348,600	\$5,615,680	\$1,491,070	\$7,455,350	\$7,455,350	7.4%	\$1,511,592	\$8,966,942
Station 26	Calif. & Temperance	New	\$0	\$348,600	\$5,615,680	\$1,491,070	\$7,455,350	\$7,455,350	7.4%	\$1,511,592	\$8,966,942
Station 27	Teague & Chestnut	New	\$0	\$348,600	\$5,615,680	\$1,491,070	\$7,455,350	\$7,455,350	7.4%	\$1,511,592	\$8,966,942
Station 28	Champlain & Friant	New	\$0	\$348,600	\$5,615,680	\$1,491,070	\$7,455,350	\$7,455,350	7.4%	\$1,511,592	\$8,966,942
Station 29	Barstow & Brawley	New	\$0	\$348,600	\$5,615,680	\$1,491,070	\$7,455,350	\$7,455,350	7.4%	\$1,511,592	\$8,966,942
Station 30	Dakota & Brawley	New	\$0	\$348,600	\$5,615,680	\$1,491,070	\$7,455,350	\$7,455,350	7.4%	\$1,511,592	\$8,966,942
Station 31	Central & Cherry	New	\$0	\$348,600	\$5,615,680	\$1,491,070	\$7,455,350	\$7,455,350	7.4%	\$1,511,592	\$8,966,942
Subtotal New			\$0	\$3,834,600	\$61,772,480	\$16,401,770	\$82,008,850	\$82,008,850	81.8%	\$16,627,515	\$98,636,365
Average New			\$0	\$348,600	\$5,615,680	\$1,491,070	\$7,455,350	\$7,455,350		\$1,511,592	\$8,966,942
Expansion Stations (7)											
Station 2	West & Fir	Expansion	\$0	\$0	\$1,956,150	\$489,038	\$2,445,188	\$2,445,188	2.4%	\$495,768	\$2,940,956
Station 5	Fresno & Shields	Expansion	\$0	\$0	\$1,956,150	\$489,038	\$2,445,188	\$2,445,188	2.4%	\$495,768	\$2,940,956
Station 7	Cherry & Jensen	Expansion	\$0	\$0	\$2,268,000	\$567,000	\$2,835,000	\$2,835,000	2.8%	\$574,804	\$3,409,804
Station 8	Cedar & Butler	Expansion	\$0	\$0	\$2,268,000	\$567,000	\$2,835,000	\$2,835,000	2.8%	\$574,804	\$3,409,804
Station 9	Clinton & Fruit	Expansion	\$0	\$0	\$1,956,150	\$489,038	\$2,445,188	\$2,445,188	2.4%	\$495,768	\$2,940,956
Station 15	Clovis & Park Cir Dr.	Expansion	\$0	\$0	\$1,956,150	\$489,038	\$2,445,188	\$2,445,188	2.4%	\$495,768	\$2,940,956
Station 19	Belmont & Marks	Expansion	\$0	\$0	\$2,268,000	\$567,000	\$2,835,000	\$2,835,000	2.8%	\$574,804	\$3,409,804
Subtotal Expansion			\$0	\$0	\$14,628,600	\$3,657,150	\$18,285,750	\$18,285,750	18.2%	\$3,707,485	\$21,993,235
Average Expansion			\$0	\$0	\$2,089,800	\$522,450	\$2,612,250	\$2,612,250		\$529,641	\$3,141,891
Replacement Stations (3)											
Station 6	Gettysburg & Rowell	Replacement	\$0	\$348,600	\$4,945,920	\$1,323,630	\$6,618,150	\$6,618,150	0.0%	\$0	\$6,618,150
Station 10	Clinton & Armstrong	Replacement	\$0	\$357,896	\$5,615,680	\$1,493,394	\$7,466,970	\$7,466,970	0.0%	\$0	\$7,466,970
Station 12	Marks & Acacia	Replacement	\$0	\$348,600	\$5,615,680	\$1,491,070	\$7,455,350	\$7,455,350	0.0%	\$0	\$7,455,350
Subtotal Replacement			\$0	\$1,055,096	\$16,177,280	\$4,308,094	\$21,540,470	\$21,540,470	0.0%	\$0	\$21,540,470
Average Replacement			\$0	\$351,699	\$5,392,427	\$1,436,031	\$7,180,157	\$7,180,157		\$0	\$7,180,157
Training Facility - Second Phase	Undetermined	Replacement	\$0	\$3,245,810	\$10,754,190	\$3,500,000	\$17,500,000	\$17,500,000	0.0%	\$0	\$17,500,000
Shop Facility	Undetermined	Replacement	\$0	\$1,162,000	\$20,608,000	\$5,442,500	\$27,212,500	\$27,212,500	0.0%	\$0	\$27,212,500
Total			\$0	\$9,297,506	\$123,940,550	\$33,309,514	\$166,547,570	\$166,547,570	100.0%	\$20,335,000	\$186,882,570
Total New and Expansion Stations			\$0	\$3,834,600	\$76,401,080	\$20,058,920	\$100,294,600	\$100,294,600	100.0%	\$20,335,000	\$120,629,600

bond

Source: City of Fresno, Fresno Fire Department, and EPS.

[1] Percentage of "Total New and Expansion Stations" cost.

Table C-5
Fresno Fire Impact Fee Program Update
Future Facilities and Apparatus Bond Construction Proceeds and Schedule (2022 \$)

Year	Total Cost	New Stations		Expansion Stations		Replacement Stations		Training Center	Shop
		Number	Total Cost	Number	Total Cost	Number	Total Cost		
Avg. Bond-Funded Cost per Station [1]			\$8,966,942		\$3,141,891		\$7,180,157		
2025	\$19,288,990	1	\$8,966,942	1	\$3,141,891	1	\$7,180,157	-	-
2028	\$19,288,990	1	\$8,966,942	1	\$3,141,891	1	\$7,180,157	-	-
2031	\$19,288,990	1	\$8,966,942	1	\$3,141,891	1	\$7,180,157	-	-
2033	\$21,075,775	2	\$17,933,885	1	\$3,141,891	-	-	-	-
2035	\$38,575,775	2	\$17,933,885	1	\$3,141,891	-	-	\$17,500,000	-
2037	\$48,288,275	2	\$17,933,885	1	\$3,141,891	-	-	-	\$27,212,500
2039	\$21,075,775	2	\$17,933,885	1	\$3,141,891	-	-	-	-
Total	\$186,882,570	11	\$98,636,365	7	\$21,993,235	3	\$21,540,470	\$17,500,000	\$27,212,500

sched

Source: City of Fresno, Fresno Fire Department, and EPS.

[1] See Table C-4.



APPENDIX D:

Fresno Fire Department Service Call Activity

Table D-1	Distribution of Fire Call Activity (2 pages)	D-1
Table D-2	Detailed Fire Call Activity, 2015-2020 (2 pages)	D-3
Table D-3	Estimated Allocation of Uncategorized Fire Call Activity	D-5

Table D-1
Fresno Fire Impact Fee Program Update
Distribution of Fire Call Activity

Code [1]	Type of Call	Total Est. Annual Calls [2]	Percentage of Calls [3]		Estimated Annual Calls	
			Resid.	Nonresid.	Resid.	Nonresid.
Fire Calls						
r	Residential	1,133	100.0%	0.0%	1,133	0
nr	Health Care, Detention, Correction	10	0.0%	100.0%	0	10
nr	Mercantile, Business	180	0.0%	100.0%	0	180
nr	Industrial, Utility, Defense, Agriculture, Mining	39	0.0%	100.0%	0	39
nr	Manufacturing, Processing	13	0.0%	100.0%	0	13
sh	Assembly	92	90.9%	9.1%	83	8
sh	Educational	26	90.9%	9.1%	24	2
sh	Storage	74	90.9%	9.1%	67	7
sh	Outside or Special Property	2,217	90.9%	9.1%	2,015	202
sh	None	6	90.9%	9.1%	5	1
sh	Undetermined	6	90.9%	9.1%	5	1
sh	Property use, Other	15	90.9%	9.1%	13	1
	Subtotal	3,809			3,346	463
Medical Aid/Rescue						
r	Residential	19,636	100.0%	0.0%	19,636	0
nr	Health Care, Detention, Correction	930	0.0%	100.0%	0	930
nr	Mercantile, Business	978	0.0%	100.0%	0	978
nr	Industrial, Utility, Defense, Agriculture, Mining	28	0.0%	100.0%	0	28
nr	Manufacturing, Processing	29	0.0%	100.0%	0	29
sh	Assembly	647	90.9%	9.1%	588	59
sh	Educational	288	90.9%	9.1%	261	26
sh	Storage	115	90.9%	9.1%	104	10
sh	Outside or Special Property	5,738	90.9%	9.1%	5,215	523
sh	None	188	90.9%	9.1%	171	17
sh	Undetermined	1,749	90.9%	9.1%	1,590	159
sh	Property use, Other	150	90.9%	9.1%	136	14
	Subtotal	30,474			27,701	2,773
Hazardous Conditions						
r	Residential	644	100.0%	0.0%	644	0
nr	Health Care, Detention, Correction	17	0.0%	100.0%	0	17
nr	Mercantile, Business	76	0.0%	100.0%	0	76
nr	Industrial, Utility, Defense, Agriculture, Mining	9	0.0%	100.0%	0	9
nr	Manufacturing, Processing	7	0.0%	100.0%	0	7
sh	Assembly	32	90.9%	9.1%	29	3
sh	Educational	17	90.9%	9.1%	15	2
sh	Storage	9	90.9%	9.1%	8	1
sh	Outside or Special Property	286	90.9%	9.1%	260	26
sh	None	0	90.9%	9.1%	0	0
sh	Undetermined	1	90.9%	9.1%	1	0
sh	Property use, Other	2	90.9%	9.1%	2	0
	Subtotal	1,100			960	140
Service Calls						
r	Residential	767	100.0%	0.0%	767	0
nr	Health Care, Detention, Correction	18	0.0%	100.0%	0	18
nr	Mercantile, Business	100	0.0%	100.0%	0	100
nr	Industrial, Utility, Defense, Agriculture, Mining	5	0.0%	100.0%	0	5
nr	Manufacturing, Processing	2	0.0%	100.0%	0	2

Table D-1
Fresno Fire Impact Fee Program Update
Distribution of Fire Call Activity

Code [1]	Type of Call	Total Est. Annual Calls [2]	Percentage of Calls [3]		Estimated Annual Calls	
			Resid.	Nonresid.	Resid.	Nonresid.
sh	Assembly	39	90.9%	9.1%	35	4
sh	Educational	17	90.9%	9.1%	16	2
sh	Storage	85	90.9%	9.1%	77	8
sh	Outside or Special Property	470	90.9%	9.1%	427	43
sh	None	2	90.9%	9.1%	2	0
sh	Undetermined	8	90.9%	9.1%	7	1
sh	Property use, Other	7	90.9%	9.1%	7	1
	Subtotal	1,520			1,338	182
False Alarms						
r	Residential	1,200	100.0%	0.0%	1,200	0
nr	Health Care, Detention, Correction	309	0.0%	100.0%	0	309
nr	Mercantile, Business	517	0.0%	100.0%	0	517
nr	Industrial, Utility, Defense, Agriculture, Mining	31	0.0%	100.0%	0	31
nr	Manufacturing, Processing	65	0.0%	100.0%	0	65
sh	Assembly	191	90.9%	9.1%	174	17
sh	Educational	283	90.9%	9.1%	257	26
sh	Storage	140	90.9%	9.1%	128	13
sh	Outside or Special Property	30	90.9%	9.1%	28	3
sh	None	1	90.9%	9.1%	1	0
sh	Undetermined	7	90.9%	9.1%	6	1
sh	Property use, Other	13	90.9%	9.1%	12	1
	Subtotal	2,787			1,805	981
Other						
r	Residential	1,574	100.0%	0.0%	1,574	0
nr	Health Care, Detention, Correction	79	0.0%	100.0%	0	79
nr	Mercantile, Business	240	0.0%	100.0%	0	240
nr	Industrial, Utility, Defense, Agriculture, Mining	21	0.0%	100.0%	0	21
nr	Manufacturing, Processing	13	0.0%	100.0%	0	13
sh	Assembly	100	90.9%	9.1%	90	9
sh	Educational	62	90.9%	9.1%	56	6
sh	Storage	110	90.9%	9.1%	100	10
sh	Outside or Special Property	1,658	90.9%	9.1%	1,507	151
sh	None	54	90.9%	9.1%	49	5
sh	Undetermined	466	90.9%	9.1%	424	42
sh	Property use, Other	50	90.9%	9.1%	45	5
	Subtotal	4,424			3,844	580
Grand Total		44,114			38,994	5,120
<i>Share of Total</i>					<i>88.4%</i>	<i>11.6%</i>

call dist

Source: Fresno Fire Department

[1] Categorization by EPS. Code as follows:

r = Directly Assigned to Residential

nr = Directly Assigned to Nonresidential

sh = Shared Assignment based on Potential Service. See Table D-3 for percentage split between residential and nonresidential.

[2] 2015-2020 average. See Table D-2.

[3] See Table D-3 for pct. allocation of shared assignment calls.

Table D-2
Fresno Fire Impact Fee Program Update
Detailed Fire Call Activity, 2015-2020

Code [1]	Type of Call	2015	2016	2017	2018	2019	2020	2015-2020	
								Total	Average
Fire Calls									
r	Residential	1,045	1,163	1,136	1,128	1,150	1,176	6,798	1,133
nr	Health Care, Detention, Correction	9	8	18	5	9	8	57	10
nr	Mercantile, Business	137	144	174	186	182	258	1,081	180
nr	Industrial, Utility, Defense, Agriculture, Mining	34	50	38	30	28	52	232	39
nr	Manufacturing, Processing	13	19	6	22	9	11	80	13
sh	Assembly	71	69	83	84	91	151	549	92
sh	Educational	28	32	21	30	22	24	157	26
sh	Storage	68	69	85	61	76	85	444	74
sh	Outside or Special Property	1,407	1,774	1,875	2,013	2,244	3,989	13,302	2,217
sh	None	1	5	0	1	20	6	33	6
sh	Undetermined	7	3	2	6	7	10	35	6
sh	Property use, Other	18	24	8	9	10	19	88	15
	Subtotal	2,838	3,360	3,446	3,575	3,848	5,789	22,856	3,809
Medical Aid/Rescue									
r	Residential	19,603	19,725	21,262	19,892	19,349	17,982	117,813	19,636
nr	Health Care, Detention, Correction	1,000	898	897	890	999	893	5,577	930
nr	Mercantile, Business	909	956	1,002	1,089	1,035	878	5,869	978
nr	Industrial, Utility, Defense, Agriculture, Mining	37	33	28	28	30	10	166	28
nr	Manufacturing, Processing	44	29	22	22	27	30	174	29
sh	Assembly	668	643	753	705	729	381	3,879	647
sh	Educational	348	338	356	327	278	78	1,725	288
sh	Storage	116	111	106	149	122	85	689	115
sh	Outside or Special Property	5,386	6,105	6,088	5,895	5,774	5,179	34,427	5,738
sh	None	23	16	25	463	399	204	1,130	188
sh	Undetermined	1,788	1,960	1,634	2,005	1,865	1,243	10,495	1,749
sh	Property use, Other	251	209	171	95	71	100	897	150
	Subtotal	30,173	31,023	32,344	31,560	30,678	27,063	182,841	30,474
Hazardous Conditions									
r	Residential	622	596	678	656	696	617	3,865	644
nr	Health Care, Detention, Correction	17	21	20	16	13	15	102	17
nr	Mercantile, Business	76	62	75	84	90	69	456	76
nr	Industrial, Utility, Defense, Agriculture, Mining	14	6	11	8	8	7	54	9
nr	Manufacturing, Processing	15	7	4	2	4	7	39	7
sh	Assembly	33	34	33	33	27	31	191	32
sh	Educational	14	20	21	21	16	9	101	17
sh	Storage	7	3	11	10	10	13	54	9
sh	Outside or Special Property	281	292	302	310	297	236	1,718	286
sh	None	0	0	0	0	0	0	0	0
sh	Undetermined	0	0	3	1	0	4	8	1
sh	Property use, Other	6	2	1	2	1	1	13	2
	Subtotal	1,085	1,043	1,159	1,143	1,162	1,009	6,601	1,100
Service Calls									
r	Residential	739	617	690	825	932	801	4,604	767
nr	Health Care, Detention, Correction	21	11	17	14	21	26	110	18
nr	Mercantile, Business	93	89	101	103	98	114	598	100
nr	Industrial, Utility, Defense, Agriculture, Mining	6	2	6	6	2	6	28	5
nr	Manufacturing, Processing	4	1	2	1	3	3	14	2
sh	Assembly	41	49	32	45	43	23	233	39
sh	Educational	20	19	16	20	23	5	103	17
sh	Storage	54	102	92	105	76	80	509	85
sh	Outside or Special Property	340	370	464	550	554	541	2,819	470
sh	None	0	3	2	0	5	1	11	2
sh	Undetermined	13	8	11	7	3	4	46	8
sh	Property use, Other	14	8	7	8	5	1	43	7
	Subtotal	1,345	1,279	1,440	1,684	1,765	1,605	9,118	1,520

Table D-2
Fresno Fire Impact Fee Program Update
Detailed Fire Call Activity, 2015-2020

Code [1]	Type of Call	2015	2016	2017	2018	2019	2020	2015-2020	
								Total	Average
False Alarms									
r	Residential	1,260	1,072	1,159	1,200	1,352	1,159	7,202	1,200
nr	Health Care, Detention, Correction	372	336	282	315	285	262	1,852	309
nr	Mercantile, Business	628	511	506	495	471	488	3,099	517
nr	Industrial, Utility, Defense, Agriculture, Mining	29	41	29	24	28	36	187	31
nr	Manufacturing, Processing	64	59	63	63	74	64	387	65
sh	Assembly	226	225	153	167	214	163	1,148	191
sh	Educational	342	328	300	287	255	185	1,697	283
sh	Storage	165	125	146	134	132	140	842	140
sh	Outside or Special Property	25	34	28	36	29	30	182	30
sh	None	0	0	1	1	1	1	4	1
sh	Undetermined	10	2	5	4	8	13	42	7
sh	Property use, Other	26	21	13	5	5	9	79	13
	Subtotal	3,147	2,754	2,685	2,731	2,854	2,550	16,721	2,787
Other									
r	Residential	1,553	1,671	1,684	1,502	1,563	1,468	9,441	1,574
nr	Health Care, Detention, Correction	72	76	92	72	75	87	474	79
nr	Mercantile, Business	208	265	260	216	231	258	1,438	240
nr	Industrial, Utility, Defense, Agriculture, Mining	25	33	16	22	9	22	127	21
nr	Manufacturing, Processing	10	8	19	18	9	11	75	13
sh	Assembly	81	116	101	107	106	86	597	100
sh	Educational	55	79	68	78	49	40	369	62
sh	Storage	172	110	121	101	90	63	657	110
sh	Outside or Special Property	1,266	1,587	1,607	1,615	1,747	2,125	9,947	1,658
sh	None	14	6	21	94	132	58	325	54
sh	Undetermined	350	396	454	503	620	475	2,798	466
sh	Property use, Other	59	81	57	28	35	38	298	50
	Subtotal	3,865	4,428	4,500	4,356	4,666	4,731	26,546	4,424
Total									
r	Residential	24,822	24,844	26,609	25,203	25,042	23,203	149,723	24,954
nr	Health Care, Detention, Correction	1,491	1,350	1,326	1,312	1,402	1,291	8,172	1,362
nr	Mercantile, Business	2,051	2,027	2,118	2,173	2,107	2,065	12,541	2,090
nr	Industrial, Utility, Defense, Agriculture, Mining	145	165	128	118	105	133	794	132
nr	Manufacturing, Processing	150	123	116	128	126	126	769	128
sh	Assembly	1,120	1,136	1,155	1,141	1,210	835	6,597	1,100
sh	Educational	807	816	782	763	643	341	4,152	692
sh	Storage	582	520	561	560	506	466	3,195	533
sh	Outside or Special Property	8,705	10,162	10,364	10,419	10,645	12,100	62,395	10,399
sh	None	38	30	49	559	557	270	1,503	251
sh	Undetermined	2,168	2,369	2,109	2,526	2,503	1,749	13,424	2,237
sh	Property use, Other	374	345	257	147	127	168	1,418	236
	Total	42,453	43,887	45,574	45,049	44,973	42,747	264,683	44,114

call_detail

Source: Fresno Fire Department

[1] Categorization by EPS. Code as follows:

r = Directly Assigned to Residential

nr = Directly Assigned to Nonresidential

sh = Shared Assignment based on Potential Service

Table D-3
Fresno Fire Impact Fee Program Update
Estimated Allocation of Uncategorized Fire Call Activity

Item	Formula	Population	Employees	Total
2021 Fire Service Population	<i>A</i>	586,770	219,509	806,279
Percentage of Total		72.8%	27.2%	100.0%
Potential Service (Hours per Week) [1]	<i>B</i>	168	45	
Equivalent Factor [2]	$C = B / 168$	100.0%	26.8%	
Equivalent Persons Served	$D = A \times C$	586,770	58,797	645,567
Assignment of Uncategorized Calls	$E = D / \text{Total } D$	90.9%	9.1%	100.0%

call_allocation

Source: City of Fresno and EPS

[1] Maximum hours at home/work.

Resid. hours = 7 days/week *24 hrs/day.

Nonres. hours= 5 days/week*9 hrs/day.

[2] Relates each employee to resident based on potential service hours.



APPENDIX E:

Capital Improvement Program

Table E-1
Fresno Fire Impact Fee Program Update
Planned Fire Facilities (2022 \$)

Planned Fire
Facilities

Item	Location	Improvement Type	LAND ACQUISITION			CONSTRUCTION					Subtotal Structure Value	Soft Costs	Total Structure Value	TOTAL VALUE	
			Acres	Cost per Acre	Total Land Value	Site Imp. & Parking		Building							
						Cost per Acre	Value	Sq. Ft.	Cost per Sq. Ft. [1]	Value					
Formula			A	B	C=A*B	D	E=A*D	F	G	H=F*G	I=E+H	J=I*25%	K=I+J	C+K	
New, Replacement, and Expansion															
Shop Facility	Undetermined	Replacement	5.00	\$210,000	\$1,050,000	\$332,000	\$1,660,000	40,000	\$736	\$29,440,000	\$31,100,000	\$7,775,000	\$38,875,000	\$39,925,000	
Training Facility [1]	Undetermined	Replacement	25.00	\$210,000	-	-	\$4,636,872	-	-	\$15,363,128	\$20,000,000	\$5,000,000	\$25,000,000	\$25,000,000	
Station 2	West & Fir	Expansion	-	\$210,000	\$0	\$332,000	\$0	3,450	\$810	\$2,794,500	\$2,794,500	\$698,625	\$3,493,125	\$3,493,125	
Station 5	Fresno & Shields	Expansion	-	\$210,000	\$0	\$332,000	\$0	3,450	\$810	\$2,794,500	\$2,794,500	\$698,625	\$3,493,125	\$3,493,125	
Station 6	Gettysburg & Rowell	Replacement	1.50	\$210,000	\$315,000	\$332,000	\$498,000	9,600	\$736	\$7,065,600	\$7,563,600	\$1,890,900	\$9,454,500	\$9,769,500	
Station 7	Cherry & Jensen	Expansion	-	\$210,000	\$0	\$332,000	\$0	4,000	\$810	\$3,240,000	\$3,240,000	\$810,000	\$4,050,000	\$4,050,000	
Station 8	Cedar & Butler	Expansion	-	\$210,000	\$0	\$332,000	\$0	4,000	\$810	\$3,240,000	\$3,240,000	\$810,000	\$4,050,000	\$4,050,000	
Station 9	Clinton & Fruit	Expansion	-	\$210,000	\$0	\$332,000	\$0	3,450	\$810	\$2,794,500	\$2,794,500	\$698,625	\$3,493,125	\$3,493,125	
Station 10	Clinton & Armstrong	Replacement	1.54	\$210,000	\$300,000	\$332,000	\$511,280	10,900	\$736	\$8,022,400	\$8,533,680	\$2,133,420	\$10,667,100	\$10,967,100	
Station 12	Marks & Acacia	Replacement	1.50	\$210,000	\$1,400,000	\$332,000	\$498,000	10,900	\$736	\$8,022,400	\$8,520,400	\$2,130,100	\$10,650,500	\$12,050,500	
Station 15	Clovis & Park Cir Dr.	Expansion	-	\$210,000	\$0	\$332,000	\$0	3,450	\$810	\$2,794,500	\$2,794,500	\$698,625	\$3,493,125	\$3,493,125	
Station 19	Belmont & Marks	Expansion	-	\$210,000	\$0	\$332,000	\$0	4,000	\$810	\$3,240,000	\$3,240,000	\$810,000	\$4,050,000	\$4,050,000	
Station 21	Belmont & Van Ness	New	1.50	\$210,000	\$315,000	\$332,000	\$498,000	10,900	\$736	\$8,022,400	\$8,520,400	\$2,130,100	\$10,650,500	\$10,965,500	
Station 22	North & Chestnut	New	1.50	\$210,000	\$315,000	\$332,000	\$498,000	10,900	\$736	\$8,022,400	\$8,520,400	\$2,130,100	\$10,650,500	\$10,965,500	
Station 23	Church & Fruit	New	1.50	\$210,000	\$315,000	\$332,000	\$498,000	10,900	\$736	\$8,022,400	\$8,520,400	\$2,130,100	\$10,650,500	\$10,965,500	
Station 24	Herndon & Brawley	New	1.50	\$210,000	\$315,000	\$332,000	\$498,000	10,900	\$736	\$8,022,400	\$8,520,400	\$2,130,100	\$10,650,500	\$10,965,500	
Station 25	McKinley & DeWolf	New	1.50	\$210,000	\$315,000	\$332,000	\$498,000	10,900	\$736	\$8,022,400	\$8,520,400	\$2,130,100	\$10,650,500	\$10,965,500	
Station 26	Calif. & Temperance	New	1.50	\$210,000	\$315,000	\$332,000	\$498,000	10,900	\$736	\$8,022,400	\$8,520,400	\$2,130,100	\$10,650,500	\$10,965,500	
Station 27	Teague & Chestnut	New	1.50	\$210,000	\$315,000	\$332,000	\$498,000	10,900	\$736	\$8,022,400	\$8,520,400	\$2,130,100	\$10,650,500	\$10,965,500	
Station 28	Champlain & Friant	New	1.50	\$210,000	\$315,000	\$332,000	\$498,000	10,900	\$736	\$8,022,400	\$8,520,400	\$2,130,100	\$10,650,500	\$10,965,500	
Station 29	Barstow & Brawley	New	1.50	\$210,000	\$315,000	\$332,000	\$498,000	10,900	\$736	\$8,022,400	\$8,520,400	\$2,130,100	\$10,650,500	\$10,965,500	
Station 30	Dakota & Brawley	New	1.50	\$210,000	\$315,000	\$332,000	\$498,000	10,900	\$736	\$8,022,400	\$8,520,400	\$2,130,100	\$10,650,500	\$10,965,500	
Station 31	Central & Cherry	New	1.50	\$210,000	\$315,000	\$332,000	\$498,000	10,900	\$736	\$8,022,400	\$8,520,400	\$2,130,100	\$10,650,500	\$10,965,500	
TOTAL						\$6,530,000		\$13,282,152	217,100		\$177,057,928	\$190,340,080	\$47,585,020	\$237,925,100	\$244,455,100

[1] Estimated fee-funded portion of training facility calculated below:

Training Facility

Grant-Funded Initial Phase	25.00	\$210,000	\$5,250,000	-	\$3,663,128	-	-	\$12,136,872	\$15,800,000	\$3,950,000	\$19,750,000	\$25,000,000
Fee-Funded Remainder	-	-	-	-	\$4,636,872	-	-	\$15,363,128	\$20,000,000	\$5,000,000	\$25,000,000	\$25,000,000
Total	25.00	\$210,000	\$5,250,000	\$332,000	\$8,300,000	-	-	\$27,500,000	\$35,800,000	\$8,950,000	\$44,750,000	\$50,000,000

Source: Fresno Fire Department and EPS.

CIP_fire3

[1] Cost per building square foot based on costs for recently constructed public safety buildings. Expansion costs assumed to be 10% higher than new construction costs.

Table E-2
Fresno Fire Impact Fee Program Update
Planned Fire Apparatus and Equipment (2022 \$)

Planned Fire Apparatus and Equipment

Item	Number	Cost per Unit	Total Cost	Source of Cost per Unit
Engines [1]	11	\$889,000	\$9,779,000	FFD estimate in 2021 [1]
Fire Trucks [1]	6	\$1,402,000	\$8,412,000	FFD estimate in 2021 [1]
Squads [1]	15	\$160,000	\$2,400,000	FFD estimate in 2021 [1]
Patrol Rigs [2]	2	\$345,000	\$690,000	FFD estimate in 2021
Breathing Support Super Vac [2]	1	\$265,000	\$265,000	2019 Fire Impact Fee Nexus Study; escalated at 3% a year for 2 years.
Brush Rigs [2]	2	\$371,000	\$742,000	2019 Fire Impact Fee Nexus Study; escalated at 3% a year for 2 years.
Decon Hazmat Trailer [2]	1	\$945,000	\$945,000	FFD estimate in 2021
Water Tenders [2]	2	\$451,000	\$902,000	2019 Fire Impact Fee Nexus Study; escalated at 3% a year for 2 years.
Super Vacs [2]	2	\$557,000	\$1,114,000	2019 Fire Impact Fee Nexus Study; escalated at 3% a year for 2 years.
SUVs/Trucks [2]	15	\$90,000	\$1,350,000	FFD estimate in 2021
COMM/Command Unit [2]	1	\$530,000	\$530,000	2019 Fire Impact Fee Nexus Study; escalated at 3% a year for 2 years.
Water Rescue Vehicle [3]	1	\$100,000	\$100,000	FFD Draft Master Plan 2020-2035 (6/13/19); planned in 2022
Aircraft Rescue and Firefighting Vehicle [3]	1	\$881,000	\$881,000	FFD Draft Master Plan 2020-2035 (6/13/19); \$935,000 in 2023 discounted by 3% annually to 2022 \$
Universal Search and Rescue (USAR) Vehicle [3]	1	\$840,000	\$840,000	FFD Draft Master Plan 2020-2035 (6/13/19); \$945,000 in 2025 discounted by 3% annually to 2022 \$
USAR Tow Vehicle [3]	1	\$100,000	\$100,000	FFD Draft Master Plan 2020-2035 (6/13/19); planned in 2022
Personal Equipment [4]	278	\$8,000	\$2,224,000	2019 Fire Impact Fee Nexus Study; escalated at 3% a year for 2 years.
TOTAL			\$31,274,000	

CIP_fire4

Source: Fresno Fire Department; EPS.

[1] Number of vehicles derived from Current and Future Fire Stations with Daily Staffing Map (total vehicles less existing vehicles from Table 8).

[2] Number from 2019 Fire Impact Fee Nexus Study.

[3] Number from Fresno Fire Department Draft Master Plan 2020-2035 (6/13/19).

[4] Number based on standard of 0.81 firefighters per 1,000 residents. See Table 8 for number of current officers.