Land Use Assumptions, Infrastructure Improvements Plan, and Development Fee Report

Prepared for:
Apache Junction, Arizona

August 16, 2022

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EXECUTIVE SUMMARY

The City of Apache Junction, Arizona, contracted with TischlerBise to document land use assumptions, prepare the Infrastructure Improvements Plan (hereinafter referred to as the "IIP"), and update development fees pursuant to Arizona Revised Statutes ("ARS") § 9-436.05 (hereafter referred to as the "Enabling Legislation"). Municipalities in Arizona may assess development fees to offset infrastructure costs to a municipality for necessary public services. The development fees must be based on an Infrastructure Improvements Plan and Land Use Assumptions. The IIP for each type of infrastructure is in the middle section of this document. The proposed development fees are displayed in the Development Fee Report in the next section.

Development fees are one-time payments used to construct system improvements needed to accommodate new development. The fee represents future development's proportionate share of infrastructure costs. Development fees may be used for infrastructure improvements or debt service for growth related infrastructure. In contrast to general taxes, development fees may not be used for operations, maintenance, replacement, or correcting existing deficiencies. This update of Apache Junction's Infrastructure Improvements Plan and associated update to its development fees includes the following necessary public services:

1. Library Facilities
2. Parks and Recreational Facilities
3. Police Facilities
4. Street Facilities

This plan includes all necessary elements required to be in full compliance with SB 1525.

ARIZONA DEVELOPMENT FEE ENABLING LEGISLATION

The Enabling Legislation governs how development fees are calculated for municipalities in Arizona.

Necessary Public Services

Under the requirements of the Enabling Legislation, development fees may only be used for construction, acquisition or expansion of public facilities that are necessary public services. "Necessary public service" means any of the following categories of facilities that have a life expectancy of three or more years and that are owned and operated on behalf of the municipality: water, wastewater, storm water, library, street, fire, police, and parks and recreational. Additionally, a necessary public service includes any facility that was financed before June 1, 2011, and that meets the following requirements:

1. Development fees were pledged to repay debt service obligations related to the construction of the facility.
2. After August 1, 2014, any development fees collected are used solely for the payment of principal and interest on the portion of the bonds, notes, or other debt service obligations issued before June 1, 2011, to finance construction of the facility.

Infrastructure Improvements Plan

Development fees must be calculated pursuant to an IIP. For each necessary public service that is the subject of a development fee, by law, the IIP shall include the following seven elements:

1. A description of the existing necessary public services in the service area and the costs to update, improve, expand, correct or replace those necessary public services to meet existing needs and usage and stricter safety, efficiency, environmental or regulatory standards, which shall be prepared by qualified professionals licensed in this state, as applicable.
2. An analysis of the total capacity, the level of current usage and commitments for usage of capacity of the existing necessary public services, which shall be prepared by qualified professionals licensed in this state, as applicable.
3. A description of all or the parts of the necessary public services or facility expansions and their costs necessitated by and attributable to development in the service area based on the approved Land Use Assumptions, including a forecast of the costs of infrastructure, improvements, real property, financing, engineering and architectural services, which shall be prepared by qualified professionals licensed in this state, as applicable.
4. A table establishing the specific level or quantity of use, consumption, generation or discharge of a service unit for each category of necessary public services or facility expansions and an equivalency or conversion table establishing the ratio of a service unit to various types of land uses, including residential, commercial, and industrial.
5. The total number of projected service units necessitated by and attributable to new development in the service area based on the approved Land Use Assumptions and calculated pursuant to generally accepted engineering and planning criteria.
6. The projected demand for necessary public services or facility expansions required by new service units for a period not to exceed ten years.
7. A forecast of revenues generated by new service units other than development fees, which shall include estimated state-shared revenue, highway users revenue, federal revenue, ad valorem property taxes, construction contracting or similar excise taxes and the capital recovery portion of utility fees attributable to development based on the approved Land Use Assumptions and a plan to include these contributions in determining the extent of the burden imposed by the development.

Qualified Professionals

The IIP must be developed by qualified professionals using generally accepted engineering and planning practices. A qualified professional is defined as "a professional engineer, surveyor, financial analyst or planner providing services within the scope of the person's license, education, or experience." TischlerBise is a fiscal, economic, and planning consulting firm specializing in the cost of growth services. Our services include development fees, fiscal impact analysis, infrastructure financing analyses, user fee/cost of service studies, capital improvement plans, and fiscal software. TischlerBise has prepared over 800 development fee studies over the past 30 years for local governments across the United States.

Conceptual Development Fee Calculation

In contrast to project-level improvements, development fees fund growth-related infrastructure that will benefit multiple development projects, or the entire service area (usually referred to as system improvements). The first step is to determine an appropriate demand indicator for the particular type of infrastructure. The demand indicator measures the number of service units for each unit of development. For example, an appropriate indicator of the demand for parks is population growth and the increase in population can be estimated from the average number of persons per housing unit. The second step in the development fee formula is to determine infrastructure improvement units per service unit, typically called level-of-service (LOS) standards. In keeping with the park example, a common LOS standard is improved park acres per thousand people. The third step in the development fee formula is the cost of various infrastructure units. To complete the park example, this part of the formula would establish a cost per acre for land acquisition and/ or park amenities.

Evaluation of Credits/Offsets

Regardless of the methodology, a consideration of credits/offsets is integral to the development of a legally defensible development fee. There are two types of credits/offsets that should be addressed in development fee studies and ordinances. The first is a revenue credit/offset due to possible double payment situations, which could occur when other revenues may contribute to the capital costs of infrastructure covered by the development fee. This type of credit/offset is integrated into the fee calculation, thus reducing the fee amount. The second is a site-specific credit or developer reimbursement for dedication of land or construction of system improvements. This type of credit is addressed in the administration and implementation of the development fee program. For ease of administration, TischlerBise normally recommends developer reimbursements for system improvements.

INTRODUCTION TO DEVELOPMENT FEES

Development fees are one-time payments used to fund capital improvements necessitated by future development. Development fees have been utilized by local governments in various forms for at least fifty years. Development fees do have limitations and should not be regarded as the total solution for infrastructure financing needs. Rather, they should be considered one component of a comprehensive portfolio to ensure adequate provision of public facilities with the goal of maintaining current levels of service in a community. Any community considering facility fees should note the following limitations:

1) Fees can only be used to finance capital infrastructure and cannot be used to finance ongoing operations and / or maintenance and rehabilitation costs.
2) Fees cannot be deposited in the General Fund. The funds must be accounted for separately in individual accounts and earmarked for the capital expenses for which they were collected.
3) Fees cannot be used to correct existing infrastructure deficiencies unless there is a funding plan in place to correct the deficiency for all current residents and businesses in the community.

REQUIRED FINDINGS

There are three reasonable relationship requirements for development fees that are closely related to "rational nexus" or "reasonable relationship" requirements enunciated by a number of state courts. Although the term "dual rational nexus" is often used to characterize the standard by which courts evaluate the validity of development fees under the U. S. Constitution, we prefer a more rigorous formulation that recognizes three elements: "impact or need," "benefit," and "proportionality." The dual rational nexus test explicitly addresses only the first two, although proportionality is reasonably implied, and was specifically mentioned by the U.S. Supreme Court in the *Dolan* case. The reasonable relationship language of the statute is considered less strict than the rational nexus standard used by many courts. Individual elements of the nexus standard are discussed further in the following paragraphs.

Demonstrating an Impact. All future development in a community creates additional demands on some, or all, public facilities provided by local government. If the supply of facilities is not increased to satisfy that additional demand, the quality or availability of public services for the entire community will deteriorate. Development fees may be used to recover the cost of development-related facilities, but only to the extent that the need for facilities is a consequence of development that is subject to the fees. The *Nollan* decision reinforced the principle that development exactions may be used only to mitigate conditions created by the developments upon which they are imposed. That principle clearly applies to development fees. In this study, the impact of development on improvement needs is analyzed in terms of quantifiable relationships between various types of development and the demand for specific facilities, based on applicable level-of-service standards.

Demonstrating a Benefit. A sufficient benefit relationship requires that development fee revenues be segregated from other funds and expended only on the facilities for which the fees were charged. Fees must be expended in a timely manner and the facilities funded by the fees must serve the development paying the fees. However, nothing in the U.S. Constitution or the State enabling Act authorizing development fees requires that facilities funded with fee revenues be available *exclusively* to development paying the fees. In other words, existing development may benefit from these improvements as well.

Procedures for the earmarking and expenditure of fee revenues are typically mandated by the State Enabling Legislation, as are procedures to ensure that the fees are expended expeditiously or refunded. All requirements are intended to ensure that developments benefit from the fees they are required to pay. Thus, an adequate showing of benefit must address procedural as well as substantive issues.

Demonstrating Proportionality. The requirement that exactions be proportional to the impacts of development was clearly stated by the U.S. Supreme Court in the *Dolan* case (although the relevance of that decision to development fees has been debated) and is logically necessary to establish a proper nexus. Proportionality is established through the procedures used to identify development-related facility costs, and in the methods used to calculate development fees for various types of facilities and categories of development. The demand for facilities is measured in terms of relevant and measurable attributes of development.

DEVELOPMENT FEE REPORT

Development fees for the necessary public services made necessary by new development must be based on the same level of service (LOS) provided to existing development in the service area. There are three basic methodologies used to calculate development fees. They examine the past, present, and future status of infrastructure. The objective of evaluating these different methodologies is to determine the best measure of the demand created by new development for additional infrastructure capacity. Each methodology has advantages and disadvantages in a particular situation and can be used simultaneously for different cost components.

Reduced to its simplest terms, the process of calculating development fees involves two main steps: (1) determining the cost of development-related capital improvements and (2) allocating those costs equitably to various types of development. In practice, though, the calculation of development fees can become quite complicated because of the many variables involved in defining the relationship between development and the need for facilities within the designated service area. The following paragraphs discuss basic methodologies for calculating development fees and how those methodologies can be applied.

- **Cost Recovery** (past improvements) - The rationale for recoupment, often called cost recovery, is that new development is paying for its share of the useful life and remaining capacity of facilities already built, or land already purchased, from which new growth will benefit. This methodology is often used for utility systems that must provide adequate capacity before new development can take place.

- **Incremental Expansion** (concurrent improvements) - The incremental expansion methodology documents current LOS standards for each type of public facility, using both quantitative and qualitative measures. This approach assumes there are no existing infrastructure deficiencies or surplus capacity in infrastructure. New development is only paying its proportionate share for growth-related infrastructure. Revenue will be used to expand or provide additional facilities, as needed, to accommodate new development. An incremental expansion cost method is best suited for public facilities that will be expanded in regular increments to keep pace with development.

- **Plan-Based** (future improvements) - The plan-based methodology allocates costs for a specified set of improvements to a specified amount of development. Improvements are typically identified in a long-range facility plan and development potential is identified by a land use plan. There are two basic options for determining the cost per demand unit: (1) total cost of a public facility can be divided by total demand units (average cost), or (2) the growth-share of the public facility cost can be divided by the net increase in demand units over the planning timeframe (marginal cost).

DEVELOPMENT FEE COMPONENTS

Shown below, Figure 1 summarizes service areas, methodologies, and infrastructure cost components for the proposed fees.

Figure 1: Proposed Development Fee Service Areas, Methodologies, and Cost Components

Necessary Public Service	Service Area	Cost Recovery	Incremental Expansion	Plan-Based	Cost Allocation
Library	Library Facilities Service Area	N/A	Library Facilities	Development Fee Report	Population, Jobs
Parks and Recreational	Parks and Recreational Facilities Service Area	N/A	Park Amenities	Trails, Development Fee Report	Population, Jobs
Police	Police Facilities Service Area	N/A	Police Vehicles, Communication Equipment	Police Facilities, Development Fee Report	Population, Vehicle Trips
Street	Street Facilities Service Area	N/A	Arterial Improvements	Development Fee Report	VMT

Calculations throughout this report are based on an analysis conducted using Excel software. Most results are discussed in the report using two, three, and four decimal places, which represent rounded figures. However, the analysis itself uses figures carried to their ultimate decimal places; therefore, the sums and products generated in the analysis may not equal the sum or product if the reader replicates the calculation with the factors shown in the report (due to the rounding of figures shown, not in the analysis).

PROPOSED DEVELOPMENT FEES

Development fees for residential development will be assessed per dwelling unit, based on the type of unit. Nonresidential development fees will be assessed per square foot of floor area, based on the development type. The fee schedule includes three new nonresidential categories. Institutional was previously included in office and other services, lodging (assessed per room) was previously included in commercial, and assisted living (assessed per bed) was included in office and other services.

The proposed fees represent the maximum allowable fees. Apache Junction may adopt fees that are less than the amounts shown; however, a reduction in development fee revenue will necessitate an increase in other revenues, a decrease in planned capital improvements, and/or a decrease in level-of-service standards. All costs in the Development Fee Report represent current dollars with no assumed inflation over time. If costs change significantly over time, development fees should be recalculated.

Figure 2: Proposed Development Fees

Residential Fees per Unit					
Development Type	Library	Parks & Recreational	Police	Street	Total
Single Family	$550	$1,707	$1,229	$3,250	$6,736
Multi-Family	$432	$1,340	$965	$1,779	$4,516
Recreational Vehicle	$425	$1,318	$949	$1,779	$4,471

Nonresidential Fees per Square Foot					
Development Type	Library	Parks & Recreational	Police	Street	Total
Industrial	$0.07	$0.22	$0.68	$0.92	$1.89
Commercial	$0.10	$0.30	$3.40	$4.72	$8.52
Office & Other Services	$0.16	$0.46	$1.51	$2.04	$4.17
Institutional	$0.14	$0.40	$0.99	$1.34	$2.87
Lodging (per room)	$27	$79	$1,115	$1,545	$2,766
Assisted Living (per bed)	$29	$86	$362	$490	$967

Current Development Fees

Current development fees for residential development are assessed per dwelling unit, based on the type of unit. Current development fees for nonresidential development are assessed per square foot of floor area, based on the type of development.

Figure 3: Current Development Fees

Residential Fees per Unit					
Development Type	Library	Parks & Recreational	Police	Street	Total
Single Family	$1,004	$1,168	$609	$3,151	$5,932
Multi-Family	$979	$1,138	$594	$2,117	$4,827
Recreational Vehicle	$760	$883	$461	$2,117	$4,220

Nonresidential Fees per Square Foot					
Development Type	Library	Parks & Recreational	Police	Street	Total
Industrial	$0.12	$0.03	$0.27	$1.19	$1.61
Commercial / Retail	$0.17	$0.18	$1.37	$6.14	$7.86
Office & Other Services	$0.22	$0.23	$0.53	$2.34	$3.32

Difference Between Proposed and Current Development Fees

The differences between the proposed and current development fees are displayed below in Figure 4.

Figure 4: Difference Between Proposed and Current Development Fees

Residential Fees per Unit					
Development Type	Library	Parks & Recreational	Police	Street	Total
Single Family	($454)	$539	$620	$99	$804
Multi-Family	($547)	$202	$371	($338)	($311)
Recreational Vehicle	($335)	$435	$488	($338)	$251

Nonresidential Fees per Square Foot					
Development Type	Library	Parks & Recreational	Police	Street	Total
Industrial	($0.05)	$0.19	$0.41	($0.27)	$0.28
Commercial / Retail	($0.07)	$0.12	$2.03	($1.42)	$0.66
Office & Other Services	($0.06)	$0.23	$0.98	($0.30)	$0.85
Institutional	($0.08)	$0.17	$0.46	($1.00)	($0.45)
Lodging (per room)	N/A	N/A	N/A	N/A	N/A
Assisted Living (per bed)	N/A	N/A	N/A	N/A	N/A

LIBRARY FACILITIES

ARS § 9-463.05 (T)(7)(d) defines the facilities and assets that can be included in the Library Facilities IIP:

> *"library facilities of up to ten thousand square feet that provide a direct benefit to development, not including equipment, vehicles or appurtenances."*

METHODOLOGY

The library facilities IIP includes components for library facilities and the cost of preparing the library facilities IIP and related development fee report. The incremental expansion methodology is used for library facilities, and the plan-based methodology is used for the development fee report.

PROPORTIONATE SHARE

ARS § 9-463.05 (B)(3) states that the development fee shall not exceed a proportionate share of the cost of necessary public services needed to accommodate new development. The library facilities IIP and development fees allocate the cost of necessary public services between residential and nonresidential based on functional population. The Arizona Office of Economic Opportunity estimates Apache Junction's 2018 population equal to 40,611 persons. Based on 2018 estimates from the U.S. Census Bureau's OnTheMap web application, 6,333 inflow commuters traveled to Apache Junction for work in 2018. The proportionate share is based on cumulative impact hours per year with a resident potentially impacting library facilities 8,170 hours per year and an inflow commuter potentially impacting library facilities 1,600 hours per year. For library facilities, residential development generates 97 percent of demand and nonresidential development generates the remaining three percent of demand.

Figure L1: Proportionate Share

Development Type	Service Unit	Impact Hours per Year	Cumulative Impact Hours per Year	Proportionate Share
Residential	40,611 residents[1]	8,760	355,752,360	97%
Nonresidential	6,333 inflow commuters[2]	1,600	10,132,800	3%
Total			365,885,160	100%

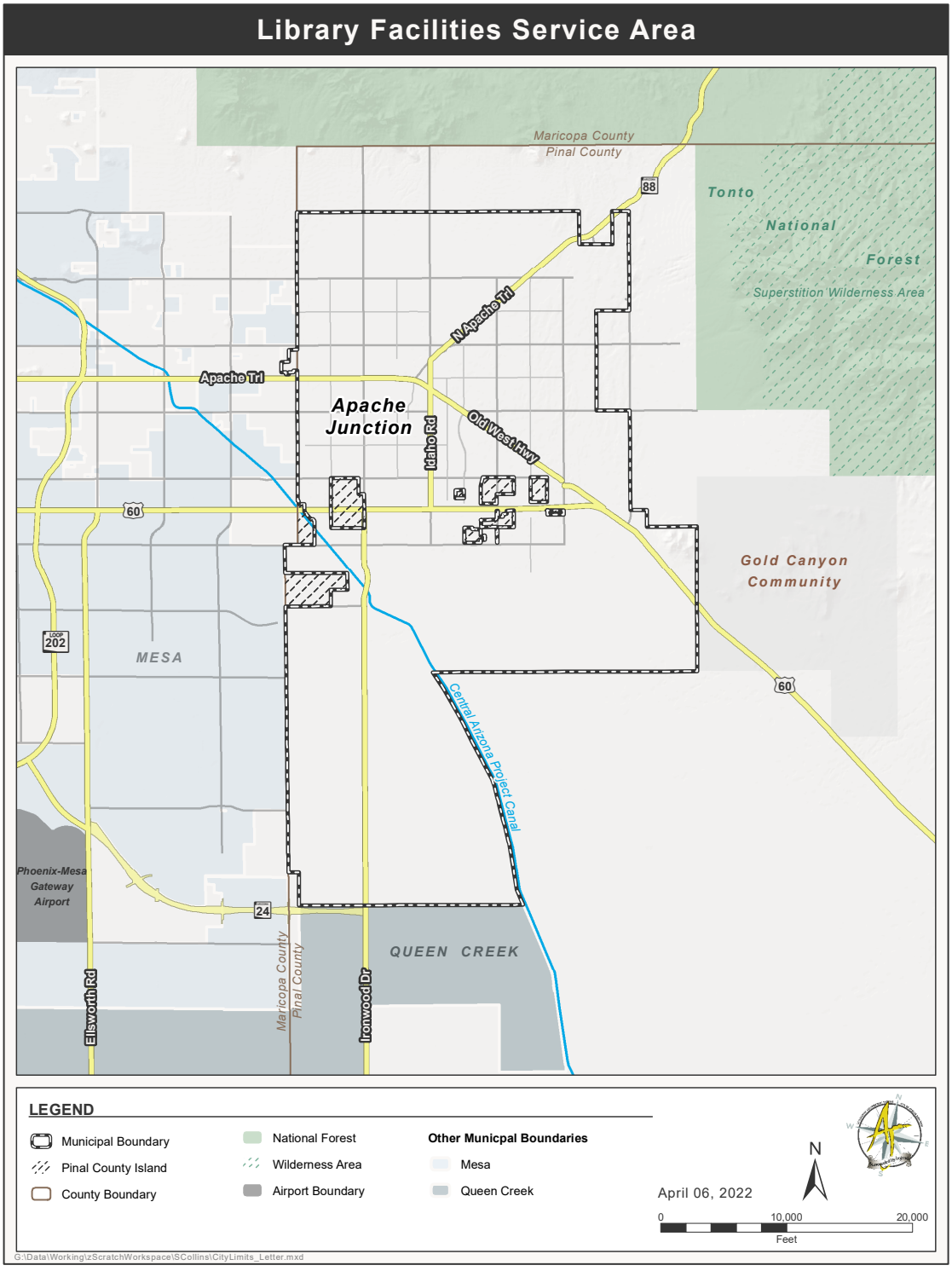
1. Arizona Office of Economic Opportunity, 2018
2. U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics, Version 6.8, 2018
Residential Impact: 24 hours per day X 365 days per year
Nonresidential Impact: 8 hours per day X 4 days per week X 50 weeks per year

The proportionate share of costs attributable to residential development will be allocated to population and then converted to an appropriate amount by type of housing unit. Since nonresidential data were unavailable by specific nonresidential use, TischlerBise recommends using employment density as the best demand indicator for nonresidential demand for library services. Employment density is highest for office development and lowest for industrial development. Commercial development, such as a shopping center, and institutional development fall between the other two categories. This ranking of employment densities is consistent with the relative demand for library services from nonresidential development.

SERVICE AREA

Apache Junction provides library access within the city limits; therefore, there is a single service area for the library facilities IIP.

Figure L2: Library Facilities Service Area



Ratio of Service Unit to Development Unit

ARS § 9-463.05(E)(4) requires:

> *"A table establishing the specific level or quantity of use, consumption, generation or discharge of a service unit for each category of necessary public services or facility expansions and an equivalency or conversion table establishing the ratio of a service unit to various types of land uses, including residential, commercial and industrial."*

Figure L3 displays the demand indicators for residential and nonresidential land uses. For residential development, the table displays the number of persons per household. For nonresidential development, the table displays the number of jobs per thousand square feet of floor area.

Figure L3: Ratio of Service Unit to Development Unit

Residential Development	
Development Type	Persons per Household[1]
Single Family	2.37
Multi-Family	1.86
Recreational Vehicle	1.83

Nonresidential Development	
Development Type	Jobs per 1,000 Sq Ft[1]
Industrial	1.57
Commercial	2.12
Office & Other Services	3.26
Institutional	2.86
Lodging (per room)	0.56
Assisted Living (per bed)	0.61

1. See Land Use Assumptions

Analysis of Capacity, Usage, and Costs of Existing Public Services

ARS § 9-463.05(E)(1) requires:

> *"A description of the existing necessary public services in the service area and the costs to upgrade, update, improve, expand, correct or replace those necessary public services to meet existing needs and usage and stricter safety, efficiency, environmental or regulatory standards, which shall be prepared by qualified professionals licensed in this state, as applicable."*

ARS § 9-463.05(E)(2) requires:

> *"An analysis of the total capacity, the level of current usage and commitments for usage of capacity of the existing necessary public services, which shall be prepared by qualified professionals licensed in this state, as applicable."*

Library Facilities – Incremental Expansion

Existing Level of Service

Apache Junction currently provides 31,444 square feet of library facilities, and Apache Junction plans to construct additional library facilities to serve future development. To allocate the proportionate share of demand for library facilities to residential and nonresidential development, this analysis uses proportionate share shown in Figure L1. Apache Junction's existing level of service for residential development is 0.6900 square feet per person (31,444 square feet X 97 percent residential share / 44,205 persons). The nonresidential level of service is 0.1418 square feet per job (31,444 square feet X three percent nonresidential share / 6,651 jobs).

Figure L4: Existing Level of Service

Level-of-Service (LOS) Standards	
Existing Square Feet	31,444
Residential	
Residential Share	97%
2021 Peak Population	44,205
Square Feet per Person	0.6900
Nonresidential	
Nonresidential Share	3%
2021 Jobs	6,651
Square Feet per Job	0.1418

Source: Apache Junction Public Library

If Apache Junction maintains its existing level of service over the next 10 years, future development will demand 21,429 square feet of library facilities. The Enabling Legislation limits library facilities to "ten thousand square feet that provide a direct benefit to development." To comply with the Enabling Legislation, Apache Junction will maintain a lower, adjusted level of service as discussed on the next page.

Figure L5: Projected Demand

Demand for Library Facilities					
Year	Peak Population	Jobs	Square Feet		
			Residential	Nonresidential	Total
2021	44,205	6,651	30,500.7	943.3	31,444.0
2022	44,667	6,947	30,819.3	985.4	31,804.7
2023	47,334	7,244	32,659.8	1,027.5	33,687.2
2024	50,729	7,540	35,001.9	1,069.5	36,071.4
2025	54,123	7,837	37,344.0	1,111.6	38,455.6
2026	57,516	8,276	39,684.5	1,173.8	40,858.3
2027	60,908	8,714	42,025.0	1,236.0	43,261.0
2028	64,300	9,153	44,365.5	1,298.2	45,663.7
2029	67,692	9,591	46,706.0	1,360.4	48,066.4
2030	71,084	10,030	49,046.5	1,422.6	50,469.1
2031	74,476	10,479	51,387.0	1,486.3	52,873.4
10-Yr Increase	30,271	3,828	20,886.3	543.0	21,429.4

Adjusted Level of Service

The Enabling Legislation limits library facilities to "ten thousand square feet that provide a direct benefit to development." To comply with the Enabling Legislation, Apache Junction plans to construct additional library facilities of 10,000 square feet or less to serve future development. Based on projected residential growth of approximately 11,000 housing units in Superstition Vistas over the next 10 years, Apache Junction plans to construct 10,000 square feet of library facilities to serve future development in Superstition Vistas. If Apache Junction maintains its existing level of service, Superstition Vistas will demand approximately 17,800 square feet of library facilities. Apache Junction will use an adjustment factor of approximately 56 percent (10,000 square feet / 17,800 square feet) to calculate the adjusted level of service, and Apache Junction will maintain the adjusted level of service throughout the library facilities service area.

To allocate the proportionate share of demand for library facilities to residential and nonresidential development, this analysis uses proportionate share shown in Figure L1. Apache Junction's adjusted level of service for residential development is 0.3864 square feet per person (17,608 adjusted square feet X 97 percent residential share / 44,205 persons). The nonresidential level of service is 0.0794 square feet per job (17,608 adjusted square feet X three percent nonresidential share / 6,651 jobs).

Apache Junction provided a construction cost of $600 per square foot. For library facilities, the cost is $231.82 per person (0.3864 square feet per person X $600 per square foot) and $47.66 per job (0.0794 square feet per job X $600 per square foot).

Figure L6: Adjusted Level of Service

Cost Factors	
Library Cost	$6,000,000
Library Square Feet	10,000
Cost per Square Foot	$600

Level-of-Service (LOS) Standards	
Total Square Feet	31,444
LOS Adjustment	56%
Adjusted Square Feet	17,608
Residential	
Residential Share	97%
2021 Peak Population	44,205
Square Feet per Person	0.3864
Cost per Person	$231.82
Nonresidential	
Nonresidential Share	3%
2021 Jobs	6,651
Square Feet per Job	0.0794
Cost per Job	$47.66

Source: Apache Junction Public Library

Development Fee Report – Plan-Based

The cost to prepare the library facilities IIP and related development fee report totals $5,900. Apache Junction plans to update its report every five years. Based on this cost, proportionate share, and five-year projections of future development from the *Land Use Assumptions* document, the cost is $0.43 per person and $0.11 per job.

Figure L7: IIP and Development Fee Report

Necessary Public Service	Cost	Proportionate Share		Service Unit	5-Year Change	Cost per Service Unit
Library	$5,900	Residential	97%	Peak Population	13,310	$0.43
		Nonresidential	3%	Jobs	1,625	$0.11
Parks and Recreational	$15,100	Residential	97%	Peak Population	2,314	$6.33
		Nonresidential	3%	Jobs	1,468	$0.31
Police	$10,000	Residential	80%	Peak Population	13,310	$0.60
		Nonresidential	20%	Vehicle Trips	5,350	$0.37
Street	$18,720	All Development	100%	VMT	15,204	$1.23
Total	$49,720					

Projected Demand for Services and Costs

ARS § 9-463.05(E)(5) requires:

> *"The total number of projected service units necessitated by and attributable to new development in the service area based on the approved land use assumptions and calculated pursuant to generally accepted engineering and planning criteria."*

ARS § 9-463.05(E)(6) requires:

> *"The projected demand for necessary public services or facility expansions required by new service units for a period not to exceed ten years."*

As shown in the *Land Use Assumptions* document, Apache Junction's population is expected to increase by 30,271 persons and employment is expected to increase by 3,828 jobs over the next 10 years. To maintain the adjusted level of service, Apache Junction will need to construct 12,000 square feet of library facilities over the next 10 years. The following page includes a more detailed projection of demand for services and costs for the library facilities IIP.

Library Facilities – Incremental Expansion

Apache Junction plans to maintain its adjusted level of service for library facilities over the next 10 years. Based on a projected population increase of 30,271 persons, future residential development demands an additional 11,696 square feet of library facilities (30,271 additional persons X 0.3864 adjusted square feet per person). With projected nonresidential growth of 3,828 jobs, future nonresidential development demands an additional 304 square feet of library facilities (3,828 additional jobs X 0.0794 adjusted square feet per job). Future development demands 12,000 square feet of library facilities at a cost of $7,200,000 (12,000 square feet X $600 per square foot). Apache Junction plans to construct 10,000 square feet of library facilities to serve future development in Superstition Vistas, and it will construct additional library facilities as needed in the remainder of the library facilities service area.

Figure L8: Projected Demand

Type of Infrastructure	Level of Service	Demand Unit	Cost per Unit
Library Facilities	0.3864 Square Feet	per Person	$600
	0.0794 Square Feet	per Job	

Demand for Library Facilities					
Year	Peak Population	Jobs	Square Feet		
			Residential	Nonresidential	Total
2021	44,205	6,651	17,079.8	528.2	17,608.0
2022	44,667	6,947	17,258.2	551.8	17,810.0
2023	47,334	7,244	18,288.8	575.4	18,864.2
2024	50,729	7,540	19,600.4	598.9	20,199.3
2025	54,123	7,837	20,911.9	622.5	21,534.4
2026	57,516	8,276	22,222.5	657.3	22,879.8
2027	60,908	8,714	23,533.2	692.1	24,225.3
2028	64,300	9,153	24,843.8	727.0	25,570.8
2029	67,692	9,591	26,154.4	761.8	26,916.2
2030	71,084	10,030	27,465.1	796.6	28,261.7
2031	74,476	10,479	28,775.7	832.3	29,608.0
10-Yr Increase	30,271	3,828	11,695.9	304.1	12,000.0

Growth-Related Expenditures	$7,017,540	$182,460	$7,200,000

LIBRARY FACILITIES DEVELOPMENT FEES

Revenue Credit/Offset

A revenue credit/offset is not necessary for library facilities development fees, because costs generated by projected development exceed revenues generated by projected development. Appendix A contains the forecast of revenues required by Arizona's Enabling Legislation (ARS § 9-463.05(E)(7)).

Library Facilities Development Fees

Infrastructure components and cost factors for library facilities are summarized in the upper portion of Figure L9. The cost per service unit for library facilities is $232.25 per person and $47.77 per job.

Library facilities development fees for residential development are assessed according to the number of persons per household. The fee of $550 for a single-family unit is calculated using a cost per service unit of $232.25 per person multiplied by a demand unit of 2.37 persons per household.

Nonresidential development fees are calculated using jobs as the service unit. The fee of $0.07 per square foot of industrial development is derived from a cost per service unit of $47.77 per job, multiplied by a demand unit of 1.57 jobs per 1,000 square feet, divided by 1,000. The fee of $27 per room of lodging development is derived from a cost per service unit of $47.77 per job multiplied by a demand unit of 0.56 jobs per room.

Figure L9: Library Facilities Development Fees

Fee Component	Cost per Person	Cost per Job
Library Facilities	$231.82	$47.66
Development Fee Report	$0.43	$0.11
Total	$232.25	$47.77

Residential Fees per Unit				
Development Type	Persons per Household[1]	Proposed Fees	Current Fees	Difference
Single Family	2.37	$550	$1,004	($454)
Multi-Family	1.86	$432	$979	($547)
Recreational Vehicle	1.83	$425	$760	($335)

Nonresidential Fees per Square Foot				
Development Type	Jobs per 1,000 Sq Ft[1]	Proposed Fees	Current Fees	Difference
Industrial	1.57	$0.07	$0.12	($0.05)
Commercial	2.12	$0.10	$0.17	($0.07)
Office & Other Services	3.26	$0.16	$0.22	($0.06)
Institutional	2.86	$0.14	$0.22	($0.08)
Lodging (per room)	0.56	$27	N/A	N/A
Assisted Living (per bed)	0.61	$29	N/A	N/A

1. See Land Use Assumptions

LIBRARY FACILITIES DEVELOPMENT FEE REVENUE

Appendix A contains the forecast of revenues required by Arizona's enabling legislation (ARS § 9-463.05(E)(7)). In accordance with state law, this report includes an IIP for library facilities needed to accommodate future development. Projected fee revenue shown in Figure L10 is based on the development projections in the *Land Use Assumptions* document and the updated library facilities development fees. If development occurs at a more rapid rate than projected, the demand for infrastructure will increase and development fee revenue will increase at a corresponding rate. If development occurs at a slower rate than projected, the demand for infrastructure will also decrease, along with development fee revenue. Projected development fee revenue equals $7,205,695, and projected expenditures equal $7,205,900.

Figure L10: Library Facilities Development Fee Revenue

Fee Component	Growth Share	Existing Share	Total
Library Facilities	$7,200,000	$0	$7,200,000
Development Fee Report	$5,900	$0	$5,900
Total	$7,205,900	$0	$7,205,900

Year		Single Family $550 per unit	Multi-Family $432 per unit	Industrial $0.07 per sq ft	Commercial $0.10 per sq ft	Office & Other $0.16 per sq ft	Institutional $0.14 per sq ft
		Hsg Unit	Hsg Unit	KSF	KSF	KSF	KSF
Base	2021	14,919	1,712	623	1,160	587	454
Year 1	2022	15,033	1,815	679	1,207	616	459
Year 2	2023	16,040	1,966	735	1,255	644	464
Year 3	2024	17,342	2,132	791	1,302	673	469
Year 4	2025	18,644	2,298	847	1,350	702	475
Year 5	2026	19,945	2,464	895	1,474	727	481
Year 6	2027	21,246	2,630	943	1,598	752	488
Year 7	2028	22,547	2,796	991	1,721	777	494
Year 8	2029	23,848	2,962	1,039	1,845	802	501
Year 9	2030	25,149	3,128	1,087	1,969	827	508
Year 10	2031	26,450	3,294	1,108	2,081	875	515
10-Year Increase		11,531	1,582	485	921	288	61
Projected Revenue		$6,340,408	$682,736	$36,338	$93,158	$44,763	$8,291

Projected Fee Revenue	$7,205,695
Total Expenditures	$7,205,900

PARKS AND RECREATIONAL FACILITIES IIP

ARS § 9-463.05 (T)(7)(g) defines the facilities and assets that can be included in the Parks and Recreational Facilities IIP:

> *"Neighborhood parks and recreational facilities on real property up to thirty acres in area, or parks and recreational facilities larger than thirty acres if the facilities provide a direct benefit to the development. Park and recreational facilities do not include vehicles, equipment or that portion of any facility that is used for amusement parks, aquariums, aquatic centers, auditoriums, arenas, arts and cultural facilities, bandstand and orchestra facilities, bathhouses, boathouses, clubhouses, community centers greater than three thousand square feet in floor area, environmental education centers, equestrian facilities, golf course facilities, greenhouses, lakes, museums, theme parks, water reclamation or riparian areas, wetlands, zoo facilities or similar recreational facilities, but may include swimming pools."*

The Parks and Recreational Facilities IIP includes components for park amenities, trails, and the cost of preparing the Parks and Recreational Facilities IIP and related Development Fee Report. The incremental expansion methodology is used for park amenities. The plan-based methodology is used for trails and the Development Fee Report.

Proportionate Share

ARS § 9-463.05 (B)(3) states that the development fee shall not exceed a proportionate share of the cost of necessary public services needed to accommodate new development. The Parks and Recreational Facilities IIP and development fees allocate the cost of necessary public services between residential and nonresidential based on functional population. The Arizona Office of Economic Opportunity estimates Apache Junction's 2018 population equal to 40,611 persons. Based on 2018 estimates from the U.S. Census Bureau's OnTheMap web application, 6,333 inflow commuters traveled to Apache Junction for work in 2018. The proportionate share is based on cumulative impact hours per year with a resident potentially impacting parks and recreational facilities 8,170 hours per year and an inflow commuter potentially impacting parks and recreational facilities 1,600 hours per year. For parks and recreational facilities, residential development generates 97 percent of demand and nonresidential development generates the remaining three percent of demand.

Figure PR1: Proportionate Share

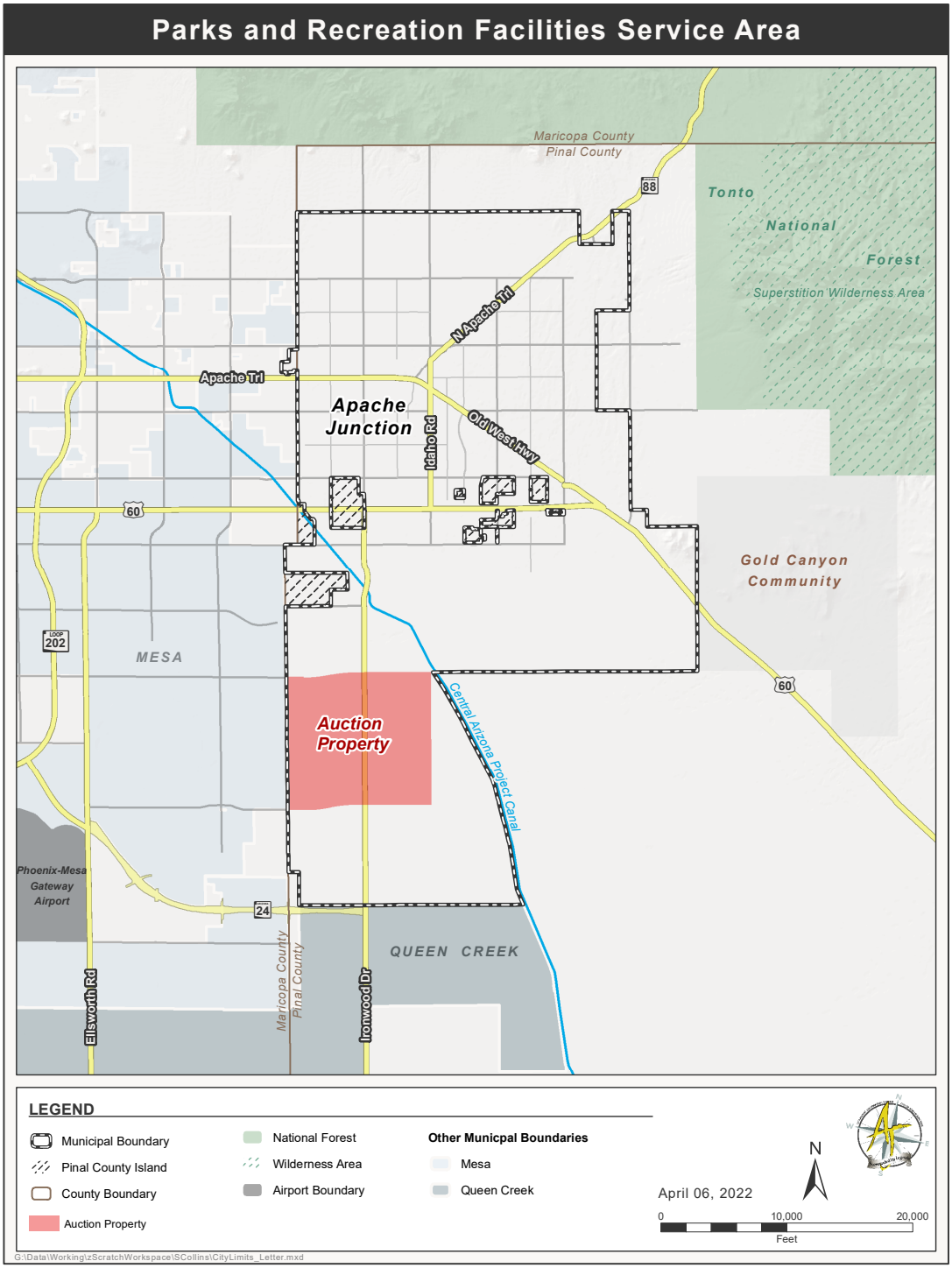
Development Type	Service Unit	Impact Hours per Year	Cumulative Impact Hours per Year	Proportionate Share
Residential	40,611 residents[1]	8,760	355,752,360	97%
Nonresidential	6,333 inflow commuters[2]	1,600	10,132,800	3%
Total			365,885,160	100%

1. Arizona Office of Economic Opportunity, 2018
2. U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics, Version 6.8, 2018
Residential Impact: 24 hours per day X 365 days per year
Nonresidential Impact: 8 hours per day X 4 days per week X 50 weeks per year

Service Area

Apache Junction plans to provide a uniform level of service and equal access to parks and recreational facilities within the city; therefore, there is a single service area for the Parks and Recreational Facilities IIP. As defined by the Development Agreement for Superstition Vistas (October 2021), Apache Junction will not assess parks and recreational facilities fees to development within the "Auction Property."

Figure PR2: Parks and Recreational Facilities Service Area



Ratio of Service Unit to Development Unit

ARS § 9-463.05(E)(4) requires:

> *"A table establishing the specific level or quantity of use, consumption, generation or discharge of a service unit for each category of necessary public services or facility expansions and an equivalency or conversion table establishing the ratio of a service unit to various types of land uses, including residential, commercial and industrial."*

Figure PR3 displays the demand indicators for residential and nonresidential land uses. For residential development, the table displays the number of persons per household. For nonresidential development, the table displays the number of employees per thousand square feet of floor area.

Figure PR3: Ratio of Service Unit to Development Unit

Residential Development	
Development Type	Persons per Household[1]
Single Family	2.37
Multi-Family	1.86
Recreational Vehicle	1.83

Nonresidential Development	
Development Type	Jobs per 1,000 Sq Ft[1]
Industrial	1.57
Commercial	2.12
Office & Other Services	3.26
Institutional	2.86
Lodging (per room)	0.56
Assisted Living (per bed)	0.61

1. See Land Use Assumptions

Analysis of Capacity, Usage, and Costs of Existing Public Services

ARS § 9-463.05(E)(1) requires:

> *"A description of the existing necessary public services in the service area and the costs to upgrade, update, improve, expand, correct or replace those necessary public services to meet existing needs and usage and stricter safety, efficiency, environmental or regulatory standards, which shall be prepared by qualified professionals licensed in this state, as applicable."*

ARS § 9-463.05(E)(2) requires:

> *"An analysis of the total capacity, the level of current usage and commitments for usage of capacity of the existing necessary public services, which shall be prepared by qualified professionals licensed in this state, as applicable."*

Park Amenities – Incremental Expansion

Apache Junction currently provides 120 park amenities in its existing parks, and the city plans to construct additional park amenities to serve future development. Based on costs provided by Apache Junction's Parks and Recreation Department to construct recent park amenities, the total cost of Apache Junction's existing park amenities is $25,942,750. The weighted average cost is $216,190 per park amenity ($25,942,750 total cost / 120 park amenities).

Figure PR4: Existing Park Amenities

Description	Units	Unit Cost	Total Cost
Ball Fields	7	$862,500	$6,037,500
Basketball Courts	3	$200,000	$600,000
Concession/Restrooms	7	$375,000	$2,625,000
Dog Park	1	$1,200,000	$1,200,000
Horseshoe Pits	5	$2,500	$12,500
Parking Lots	13	$232,000	$3,016,000
Pickle Ball Courts	4	$100,000	$400,000
Playgrounds	4	$625,000	$2,500,000
Pool	1	$2,218,000	$2,218,000
Racquetball Courts	4	$100,000	$400,000
Ramadas (large group)	9	$93,750	$843,750
Ramadas (single)	3	$15,000	$45,000
Ramadas (small group)	14	$56,250	$787,500
Security Fencing	25	$26,400	$660,000
Shuffleboard Courts	3	$20,000	$60,000
Skate Park	1	$500,000	$500,000
Soccer/Football Fields	3	$812,500	$2,437,500
Splashplad	1	$100,000	$100,000
Tennis Courts	8	$150,000	$1,200,000
Volleyball Courts	4	$75,000	$300,000
Total	120	$216,190	$25,942,750

To allocate the proportionate share of demand for park amenities to residential and nonresidential development, this analysis uses the proportionate share shown in Figure PR1. Apache Junction's existing LOS for residential development is 0.0026 amenities per person (120 amenities X 97 percent residential share / 44,205 persons). For nonresidential development, the existing LOS is 0.0005 amenities per job (120 amenities X three percent nonresidential share / 6,651 jobs).

Based on the total cost of Apache Junction's existing park amenities, the weighted average cost for new park amenities is $216,190 per amenity ($25,942,750 total cost / 120 amenities). Apache Junction may use development fees to construct additional park amenities similar to its existing inventory. For park amenities, the cost is $569.26 per person (0.0026 amenities per person X $216,190 per amenity) and $117.02 per job (0.0005 amenities per job X $216,190 per amenity).

Figure PR5: Existing Level of Service

Cost Factors	
Weighted Average per Unit	$216,190

Level-of-Service (LOS) Standards	
Existing Units	120
Residential	
Residential Share	97%
2021 Peak Population	44,205
Units per Person	0.0026
Cost per Person	$569.26
Nonresidential	
Nonresidential Share	3%
2021 Jobs	6,651
Units per Job	0.0005
Cost per Job	$117.02

Source: Apache Junction Parks and Recreation Department

Trails – Plan-Based

Apache Junction currently provides 20.6 miles of trails, and the city plans to construct additional trails to serve future development. To allocate the proportionate share of demand for trails to residential and nonresidential development, this analysis uses the proportionate share shown in Figure PR1. Apache Junction's existing LOS for residential development is 0.0005 miles per person (20.6 miles X 97 percent residential share / 44,205 persons). For nonresidential development, the existing LOS is 0.0001 miles per job (20.6 miles X three percent nonresidential share / 6,651 jobs).

Apache Junction plans to increase the existing level of service by constructing 14.0 miles of trails shown in Figure PR6. To ensure future development does not pay for a higher level of service than what is provided to existing development, this analysis allocates the 34.6 miles of planned trails in 2031 to all development in 2031. The planned LOS for residential development is 0.0007 miles per person (34.6 miles X 97 percent residential share / 48,825 persons). For nonresidential development, the planned LOS is 0.0001 miles per job (34.6 miles X three percent nonresidential share / 9,538 jobs).

Based on the planned cost estimates provided by Apache Junction's Parks and Recreation Department, the weighted average cost for trails is $210,714 per mile ($2,950,000 total cost / 14 miles). For trails, the cost is $144.84 per person (0.0007 miles per person X $210,714 per mile) and $22.93 per job (0.0001 miles per job X $210,714 per mile).

Figure PR6: Planned Level of Service

Description	Miles	Unit Cost	Total Cost
Superstition Mtn to Goldfield - Paved	4.0	$550,000	$2,200,000
CAP Trail - Unpaved	10.0	$75,000	$750,000
Total	14.0	$210,714	$2,950,000

Cost Factors	
Weighted Average per Mile	$210,714

Level-of-Service (LOS) Standards	
2021 Existing Trails	20.6
Additional Trails	14.0
2031 Planned Trails	34.6
Residential	
Residential Share	97%
2031 Peak Population	48,825
Miles per Person	0.0007
Cost per Person	$144.84
Nonresidential	
Nonresidential Share	3%
2031 Jobs	9,538
Miles per Job	0.0001
Cost per Job	$22.93

Source: Apache Junction Parks and Recreation Department

Development Fee Report – Plan-Based

The cost to prepare the Parks and Recreational Facilities IIP and development fees totals $15,100. Apache Junction plans to update its report every five years. Based on this cost, proportionate share, and five-year projections of new development from the *Land Use Assumptions* document, the cost is $6.33 per person and $0.31 per job.

Figure PR7: IIP and Development Fee Report

Necessary Public Service	Cost	Proportionate Share		Service Unit	5-Year Change	Cost per Service Unit
Library	$5,900	Residential	97%	Peak Population	13,310	$0.43
		Nonresidential	3%	Jobs	1,625	$0.11
Parks and Recreational	$15,100	Residential	97%	Peak Population	2,314	$6.33
		Nonresidential	3%	Jobs	1,468	$0.31
Police	$10,000	Residential	80%	Peak Population	13,310	$0.60
		Nonresidential	20%	Vehicle Trips	5,350	$0.37
Street	$18,720	All Development	100%	VMT	15,204	$1.23
Total	$49,720					

Projected Demand for Services and Costs

ARS § 9-463.05(E)(5) requires:

> *"The total number of projected service units necessitated by and attributable to new development in the service area based on the approved land use assumptions and calculated pursuant to generally accepted engineering and planning criteria."*

ARS § 9-463.05(E)(6) requires:

> *"The projected demand for necessary public services or facility expansions required by new service units for a period not to exceed ten years."*

As shown in the *Land Use Assumptions* document, Apache Junction's population in the parks and recreational facilities service area is expected to increase by 4,620 persons and employment is expected to increase by 2,887 jobs over the next 10 years. To maintain the existing levels of service, Apache Junction will need to construct approximately 14 park amenities over the next 10 years. To reach the planned level of service for trails, Apache Junction will need to construct 3.5 additional miles of trails over the next 10 years. The following pages include a more detailed projection of demand for services and costs for the Parks and Recreational Facilities IIP.

Park Amenities – Incremental Expansion

Apache Junction plans to maintain its existing level of service for park amenities over the next 10 years. Based on a projected population increase of 4,620 persons, future residential development demands an additional 12.2 park amenities (4,620 additional persons X 0.0026 amenities per person). With projected employment growth of 2,887 jobs, future nonresidential development demands an additional 1.6 park amenities (2,887 additional jobs X 0.0005 amenities per job). Future development demands 13.7 additional park amenities at a cost of $2,967,918 (13.7 amenities X $216,190 per amenity).

Figure PR8: Projected Demand

Type of Infrastructure	Level of Service	Demand Unit	Cost per Unit
Park Amenities	0.0026 Units	per Person	$216,190
	0.0005 Units	per Job	

Demand for Park Amenities					
Year	Peak Population	Jobs	Units		
			Residential	Nonresidential	Total
2021	44,205	6,651	116.4	3.6	120.0
2022	44,667	6,947	117.6	3.8	121.4
2023	45,131	7,244	118.8	3.9	122.8
2024	45,594	7,540	120.1	4.1	124.1
2025	46,058	7,837	121.3	4.2	125.5
2026	46,519	8,119	122.5	4.4	126.9
2027	46,980	8,400	123.7	4.5	128.3
2028	47,442	8,682	124.9	4.7	129.6
2029	47,903	8,963	126.1	4.9	131.0
2030	48,364	9,245	127.4	5.0	132.4
2031	48,825	9,538	128.6	5.2	133.7
10-Yr Increase	4,620	2,887	12.2	1.6	13.7

Growth-Related Expenditures	$2,630,069	$337,849	$2,967,918

Trails – Incremental Expansion

Apache Junction plans to increase its existing level of service for trails over the next 10 years. Based on a projected population increase of 4,620 persons, future residential development demands an additional 3.2 miles of trails (4,620 additional persons X 0.0007 miles per person). With projected employment growth of 2,887 jobs, future nonresidential development demands an additional 0.3 miles of trails (2,887 additional jobs X 0.0001 miles per job). Future development demands approximately 3.5 miles of trails at a cost of $735,396 (3.5 miles X $210,714 per mile).

Existing residential development demands 30.4 miles of trails (44,205 persons X 0.0007 miles per person) and existing nonresidential development demands approximately 0.7 miles of trails (6,651 jobs X 0.0001 miles per job). Since Apache Junction currently provides 20.6 miles of trails, existing development currently demands an additional 10.5 miles of trails (31.1 miles demanded by existing development – 20.6 miles available to existing development) to reach the planned level of service. Existing development's share of the planned trails is approximately $2,214,604 (10.5 miles of trails X $210,714 per mile).

Figure PR9: Projected Demand

Type of Infrastructure	Level of Service	Demand Unit	Cost per Unit
Trails	0.0007 Miles	per Person	$210,714
	0.0001 Miles	per Job	

Demand for Trails					
Year	Peak Population	Jobs	Miles		
			Residential	Nonresidential	Total
2021	44,205	6,651	30.4	0.7	31.1
2022	44,667	6,947	30.7	0.8	31.5
2023	45,131	7,244	31.0	0.8	31.8
2024	45,594	7,540	31.3	0.8	32.2
2025	46,058	7,837	31.7	0.9	32.5
2026	46,519	8,119	32.0	0.9	32.9
2027	46,980	8,400	32.3	0.9	33.2
2028	47,442	8,682	32.6	0.9	33.6
2029	47,903	8,963	32.9	1.0	33.9
2030	48,364	9,245	33.2	1.0	34.3
2031	48,825	9,538	33.6	1.0	34.6
10-Yr Increase	4,620	2,887	3.2	0.3	3.5

Growth-Related Expenditures	$669,190	$66,206	$735,396
Existing Development Share	$2,192,310	$22,294	$2,214,604
Total	$2,861,500	$88,500	$2,950,000

PARKS AND RECREATIONAL FACILITIES DEVELOPMENT FEES

Revenue Credit/Offset

A revenue credit/offset is not necessary for parks and recreational facilities fees, because costs generated by projected development exceed revenues generated by projected development. Appendix A contains the forecast of revenues required by Arizona's Enabling Legislation (ARS § 9-463.05(E)(7)).

Parks and Recreational Facilities Development Fees

Infrastructure components and cost factors for parks and recreational facilities are summarized in the upper portion of Figure PR10. The cost per service unit is $720.43 per person and $140.26 per job.

Parks and recreational facilities fees for residential development are assessed according to the number of persons per household. The fee of $1,707 for a single-family unit is calculated using a cost per service unit of $720.43 per person multiplied by a demand unit of 2.37 persons per household.

Nonresidential development fees are calculated using jobs as the service unit. The fee of $0.22 per square foot of industrial development is derived from a cost per service unit of $140.26 per job, multiplied by a demand unit of 1.57 jobs per 1,000 square feet, divided by 1,000. The fee of $79 per room of lodging development is derived from a cost per service unit of $140.26 per job multiplied by a demand unit of 0.56 jobs per room.

Figure PR10: Parks and Recreational Facilities Development Fees

Fee Component	Cost per Person	Cost per Job
Park Amenities	$569.26	$117.02
Trails	$144.84	$22.93
Development Fee Report	$6.33	$0.31
Total	$720.43	$140.26

Residential Fees per Unit				
Development Type	Persons per Household[1]	Proposed Fees	Current Fees	Difference
Single Family	2.37	$1,707	$1,168	$539
Multi-Family	1.86	$1,340	$1,138	$202
Recreational Vehicle	1.83	$1,318	$883	$435

Nonresidential Fees per Square Foot				
Development Type	Jobs per 1,000 Sq Ft[1]	Proposed Fees	Current Fees	Difference
Industrial	1.57	$0.22	$0.03	$0.19
Commercial	2.12	$0.30	$0.18	$0.12
Office & Other Services	3.26	$0.46	$0.23	$0.23
Institutional	2.86	$0.40	$0.23	$0.17
Lodging (per room)	0.56	$79	N/A	N/A
Assisted Living (per bed)	0.61	$86	N/A	N/A

1. See Land Use Assumptions

PARKS AND RECREATIONAL FACILITIES DEVELOPMENT FEE REVENUE

Appendix A contains the forecast of revenues required by Arizona's Enabling Legislation (ARS § 9-463.05(E)(7)). In accordance with state law, this report includes an IIP for parks and recreational facilities needed to accommodate new development. Projected fee revenue shown in Figure PR11 is based on the development projections in the *Land Use Assumptions* document and the updated development fees for parks and recreational facilities shown in Figure PR10. If development occurs at a more rapid rate than projected, the demand for infrastructure will increase and development fee revenue will increase at a corresponding rate. If development occurs at a slower rate than projected, the demand for infrastructure will also decrease, along with development fee revenue. Projected development fee revenue equals $3,718,296, and projected expenditures equal $5,933,018. Existing development's share of $2,214,604 may not be funded with development fees.

Figure PR11: Parks and Recreational Facilities Development Fee Revenue

Fee Component	Growth Share	Existing Share	Total
Park Amenities	$2,967,918	$0	$2,967,918
Trails	$735,396	$2,214,604	$2,950,000
Development Fee Report	$15,100	$0	$15,100
Total	$3,718,415	$2,214,604	$5,933,018

		Single Family $1,707 per unit	Multi-Family $1,340 per unit	Industrial $0.22 per sq ft	Commercial $0.30 per sq ft	Office & Other $0.46 per sq ft	Institutional $0.40 per sq ft
Year		Hsg Unit	Hsg Unit	KSF	KSF	KSF	KSF
Base	2021	14,919	1,712	623	1,160	587	454
Year 1	2022	15,033	1,815	679	1,207	616	459
Year 2	2023	15,147	1,919	735	1,255	644	464
Year 3	2024	15,261	2,023	791	1,302	673	469
Year 4	2025	15,375	2,127	847	1,350	702	475
Year 5	2026	15,488	2,231	895	1,400	727	481
Year 6	2027	15,601	2,335	943	1,450	752	488
Year 7	2028	15,714	2,439	991	1,500	777	494
Year 8	2029	15,827	2,543	1,039	1,550	802	501
Year 9	2030	15,940	2,647	1,087	1,600	827	508
Year 10	2031	16,053	2,751	1,108	1,637	875	515
10-Year Increase		1,134	1,039	485	478	288	61
Projected Revenue		$1,927,737	$1,386,137	$106,700	$141,941	$131,438	$24,344

Projected Fee Revenue	$3,718,296
Total Expenditures	$5,933,018

POLICE FACILITIES IIP

ARS § 9-463.05 (T)(7)(f) defines the facilities and assets that can be included in the Police Facilities IIP:

> *"Fire and police facilities, including all appurtenances, equipment and vehicles. Fire and police facilities do not include a facility or portion of a facility that is used to replace services that were once provided elsewhere in the municipality, vehicles and equipment used to provide administrative services, helicopters or airplanes or a facility that is used for training firefighters or officers from more than one station or substation."*

The Police Facilities IIP includes components for police facilities, police vehicles, communication equipment, and the cost of preparing the Police Facilities IIP and related Development Fee Report. The incremental expansion methodology, based on the current level of service, is used for police vehicles and communication equipment. The plan-based methodology is used for police facilities and the Development Fee Report.

Proportionate Share

ARS § 9-463.05 (B)(3) states that the development fee shall not exceed a proportionate share of the cost of necessary public services needed to accommodate new development. The Police Facilities IIP and development fees will allocate the cost of police services between residential and nonresidential based on functional population. Based on 2018 estimates from the U.S. Census Bureau's OnTheMap web application, residential development accounts for approximately 80 percent of functional population and nonresidential development accounts for the remaining 20 percent.

Figure P1: Proportionate Share

Demand Units in 2018					
Residential				Demand Hours/Day	Person Hours
	Population	40,611			
	Residents Not Working		25,882	20	517,640
	Employed Residents		14,729		
	Employed in Apache Junction		1,207	14	16,898
	Employed outside Apache Junction		13,522	14	189,308
				Residential Subtotal	723,846
				Residential Share	**80%**
Nonresidential					
	Non-working Residents		25,882	4	103,528
	Jobs Located in Apache Junction		7,540		
	Residents Employed in Apache Junction		1,207	10	12,070
	Non-Resident Workers (inflow commuters)		6,333	10	63,330
				Nonresidential Subtotal	178,928
				Nonresidential Share	**20%**
				Total	902,774

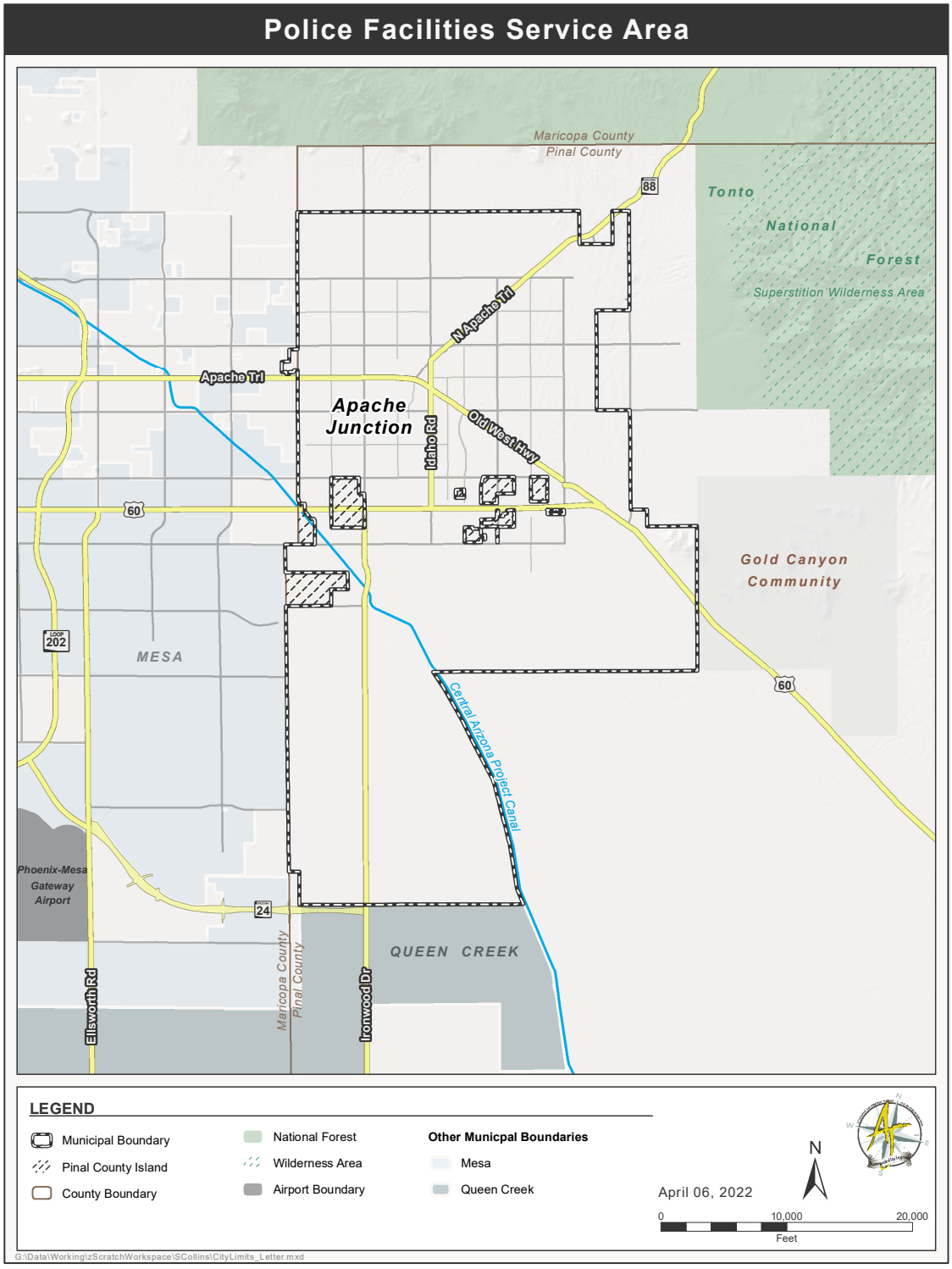
Source: Arizona Office of Economic Opportunity (population), U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics, Version 6.8 (employment).

The proportionate share of costs attributable to residential development will be allocated to population and then converted to an appropriate amount by type of housing unit. Since nonresidential calls for service were unavailable by specific nonresidential use, TischlerBise recommends using average weekday vehicle trips as the best demand indicator for nonresidential demand for police services. Trip generation rates are highest for commercial development, such as a shopping center, and lowest for industrial development. Office and institutional trip rates fall between the other two categories. This ranking of trip rates is consistent with the relative demand for police services from nonresidential development.

Service Area

Apache Junction's Police Department strives to provide a uniform response time within the city limits; therefore, there is a single service area for the Police Facilities IIP.

Figure P2: Police Facilities Service Area



Ratio of Service Unit to Development Unit

ARS § 9-463.05(E)(4) requires:

> *"A table establishing the specific level or quantity of use, consumption, generation or discharge of a service unit for each category of necessary public services or facility expansions and an equivalency or conversion table establishing the ratio of a service unit to various types of land uses, including residential, commercial and industrial."*

Figure P3 displays the demand indicators for residential and nonresidential land uses. For residential development, the table displays the persons per household. For nonresidential development, the table displays the number of average weekday vehicle trips generated per thousand square feet of floor area.

Figure P3: Ratio of Service Unit to Development Unit

Residential Development	
Development Type	Persons per Household[1]
Single Family	2.37
Multi-Family	1.86
Recreational Vehicle	1.83

Nonresidential Development			
Development Type	AWVTE per 1,000 Sq Ft[1]	Trip Rate Adjustment	AWVT per 1,000 Sq Ft[1]
Industrial	4.87	50%	2.44
Commercial	37.01	33%	12.21
Office & Other Services	10.84	50%	5.42
Institutional	10.77	33%	3.55
Lodging (per room)	7.99	50%	4.00
Assisted Living (per bed)	2.60	50%	1.30

1. See Land Use Assumptions

Analysis of Capacity, Usage, and Costs of Existing Public Services

ARS § 9-463.05(E)(1) requires:

> *"A description of the existing necessary public services in the service area and the costs to upgrade, update, improve, expand, correct or replace those necessary public services to meet existing needs and usage and stricter safety, efficiency, environmental or regulatory standards, which shall be prepared by qualified professionals licensed in this state, as applicable."*

ARS § 9-463.05(E)(2) requires:

> *"An analysis of the total capacity, the level of current usage and commitments for usage of capacity of the existing necessary public services, which shall be prepared by qualified professionals licensed in this state, as applicable."*

Police Facilities – Plan-Based

Apache Junction currently provides 13,000 square feet of police facilities, but this is not sufficient to serve existing development and future development. Apache Junction plans to construct an additional 51,500 square feet of police facilities at a cost of $28,325,000 to serve all development in 2031.

To allocate the proportionate share of demand for police facilities to residential and nonresidential development, this analysis uses functional population outlined in Figure P1. Apache Junction's existing level of service for residential development is 0.2353 square feet per person (13,000 square feet X 80 percent residential share / 44,205 persons). The nonresidential level of service is 0.1270 square feet per vehicle trip (13,000 square feet X 20 percent nonresidential share / 20,477 vehicle trips).

Apache Junction plans to increase the existing level of service by constructing 51,500 square feet of police facilities. To ensure future development does not pay for a higher level of service than what is provided to existing development, this analysis allocates the 64,500 square feet of planned police facilities in 2031 to all development in 2031. The planned LOS for residential development is 0.6928 square feet per person (64,500 square feet X 80 percent residential share / 74,476 persons). For nonresidential development, the planned LOS is 0.3719 square feet per vehicle trip (64,500 square feet X 20 percent nonresidential share / 34,685 vehicle trips).

Based on estimates provided by Apache Junction, the construction cost for future police facilities is $550 per square foot. For police facilities, the cost is $381.06 per person (0.6928 square feet per person X $550 per square foot) and $204.55 per vehicle trip (0.3719 square feet per vehicle trip X $550 per square foot).

Figure P4: Planned Level of Service

Cost Factors	
Planned Facilities Cost	$28,325,000
Cost per Square Foot	$550

Level-of-Service (LOS) Standards	
2021 Square Feet	13,000
Planned Square Feet	51,500
2031 Square Feet (Planned)	64,500
Residential	
Residential Share	80%
2031 Peak Population	74,476
Square Feet per Person	0.6928
Cost per Person	$381.06
Nonresidential	
Nonresidential Share	20%
2031 Vehicle Trips	34,685
Square Feet per Vehicle Trip	0.3719
Cost per Vehicle Trip	$204.55

Source: Apache Junction Police Department

Police Vehicles – Incremental Expansion

Apache Junction has 80 police vehicles with a total cost of $5,948,202, and the city plans to acquire additional police vehicles to serve future development. To allocate the proportionate share of demand for police vehicles to residential and nonresidential development, this analysis uses functional population outlined in Figure P1. Apache Junction's existing level of service for residential development is 0.0014 units per person (80 vehicles X 80 percent residential share / 44,205 persons). The nonresidential level of service is 0.0008 units per vehicle trip (80 vehicles X 20 percent nonresidential share / 20,477 vehicle trips).

Based on the total cost of Apache Junction's existing police vehicles, the weighted average cost for a new police vehicle is $74,353 per vehicle ($5,948,202 total cost / 80 vehicles). Apache Junction may use development fees to acquire additional police vehicles similar to its existing inventory. For police vehicles, the cost is $107.65 per person (0.0014 units per person X $74,353 per vehicle) and $58.10 per vehicle trip (0.0008 units per vehicle trip X $74,353 per vehicle).

Figure P5: Existing Level of Service

Description	Vehicles	Unit Cost	Total Cost
Animal Control Vehicle	2	$51,238	$102,476
Bear Cat G3	1	$350,000	$350,000
Command Van	1	$319,822	$319,822
Jail Vehicle	2	$51,939	$103,878
Motorcycle	4	$51,200	$204,800
Mustang	1	$64,059	$64,059
Patrol Vehicle - Marked	40	$89,302	$3,572,076
Patrol Vehicle - Unmarked	27	$42,100	$1,136,700
Traffic Vehicle	1	$53,342	$53,342
Victim Service Van	1	$41,049	$41,049
Total	80	$74,353	$5,948,202

Cost Factors	
Weighted Average per Vehicle	$74,353

Level-of-Service (LOS) Standards	
Existing Vehicles	80
Residential	
Residential Share	80%
2021 Peak Population	44,205
Vehicles per Person	0.0014
Cost per Person	$107.65
Nonresidential	
Nonresidential Share	20%
2021 Vehicle Trips	20,477
Vehicles per Vehicle Trip	0.0008
Cost per Vehicle Trip	$58.10

Source: Apache Junction Police Department

Communication Equipment – Incremental Expansion

Apache Junction has 170 units of communication equipment with a total cost of $1,617,654, and the city plans to acquire additional units to serve future development. To allocate the proportionate share of demand for communication equipment to residential and nonresidential development, this analysis uses functional population outlined in Figure P1. Apache Junction's existing level of service for residential development is 0.0031 units per person (170 units X 80 percent residential share / 44,205 persons). The nonresidential level of service is 0.0017 units per vehicle trip (170 units X 20 percent nonresidential share / 20,477 vehicle trips).

Based on the total cost of Apache Junction's existing communication equipment, the weighted average cost for a new unit is $9,516 per unit ($1,617,654 total cost / 170 units). Apache Junction may use development fees to acquire additional communication equipment. For communication equipment, the cost is $29.28 per person (0.0031 units per person X $9,516 per unit) and $15.80 per vehicle trip (0.0017 units per vehicle trip X $9,516 per unit).

Figure P6: Existing Level of Service

Description	Units	Unit Cost	Total Cost
Dispatch Consoles	3	$78,500	$235,500
Radio Server Infrastructure	1	$121,000	$121,000
Mobile Radio Equipment	62	$8,767	$543,554
Portable Radios & Mics	104	$6,900	$717,600
Total	170	$9,516	$1,617,654

Cost Factors	
Weighted Average per Unit	$9,516

Level-of-Service (LOS) Standards	
Existing Units	170
Residential	
Residential Share	80%
2021 Peak Population	44,205
Units per Person	0.0031
Cost per Person	$29.28
Nonresidential	
Nonresidential Share	20%
2021 Vehicle Trips	20,477
Units per Vehicle Trip	0.0017
Cost per Vehicle Trip	$15.80

Source: Apache Junction Police Department

Development Fee Report – Plan-Based

The cost to prepare the Police Facilities IIP and related Development Fee Report totals $10,000. Apache Junction plans to update its report every five years. Based on this cost, proportionate share, and five-year projections of new residential and nonresidential development from the *Land Use Assumptions* document, the cost is $0.60 per person and $0.37 per vehicle trip.

Figure P7: IIP and Development Fee Report

Necessary Public Service	Cost	Proportionate Share		Service Unit	5-Year Change	Cost per Service Unit
Library	$5,900	Residential	97%	Peak Population	13,310	$0.43
		Nonresidential	3%	Jobs	1,625	$0.11
Parks and Recreational	$15,100	Residential	97%	Peak Population	2,314	$6.33
		Nonresidential	3%	Jobs	1,468	$0.31
Police	$10,000	Residential	80%	Peak Population	13,310	$0.60
		Nonresidential	20%	Vehicle Trips	5,350	$0.37
Street	$18,720	All Development	100%	VMT	15,204	$1.23
Total	$49,720					

Projected Demand for Services and Costs

ARS § 9-463.05(E)(5) requires:

> *"The total number of projected service units necessitated by and attributable to new development in the service area based on the approved land use assumptions and calculated pursuant to generally accepted engineering and planning criteria."*

ARS § 9-463.05(E)(6) requires:

> *"The projected demand for necessary public services or facility expansions required by new service units for a period not to exceed ten years."*

As shown in the *Land Use Assumptions* document, Apache Junction's population is expected to increase by 30,271 persons and nonresidential vehicle trips generated are expected to increase by 14,209 trips over the next 10 years. To reach the planned level of service for police facilities, Apache Junction will need to construct an additional 51,500 square feet over the next 10 years. To maintain the existing levels of service, Apache Junction will need to acquire approximately 55 police vehicles and approximately 117 units of communication equipment over the next 10 years. The following pages include a more detailed projection of demand for services and costs for the Police Facilities IIP.

Police Facilities – Plan-Based

Apache Junction plans to increase its existing level of service by constructing 51,500 square feet of police facilities over the next 10 years. Based on a projected population increase of 30,271 persons, future residential development demands approximately 20,973 square feet of police facilities (30,271 additional persons X 0.6928 square feet per person). With projected vehicle trip growth of 14,209 vehicle trips, future nonresidential development demands approximately 5,284 square feet of police facilities (14,209 additional vehicle trips X 0.3719 square feet per vehicle trip). Future development demands approximately 26,257 square feet of police facilities at a cost of $14,441,510 (26,257 square feet X $550 per square foot).

Existing residential development demands approximately 30,627 square feet of police facilities (44,205 persons X 0.6928 square feet per person) and existing nonresidential development demands approximately 7,616 square feet of police facilities (20,477 vehicle trips X 0.3719 square feet per job). Since Apache Junction currently provides 13,000 square feet of police facilities, existing development currently demands an additional 25,243 square feet of police facilities (38,243 square feet demanded by existing development – 13,000 square feet available to existing development) to reach the planned level of service. Existing development's share of the planned police facilities is approximately $13,883,490 (25,243 square feet X $550 per square foot).

Figure P8: Projected Demand

Type of Infrastructure	Level of Service	Demand Unit	Cost per Unit
Police Facilities	0.6928 Square Feet	per Person	$550
	0.3719 Square Feet	per Vehicle Trip	

Demand for Police Facilities					
Year	Peak Population	Vehicle Trips	Square Feet		
			Residential	Nonresidential	Total
2021	44,205	20,477	30,627.1	7,615.6	38,242.7
2022	44,667	21,367	30,947.0	7,946.8	38,893.8
2023	47,334	22,258	32,795.1	8,278.0	41,073.1
2024	50,729	23,148	35,147.0	8,609.1	43,756.1
2025	54,123	24,039	37,498.8	8,940.3	46,439.1
2026	57,516	25,827	39,849.0	9,605.3	49,454.3
2027	60,908	27,615	42,199.2	10,270.4	52,469.6
2028	64,300	29,403	44,549.4	10,935.4	55,484.8
2029	67,692	31,191	46,899.6	11,600.4	58,500.0
2030	71,084	32,979	49,249.8	12,265.4	61,515.2
2031	74,476	34,685	51,600.0	12,900.0	64,500.0
10-Yr Increase	30,271	14,209	20,972.9	5,284.4	26,257.3

Growth-Related Expenditures	$11,535,098	$2,906,412	$14,441,510
Non-Growth Expenditures	$11,124,902	$2,758,588	$13,883,490
Total Expenditures	$22,660,000	$5,665,000	$28,325,000

Police Vehicles – Incremental Expansion

Apache Junction plans to maintain its existing level of service for police vehicles over the next 10 years. Based on a projected population increase of 30,271 persons, future residential development demands an additional 43.8 vehicles (30,271 additional persons X 0.0014 vehicles per person). With projected vehicle trip growth of 14,209 trips, future nonresidential development demands an additional 1.6 vehicles (14,209 additional vehicle trips X 0.0008 vehicles per vehicle trip). Future development demands approximately 55 police vehicles at a cost of $4,084,058 (54.9 units X $74,353 per vehicle).

Figure P9: Projected Demand

Type of Infrastructure	Level of Service	Demand Unit	Cost per Unit
Police Vehicles	0.0014 Vehicles	per Person	$74,353
	0.0008 Vehicles	per Vehicle Trip	

Demand for Police Vehicles					
Year	Peak Population	Vehicle Trips	Vehicles		
			Residential	Nonresidential	Total
2021	44,205	20,477	64.0	16.0	80.0
2022	44,667	21,367	64.7	16.7	81.4
2023	47,334	22,258	68.5	17.4	85.9
2024	50,729	23,148	73.4	18.1	91.5
2025	54,123	24,039	78.4	18.8	97.1
2026	57,516	25,827	83.3	20.2	103.5
2027	60,908	27,615	88.2	21.6	109.8
2028	64,300	29,403	93.1	23.0	116.1
2029	67,692	31,191	98.0	24.4	122.4
2030	71,084	32,979	102.9	25.8	128.7
2031	74,476	34,685	107.8	27.1	134.9
10-Yr Increase	30,271	14,209	43.8	11.1	54.9

Growth-Related Expenditures	$3,258,580	$825,478	$4,084,058

Communication Equipment – Incremental Expansion

Apache Junction plans to maintain its existing level of service for communication equipment over the next 10 years. Based on a projected population increase of 30,271 persons, future residential development demands an additional 93.1 units (30,271 additional persons X 0.0031 units per person). With projected vehicle trip growth of 14,209 trips, future nonresidential development demands an additional 23.6 units (14,209 additional vehicle trips X 0.0017 units per vehicle trip). Future development demands approximately 117 units at a cost of $1,110,687 (116.7 units X $9,516 per unit).

Figure P10: Projected Demand

Type of Infrastructure	Level of Service	Demand Unit	Cost per Unit
Communication Equipment	0.0031 Units	per Person	$9,516
	0.0017 Units	per Vehicle Trip	

Demand for Communication Equipment					
Year	Peak Population	Vehicle Trips	Units		
			Residential	Nonresidential	Total
2021	44,205	20,477	136.0	34.0	170.0
2022	44,667	21,367	137.4	35.5	172.9
2023	47,334	22,258	145.6	37.0	182.6
2024	50,729	23,148	156.1	38.4	194.5
2025	54,123	24,039	166.5	39.9	206.4
2026	57,516	25,827	177.0	42.9	219.8
2027	60,908	27,615	187.4	45.9	233.2
2028	64,300	29,403	197.8	48.8	246.6
2029	67,692	31,191	208.3	51.8	260.0
2030	71,084	32,979	218.7	54.8	273.5
2031	74,476	34,685	229.1	57.6	286.7
10-Yr Increase	30,271	14,209	93.1	23.6	116.7

Growth-Related Expenditures	$886,193	$224,494	$1,110,687

Police Facilities Development Fees

Revenue Credit/Offset

A revenue credit/offset is not necessary for police facilities development fees, because costs generated by projected development exceed revenues generated by projected development. Appendix A contains the forecast of revenues required by Arizona's Enabling Legislation (ARS § 9-463.05(E)(7)).

Police Facilities Development Fees

Infrastructure components and cost factors for police facilities are summarized in the upper portion of Figure P11. The cost per service unit for police facilities is $518.59 per person and $278.82 per vehicle trip.

Police facilities development fees for residential development are assessed according to the number of persons per household. The fee of $1,229 for single-family unit is calculated using a cost per service unit of $518.59 per person multiplied by a demand unit of 2.37 persons per household.

Nonresidential development fees are calculated using vehicle trips as the service unit. The fee of $0.68 per square foot of industrial development is derived from a cost per service unit of $278.82 per vehicle trip, multiplied by a demand unit of 2.44 average weekday vehicle trips per 1,000 square feet, divided by 1,000. The fee of $1,115 per room of lodging development is derived from a cost per service unit of $278.82 per vehicle trip multiplied by a demand unit of 4.00 average weekday vehicle trips per room.

Figure P11: Police Facilities Development Fees

Fee Component	Cost per Person	Cost per Trip
Police Facilities	$381.06	$204.55
Police Vehicles	$107.65	$58.10
Communication Equipment	$29.28	$15.80
Development Fee Report	$0.60	$0.37
Total	$518.59	$278.82

Residential Fees per Unit				
Development Type	Persons per Household[1]	Proposed Fees	Current Fees	Difference
Single Family	2.37	$1,229	$609	$620
Multi-Family	1.86	$965	$594	$371
Recreational Vehicle	1.83	$949	$461	$488

Nonresidential Fees per Square Foot				
Development Type	Avg Weekday Vehicle Trips[1]	Proposed Fees	Current Fees	Difference
Industrial	2.44	$0.68	$0.27	$0.41
Commercial	12.21	$3.40	$1.37	$2.03
Office & Other Services	5.42	$1.51	$0.53	$0.98
Institutional	3.55	$0.99	$0.53	$0.46
Lodging (per room)	4.00	$1,115	N/A	N/A
Assisted Living (per bed)	1.30	$362	N/A	N/A

1. See Land Use Assumptions

POLICE FACILITIES DEVELOPMENT FEE REVENUE

Appendix A contains revenue forecasts required by Arizona's Enabling Legislation (ARS § 9-463.05(E)(7)). Projected fee revenue shown in Figure P12 is based on the development projections in the *Land Use Assumptions* document and the updated police facilities development fees. If development occurs faster than projected, the demand for infrastructure will increase along with development fee revenue. If development occurs slower than projected, the demand for infrastructure will decrease and development fee revenue will decrease at a similar rate. Projected development fee revenue equals $19,646,168, and projected expenditures equal $33,529,745. Existing development's share of $13,883,490 may not be funded with development fees.

Figure P12: Police Facilities Development Fee Revenue

Fee Component	Growth Share	Existing Share	Total
Police Facilities	$14,441,510	$13,883,490	$28,325,000
Police Vehicles	$4,084,058	$0	$4,084,058
Communication Equipment	$1,110,687	$0	$1,110,687
Development Fee Report	$10,000	$0	$10,000
Total	$19,646,255	$13,883,490	$33,529,745

		Single Family $1,229 per unit	Multi-Family $965 per unit	Industrial $0.68 per sq ft	Commercial $3.40 per sq ft	Office & Other $1.51 per sq ft	Institutional $0.99 per sq ft
Year		Hsg Unit	Hsg Unit	KSF	KSF	KSF	KSF
Base	2021	14,919	1,712	623	1,160	587	454
Year 1	2022	15,033	1,815	679	1,207	616	459
Year 2	2023	16,040	1,966	735	1,255	644	464
Year 3	2024	17,342	2,132	791	1,302	673	469
Year 4	2025	18,644	2,298	847	1,350	702	475
Year 5	2026	19,945	2,464	895	1,474	727	481
Year 6	2027	21,246	2,630	943	1,598	752	488
Year 7	2028	22,547	2,796	991	1,721	777	494
Year 8	2029	23,848	2,962	1,039	1,845	802	501
Year 9	2030	25,149	3,128	1,087	1,969	827	508
Year 10	2031	26,450	3,294	1,108	2,081	875	515
10-Year Increase		11,531	1,582	485	921	288	61
Projected Revenue		$14,163,021	$1,525,035	$329,771	$3,133,644	$434,600	$60,097

Projected Fee Revenue	$19,646,168
Total Expenditures	$33,529,745

STREET FACILITIES IIP

ARS § 9-463.05 (T)(7)(e) defines the facilities and assets that can be included in the Street Facilities IIP:

> *"Street facilities located in the service area, including arterial or collector streets or roads that have been designated on an officially adopted plan of the municipality, traffic signals and rights-of-way and improvements thereon."*

The Street Facilities IIP includes components for arterials improvements and the cost of preparing the Street Facilities IIP and related Development Fee Report. The incremental expansion methodology, based on the current level of service, is used to calculate the components for arterials improvements, and the plan-based methodology is used for the Development Fee Report.

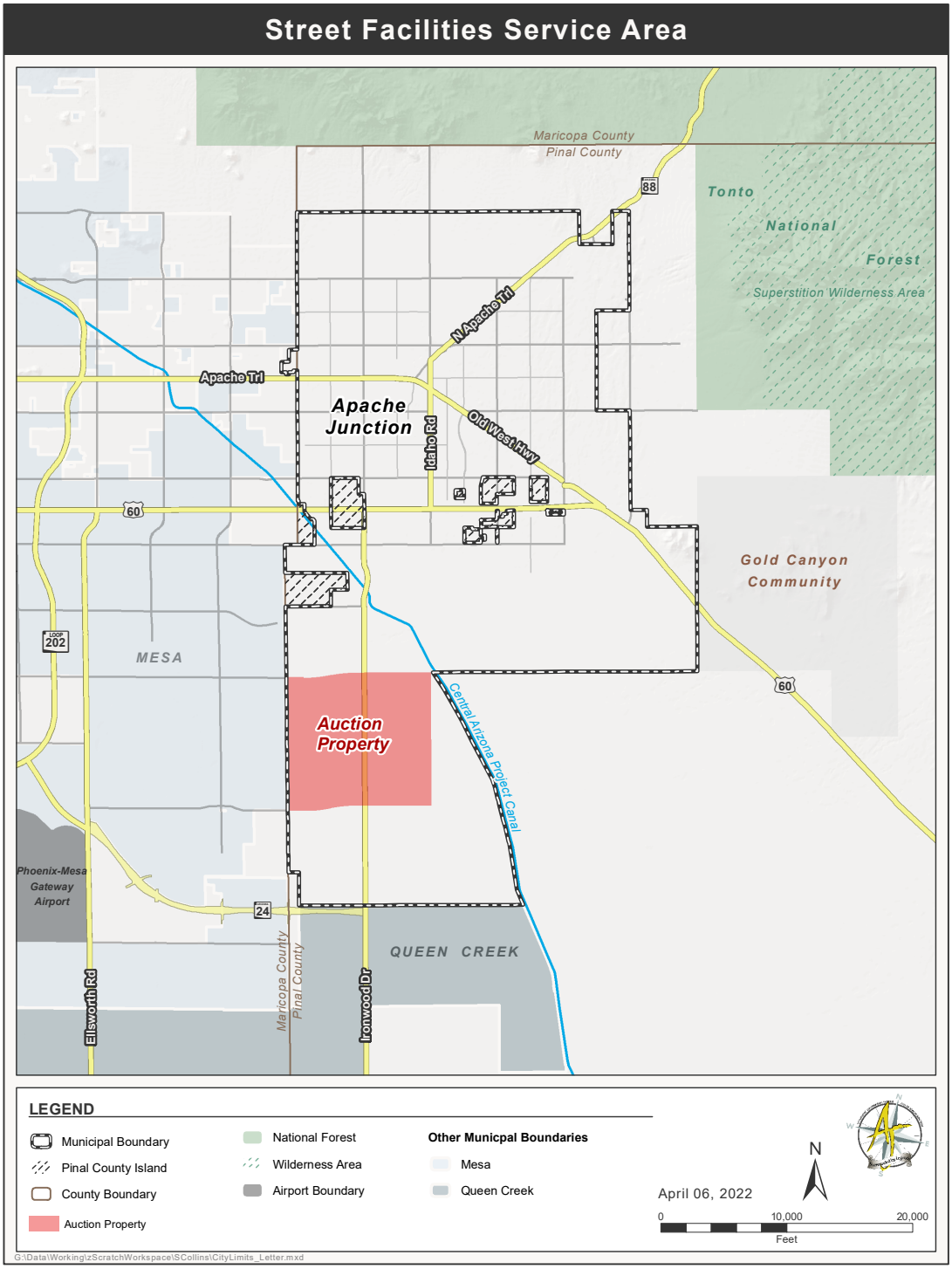
Proportionate Share

ARS § 9-463.05 (B)(3) states that the development fee shall not exceed a proportionate share of the cost of necessary public services needed to accommodate new development. The Street Facilities IIP and development fees will allocate the cost of necessary public services between residential and nonresidential based on trip generation rates, trip adjustment factors, and trip lengths.

Service Area

Apache Junction plans to provide a uniform level of service and equal access to street facilities within the city; therefore, there is a single service area for the Street Facilities IIP. As defined by the Development Agreement for Superstition Vistas (October 2021), Apache Junction will not assess street facilities fees to development within the "Auction Property."

Figure S1: Street Facilities Service Area



RATIO OF SERVICE UNIT TO DEVELOPMENT UNIT

ARS § 9-463.05(E)(4) requires:

> *"A table establishing the specific level or quantity of use, consumption, generation or discharge of a service unit for each category of necessary public services or facility expansions and an equivalency or conversion table establishing the ratio of a service unit to various types of land uses, including residential, commercial and industrial."*

Apache Junction will use vehicle miles traveled (VMT) as the demand units for street facilities fees. Components used to determine VMT include average weekday vehicle trip generation rates, adjustments for commuting patterns and pass-by trips, and trip length weighting factors.

Residential Trip Generation Rates

As an alternative to simply using the national average trip generation rate for residential development, the ITE publishes regression curve formulas that may be used to derive custom trip generation rates, using local demographic data. Key independent variables needed for the analysis (i.e., vehicles available, housing units, households, and persons) are available from American Community Survey data. Shown in Figure S2, single-family units generate 8.42 average weekday vehicle trip ends per unit, and multi-family units generate 4.61 average weekday vehicle trip ends per unit.

Figure S2: Average Weekday Vehicle Trip Ends by Housing Type

		Households by Structure Type[2]			
Tenure by Units in Structure	Vehicles Available[1]	Single-Family	Multi-Family	Total	Vehicles per HH by Tenure
Owner-Occupied	22,868	12,859	869	13,728	1.67
Renter-Occupied	5,857	2,366	1,512	3,878	1.51
Total	28,725	15,225	2,381	17,606	1.63
Housing Units[3]		19,851	3,012	22,863	

Units in Structure	Persons in Households[4]	Trip Ends[5]	Vehicles by Type of Unit	Trip Ends[6]	Average Trip Ends	Local Trip Ends per Unit
Single-Family	36,025	100,412	24,994	233,807	167,109	**8.42**
Multi-Family	4,408	10,030	3,731	17,751	13,891	**4.61**
Total	40,433	110,442	28,725	251,558	181,000	**7.92**

1. Vehicles available by tenure from Table B25046, American Community Survey, 2015-2019 5-Year Estimates.
2. Households by tenure and units in structure from Table B25032, American Community Survey, 2015-2019 5-Year Estimates.
3. Housing units from Table B25024, American Community Survey, 2015-2019 5-Year Estimates.
4. Total population in households from Table B25033, American Community Survey, 2015-2019 5-Year Estimates.
5. Vehicle trips ends based on persons using formulas from Trip Generation (ITE 2021). For single-family housing (ITE 210), the fitted curve equation is EXP(0.89*LN(persons)+1.72). To approximate the average population of the ITE studies, persons were divided by 65 and the equation result multiplied by 65. For multi-family housing (ITE 221), the fitted curve equation is (2.29*persons)-64.48 (ITE 2017).
6. Vehicle trip ends based on vehicles available using formulas from Trip Generation (ITE 2021). For single-family housing (ITE 210), the fitted curve equation is EXP(0.92*LN(vehicles)+2.68). To approximate the average number of vehicles in the ITE studies, vehicles available were divided by 97 and the equation result multiplied by 97. For multi-family housing (ITE 221), the fitted curve equation is (4.77*vehicles)-46.46 (ITE 2021).
7. Trip Generation, Institute of Transportation Engineers, 11th Edition (2021).

Nonresidential Trip Generation Rates

For nonresidential development, TischlerBise uses trip generation rates published in Trip Generation, Institute of Transportation Engineers, 11th Edition (2021). The prototype for industrial development is Light Industrial (ITE 110) which generates 4.87 average weekday vehicle trip ends per 1,000 square feet of floor area. Assisted living development uses Assisted Living (ITE 254) as a proxy and generates 2.60 average weekday vehicle trip ends per bed. For lodging development, the proxy is Hotel (ITE 310), and this type of development generates 7.99 average weekday vehicle trip ends per room. Institutional development uses Hospital (ITE 610) and generates 10.77 average weekday vehicle trip ends per 1,000 square feet of floor area. For office & other services development, the proxy is General Office (ITE 710), and it generates 10.84 average weekday vehicle trip ends per 1,000 square feet of floor area. The prototype for commercial development is Shopping Center (ITE 820) which generates 37.01 average weekday vehicle trips per 1,000 square feet of floor area.

Figure S3: Average Weekday Vehicle Trip Ends by Land Use

ITE Code	Land Use / Size	Demand Unit	Wkdy Trip Ends Per Dmd Unit[1]	Wkdy Trip Ends Per Employee[1]	Emp Per Dmd Unit	Sq Ft Per Emp
110	Light Industrial	1,000 Sq Ft	4.87	3.10	1.57	637
130	Industrial Park	1,000 Sq Ft	3.37	2.91	1.16	864
140	Manufacturing	1,000 Sq Ft	4.75	2.51	1.89	528
150	Warehousing	1,000 Sq Ft	1.71	5.05	0.34	2,953
254	Assisted Living	bed	2.60	4.24	0.61	na
310	Hotel	room	7.99	14.34	0.56	na
610	Hospital	1,000 Sq Ft	10.77	3.77	2.86	350
620	Nursing Home	bed	3.06	3.31	0.92	na
710	General Office (avg size)	1,000 Sq Ft	10.84	3.33	3.26	307
720	Medical-Dental Office	1,000 Sq Ft	36.00	8.71	4.13	242
730	Government Office	1,000 Sq Ft	22.59	7.45	3.03	330
770	Business Park	1,000 Sq Ft	12.44	4.04	3.08	325
820	Shopping Center (avg size)	1,000 Sq Ft	37.01	17.42	2.12	471

1. Trip Generation, Institute of Transportation Engineers, 11th Edition (2021).

Trip Rate Adjustments

To calculate street facilities fees, trip generation rates require an adjustment factor to avoid double counting each trip at both the origin and destination points. Therefore, the basic trip adjustment factor is 50 percent. As discussed further in this section, the development fee methodology includes additional adjustments to make the fees proportionate to the infrastructure demand for particular types of development.

Commuter Trip Adjustment

Residential development has a larger trip adjustment factor of 64 percent to account for commuters leaving Apache Junction for work. According to the 2009 National Household Travel Survey (see Table 30) weekday work trips are typically 31 percent of production trips (i.e., all out-bound trips, which are 50 percent of all trip ends). As shown in Figure S4, the U.S. Census Bureau's OnTheMap web application indicates 92 percent of resident workers traveled outside of Apache Junction for work in 2018. In combination, these factors (0.31 x 0.50 x 0.92 = 0.14) support the additional 14 percent allocation of trips to residential development.

Figure S4: Commuter Trip Adjustment

Trip Adjustment Factor for Commuters[1]	
Employed Residents	14,729
Residents Living and Working in Apache Junction	1,207
Residents Commuting Outside Apache Junction for Work	13,522
Percent Commuting out of Apache Junction	92%
Additional Production Trips[2]	14%
Residential Trip Adjustment Factor	64%

1. U.S. Census Bureau, OnTheMap Application (version 6.8) and LEHD Origin-Destination Employment Statistics, 2018.

2. According to the National Household Travel Survey (2009)*, published in December 2011 (see Table 30), home-based work trips are typically 30.99 percent of "production" trips, in other words, out-bound trips (which are 50 percent of all trip ends). Also, LED OnTheMap data from 2018 indicate that 92 percent of Apache Junction's workers travel outside the city for work. In combination, these factors (0.3099 x 0.50 x 0.92 = 0.14) account for 14 percent of additional production trips. The total adjustment factor for residential includes attraction trips (50 percent of trip ends) plus the journey-to-work commuting adjustment (14 percent of production trips) for a total of 64 percent.
*http://nhts.ornl.gov/publications.shtml ; Summary of Travel Trends - Table "Daily Travel Statistics by Weekday vs. Weekend"

Adjustment for Pass-By Trips

For commercial and institutional development, the trip adjustment factor is less than 50 percent because these types of development attract vehicles as they pass by on arterial and collector roads. For example, when someone stops at a convenience store on the way home from work, the convenience store is not the primary destination. For the average shopping center, ITE data indicate 34 percent of the vehicles that enter are passing by on their way to some other primary destination. The remaining 66 percent of attraction trips have the commercial site as their primary destination. Because attraction trips are half of all trips, the trip adjustment factor is 66 percent multiplied by 50 percent, or approximately 33 percent of the trip ends.

Average Weekday Vehicle Trips

Shown below in Figure S5, multiplying average weekday vehicle trip ends and trip adjustment factors (discussed on the previous page) by Apache Junction's existing development units provides the average weekday vehicle trips generated by existing development. As shown below, Apache Junction's existing development in the street facilities service area generates 107,806 vehicle trips on an average weekday.

Figure S5: Average Weekday Vehicle Trips by Land Use

Development Type	Development Unit	ITE Code	Avg Wkday VTE	Trip Adjustment	2021 Dev Units	2021 Veh Trips
Single Family	HU	210	8.42	64%	14,919	80,396
Multi-Family	HU	220	4.61	64%	1,712	5,051
Recreational Vehicle	HU	260	4.61	64%	638	1,882
Industrial	KSF	110	4.87	50%	623	1,518
Commercial	KSF	820	37.01	33%	1,160	14,163
Office & Other Services	KSF	710	10.84	50%	587	3,182
Institutional	KSF	610	10.77	33%	454	1,614
Total						107,806

National Average Trip Length

To calculate street facilities fees, it is necessary to determine the average trip length on Apache Junction's arterial network. To do this, the analysis uses national trip generation rates and average trip lengths from the 2017 National Household Travel Survey.

Figure S6: National Average Trip Lengths

Land Use	National Avg Trip Length (miles)
Residential	12.32
Industrial	7.70
Commercial/Retail	7.90
Office and Other	7.70
Institutional	7.70

Source: U.S. Department of Transportation, Federal Highway Administration, 2017 National Household Transportation Survey, adjusted for land use

Expected Vehicle Miles Traveled

The national average trip length should be adjusted to reflect actual local demand on Apache Junction's arterial network. To do this, TischlerBise determines expected demand (VMT) on Apache Junction's complete transportation network by multiplying the national average trip lengths by average weekday vehicle trips. Based on this analysis, Apache Junction's existing development generates an expected 1,236,396 VMT.

Figure S7: Expected Vehicle Miles Traveled

Land Use	Avg Weekday Vehicle Trips[1]	National Avg Trip Length (miles)[2]	Expected VMT[3]
Single Family	80,396	12.32	990,473
Multi-Family	5,051	12.32	62,229
Recreational Vehicle	1,882	12.32	23,191
Industrial	1,518	7.70	11,688
Commercial	14,163	7.90	111,884
Office & Other Services	3,182	7.70	24,502
Institutional	1,614	7.70	12,429
Total			1,236,396

1. Average weekday vehicle trips from Figure S4
2. 2017 National Household Transportation Survey
3. TischlerBise calculation, Average Weekday Vehicle Trips X National Average Trip Length

Local Adjustment Factor

Expected VMT reflects anticipated travel demand on the entire roadway system; therefore, it is necessary to calibrate demand to the arterial system. To calibrate demand on the arterial system, actual travel demand, based on local traffic counts obtained from the Arizona Department of Transportation (Appendix E), is compared to expected travel demand. The ratio between actual VMT and expected VMT provides the local adjustment factor used to adjust national average trip lengths by type of land use.

Figure S8: Local Adjustment Factor

Local Adjustment Factor	
Actual VMT on Arterials[1]	205,513
Expected VMT on Arterials	1,236,396
Actual to Expected VMT	0.17

1. TischlerBise analysis of trip counts provided by the City of Apache Junction, AZ

Local Trip Lengths

Shown below in Figure S9, TischlerBise applies the local adjustment factor to the national average trip lengths to calculate the local trip lengths. The analysis will use the local trip lengths shown below to calculate VMT.

Figure S9: Local Trip Lengths

Land Use	National Avg Trip Length (miles)	Local Adjustment	Local Trip Length
Residential	12.32	0.17	2.05
Industrial	7.70	0.17	1.28
Commercial/Retail	7.90	0.17	1.31
Office and Other	7.70	0.17	1.28
Institutional	7.70	0.17	1.28

Source: 2017 NHTS and TischlerBise analysis; local adjustment from Figure S7

Local Vehicle Miles Traveled

Shown below are the demand indicators for residential and nonresidential land uses related to vehicle miles traveled (VMT). For residential development, the table displays VMT per housing unit. For nonresidential development, the table displays VMT generated per 1,000 square feet of floor area (per room for lodging, and per bed for assisted living).

Figure S10: Ratio of Service Unit to Development Unit

Residential Development				
Development Type	AWVTE per unit[1]	Trip Adjustment[1]	Average Trip Length (miles)	Avg Wkdy VMT per Unit
Single Family	8.42	64%	2.05	11.04
Multi-Family	4.61	64%	2.05	6.04
Recreational Vehicle	4.61	64%	2.05	6.04

Nonresidential Development				
Development Type	AWVTE per 1,000 Sq Ft[1]	Trip Adjustment[1]	Average Trip Length (miles)	Avg Wkdy VMT per 1,000 Sq Ft[1]
Industrial	4.87	50%	1.28	3.12
Commercial	37.01	33%	1.31	16.04
Office & Other Services	10.84	50%	1.28	6.94
Institutional	10.77	33%	1.28	4.55
Lodging (per room)	7.99	50%	1.31	5.25
Assisted Living (per bed)	2.60	50%	1.28	1.66

1. See Land Use Assumptions

Analysis of Capacity, Usage, and Costs of Existing Public Services

ARS § 9-463.05(E)(1) requires:

> *"A description of the existing necessary public services in the service area and the costs to upgrade, update, improve, expand, correct or replace those necessary public services to meet existing needs and usage and stricter safety, efficiency, environmental or regulatory standards, which shall be prepared by qualified professionals licensed in this state, as applicable."*

ARS § 9-463.05(E)(2) requires:

> *"An analysis of the total capacity, the level of current usage and commitments for usage of capacity of the existing necessary public services, which shall be prepared by qualified professionals licensed in this state, as applicable."*

As shown in Appendix E, the City of Apache Junction provided an inventory of arterial road segments, including segment lengths and lane quantities. TischlerBise obtained average daily traffic (ADT) counts from the Arizona Department of Transportation. Multiplying each segment's length by the number of lanes yields the number of lane miles per segment, and multiplying the traffic counts and segment lengths provides the average weekday vehicle miles traveled (VMT). Apache Junction's arterial road network consists of 165.37 lane miles and 205,513 VMT.

Shown below, Figure S11 documents the capacity of Apache Junction's arterial road network. Apache Junction's arterial road network is designed to operate at Level of Service D or better. Based on data published by the Florida Department of Transportation, a mile segment of an arterial road operating at Level of Service D should maintain a daily volume ranging from 12,300 vehicles for a two-lane arterial without left-turn lanes (6,150 vehicles per lane) to 32,700 vehicles for a four-lane arterial with raised medians and left-turn lanes (8,175 vehicles per lane). Applying these capacities to Apache Junction's arterial road network shown in Appendix E generates arterial capacity of 1,059,803 vehicle miles of capacity (VMC) and a weighted average of 6,409 vehicles per lane (1,059,803 VMC / 165.37 arterial lane miles).

As noted above, current daily volume on Apache Junction's arterial road network is approximately 205,513 VMT. The resulting VMC to VMT ratio is 5.16 (1,059,803 VMC / 205,513 VMT). The baseline VMC / VMT ratio for any incremental expansion method is 1.0 (i.e., VMC = VMT); therefore, the current ratio of 5.16 exceeds the current LOS ensuring new capacity built with development fee funds will not exceed the current LOS.

Figure S11: Arterial Network Capacity and Usage

Arterial Capacity Ratio	
Total Arterial Lane Miles	165.37
Capacity per Lane Mile	6,409
Vehicle Miles of Capacity	1,059,803
Vehicle Miles of Travel	205,513
VMC / VMT Ratio	5.16

Arterial Improvements – Incremental Expansion

Apache Junction provided a list of arterial improvements to use as a proxy for future growth-related arterial improvements. Based on the eligible cost of these projects (excludes the cost to repair or replace existing lanes), the weighted average cost is $1,879,525 per lane mile ($111,267,879 eligible cost / 59.20 lane miles). TischlerBise will apply the weighted average cost per lane mile to the projected demand for additional lane miles of arterial improvements over the next 10 years. Apache Junction may use development fees to construct the projects shown in Figure S12 or to construct other growth-related arterial improvements in the street facilities service area. Apache Junction should not use development fees to construct a developer's share of half-street improvements.

Figure S12: Potential Arterial Improvements

Project	Segment	Widen to	New Lanes	Miles	Lane Miles	Eligible Cost
Baseline Avenue	Meridian Drive to Ironwood Drive	4 Lanes	3	1.00	3.00	$6,000,000
Baseline Avenue	Ironwood Drive - East Goldfield Road	5 Lanes	3	3.00	9.00	$16,000,000
Broadway Ave	Old West Hwy to Mountainview Road	1 Lane	1	2.50	2.50	$3,250,000
Delaware Drive	Superstition Blvd to Lost Dutchman	3 Lanes	1	0.90	0.90	$1,950,000
Goldfield Road	Old West Hwy to Lost Dutchman	1 Lane	1	3.00	3.00	$3,600,000
Guadalupe Avenue	Meridian Drive to Delaware Drive	4 Lanes	2	0.70	1.40	$2,689,697
Idaho Road	US 60 to Baseline Avenue	6 Lanes	2	0.50	1.00	$2,800,000
Ironwood Drive	Superstition Blvd to Lost Dutchman	3 Lanes	1	1.00	1.00	$1,700,000
Ironwood Drive	US 60 to Baseline Avenue	6 Lanes	2	0.50	1.00	$3,939,394
Ironwood Drive	Baseline Avenue to Elliot Avenue	6 Lanes	2	2.00	4.00	$7,224,243
Ironwood Drive	Ray Avenue to SR24	New 6 Lanes	2	1.50	3.00	$6,597,796
Meridian Drive	Lost Dutchman to Apache Trail	3 Lanes	1	1.50	1.50	$2,550,000
Meridian Drive	Apache Trail to Southern Avenue	5 Lanes	3	1.50	4.50	$9,000,000
Meridian Drive	Baseline Avenue to Houston Avenue	New 6 Lanes	6	0.50	3.00	$4,768,044
Meridian Drive	Elliot Avenue to Guadalupe Avenue	New 6 Lanes	3	1.00	3.00	$5,331,497
Meridian Drive	Ray Avenue to SR24	6 Lanes	3	1.50	4.50	$7,157,208
Southern Avenue	San Marcos to Idaho	5 Lanes	3	0.50	1.50	$3,000,000
Southern Avenue	Meridian Drive to Delaware Drive	5 Lanes	3	0.50	1.50	$3,000,000
Southern Avenue	Tomahawk to Old West Hwy	New 3 Lanes	3	1.00	3.00	$6,000,000
Superstition Ave	SR 88 to Arroya Road	1 Lane	1	2.30	2.30	$3,310,000
Tomahawk Road	US 60 to Old West Highway	5 Lanes	2	1.30	2.60	$5,500,000
Tomahawk Road	Old West Hwy to SR 88	1 Lane	1	2.00	2.00	$2,900,000
Intersection	Ironwood Drive & 36th Avenue	Traffic Signal	0	0.00	0.00	$1,000,000
Intersection	Ironwood Drive & Baseline Avenue	Traffic Signal	0	0.00	0.00	$1,000,000
Intersection	Southern Avenue & Delaware Drive	Traffic Signal	0	0.00	0.00	$1,000,000
Total					59.20	$111,267,879

Source: Apache Junction Public Works Department

To allocate the proportionate share of demand for arterial improvements to residential and nonresidential development, this analysis uses trip generation rates, trip adjustment factors, trip length weighting factors, and average trip lengths shown in Figure S10. Apache Junction's existing LOS is 1.5604 lane miles per 10,000 VMT (165.37 lane miles / 5.16 capacity ratio / (205,513 VMT / 10,000 VMT)). Based on a weighted average cost of $1,879,525 per lane mile, the arterial improvements cost is $293.28 per VMT (165.37 lane miles / 5.16 capacity ratio / 205,513 VMT X $1,879,525 per lane mile).

Figure S13: Arterial Level of Service

Cost Factors	
Eligible Cost	$111,267,879
÷ Lane Miles	59.20
Weighted Average per Lane Mile	$1,879,525

Level-of-Service (LOS) Standards	
Existing Lane Miles	165.37
÷ VMC / VMT Ratio	5.16
Adjusted Lane Miles	32.07
2021 VMT	205,513
Lane Miles per 10,000 VMT	1.5604
Cost per VMT	$293.28

Source: Apache Junction Public Works Department

Development Fee Report – Plan-Based

The cost to prepare the Street Facilities IIP and related Development Fee Report totals $18,720. Apache Junction plans to update its report every five years. Based on this cost, proportionate share, and five-year projections of new residential and nonresidential development from the *Land Use Assumptions* document, the cost is $1.23 per VMT.

Figure S14: IIP and Development Fee Report

Necessary Public Service	Cost	Proportionate Share		Service Unit	5-Year Change	Cost per Service Unit
Library	$5,900	Residential	97%	Peak Population	13,310	$0.43
		Nonresidential	3%	Jobs	1,625	$0.11
Parks and Recreational	$15,100	Residential	97%	Peak Population	2,314	$6.33
		Nonresidential	3%	Jobs	1,468	$0.31
Police	$10,000	Residential	80%	Peak Population	13,310	$0.60
		Nonresidential	20%	Vehicle Trips	5,350	$0.37
Street	$18,720	All Development	100%	VMT	15,204	$1.23
Total	$49,720					

PROJECTED DEMAND FOR SERVICES AND COSTS

ARS § 9-463.05(E)(5) requires:

> *"The total number of projected service units necessitated by and attributable to new development in the service area based on the approved land use assumptions and calculated pursuant to generally accepted engineering and planning criteria."*

ARS § 9-463.05(E)(6) requires:

> *"The projected demand for necessary public services or facility expansions required by new service units for a period not to exceed ten years."*

As shown in the *Land Use Assumptions* document, Apache Junction's housing stock in the street facilities service area is expected to increase by 2,173 units and nonresidential floor area is expected to increase by 1,311,000 square feet over the next 10 years. Based on the trip generation factors discussed in this section, projected development generates an additional 30,240 VMT over the next 10 years. Shown below in Figure S15, Apache Junction will need to construct approximately 4.7 lane miles of arterial improvements over the next 10 years to maintain the existing levels of service. The growth-related cost of the Street Facilities IIP is $8,868,716 for arterial improvements ($1,879,525 per lane mile X 4.7 lane miles).

Figure S15: Projected Travel Demand

Apache Junction, Arizona		Base	1	2	3	4	5	10	10-Year Increase
		2021	2022	2023	2024	2025	2026	2031	
Development	Single Family Units	14,919	15,033	15,147	15,261	15,375	15,488	16,053	1,134
	Multi-Family Units	1,712	1,815	1,919	2,023	2,127	2,231	2,751	1,039
	Recreational Vehicle Units	638	638	638	638	638	638	638	0
	Industrial KSF	623	679	735	791	847	895	1,108	485
	Commercial KSF	1,160	1,207	1,255	1,302	1,350	1,400	1,637	478
	Office & Other Services KSF	587	616	644	673	702	727	875	288
	Institutional KSF	454	459	464	469	475	481	515	61
Avg Weekday Vehicle Trips	Single-Family Trips	80,396	81,010	81,624	82,238	82,853	83,462	86,506	6,111
	Multi-Family Trips	5,051	5,355	5,662	5,969	6,276	6,582	8,117	3,065
	Recreational Vehicle Trips	1,882	1,882	1,882	1,882	1,882	1,882	1,882	0
	Residential Trips	87,329	88,247	89,168	90,089	91,011	91,926	96,505	9,176
	Industrial Trips	1,518	1,654	1,790	1,926	2,061	2,178	2,699	1,181
	Commercial Trips	14,163	14,744	15,325	15,906	16,487	17,096	19,999	5,836
	Office & Other Services Trips	3,182	3,338	3,493	3,648	3,804	3,939	4,742	1,560
	Institutional Trips	1,614	1,632	1,650	1,669	1,687	1,710	1,830	216
	Nonresidential Trips	20,477	21,367	22,258	23,148	24,039	24,924	29,270	8,793
	Total Vehicle Trips	**107,806**	**109,614**	**111,426**	**113,238**	**115,049**	**116,850**	**125,775**	**17,970**
VMT	**Vehicle Miles Traveled (VMT)**	**205,513**	**208,553**	**211,598**	**214,643**	**217,689**	**220,718**	**235,753**	**30,240**
Need	Arterial Lane Miles		0.5	0.5	0.5	0.5	0.5	0.5	4.7
	Arterial Cost		$891,371	$893,143	$893,143	$893,143	$888,346	$856,186	$8,868,716

STREET FACILITIES DEVELOPMENT FEES

Revenue Credit/Offset

A revenue credit/offset is not necessary for street facilities development fees, because costs generated by projected development exceed revenues generated by projected development. Appendix A contains the forecast of revenues required by Arizona's Enabling Legislation (ARS § 9-463.05(E)(7)).

Street Facilities Development Fees

Infrastructure components and cost factors for street facilities are summarized in the upper portion of Figure S16. The cost per service unit for street facilities is $294.51 per VMT.

Street facilities development fees for residential development are assessed according to VMT generated per housing unit. For example, the fee of $3,250 for a single-family unit is calculated using a cost per service unit of $294.51 per VMT multiplied by a demand unit of 11.04 average weekday VMT per unit.

Nonresidential development fees are calculated using VMT as the service unit. The fee of $0.92 per square foot of industrial development is derived from a cost per service unit of $294.51 per VMT, multiplied by a demand unit of 3.12 average weekday VMT per 1,000 square feet, divided by 1,000. The fee of $1,545 per room of lodging development is derived from a cost per service unit of $294.51 per VMT, multiplied by a demand unit of 5.25 average weekday VMT per room.

Figure S16: Street Facilities Development Fees

Fee Component	Cost per VMT
Arterial Improvements	$293.28
Development Fee Report	$1.23
Total	$294.51

Residential Fees per Unit				
Development Type	Avg Wkdy VMT per Unit[1]	Proposed Fees	Current Fees	Difference
Single Family	11.04	$3,250	$3,151	$99
Multi-Family	6.04	$1,779	$2,117	($338)
Recreational Vehicle	6.04	$1,779	$2,117	($338)

Nonresidential Fees per Square Foot				
Development Type	Avg Wkdy VMT per 1,000 Sq Ft[1]	Proposed Fees	Current Fees	Difference
Industrial	3.12	$0.92	$1.19	($0.27)
Commercial	16.04	$4.72	$6.14	($1.42)
Office & Other Services	6.94	$2.04	$2.34	($0.30)
Institutional	4.55	$1.34	$2.34	($1.00)
Lodging (per room)	5.25	$1,545	N/A	N/A
Assisted Living (per bed)	1.66	$490	N/A	N/A

1. See Land Use Assumptions

STREET FACILITIES DEVELOPMENT FEE REVENUE

Appendix A contains revenue forecasts required by Arizona's Enabling Legislation (ARS § 9-463.05(E)(7)). Projected fee revenue shown in Figure S17 is based on the development projections in the *Land Use Assumptions* document and the updated street facilities development fees. If development occurs faster than projected, the demand for infrastructure will increase along with development fee revenue. If development occurs slower than projected, the demand for infrastructure will decrease and development fee revenue will decrease at a similar rate. Projected development fee revenue equals approximately $8,887,428, and projected expenditures equal $8,887,436.

Figure S17: Street Facilities Development Fee Revenue

Fee Component	Growth Share	Existing Share	Total
Arterial Improvements	$8,868,716	$0	$8,868,716
Development Fee Report	$18,720	$0	$18,720
Total	$8,887,436	$0	$8,887,436

		Single Family $3,250 per unit	Multi-Family $1,779 per unit	Industrial $0.92 per sq ft	Commercial $4.72 per sq ft	Office & Other $2.04 per sq ft	Institutional $1.34 per sq ft
Year		Hsg Unit	Hsg Unit	KSF	KSF	KSF	KSF
Base	2020	14,919	1,712	623	1,160	587	454
Year 1	2021	15,033	1,815	679	1,207	616	459
Year 2	2022	15,147	1,919	735	1,255	644	464
Year 3	2023	15,261	2,023	791	1,302	673	469
Year 4	2024	15,375	2,127	847	1,350	702	475
Year 5	2025	15,488	2,231	895	1,400	727	481
Year 6	2026	15,601	2,335	943	1,450	752	488
Year 7	2027	15,714	2,439	991	1,500	777	494
Year 8	2028	15,827	2,543	1,039	1,550	802	501
Year 9	2029	15,940	2,647	1,087	1,600	827	508
Year 10	2030	16,053	2,751	1,108	1,637	875	515
10-Year Increase		1,134	1,039	485	478	288	61
Projected Revenue		$3,677,848	$1,844,935	$444,303	$2,252,451	$586,680	$81,211

Projected Fee Revenue	$8,887,428
Total Expenditures	$8,887,436

APPENDIX A: FORECAST OF REVENUES OTHER THAN FEES

ARS § 9-463.05(E)(7) requires:

> *"A forecast of revenues generated by new service units other than development fees, which shall include estimated state-shared revenue, highway users revenue, federal revenue, ad valorem property taxes, construction contracting or similar excise taxes and the capital recovery portion of utility fees attributable to development based on the approved land use assumptions, and a plan to include these contributions in determining the extent of the burden imposed by the development as required in subsection B, paragraph 12 of this section."*

ARS § 9-463.05(B)(12) states,

> *"The municipality shall forecast the contribution to be made in the future in cash or by taxes, fees, assessments or other sources of revenue derived from the property owner towards the capital costs of the necessary public service covered by the development fee and shall include these contributions in determining the extent of the burden imposed by the development. Beginning August 1, 2014, for purposes of calculating the required offset to development fees pursuant to this subsection, if a municipality imposes a construction contracting or similar excise tax rate in excess of the percentage amount of the transaction privilege tax rate imposed on the majority of other transaction privilege tax classifications, the entire excess portion of the construction contracting or similar excise tax shall be treated as a contribution to the capital costs of necessary public services provided to development for which development fees are assessed, unless the excess portion was already taken into account for such purpose pursuant to this subsection."*

REVENUE PROJECTIONS

Apache Junction does not have a higher-than-normal construction excise tax rate; therefore, the required offset described above is not applicable. Shown in Figure A1, Apache Junction provided the required forecast of non-development fee revenue from identified sources that can be attributed to future development over a period of five years. These funds are available for capital investments; however, the City of Apache Junction directs these revenues to non-development fee eligible capital needs including maintenance, repair, and replacement.

Figure A1: Revenue Projections

Source	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27
General Fund	$34,555,318	$38,752,777	$39,915,360	$41,112,821	$42,346,206	$43,616,592
Highway Users Revenue Fund	$6,534,373	$5,447,345	$5,610,765	$5,779,088	$5,952,461	$6,131,035
Street Projects Sales Tax Fund	$1,348,298	$1,460,480	$1,504,294	$1,549,423	$1,595,906	$1,643,783
Lighting District Fund	$59,000	$59,000	$59,000	$59,000	$59,000	$59,000
Grants Fund	$390,159	$1,365,000	$1,405,950	$1,448,129	$1,491,572	$1,536,320
Senior Services Fund	$239,186	$120,000	$123,600	$127,308	$131,127	$135,061
Library Fund	$69,063	$15,000	$15,000	$15,000	$15,000	$15,000
Total	$43,195,397	$47,219,602	$48,633,970	$50,090,769	$51,591,272	$53,136,790

1. City of Apache Junction, Arizona

APPENDIX B: PROFESSIONAL SERVICES

As stated in Arizona's development fee enabling legislation, "a municipality may assess development fees to offset costs to the municipality associated with providing necessary public services to a development, including the costs of infrastructure, improvements, real property, engineering and architectural services, financing and professional services required for the preparation or revision of a development fee pursuant to this section, including the relevant portion of the infrastructure improvements plan" (see ARS § 9-463.05.A). Because development fees must be updated at least every five years, the cost of professional services is allocated to the projected increase in service units, over five years (see Figure B1). Qualified professionals must develop the IIP, using generally accepted engineering and planning practices. A qualified professional is defined as "a professional engineer, surveyor, financial analyst or planner providing services within the scope of the person's license, education or experience".

Figure B1: Cost of Professional Services

Necessary Public Service	Cost	Proportionate Share		Service Unit	5-Year Change	Cost per Service Unit
Library	$5,900	Residential	97%	Peak Population	13,310	$0.43
		Nonresidential	3%	Jobs	1,625	$0.11
Parks and Recreational	$15,100	Residential	97%	Peak Population	2,314	$6.33
		Nonresidential	3%	Jobs	1,468	$0.31
Police	$10,000	Residential	80%	Peak Population	13,310	$0.60
		Nonresidential	20%	Vehicle Trips	5,350	$0.37
Street	$18,720	All Development	100%	VMT	15,204	$1.23
Total	$49,720					

APPENDIX C: LAND USE DEFINITIONS

RESIDENTIAL DEVELOPMENT

As discussed below, residential development categories are based on data from the U.S. Census Bureau, American Community Survey. Development fees will be assessed to all new residential units. One-time development fees are determined by site capacity (i.e., number of residential units).

Single Family:

1. Single-family detached is a one-unit structure detached from any other house, that is, with open space on all four sides. Such structures are considered detached even if they have an adjoining shed or garage. A one-family house that contains a business is considered detached if the building has open space on all four sides.
2. Single-family attached (townhouse) is a one-unit structure that has one or more walls extending from ground to roof separating it from adjoining structures. In row houses (sometimes called townhouses), double houses, or houses attached to nonresidential structures, each house is a separate, attached structure if the dividing or common wall goes from ground to roof.
3. Mobile home includes both occupied and vacant mobile homes, to which no permanent rooms have been added. Mobile homes used only for business purposes or for extra sleeping space and mobile homes for sale on a dealer's lot, at the factory, or in storage are not counted in the housing inventory.

Multi-Family:

1. Includes units in structures containing two or more housing units, further categorized as units in structures with "2, 3 or 4, 5 to 9, 10 to 19, 20 to 49, and 50 or more apartments."

Recreational Vehicle:

1. Includes any living quarters occupied as a housing unit that does not fit the other categories (e.g., houseboats, railroad cars, campers, and vans). Recreational vehicles, boats, vans, railroad cars, and the like are included only if they are occupied as a current place of residence.

NONRESIDENTIAL DEVELOPMENT

The proposed general nonresidential development categories (defined below) can be used for all new construction. Nonresidential development categories represent general groups of land uses that share similar average weekday vehicle trip generation rates and employment densities (i.e., jobs per thousand square feet of floor area).

Assisted Living: Establishments primarily providing either routine general protective oversight, assistance with activities necessary for independent living to mentally or physically limited persons, or establishments providing care for persons who are unable to care for themselves. By way of example, *Assisted Living* includes assisted living facilities, nursing homes, rest homes, chronic care homes, and convalescent homes.

Commercial: Establishments primarily selling merchandise, eating/drinking places, and entertainment uses. By way of example, commercial includes shopping centers, supermarkets, pharmacies, restaurants, bars, nightclubs, automobile dealerships, and movie theaters.

Industrial: Establishments primarily engaged in the production, transportation, or storage of goods. By way of example, industrial includes manufacturing plants, distribution warehouses, trucking companies, utility substations, power generation facilities, and telecommunications buildings.

Institutional: Public and quasi-public buildings providing educational, social assistance, or religious services. By way of example, institutional includes schools, universities, churches, daycare facilities, and government buildings.

Lodging: A place of lodging that provides sleeping accommodations and may include supporting facilities such as restaurants, cocktail lounges, meeting and banquet rooms or convention facilities, limited recreational facilities (pool, fitness room, etc.), and/or other retail and service shops.

Office and Other Services: Establishments providing management, administrative, professional, or business services; personal and health care services. By way of example, Office and Other services includes banks, business offices, hotels and motels, and hospitals.

APPENDIX D: LAND USE ASSUMPTIONS

Arizona's Development Fee Act requires the preparation of Land Use Assumptions, which are defined in Arizona Revised Statutes § 9-463.05(T)(6) as:

> *"projections of changes in land uses, densities, intensities and population for a specified service area over a period of at least ten years and pursuant to the General Plan of the municipality."*

The estimates and projections of residential and nonresidential development in this *Land Use Assumptions* document are for all areas within Apache Junction. The current demographic estimates and future development projections will be used in the Infrastructure Improvements Plan (IIP) and in the calculation of development fees. Current demographic data estimates for 2021 are used in calculating levels of service (LOS) provided to existing development in Apache Junction. Arizona's Enabling Legislation requires fees to be updated at least every five years and limits the IIP to a maximum of 10 years.

The Infrastructure Improvements Plan and the Development Fee Report include two service areas. The citywide service area, shown in Figure D1, includes all areas of Apache Junction. This service area is used for the Library Facilities IIP and the Police Facilities IIP. The second service area excludes the Auction Property, known as Superstition Vistas, due to the terms of Development Agreement for Superstition Vistas (October 2021). This service area, shown in Figure D2, is used for the Parks and Recreational Facilities IIP and the Street Facilities IIP.

SUMMARY OF GROWTH INDICATORS

Key land use assumptions include population, housing units, and employment projections. Based on discussions with staff, TischlerBise projects development based on a combination of Maricopa Association of Governments (MAG) projections and staff recommendations based on recent and planned development. For the Auction Property, the analysis uses development projections included in the Auction Property Master Planned Community Plan.

Development projections are summarized in Figure D16. These projections will be used to estimate fee revenue and to indicate the anticipated need for growth-related infrastructure. However, development fee methodologies are designed to reduce sensitivity to development projections in the determination of the proportionate share fee amounts. If actual development occurs at a slower rate than projected, fee revenue will decline, but so will the need for growth-related infrastructure. In contrast, if development occurs at a faster rate than anticipated, fee revenue will increase, but Apache Junction will also need to accelerate infrastructure improvements to keep pace with the actual rate of development. During the next 10 years, residential development projections indicate a population increase of 30,271 persons in 13,113 housing units, and nonresidential development projections indicate an employment increase of 3,828 jobs in approximately 1,755,000 square feet of floor area.

Figure D1: Citywide Service Area

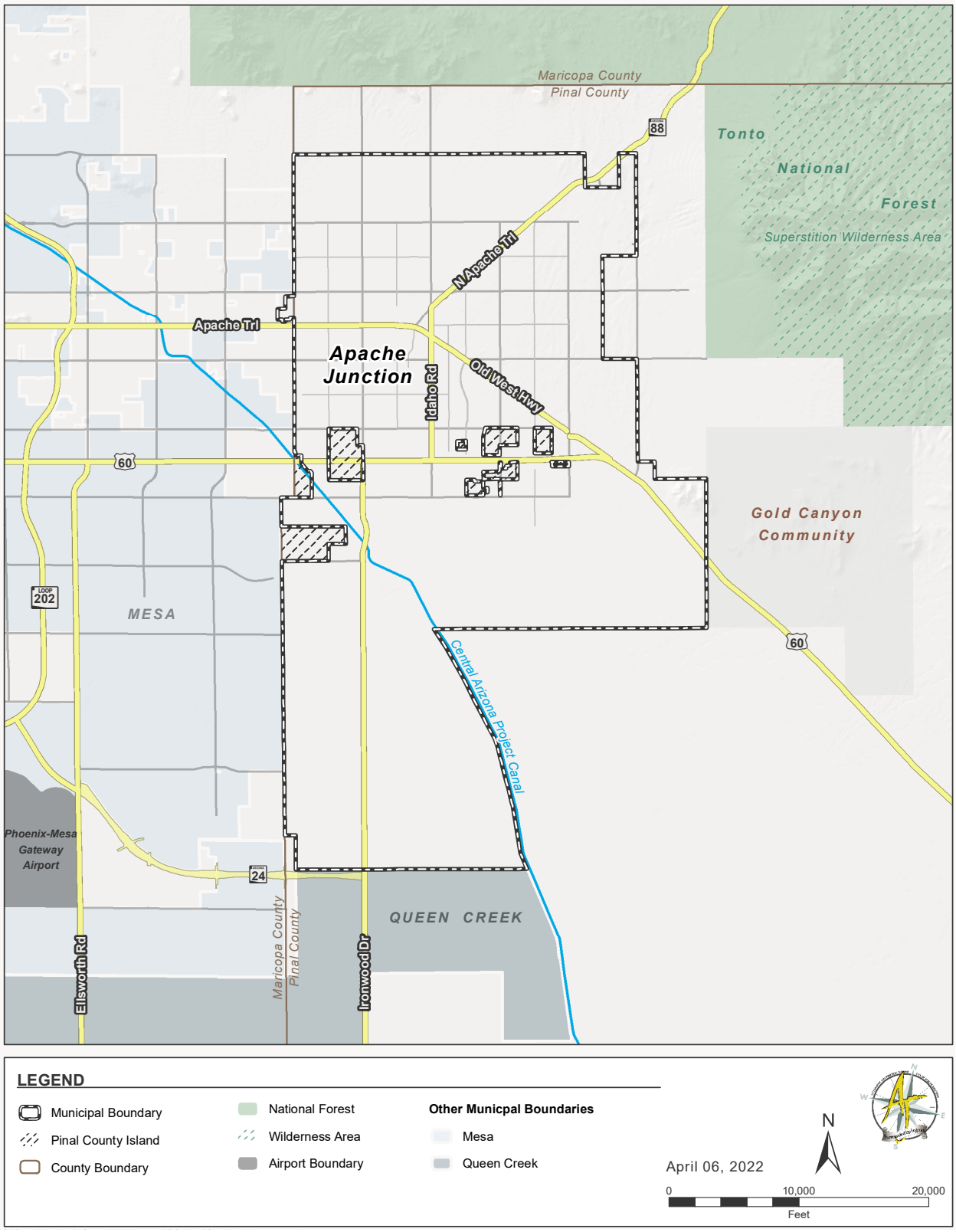


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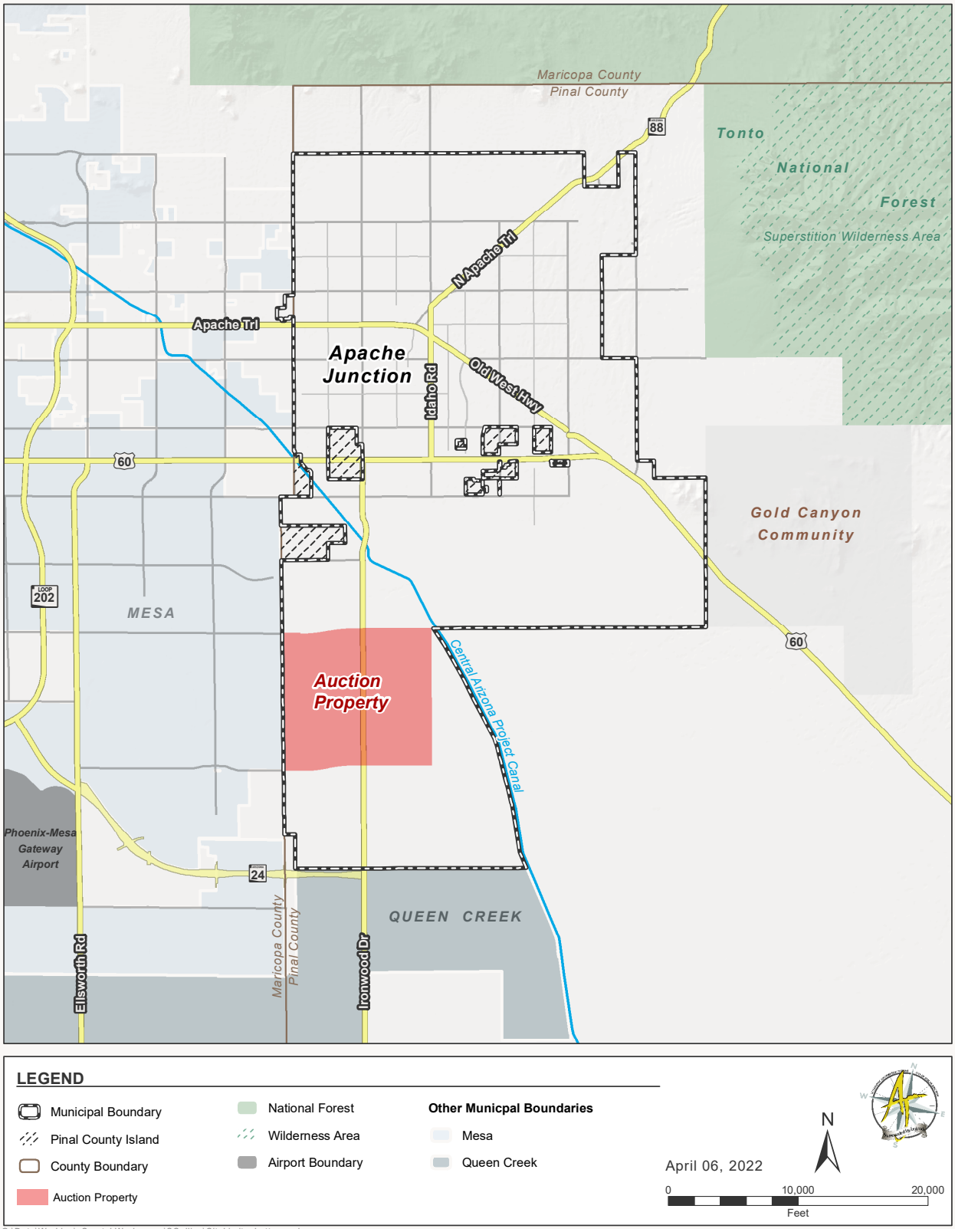
Figure D2: Auction Property



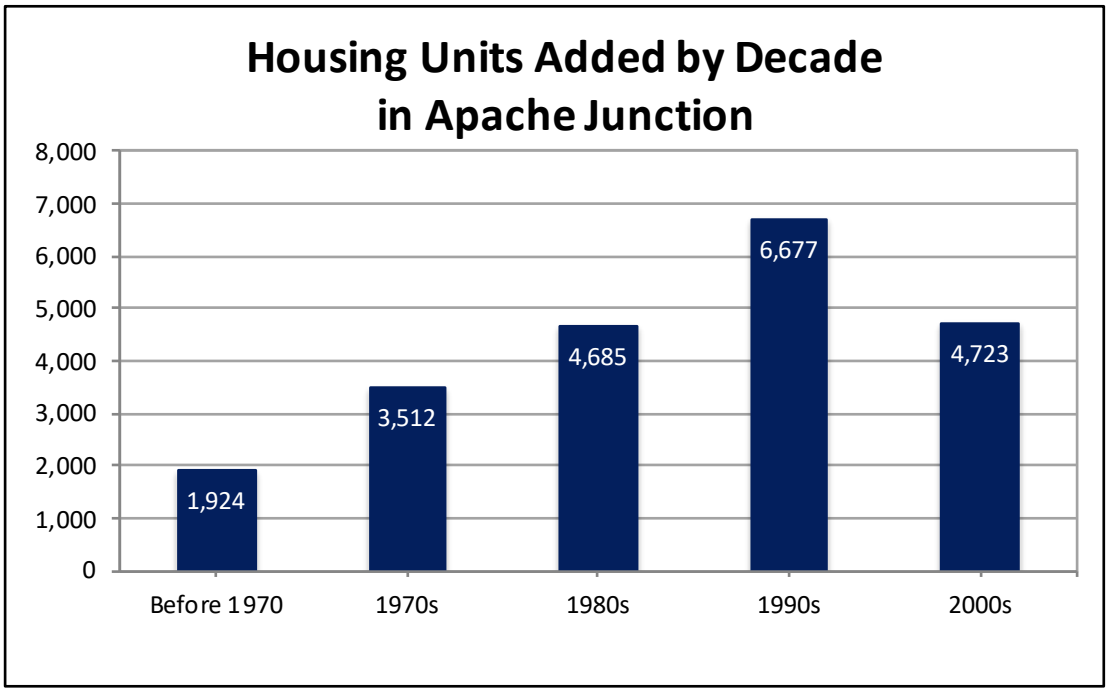
RESIDENTIAL DEVELOPMENT

This section details current estimates and future projections of residential development including population and housing units.

Recent Residential Construction

Capacity fees require an analysis of current levels of service. For residential development, current levels of service are determined using estimates of population and housing units. Shown below, Figure D3 indicates the estimated number of housing units added by decade according to data obtained from the U.S. Census Bureau. In the previous decade, Apache Junction's housing stock grew by an average of 472 units per year.

Figure D3: Housing Units by Decade



Source: U.S. Census Bureau, 2015-2019 American Community Survey 5-Year Estimates.

Occupancy Factors

According to the U.S. Census Bureau, a household is a housing unit occupied by year-round residents. Development fees often use per capita standards and persons per housing unit (PPHU) or persons per household (PPH) to derive proportionate share fee amounts. When PPHU is used in the fee calculations, infrastructure standards are derived using year-round population. When PPH is used in the fee calculations, the development fee methodology assumes a higher percentage of housing units will be occupied, thus requiring seasonal or peak population to be used when deriving infrastructure standards. Because of the seasonal nature of the Apache Junction's population, TischlerBise recommends that development fees for residential development be imposed according to the number of persons per household.

Occupancy calculations require data on population and the types of units by structure. The 2010 census did not obtain detailed information using a "long-form" questionnaire. Instead, the U.S. Census Bureau switched to a continuous monthly mailing of surveys, known as the American Community Survey (ACS), which has limitations due to sample-size constraints. For example, data on detached housing units are now combined with attached single units (commonly known as townhouses, which share a common sidewall, but are constructed on an individual parcel of land). For development fees in Apache Junction, detached units, attached units, and mobile home units are included in the "Single-Family" category. The second residential category includes duplexes and all structures with two or more units on an individual parcel of land. This category is referred to as "Multi-Family." The third residential category, which includes recreational vehicles, is referred to as "RV."

Figure D4 below shows the occupancy estimates for Apache Junction based on 2015-2019 American Community Survey 5-Year Estimates. Single-family units averaged 2.37 persons per household, multi-family units averaged 1.86 persons per household, and RV units averaged 1.83 persons per household. The average occupancy in Apache Junction was 2.30 persons per household. The estimates shown below are used only to calculate occupancy factors and may not match population and housing unit estimates shown throughout this report.

Figure D4: Occupancy Factors

Housing Type	Persons	Households	Persons per Household	Housing Units	Persons per Housing Unit	Housing Mix	Vacancy Rate
Single-Family[1]	36,025	15,225	**2.37**	19,851	1.81	86.8%	23.30%
Multi-Family[2]	2,843	1,525	**1.86**	2,156	1.32	9.4%	29.27%
RV	1,565	856	**1.83**	856	1.83	3.7%	0.00%
Total	40,433	17,606	**2.30**	22,863	1.77	100.0%	22.99%

Source: U.S. Census Bureau, 2015-2019 American Community Survey 5-Year Estimates.

1. Includes detached, attached (i.e. townhouses), and mobile home units.
2. Includes dwellings in structures with two or more units.

Residential Estimates

For 2020, data published by the U.S. Census Bureau includes 38,499 persons living in 17,052 housing units citywide. The 2020 estimate represents residential development outside of the Auction Property. The Auction Property is currently undeveloped.

Figure D5: 2020 Census Estimates

Apache Junction	Estimate
Population	38,499
Housing Units	17,052

Source: U.S. Census Bureau, 2020

MAG estimates for 2020 include 5,245 seasonal residents. Based on discussions with staff, this analysis assumes the seasonal population will remain stable over the next 10 years. For 2020, the peak population in Apache Junction is 43,744 persons (38,499 resident population + 5,245 seasonal population).

Residential Projections

Population and housing unit projections are used to illustrate the possible future pace of service demands, revenues, and expenditures. To the extent these factors change, the projected need for infrastructure will also change. If development occurs at a more rapid rate than projected, the demand for infrastructure will increase at a corresponding rate. If development occurs at a slower rate than projected, the demand for infrastructure will also decrease.

TischlerBise projects residential development outside of the Auction Property using staff recommendations from recent and planned development. For the Auction Property, TischlerBise projects residential development using housing unit projections included in the Auction Property Master Planned Community Plan (October 2021). For this study, the analysis assumes the occupancy factors shown in Figure D4 will remain constant throughout the 10-year projection period.

Outside of Auction Property

TischlerBise projects residential development outside of the Auction Property based on recent development trends and approved / planned development in the pipeline. Over the next 10 years, Apache Junction staff expect 1,134 single-family units, 1,039 multi-family units, and no additional RVs.

To convert housing units to population, occupancy factors shown in Figure D4 are applied to the housing unit projections shown in Figure D6. For example, the 10-year increase of 1,134 single-family units multiplied by 2.37 persons per household equals 2,688 persons in new single-family units. Based on these assumptions, the 10-year projections include an increase of 4,620 persons and 1,173 housing units.

Figure D6: Residential Projections – Outside of Auction Property

Outside of Auction Property	2021	2022	2023	2024	2025	2026	2031	10-Year
	Base Year	1	2	3	4	5	10	Increase
Peak Population	**44,205**	**44,667**	**45,131**	**45,594**	**46,058**	**46,519**	**48,825**	**4,620**
Housing Units								
Single Family	14,919	15,033	15,147	15,261	15,375	15,488	16,053	1,134
Multi-Family	1,712	1,815	1,919	2,023	2,127	2,231	2,751	1,039
Recreational Vehicle	638	638	638	638	638	638	638	0
Total	**17,269**	**17,486**	**17,704**	**17,922**	**18,140**	**18,357**	**19,442**	**2,173**

Auction Property

For the Auction Property, TischlerBise projects residential development using housing unit projections included in the Auction Property Master Planned Community Plan (October 2021). The 10-year projections include an increase of 25,651 persons and 10,940 housing.

Figure D7: Residential Projections – Auction Property

Auction Property	2021	2022	2023	2024	2025	2026	2031	10-Year
	Base Year	1	2	3	4	5	10	Increase
Peak Population	**0**	**0**	**2,204**	**5,135**	**8,066**	**10,996**	**25,651**	**25,651**
Housing Units								
Single Family	0	0	893	2,081	3,269	4,457	10,397	10,397
Multi-Family	0	0	47	109	171	233	543	543
Recreational Vehicle	0	0	0	0	0	0	0	0
Total	**0**	**0**	**940**	**2,190**	**3,440**	**4,690**	**10,940**	**10,940**

NONRESIDENTIAL DEVELOPMENT

This section details current estimates and future projections of nonresidential development including jobs and nonresidential floor area.

Nonresidential Square Footage Estimates

TischlerBise uses the term jobs to refer to employment by place of work. In Figure D8, gray shading indicates the nonresidential development prototypes used by TischlerBise to derive employment densities. For nonresidential development, TischlerBise uses data published in Trip Generation, Institute of Transportation Engineers, 11th Edition (2021). The prototype for industrial development is Light Industrial (ITE 110) has 637 square feet of floor area per employee. Institutional development uses Hospital (ITE 610) and has 350 square feet of floor area per employee. For office & other services development, the proxy is General Office (ITE 710); it has 307 square feet of floor area per employee. The prototype for commercial development is Shopping Center (ITE 820) which has 471 square feet of floor area per employee.

Figure D8: Nonresidential Demand Units

ITE Code	Land Use / Size	Demand Unit	Wkdy Trip Ends Per Dmd Unit[1]	Wkdy Trip Ends Per Employee[1]	Emp Per Dmd Unit	Sq Ft Per Emp
110	Light Industrial	1,000 Sq Ft	4.87	3.10	1.57	637
130	Industrial Park	1,000 Sq Ft	3.37	2.91	1.16	864
140	Manufacturing	1,000 Sq Ft	4.75	2.51	1.89	528
150	Warehousing	1,000 Sq Ft	1.71	5.05	0.34	2,953
254	Assisted Living	bed	2.60	4.24	0.61	na
310	Hotel	room	7.99	14.34	0.56	na
520	Elementary School	student	2.27	22.50	0.10	na
525	High School	student	1.94	21.95	0.09	na
540	Community College	student	1.15	14.61	0.08	na
565	Day Care	student	4.09	21.38	0.19	na
610	Hospital	1,000 Sq Ft	10.77	3.77	2.86	350
620	Nursing Home	bed	3.06	3.31	0.92	na
710	General Office (avg size)	1,000 Sq Ft	10.84	3.33	3.26	307
720	Medical-Dental Office	1,000 Sq Ft	36.00	8.71	4.13	242
730	Government Office	1,000 Sq Ft	22.59	7.45	3.03	330
750	Office Park	1,000 Sq Ft	11.07	3.54	3.13	320
760	Research & Dev Center	1,000 Sq Ft	11.08	3.37	3.29	304
770	Business Park	1,000 Sq Ft	12.44	4.04	3.08	325
820	Shopping Center (avg size)	1,000 Sq Ft	37.01	17.42	2.12	471

1. Trip Generation, Institute of Transportation Engineers, 11th Edition (2021).

Nonresidential Estimates

TischlerBise uses the term jobs to refer to employment by place of work. Shown below in Figure D9, 2020 MAG estimates for Apache Junction equal 6,354 jobs. Applying the employment multipliers shown in Figure D8 to employment estimates shown in Figure D9 results in a nonresidential floor area estimate of 2,687,081 square feet. The 2020 estimates represent nonresidential development outside of the Auction Property. The Auction Property is currently undeveloped.

Figure D9: Nonresidential Estimates

Nonresidential Category	2020 Jobs[1]	Percent of Total Jobs	Square Feet per Job[2]	2020 Estimated Floor Area[3]	Jobs per 1,000 Sq. Ft.[2]
Industrial[4]	891	14%	637	567,567	1.57
Commercial[5]	2,361	37%	471	1,112,031	2.12
Office & Other Service[6]	1,819	29%	307	558,433	3.26
Institutional[7]	1,283	20%	350	449,050	2.86
Total	6,354	100%		2,687,081	

1. Maricopa Association of Governments.
2. Trip Generation, Institute of Transportation Engineers, 11th Edition (2021).
3. TischlerBise calculation (2020 jobs X square feet per job).
4. Major sectors are Transportation & Warehousing; Manufacturing.
5. Major sectors are Retail; Accommodation & Food Services.
6. Major sectors are Real Estate, Rental & Leasing; Other Services.
7. Major sectors are Health Care; Public Administration.

Nonresidential Projections

Employment and floor area projections are used to illustrate the possible future pace of service demands, revenues, and expenditures. To the extent these factors change, the projected need for infrastructure will also change. If development occurs at a more rapid rate than projected, the demand for infrastructure will increase at a corresponding rate. If development occurs at a slower rate than projected, the demand for infrastructure will also decrease.

Based on discussions with Apache Junction staff, TischlerBise projects nonresidential development outside of the Auction Property based on MAG employment projections. For the Auction Property, TischlerBise projects nonresidential development using nonresidential floor area projections included in the Auction Property Master Planned Community Plan (October 2021).

Outside of Auction Property

To project nonresidential development from 2021 through 2031, TischlerBise uses MAG employment projections for 2020, 2025, 2030, and 2035. To project interim years, the five-year increase is distributed equally. For example, dividing the five-year increase of 438 industrial jobs (1,329 industrial jobs in 2025 – 891 industrial jobs in 2020) by five results in an average annual increase of approximately 88 industrial jobs. Adding those 88 jobs to the 2020 estimate of 891 industrial jobs results in a 2021 estimate of 979 industrial jobs.

To convert employment to floor area, employment multipliers shown in Figure D8 are applied to the employment projections shown in Figure D10. For example, the 10-year increase of 761 industrial jobs multiplied by 637 square feet per job equals approximately 485,000 square feet of industrial floor area. Based on these assumptions, the 10-year projections include an increase of 2,887 jobs and 1,311,000 square feet of nonresidential floor area.

Figure D10: Nonresidential Projections – Outside of Auction Property

Outside of Auction Property	2021	2022	2023	2024	2025	2026	2031	10-Year
	Base Year	1	2	3	4	5	10	Increase
Employment								
Industrial	979	1,066	1,154	1,241	1,329	1,404	1,740	761
Commercial	2,462	2,563	2,664	2,765	2,866	2,972	3,477	1,015
Office & Other Services	1,912	2,006	2,099	2,193	2,286	2,367	2,850	937
Institutional	1,298	1,312	1,327	1,341	1,356	1,375	1,471	174
Total	**6,651**	**6,947**	**7,244**	**7,540**	**7,837**	**8,119**	**9,538**	**2,887**
Nonres. Floor Area (x1,000)								
Industrial	623	679	735	791	847	895	1,108	485
Commercial	1,160	1,207	1,255	1,302	1,350	1,400	1,637	478
Office & Other Services	587	616	644	673	702	727	875	288
Institutional	454	459	464	469	475	481	515	61
Total	**2,824**	**2,961**	**3,099**	**3,236**	**3,373**	**3,502**	**4,136**	**1,311**

Auction Property

For the Auction Property, TischlerBise projects nonresidential development using floor area projections included in the Auction Property Master Planned Community Plan (October 2021). The 10-year projections include an increase of approximately 443,000 square feet of commercial development within development units 1 and 2. The master plan projects future industrial, office, and institutional development in phases beyond development units 1 and 2 (the Retained Property).

To convert floor area to employment, employment multipliers shown in Figure D8 are applied to the floor area projections shown in Figure D11. For example, the 10-year increase of approximately 443,000 square feet of commercial floor area divided by 471 square feet per job equals approximately 941 commercial jobs. Based on these assumptions, the 10-year projections include an increase of 941 jobs and approximately 443,000 square feet of nonresidential floor area.

Figure D11: Nonresidential Projections – Auction Property

Auction Property	2021	2022	2023	2024	2025	2026	2031	10-Year
	Base Year	1	2	3	4	5	10	Increase
Employment								
Industrial	0	0	0	0	0	0	0	0
Commercial	0	0	0	0	0	157	941	941
Office & Other Services	0	0	0	0	0	0	0	0
Institutional	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**157**	**941**	**941**
Nonres. Floor Area (x1,000)								
Industrial	0	0	0	0	0	0	0	0
Commercial	0	0	0	0	0	74	443	443
Office & Other Services	0	0	0	0	0	0	0	0
Institutional	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**74**	**443**	**443**

AVERAGE WEEKDAY VEHICLE TRIPS

Apache will use average weekday vehicle trips (AWVT) for police facilities fees. Components used to determine AWVT include average weekday vehicle trip generation rates, adjustments for commuting patterns, and adjustments for pass-by trips.

Residential Trip Generation Rates

As an alternative to simply using the national average trip generation rate for residential development, the ITE publishes regression curve formulas that may be used to derive custom trip generation rates, using local demographic data. Key independent variables needed for the analysis (i.e., vehicles available, housing units, households, and persons) are available from American Community Survey data. Shown below, single-family units generate 8.42 average weekday vehicle trip ends per unit, and multi-family units generate 4.61 average weekday vehicle trip ends per unit.

Figure D12: Average Weekday Vehicle Trip Ends by Housing Type

		Households by Structure Type[2]			
Tenure by Units in Structure	Vehicles Available[1]	Single-Family	Multi-Family	Total	Vehicles per HH by Tenure
Owner-Occupied	22,868	12,859	869	13,728	1.67
Renter-Occupied	5,857	2,366	1,512	3,878	1.51
Total	28,725	15,225	2,381	17,606	1.63
Housing Units[3]		19,851	3,012	22,863	

Units in Structure	Persons in Households[4]	Trip Ends[5]	Vehicles by Type of Unit	Trip Ends[6]	Average Trip Ends	Local Trip Ends per Unit
Single-Family	36,025	100,412	24,994	233,807	167,109	**8.42**
Multi-Family	4,408	10,030	3,731	17,751	13,891	**4.61**
Total	40,433	110,442	28,725	251,558	181,000	**7.92**

1. Vehicles available by tenure from Table B25046, American Community Survey, 2015-2019 5-Year Estimates.
2. Households by tenure and units in structure from Table B25032, American Community Survey, 2015-2019 5-Year Estimates.
3. Housing units from Table B25024, American Community Survey, 2015-2019 5-Year Estimates.
4. Total population in households from Table B25033, American Community Survey, 2015-2019 5-Year Estimates.
5. Vehicle trips ends based on persons using formulas from Trip Generation (ITE 2021). For single-family housing (ITE 210), the fitted curve equation is EXP(0.89*LN(persons)+1.72). To approximate the average population of the ITE studies, persons were divided by 65 and the equation result multiplied by 65. For multi-family housing (ITE 221), the fitted curve equation is (2.29*persons)-64.48 (ITE 2017).
6. Vehicle trip ends based on vehicles available using formulas from Trip Generation (ITE 2021). For single-family housing (ITE 210), the fitted curve equation is EXP(0.92*LN(vehicles)+2.68). To approximate the average number of vehicles in the ITE studies, vehicles available were divided by 97 and the equation result multiplied by 97. For multi-family housing (ITE 221), the fitted curve equation is (4.77*vehicles)-46.46 (ITE 2021).
7. Trip Generation, Institute of Transportation Engineers, 11th Edition (2021).

Nonresidential Trip Generation Rates

For nonresidential development, TischlerBise uses trip generation rates published in Trip Generation, Institute of Transportation Engineers, 11th Edition (2021). The prototype for industrial development is Light Industrial (ITE 110) which generates 4.87 average weekday vehicle trip ends per 1,000 square feet of floor area. Assisted living development uses Assisted Living (ITE 254) as a proxy and generates 2.60 average weekday vehicle trip ends per bed. For lodging development, the proxy is Hotel (ITE 310), and this type of development generates 7.99 average weekday vehicle trip ends per room. Institutional development uses Hospital (ITE 610) and generates 10.77 average weekday vehicle trip ends per 1,000 square feet of floor area. For office & other services development, the proxy is General Office (ITE 710), and it generates 10.84 average weekday vehicle trip ends per 1,000 square feet of floor area. The prototype for commercial development is Shopping Center (ITE 820) which generates 37.01 average weekday vehicle trips per 1,000 square feet of floor area.

Figure D13: Average Weekday Vehicle Trip Ends by Land Use

ITE Code	Land Use / Size	Demand Unit	Wkdy Trip Ends Per Dmd Unit[1]	Wkdy Trip Ends Per Employee[1]	Emp Per Dmd Unit	Sq Ft Per Emp
110	Light Industrial	1,000 Sq Ft	4.87	3.10	1.57	637
130	Industrial Park	1,000 Sq Ft	3.37	2.91	1.16	864
140	Manufacturing	1,000 Sq Ft	4.75	2.51	1.89	528
150	Warehousing	1,000 Sq Ft	1.71	5.05	0.34	2,953
254	Assisted Living	bed	2.60	4.24	0.61	na
310	Hotel	room	7.99	14.34	0.56	na
610	Hospital	1,000 Sq Ft	10.77	3.77	2.86	350
620	Nursing Home	bed	3.06	3.31	0.92	na
710	General Office (avg size)	1,000 Sq Ft	10.84	3.33	3.26	307
720	Medical-Dental Office	1,000 Sq Ft	36.00	8.71	4.13	242
730	Government Office	1,000 Sq Ft	22.59	7.45	3.03	330
770	Business Park	1,000 Sq Ft	12.44	4.04	3.08	325
820	Shopping Center (avg size)	1,000 Sq Ft	37.01	17.42	2.12	471

1. Trip Generation, Institute of Transportation Engineers, 11th Edition (2021).

Trip Rate Adjustments

To calculate average weekday vehicle trips, trip generation rates require an adjustment factor to avoid double counting each trip at both the origin and destination points. Therefore, the basic trip adjustment factor is 50 percent. As discussed further in this section, the development fee methodology includes additional adjustments to make the fees proportionate to the infrastructure demand for particular types of development.

Commuter Trip Adjustment

Residential development has a larger trip adjustment factor of 64 percent to account for commuters leaving Apache Junction for work. According to the 2009 National Household Travel Survey (see Table 30) weekday work trips are typically 31 percent of production trips (i.e., all out-bound trips, which are 50 percent of all trip ends). As shown below, the U.S. Census Bureau's OnTheMap web application indicates 92 percent of resident workers traveled outside of Apache Junction for work in 2018. In combination, these factors (0.31 x 0.50 x 0.92 = 0.14) support the additional 14 percent allocation of trips to residential development.

Figure D14: Commuter Trip Adjustment

Trip Adjustment Factor for Commuters[1]	
Employed Residents	14,729
Residents Living and Working in Apache Junction	1,207
Residents Commuting Outside Apache Junction for Work	13,522
Percent Commuting out of Apache Junction	92%
Additional Production Trips[2]	14%
Residential Trip Adjustment Factor	64%

1. U.S. Census Bureau, OnTheMap Application (version 6.8) and LEHD Origin-Destination Employment Statistics, 2018.

2. According to the National Household Travel Survey (2009)*, published in December 2011 (see Table 30), home-based work trips are typically 30.99 percent of "production" trips, in other words, out-bound trips (which are 50 percent of all trip ends). Also, LED OnTheMap data from 2018 indicate that 92 percent of Apache Junction's workers travel outside the city for work. In combination, these factors (0.3099 x 0.50 x 0.92 = 0.14) account for 14 percent of additional production trips. The total adjustment factor for residential includes attraction trips (50 percent of trip ends) plus the journey-to-work commuting adjustment (14 percent of production trips) for a total of 64 percent.
*http://nhts.ornl.gov/publications.shtml ; Summary of Travel Trends - Table "Daily Travel Statistics by Weekday vs. Weekend"

Adjustment for Pass-By Trips

For commercial and institutional development, the trip adjustment factor is less than 50 percent because these types of development attract vehicles as they pass by on arterial and collector roads. For example, when someone stops at a convenience store on the way home from work, the convenience store is not the primary destination. For the average shopping center, ITE data indicate 34 percent of the vehicles that enter are passing by on their way to some other primary destination. The remaining 66 percent of attraction trips have the commercial site as their primary destination. Because attraction trips are half of all trips, the trip adjustment factor is 66 percent multiplied by 50 percent, or approximately 33 percent of the trip ends.

Average Weekday Vehicle Trips

Shown below, multiplying average weekday vehicle trip ends and trip adjustment factors (discussed on the previous page) by Apache Junction's existing development units provides the average weekday vehicle trips generated by existing development. As shown below, Apache Junction's existing development generates 107,806 vehicle trips on an average weekday.

Figure D15: Average Weekday Vehicle Trips by Land Use

Development Type	Development Unit	ITE Code	Avg Wkday VTE	Trip Adjustment	2021 Dev Units	2021 Veh Trips
Single Family	HU	210	8.42	64%	14,919	80,396
Multi-Family	HU	220	4.61	64%	1,712	5,051
Recreational Vehicle	HU	260	4.61	64%	638	1,882
Industrial	KSF	110	4.87	50%	623	1,518
Commercial	KSF	820	37.01	33%	1,160	14,163
Office & Other Services	KSF	710	10.84	50%	587	3,182
Institutional	KSF	610	10.77	33%	454	1,614
Total						107,806

DEVELOPMENT PROJECTIONS

Provided below is a summary of development projections used in the Development Fee Report. Base year estimates for 2021 are used in the fee calculations. Development projections are used to illustrate a possible future pace of demand for service units and cash flows resulting from revenues and expenditures associated with those demands. TischlerBise uses the development projections shown below in the **Library Facilities IIP** and the **Police Facilities IIP**.

Figure D16: Development Projections Summary

Apache Junction	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	10-Year Increase
	Base Year	1	2	3	4	5	6	7	8	9	10	
Peak Population	**44,205**	**44,667**	**47,334**	**50,729**	**54,123**	**57,516**	**60,908**	**64,300**	**67,692**	**71,084**	**74,476**	**30,271**
Housing Units												
Single Family	14,919	15,033	16,040	17,342	18,644	19,945	21,246	22,547	23,848	25,149	26,450	11,531
Multi-Family	1,712	1,815	1,966	2,132	2,298	2,464	2,630	2,796	2,962	3,128	3,294	1,582
Recreational Vehicle	638	638	638	638	638	638	638	638	638	638	638	0
Total	**17,269**	**17,486**	**18,644**	**20,112**	**21,580**	**23,047**	**24,514**	**25,981**	**27,448**	**28,915**	**30,382**	**13,113**
Employment												
Industrial	979	1,066	1,154	1,241	1,329	1,404	1,480	1,555	1,631	1,706	1,740	761
Commercial	2,462	2,563	2,664	2,765	2,866	3,129	3,392	3,655	3,918	4,181	4,418	1,956
Office & Other Services	1,912	2,006	2,099	2,193	2,286	2,367	2,449	2,530	2,612	2,693	2,850	937
Institutional	1,298	1,312	1,327	1,341	1,356	1,375	1,394	1,412	1,431	1,450	1,471	174
Total	**6,651**	**6,947**	**7,244**	**7,540**	**7,837**	**8,276**	**8,714**	**9,153**	**9,591**	**10,030**	**10,479**	**3,828**
Nonres. Floor Area (x1,000)												
Industrial	623	679	735	791	847	895	943	991	1,039	1,087	1,108	485
Commercial	1,160	1,207	1,255	1,302	1,350	1,474	1,598	1,721	1,845	1,969	2,081	921
Office & Other Services	587	616	644	673	702	727	752	777	802	827	875	288
Institutional	454	459	464	469	475	481	488	494	501	508	515	61
Total	**2,824**	**2,961**	**3,099**	**3,236**	**3,373**	**3,576**	**3,780**	**3,983**	**4,187**	**4,390**	**4,579**	**1,755**

Outside of Auction Property

TischlerBise uses the development projections shown below in the **Parks and Recreational Facilities IIP** and the **Street Facilities IIP**.

Figure D17: Development Projections Summary

Outside of Auction Property	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	10-Year
	Base Year	1	2	3	4	5	6	7	8	9	10	Increase
Peak Population	**44,205**	**44,667**	**45,131**	**45,594**	**46,058**	**46,519**	**46,980**	**47,442**	**47,903**	**48,364**	**48,825**	**4,620**
Housing Units												
Single Family	14,919	15,033	15,147	15,261	15,375	15,488	15,601	15,714	15,827	15,940	16,053	1,134
Multi-Family	1,712	1,815	1,919	2,023	2,127	2,231	2,335	2,439	2,543	2,647	2,751	1,039
Recreational Vehicle	638	638	638	638	638	638	638	638	638	638	638	0
Total	**17,269**	**17,486**	**17,704**	**17,922**	**18,140**	**18,357**	**18,574**	**18,791**	**19,008**	**19,225**	**19,442**	**2,173**
Employment												
Industrial	979	1,066	1,154	1,241	1,329	1,404	1,480	1,555	1,631	1,706	1,740	761
Commercial	2,462	2,563	2,664	2,765	2,866	2,972	3,078	3,184	3,290	3,396	3,477	1,015
Office & Other Services	1,912	2,006	2,099	2,193	2,286	2,367	2,449	2,530	2,612	2,693	2,850	937
Institutional	1,298	1,312	1,327	1,341	1,356	1,375	1,394	1,412	1,431	1,450	1,471	174
Total	**6,651**	**6,947**	**7,244**	**7,540**	**7,837**	**8,119**	**8,400**	**8,682**	**8,963**	**9,245**	**9,538**	**2,887**
Nonres. Floor Area (x1,000)												
Industrial	623	679	735	791	847	895	943	991	1,039	1,087	1,108	485
Commercial	1,160	1,207	1,255	1,302	1,350	1,400	1,450	1,500	1,550	1,600	1,637	478
Office & Other Services	587	616	644	673	702	727	752	777	802	827	875	288
Institutional	454	459	464	469	475	481	488	494	501	508	515	61
Total	**2,824**	**2,961**	**3,099**	**3,236**	**3,373**	**3,502**	**3,632**	**3,761**	**3,891**	**4,020**	**4,136**	**1,311**

Auction Property

Figure D18: Development Projections Summary

Auction Property	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	10-Year
	Base Year	1	2	3	4	5	6	7	8	9	10	Increase
Peak Population	**0**	**0**	**2,204**	**5,135**	**8,066**	**10,996**	**13,927**	**16,858**	**19,789**	**22,720**	**25,651**	**25,651**
Housing Units												
Single Family	0	0	893	2,081	3,269	4,457	5,645	6,833	8,021	9,209	10,397	10,397
Multi-Family	0	0	47	109	171	233	295	357	419	481	543	543
Recreational Vehicle	0	0	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**940**	**2,190**	**3,440**	**4,690**	**5,940**	**7,190**	**8,440**	**9,690**	**10,940**	**10,940**
Employment												
Industrial	0	0	0	0	0	0	0	0	0	0	0	0
Commercial	0	0	0	0	0	157	314	471	628	785	941	941
Office & Other Services	0	0	0	0	0	0	0	0	0	0	0	0
Institutional	0	0	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**157**	**314**	**471**	**628**	**785**	**941**	**941**
Nonres. Floor Area (x1,000)												
Industrial	0	0	0	0	0	0	0	0	0	0	0	0
Commercial	0	0	0	0	0	74	148	222	296	370	443	443
Office & Other Services	0	0	0	0	0	0	0	0	0	0	0	0
Institutional	0	0	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**74**	**148**	**222**	**296**	**370**	**443**	**443**

Average Weekday Vehicle Trips

Figure D19: Average Weekday Vehicle Trips Summary

Apache Junction, Arizona		Base	1	2	3	4	5	6	7	8	9	10	10-Year
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Increase
Development	Single Family Units	14,919	15,033	16,040	17,342	18,644	19,945	21,246	22,547	23,848	25,149	26,450	11,531
	Multi-Family Units	1,712	1,815	1,966	2,132	2,298	2,464	2,630	2,796	2,962	3,128	3,294	1,582
	Recreational Vehicle Units	638	638	638	638	638	638	638	638	638	638	638	0
	Industrial KSF	623	679	735	791	847	895	943	991	1,039	1,087	1,108	485
	Commercial KSF	1,160	1,207	1,255	1,302	1,350	1,474	1,598	1,721	1,845	1,969	2,081	921
	Office & Other Services KSF	587	616	644	673	702	727	752	777	802	827	875	288
	Institutional KSF	454	459	464	469	475	481	488	494	501	508	515	61
Avg Weekday Vehicle Trips	Single-Family Trips	80,396	81,010	86,436	93,453	100,469	107,480	114,490	121,501	128,512	135,523	142,534	62,138
	Multi-Family Trips	5,051	5,355	5,800	6,290	6,780	7,270	7,760	8,249	8,739	9,229	9,719	4,668
	Recreational Vehicle Trips	1,882	1,882	1,882	1,882	1,882	1,882	1,882	1,882	1,882	1,882	1,882	0
	Residential Trips	87,329	88,247	94,119	101,625	109,131	116,632	124,132	131,633	139,134	146,634	154,135	66,806
	Industrial Trips	1,518	1,654	1,790	1,926	2,061	2,178	2,295	2,412	2,529	2,646	2,699	1,181
	Commercial Trips	14,163	14,744	15,325	15,906	16,487	17,999	19,511	21,024	22,536	24,048	25,414	11,252
	Office & Other Services Trips	3,182	3,338	3,493	3,648	3,804	3,939	4,075	4,210	4,346	4,481	4,742	1,560
	Institutional Trips	1,614	1,632	1,650	1,669	1,687	1,710	1,734	1,757	1,780	1,804	1,830	216
	Nonresidential Trips	20,477	21,367	22,258	23,148	24,039	25,827	27,615	29,403	31,191	32,979	34,685	14,209
	Total Vehicle Trips	**107,806**	**109,614**	**116,377**	**124,773**	**133,170**	**142,458**	**151,747**	**161,036**	**170,324**	**179,613**	**188,820**	**81,014**

APPENDIX E: STREET INVENTORY

Street	Section	Miles	Lanes	Ln Miles	ADT[1]	VMT	Capacity[2]	VMC
16th Ave	Cedar Dr to Delaware Dr	0.40	3.0	1.20	953	381	15,400	6,160
16th Ave	Delaware Dr to Ironwood Dr	0.50	3.0	1.50	1,233	617	15,400	7,700
16th Ave	Ironwood Dr to Idaho Rd	1.00	3.0	3.00	1,996	1,996	15,400	15,400
Apache Trail	Meridian Dr. to Delaware Dr.	0.50	6.0	3.00	9,695	4,848	49,200	24,600
Apache Trail	Delaware Dr. to Ironwood Dr.	0.50	6.0	3.00	10,392	5,196	49,200	24,600
Apache Trail	Ironwood Dr. to Phelps	0.75	6.0	4.50	11,901	8,926	49,200	36,900
Baseline Ave	W City limit to Ironwood Dr	0.80	2.0	1.60	5,626	4,501	12,300	9,840
Baseline Ave	Ironwood Dr to Idaho Rd	1.00	2.0	2.00	3,640	3,640	12,300	12,300
Baseline Ave	Idaho Rd to Tomahawk Rd	1.00	2.0	2.00	2,797	2,797	12,300	12,300
Baseline Ave	Tomahawk Rd to Goldfield Rd	1.00	2.0	2.00	2,739	2,739	12,300	12,300
Broadway Ave	Meridian Dr to Delaware Dr	0.50	5.0	2.50	5,572	2,786	31,100	15,550
Broadway Ave	Delaware Dr to Ironwood Dr	0.50	5.0	2.50	5,271	2,636	31,100	15,550
Broadway Ave	Ironwood Dr to Idaho Rd	1.00	5.0	5.00	4,555	4,555	31,100	31,100
Broadway Ave	Old West Highway to Tomahawk Rd	0.50	2.0	1.00	1,226	613	12,300	6,150
Broadway Ave	Tomahawk Rd to Goldfield Rd	1.00	2.0	2.00	1,315	1,315	12,300	12,300
Broadway Ave	Goldfield Rd to Arroya Dr	0.75	2.0	1.50	1,207	905	12,300	9,225
Delaware Dr	Southern Ave to 16th Ave	0.50	3.0	1.50	3,872	1,936	15,400	7,700
Delaware Dr	16th Ave to Broadway Ave	0.50	2.0	1.00	1,766	883	12,300	6,150
Delaware Dr	Broadway Ave to Apache Trail	0.50	3.0	1.50	3,419	1,710	15,400	7,700
Delaware Dr	Apache Trail to Superstition Blvd	0.50	2.0	1.00	1,712	856	12,300	6,150
Delaware Dr	Superstition Blvd to Tepee St	0.50	2.0	1.00	1,546	773	12,300	6,150
Delaware Dr	Tepee St to Lost Dutchman Blvd	0.50	2.0	1.00	777	389	12,300	6,150
Goldfield Rd	Baseline Ave to US 60	0.50	5.0	2.50	732	366	31,100	15,550
Goldfield Rd	US 60 to Southern Ave	0.50	4.0	2.00	872	436	24,500	12,250

Street	Section	Miles	Lanes	Ln Miles	ADT[1]	VMT	Capacity[2]	VMC
Goldfield Rd	Southern Ave to Broadway Ave	1.00	2.0	2.00	1,054	1,054	12,300	12,300
Goldfield Rd	Broadway Ave to Superstition Blvd	1.00	2.0	2.00	804	804	12,300	12,300
Goldfield Rd	Superstition Blvd to Lost Dutchman Blvd	1.00	2.0	2.00	739	739	12,300	12,300
Idaho Rd	Baseline Ave to US 60	0.50	2.0	1.00	2,271	1,136	12,300	6,150
Idaho Rd	US 60 to Southern Ave	0.50	5.0	2.50	13,496	6,748	31,100	15,550
Idaho Rd	Southern Ave to Broadway Ave	1.00	5.0	5.00	12,927	12,927	31,100	31,100
Idaho Rd	Broadway Ave to North Apache Trail	0.80	5.0	4.00	4,216	3,373	31,100	24,880
Idaho Rd	North Apache Trail to Superstition Blvd	0.25	5.0	1.25	5,141	1,285	31,100	7,775
Idaho Rd	Superstition Blvd to Tepee St	0.50	2.0	1.00	2,867	1,434	12,300	6,150
Idaho Rd	Tepee St to Lost Dutchman Blvd	0.50	2.0	1.00	2,004	1,002	12,300	6,150
Idaho Rd	Lost Dutchman Blvd to McKellips Rd	1.00	2.0	2.00	1,315	1,315	12,300	12,300
Ironwood Dr	Baseline Ave to US 60	0.50	5.0	2.50	15,826	7,913	31,100	15,550
Ironwood Dr	US 60 to Southern Ave	0.50	5.0	2.50	9,070	4,535	31,100	15,550
Ironwood Dr	Southern Ave to 16th Ave	0.50	5.0	2.50	9,400	4,700	31,100	15,550
Ironwood Dr	16th Ave to Broadway Ave	0.50	5.0	2.50	8,966	4,483	31,100	15,550
Ironwood Dr	Broadway Ave to Apache Trail	0.50	5.0	2.50	6,335	3,168	31,100	15,550
Ironwood Dr	Apache Trail to Superstition Blvd	0.50	5.0	2.50	4,369	2,185	31,100	15,550
Ironwood Dr	Superstition Blvd to Tepee St	0.50	2.0	1.00	3,053	1,527	12,300	6,150
Ironwood Dr	Tepee St to Lost Dutchman Blvd	0.50	2.0	1.00	2,212	1,106	12,300	6,150
Ironwood Dr	Lost Dutchman Blvd to McKellips Rd	1.00	2.0	2.00	1,342	1,342	12,300	12,300
Lost Dutchman Blvd	Meridian Dr to Delaware Dr	0.50	2.0	1.00	2,362	1,181	12,300	6,150
Lost Dutchman Blvd	Delaware Dr to Ironwood Dr	0.50	2.0	1.00	2,451	1,226	12,300	6,150
Lost Dutchman Blvd	Ironwood Dr to Idaho Rd	1.00	2.0	2.00	2,024	2,024	12,300	12,300
Lost Dutchman Blvd	Idaho Rd to Tomahawk Rd	1.00	2.0	2.00	1,080	1,080	12,300	12,300
Lost Dutchman Blvd	Tomahawk Rd to SR 88	0.40	2.0	0.80	770	308	12,300	4,920
Lost Dutchman Blvd	SR 88 to Goldfield Rd	0.60	2.0	1.20	364	218	12,300	7,380
Meridian Dr	Baseline Ave to US 60	0.50	2.0	1.00	6,034	3,017	12,300	6,150

Street	Section	Miles	Lanes	Ln Miles	ADT[1]	VMT	Capacity[2]	VMC
Meridian Dr	US 60 to Southern Ave	0.50	2.0	1.00	7,699	3,850	12,300	6,150
Meridian Dr	Southern Ave to Broadway Ave	1.00	2.0	2.00	5,129	5,129	12,300	12,300
Meridian Dr	Broadway Ave to Apache Trail	0.50	2.0	1.00	5,129	2,565	12,300	6,150
Meridian Dr	Apache Trail to Superstition Blvd	0.50	2.0	1.00	5,220	2,610	12,300	6,150
Meridian Dr	Superstition Blvd to Lost Dutchman Blvd	1.00	1.0	1.00	3,033	3,033	6,150	6,150
Meridian Dr	Lost Dutchman Blvd to McKellips Rd	1.00	1.0	1.00	1,883	1,883	6,150	6,150
Old West Highway	Phelps to Idaho Rd	0.25	6.0	1.50	8,804	2,201	49,200	12,300
Old West Highway	Idaho Rd to Tomahawk Rd	1.50	4.0	6.00	8,979	13,469	32,700	49,050
Old West Highway	Tomahawk Rd to Goldfield Rd	1.50	4.0	6.00	3,931	5,897	32,700	49,050
Tomahawk Rd	Baseline Ave to US 60	0.50	5.0	2.50	2,631	1,316	31,100	15,550
Tomahawk Rd	US 60 to Southern Ave	0.50	3.0	1.50	4,819	2,410	15,400	7,700
Tomahawk Rd	Southern Ave to Old West Highway	0.75	2.0	1.50	3,049	2,287	12,300	9,225
Tomahawk Rd	Old West Highway to Broadway Ave	0.25	2.0	0.50	1,686	422	12,300	3,075
Tomahawk Rd	Broadway Ave to Superstition Blvd	1.00	2.0	2.00	1,601	1,601	12,300	12,300
Tomahawk Rd	Superstition Blvd to North Apache Trail	0.75	2.0	1.50	526	395	12,300	9,225
Tomahawk Rd	North Apache Trail to Lost Dutchman	0.80	2.0	1.60	344	275	12,300	9,840
Southern Ave	Meridian Dr to Delaware Dr	0.50	2.0	1.00	5,396	2,698	12,300	6,150
Southern Ave	Delaware Dr to Ironwood Dr	0.50	2.0	1.00	4,194	2,097	12,300	6,150
Southern Ave	Ironwood Dr to San Marcos Rd	0.50	5.0	2.50	3,447	1,724	31,100	15,550
Southern Ave	San Marcos Rd to Idaho Rd	0.50	2.0	1.00	3,447	1,724	12,300	6,150
Southern Ave	Idaho Rd to Tomahawk Rd	1.00	5.0	5.00	1,805	1,805	31,100	31,100
Southern Ave	Tomahawk Rd to Raindance Rd	0.25	2.0	0.50	1,472	368	12,300	3,075
Southern Ave	Raindance Rd to Cortez Rd	0.25	4.0	1.00	1,472	368	24,500	6,125
Superstition Blvd	Meridian Dr to Delaware Dr	0.50	5.0	2.50	6,554	3,277	31,100	15,550
Superstition Blvd	Delaware Dr to Ironwood Dr	0.50	5.0	2.50	6,643	3,322	31,100	15,550
Superstition Blvd	Ironwood Dr to Idaho Rd	1.00	5.0	5.00	5,631	5,631	31,100	31,100
Superstition Blvd	Idaho Rd to SR 88	0.30	5.0	1.50	2,336	701	31,100	9,330

Street	Section	Miles	Lanes	Ln Miles	ADT[1]	VMT	Capacity[2]	VMC
Superstition Blvd	SR 88 to Tomahawk Rd	0.66	2.0	1.32	1,816	1,199	12,300	8,118
Superstition Blvd	Tomahawk Rd to Goldfield Rd	1.00	2.0	2.00	2,061	2,061	12,300	12,300
Superstition Blvd	Goldfield Rd to Arroya Dr	0.70	2.0	1.40	1,503	1,052	12,300	8,610
Tepee St	Meridian Dr to Delaware Dr	0.50	2.0	1.00	278	139	12,300	6,150
Tepee St	Delaware Dr to Ironwood Dr	0.50	2.0	1.00	293	147	12,300	6,150
Tepee St	Ironwood Dr to Idaho Rd	1.00	2.0	2.00	239	239	12,300	12,300
Total		55.71		165.37	320,356	205,513		1,059,803