BOARD OF SUPERVISORS AGENDA ITEM REPORT

Requested Board Meeting Date: 2/18/2025

**= Mandatory, information must be provided*

Click or tap the boxes to enter text. If not applicable, indicate "N/A".

***Title**:

Final Impact Fee Land Use Assumptions Report (LUAR) and Infrastructure Improvement Plan (IIP)

***Introduction/Background**:

The County Roadway Development Impact Fee ordinance must be updated at least every five years per state statute. The first requirement was a Public Hearing on January 7, 2025, for the draft updated LUAR and IIP. The Board may now approve these reports. If approved, staff will prepare a draft Fee Study and schedule a public hearing, as required by statute.

***Discussion**:

Transportation staff, with assistance from a consultant, has prepared a draft updated LUAR report and IIP. The LUAR provides updated population, employment, and land use development forecasts. The IIP updates the project list and cost estimates. The draft IIP includes 28 projects totaling $134 million in impact fees, including 1 new roadway (Sunset Road), 9 roadway widenings, 10 intersection improvements, 6 turn lane projects, and 2 completed roadway projects that are being reimbursed. Transportation staff has engaged in public outreach, including with key stakeholders, since August 2024 and has incorporated changes to the draft IIP as a result of public comment.

***Conclusion**:

The final LUAR and IIP are presented for BOS consideration. The final LUAR report is identical to the October 21, 2024, draft report initially made available for public review and to the report at the January 7, 2025, public hearing. The IIP has been modified to eliminate three projects that no longer meet capacity requirements. Traffic counts have been updated since January 7, 2025, and two new smaller capacity projects have been added.

***Recommendation**:

Staff recommends approval of the final LUAR and IIP as presented.

***Fiscal Impact**:

NA

***Board of Supervisor District**:

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☑ All

Department: Transportation Telephone: 724-6410

Contact: Jonathan Crowe, Planner III Telephone: 724-6383

Department Director Signature: Digitally signed by Kathryn Skinner DN: cn=Kathryn Skinner, o=Pima County, ou=Department of Transportation, email=kathryn.skinner@pima.gov, c=US Date: 2025.02.04 15:04:45 -07'00' Date: 2/4/2025

Deputy County Administrator Signature: Date: 2/4/2025

County Administrator Signature: Date: 2/4/2025

7/14/2021

Pima County, Arizona

Impact Fee Update

Land Use Assumptions

Final Public Report

Prepared by

PSOMAS

1745 East River Road, Suite 245
Tucson, AZ 85718

Prepared for

PIMA COUNTY

201 North Stone Avenue
Tucson, AZ 85701

February 4, 2025

Pima County Board of Supervisors

Rex Scott – District 1

Dr. Matt Heinz – District 2

Jennifer Allen – District 3

Steve Christy – District 4

Adelita Grijalva – District 5

Key Staff

Kathryn Skinner, P.E., Transportation Director

Paul Casertano, AICP, Transportation Deputy Director

Jonathan Crowe, Planner III

Project Consultants

Psomas

1745 E. River Road, Suite 245

Tucson, AZ 85718

520-292-2300

TABLE OF CONTENTS

APPENDIX

LIST OF EXHIBITS

1. INTRODUCTION

The Roadway Development Impact Fee in unincorporated Pima County is assessed for new developments to offset some of the infrastructure costs associated with growth. The County currently charges fees for one public category: roadways. To continue assessing and collecting fees, the County must comply with Arizona Revised Statute (ARS) §11-1102. To do so, the County will be preparing new development impact fee studies, project list, and fee schedule.

The statute limits the types of "necessary public services" which impact fees can fund. Before assessing the development fees, a County must release to the public a written report of the land use assumptions and an infrastructure improvements plan (IIP) for each fee category.

As defined in ARS §11-1102 (V)(6), "'Land use assumptions' means 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 county."

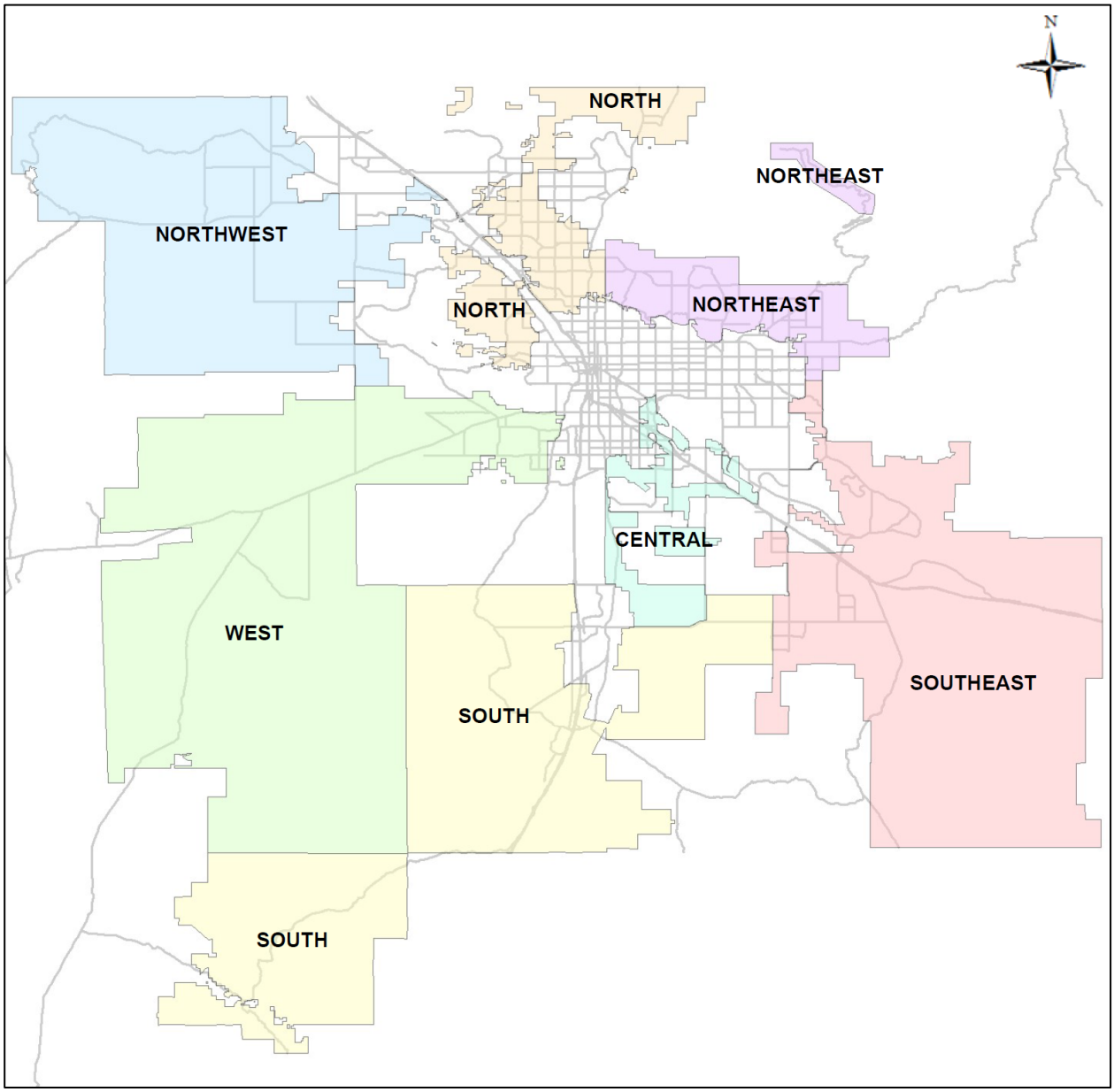
This report is a required document that identifies the land use assumptions to be applied in the IIP for street facilities, and the subsequent calculation of development impact fee rates. These land use assumptions are used to estimate the amount of new development within the service areas from which development impact fees will be assessed. The land use assumptions generally reflect the regional plans, such as the Transportation Improvement Program (TIP) and the Regional Mobility and Accessibility Plan (RMAP), and the region's suballocation of population forecast to the County.

1.1. ALLOCATION OF GROWTH WITHIN SERVICE AREAS

As defined in ARS §11-1102 (V)(9), "'Service area' means any specified area within the boundaries of a county in which development will be served by necessary public services or facility expansions and within which a substantial nexus exists between the necessary public services or facility expansions and the development being served as prescribed in the infrastructure improvements plan."

The County will continue to use the current seven service areas: Central, North, Northeast, Northwest, South, Southeast, and West shown in Exhibit 1.

Exhibit 1. Streets Service Areas



Note that a minor update was made to correct an error; the boundary between the South and Southeast areas was shifted slightly east to ensure that Harrison Road is entirely contained within the South service area as intended.

2. EXISTING SOCIOECONOMIC CONDITIONS

2.1. POPULATION AND HOUSING

Although Pima County is the second most populous county in Arizona, its population has been growing slower than the state population in the recent years. Based on the US Census Bureau population estimates, population in the County experienced 4.1% growth from 2019-2023 (0.80% per year), compared to 6.3% for the state overall (1.22% per year). General population and housing data from the *2018-2022 American Community Survey (ACS)*[1] from the US Census Bureau are shown in Exhibit 2.

Exhibit 2. Population and Housing Units Census Data

	Pima County	Arizona
Population, 2023 estimate (US Census Estimate)	1,063,162	7,431,344
Population, 2020 Census	1,043,433	7,151,502
Population, annual percent change	+0.63%	+1.29%
Housing units, 2023 estimate (ACS)	484,397	3,239,581
Homeownership rate, 2023 (ACS)	64.1%	66.3%
Housing units in multi-unit structures, percent, 2022 (ACS)	22.7%	20.7%
Median value of owner-occupied housing units, 2022 (ACS)	$317,000	$402,800
Households, 2022 (ACS)	423,075	2,739,136
Persons per household, 2022 (ACS)	2.39	2.56

The Arizona Department of Economic Security has official population projections for the state, counties, incorporated places, and selected census designated areas. Exhibit 3 shows estimated population growth for each jurisdiction in Pima County from 2019 to 2023[2]. The population growth rate in unincorporated Pima County has increased from 0.6% per year in 2019 to 0.7% per year in 2023.

[1] *2018-2022 American Community Survey*. US Census Bureau. <www.census.gov>
[2] *https://oeo.az.gov/population/estimates*

Exhibit 3. 2019-2023 Population Growth Estimates for Pima County Jurisdictions

Jurisdiction	Annual Growth
Marana	3.4%
Oro Valley	1.0%
Sahuarita	2.1%
South Tucson	-0.4%
Tucson	0.5%
Unincorporated Pima County	0.7%

2.2. EMPLOYMENT

The unemployment rate for Pima County has dropped considerably since the 2020 Land Use Assumptions reporting period (2013-2017), from 8.4% to 4.6%. The 2023 American Community Survey[3] estimates that 2.7% of the population 16 years and over in labor force is unemployed in Pima County, compared to 2.6% in the state. The 2023 employment data in Exhibit 4 is provided by the US Census Bureau.

Exhibit 4. 2023 Employment Data

	Pima County		Arizona	
Employment Status, 2023 (ACS)	Estimate	Percent	Estimate	Percent
Population 16 years and over	883,691	-	6,049,109	-
In labor force	525,004	59.4%	3,674,799	60.7%
Civilian labor force	515,483	58.3%	3,648,728	60.3%
Employed	491,802	55.7%	3,493,543	57.8%
Unemployed	23,681	2.7%	155,185	2.6%
Armed Forces	9,521	1.1%	26,071	0.4%
Not in labor force	358,687	40.6%	2,374,310	39.3%
Civilian labor force	515,483	-	3,648,728	-
% Civilian Labor Force Unemployed	-	4.6%	-	4.3%

[3] 2023 American Community Survey, accessed October 2024. https://data.census.gov/table?q=DP03:%20SELECTED%20ECONOMIC%20CHARACTERISTICS&g=040XX00US04_050XX00US04019,04019Unemployment

3. LAND USE ASSUMPTIONS

The land use assumptions for a 10-year horizon are based on the estimated growth in population and employment in unincorporated Pima County. Growth for both residential and non-residential areas was estimated for each service area to determine the percentage of overall County growth which is eligible for inclusion in the IIP. The 10-year planning period will be from 2025 to 2034. The following sections discuss the information and methodology used to develop the land use assumptions. The PAG (Pima Association of Governments) *Transportation Improvement Program*[4] *(TIP)* and *Regional Mobility and Accessibility Plan*[5] *(RMAP)*, historic permit information, and state projections were used to inform the development of the growth assumptions.

3.1. RESIDENTIAL GROWTH PROJECTIONS

3.1.1. Arizona Office of Economic Opportunity

The Arizona Office of Economic Opportunity (AOEO) develops population projections for the state, counties, and incorporated and unincorporated communities. Based on the 2024 and 2034 AOEO population projections for unincorporated Pima County[6], the population is expected to increase by 0.5% per year.

3.1.2. Pima Association of Governments (PAG)

Data from the Pima Association of Governments (PAG) were evaluated to assist the development of land use assumptions for unincorporated Pima County. PAG maintains a model of existing conditions as well as a model representing the regional transportation network incorporating the planned 5-year *Transportation Improvement Program* (TIP). The PAG 2022-2026 *Transportation Improvement Program* (TIP) has been approved; however, the background information and assumptions used to develop the projections was not available as of October 2024. Instead, the background information for the PAG 2045 *Regional Mobility and Accessibility Plan* (RMAP) was used. PAG provided population estimates for each Transportation Analysis Zone (TAZ) in the region, and data for the intermediate year of 2035 was also available. The RMAP data showed an increase of 13,703 households between 2019 and 2035, which results in an average of approximately 856 units per year in unincorporated Pima County.

---

[4] *Transportation Improvement Program* (TIP). Pima Association of Governments. <https://www.pagnet.org/Programs/TransportationPlanning/PlansandPrograms/TransportationImprovementProgram/tabid/172/Default.aspx>

[5] *Regional Mobility and Accessibility Plan (RMAP)*. Pima Association of Governments. https://pagregion.com/mobility/transportation-planning/regional-mobility-and-accessibility-plan/

[6] Arizona Office of Economic Opportunity Population Projections. https://oeo.az.gov/population/projections, accessed September 2024.

3.1.3. Eller College of Management, University of Arizona

The Eller College of Management (Eller) at the University of Arizona typically provides economic analysis and population projections for the greater Tucson region. The Eller quarter three forecast[7] shows a decline in residential permits of approximately 20% by 2027 (based on 2023 permit totals), meaning that growth is expected to slow over the next few years.

3.1.4. Building Permits

The number of permits approved by the county from July 1, 2020, to June 30, 2024, was used to guide the estimation of housing growth in the region. Exhibit 5 shows the residential permits in each of the proposed service areas.

Exhibit 5. July 2020 – June 2024 Residential Permits in Unincorporated Pima County

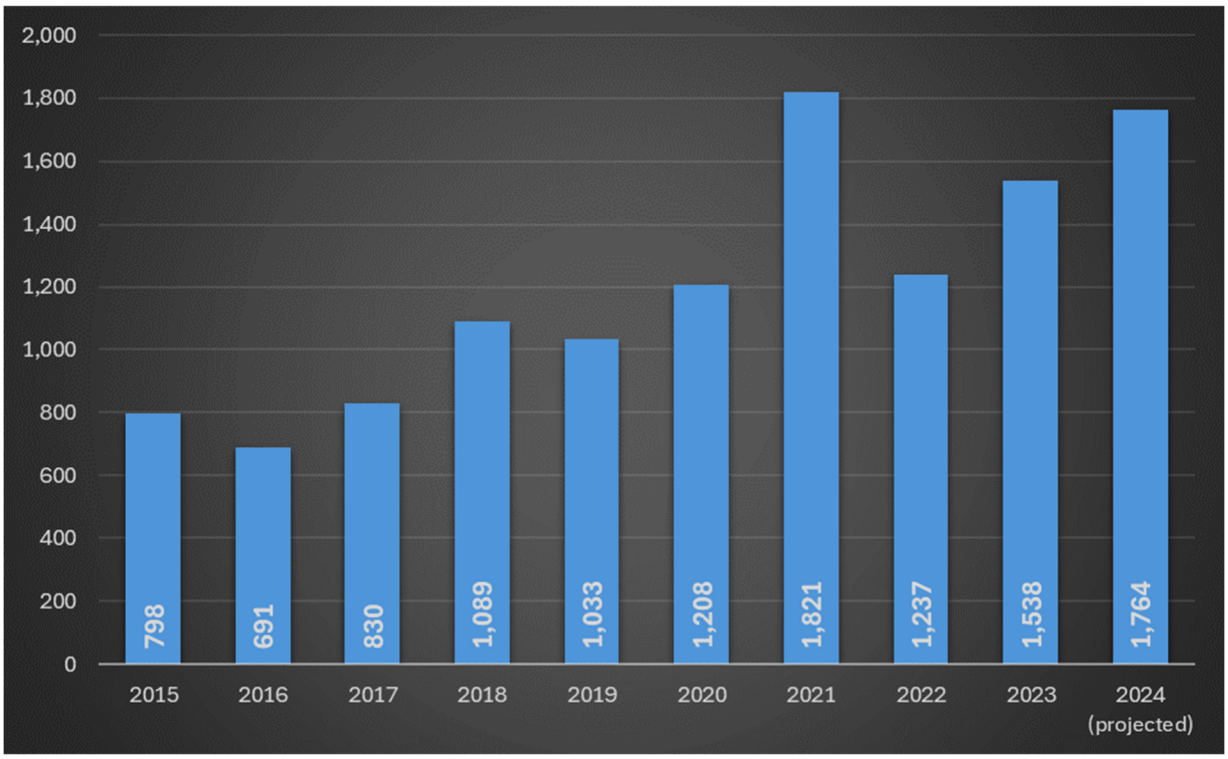
Service Area	Permits	% Permits
Central	157	3%
North	838	14%
Northeast	266	4%
Northwest	258	4%
South	254	4%
Southeast	2,899	47%
West	1,500	24%
TOTAL	6,172	100%

There were 6,172 total residential permits issued in unincorporated Pima County from July 1, 2020, to June 30, 2024, which equates to 1,543 permits per year (this compares to 783 permits/year from 2015-2018). As shown in Exhibit 6, the trend is upwards and there was a significant spike in the number of permits issued in 2021 during the height of the COVID-19 pandemic[8]. The number of permits projected for 2024 are expected to exceed 1,700. Over the last 10 years, there have been 1,201 permits issued per year on average.

[7] https://eller.arizona.edu/departments-research/centers-labs/economic-business-research/arizona-economic-outlook

[8] Reasons include pandemic-related shifts in demand, low mortgage interest rates, government spending, short supply, record breaking prices and other reasons.

Exhibit 6. 2015-2024 Residential Permits per Year in Unincorporated Pima County



*2024 permits based on annualized January to June data

3.1.5. 10-Year Land Use Assumptions: Residential

Given the trend over the last 10 years, the recent uptick in permits, and the projections and potential annexations, the long-term trend going forward is assumed to be approximately 1,200 permits per year, which equates to approximately 12,000 new permits for the 10-year period 2025-2034 or approximately 0.7% population growth per year. This is consistent but slightly higher than the State forecast of 0.5% population growth per year.

The proportion of new permits in each service area was estimated based on recent permit data, estimated growth based on various projections, potential annexation, and knowledge of planned and expected developments. The proposed residential growth for each service area is estimated based on the available data and knowledge of regional trends and expected development. Historic and proposed future permits by service area are shown in Exhibit 7.

Exhibit 7. Population and Housing Land Use Assumptions: 10-Year Growth

	HISTORIC PERMITS 07/20-06/24		PROPOSED 10-YR GROWTH	
Service Area	**Permits**	**% Permits**	**Permits**	**% Permits**
Central	157	3%	360	3%
North	838	14%	1,800	15%
Northeast	266	4%	480	4%
Northwest	258	4%	480	4%
South	254	4%	480	4%
Southeast	2,899	47%	5,400	45%
West	1,500	24%	3,000	25%
TOTAL	**6,172**	**100%**	**12,000**	**100%**

3.2. EMPLOYMENT GROWTH PROJECTIONS

3.2.1. Arizona Office of Economic Opportunity

The Arizona Office of Economic Opportunity (AOEO) also develops employment projections for the state, counties, and incorporated and unincorporated communities. Based on the long term (2022 – 2032) AOEO employment projections for Pima County[9], employment is expected to increase by 0.7% per year.

3.2.2. Pima Association of Governments (PAG)

Data from the PAG 2045 RMAP was again evaluated to determine the estimated employment growth rate. Based on the TAZ data, the RMAP showed an increase of 9,143 jobs between 2019 and 2035, which results in an employment growth rate of 0.6% in unincorporated Pima County. In addition, a revenue forecasting model report prepared for the Regional Transportation Authority (RTA) in 2024[10] also predicts a long-term annual growth rate of 0.6% per year.

[9] https://oeo.az.gov/labor-market/employment-projections

[10] *A Revenue Forecasting Model for the Pima County RTA Updated to 2023.* George Hammond, PhD., March 21, 2024.

3.2.3. Eller College of Management, University of Arizona

The Eller College of Management (Eller) at the University of Arizona typically provides economic analysis and population projections for the greater Tucson region. The Eller quarter three forecast[11] shows near-term employment growth of 0.9% per year through 2027.

3.2.4. PAG Regional Mobility and Accessibility Plan (RMAP)

In addition to population projections and development permit records, employment projections were also used to help estimate the amount of new infrastructure needed to serve planned new development in each service area. The PAG TIP includes five-year estimates of the number of employees for each Transportation Analysis Zone (TAZ), but as mentioned earlier, updated data was not available. Instead, the PAG long-range *Regional Mobility and Accessibility Plan*[12] (RMAP) is referenced for information on the distribution of jobs in unincorporated Pima County by sector, as shown in Exhibit 8, for existing conditions. The future distribution of jobs was determined in concert with the County based on recent and planned non-residential developments.

Exhibit 8. Existing and Projected Job Distribution in Unincorporated Pima County

Sector	Industrial	Retail	Office	Total
% Existing Jobs	20%	13%	67%	100%
% Future Jobs	50%	20%	30%	100%

3.2.5. 10-Year Land Use Assumptions: Employment

As discussed in the previous sections, several different employment projections are available to help estimate employment growth. Based on historic employment growth and these projections, a 0.6% per year annual growth rate is assumed over the next 10 years.

Based on the 2019 data from the PAG RMAP, there were 86,450 existing jobs in unincorporated Pima County. Based on employment information for the County (including incorporated areas) from Eller[13], employment numbers are generally the same today as they were in 2019; there has been good job growth over the last couple years, but that was only following a significant decrease in the number of jobs during COVID.

[11] https://eller.arizona.edu/departments-research/centers-labs/economic-business-research/arizona-economic-outlook
[12] *Regional Mobility and Accessibility Plan* (RMAP). Pima Association of Governments. <https://www.pagregion.com/documents/rmap/rmap2045/2045RMAP.pdf>
[13] https://www.azeconomy.org/data/pima-county/

Therefore, it was assumed that the number of jobs is the same as what was present in 2019. Given that assumption, approximately 5,329 new jobs are expected in the 10-year reporting period from 2025-2034.

Three non-residential employment sectors are considered: retail, office and industrial. Although non-residential growth may also occur in other areas (such as schools), these cover most of the projects that are constructed. Based on the projected employment growth, the existing and future distribution of jobs by sector, and discussions with County staff concerning planned and expected development, the projected number of jobs for the region is shown in Exhibit 9.

Exhibit 9. Employment Land Use Assumptions: 10-Year Growth

	PROPOSED 10-YR GROWTH		**% Jobs by Land Use**			**Jobs by Land Use**		
Service Area	**Jobs**	**% Jobs**	**Ind**	**Retail**	**Office**	**Ind**	**Retail**	**Office**
Central	533	10%	80%	10%	10%	426	54	53
North	1,492	28%	45%	20%	35%	671	298	522
Northeast	693	13%	30%	30%	40%	208	208	277
Northwest	53	1%	30%	30%	40%	16	16	21
South	693	13%	70%	10%	20%	485	69	139
Southeast	1,066	20%	50%	20%	30%	533	213	320
West	799	15%	40%	25%	35%	320	200	280
TOTAL	**5,329**	**100%**				**2,659**	**1,058**	**1,612**

4. SUMMARY

This report provides 10-year growth projections for unincorporated Pima County for the purposes of the roadway impact fee study update. The estimated population and employment growth data for 2034 conditions is provided in Exhibit 10. Recall that multiple sources of data, including adopted population and employment forecasts and various projections, were used to develop both the population and employment estimates. Recent permit history in the County and knowledge of planned projects was then used to fine-tune the projections to better match current trends and anticipated development.

Exhibit 10. Residential and Employment Land Use Assumptions: 10-Year Growth

Service Area	Residential Permits	Jobs by Land Use		
		Ind	Retail	Office
Central	360	426	54	53
North	1,800	671	298	522
Northeast	480	208	208	277
Northwest	480	16	16	21
South	480	485	69	139
Southeast	5,400	533	213	320
West	3,000	320	200	280
TOTAL	**12,000**	**2,659**	**1,058**	**1,612**

These land assumptions will be used in the infrastructure improvements plan (IIP) to estimate the new facilities needed to serve the projected new development. ARS §9-463.05 (D)(3) requires the land use assumptions to be updated at least every five years.

APPENDIX

- **List of Preparers**
- **January 2019 – June 2024 Permits**

List of Preparers

Staff Participants

Kathryn Skinner, P.E., Transportation Director

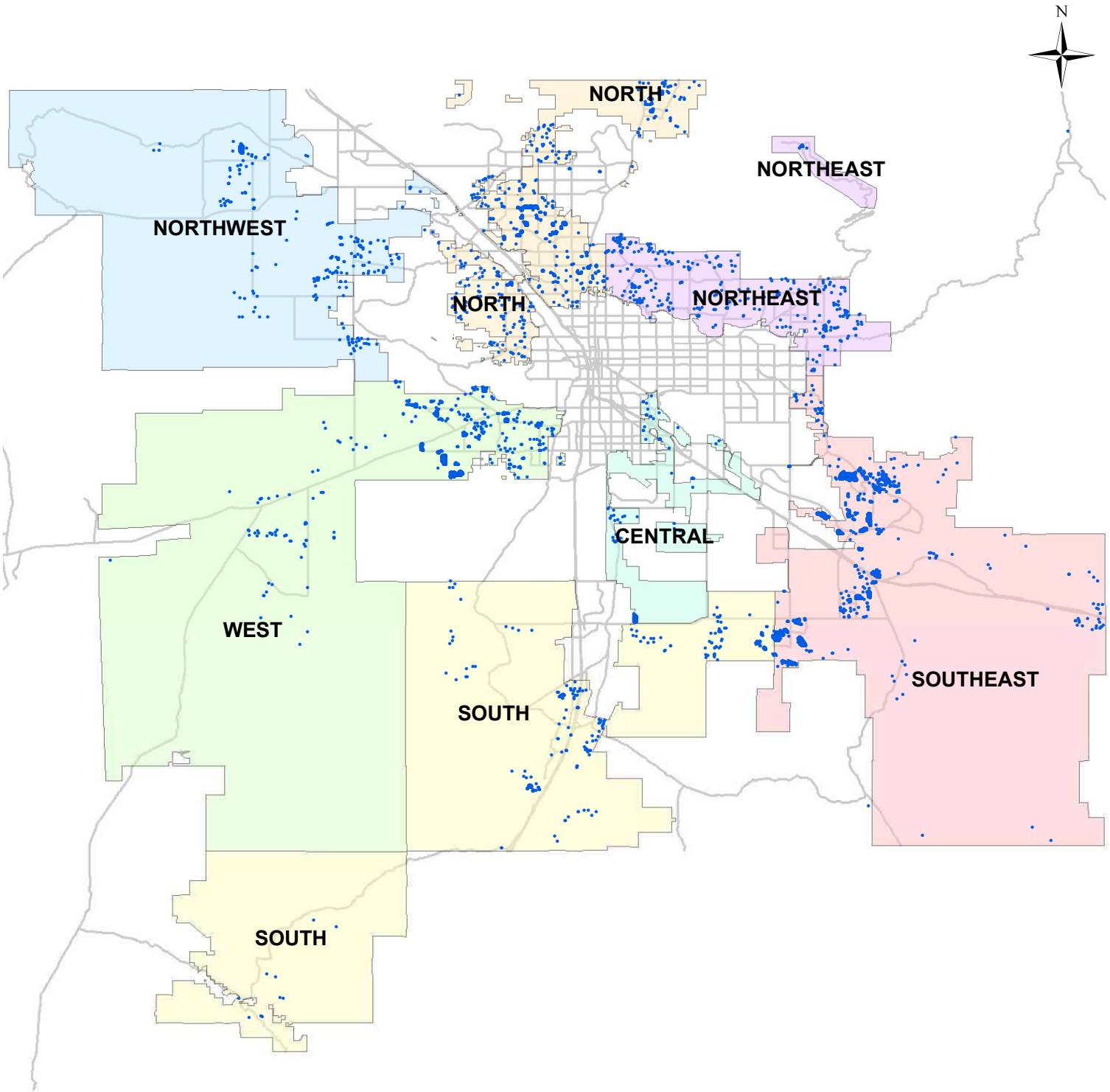
Paul Casertano, AICP, Transportation Deputy Director

Jonathan Crowe, Planner III

Psomas

Alejandro Angel, PhD, P.E., PTOE, RSP2I

Darlene Danehy Yellowhair, P.E., PTOE, RSP2I, ENV SP



Pima County Impact Fee Improvement Program
01/2019 - 06/2024 Permits

PSOMAS

February 2025

Pima County, Arizona

Impact Fee Update

Street Facilities

Infrastructure Improvements Plan

Final Public Report

Prepared by

PSOMAS

1745 East River Road, Suite 245
Tucson, AZ 85718

Prepared for

PIMA COUNTY

201 North Stone Avenue
Tucson, AZ 85701

February 4, 2025

Pima County Board of Supervisors

Rex Scott – District 1

Dr. Matt Heinz – District 2

Jennifer Allen – District 3

Steve Christy – District 4

Adelita Grijalva – District 5

Key Staff

Kathryn Skinner, P.E., Transportation Director

Paul Casertano, AICP, Transportation Deputy Director

Jonathan Crowe, Planner III

Project Consultants

Psomas

1745 E. River Road, Suite 245

Tucson, AZ 85718

520-292-2300

TABLE OF CONTENTS

APPENDIX

LIST OF EXHIBITS

1. INTRODUCTION

The Roadway Development Impact Fee in unincorporated Pima County is assessed for new developments to offset some of the infrastructure costs associated with growth. The County currently charges fees for one public category: roadways. To continue assessing and collecting fees, the County must comply with Arizona Revised Statute (ARS) §11-1102. To do so, the County will be preparing new development impact fee studies, a project list, and fee schedule.

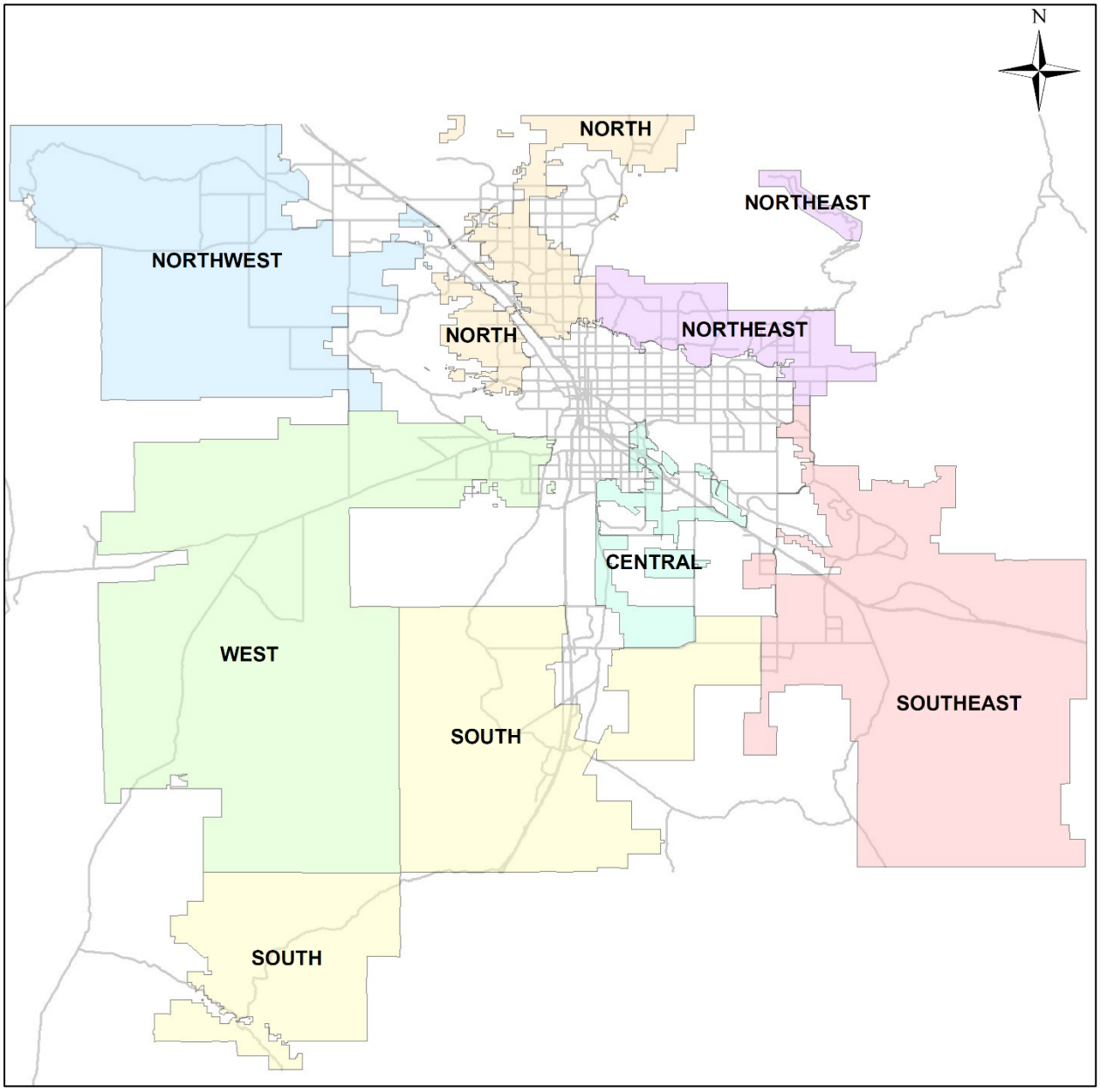
Before assessing the development fees, a County must prepare a written report of the land use assumptions and an infrastructure improvements plan (IIP). As defined in ARS §11-1102 (V)(5), "'Infrastructure improvements plan' means a written plan that identifies each necessary public service or facility expansion that is proposed to be the subject of development fees and otherwise complies with the requirements of this section and may be the county's capital improvements plan". The statute ARS §11-1102 limits the types of "necessary public services" which impact fees can fund.

This report is the required Infrastructure Improvements Plan (IIP) that identifies the infrastructure needs for the street facilities in unincorporated Pima County. This analysis includes only arterials and collectors, since roadways with lower classifications are generally internal to development and are constructed by others during the development process. This analysis will be used in the subsequent calculation of impact fee rates. The land use assumptions that are used in this report to evaluate infrastructure needs are documented separately in the Land Use Assumptions report. The Land Use Assumptions report provides a quantification of expected future development within each of the service areas for which impact fees will be assessed.

1.1. ALLOCATION OF GROWTH WITHIN SERVICE AREAS

As defined in ARS §11-1102 (V)(9), "'Service area' means any specified area within the boundaries of a county in which development will be served by necessary public services or facility expansions and within which a substantial nexus exists between the necessary public services or facility expansions and the development being served as prescribed in the infrastructure improvements plan". The County will continue to use the seven current service areas, which are shown in Exhibit 1.

Exhibit 1. Streets Service Areas



2. NECESSARY PUBLIC SERVICES

As defined in ARS §11-1102 (V)(7)(c), necessary public services include any "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 county, traffic signals and rights-of-way and improvements thereon. Improvements to rights-of-way do not include streetcars, railways or other forms of transportation and their corresponding tracks." Necessary public services must include facilities that "have a life expectancy of three or more years and that are owned and operated by or on behalf of the county".

This IIP includes funding for additional travel lanes, intersection improvements, and recovery of fees for recently constructed roadway projects (which is authorized per ARS §11-1102 (B)(7)(b)). For recently constructed roadway projects ("legacy" projects), County general funds and COPs that were used will be recovered via impact fees as new development uses excess capacity.

2.1. EXISTING NEEDS AND COSTS

The first statutory requirement of the IIP is to describe the existing transportation (roadway) needs and costs to provide these facilities for which impact fees will be used:

Per ARS §11-1102 (F)(1):

- "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..."

The statute also requires an analysis of roadway capacity and level of usage:

Per ARS §11-1102 (F)(2):

- "An analysis of the total capacity, the level of current usage and commitments for usage of capacity of the existing necessary public services..."

Pima County and the consultant team identified the following roadway projects which will be included in the development fee study as necessary public services. These projects, described in the following pages and summarized in Exhibit 2, are necessary mainly due to the expected growth which was documented in the Land Use Assumptions report. Exhibit 2 includes the costs for all projects, and the detailed cost calculations and assumptions for new projects are included in the appendix. The total cost of these projects is $286,231,361.

2.1.1. Proposed Roadway Improvement Projects by Service Area

This section provides information about each of the projects listed in Exhibit 2.

- Central
    1. Country Club Road, Milber Street to Michigan Street.
        - This project consists of widening Country Club Road to a four-lane road between the current four-lane section which ends at Milber Street and Michigan Street that is the City of Tucson boundary.
    2. Swan Road/Los Reales Road Intersection
        - This project will provide intersection improvements including necessary turn lanes and the construction of either a traffic signal or a roundabout.
- Southeast
    3. Houghton Road, 0.2 mi south of Golf Links Road to Escalante Road (RTA)
        - This is a portion of a larger Regional Transportation Authority (RTA)-funded project which spans 13 miles from Tanque Verde Road to I-10. Improvements in this section include widening to a six-lane divided roadway with shoulders, drainage improvements, and sidewalks.
    4. Houghton Road, I-10 to Andrada Polytech
        - This project reconstructed Houghton Road in 2023 to a four-lane divided roadway with shoulders, and multi-modal and drainage improvements.
    5. Mary Ann Cleveland Way, Vista Del Lago to Colossal Cave Road
        - This project consists of widening Mary Ann Cleveland Way to a four-lane divided roadway.
    6. Old Spanish Trail, Valencia Road to Rocking K Ranch Loop North
        - This project consists of widening Old Spanish Trail to a four-lane divided roadway with shoulders and an off-street multi-use path.

Exhibit 2. Necessary Streets Facilities

Service Area	Project No.	Project	Limits		Project Description	# of Lanes	Length /Units	Total Cost
CENTRAL	1	Country Club Road	Milber Street	Michigan Street	Widening	4	0.2	$1,350,000
	2	Swan Road/Los Reales Road	N/A	N/A	Intersection Improvements	N/A	1	$2,400,000
							Central Service Area Total	**$3,750,000**
SOUTHEAST	3	Houghton Road	0.2 mi south of Golf Links Road	Escalante Road	Widening	6	0.8	$21,600,000
	4	Houghton Road	I-10	Andrada Polytech	Legacy Improvement	4	2.9	$35,087,861
	5	Mary Ann Cleveland Way	Vista Del Lago	Colossal Cave Road	Widening	4	1.6	$28,800,000
	6	Old Spanish Trail	Valencia Road	Rocking K Ranch Loop North	Widening	N/A	2.3	$20,000,000
	7	Valencia Road	Houghton Road	Old Spanish Trail	Legacy Improvement	2	2.6	$16,000,000
	8	Colossal Cave Road - Up to 2 Locations	Mary Ann Cleveland Way	Camino Loma Alta	Intersection Improvements	N/A	2	$7,000,000
	9	Old Spanish Trail/ Camino Loma Alta	N/A	N/A	Signal/Turn Lanes	N/A	1	$3,500,000
	10	Sahuarita Road - Up to 2 Locations	Wentworth Rd	Davidson Rd	Turn Lanes	N/A	2	$1,700,000
							Southeast Service Area Total	**$133,687,861**

Exhibit 2 (cont'd). Necessary Streets Facilities

Service Area	Project No.	Project	Limits		Project Description	# of Lanes	Length /Units	Total Cost
NORTH	11	Orange Grove Road	Corona Road	Oracle Rd	Widening	4	1.7	$27,304,000
	12	Sunset Road	I-10	River Road	New Construction	3	0.3	$11,381,500
	13	Thornydale Road	Cortaro Farms Road	Overton Road	Widening	4	1.0	$20,000,000
	14	Linda Vista Road - Up to 6 Locations	Hartman Road	Camino de Oeste	Turn Lanes	N/A	6.0	$5,100,000
	15	Linda Vista Road/Shannon Road	N/A	N/A	Intersection Improvements	N/A	1.0	$2,400,000
							North Service Area Total	**$66,185,500**
NORTHEAST	16	River Road - Up to 2 Locations	Alvernon Way	Sabino Canyon Road	Turn Lanes	N/A	2.0	$1,700,000
	17	Houghton Road/Catalina Highway	N/A	N/A	Intersection Improvements	N/A	1	$2,400,000
	18	Tanque Verde Road/Soldier Trail	N/A	N/A	Intersection Improvements	N/A	1	$2,400,000
							Northeast Service Area Total	**$6,500,000**
NORTHWEST	19	Twin Peaks Road	Twin Peaks Road	Saguaro Highlands	Widening	4	0.6	$9,900,000
	20	Sandario Road/Picture Rocks Road	N/A	N/A	Intersection Improvements	N/A	1	$2,400,000
							North Service Area Total	**$12,300,000**

Exhibit 2 (cont'd). Necessary Streets Facilities

Service Area	Project No.	Project	Limits		Project Description	# of Lanes	Length /Units	Total Cost
SOUTH	21	Sahuarita Road - Up to 4 Locations	Alvernon Way	Sycamore Springs Trail	Turn Lanes	N/A	4	$3,400,000
	22	Harrison Road/Sahuarita Road	N/A	N/A	Intersection Improvements	N/A	1	$2,400,000
							South Service Area Total	**$5,800,000**
WEST	23	Camino Verde	Copper Leaf Drive	Bilby Road	Widening	3	0.8	$10,800,000
	24	Valencia Road	Camino de la Tierra	Mission Road	Widening	6	1.3	$35,100,000
	25	Camino Verde/Valencia Road	N/A	N/A	Intersection Improvements	N/A	1	$3,200,000
	26	Irvington Road - Up to 2 Locations	Ajo Way	Mission Road	Intersection Improvements	N/A	2	$4,108,000
	27	Kinney Road/Irvington Road/Joseph Avenue	N/A	N/A	Intersection Improvements	N/A	1	$2,400,000
	28	Valencia Road/Vahalla Road	N/A	N/A	Intersection Improvements	N/A	1	$2,400,000
							West Service Area Total	**$58,008,000**
							TOTAL	**$286,231,361**

- Southeast (cont'd)
    7. Valencia Road, Houghton Road to Old Spanish Trail
        - This project constructed (in 2021) a new two-lane roadway between Houghton Road and Old Spanish Trail with shoulders, drainage improvements and a new bridge over the Pantano Wash.
    8. Colossal Cave Road, Mary Ann Cleveland Way to Camino Loma Alta
        - This will include construction of intersection improvements at up to two locations along Colossal Cave Road.
    9. Old Spanish Trail/Camino Loma Alta Intersection
        - This project will include construction of additional turn lanes and a traffic signal.
    10. Sahuarita Road, Wentworth Road to Davidson Road
        - This project consists of improving up to two intersections with turn lanes or other intersection treatments.
- North
    11. Orange Grove Road, Corona Road to Oracle Road
        - This project consists of widening Orange Grove Road to a 4-lane roadway with shoulders, sidewalks, and drainage improvements to match the recently improved segment to the west. This project is in the RTA Next plan.
    12. Sunset Road, I-10 to River Road (RTA)
        - This is a portion of the larger RTA-funded project from Silverbell Road to River Road. Phase 1, from Silverbell Road to I-10 has been completed. Phase 2 (this project) will include construction of a new three- to four-lane roadway from the existing terminus west of I-10 to River Road. This project includes new bridges over I-10 and the Rillito River, shoulders, sidewalks and drainage improvements.
    13. Thornydale Road, Cortaro Farms Road to Overton Road
        - This project includes widening the roadway to a four-lane divided roadway with shoulders, sidewalks, and drainage improvements. The project is part of a larger project planned to be included in RTA Next.
    14. Linda Vista Road, Hartman Road to Camino de Oeste
        - This project consists of improving up to six intersections with turn lanes or other intersection treatments.

15. Linda Vista Road/Shannon Road Intersection
    - This project will provide intersection improvements including the construction of a traffic signal, roundabout, or other intersection treatment.

- Northeast
    16. River Road, Alvernon Way to Sabino Canyon Road
        - This project consists of improving up to two intersections with turn lanes or other intersection treatments.
    17. Houghton Road/Catalina Highway Intersection
        - This project will provide intersection improvements including turn lanes and the construction of either a traffic signal, roundabout, or other intersection treatment.
    18. Tanque Verde Road/Soldier Trail Intersection
        - This project will provide intersection improvements including the construction of a traffic signal, roundabout, or other intersection treatment.
- Northwest
    19. Twin Peaks Road, Twin Peaks Road to Saguaro Highlands
        - This project consists of widening the roadway to a four-lane divided roadway over Rattlesnake Pass. The roadway will also include shoulders, sidewalks, and drainage improvements.
    20. Sandario Road/Picture Rocks Road Intersection
        - This project will provide intersection improvements including turn lanes and construction of either a traffic signal, roundabout, or other intersection treatment.
- South
    21. Sahuarita Road, Alvernon Way to Sycamore Springs Trail
        - This project consists of improving up to four intersections with turn lanes or other intersection treatments.
    22. Harrison Road/Sahuarita Road Intersection
        - This project will provide intersection improvements including necessary turn lanes and the construction of a traffic signal, roundabout, or other intersection treatment.

- West
    23. Camino Verde, Copper Leaf Drive to Bilby Road
        - This project includes widening the roadway to a three-lane roadway with shoulders, sidewalks, and drainage improvements.
    24. Valencia Road, Camino de la Tierra to Mission Road
        - This project consists of widening Valencia Road to a six-lane divided roadway. The project will also include shoulders, sidewalks, and drainage improvements.
    25. Camino Verde/Valencia Road Intersection
        - This project will include the construction of new turn lanes which may also require reconstruction of a portion of the traffic signal to accommodate the wider intersection approaches.
    26. Irvington Road, Sunset Boulevard to Ajo Way
        - This project will include improvements at up to two intersections along Irvington Road. These improvements are part of a larger project currently planned to be included in RTA Next.
    27. Kinney Road/Irvington Road/Joseph Avenue Intersection
        - This project includes the realignment of Kinney Road and Joseph Avenue to a single location with a new roundabout, traffic signal or other intersection design.
    28. Valencia Road/Vahalla Road Intersection
        - This project includes the construction of a traffic signal and other necessary improvements such as turn lanes.

2.1.2. Summary of Proposed Roadway Improvement Projects

Based on the 10-year framework required by the statute, the analysis included years 2025 through 2034. The street facilities projects for that period include approximately 45 lane-miles of new and improved roadways, physical intersection improvements at up to 28 locations, and funding to pay for approximately 17 miles of roadway projects that were constructed between 2020 and 2024 and have considerable capacity remaining to serve future development (i.e. legacy facilities).

2.1.3. Estimating Future Roadway Capacity

The process of estimating future needed roadway capacity starts with evaluating historical traffic volumes for each roadway project.

This data is available in the Pima Association of Governments (PAG) *Transportation Data Management System*[1]. Pima County traffic count data collected for recent projects was also used, and additional data was collected for locations which only had data which was more than three years old or was collected during COVID. Further, PAG maintains a transportation model of the regional transportation network that incorporates planned improvements and predicts future traffic volumes, in this case for year 2045 as part of the Regional Mobility and Accessibility Plan (RMAP).

The PAG model does not directly include ITE trip generation rates, which are typically used to determine how much traffic a development will generate. Instead, the model develops trip generation based on the population and employment characteristics of each Traffic Analysis Zone (TAZ). Trips are then distributed on the surrounding roadway network based on trip origins and destinations, trip length, travel time, and available roadway capacity.

Starting with the historical and expected growth in the PAG models and adjusting for anticipated growth based on the Land Use Assumptions report and region expertise, traffic volumes for each roadway project were forecasted for years 2025 and 2034. Each vehicular capacity project listed in Exhibit 2 was forecasted to have low, medium, or high growth during the study period based on historic growth for similar roadways and future traffic growth potential in the area (vacant land, availability of alternative routes, etc.). Based on historic traffic volume growth in the region, the low growth was assumed to be 1.0% per year, medium growth is 2.0% per year, and high growth is 4.0% per year. A few of the infrastructure projects were assigned a custom growth rate based on knowledge of anticipated large development projects in the area and/or recent traffic studies.

To estimate the necessary public roadway improvements, the daily roadway capacity for each project was calculated following the 2023 Florida Department of Transportation (FDOT)[2] standards for Level of Service (LOS) D. The FDOT LOS standards are widely applied by planning and transportation departments across the U.S. to estimate planning level capacities for roadways. For the purposes of this evaluation, it was assumed that all roadways are suburban.

Exhibit 3 shows the existing and future traffic volumes and roadway capacities for years 2025 and 2034 for the selected projects.

---

[1] *PAG Transportation Data Management System (TDMS).* < https://pag.ms2soft.com/tcds/tsearch.asp?loc=Pag&mod=>
[2] *Florida Department of Transportation 2023 Quality/Level of Service Handbook*

Exhibit 3. Existing and Future (2034) Traffic Volumes

Service Area	Project No.	Project	Limits		Existing Volume (veh/day)	Existing Capacity (veh/day)	Future Volume (veh/day)	Future Capacity (veh/day)
CENTRAL	1	Country Club Road	Milber Street	Michigan Street	9,051	15,624	25,147	34,587
	2	Swan Road/Los Reales Road	N/A	N/A	N/A	N/A	N/A	N/A
SOUTHEAST	3	Houghton Road	0.2 mi south of Golf Links Road	Escalante Road	25,461	22,226	37,689	52,070
	4	Houghton Road*	I-10	Andrada Polytech	14,240	16,405	21,079	34,587
	5	Mary Ann Cleveland Way	Vista Del Lago	Colossal Cave Road	12,815	16,128	18,969	35,249
	6	Old Spanish Trail	Valencia Road	Rocking K Ranch Loop North	11,874	21,168	30,798	35,249
	7	Valencia Road*	Houghton Road	Old Spanish Trail	7,123	0	18,475	22,226
	8	Colossal Cave Road - Up to 2 Locations	Mary Ann Cleveland Way	Camino Loma Alta	N/A	N/A	N/A	N/A
	9	Old Spanish Trail/ Camino Loma Alta	N/A	N/A	N/A	N/A	N/A	N/A
	10	Sahuarita Road - Up to 2 Locations	Wentworth Rd	Davidson Rd	N/A	N/A	N/A	N/A

*For legacy projects, the "existing" capacity is the capacity before the projects were constructed.

Exhibit 3 (cont'd). Existing and Future (2034) Traffic Volumes

Service Area	Project No.	Project	Limits		Existing Volume (veh/day)	Existing Capacity (veh/day)	Future Volume (veh/day)	Future Capacity (veh/day)
NORTH	11	Orange Grove Road	Corona Road	Oracle Rd	19,066	21,168	23,241	35,249
	12	Sunset Road	I-10	River Road	N/A	N/A	13,117	21,532
	13	Thornydale Road	Cortaro Farms Road	Overton Road	20,606	21,168	25,119	35,249
	14	Linda Vista Road - Up to 6 Locations	Hartman Road	Camino de Oeste	N/A	N/A	N/A	N/A
	15	Linda Vista Road/Shannon Road	N/A	N/A	N/A	N/A	N/A	N/A
NORTHEAST	16	River Road - Up to 2 Locations	Alvernon Way	Sabino Canyon Road	N/A	N/A	N/A	N/A
	17	Houghton Road/Catalina Highway	N/A	N/A	N/A	N/A	N/A	N/A
	18	Tanque Verde Road/Soldier Trail	N/A	N/A	N/A	N/A	N/A	N/A
NORTHWEST	19	Twin Peaks Road	Twin Peaks Road	Saguaro Highlands	11,281	16,128	18,376	35,249
	20	Sandario Road/Picture Rocks Road	N/A	N/A	N/A	N/A	N/A	N/A

Exhibit 3 (cont'd). Existing and Future (2034) Traffic Volumes

Service Area	Project No.	Project	Limits		Existing Volume (veh/day)	Existing Capacity (veh/day)	Future Volume (veh/day)	Future Capacity (veh/day)
SOUTH	21	Sahuarita Road - Up to 4 Locations	Alvernon Way	Sycamore Springs Trail	N/A	N/A	N/A	N/A
	22	Harrison Road/Sahuarita Road	N/A	N/A	N/A	N/A	N/A	N/A
WEST	23	Camino Verde	Copper Leaf Drive	Bilby Road	12,467	16,128	18,454	22,226
	24	Valencia Road	Camino de la Tierra	Mission Road	39,095	32,940	52,540	51,125
	25	Camino Verde/Valencia Road	N/A	N/A	N/A	N/A	N/A	N/A
	26	Irvington Road	Ajo Way	Mission Road	N/A	N/A	N/A	N/A
	27	Kinney Road/Irvington Road/Joseph Avenue	N/A	N/A	N/A	N/A	N/A	N/A
	28	Valencia Road/Vahalla Road	N/A	N/A	N/A	N/A	N/A	N/A

2.2. PROJECTED NEEDS AND COSTS

In addition to the determining existing roadway needs and future roadway capacities, the statute requires descriptions and costs of the necessary roadway facility expansions attributable to new development:

Per ARS §11-1102 (F)(3):

- "A description of all or the parts of the necessary public services or facility expansions and their costs necessitated by and attributable to new development in the service area based on the approved land use assumptions, including a forecast of the cost of infrastructure, improvements, real property, financing, engineering and architectural services. The description shall be prepared by qualified professionals who are licensed in this state, as applicable."

As indicated in Exhibit 2, the anticipated necessary roadway improvements include approximately 45 lane-miles of new and improved roadways, physical intersection improvements at up to 28 locations, and approximately 17 lane-miles of legacy facilities. The total cost is $286,231,361.

Exhibit 3 provides existing and future roadway volumes and capacities for each project. Future development will use a proportion of the future roadway capacities shown, depending on existing traffic volumes, the amount of growth anticipated, and the future roadway capacity provided.

Exhibit 4 shows the cost of the proposed projects and the amount attributable to new development, based generally on volumes and capacities. Overall, approximately 47% of the cost of all the necessary improvements are attributable to new development, with the rest of the costs being the responsibility of Pima County. In some cases, the costs attributable to development are limited by the amount of available funding, contribution amounts for multi-jurisdictional projects, or additional funding sources. For example, traffic generated by new development is expected to use approximately 74% of the new capacity to be added on Valencia Road between Camino de la Tierra and Mission Road. However, since that project is partially federally funded by a $20 million RAISE grant, only approximately $11.1 million will be funded with impact fees. Therefore, instead of new development funding 74% of the project cost through impact fees, it will only fund approximately 32% of the project cost, and the majority of the project will be funded through the federal grant.

Based on the ratio of the traffic expected to be generated by development in the next 10 years and the additional capacity which will be added with each project, the estimated total cost attributable to development is $133,874,882. As seen in Exhibit 4, new development will pay a proportionate share of the new capacity which it will use, as required by state statute.

In summary, many of the needed projects will add capacity by widening roadways and adding travel lanes. Other projects will increase capacity with intersection improvements and turn lanes. Turn lanes are assumed to increase capacity by approximately 10% based on FDOT guidelines. For the RTA projects listed in the tables, the costs attributable to new developments is limited to the remaining County contribution for that project; in some cases, this results in new development contributing less than they would without the contribution limit. Other program costs include the $148,765 cost of preparing this 5-year update to the Impact Fee Program and the required future 5-year update in 2030, expected to cost approximately $150,000. Therefore, the total cost for providing these necessary public services associated with streets is $134,174,882 during the 10-year period.

Exhibit 4. Cost Attributable to Development

Service Area	Project No.	Project	Limits		Project Description	# of Lanes	Length /Units	Total Cost	% Used by Development	Cost Attributable to Development
CENTRAL	1	Country Club Road	Milber Street	Michigan Street	Widening	4	0.2	$1,350,000	85%	$1,145,887
	2	Swan Road/Los Reales Road	N/A	N/A	Intersection Improvements	N/A	1	$2,400,000	100%	$2,400,000
							Central Service Area Total	**$3,750,000**	**N/A**	**$3,545,887**
SOUTHEAST	3	Houghton Road	0.2 mi south of Golf Links Road	Escalante Road	Widening	6	0.8	$21,600,000	41%	$4,162,206
	4	Houghton Road	I-10	Andrada Polytech	Legacy Improvement	4	2.9	$35,087,861	38%	$5,500,000
	5	Mary Ann Cleveland Way	Vista Del Lago	Colossal Cave Road	Widening	4	1.6	$28,800,000	32%	$9,269,879
	6	Old Spanish Trail	Valencia Road	Rocking K Ranch Loop North	Widening	4	2.3	$20,000,000	100%	$20,000,000
	7	Valencia Road	Houghton Road	Old Spanish Trail	Legacy Improvement	2	2.6	$16,000,000	51%	$8,172,067
	8	Colossal Cave Road - Up to 2 Locations	Mary Ann Cleveland Way	Camino Loma Alta	Intersection Improvements	N/A	2	$7,000,000	100%	$7,000,000
	9	Old Spanish Trail/ Camino Loma Alta	N/A	N/A	Signal/Turn Lanes	N/A	1	$3,500,000	100%	$3,500,000
	10	Sahuarita Road - Up to 2 Locations	Wentworth Rd	Davidson Rd	Turn Lanes	N/A	2	$1,700,000	100%	$1,700,000
							Southeast Service Area Total	**$133,687,861**	**N/A**	**$59,304,152**

Exhibit 4 (cont'd). Cost Attributable to Development

Service Area	Project No.	Project	Limits		Project Description	# of Lanes	Length /Units	Total Cost	% Used by Development	Cost Attributable to Development
NORTH	11	Orange Grove Road	Corona Road	Oracle Rd	Widening	4	1.7	$27,304,000	30%	$4,681,000
	12	Sunset Road	I-10	River Road	New Construction	3	0.3	$11,381,500	61%	$2,301,991
	13	Thornydale Road	Cortaro Farms Road	Overton Road	Widening	4	1.0	$20,000,000	32%	$6,409,714
	14	Linda Vista Road - Up to 6 Locations	Hartman Road	Camino de Oeste	Turn Lanes	N/A	6.0	$5,100,000	100%	$5,100,000
	15	Linda Vista Road/Shannon Road	N/A	N/A	Intersection Improvements	N/A	1.0	$2,400,000	100%	$2,400,000
							North Service Area Total	**$66,185,500**	**N/A**	**$20,892,705**
NORTHEAST	16	River Road - Up to 2 Locations	Alvernon Way	Sabino Canyon Road	Turn Lanes	N/A	2.0	$1,700,000	100%	$1,700,000
	17	Houghton Road/Catalina Highway	N/A	N/A	Intersection Improvements	N/A	1	$2,400,000	100%	$2,400,000
	18	Tanque Verde Road/Soldier Trail	N/A	N/A	Intersection Improvements	N/A	1	$2,400,000	100%	$2,400,000
							Northeast Service Area Total	**$6,500,000**	**N/A**	**$6,500,000**
NORTHWEST	19	Twin Peaks Road	Twin Peaks Road	Saguaro Highlands	Widening	4	0.6	$9,900,000	37%	$1,594,341
	20	Sandario Road/Picture Rocks Road	N/A	N/A	Intersection Improvements	N/A	1	$2,400,000	100%	$2,400,000
							North Service Area Total	**$12,300,000**	**N/A**	**$3,994,341**

Exhibit 4 (cont'd). Cost Attributable to Development

Service Area	Project No.	Project	Limits		Project Description	# of Lanes	Length /Units	Total Cost	% Used by Development	Cost Attributable to Development
SOUTH	21	Sahuarita Road - Up to 4 Locations	Alvernon Way	Sycamore Springs Trail	Turn Lanes	N/A	4	$3,400,000	100%	$3,400,000
	22	Harrison Road/Sahuarita Road	N/A	N/A	Intersection Improvements	N/A	1	$2,400,000	100%	$2,400,000
							South Service Area Total	**$5,800,000**	**N/A**	**$5,800,000**
WEST	23	Camino Verde	Copper Leaf Drive	Bilby Road	Widening	3	0.8	$10,800,000	98%	$10,603,079
	24	Valencia Road	Camino de la Tierra	Mission Road	Widening	6	1.3	$35,100,000	74%	$11,126,718
	25	Camino Verde/Valencia Road	N/A	N/A	Intersection Improvements	N/A	1	$3,200,000	100%	$3,200,000
	26	Irvington Road - Up to 2 Locations	Ajo Way	Mission Road	Intersection Improvements	N/A	2	$4,108,000	100%	$4,108,000
	27	Kinney Road/Irvington Road/Joseph Avenue	N/A	N/A	Intersection Improvements	N/A	1	$2,400,000	100%	$2,400,000
	28	Valencia Road/Vahalla Road	N/A	N/A	Intersection Improvements	N/A	1	$2,400,000	100%	$2,400,000
							West Service Area Total	**$58,008,000**	**N/A**	**$33,837,797**
							TOTAL	**$286,231,361**	**N/A**	**$133,874,882**

2.3. MAINTENANCE AND OPERATION OF STREET FACILITIES

In addition to requiring necessary public services/facilities and their construction costs as part of the IIP, the statute requires Counties to identify the maintenance and operation costs of the facilities identified in the IIP:

ARS §11-1102 (F)(5):

- "A description of all the costs necessitated by ongoing maintenance and operations of the necessary public services once construction is completed and a description of the source of revenue to be used to fund the maintenance and operations."

Pima County's website includes information on their pavement repair and preservation programs (https://www.pima.gov/1004/Road-Pavement-Repair-and-Preservation-Pr), and updated cost information was provided by the County. The appropriate maintenance treatments for roadways are either preventive (to slow anticipated deterioration) or maintenance (to extend the life of the roadway). Exhibit 5 shows the current approximate costs for those treatments, which have increased since 2020.

Exhibit 5. Pavement Preservation Costs

Treatment	Typical Application	Unit Cost ($/SY)	Treatment Lifespan	Cost per Lane Mile[1]
Preventive	Fog Seal	$3.00	4 years	$26,400
Maintenance	Double Chip Seal	$11.50	8 years	$101,200

[1] Based on 15-foot lane width to include shoulder

Given the lifespan of the treatments above, it is assumed that each new road will receive either two preventive treatments (years 4 and 8), or one maintenance treatment (year 8) within the IIP's 10-year period. Considering that the IIP includes approximately 62 lane-miles of facilities to be maintained by Pima County, the maintenance costs for the facilities in this IIP is estimated between $3,273,600 and $6,274,400 over the 10-year period.

Maintenance and operations of the new street facilities are anticipated to be funded with revenues from the Highway User Revenue Fund (HURF) and Vehicle License Tax (VLT). Pima County's pavement preservation program for arterial and collector roadways includes $24.1 million in the current fiscal year and is programmed to continue at similar levels over the next 10 years.

3. TRAVEL DEMAND PER DEMAND UNIT

ARS §11-1102 (F)(4) requires that the IIP include "a table that establishes 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 that establishes the ratio of a service unit to various types of land uses, including residential, commercial and industrial."

To provide this information, the trip generation rates for different types of land uses were determined for future residential, commercial, and industrial developments using the ITE *Trip Generation Manual*[3] guidelines. Exhibit 6 (Page 25) shows each land use category, trip generation rate, estimated use of county roadways, and the estimated roadway demand for each. This information is used to calculate an equivalency, or Equivalent Demand Unit (EDU), for each land use type. The descriptions of each land use category and other factors that determine those rates are included in the following sections.

3.1. LAND USE CATEGORIES

The land uses are listed in seven categories in Exhibit 6 but are described individually in this section. If a land use is not specifically listed below, the owner should consult with Pima County to determine which land use category is appropriate for the proposed use (if any).

3.1.1. Single Family Detached

Single-family detached homes (except for mobile homes) for sale or for rent that are not age restricted. The estimated roadway demand per one single-family detached home is assumed to be one EDU and is the standard unit of equivalency.

3.1.2. Attached Residential/Multi-Family

Apartments, townhomes, and multi-unit housing regardless of unit or building size that are not age restricted. It includes units for sale or for rent.

[3] *Trip Generation Manual*, 11th Edition. Institute of Transportation Engineers (ITE). Washington, D.C., 2021.

3.1.3. Senior Housing

Age-restricted housing, including both single-family detached homes and attached/multi-family units, for sale or for rent.

3.1.4. Assisted Living/Congregate Care

Residential housing that provides centralized amenities and/or some level of medical services or medical care.

3.1.5. Mobile Home, RV, or Mobile Home/RV Park

Any individual mobile home, RV purchased for use as a residence (i.e. when permits are obtained for new or additional sewer, water, and electricity hook ups), mobile home park, or RV park.

3.1.6. Hotel/Motel

Any hotel or motel that provides rooms for short-term lodging.

3.1.7. Retail

Any retail store such as shopping centers, big box stores, grocery stores, home improvement stores, superstores, factory outlets, discount clubs, plant nurseries, automobile sales, and other general commercial/retail facilities.

3.1.8. Services

Any business that provides services such as restaurants, auto repair centers, car washes, day cares, and other similar facilities.

3.1.9. High-Traffic Retail/Services

Businesses that generate higher traffic volumes including fast food restaurants (with or without a drive thru), fast casual restaurants, coffee shops, pharmacies with drive thrus, drive-in banks, gas stations, convenience stores, combination gas station/convenience stores, and other similar high traffic generators. (Fast casual restaurants are those where customers typically order from a menu board, pay before receiving their food, and seat themselves, and may also provide carry-out service.)

3.1.10. Industrial

Any light, medium, or heavy industrial uses, as well as manufacturing, warehouses, self-storage facilities, and auto/RV storage facilities.

3.1.11. Hospital/Clinic

Hospitals, clinics, and urgent care facilities, as well as veterinary hospitals and clinics. Clinics typically include lab facilities, pharmacies, and a wide range of services (compared to medical offices which usually include a specialized service).

3.1.12. Recreational

Athletic clubs, health/fitness clubs, racquet/tennis clubs, and other similar uses. Parks with fields, courts, and other athletic facilities are also included, but fees for open space parks/hiking areas may be different and should be reviewed on a case-by-case basis with County staff.

3.1.13. General Office

All non-medical offices. This does not include sales offices, offices associated with industrial uses, or offices associated with any other non-office uses.

3.1.14. Medical/Dental/Vet Office

Any medical, dental, or veterinarian office.

3.1.15. Public Schools

All public schools, regardless of the grades which the school serves.

3.1.16. Charter/Private Schools

All charter and private schools, regardless of the grades which the school serves.

3.2. ITE TRIP GENERATION RATES

The ITE *Trip Generation Manual* contains trip generation rates for a wide variety of land uses by unit of land use (i.e. per dwelling unit for residential developments, per 1,000 square feet for commercial, etc.). The weekday peak hour trip generation rates were applied in the demand unit calculations because the peak hour is generally the controlling period for which necessary roadway improvements are determined.

3.3. PRIMARY TRIPS

Primary trips are trips generated with the specific purpose of visiting a generator. Trips to and from a land use which a driver intended to make without making other stops along the way are considered primary trips.

Drivers may choose to divert from their originally intended path to make a secondary stop or may choose to make a stop along their original path. These trips are called diverted trips and pass-by trips, respectively.

The ITE *Trip Generation Handbook*[4] provides the percentage of diverted trips and pass-by trips for each land use except for schools. The calculations for estimating impact fees are based solely on primary trips; therefore, ITE data was used to determine the percentage of primary trips for most land uses, and school primary trips were estimated based on previous experience.

3.4. AVERAGE TRIP LENGTH

The average trip length for a specific land use is available in the National Household Travel Survey (NHTS) *Summary of Travel Trends*[5] report. Table 3-3 in the NHTS report shows trends in the average person trip length by trip purpose. The table reflects the survey data collected from a sample of U.S. households. Public school trip length was calculated as the average of school trips in the NHTS report and an estimate of elementary school trip length, which is considerably lower given the typical proximity of residences to elementary schools.

3.5. TRAVEL DEMAND ON PIMA COUNTY ARTERIAL ROAD NETWORK

Only trips on the arterial and major collector roadways are considered in the estimation of the development fee amounts. This study assumes that 80% of travel occurs on arterial and major collector roadways for all land use types, which is consistent with national guidelines and local data. Furthermore, travel to/from business and residential units in unincorporated Pima County generally involves travel in multiple jurisdictions. Therefore, it was assumed that 50% of the business/residential travel originating or ending in unincorporated Pima County would take place on Pima County roads based on the location of trip generators and attractors in the County and throughout the region. The travel demand on the Pima County arterial road network is the product of percent travel within the County and percent travel on arterial and major collector roadways.

[4] *Trip Generation Handbook*, 3rd Edition. Institute of Transportation Engineers (ITE). Washington, D.C., 2014.

[5] Federal Highway Administration (FHWA). *Summary of Travel Trends: 2022 National Household Travel Survey*. https://nhts.ornl.gov/assets/2022/pub/2022_NHTS_Summary_Travel_Trends.pdf

Exhibit 6. Estimate of Streets Facility Demand per Unit of Land Use

Land Use Category	Unit	% Primary Trips	Peak Hour Rate per Unit	Average Trip Length (mi)	% Travel within Unincorporated PC	% Travel on Arterials	% Travel Demand on PC Arterial Network	Vehicle Miles of Travel Demand per Unit - Peak Hour	Representative ITE Category	Proposed EDUs
Residential										
Single Family Detached	Dwelling Unit	100%	0.94	12.6	50%	80%	40%	4.7	210	**1.0**
Attached Residential/Multi-Family	Dwelling Unit	100%	0.51	12.6	50%	80%	40%	2.6	220	**0.5**
Senior Housing	Dwelling Unit	100%	0.30	12.6	50%	80%	40%	1.5	251	**0.3**
Assisted Living/Congregate Care	Dwelling Unit	100%	0.18	12.6	50%	80%	40%	0.9	253	**0.2**
Mobile Home Park	Dwelling Unit	100%	0.58	12.6	50%	80%	40%	2.9	240	**0.6**
Commercial/Retail										
Hotel/Motel	Rooms	100%	0.48	12.6	50%	80%	40%	2.4	310, 320	**0.5**
Retail	1000 sf	60%	3.74	7.2	50%	80%	40%	6.5	821, 823	**1.4**
Services	1000 sf	66%	6.34	7.2	50%	80%	40%	12.1	932, 942	**2.5**
High-Traffic Retail/Services	1000 sf	23%	37.89	7.2	50%	80%	40%	25.1	930, 934, 945	**5.3**
Industrial	1000 sf	70%	0.43	13.4	50%	80%	40%	1.6	110, 130, 140, 150, 151	**0.3**
Hospital/Clinic	1000 sf	60%	2.28	13.4	50%	80%	40%	7.3	610, 630	**1.5**
Recreational	1000 sf	75%	3.45	8.6	50%	80%	40%	8.9	492	**1.9**
Office										
General Office	1000 sf	75%	1.52	13.4	50%	80%	40%	6.1	710	**1.3**
Medical/Dental/Vet Office	1000 sf	75%	3.93	13.4	50%	80%	40%	15.8	720	**3.3**
Public Schools*	1000 sf	25%	5.17	4.1	50%	80%	40%	2.1	520, 525	**0.4**
Charter/Private Schools*	1000 sf	25%	7.39	7.0	50%	80%	40%	5.2	530, 532, 536	**1.1**

*Rates are from the ITE Trip Generation Manual 10th Edition because the 11th Edition does not provide rates per 1,000 SF.

3.6. VEHICLE MILES OF TRAVEL DEMAND

The vehicle miles of travel demand per unit is the product of four factors previously discussed: percent primary trips, average peak hour trip generation rate, average trip length, and percent travel demand on Pima County arterial network. As an example, the vehicle miles of travel demand for the single-family residential use is calculated as follows:

$$VMT\ per\ Unit = \%Primary\ Trips\ \times Average\ Peak\ Hour\ Trip\ Generation\ Rate \times Average\ Trip\ Length \times \%Travel\ on\ PC\ Arterial\ Network$$

$$VMT\ per\ Unit = 100\%\ \times 0.94 \times 12.6 \times 40\%$$

$$VMT\ per\ Unit = 4.7$$

3.7. EQUIVALENT DEMAND PER UNIT (EDU)

An EDU value of 1.0 is assigned to the single-family residential land use. The equivalent demand per service unit for all the remaining land uses is calculated as follows, using the multi-family residential land use as an example. Note that EDUs are rounded to the nearest tenth.

$$EDU_{Multi-Family} = \frac{VMT\ per\ Unit_{Multi-Family}}{VMT\ per\ Unit_{Single-Family}}$$

$$EDU_{Multi-Family} = \frac{2.6}{4.7} = 0.5$$

4. PROJECTED SERVICE UNITS FOR NEW DEVELOPMENT

The next statutory requirement is estimating the amount of service units (residential permits and jobs by service area) attributable to new development and projecting the demand for roadway expansions over the next ten years:

Per ARS §11-1102 (F)(6):

- "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."

Per ARS §11-1102 (F)(7):

- "The projected demand for necessary public services or facility expansions required by new service units for a period of not more than ten years."

The Land Use Assumptions report provided the summary of 10-year growth projections for unincorporated Pima County for the purposes of the roadway impact fee study update. The estimated population and employment growth data per service area for 2034 conditions is provided in Exhibit 7. Based on these projections, it is estimated that approximately 12,000 new residential permits will be issued in a 10-year period in unincorporated Pima County. Further, approximately 5,329 new jobs are expected by 2034. These land assumptions were used in this IIP to estimate the new facilities needed to serve the projected new developments.

Exhibit 7. Residential and Employment Land Use Assumptions: 10-Year Growth

Service Area	Residential Permits	Jobs by Land Use		
		Industrial	Retail	Office
Central	360	426	54	53
Southeast	5,400	533	213	320
North	1,800	671	298	522
Northeast	480	208	208	277
Northwest	480	16	16	21
South	480	485	69	139
West	3,000	320	200	280
TOTAL	**12,000**	**2,659**	**1,058**	**1,612**

As shown in Exhibit 6, ITE trip generation rates are calculated based on the number of dwelling units for residential land uses. For the remaining land uses, the unit for the ITE trip generation rates is 1,000 S.F. To convert the number of expected new jobs from Exhibit 7 into square footage, averages from the ITE *Trip Generation Manual* were used. For example, if the trip generation rate is 10 trips per 1,000 square feet in the peak hour or 2 trips per employee in the peak hour, the number of square feet per employee can be calculated as follows:

$$Square\ Feet\ per\ Employee = \frac{2.0}{10.0} * 1{,}000 = 200$$

Exhibit 8 shows the assumed gross building area per employee for each land use. Further, it is assumed that 80% of new residential permits will be single family units, 10% will be age-restricted units, and 10% will be multi-family units. Exhibit 9 shows the anticipated new units for all land uses.

Exhibit 8. Non-Residential Development Attributes

Land Use	Gross Building Area per Employee (S.F.)
Retail	530
Office	250
Industrial	750

Exhibit 9. Anticipated Units by Land Use Type

Land Use		Single Family	Age-Restricted	Multi-Family	Commercial/ Retail	Office	Industrial
Unit		Dwelling	Dwelling	Dwelling	1000 sq. ft.	1000 sq. ft.	1000 sq. ft.
Anticipated Units	Central	324	18	18	28.5	13.3	319.8
	Southeast	4,860	270	270	113.0	79.9	399.7
	North	1,620	90	90	158.2	130.6	503.6
	Northeast	432	24	24	110.2	69.3	155.9
	Northwest	432	24	24	8.5	5.3	12.0
	South	432	24	24	36.7	34.6	363.7
	West	2,700	150	150	105.9	69.9	239.8
TOTAL		**10,800**	**600**	**600**	**560.9**	**403.0**	**1,994.5**

5. REVENUE CONSIDERATIONS

The last statutory requirement specific to the IIP is a forecast of revenues other than development fees:

Per ARS §11-1102 (F)(8):

- "A forecast of revenues generated by new service units other than development fees, including estimated state shared revenue, highway user 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."

To provide an equitable obligation of transportation impact fees, both costs and credits must be considered. New development must be given credit for any contributions to funding sources which may be used for roadway improvements, such as sales tax or other funding sources. If any roadway infrastructure funding can be identified as coming from a new development, they must be considered as credits for that development.

In addition, the costs associated with correcting existing deficiencies cannot be placed as a burden on new development per ARS §11-1102 (B)(5). Any money spent from common improvement funds to address a deficiency must consider credits to new development for which the improvement is associated. The County uses Highway User Revenue Funds (HURF) and Vehicle License Tax (VLT) funding for maintenance and operations only, so there is no applicable HURF/VLT credit. Property taxes are not used for expansion/capital projects either, and other state and federal revenues are undeterminable and intermittent. At this time, the only continuing revenue source which may be considered as credits to new development is the sales tax contribution to the Regional Transportation Authority (RTA). Although the RTA expires in 2026, this plan has been developed assuming RTA Next will be passed with a continuation of the sales tax. Therefore, the RTA credit has been included as detailed in this section.

The RTA credit is based on the estimated sales tax by land use type, using standard construction costs[6] and estimated residential unit sizes as listed below:

a. Single family residence (general and age-restricted) – 2,000 sq. ft. of living space, 400 sq. ft. garage
b. Multi-family residence – 1,115 sq. ft. total space per unit (rental)
c. Assisted living/congregate care – 350 sq. ft. of total space per unit (bed)
d. Mobile home park – 900 sq. ft. of total space per unit (mobile home)
e. Hotel/motel – 550 sq. ft. of total space per unit (room)

All other impact fee categories use 1,000 square feet of construction to calculate the RTA credit. The RTA tax rate is 0.5% and is applied to the taxable value of new construction, which is 65% of the contract amount pursuant to state law. The tax paid is then adjusted to reflect the share of overall RTA plan projects that are included in this IIP. Exhibit 10 shows the calculation of the RTA credit for each land use type.

[6] *Building Valuation Data – August 2024.* International Code Council.

Exhibit 10. RTA Credit Calculations

Land Use Category	ICC Building Group	ICC Construction Type	ICC Cost per sq ft	Average	Typical sq ft	Cost per Unit	Taxable Cost Per Unit (65%)	RTA Sales Tax (0.5%)	RTA Sales Tax Credit Factor	RTA Sales Tax Credit per Unit	RTA Sales Tax Credit per Unit, Rounded
Residential											
Single Family Detached	R3 - residential one and two family U - utility (garage)	VB VB	$167.37 $64.85	$167.37 $64.85	2,000 400	$360,680	$234,442	$1,172.21	8.0%	$93.78	**$94.00**
Attached Residential/ Multi-Family	R2 - residential multi-family	VB	$149.80	$149.80	1,115	$167,027	$108,568	$542.84	8.0%	$43.43	**$44.00**
Senior Housing	R3 - residential one and two family U - utility (garage)	VB VB	$167.37 $64.85	$167.37 $64.85	2,000 400	$360,680	$234,442	$1,172.21	8.0%	$93.78	**$94.00**
Assisted Living/ Congregate Care	I2 - institutional, nursing homes R4 - care/assisted living	VA IB	$238.82 $255.57	$247.20	350	$86,518	$56,237	$281.18	8.0%	$22.49	**$23.00**
Mobile Home Park	R2 - residential multi-family	VB	$149.80	$149.80	900	$134,820	$87,633	$438.17	8.0%	$35.05	**$36.00**
Commercial/Retail											
Hotel/Motel	R1 - residential hotels	VB	$192.64	$192.64	550	$105,952	$68,869	$344.34	8.0%	$27.55	**$28.00**
Retail	M - mercantile	IIIB	$151.25	$151.25	1,000	$151,250	$98,313	$491.56	8.0%	$39.33	**$40.00**
Services	M - mercantile	IIIB	$151.25	$151.25	1,000	$151,250	$98,313	$491.56	8.0%	$39.33	**$40.00**
High-Traffic Retail/Services	B - business	IIIB	$229.40	$229.40	1,000	$229,400	$149,110	$745.55	8.0%	$59.64	**$60.00**
Industrial	B - business	IIIB	$229.40	$229.40	1,000	$229,400	$149,110	$745.55	8.0%	$59.64	**$60.00**
Hospital/Clinic	I2 - institutional, hospitals	IB	$449.45	$449.45	1,000	$449,450	$292,143	$1,460.71	8.0%	$116.86	**$117.00**
Recreational	A3 - museums, libraries	IIIB	$200.06	$200.06	1,000	$200,060	$130,039	$650.20	8.0%	$52.02	**$53.00**
Office											
General Office	B - business	IIIB	$229.40	$229.40	1,000	$229,400	$149,110	$745.55	8.0%	$59.64	**$60.00**
Medical/Dental/Vet Office	B - business	IIIB	$229.40	$229.40	1,000	$229,400	$149,110	$745.55	8.0%	$59.64	**$60.00**
Public Schools	E - educational	IIIB	$221.55	$221.55	1,000	$221,550	$144,008	$720.04	8.0%	$57.60	**$58.00**
Charter/Private Schools	E - educational	IIIB	$221.55	$221.55	1,000	$221,550	$144,008	$720.04	8.0%	$57.60	**$58.00**

APPENDIX

- **List of Preparers**
- **Detailed Project Cost Calculations**

List of Preparers

Staff Participants

Kathryn Skinner, P.E., Transportation Director

Paul Casertano, AICP, Transportation Deputy Director

Jonathan Crowe, Planner III

Psomas

Alejandro Angel, PhD, P.E., PTOE, RSP2I

Darlene Danehy Yellowhair, P.E., PTOE, RSP2I, ENV SP

SA	Project No.	Project	Limits		Project Description	# of Lanes	Length/ Units	Per Lane-Mile/Unit	Total	Total Capacity Cost - New/ Improvements	Legacy Cost	Volume from Development	Added Capacity	% Used by Development	Cost Attributable to Development	Eligible Costs	Cost Allocated to Development	% Cost Attributable to Development	Source	Notes
CENTRAL	1	Country Club Road	Milber Street	Michigan Street	Widening	4	0.15	$4,500,000	$1,350,000	$1,350,000		16,096	18,963	85%	$1,145,887	$1,350,000	$1,145,887	85%	PCDOT with non-construction factors	Half of the roadway is in City of Tucson ROW, so County portion is half of total cost
	2	Swan Road/Los Reales Road	N/A	N/A	Intersection Improvements	N/A	1	$2,400,000	$2,400,000	$2,400,000				100%	$2,400,000	$2,400,000	$2,400,000	100%	PCDOT with non-construction factors	
SOUTHEAST	3	Houghton Road	0.2 mi south of Golf Links Road	Escalante Road	Widening	6	0.8	$4,500,000	$21,600,000	$21,600,000		12,228	29,843	41%	$8,850,226	$4,162,206	$4,162,206	19%	Outstanding RTA Contribution	County total remaining contribution for Houghton Road (Tanque Verde to I-10) from SE is $4,162,206.
	4	Houghton Road	I-10	Andrada Polytech	Legacy Improvement	4	2.9			$35,087,861	$35,087,861	6,839	18,182	38%	$13,197,516	$5,500,000	$5,500,000	16%	Pima County	Capped at COPS balance
	5	Mary Ann Cleveland Way	Vista Del Lago	Colossal Cave Road	Widening	4	1.6	$4,500,000	$28,800,000	$28,800,000		6,154	19,121	32%	$9,269,879	$28,800,000	$9,269,879	32%	PCDOT with non-construction factors	
	6	Old Spanish Trail	Valencia Road	Rocking K Ranch Loop North	Widening	4	2.3			$20,000,000		18,924	14,081	100%	$20,000,000	$20,000,000	$20,000,000	100%	Psomas cost estimate	Based on estimate with costs for design, post-design, CM, etc.
	7	Valencia Road	Houghton Road	Old Spanish Trail	Legacy Improvement	2	2.6			$16,000,000	$9,000,000	11,352	22,226	51%	$8,172,067	$16,000,000	$8,172,067	51%	Pima County	Remainder of fees due in next 8 years or so
	8	Colossal Cave Road - Up to 2 Locations	Mary Ann Cleveland Way	Camino Loma Alta	Intersection Improvements	N/A	2			$7,000,000				100%	$7,000,000	$7,000,000	$7,000,000	100%	Pima County	Due to complications in the area, costs are likely to be similar to Camino Verde/Valencia or OST/Valencia
	9	Old Spanish Trail/ Camino Loma Alta	N/A	N/A	Signal/Turn Lanes	N/A	1			$3,500,000				100%	$3,500,000	$3,500,000	$3,500,000	100%	Psomas cost estimate	Based on estimate with costs for design, post-design, CM, etc.
	10	Sahuarita Road - Up to 2 Locations	Wentworth Rd	Davidson Rd	Turn Lanes	N/A	2	$850,000	$1,700,000	$1,700,000				100%	$1,700,000	$1,700,000	$1,700,000	100%	PCDOT with non-construction factors	

SA	Project No.	Project	Limits		Project Description	# of Lanes	Length/ Units	Per Lane-Mile/Unit	Total	Total Capacity Cost - New/ Improvements	Legacy Cost	Volume from Development	Added Capacity	% Used by Development	Cost Attributable to Development	Eligible Costs	Cost Allocated to Development	% Cost Attributable to Development	Source	Notes
NORTH	11	Orange Grove Road	Corona Road	Oracle Rd	Widening	4	1.7			$27,304,000		4,175	14,081	30%	$8,096,566	$4,681,000	$4,681,000	17%	RTA Next estimate	Capped at RTA Next contribution of $4.681M. Length does not include improved section near La Cañada Drive.
	12	Sunset Road	I-10	River Road	New Construction	3	0.3		$11,381,500	$11,381,500		13,117	21,532	61%	$6,933,370	$2,301,991	$2,301,991	20%	Outstanding RTA Contribution	Capped at remaning HURF and TBD funding
	13	Thornydale Road	Cortaro Farms Road	Overton Road	Widening	4	1.0			$20,000,000		4,513	14,081	32%	$6,409,714	$20,000,000	$6,409,714	32%	RTA Next estimate	No County match - leave in for now
	14	Linda Vista Road - Up to 6 Locations	Hartman Road	Camino de Oeste	Turn Lanes	N/A	6	$850,000	$5,100,000	$5,100,000				100%	$5,100,000	$5,100,000	$5,100,000	100%	PCDOT	
	15	Linda Vista Road/Shannon Road	N/A	N/A	Intersection Improvements	N/A	1	$2,400,000	$2,400,000	$2,400,000				100%	$2,400,000	$2,400,000	$2,400,000	0%	PCDOT	
NORTHEAST	16	River Road - Up to 2 Locations	Alvernon Way	Sabino Canyon Road	Turn Lanes	N/A	2	$850,000	$1,700,000	$1,700,000				100%	$1,700,000	$1,700,000	$1,700,000	100%	PCDOT with non-construction factors	Added after removal of 1st and Houghton
	17	Houghton Road/Catalina Highway	N/A	N/A	Intersection Improvements	N/A	1	$2,400,000	$2,400,000	$2,400,000				100%	$2,400,000	$2,400,000	$2,400,000	100%	PCDOT with non-construction factors	
	18	Tanque Verde Road/Soldier Trail	N/A	N/A	Intersection Improvements	N/A	1	$2,400,000	$2,400,000	$2,400,000				100%	$2,400,000	$2,400,000	$2,400,000	100%	PCDOT with non-construction factors	

SA	Project No.	Project	Limits		Project Description	# of Lanes	Length/ Units	Per Lane-Mile/Unit	Total	Total Capacity Cost - New/ Improvements	Legacy Cost	Volume from Development	Added Capacity	% Used by Development	Cost Attributable to Development	Eligible Costs	Cost Allocated to Development	% Cost Attributable to Development	Source	Notes
NORTHWEST	19	Twin Peaks Road	Twin Peaks Road	Saguaro Highlands	Widening	4	0.55	$4,500,000	$9,900,000	$9,900,000		7,095	19,121	37%	$3,673,343	$1,594,341	$1,594,341	16%	PCDOT with non-construction factors	County portion is 0.55 miles of total segment; pay amount dedicated in current impact fee plan
	20	Sandario Road/Picture Rocks Road	N/A	N/A	Intersection Improvements	N/A	1	$2,400,000	$2,400,000	$2,400,000				100%	$2,400,000	$2,400,000	$2,400,000	100%	PCDOT with non-construction factors	
SOUTH	21	Sahuarita Road - Up to 4 Locations	Alvernon Way	Sycamore Springs Trail	Turn Lanes	N/A	4	$850,000	$3,400,000	$3,400,000				100%	$3,400,000	$3,400,000	$3,400,000	100%	Pima County	
	22	Harrison Road/Sahuarita Road	N/A	N/A	Intersection Improvements	N/A	1	$2,400,000	$2,400,000	$2,400,000				100%	$2,400,000	$2,400,000	$2,400,000	100%	PCDOT with non-construction factors	
WEST	23	Camino Verde	Copper Leaf Drive	Bilby Road	Widening	3	0.8	$4,500,000	$10,800,000	$10,800,000		5,987	6,098	98%	$10,603,079	$10,800,000	$10,603,079	98%	PCDOT with non-construction factors	
	24	Valencia Road	Camino de la Tierra	Mission Road	Widening	6	1.3	$4,500,000	$35,100,000	$35,100,000		13,445	18,185	74%	$25,952,325	$11,126,718	$11,126,718	32%	PCDOT with non-construction factors	Capped at project cost minus RAISE grant minus dedicated legacy fees
	25	Camino Verde/Valencia Road	N/A	N/A	Intersection Improvements	N/A	1			$3,200,000				100%	$3,200,000	$3,200,000	$3,200,000	100%	Developer Cost Estimate	
	26	Irvington Road - Up to 2 Locations	Ajo Way	Mission Road	Intersection Improvements	N/A	2			$4,108,000				100%	$4,108,000	$4,108,000	$4,108,000	100%	RTA Next estimate	RTA Next match
	27	Kinney Road/Irvington Road/Joseph Avenue	N/A	N/A	Intersection Improvements	N/A	1	$2,400,000	$2,400,000	$2,400,000				100%	$2,400,000	$2,400,000	$2,400,000	100%	PCDOT with non-construction factors	
	28	Valencia Road/Vahalla Road	N/A	N/A	Intersection Improvements	N/A	1	$2,400,000	$2,400,000	$2,400,000				100%	$2,400,000	$2,400,000	$2,400,000	100%	PCDOT with non-construction factors	
								TOTAL (ALL FACILITIES)		**$286,231,361**				**TOTAL ATTRIBUTABLE TO DEVELOPMENT**		**$133,874,882**			