RESOLUTION 2025-04

A RESOLUTION OF THE CITY OF STAR, IDAHO WITHIN ADA COUNTY AMENDING THE 2019 STAR COMPREHENSIVE PLAN TO ADOPT CAPITAL IMPROVEMENT PLANS AND DEVELOPMENT IMPACT FEE STUDIES FOR THE ADA COUNTY JAIL, ADA COUNTY CORONER AND THE ADA COUNTY EMERGENCY MEDICAL SERVICES DISTRICT AS ELEMENTS OF THE 2022 COMPREHENSIVE PLAN

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF STAR, AS FOLLOWS:

At a meeting of the Star City Council, Star Idaho, held on the 15th day of July, 2025, the following Resolution was adopted, to wit:

Whereas, on April 23, 2019, the Star City Council ("Council") initially repealed and replaced the Star Comprehensive Plan 2040 and Beyond ("Comprehensive Plan") by Resolution 19-02; and

Whereas, the City of Star ("City") is experiencing considerable growth and development; and

Whereas, the new growth and development occurring within the City will place ever-increasing demands on the Ada County Jail, the Ada County Coroner's Office, and the Ada County Emergency Medical District to provide, improve and expand existing Jail, Coroner and Ada County Emergency Medical District public safety facilities to serve that new growth and development and the tax revenues generated from that new growth and development often does not generate sufficient funds to provide the necessary improvements and expansion of the public safety facilities to protect the public health, safety and welfare; and

Whereas, those users that create the increased demand should bear their proportionate share of the cost of public safety facilities needed to serve the new growth and development; and

Whereas, under the Idaho Development Impact Fee Act, in Chapter 82, Title 67, Idaho Code, to adopt impact fees the City must adopt capital improvements plans ("CIPs") as an element of the City Comprehensive Plan; and

Whereas, an application from Ada County to adopt the Jail, Coroner and Ada County Emergency Medical District CIPs as an element of the City Comprehensive Plan was submitted on February 20, 2025; and

Whereas, Star Planning & Zoning Administrator scheduled the addition of the CIPs as elements of the City Comprehensive Plan for public hearing before Council on April 15, 2025; and

Whereas, legal notice of the Council's hearing was published in the Idaho Press on March 29, 2025; and

Whereas, Idaho Code 67-6509(b) provides that the Council may adopt, amend or repeal a Comprehensive Plan.

BE IT THEREFORE RESOLVED by the Star City Council that the City Comprehensive Plan is amended to adopt: the Ada County Jail Capital Improvement Plan and Development Impact Study shown by Exhibit A attached hereto; the Ada County Coroner Capital Improvement Plan and Development Impact Fee Study as shown by Exhibit B attached hereto; and the Ada County EMS Capital Improvement Plan and Development Impact Fee Study as shown by Exhibit C attached hereto as elements to the City Comprehensive Plan in appendix B of the City Plan.

APPROVED AND ADOPTED this 15th day of July, 2025

CITY OF STAR, IDAHO

By_____
Trevor A. Chadwick, Mayor

Attest:

_____
Shelly Tilton, City Clerk

EXHIBIT A

ADA COUNTY SHERIFF JAIL CAPITAL IMPROVEMENT PLAN AND DEVELOPMENT IMPACT FEE STUDY

(45 pages – attached)

Jail Capital Improvement Plan and Development Impact Fee Study

Submitted to:

Ada County, Idaho

May 24, 2024

Prepared by:

TischlerBise
FISCAL | ECONOMIC | PLANNING

999 W Main St
Suite 100
Boise, ID 83702
800.424.4318
www.tischlerbise.com

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Impact Fee Study
Ada County, Idaho

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EXECUTIVE SUMMARY

Ada County, Idaho, retained TischlerBise, Inc. to calculate the impact fees to be imposed on new development to meet the new demands generated for public facilities in the County. It is the intent of Ada County to evaluate and establish impact fees for jail facilities. This report presents the methodologies and calculations used to generate current levels of service and maximum supportable impact fees. It is intended to serve as supporting documentation for the evaluation and establishment of impact fees in Ada County.

The purpose of this study is to demonstrate the County's compliance with Idaho Statutes as authorized by the Idaho Legislature. Consistent with the statutory authorization for development impact fees (Idaho Code 67-8202(1-4)), it is the intent of Ada County to:

1. Collect impact fees to ensure that adequate public facilities are available to serve new growth and development;
2. Promote orderly growth and development by establishing uniform standards by which local governments may require that those who benefit from new growth and development pay a proportionate share of the cost of new public facilities needed to serve new growth and development;
3. Establish minimum standards for the adoption of development impact fee ordinances by government entities;
4. Ensure that those who benefit from new growth and development are required to pay no more than their proportionate share of the cost of public facilities needed to serve new growth and development and to prevent duplicate and ad hoc development requirements;

Impact fees are one-time payments used to construct system improvements needed to accommodate new development. An impact fee represents new growth's fair share of capital facility needs. By law, impact fees can only be used for capital improvements, not operating or maintenance costs. Impact fees are subject to legal standards, which require fulfillment of three key elements: need, benefit and proportionality.

- First, to justify a fee for public facilities, it must be demonstrated that new development will create a need for capital improvements.
- Second, new development must derive a benefit from the payment of the fees (i.e., in the form of public facilities constructed within a reasonable timeframe).
- Third, the fee paid by a particular type of development should not exceed its proportional share of the capital cost for system improvements.

TischlerBise evaluated possible methodologies and documented appropriate demand indicators by type of development for the levels of service and fees. Local demographic data and improvement costs were used to identify specific capital costs attributable to growth. This report includes summary tables indicating the specific factors, referred to as level of service standards, used to derive the impact fees.

The geographic area for the jail impact fees is countywide. These facilities provide a countywide benefit and are services not provided by the cities within Ada County.

IDAHO DEVELOPMENT IMPACT FEE ENABLING LEGISLATION

The Enabling Legislation governs how development fees are calculated for municipalities in Idaho. All requirements of the Idaho Development Impact Fee Act (hereafter referred to as the Idaho Act) have been met in the supporting documentation prepared by TischlerBise. There are four requirements of the Idaho Act that are not common in the development impact fee enabling legislation of other states. This overview offers further clarification of these unique requirements.

First, as specified in 67-8204(2) of the Idaho Act, "development impact fees shall be calculated on the basis of levels of service for public facilities . . . applicable to existing development as well as new growth and development."

Second, Idaho requires a Capital Improvements Plan (CIP) [see 67-8208]. The CIP requirements are summarized in this report, with detailed documentation provided in the discussion on infrastructure.

Third, the Idaho Act also requires documentation of any existing deficiencies in the types of infrastructure to be funded by development impact fees [see 67-8208(1)(a)]. The intent of this requirement is to prevent charging new development to cure existing deficiencies. In the context of development impact fees for Ada County, the term "deficiencies" means a shortage or inadequacy of current system improvements when measured against the levels of service to be applied to new development. It does not mean a shortage or inadequacy when measured against some "hoped for" level of service.

TischlerBise used the current infrastructure cost per service unit (i.e., existing standards), or future levels of service where appropriate, multiplied by the projected increase in service units over an appropriate planning timeframe, to yield the cost of growth-related system improvements. The relationship between these three variables can be reduced to a mathematical formula, expressed as A x B = C. In section 67-8204(16), the Idaho Act simply reorganizes this formula, stating the cost per service unit (i.e., development impact fee) may not exceed the cost of growth-related system improvements divided by the number of projected service units attributable to new development (i.e., A = C ÷ B). By using existing infrastructure standards to determine the need for growth-related capital improvements, Ada County ensures the same level-of-service standards are applicable to existing and new development. Using existing infrastructure standards also means there are no existing deficiencies in the current system that must be corrected from non-development impact fee funding.

Fourth, Idaho requires a proportionate share determination [see 67-8207]. Basically, local government must consider various types of applicable credits and/or other revenues that may reduce the capital costs attributable to new development. The development impact fee methodologies and the cash flow analysis have addressed the need for credits to avoid potential double payment for growth-related infrastructure.

SUMMARY OF CAPITAL IMPROVEMENT PLANS AND DEVELOPMENT IMPACT FEES

METHODOLOGIES AND CREDITS

Development impact fees can be calculated by any one of several legitimate methods. The choice of a particular method depends primarily on the service characteristics and planning requirements for each facility type. Each method has advantages and disadvantages in a particular situation, and to some extent can be interchangeable, because each allocates facility costs in proportion to the needs created by development.

Reduced to its simplest terms, the process of calculating development impact 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 impact fees can become quite complicated because of the many variables involved in defining the relationship between development and the need for facilities. The following paragraphs discuss three basic methods for calculating development impact fees, and how each method can be applied.

Cost Recovery or Buy-In Fee Calculation. The rationale for the cost recovery approach 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 systems that were oversized such as sewer and water facilities.

Incremental Expansion Fee Calculation. The incremental expansion method documents the current level of service (LOS) for each type of public facility in both quantitative and qualitative measures, based on an existing service standard (such as park land acres per 1,000 residents). This approach ensures that there are no existing infrastructure deficiencies or surplus capacity in infrastructure. New development is only paying its proportionate share for growth-related infrastructure. An incremental expansion cost method is best suited for public facilities that will be expanded in regular increments, with LOS standards based on current conditions in the community.

Plan-Based Fee Calculation. The plan-based method allocates costs for a specified set of improvements to a specified amount of development. Facility plans identify needed improvements, and land use plans identify development. In this method, the total cost of relevant facilities is divided by total demand to calculate a cost per unit of demand. Then, the cost per unit of demand is multiplied by the amount of demand per unit of development (e.g., housing units or square feet of building area) in each category to arrive at a cost per specific unit of development (e.g., single family detached unit).

Credits. Regardless of the methodology, a consideration of "credits" is integral to the development of a legally valid impact fee methodology. There are two types of "credits," each with specific and distinct characteristics, but both of which should be addressed in the calculation of development impact fees. The first is a credit due to possible double payment situations. This could occur when contributions are made by the property owner toward the capital costs of the public facility covered by the impact fee. This type of credit is integrated into the impact fee calculation. The second is a credit toward the payment of a fee for dedication of public sites or improvements provided by the developer and for which the facility fee is imposed. This type of credit is addressed in the administration and implementation of a facility fee program.

Fee Methodologies

Of the fee methodologies discussed above, the incremental expansion method and the cost recovery method are used to calculate jail impact fees for Ada County. Where capacity is sufficient to serve current demand the incremental expansion method documents the current Level of Service (LOS) for each type of public facility. While the cost of the impact fee study is captured through the cost recovery method. Additionally, Ada County anticipates working with the cities to collect the jail impact fee countywide. The following table summarizes the method(s) used to derive the jail impact fee in Ada County.

Figure 1. Summary of Impact Fee Methodologies

Fee Category	Service Area	Cost Recovery	Incremental Expansion	Plan-Based	Cost Allocation
Jail	Countywide	Impact Fee Study	Jail Facilities		Person & Vehicle Trips

CAPITAL IMPROVEMENT PLAN

The jail development impact fee is based on the existing level of service provided for jail facilities. The development impact fee is calculated for residential and nonresidential development. To serve projected growth at current levels of service, the jail will need to provide 16,555 square feet of new ancillary facility space and 178 new jail beds over the next 10 years. Listed in Figure 2 are the capital improvement plans for facility expansion for the next 10 years. The planned expansions are consistent with growth-related needs to continue providing the current level of service. Important to note is that of the total $16 million ancillary facility costs, only $12.5 million will be captured by the impact fees. The CIP also includes non-growth-related projects which will be funded with non-impact fee revenue.

Figure 2. Jail Capital Improvement Plan

10-Year Jail Capital Improvement Plan	Square Feet	Total Cost	10-Year Impact Fee	General Fund & Other Sources
Pod E Expansion (294 beds)	39,984	$32,843,108	$19,936,000	$12,907,108
Pod E Locker Rooms	3,000	$2,464,219	$2,464,219	$0
Warehouse	10,562	$6,967,817	$6,967,817	$0
Second Secured Entrance	6,719	$6,352,666	$6,352,666	$0
New Booking Room	1,000	$270,229	$270,229	$0
Kitchen Remodel	4,609	$4,992,463	$0	$4,992,463
Camera Installation	-	$1,322,421	$0	$1,322,421
Restroom & Locker Room Remodel	-	$138,831	$0	$138,831
Jail Management System Upgrade	-	$4,000,000	$0	$4,000,000
Total	**65,874**	**$59,351,755**	**$35,990,932**	**$23,360,823**

Growth-Related Pod Expansion	$19,936,000
Pod Expansion Revenue	$19,936,000
Growth-Related Pod Expansion Funding Gap	$0
Growth-Related Anc. Facility Expansion	$16,054,932
Anc. Facility Expansion Revenue	$12,499,025
Growth-Related Anc. Facility Funding Gap	$3,555,907

Maximum Supportable Development Impact Fees by Type of Land Use

Figure 3 provides a schedule of the maximum supportable development impact fees by type of land use for Ada County. The fees represent the highest supportable amount for each type of applicable land use and represents new growth's fair share of the cost for capital facilities. The County may adopt fees that are less than the amounts shown. However, a reduction in impact fee revenue will necessitate an increase in other revenues, a decrease in planned capital expenditures, and/or a decrease in levels of service.

The fees for residential development are to be assessed per housing unit based on type. For nonresidential development, the fees are assessed per square foot of floor area (for illustrative purposes the nonresidential fee is listed per 1,000 square feet of development). Nonresidential development categories are consistent with the terminology and definitions contained in the reference book, Trip Generation 11th Edition, published by the Institute of Transportation Engineers. These definitions are provided in the Appendix A. Land Use Definitions.

Importantly, the Ada County Jail provides a countywide service and benefit. Thus, the impact fee study has calculated the maximum supportable fee based on a countywide level of service. In this case, Figure 3 lists maximum amounts for all development within Ada County.

Figure 3. Summary of Maximum Supportable Development Impact Fees - Countywide

Development Type	Jail Maximum Supportable Fee
Residential (per housing unit)	
Single Family	**$516**
Multifamily	**$357**
Nonresidential (per 1,000 square feet)	
Retail	**$944**
Office	**$364**
Industrial	**$163**
Institutional	**$361**

CAPITAL IMPROVEMENT PLAN

The following section provides a summary of the Capital Improvement Plan depicting growth-related capital demands and costs on which the fees are based.

First, Figure 4 and Figure 5 lists the projected growth over the next ten years in Ada County. Overall, there is an estimated 23 percent increase in residential development (125,397 new residents and 50,296 new housing units) and an 18 percent increase in nonresidential development (43,283 new jobs and 16.9 million square feet of development). Further details on the development projections are provided in Appendix B. Demographic Assumptions.

Figure 4. Ten-Year Projected Residential Growth

Ada County	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Population	544,590	568,015	591,946	602,628	613,310	623,991	634,673	645,355	653,566	661,776	669,987	**125,397**
Percent Increase		*4.3%*	*4.2%*	*1.8%*	*1.8%*	*1.7%*	*1.7%*	*1.7%*	*1.3%*	*1.3%*	*1.2%*	***23.0%***
Housing Units												
Single Family	182,342	190,171	198,180	201,750	205,321	208,891	212,462	216,033	218,774	221,515	224,256	**41,914**
Multifamily	37,833	39,417	41,005	41,716	42,426	43,137	43,847	44,558	45,110	45,662	46,215	**8,382**
Total Housing Units	220,175	229,588	239,185	243,466	247,747	252,028	256,309	260,591	263,884	267,177	270,471	**50,296**

Source: COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model; City & Fire District Impact Fee Studies; TischlerBise analysis

Figure 5. Ten-Year Projected Nonresidential Growth

Ada County	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Jobs [1]												
Retail	43,787	44,612	45,437	46,262	47,086	47,910	48,734	49,557	50,367	51,177	51,986	**8,199**
Office	130,780	133,132	135,483	137,835	140,186	142,538	144,889	147,241	149,556	151,872	154,187	**23,407**
Industrial	35,745	36,388	37,030	37,673	38,315	38,958	39,600	40,242	40,875	41,507	42,139	**6,394**
Institutional	29,356	29,884	30,413	30,943	31,472	32,003	32,533	33,064	33,588	34,113	34,639	**5,283**
Total	239,668	244,016	248,364	252,712	257,060	261,408	265,756	270,104	274,386	278,669	282,951	**43,283**
Nonresidential Floor Area (1,000 sq. ft.) [2]												
Retail	41,938	42,327	42,715	43,104	43,492	43,880	44,268	44,656	45,037	45,419	45,800	**3,862**
Office	21,670	22,392	23,114	23,836	24,558	25,280	26,002	26,724	27,434	28,145	28,856	**7,186**
Industrial	41,668	42,078	42,487	42,896	43,305	43,715	44,124	44,533	44,936	45,339	45,741	**4,073**
Institutional	25,911	26,096	26,281	26,467	26,652	26,838	27,023	27,209	27,392	27,576	27,760	**1,849**
Total	131,188	132,893	134,598	136,302	138,007	139,712	141,417	143,121	144,800	146,479	148,157	**16,970**

[1] COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model; Communities in Motion 2050; TischlerBise analysis
[2] Source: Institute of Transportation Engineers, *Trip Generation* , 2021

The Idaho Development Impact Fee Act requires Capital Improvement Plans to be updated regularly, at least once every five years (Idaho Code 67-8208(2)). This report projects revenue and fees based on a 10-year forecast in an effort to provide the public and elected officials with illustrative guidance of probable growth demands based on current trends however, per Idaho Code, it is expected that an update to all Capital Improvement Plans included in this study will occur within five years.

Funding Sources for Current Deficiencies

The majority of the CIP relates to the expansion of the Ada County Jail. A number of specific upgrades, replacements, and expansions to existing Jail facilities have also been proposed for fiscal year 2025 and beyond. In addition, it is estimated that $2,500,000 will be required for maintenance and repair of existing facilities over the next five years. Because replacement and addressing existing deficiencies are not eligible to be funded with impact fees, these costs will need to be funded by other sources, such as property taxes, in accordance with Idaho Code 67-8207(iv)(2)(h). The Board of Ada County Commissioners retain discretion and authority to fund deficiencies through the county's annual CIP budget process, accumulate savings annually in a construction fund, budget annually for one-time projects using unspent fund balance, or through the deferred maintenance budget annually appropriated to the Operations Department for these sorts of expenses.

Capital Improvement Plan

The jail development impact fee is based on the existing level of service provided for jail facilities. The development impact fee is calculated for residential and nonresidential development. Based on the 10-year growth projections, the following infrastructure is projected over the next ten years:

- 16,555 square feet of new ancillary facility
- 178 new jail beds
- $32,435,000 growth-related costs to Ada County

The projected demand is consistent with the Ada County Jail expansion plans. Currently, the department is exploring options for several expansions within the jail including a warehouse expansion and locker rooms for future Pod E. These projections are consistent with the Jail's Capital Improvement Plan shown in Figure 77. Important to note is that of the total $16 million ancillary facility costs, only $12.5 million will be captured by the impact fees. Also, there are four capital projects which are addressing non-growth-related project, thus not impact fee eligible.

Figure 7. Jail Capital Improvement Plan

10-Year Jail Capital Improvement Plan	Square Feet	Total Cost	10-Year Impact Fee	General Fund & Other Sources
Pod E Expansion (294 beds)	39,984	$32,843,108	$19,936,000	$12,907,108
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Total	**65,874**	**$59,351,755**	**$35,990,932**	**$23,360,823**

Growth-Related Pod Expansion	$19,936,000
Pod Expansion Revenue	$19,936,000
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Growth-Related Anc. Facility Expansion	$16,054,932
Anc. Facility Expansion Revenue	$12,499,025
Growth-Related Anc. Facility Funding Gap	$3,555,907

Funding Sources for Capital Improvements

In determining the proportionate share of capital costs attributable to new development, the Idaho Development Fee Act states that local governments must consider historical, available, and alternative sources of funding for system improvements (Idaho Code 67-8207(2)). Currently, there are no dedicated revenues being collected by the County to fund growth-related projects for the infrastructure included in this study.

Furthermore, the maximum supportable impact fees are constructed to offset the growth-related capital costs to the County for jail facilities. Evidence is given in the specific chapters of this report that the projected capital costs from new development will be offset by the development impact fees collection as long as the program is collected in the entire service area. Thus, no credits are needed in the impact fee calculation to offset double collection for growth-related capital costs.

JAIL DEVELOPMENT IMPACT FEE ANALYSIS

The Jail Development Impact Fee is based on the cost per service unit method specified in Idaho Code 67-8204(16), also referred to as the incremental expansion method elsewhere in this report.

The jail components included in the impact fee analysis are:

- Jail ancillary facilities
- Jail beds
- Share of the development impact fee study

The residential portion of the fee is derived from the product of persons per housing unit by housing type multiplied by the net capital cost per person. To calculate nonresidential development impact fees, nonresidential vehicle trips are used as the demand indicator. Trip generation rates are highest for commercial developments, such as shopping centers, and lowest for industrial development. Office and institutional land uses trip rates fall between the other two categories. This ranking of trip rates is consistent with the relative demand for jail facilities from nonresidential development and thus are the best demand indicators. Other possible nonresidential demand indicators, such as employment or floor area, do not accurately reflect the demand for service. If employees per thousand square feet were used as the demand indicator, Jail Development Impact Fees would be too high for office and institutional development. If floor area were used as the demand indicator, the development impact fees would be too high for industrial development. (See the Appendix for further discussion on trip rates and calculations.)

Specified in Idaho Code 67-8207(2), local governments must consider historical, available, and alternative sources of funding for system improvements. Currently, there are no dedicated revenues being collected by the County to fund growth-related projects for jail facilities. Furthermore, the maximum supportable impact fees are constructed to offset all growth-related capital costs for jail facilities. Evidence is given in this chapter that the projected capital costs from new development will be entirely offset by the development impact fees. Thus, no general tax dollars are assumed to be used to fund growth-related capital costs, requiring no further revenue credits.

COST ALLOCATION FOR JAIL INFRASTRUCTURE

Both residential and nonresidential development increases the demand for jail services and facilities. To calculate the proportional share between residential and nonresidential demand calls for service data from the Ada County Sheriff is analyzed. This call report represents the need for law enforcement services throughout Ada County including calls to which City police departments responded. Shown at the top of Figure 88**,** 32 percent of calls are to residential locations, 12 percent to nonresidential locations, and 56 percent are classified as traffic calls.

Base year vehicle trips are used to assign traffic calls to residential and nonresidential land uses. This results in 41,125 additional residential calls (1,138,874 residential vehicle trips / 2,087,130 total vehicle trips x 75,367 traffic calls for service) and 34,242 additional nonresidential calls (948,256 nonresidential vehicle trips / 2,087,130 total vehicle trips x 75,367 traffic calls for service).

After this adjustment, 63 percent of calls are attributed to residential development and 37 percent are attributed to nonresidential development. These percentages are used to attribute facilities to respective demand units.

Figure 8. Countywide Law Enforcement Calls for Service

Land Use	Annual Calls for Service	% of Total
Residential	42,779	32%
Nonresidential	15,958	12%
Traffic	75,367	56%
Total	**134,105**	**100%**

Land Use	Vehicle Trips	% of Total
Residential	1,138,874	55%
Nonresidential	948,256	45%
Total	**2,087,130**	**100%**

Land Use	Adj. Calls for Service	% of Total
Residential	83,905	**63%**
Nonresidential	50,200	**37%**
Total	**134,105**	**100%**

Source: Ada County Sheriff's Office

JAIL LEVEL OF SERVICE AND COST ANALYSIS

The following section details the level of service calculations and capital cost per person for each infrastructure category.

JAIL CAPACITY ANALYSIS

Shown in Figure 99 is an analysis of the Ada County share of square footage and jail beds. The Ada County Jail houses inmates awaiting transfer to the Idaho State Prison and pretrial hearings. Of the 200 currently held for these reasons, 10 of them are from outside of Ada County. These 10 out-of-county prisoners are then divided by the operational capacity of the jail to get the out of county utilization of 1 percent (10 out-of-county inmates / 949 operational capacity = 1 percent out-of-county utilization).

Figure 9. Ada County Jail Capacity Analysis

Ada County Jail	
Jail Operational Capacity	949
County Inmates Awaiting Transfer/Hearing	200
Portion of Awaiting Inmates Out-of-County (5%)	10
Portion of Jail Capacity Out-of-County	**1%**

JAIL ANCILLARY FACILITIES

Listed in Figure 1010, there is a total of 87,956 square feet of ancillary facilities at the county jail, 87,710 square feet being attributed to Ada County demand (99 percent). The proportionate share between residential and nonresidential demand of the facilities is found by applying the calls for service data percentages. As a result, 54,877 square feet are attributed to residential demand and 32,833 square feet are attributed to nonresidential demand. The current level of service is found by comparing the attributed square footage to the base year population and nonresidential vehicles trips. As a result, there is 100.8 square feet per 1,000 residents and 34.6 square feet per 1,000 vehicles trips.

The average cost per square foot is combined with the current levels of service to find the capital cost per demand unit. This results in a cost of $76 per person and $26 per vehicle trip (100.8 square feet per 1,000 persons x $755 per square foot = $76 per person, rounded).

Figure 10. Jail Facility Level of Service & Cost Analysis

Facility	Total Square Feet	Ada County Portion 99%	Ada County Replacement Cost
Medical Unit	24,607	24,361	$20,010,220
Work Release	12,980	12,980	$5,612,125
Juvenile Detention	49,012	49,012	$40,258,763
ASCO Vehicle Maintenance	1,357	1,357	$366,634
Total	**87,956**	**87,710**	**$66,247,743**

Level-of-Service Standards	**Residential**	**Nonres**
Proportional Share	63%	37%
Share of Square Feet	54,877	32,833
2023 Population/Nonres. Vehicle Trips	544,590	948,256
Square Feet per 1,000 Persons/Vehicle Trips	**100.8**	**34.6**

Cost Analysis	**Residential**	**Nonres**
Square Feet per 1,000 Persons/Vehicle Trips	100.8	34.6
Average Cost per Square Foot	$755	$755
Capital Cost per Person/Vehicle Trip	**$76**	**$26**

Source: Ada County Sheriff's Office

JAIL BEDS

Listed in Figure 61, the jail operational capacity is 949 occupied beds, 940 of which are utilized by Ada County (99 percent). The proportionate share between residential and nonresidential demand of the beds is found by applying the calls for service data percentages. As a result, 588 beds are attributed to residential demand and 352 beds are attributed to nonresidential demand. The current level of service is found by comparing the attributed beds to the base year population and nonresidential vehicles trips. As a result, there are 1.08 beds per 1,000 residents and 0.37 beds per 1,000 vehicles trips.

The average cost per bed is combined with the current levels of service to find the capital cost per demand unit. This results in a cost of $121 per person and $41 per vehicle trip (1.08 beds per 1,000 persons x $112,000 per bed = $121 per person, rounded).

Figure 61. Jail Bed Level of Service & Cost Analysis

Facility	Operational Capacity (Beds)	Current Utilization [1]	Ada County Beds 99%	Ada County Replacement Cost [2]
Jail	949	100%	940	$105,280,000
Total	**949**		**940**	**$105,280,000**

Level-of-Service Standards	Residential	Nonres
Proportional Share	63%	37%
Share of Beds	588	352
2023 Population/Nonres. Vehicle Trips	544,590	948,256
Beds per 1,000 Persons/Vehicle Trips	**1.08**	**0.37**

Cost Analysis	Residential	Nonres
Beds per 1,000 Persons/Vehicle Trips	1.08	0.37
Average Cost per Bed [2]	$112,000	$112,000
Capital Cost per Person/Vehicle Trip	**$121**	**$41**

[1] Jail population model forcasts 100% utilization by the beginning of 2024
[2] Based on Pod E expansion of 294 beds at $32,843,108 including contingencies and FFE

Share of the Development Impact Fee Study

Under the Idaho enabling legislation, Ada County is able to recover the cost of the study through the collection of future fees. The total cost of the study has been evenly attributed to the four infrastructure categories, resulting in the Jail category share being $16,370. An impact fee study must be completed every five years, so the attributed cost is compared to the five-year projected increase. As a result, the cost per person is $0.13 and the cost per vehicle trip is $0.11.

Figure 72. Jail Share of the Development Impact Fee Study

Share of Study Cost	Residential Share	Nonresidential Share
$16,370	63%	37%

Residential Growth Cost	Five-Year Population Increase	Capital Cost per Person
$10,242	79,401	**$0.13**

Nonresidential Growth Cost	Five-Year Vehicle Trip Increase	Capital Cost per Vehicle Trip
$6,128	56,847	**$0.11**

JAIL CAPITAL IMPROVEMENTS NEEDED TO SERVE GROWTH

Needs due to future growth were calculated using the levels of service and cost factors for the infrastructure components. Growth-related needs are a projection of the amount of infrastructure and estimated costs over the next ten years needed to maintain levels of service.

JAIL ANCILLARY FACILITIES

The current levels of service are combined with the population and vehicle trip projections to illustrate the need for new jail ancillary facilities. Shown in Figure 83, over the next ten years, there is a need for 16,555 square feet. The average cost per square foot is multiplied by the need to find the projected capital need from growth ($12,449,025).

Figure 83. Projected Demand for Jail Ancillary Facilities

Infrastructure	Level of Service				Cost/Unit
Ancillary Jail Facilities	Residential	100.8	Square Feet	per 1,000 persons	$755
	Nonresidential	34.6		per 1,000 veh. trips	

Growth-Related Need for Ancillary Jail Facilities						
Year		Population	Nonres. Vehicle Trips	Residential Square Feet	Nonresidential Square Feet	Total Square Feet
Base	2023	544,590	948,256	54,894	32,809	87,703
Year 1	2024	568,015	959,629	57,255	33,203	90,458
Year 2	2025	591,946	971,000	59,668	33,596	93,264
Year 3	2026	602,628	982,369	60,744	33,989	94,733
Year 4	2027	613,310	993,737	61,821	34,383	96,204
Year 5	2028	623,991	1,005,103	62,898	34,776	97,674
Year 6	2029	634,673	1,016,467	63,975	35,169	99,144
Year 7	2030	645,355	1,027,830	65,051	35,562	100,613
Year 8	2031	653,566	1,039,020	65,879	35,950	101,829
Year 9	2032	661,776	1,050,206	66,707	36,337	103,044
Year 10	2033	669,987	1,061,389	67,534	36,724	104,258
Ten-Year Increase		125,397	113,134	12,640	3,915	16,555
			Projected Expenditure	**$9,543,200**	**$2,955,825**	**$12,499,025**

Growth-Related Expenditures for Ancillary Jail Facilities	$12,499,025

JAIL BEDS

The current levels of service are combined with the population and vehicle trip projections to illustrate the need for new jail beds. Shown in Figure 94, over the next ten years, there is a need for 178 beds. The average cost per unit is multiplied by the need to find the projected capital need from growth ($19,936,000).

Figure 94. Projected Demand for Jail Beds

Infrastructure	Level of Service				Cost/Unit
Jail Facilities	Residential	1.08	Beds	per 1,000 persons	$112,000
	Nonresidential	0.37		per 1,000 veh. trips	

Growth-Related Need for Jail Facilities						
Year		Population	Nonres. Vehicle Trips	Residential Beds	Nonresidential Beds	Total Beds
Base	2023	544,590	948,256	588	351	939
Year 1	2024	568,015	959,629	613	355	968
Year 2	2025	591,946	971,000	639	359	998
Year 3	2026	602,628	982,369	651	363	1,014
Year 4	2027	613,310	993,737	662	368	1,030
Year 5	2028	623,991	1,005,103	674	372	1,046
Year 6	2029	634,673	1,016,467	685	376	1,061
Year 7	2030	645,355	1,027,830	697	380	1,077
Year 8	2031	653,566	1,039,020	706	384	1,090
Year 9	2032	661,776	1,050,206	715	389	1,104
Year 10	2033	669,987	1,061,389	724	393	1,117
Ten-Year Increase		125,397	113,134	136	42	178
			Projected Expenditure	**$15,232,000**	**$4,704,000**	**$19,936,000**

Growth-Related Expenditures for Jail Facilities	$19,936,000

JAIL DEVELOPMENT IMPACT FEE CREDIT ANALYSIS

Currently, there are no dedicated revenues being collected by the County to fund growth-related projects for jail facilities. Furthermore, the maximum supportable impact fees are constructed to offset growth-related capital costs for facilities. Evidence is given in this chapter that the projected capital costs from new development will be entirely offset by the development impact fees. As a result, no revenue credit is necessary in the impact fee calculation.

JAIL INPUT VARIABLES AND DEVELOPMENT IMPACT FEES

Figure 105 provides a summary of the input variables (described in the chapter sections above) used to calculate the net cost per person and vehicle trip. The residential Jail Development Impact Fees are the product of persons per housing unit by type of dwelling unit multiplied by the total net capital cost per person. The nonresidential fees are the product of trips per 1,000 square feet multiplied by the net capital cost per nonresidential vehicle trip.

The fees represent the highest supportable amount for each type of applicable land use and represents new growth's fair share of the cost for capital facilities. The County may adopt fees that are less than the amounts shown. However, a reduction in impact fee revenue will necessitate an increase in other revenues, a decrease in planned capital expenditures, and/or a decrease in levels of service.

Figure 105. Jail Input Variables and Maximum Supportable Impact Fees

Fee Component	Cost per Person	Cost per Vehicle Trip
Jail Beds	$121.00	$41.00
Jail Ancillary Facilities	$76.00	$26.00
Impact Fee Study	$0.13	$0.11
Gross Total	$197.13	$67.11
Net Total	**$197.13**	**$67.11**

Residential

Housing Type	Persons per Housing Unit	Maximum Supportable Fee
Residential (per housing unit)		
Single Family	2.62	**$516**
Multifamily	1.81	**$357**

Nonresidential

Development Type	Vehicle Trips per KSF	Maximum Supportable Fee
Nonresidential (per 1,000 square feet)		
Retail	14.06	**$944**
Office	5.42	**$364**
Industrial	2.44	**$163**
Institutional	5.39	**$361**

CASH FLOW PROJECTIONS FOR JAIL MAXIMUM SUPPORTABLE IMPACT FEE

This section summarizes the potential cash flow to Ada County if the Jail Development Impact Fee is implemented at the maximum supportable amounts. The cash flow projections are based on the assumptions detailed in this chapter and the development projections discussed in Appendix B.

Shown at the bottom of Figure 16, the maximum supportable jail impact fee is estimated to generate $32.2 million in revenue while there is a growth-related cost of $32.4 million. Thus, the impact fees are able to offset all growth-related capital costs (note: the difference is the result of rounding in the calculations). The impact fee revenue is compared to the total Jail CIP to illustrate the non-impact fee funding needed to complete the plan.

Importantly, the level of service has included demand from within the cities of Ada County. To ensure that the County captures the full potential revenue of the impact fees an intergovernmental agreement (IGA) is necessary for the Cities to collect the County impact fees on its behalf. Those revenues would be remitted to the County periodically. In the case there are no IGAs, the County will collect $3.1 million in the unincorporated areas (9.4 percent of the countywide growth-related capital costs).

Figure 116. Projected Revenue for Jail Impact Fees

Infrastructure Costs for Jail Facilities

	Total Cost	Growth Cost
Jail Beds	$32,843,108	$19,936,000
Jail Ancillary Facilities	$21,047,395	$12,499,025
Impact Fee Study	$32,740	$32,740
Total Expenditures	**$53,923,243**	**$32,467,765**

Projected Development Impact Fee Revenue

		Single Family $516 per unit	Multifamily $357 per unit	Retail $944 per KSF	Office $364 per KSF	Industrial $163 per KSF	Institutional $361 per KSF
Year		Housing Units	Housing Units	KSF	KSF	KSF	KSF
Base	2023	182,342	37,833	41,938	21,670	41,668	25,911
1	2024	190,171	39,417	42,327	22,392	42,078	26,096
2	2025	198,180	41,005	42,715	23,114	42,487	26,281
3	2026	201,750	41,716	43,104	23,836	42,896	26,467
4	2027	205,321	42,426	43,492	24,558	43,305	26,652
5	2028	208,891	43,137	43,880	25,280	43,715	26,838
6	2029	212,462	43,847	44,268	26,002	44,124	27,023
7	2030	216,033	44,558	44,656	26,724	44,533	27,209
8	2031	218,774	45,110	45,037	27,434	44,936	27,392
9	2032	221,515	45,662	45,419	28,145	45,339	27,576
10	2033	224,256	46,215	45,800	28,856	45,741	27,760
Ten-Year Increase		41,914	8,382	3,862	7,186	4,073	1,849
Projected Revenue		$21,627,749	$2,992,275	$3,645,458	$2,615,726	$663,897	$667,499
						Projected Revenue =>	**$32,213,000**
						Projected Expenditures =>	**$53,923,243**
						Non-Impact Fee Funding =>	**$21,710,243**

PROPORTIONATE SHARE ANALYSIS

Development impact fees for Ada County are based on reasonable and fair formulas or methods. The fees do not exceed a proportionate share of the costs incurred or to be incurred by the County in the provision of system improvements to serve new development. The County will fund non-growth-related improvements with non-development impact fee funds as it has in the past. Specified in the Idaho Development Impact Fee Act (Idaho Code 67-8207), several factors must be evaluated in the development impact fee study and are discussed below.

1) The development impact fees for Ada County are based on new growth's share of the costs of previously built projects along with planned public facilities as provided by Ada County. Projects are included in the County's capital improvements plan and will be included in annual capital budgets.
2) TischlerBise estimated development impact fee revenue based on the maximum supportable development impact fees for the one, countywide service area; results are shown in the cash flow analyses in this report. Development impact fee revenue will entirely fund growth-related improvements less funding from other sources (i.e., federal and state grants).
3) TischlerBise has evaluated the extent to which new development may contribute to the cost of public facilities.
4) The relative extent to which properties will make future contributions to the cost of existing public facilities has also been evaluated in regards to existing debt. Outstanding debt for growth's portion of already constructed facilities will be paid from development impact fee revenue, therefore a future revenue credit is not necessary.
5) The County will evaluate the extent to which newly developed properties are entitled to a credit for system improvements that have been provided by property owners or developers. These "site-specific" credits will be available for system improvements identified in the annual capital budget and long-term Capital Improvements Plans. Administrative procedures for site-specific credits should be addressed in the development impact fee ordinance.
6) Extraordinary costs, if any, in servicing newly developed properties should be addressed through administrative procedures that allow independent studies to be submitted to the County. These procedures should be addressed in the development impact fee ordinance. One service area represented by Ada County is appropriate for the fees herein.
7) The time-price differential inherent in fair comparisons of amounts paid at different times has been addressed. All costs in the development impact fee calculations are given in current dollars with no assumed inflation rate over time. Necessary cost adjustments can be made as part of the annual evaluation and update of development impact fees.

IMPLEMENTATION AND ADMINISTRATION

The Idaho Act requires jurisdictions to form a Development Impact Fee Advisory Committee. The committee must have at least five members with a minimum of two members active in the business of real estate, building, or development. The committee acts in an advisory capacity and is tasked to do the following:

- Assist the governmental entity in adopting land use assumptions;
- Review the capital improvements plan, and proposed amendments, and file written comments;
- Monitor and evaluate implementation of the capital improvements plan;
- File periodic reports, at least annually, with respect to the capital improvements plan and report to the governmental entity any perceived inequities in implementing the plan or imposing the development impact fees; and
- Advise the governmental entity of the need to update or revise land use assumptions, the capital improvements plan, and development impact fees.

Per the above, the County formed a Development Impact Fee Advisory Committee (DIFAC). TischlerBise and County Staff met with the DIFAC during the process and provided information on land use assumptions, level of service and cost assumptions, and draft development impact fee schedules. This report reflects comments and feedback received from the DIFAC.

The County must develop and adopt a capital improvements plan (CIP) that includes those improvements for which fees were developed. The Idaho Act defines a capital improvement as an "improvement with a useful life of ten years or more, by new construction or other action, which increases the service capacity of a public facility." Requirements for the CIP are outlined in Idaho Code 67-8208. Certain procedural requirements must be followed for adoption of the CIP and the development impact fee ordinance. Requirements are described in detail in Idaho Code 67-8206. The County has a CIP that meets the above requirements.

TischlerBise recommends that development impact fees be updated annually to reflect recent data. One approach is to adjust for inflation in construction costs by means of an index like the RSMeans or Engineering News Record (ENR). This index can be applied against the calculated development impact fee. If cost estimates change significantly the County should evaluate an adjustment to the CIP and development impact fees.

Idaho's enabling legislation requires an annual development impact fees report that accounts for fees collected and spent during the preceding year (Idaho Code 67-8210). Development impact fees must be deposited in interest-bearing accounts earmarked for the associated capital facilities as outlined in capital improvements plans. Also, fees must be spent within eight years of when they are collected (on a first in, first out basis) unless the local governmental entity identifies in writing (a) a reasonable cause why the

fees should be held longer than eight years; and (b) an anticipated date by which the fees will be expended but in no event greater than eleven years from the date they were collected.

Credits must be provided for in accordance with Idaho Code Section 67-8209 regarding site-specific credits or developer reimbursements for system improvements that have been included in the development impact fee calculations. Project improvements normally required as part of the development approval process are not eligible for credits against development impact fees. Specific policies and procedures related to site-specific credits or developer reimbursements for system improvements should be addressed in the ordinance that establishes the County's fees.

The general concept is that developers may be eligible for site-specific credits or reimbursements only if they provide system improvements that have been included in CIP and development impact fee calculations. If a developer constructs a system improvement that was included in the fee calculations, it is necessary to either reimburse the developer or provide a credit against the fees in the area that benefits from the system improvement. The latter option is more difficult to administer because it creates unique fees for specific geographic areas. Based on TischlerBise's experience, it is better for a reimbursement agreement to be established with the developer that constructs a system improvement. For example, if a developer elects to construct a system improvement, then a reimbursement agreement can be established to payback the developer from future development impact fee revenue. The reimbursement agreement should be based on the actual documented cost of the system improvement, if less than the amount shown in the CIP. However, the reimbursement should not exceed the CIP amount that has been used in the development impact fee calculations.

APPENDIX A. LAND USE DEFINITIONS

RESIDENTIAL DEVELOPMENT

As discussed below, residential development categories are based on data from the U.S. Census Bureau, American Community Survey. Ada County will collect impact fees from all new residential units. One-time impact fees are determined by the number of residential units.

Single Family Units:

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 as long as 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.

Multifamily Units:

1. 2+ units (duplexes and apartments) are 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.”
2. Boat, RV, Van, etc. 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 CATEGORIES

Nonresidential development categories used throughout this study are based on land use classifications from the book Trip Generation (ITE, 2021). A summary description of each development category is provided below.

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

Office: Establishments providing management, administrative, professional, or business services. By way of example, Office includes business offices, office parks, and corporate headquarters.

Industrial: Establishments primarily engaged in the production and transportation of goods. By way of example, Industrial includes manufacturing plants, trucking companies, warehousing facilities, 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, hospitals, health care facilities, and government buildings.

APPENDIX B. DEMOGRAPHIC ASSUMPTIONS

The data estimates and projections used in the study's calculations are detailed in this section. This chapter includes discussion and findings on:

- Household/housing unit size
- Current population and housing unit estimates
- Residential projections
- Current employment and nonresidential floor area estimates
- Nonresidential projections
- Functional population
- Vehicle trip generation and projections

POPULATION AND HOUSING CHARACTERISTICS

Impact fees often use per capita standards and persons per housing unit or persons per household to derive proportionate share fee amounts. Housing types have varying household sizes and, consequently, a varying demand on County infrastructure and services. Thus, it is important to differentiate between housing types and size.

When persons per housing unit (PPHU) is used in the development impact fee calculations, infrastructure standards are derived using year-round population. In contrast, when persons per household (PPHH) is used in the development impact fee calculations, the fee methodology assumes all housing units will be occupied, thus requiring seasonal or peak population to be used when deriving infrastructure standards. Thus, TischlerBise recommends that fees for residential development in Ada County be imposed according to persons per housing units.

Based on housing characteristics, TischlerBise recommends using two housing unit categories for the Impact Fee study: (1) Single Family and (2) Multifamily. Each housing type has different characteristics which results in a different demand on County facilities and services. Figure 127 shows the US Census American Community Survey 2021 5-Year Estimates data for Ada County. Single family units have a housing unit size of 2.62 persons and multifamily units have a housing unit size of 1.81 persons. Additionally, there is a housing mix of 83 percent single family and 17 percent multifamily.

The estimates in Figure 127 are for household size calculations. Base year population and housing units are estimated with another, more recent data source.

Figure 127. Ada County Persons per Housing Unit

Housing Type	Persons	Housing Units	Persons per Housing Unit	Households	Persons per Household	Housing Unit Mix
Single Family [1]	415,557	158,890	**2.62**	153,711	2.70	83%
Multifamily [2]	59,917	33,161	**1.81**	31,014	1.93	17%
Total	475,474	192,051	**2.48**	184,725	2.57	

[1] Includes attached and detached single family homes and mobile homes
[2] Includes all other types
Source: U.S. Census Bureau, 2021 American Community Survey 5-Year Estimates

The US Census American Community Survey 2021 5-Year Estimates data for incorporated Ada County is shown in Figure 138. Single family units have a housing unit size of 2.59 persons and multifamily units have a housing unit size of 1.80 persons. Additionally, there is a housing mix of 81 percent single family and 19 percent multifamily.

Figure 138. Incorporated Ada County Persons per Housing Unit

Housing Type	Persons	Housing Units	Persons per Housing Unit	Households	Persons per Household	Housing Unit Mix
Single Family [1]	363,946	140,266	**2.59**	135,502	2.69	81%
Multifamily [2]	58,871	32,691	**1.80**	30,619	1.92	19%
Total	422,817	172,957	**2.44**	166,121	2.55	

[1] Includes attached and detached single family homes and mobile homes
[2] Includes all other types
Source: U.S. Census Bureau, 2021 American Community Survey 5-Year Estimates

The US Census American Community Survey 2021 5-Year-Estimates data for unincorporated Ada County is shown in Figure 149. Single family units have a housing unit size of 2.77 persons and multifamily units have a housing unit size of 2.23 persons. Additionally, there is a housing mix of 98 percent single family and 2 percent multifamily.

Figure 149. Unincorporated Ada County Persons per Housing Unit

Housing Type	Persons	Housing Units	Persons per Housing Unit	Households	Persons per Household	Housing Unit Mix
Single Family [1]	51,611	18,624	**2.77**	18,209	2.83	98%
Multifamily [2]	1,046	470	**2.23**	395	2.65	2%
Total	52,657	19,094	**2.76**	18,604	2.83	

[1] Includes attached and detached single family homes and mobile homes
[2] Includes all other types
Source: U.S. Census Bureau, 2021 American Community Survey 5-Year Estimates

BASE YEAR POPULATION AND HOUSING UNITS

Available through the Community Planning Association of Southwest Idaho (COMPASS), the base year 2023 population in Ada County is estimated to be 554,590 residents shown in Figure20. PPHU factors for

Incorporated and Unincorporated Ada County were used to estimate base year housing units for the whole County. The housing unit mix for Ada County was then applied to the total giving an estimated 182,342 single family units and 37,833 multifamily units.

Figure 20. Ada County Base Year Population and Housing Units

Ada County	Base Year 2023
Population [1]	544,590
Housing Units [2]	
Single Family	182,342
Multifamily	37,833
Total Housing Units	220,175

[1] COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model
[2] U.S. Census Bureau, 2021 American Community Survey 5-Year Estimates, TischlerBise analysis

Available through COMPASS, the base year 2023 population in unincorporated Ada County is estimated to be 63,510 residents shown in Figure 151. PPHU factors for unincorporated Ada County were used to estimate base year housing units. The housing unit mix was then applied to the total giving an estimated 22,444 single family units and 566 multifamily units.

Figure 151. Unincorporated Ada County Base Year Population and Housing Units

Ada County Unincorporated	Base Year 2023
Population [1]	63,510
Housing Units [2]	
Single Family	22,444
Multifamily	566
Total Housing Units	23,011

[1] COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model
[2] U.S. Census Bureau, 2021 American Community Survey 5-Year Estimates, TischlerBise analysis

The population estimate for unincorporated Ada County from COMPASS was subtracted from the population estimate for the whole of Ada County to find the estimated base year population for incorporated Ada County. Shown in Figure 162 the estimated population is 481,080. PPHU factors for incorporated Ada County were used to estimate base year housing units. The housing unit mix was then applied to the total giving an estimated 159,898 single family units and 37,266 multifamily units.

Figure 162. Incorporated Ada County Base Year Population and Housing Units

Ada County Incorporated	Base Year 2023
Population [1]	481,080
Housing Units [2]	
Single Family	159,898
Multifamily	37,266
Total Housing Units	197,164

[1] COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model
[2] U.S. Census Bureau, 2021 American Community Survey 5-Year Estimates, TischlerBise analysis

POPULATION AND HOUSING UNIT PROJECTIONS

The residential projections are based on a review of COMPASS published estimates, impact fee studies from cities and fire districts within Ada County, and PPHU factors. Impact fee studies comprising the main six cities within Ada County were used to affirm growth trends for whole county projections. From the 2023 base year housing unit totals, Ada County is projected to increase by 50,296 housing units over the next ten years. Additionally, there is a projected increase of 125,397 residents over the next ten years, a 23 percent increase.

Figure 173. Ada County Residential Development Projections

Ada County	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Population	544,590	568,015	591,946	602,628	613,310	623,991	634,673	645,355	653,566	661,776	669,987	**125,397**
Percent Increase		*4.3%*	*4.2%*	*1.8%*	*1.8%*	*1.7%*	*1.7%*	*1.7%*	*1.3%*	*1.3%*	*1.2%*	***23.0%***
Housing Units												
Single Family	182,342	190,171	198,180	201,750	205,321	208,891	212,462	216,033	218,774	221,515	224,256	**41,914**
Multifamily	37,833	39,417	41,005	41,716	42,426	43,137	43,847	44,558	45,110	45,662	46,215	**8,382**
Total Housing Units	220,175	229,588	239,185	243,466	247,747	252,028	256,309	260,591	263,884	267,177	270,471	**50,296**

Source: COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model; City & Fire District Impact Fee Studies; TischlerBise analysis

From the 2023 base year housing unit totals for incorporated Ada County, there is a projected increase of 44,844 new housing units over the next ten years. Additionally, there is a projected increase of 110,415 residents in incorporated Ada County, a 23 percent increase.

Figure 184. Incorporated Ada County Residential Development Projections

Ada County Incorporated	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Population	481,080	502,024	523,414	532,767	542,119	551,471	560,823	570,174	577,281	584,388	591,495	**110,415**
Percent Increase		*4.4%*	*4.3%*	*1.8%*	*1.8%*	*1.7%*	*1.7%*	*1.7%*	*1.2%*	*1.2%*	*1.2%*	***23.0%***
Housing Units												
Single Family	159,898	166,853	173,967	177,075	180,183	183,291	186,399	189,507	191,866	194,226	196,586	**36,688**
Multifamily	37,266	38,822	40,383	41,072	41,761	42,450	43,139	43,828	44,359	44,891	45,423	**8,156**
Total Housing Units	197,164	205,676	214,350	218,147	221,944	225,741	229,538	233,334	236,226	239,117	242,008	**44,844**

Source: COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model; City & Fire District Impact Fee Studies; TischlerBise analysis

From the 2023 base year housing unit total for unincorporated Ada County, there is a projected increase 5,453 new housing units over the next ten years. Additionally, there is a projected increase of 14,982 residents in unincorporated Ada County, a 23.6 percent increase.

Figure 195. Unincorporated Ada County Residential Development Projections

Ada County Unincorporated	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Population	63,510	65,991	68,532	69,861	71,190	72,520	73,850	75,181	76,284	77,388	78,492	**14,982**
Percent Increase		*3.9%*	*3.8%*	*1.9%*	*1.9%*	*1.9%*	*1.8%*	*1.8%*	*1.5%*	*1.4%*	*1.4%*	***23.6%***
Housing Units												
Single Family	22,444	23,318	24,213	24,675	25,138	25,600	26,063	26,526	26,908	27,289	27,671	**5,227**
Multifamily	566	594	622	644	665	687	708	730	751	771	792	**226**
Total Housing Units	23,011	23,912	24,835	25,319	25,803	26,287	26,772	27,256	27,658	28,061	28,464	**5,453**

Source: COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model; City & Fire District Impact Fee Studies; TischlerBise analysis

CURRENT EMPLOYMENT AND NONRESIDENTIAL FLOOR AREA

The impact fee study will include nonresidential development as well. Available through COMPASS Job projections from the Traffic Analysis Zone Model (TAZ) and *Communities in Motion 2050* there are an estimated 239,668 jobs in Ada County in 2023. These job projections are broken down by industry leading to an estimated 43,787 retail jobs, 130,780 office jobs, 35,745 industrial jobs, and 29,356 institutional jobs in the base year.

Base year nonresidential floor area estimates are based on Ada County GIS nonresidential parcel data. There is an estimated 131 million square feet of nonresidential floor area in Ada County. Retail and industrial sectors account for the greatest share with approximately 32 percent each. Institutional accounts for 20 percent, and office accounts for 17 percent of the total.

Figure 206. Ada County Base Year Employment and Nonresidential Floor Area

Ada County	Base Year Jobs [1]	% of Total	Base Year Sq. Ft. [2]	% of Total
Retail	43,787	18%	41,938,153	32%
Office	130,780	55%	21,670,098	17%
Industrial	35,745	15%	41,668,221	32%
Institutional	29,356	12%	25,911,213	20%
Total	**239,668**	**100%**	**131,187,685**	**100%**

[1] COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model; Communities in Motion 2050
[2] Source: Ada County GIS parcel data

The job and nonresidential floor area estimates were further broken down into incorporated and unincorporated areas. Incorporated Ada County has an estimated 230,704 jobs in 2023. These job projections are broken down by industry leading to an estimated 42,925 retail jobs, 125,936 office jobs, 34,547 industrial jobs, and 27,296 institutional jobs in the base year. Additionally, there is an estimated 127 million square feet of nonresidential floor area in incorporated Ada County. Retail accounts for the greatest share at 32 percent. Industrial accounts for 31 percent, institutional accounts for 19 percent, and office accounts for 17 percent of the total.

Figure 217. Incorporated Ada County Base Year Employment and Nonresidential Floor Area

Ada County Incorporated	Base Year Jobs [1]	% of Total	Base Year Sq. Ft. [2]	% of Total
Retail	42,925	19%	41,286,649	32%
Office	125,936	55%	21,370,261	17%
Industrial	34,547	15%	39,887,518	31%
Institutional	27,296	12%	24,605,169	19%
Total	**230,704**	**100%**	**127,149,597**	**100%**

[1] COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model; Communities in Motion 2050
[2] Source: Ada County GIS parcel data

Unincorporated Ada County has an estimated 8,964 jobs in 2023. These job projections are broken down by industry leading to an estimated 862 retail jobs, 4,844 office jobs, 1,198 industrial jobs, and 2,060 institutional jobs in the base year. Additionally, there is an estimated 4 million square feet of nonresidential floor area in unincorporated Ada County. Industrial accounts for the greatest share at 44 percent. Institutional accounts for 32 percent, retail accounts for 16 percent, and office accounts for 7 percent.

Figure 228. Unincorporated Ada County Base Year Employment and Nonresidential Floor Area

Ada County Unincorporated	Base Year Jobs [1]	% of Total	Base Year Sq. Ft. [2]	% of Total
Retail	862	10%	651,504	16%
Office	4,844	54%	299,837	7%
Industrial	1,198	13%	1,780,703	44%
Institutional	2,060	23%	1,306,044	32%
Total	**8,964**	**100%**	**4,038,088**	**100%**

[1] COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model; Communities in Motion
[2] Source: Ada County GIS parcel data

EMPLOYMENT AND NONRESIDENTIAL FLOOR AREA PROJECTIONS

Job projections for the industry sectors are calculated with the Institution of Transportation Engineers' (ITE) square feet per employee averages shown in Figure 239. For retail industries the Shopping Center land use factors are used; for office the General Office factors are used; for industrial the Light Industrial factors are used; for institutional the Hospital factors are used.

Figure 239. Institute of Transportation Engineers (ITE) Employment Density Factors

Employment Industry	ITE Code	Land Use	Demand Unit	Emp per Dmd Unit	Sq. Ft. per Emp
Retail	820	Shopping Center	1,000 Sq Ft	2.12	471
Office	710	General Office	1,000 Sq Ft	3.26	307
Industrial	110	Light Industrial	1,000 Sq Ft	1.57	637
Institutional	610	Hospital	1,000 Sq Ft	2.86	350

Source: *Trip Generation* , Institute of Transportation Engineers, 11th Edition (2021)

Job and nonresidential growth projections over the next ten years for Ada County are shown in Figure 30. It is estimated there will be an increase of 43,283 jobs, an 18 percent increase from the base year. The majority of the increase comes from the office sector (54 percent).

The nonresidential floor area projections are calculated by applying the ITE square feet per employee factors to the job growth. In the next ten years, the nonresidential floor area is projected to increase by 17 million square feet (rounded), a 13 percent increase from the base year. The office sector has the largest share of this growth at 42 percent.

Figure 30. Ada County Employment and Nonresidential Floor Area Projections

Ada County	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Jobs [1]												
Retail	43,787	44,612	45,437	46,262	47,086	47,910	48,734	49,557	50,367	51,177	51,986	**8,199**
Office	130,780	133,132	135,483	137,835	140,186	142,538	144,889	147,241	149,556	151,872	154,187	**23,407**
Industrial	35,745	36,388	37,030	37,673	38,315	38,958	39,600	40,242	40,875	41,507	42,139	**6,394**
Institutional	29,356	29,884	30,413	30,943	31,472	32,003	32,533	33,064	33,588	34,113	34,639	**5,283**
Total	239,668	244,016	248,364	252,712	257,060	261,408	265,756	270,104	274,386	278,669	282,951	**43,283**
Nonresidential Floor Area (1,000 sq. ft.) [2]												
Retail	41,938	42,327	42,715	43,104	43,492	43,880	44,268	44,656	45,037	45,419	45,800	**3,862**
Office	21,670	22,392	23,114	23,836	24,558	25,280	26,002	26,724	27,434	28,145	28,856	**7,186**
Industrial	41,668	42,078	42,487	42,896	43,305	43,715	44,124	44,533	44,936	45,339	45,741	**4,073**
Institutional	25,911	26,096	26,281	26,467	26,652	26,838	27,023	27,209	27,392	27,576	27,760	**1,849**
Total	131,188	132,893	134,598	136,302	138,007	139,712	141,417	143,121	144,800	146,479	148,157	**16,970**

[1] COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model; Communities in Motion 2050; TischlerBise analysis
[2] Source: Institute of Transportation Engineers, *Trip Generation* , 2021

Job and nonresidential growth projections over the next ten years for incorporated Ada County are shown in Figure 241. It is estimated there will be an increase of 41,040 jobs, an 18 percent increase from the base year. The majority of the increase comes from the office sector (55 percent).

The nonresidential floor area projections are calculated by applying the ITE square feet per employee factors to the job growth. In the next ten years, the nonresidential floor area is projected to increase by 16.1 million square feet (rounded), a 13 percent increase from the base year. The office sector has the largest share of this growth at 43 percent.

Figure 241. Incorporated Ada County Employment and Nonresidential Floor Area Projections

Ada County Incorporated	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Jobs [1]												
Retail	42,925	43,696	44,466	45,236	46,004	46,772	47,539	48,306	49,059	49,811	50,561	**7,636**
Office	125,936	128,198	130,458	132,715	134,970	137,223	139,474	141,723	143,933	146,138	148,339	**22,403**
Industrial	34,547	35,168	35,787	36,407	37,025	37,643	38,261	38,878	39,484	40,089	40,693	**6,146**
Institutional	27,296	27,786	28,276	28,765	29,254	29,742	30,230	30,718	31,197	31,675	32,152	**4,856**
Total	230,704	234,848	238,987	243,123	247,254	251,381	255,505	259,624	263,673	267,712	271,744	**41,040**
Nonresidential Floor Area (1,000 sq. ft.) [2]												
Retail	41,287	41,650	42,013	42,375	42,737	43,099	43,460	43,821	44,176	44,530	44,883	**3,597**
Office	21,370	22,065	22,758	23,451	24,144	24,835	25,526	26,217	26,895	27,572	28,248	**6,878**
Industrial	39,888	40,283	40,678	41,072	41,466	41,860	42,253	42,646	43,032	43,418	43,802	**3,915**
Institutional	24,605	24,777	24,948	25,119	25,291	25,461	25,632	25,803	25,970	26,138	26,305	**1,699**
Total	127,150	128,774	130,397	132,018	133,637	135,255	136,872	138,487	140,074	141,657	143,238	**16,088**

[1] COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model; Communities in Motion 2050; TischlerBise analysis
[2] Source: Institute of Transportation Engineers, *Trip Generation* , 2021

Job and nonresidential growth projections over the next ten years for unincorporated Ada County are shown in Figure 252. It is estimated there will be an increase of 2,244 jobs, a 25 percent increase from the base year. The majority of the increase comes from the office sector (45 percent).

The nonresidential floor area projections are calculated by applying the ITE square feet per employee factors to the job growth. In the next ten years, the nonresidential floor area is projected to increase by 881,000 square feet, a 22 percent increase from the base year. The office sector has the largest share of this growth at 35 percent.

Figure 252. Unincorporated Ada County Employment and Nonresidential Floor Area Projections

Ada County Unincorporated	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Jobs [1]												
Retail	862	916	971	1,026	1,082	1,138	1,194	1,251	1,308	1,366	1,425	**563**
Office	4,844	4,934	5,025	5,120	5,216	5,315	5,415	5,518	5,623	5,734	5,849	**1,005**
Industrial	1,198	1,220	1,243	1,266	1,290	1,314	1,339	1,365	1,391	1,418	1,446	**248**
Institutional	2,060	2,098	2,137	2,177	2,218	2,260	2,303	2,347	2,391	2,438	2,487	**427**
Total	8,964	9,168	9,377	9,589	9,806	10,027	10,251	10,480	10,714	10,957	11,208	**2,244**
Nonresidential Floor Area (1,000 sq. ft.) [2]												
Retail	652	677	703	729	755	781	808	835	862	889	917	**265**
Office	300	327	356	384	414	444	475	507	539	573	608	**308**
Industrial	1,781	1,795	1,809	1,824	1,839	1,855	1,871	1,887	1,904	1,921	1,939	**158**
Institutional	1,306	1,319	1,333	1,347	1,361	1,376	1,391	1,406	1,422	1,438	1,456	**150**
Total	4,038	4,119	4,201	4,285	4,370	4,457	4,545	4,634	4,726	4,821	4,920	**881**

[1] COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model; Communities in Motion 2050; TischlerBise analysis
[2] Source: Institute of Transportation Engineers, *Trip Generation* , 2021

VEHICLE TRIP GENERATION

RESIDENTIAL VEHICLE TRIPS BY HOUSING TYPE

A customized trip rate is calculated for the single family and multifamily units in Ada County. In Figure 263, the most recent data from the US Census American Community Survey is inputted into equations provided by the ITE to calculate the trip ends per housing unit factor. A single family unit is estimated to generate 10.66 trip ends and a multifamily unit is estimated to generate 5.42 trip ends on an average weekday.

Figure 263. Customized Residential Trip End Rates by Housing Type

		Households by Structure Type[2]			
Tenure by Units in Structure	Vehicles Available[1]	Single Family	Multifamily	Total	Vehicles per HH by Tenure
Owner-Occupied	289,778	129,602	1,468	131,070	2.21
Renter-Occupied	85,906	24,109	29,546	53,655	1.60
Total	375,684	153,711	31,014	184,725	2.03
	Housing Units[3]	158,890	33,161	192,051	

Housing Type	Persons in Households[4]	Trip Ends[5]	Vehicles by Type of Unit	Trip Ends[6]	Average Trip Ends	Local Trip Ends per HH	National Trip Ends per Unit[7]
Single Family	415,557	1,157,628	324,995	2,118,200	1,637,914	**10.66**	9.43
Multifamily	59,917	137,129	50,518	199,334	168,231	**5.42**	4.54
Total	475,474	1,294,757	375,513	2,317,534	1,806,145	**9.78**	

1. Vehicles available by tenure from Table B25046, 2021 American Community Survey 5-Year Estimates.
2. Households by tenure and units in structure from Table B25032, 2021 American Community Survey 5-Year Estimates.
3. Housing units from Table B25024, 2021 American Community Survey 5-Year Estimates.
4. Total population in households from Table B25033, 2021 American Community Survey 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 19 and the equation result multiplied by 19. For multi-family housing (ITE 221), the fitted curve equation is (2.29*persons)-81.02 (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(0.99*LN(vehicles)+1.93). To approximate the average number of vehicles in the ITE studies, vehicles available were divided by 34 and the equation result multiplied by 34. For multi-family housing (ITE 221), the fitted curve equation is (3.94*vehicles)+293.58 (ITE 2021).
7. Trip Generation, Institute of Transportation Engineers, 11th Edition (2021).

RESIDENTIAL VEHICLE TRIPS ADJUSTMENT FACTORS

A vehicle trip end is the out-bound or in-bound leg of a vehicle trip. As a result, so to not double count trips, a standard 50 percent adjustment is applied to trip ends to calculate a vehicle trip. For example, the out-bound trip from a person's home to work is attributed to the housing unit and the trip from work back home is attributed to the employer.

However, an additional adjustment is necessary to capture County residents' work bound trips that are outside of the County. The trip adjustment factor includes two components. According to the National Household Travel Survey, home-based work trips are typically 31 percent of out-bound trips (which are 50 percent of all trip ends). Also, utilizing the most recent data from the Census Bureau's web application "OnTheMap", 17 percent of Ada County workers travel outside the County for work. In combination, these factors account for 3 percent of additional production trips (0.31 x 0.50 x 0.17 = 0.03). Shown in Figure 4, the total adjustment factor for residential housing units includes attraction trips (50 percent of trip ends) plus the journey-to-work commuting adjustment (3 percent of production trips) for a total of 53 percent.

Figure 34. Residential Trip Adjustment Factor for Commuters

Trip Adjustment Factor for Commuters

Employed Ada County Residents (2020)	212,011
Residents Working in Ada County (2020)	175,359
Residents Commuting Outside of Ada County for Work	36,652
Percent Commuting Out of Ada County	17%
Additional Production Trips	**3%**

Standard Trip Adjustment Factor	**50%**
Residential Trip Adjustment Factor	**53%**

Source: U.S. Census, OnTheMap Application, 2020

NONRESIDENTIAL VEHICLE TRIPS

Vehicle trip generation for nonresidential land uses are calculated by using ITE's average daily trip end rates and adjustment factors found in their recently published 11th edition of Trip Generation. To estimate the trip generation in Ada County, the weekday trip end per 1,000 square feet factors listed in Figure 35275 are used.

Figure 3527. Institute of Transportation Engineers Nonresidential Factors

Employment Industry	ITE Code	Land Use	Demand Unit	Wkdy Trip Ends per Dmd Unit	Wkdy Trip Ends per Employee
Retail	820	Shopping Center	1,000 Sq Ft	37.01	17.42
Office	710	General Office	1,000 Sq Ft	10.84	3.33
Industrial	110	Light Industrial	1,000 Sq Ft	4.87	3.10
Institutional	610	Hospital	1,000 Sq Ft	10.77	3.77

Source: *Trip Generation* , Institute of Transportation Engineers, 11th Edition (2021)

For nonresidential land uses, the standard 50 percent adjustment is applied to office, industrial, and institutional land uses. A lower vehicle trip adjustment factor is used for retail uses because this type of development attracts vehicles as they pass-by on arterial and collector roads. For example, when someone stops at a convenience store on their way home from work, the convenience store is not their primary destination. In Figure 286, the Institute for Transportation Engineers' land use code, daily vehicle trip end rate, and trip adjustment factor is listed for each land use.

Figure 286. Daily Vehicle Trip Factors

Land Use	ITE Codes	Daily Vehicle Trip Ends	Trip Adj. Factor	Daily Vehicle Trips
Residential (per housing unit)				
Single Family	210	10.66	53%	5.65
Multifamily	220	5.42	53%	2.87
Nonresidential (per 1,000 square feet)				
Retail	820	37.01	38%	14.06
Office	710	10.84	50%	5.42
Industrial	110	4.87	50%	2.44
Institutional	610	10.77	50%	5.39

Source: *Trip Generation* , Institute of Transportation Engineers, 11th Edition (2021); 'National Household Travel Survey, 2009

VEHICLE TRIP PROJECTIONS

The base year vehicle trip totals and vehicle trip projections are calculated by combining the vehicle trip end factors, the trip adjustment factors, and the residential and nonresidential assumptions for housing stock and floor area. Countywide, residential land uses account for 1,138,874 vehicle trips and nonresidential land uses account for 948,256 vehicle trips in the base year shown in Figure 297.

Through 2033, it is projected that daily vehicle trips will increase by 374,018 trips with the majority of the growth being generated by single family (63 percent) and retail (15 percent) development.

Figure 297. Ada County Vehicle Trip Projections

Ada County	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Residential Trips												
Single Family	1,030,196	1,074,429	1,119,675	1,139,848	1,160,022	1,180,195	1,200,368	1,220,542	1,236,029	1,251,516	1,267,003	**236,807**
Multifamily	108,679	113,228	117,791	119,832	121,873	123,915	125,956	127,997	129,583	131,170	132,756	**24,077**
Subtotal	1,138,874	1,187,658	1,237,466	1,259,681	1,281,895	1,304,110	1,326,324	1,348,539	1,365,612	1,382,685	1,399,759	**260,884**
Nonresidential Trips												
Retail	589,810	595,277	600,742	606,204	611,664	617,121	622,576	628,029	633,398	638,762	644,120	**54,310**
Office	117,452	121,365	125,278	129,191	133,103	137,016	140,929	144,841	148,694	152,547	156,400	**38,948**
Industrial	101,462	102,459	103,456	104,452	105,449	106,445	107,442	108,438	109,419	110,399	111,380	**9,918**
Institutional	139,532	140,528	141,524	142,522	143,521	144,520	145,520	146,521	147,509	148,498	149,489	**9,957**
Subtotal	948,256	959,629	971,000	982,369	993,737	1,005,103	1,016,467	1,027,830	1,039,020	1,050,206	1,061,389	**113,134**
Vehicle Trips												
Grand Total	2,087,130	2,147,286	2,208,466	2,242,050	2,275,632	2,309,212	2,342,791	2,376,368	2,404,632	2,432,892	2,461,148	**374,018**

Source: Institute of Transportation Engineers, *Trip Generation* , 11th Edition (2021)

In incorporated Ada County, residential land uses account for 1,010,441 vehicle trips and nonresidential land uses account for 926,099 vehicle trips in the base year shown in Figure 308.

Through 2033, it is projected that daily vehicle trips will increase by 337,251 trips with the majority of the growth being generated by single family (61 percent) and retail (15 percent) development.

Figure 308. Incorporated Ada County Vehicle Trip Projections

Ada County Incorporated	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Residential Trips												
Single Family	903,389	942,688	982,879	1,000,440	1,018,000	1,035,559	1,053,117	1,070,675	1,084,006	1,097,336	1,110,670	**207,281**
Multifamily	107,051	111,521	116,004	117,983	119,963	121,942	123,921	125,899	127,427	128,954	130,481	**23,429**
Subtotal	1,010,441	1,054,210	1,098,883	1,118,423	1,137,962	1,157,500	1,177,038	1,196,575	1,211,433	1,226,289	1,241,151	**230,710**
Nonresidential Trips												
Retail	580,647	585,754	590,856	595,953	601,044	606,131	611,213	616,291	621,280	626,259	631,228	**50,580**
Office	115,827	119,591	123,351	127,107	130,859	134,608	138,353	142,095	145,772	149,442	153,103	**37,277**
Industrial	97,126	98,089	99,050	100,011	100,970	101,929	102,887	103,843	104,784	105,722	106,658	**9,532**
Institutional	132,499	133,423	134,346	135,268	136,189	137,110	138,029	138,948	139,851	140,752	141,651	**9,152**
Subtotal	926,099	936,857	947,603	958,338	969,063	979,778	990,482	1,001,177	1,011,687	1,022,174	1,032,640	**106,541**
Vehicle Trips												
Grand Total	1,936,539	1,991,066	2,046,486	2,076,761	2,107,025	2,137,278	2,167,520	2,197,752	2,223,120	2,248,464	2,273,791	**337,251**

Source: Institute of Transportation Engineers, *Trip Generation* , 11th Edition (2021)

In unincorporated Ada County, residential land uses account for 128,434 vehicle trips and nonresidential land uses account for 22,157 vehicle trips in the base year shown in Figure 319.

Through 2033, it is projected that daily vehicle trips will increase by 36,772 trips with the majority of the growth being generated by single family (80 percent) and retail (10 percent) development.

Figure 319. Unincorporated Ada County Vehicle Trip Projections

Ada County Unincorporated	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Residential Trips												
Single Family	126,807	131,741	136,796	139,409	142,022	144,636	147,251	149,866	152,023	154,180	156,338	**29,532**
Multifamily	1,627	1,707	1,787	1,849	1,911	1,973	2,035	2,097	2,157	2,216	2,275	**648**
Subtotal	128,434	133,448	138,583	141,258	143,933	146,609	149,286	151,964	154,179	156,396	158,613	**30,180**
Nonresidential Trips												
Retail	9,163	9,523	9,886	10,251	10,619	10,990	11,363	11,739	12,118	12,503	12,893	**3,730**
Office	1,625	1,774	1,927	2,084	2,244	2,408	2,575	2,746	2,922	3,106	3,297	**1,672**
Industrial	4,336	4,370	4,406	4,442	4,479	4,517	4,555	4,594	4,635	4,677	4,721	**385**
Institutional	7,033	7,105	7,178	7,254	7,331	7,410	7,491	7,573	7,658	7,746	7,838	**805**
Subtotal	22,157	22,772	23,397	24,031	24,673	25,325	25,985	26,652	27,333	28,032	28,749	**6,592**
Vehicle Trips												
Grand Total	150,591	156,220	161,980	165,288	168,606	171,934	175,271	178,616	181,512	184,428	187,363	**36,772**

Source: Institute of Transportation Engineers, *Trip Generation* , 11th Edition (2021)

EXHIBIT B

ADA COUNTY CORONER CAPITAL IMPROVEMENT PLAN AND DEVELOPMENT IMPACT FEE STUDY

(42 pages – attached)

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By Alison Crist at 3:43 pm, Jun 28, 2024

Coroner Capital Improvement Plan and Development Impact Fee Study

Submitted to:

Ada County, Idaho

May 24, 2024

Prepared by:

TischlerBise
FISCAL | ECONOMIC | PLANNING

999 W Main St
Suite 100
Boise, ID 83702
800.424.4318
www.tischlerbise.com

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Impact Fee Study
Ada County, Idaho

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EXECUTIVE SUMMARY

Ada County, Idaho, retained TischlerBise, Inc. to calculate the impact fees to be imposed on new development to meet the new demands generated for public facilities in the County. It is the intent of Ada County to evaluate and establish impact fees for coroner facilities. This report presents the methodologies and calculations used to generate current levels of service and maximum supportable impact fees. It is intended to serve as supporting documentation for the evaluation and establishment of impact fees in Ada County.

The purpose of this study is to demonstrate the County's compliance with Idaho Statutes as authorized by the Idaho Legislature. Consistent with the statutory authorization for development impact fees (Idaho Code 67-8202(1-4)), it is the intent of Ada County to:

1. Collect impact fees to ensure that adequate public facilities are available to serve new growth and development;
2. Promote orderly growth and development by establishing uniform standards by which local governments may require that those who benefit from new growth and development pay a proportionate share of the cost of new public facilities needed to serve new growth and development;
3. Establish minimum standards for the adoption of development impact fee ordinances by government entities;
4. Ensure that those who benefit from new growth and development are required to pay no more than their proportionate share of the cost of public facilities needed to serve new growth and development and to prevent duplicate and ad hoc development requirements;

Impact fees are one-time payments used to construct system improvements needed to accommodate new development. An impact fee represents new growth's fair share of capital facility needs. By law, impact fees can only be used for capital improvements, not operating or maintenance costs. Impact fees are subject to legal standards, which require fulfillment of three key elements: need, benefit and proportionality.

- First, to justify a fee for public facilities, it must be demonstrated that new development will create a need for capital improvements.
- Second, new development must derive a benefit from the payment of the fees (i.e., in the form of public facilities constructed within a reasonable timeframe).
- Third, the fee paid by a particular type of development should not exceed its proportional share of the capital cost for system improvements.

TischlerBise evaluated possible methodologies and documented appropriate demand indicators by type of development for the levels of service and fees. Local demographic data and improvement costs were used to identify specific capital costs attributable to growth. This report includes summary tables indicating the specific factors, referred to as level of service standards, used to derive the impact fees.

The geographic area for the coroner impact fees is countywide. These facilities provide a countywide benefit and are services not provided by the cities within Ada County.

IDAHO DEVELOPMENT IMPACT FEE ENABLING LEGISLATION

The Enabling Legislation governs how development fees are calculated for municipalities in Idaho. All requirements of the Idaho Development Impact Fee Act (hereafter referred to as the Idaho Act) have been met in the supporting documentation prepared by TischlerBise. There are four requirements of the Idaho Act that are not common in the development impact fee enabling legislation of other states. This overview offers further clarification of these unique requirements.

First, as specified in 67-8204(2) of the Idaho Act, "development impact fees shall be calculated on the basis of levels of service for public facilities . . . applicable to existing development as well as new growth and development."

Second, Idaho requires a Capital Improvements Plan (CIP) [see 67-8208]. The CIP requirements are summarized in this report, with detailed documentation provided in the discussion on infrastructure.

Third, the Idaho Act also requires documentation of any existing deficiencies in the types of infrastructure to be funded by development impact fees [see 67-8208(1)(a)]. The intent of this requirement is to prevent charging new development to cure existing deficiencies. In the context of development impact fees for Ada County, the term "deficiencies" means a shortage or inadequacy of current system improvements when measured against the levels of service to be applied to new development. It does not mean a shortage or inadequacy when measured against some "hoped for" level of service.

TischlerBise used the current infrastructure cost per service unit (i.e., existing standards), or future levels of service where appropriate, multiplied by the projected increase in service units over an appropriate planning timeframe, to yield the cost of growth-related system improvements. The relationship between these three variables can be reduced to a mathematical formula, expressed as A x B = C. In section 67-8204(16), the Idaho Act simply reorganizes this formula, stating the cost per service unit (i.e., development impact fee) may not exceed the cost of growth-related system improvements divided by the number of projected service units attributable to new development (i.e., A = C ÷ B). By using existing infrastructure standards to determine the need for growth-related capital improvements, Ada County ensures the same level-of-service standards are applicable to existing and new development. Using existing infrastructure standards also means there are no existing deficiencies in the current system that must be corrected from non-development impact fee funding.

Fourth, Idaho requires a proportionate share determination [see 67-8207]. Basically, local government must consider various types of applicable credits and/or other revenues that may reduce the capital costs attributable to new development. The development impact fee methodologies and the cash flow analysis have addressed the need for credits to avoid potential double payment for growth-related infrastructure.

SUMMARY OF CAPITAL IMPROVEMENT PLANS AND DEVELOPMENT IMPACT FEES

METHODOLOGIES AND CREDITS

Development impact fees can be calculated by any one of several legitimate methods. The choice of a particular method depends primarily on the service characteristics and planning requirements for each facility type. Each method has advantages and disadvantages in a particular situation, and to some extent can be interchangeable, because each allocates facility costs in proportion to the needs created by development.

Reduced to its simplest terms, the process of calculating development impact 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 impact fees can become quite complicated because of the many variables involved in defining the relationship between development and the need for facilities. The following paragraphs discuss three basic methods for calculating development impact fees, and how each method can be applied.

Cost Recovery or Buy-In Fee Calculation. The rationale for the cost recovery approach 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 systems that were oversized such as sewer and water facilities.

Incremental Expansion Fee Calculation. The incremental expansion method documents the current level of service (LOS) for each type of public facility in both quantitative and qualitative measures, based on an existing service standard (such as park land acres per 1,000 residents). This approach ensures that there are no existing infrastructure deficiencies or surplus capacity in infrastructure. New development is only paying its proportionate share for growth-related infrastructure. An incremental expansion cost method is best suited for public facilities that will be expanded in regular increments, with LOS standards based on current conditions in the community.

Plan-Based Fee Calculation. The plan-based method allocates costs for a specified set of improvements to a specified amount of development. Facility plans identify needed improvements, and land use plans identify development. In this method, the total cost of relevant facilities is divided by total demand to calculate a cost per unit of demand. Then, the cost per unit of demand is multiplied by the amount of demand per unit of development (e.g., housing units or square feet of building area) in each category to arrive at a cost per specific unit of development (e.g., single family detached unit).

Credits. Regardless of the methodology, a consideration of "credits" is integral to the development of a legally valid impact fee methodology. There are two types of "credits," each with specific and distinct characteristics, but both of which should be addressed in the calculation of development impact fees. The first is a credit due to possible double payment situations. This could occur when contributions are made by the property owner toward the capital costs of the public facility covered by the impact fee. This type of credit is integrated into the impact fee calculation. The second is a credit toward the payment of a fee for dedication of public sites or improvements provided by the developer and for which the facility fee is imposed. This type of credit is addressed in the administration and implementation of a facility fee program.

Fee Methodologies

Of the fee methodologies discussed above, the incremental expansion method and the cost recovery method are used to calculate the coroner impact fees for Ada County. Where capacity is sufficient to serve current demand the incremental expansion method documents the current Level of Service (LOS) for each type of public facility. While the cost of the impact fee study is captured through the cost recovery method. Additionally, Ada County anticipates working with the cities to collect the coroner impact fee countywide. The following table summarizes the method(s) used to derive the coroner impact fee in Ada County.

Figure 1. Summary of Impact Fee Methodologies

Fee Category	Service Area	Cost Recovery	Incremental Expansion	Plan-Based	Cost Allocation
Coroner	Countywide	Impact Fee Study	Coroner Facilities		Person & Vehicle Trips

Capital Improvement Plan

The coroner development impact fee is based on the existing level of service provided for coroner facilities. The development impact fee is calculated for residential and nonresidential development. To serve projected growth at current levels of service, the coroner will need to provide 2,653 square feet of new facility space over the next ten years. Listed in Figure 2 Ada County is in the process of constructing a new facility for the County Coroner on Touchmark Way in Meridian, Idaho. The facility is being constructed to serve the existing demand along with potentially 40 years of growth. The coroner services will expand within the new facility to accommodate growth-related needs and continue providing the current level of service. The Touchmark Way facility was financed through revenue bonds issued by the Idaho Health Facility Authority (IHFA) that are serviced by an annual appropriation lease between IHFA and the County which is set to renew annually through 2050. As a result, the impact fee collection will pay the growth-share of the County's annual lease obligation related to the new facility.

Figure 2. Coroner Capital Improvement Plan

10-Year Capital Improvement Plan	Square Feet	Current Cost
Touchmark Way Office	39,600	$46,696,637
Total	**39,600**	**$46,696,637**

Maximum Supportable Development Impact Fees by Type of Land Use

Figure 3 provides a schedule of the maximum supportable development impact fees by type of land use for Ada County. The fees represent the highest supportable amount for each type of applicable land use and represents new growth's fair share of the cost for capital facilities. The County may adopt fees that are less than the amounts shown. However, a reduction in impact fee revenue will necessitate an increase in other revenues, a decrease in planned capital expenditures, and/or a decrease in levels of service.

The fees for residential development are to be assessed per housing unit based on type. For nonresidential development, the fees are assessed per square foot of floor area (for illustrative purposes the nonresidential fee is listed per 1,000 square feet of development). Nonresidential development categories are consistent with the terminology and definitions contained in the reference book, Trip Generation 11th Edition, published by the Institute of Transportation Engineers. These definitions are provided in the Appendix A. Land Use Definitions.

Importantly, the Ada County Coroner's Office provides a countywide service and benefit. Thus, the impact fee study has calculated the maximum supportable fee based on a countywide level of service. In this case, Figure 3 lists the maximum amounts for all development within Ada County.

Figure 3. Summary of Maximum Supportable Development Impact Fees - Countywide

Development Type	Coroner Maximum Supportable Fee
Residential (per housing unit)	
Single Family	$59
Multifamily	$41
Nonresidential (per 1,000 square feet)	
Retail	$39
Office	$15
Industrial	$7
Institutional	$15

CAPITAL IMPROVEMENT PLANS

The following section provides a summary of the Capital Improvement Plans depicting growth-related capital demands and costs on which the fees are based.

First, Figure 4 and Figure 5 lists the projected growth over the next ten years in Ada County. Overall, there is an estimated 23 percent increase in residential development (125,397 new residents and 50,296 new housing units) and an 18 percent increase in nonresidential development (43,283 new jobs and 16.9 million square feet of development). Further details on the development projections are provided in Appendix B. Demographic Assumptions.

Figure 4. Ten-Year Projected Residential Growth

Ada County	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Population	544,590	568,015	591,946	602,628	613,310	623,991	634,673	645,355	653,566	661,776	669,987	**125,397**
Percent Increase		*4.3%*	*4.2%*	*1.8%*	*1.8%*	*1.7%*	*1.7%*	*1.7%*	*1.3%*	*1.3%*	*1.2%*	***23.0%***
Housing Units												
Single Family	182,342	190,171	198,180	201,750	205,321	208,891	212,462	216,033	218,774	221,515	224,256	**41,914**
Multifamily	37,833	39,417	41,005	41,716	42,426	43,137	43,847	44,558	45,110	45,662	46,215	**8,382**
Total Housing Units	220,175	229,588	239,185	243,466	247,747	252,028	256,309	260,591	263,884	267,177	270,471	**50,296**

Source: COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model; City & Fire District Impact Fee Studies; TischlerBise analysis

Figure 5. Ten-Year Projected Nonresidential Growth

Ada County	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Jobs [1]												
Retail	43,787	44,612	45,437	46,262	47,086	47,910	48,734	49,557	50,367	51,177	51,986	**8,199**
Office	130,780	133,132	135,483	137,835	140,186	142,538	144,889	147,241	149,556	151,872	154,187	**23,407**
Industrial	35,745	36,388	37,030	37,673	38,315	38,958	39,600	40,242	40,875	41,507	42,139	**6,394**
Institutional	29,356	29,884	30,413	30,943	31,472	32,003	32,533	33,064	33,588	34,113	34,639	**5,283**
Total	239,668	244,016	248,364	252,712	257,060	261,408	265,756	270,104	274,386	278,669	282,951	**43,283**
Nonresidential Floor Area (1,000 sq. ft.) [2]												
Retail	41,938	42,327	42,715	43,104	43,492	43,880	44,268	44,656	45,037	45,419	45,800	**3,862**
Office	21,670	22,392	23,114	23,836	24,558	25,280	26,002	26,724	27,434	28,145	28,856	**7,186**
Industrial	41,668	42,078	42,487	42,896	43,305	43,715	44,124	44,533	44,936	45,339	45,741	**4,073**
Institutional	25,911	26,096	26,281	26,467	26,652	26,838	27,023	27,209	27,392	27,576	27,760	**1,849**
Total	131,188	132,893	134,598	136,302	138,007	139,712	141,417	143,121	144,800	146,479	148,157	**16,970**

[1] COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model; Communities in Motion 2050; TischlerBise analysis
[2] Source: Institute of Transportation Engineers, *Trip Generation* , 2021

The Idaho Development Impact Fee Act requires Capital Improvement Plans to be updated regularly, at least once every five years (Idaho Code 67-8208(2)). This report projects revenue and fees based on a 10-year forecast in an effort to provide the public and elected officials with illustrative guidance of probable growth demands based on current trends however, per Idaho Code, it is expected that an update to all Capital Improvement Plans included in this study will occur within five years.

Funding Sources for Current Deficiencies

The majority of the CIP relates to the growth-share of the County's annual lease obligation related to the new coroner facility. As this facility was constructed in 2023, there are no maintenance or repair projects anticipated over the next five years. If any maintenance or repair is required, these costs will need to be funded by other sources, such as property taxes, in accordance with Idaho Code 67-8207(iv)(2)(h) because replacement and addressing existing deficiencies are not eligible to be funded with impact fees. The Board of Ada County Commissioners retain discretion and authority to fund deficiencies through the county's annual CIP budget process, accumulate savings annually in a construction fund, budget annually for one-time projects using unspent fund balance, or through the deferred maintenance budget annually appropriated to the Operations Department for these sorts of expenses.

Capital Improvement Plan

The coroner development impact fee is based on the existing level of service provided for coroner facilities. The development impact fee is calculated for residential and nonresidential development. Based on the 10-year growth projections, the following infrastructure is projected over the next ten years:

- 2,653 square feet of new facility
- $3,127,000 growth-related costs to Ada County

Ada County is in the process of constructing a new facility for the County Coroner on Touchmark Way in Meridian, Idaho. The facility is being constructed to serve the existing demand along with potentially 40 years of growth. The coroner services will expand within the new facility to accommodate growth-related needs and continue providing the current level of service. The Touchmark Way facility was financed through revenue bonds issued by the Idaho Health Facility Authority (IHFA) that are serviced by an annual appropriation lease between IHFA and the County which is set to renew annually through 2050. As a result, the impact fee collection will pay the growth-share of the County's annual lease obligation related to the new facility.

Figure 6. Coroner Capital Improvement Plan

10-Year Capital Improvement Plan	Square Feet	Current Cost
Touchmark Way Office	39,600	$46,696,637
Total	**39,600**	**$46,696,637**

FUNDING SOURCES FOR CAPITAL IMPROVEMENTS

In determining the proportionate share of capital costs attributable to new development, the Idaho Development Fee Act states that local governments must consider historical, available, and alternative sources of funding for system improvements (Idaho Code 67-8209(2)). Currently, there are no dedicated revenues being collected by the County to fund growth-related projects for the infrastructure included in this study.

Furthermore, the maximum supportable impact fees are constructed to offset the growth-related capital costs to the County for coroner facilities. Evidence is given in the specific chapters of this report that the projected capital costs from new development will be offset by the development impact fees collection as long as the program is collected in the entire service area. Thus, no credits are needed in the impact fee calculation to offset double collection for growth-related capital costs.

CORONER DEVELOPMENT IMPACT FEES

The Coroner Development Impact Fee is based on the cost per service unit method specified in Idaho Code 67-8204(16), also referred to as the incremental expansion method elsewhere in this report.

The coroner components included in the impact fee analysis are:

- Coroner facilities
- Share of the development impact fee study

Ada County is in the process of constructing a new facility for the County Coroner on Touchmark Way in Meridian, Idaho. The facility is being constructed to serve the existing demand along with potentially 40 years of growth. The coroner services will expand within the new facility to accommodate growth-related needs and continue providing the current level of service. The Touchmark Way facility was financed through revenue bonds issued by the Idaho Health Facility Authority (IHFA) that are serviced by an annual appropriation lease between IHFA and the County which is set to renew annually through 2050. As a result, the impact fee collection will pay the growth-share of the County's annual lease obligation related to the new facility.

The residential portion of the fee is derived from the product of persons per housing unit by housing type multiplied by the net capital cost per person. To calculate nonresidential development impact fees, nonresidential vehicle trips are used as the demand indicator. Trip generation rates are highest for commercial developments, such as shopping centers, and lowest for industrial development. Office and institutional land uses trip rates fall between the other two categories. This ranking of trip rates is consistent with the relative demand for coroner facilities from nonresidential development and thus are the best demand indicators. Other possible nonresidential demand indicators, such as employment or floor area, do not accurately reflect the demand for service. If employees per thousand square feet were used as the demand indicator, Coroner Development Impact Fees would be too high for office and institutional development. If floor area were used as the demand indicator, the development impact fees would be too high for industrial development. (See the Appendix for further discussion on trip rates and calculations.)

Specified in Idaho Code 67-8209(2), local governments must consider historical, available, and alternative sources of funding for system improvements. Currently, there are no dedicated revenues being collected by the County to fund growth-related projects for coroner facilities. Furthermore, the maximum supportable impact fees are constructed to offset all growth-related capital costs for coroner facilities. Evidence is given in this chapter that the projected capital costs from new development will be entirely offset by the development impact fees. Thus, no revenue credits are required.

COST ALLOCATION FOR CORONER INFRASTRUCTURE

Both residential and nonresidential developments increase the demand on coroner services and facilities. To calculate the proportional share between residential and nonresidential demand on service and facilities, an analysis of total cases compared to out-of-county cases is used. The share of out-of-county cases is used to approximate the demand from commercial and employment development that attracts non-Ada County residents into the county.

Shown in Figure 7, in 2022 there were 748 out-of-county cases compared to a total of 4,284 cases. As a result, there is a proportional share split of 83 percent for residential and 17 percent for nonresidential demand on coroner facilities (748 out-of-county residents / 4,284 total cases = 17 percent).

Figure 7. Coroner Proportional Share

Coroner Facility Demand	2022 Total Cases	Out of County Residents	Residential Demand	Nonresidential Demand
Touchmark Way Facility	4,284	748	83%	17%

Source: Ada County Coroner's Office

CORONER LEVEL OF SERVICE AND COST ANALYSIS

The following section details the level of service calculations and capital cost per person for each infrastructure category.

CORONER FACILITY UTILIZATION ANALYSIS

Shown in Figure 8, the new Coroner facility at Touchmark Way occupies 39,600 square feet with a total financing cost of $46.7 million. Per the Coroner's Office, 79 percent of autopsies done are for cases within Ada County while 21 percent are for partnership counties which includes most of the State of Idaho. This brings Ada County's share of the facility to 31,444 square feet. Furthermore, the facility was built to accommodate up to 40 years of demand. The County Coroner estimates that when operations begin in the Touchmark facility (early 2024), the department will be using 40 percent of the facility for today's demand, thus 12,578 square feet is used to calculate the current level of service.

Figure 8. Coroner Facility Utilization Analysis

Coroner	Square Feet	Const. Cost	Cost + Bond Interest	Financing Cost per Sq Ft
New Facility at Touchmark	39,600	$32,900,000	$46,696,637	$1,179

Coroner's Office Sq Ft Distribution

Case Type	Ada County Share	Partnership Share	Ada County Total Square Feet
Autopsies	79%	21%	31,444

Coroner	Facility Utilization	Ada County Sq Ft	Current Utilization Sq Ft
Touchmark Way Facility	40%	31,444	12,578

Source: Ada County Coroner's Office

Coroner Facilities

Listed in Figure 9, the Coroner's Office will be operating in 12,578 square feet of the Touchmark Way facility when it opens in early 2024, compared to a total facility space of 39,600 square feet. The construction cost for the facility is $32.9 million which has been financed through a bond putting the total cost of the facility at $46.7 million including bond interest. Thus, replacement cost averages $1,179 per square foot including the financing cost.

The proportionate share between residential and nonresidential demand of the facilities is found by applying the case data analysis percentages shown in Figure 7. As a result, 10,382 square feet are attributed to residential demand and 2,196 square feet are attributed to nonresidential demand. The current level of service is found by comparing the attributed square footage to the base year population and nonresidential vehicles trips. As a result, there is 19.06 square feet per 1,000 residents and 2.32 square feet per 1,000 vehicles trips.

The average cost per square foot is combined with the current levels of service to find the capital cost per demand unit. This results in a cost of $22.47 per person and $2.74 per vehicle trip (19.06 square feet per 1,000 persons x $1,179 per square foot = $22.47 per person, rounded).

Figure 9. Coroner Facility Level of Service & Cost Analysis

Facility	Square Feet	Replacement Cost
Touchmark Way	12,578	$14,829,462
Total	**12,578**	**$14,829,462**

Level-of-Service Standards	Residential	Nonres
Proportional Share	83%	17%
Share of Square Feet	10,382	2,196
2023 Population/Nonres. Vehicle Trips	544,590	948,256
Square Feet per 1,000 Persons/Vehicle Trips	**19.06**	**2.32**

Cost Analysis	Residential	Nonres
Square Feet per 1,000 Persons/Vehicle Trips	19.06	2.32
Cost per Square Foot [1]	$1,179	$1,179
Capital Cost per Person/Vehicle Trip	**$22.47**	**$2.74**

[1] Based on construction and financing costs of the new facility

Share of the Development Impact Fee Study

Under the Idaho enabling legislation, Ada County is able to recover the cost of the study through the collection of future fees. The total cost of the study has been evenly attributed to the four infrastructure categories, resulting in the coroner share being $16,370. An impact fee study must be completed every five years, so the attributed cost is compared to the five-year projected increase in population and nonresidential vehicle trips. As a result, the cost per person is $0.17 and the cost per vehicle trip is $0.05.

Figure 10. Coroner Share of the Development Impact Fee Study

Share of Study Cost	Residential Share	Nonresidential Share
$16,370	83%	17%

Residential Growth Cost	Five-Year Population Increase	Capital Cost per Person
$13,512	79,401	**$0.17**

Nonresidential Growth Cost	Five-Year Vehicle Trip Increase	Capital Cost per Vehicle Trip
$2,858	56,847	**$0.05**

CORONER CAPITAL IMPROVEMENTS NEEDED TO SERVE GROWTH

Needs due to future growth were calculated using the levels of service and cost factors for the infrastructure components. Growth-related needs are a projection of the amount of infrastructure and estimated costs over the next ten years needed to maintain levels of service.

CORONER FACILITIES

The current levels of service are combined with the population and vehicle trip projections to illustrate the need for new coroner facilities. Shown in Figure 11, over the next ten years, there is a need for 2,653 square feet. The average cost per square foot is multiplied by the need to find the projected capital need from growth ($3,127,887).

Figure 11. Projected Demand for Coroner Facilities

Infrastructure	Level of Service				Cost/Unit
Coroner Facilities	Residential	19.06	Square Feet	per 1,000 persons	$1,179
	Nonresidential	2.32		per 1,000 veh. trips	

Growth-Related Need for Coroner Facilities						
Year		Population	Nonres. Vehicle Trips	Residential Square Feet	Nonresidential Square Feet	Total Square Feet
Base	2023	544,590	948,256	10,379	2,199	12,578
Year 1	2024	568,015	959,629	10,826	2,226	13,052
Year 2	2025	591,946	971,000	11,282	2,252	13,534
Year 3	2026	602,628	982,369	11,486	2,279	13,765
Year 4	2027	613,310	993,737	11,689	2,305	13,994
Year 5	2028	623,991	1,005,103	11,893	2,331	14,224
Year 6	2029	634,673	1,016,467	12,096	2,358	14,454
Year 7	2030	645,355	1,027,830	12,300	2,384	14,684
Year 8	2031	653,566	1,039,020	12,456	2,410	14,866
Year 9	2032	661,776	1,050,206	12,613	2,436	15,049
Year 10	2033	669,987	1,061,389	12,769	2,462	15,231
Ten-Year Increase		125,397	113,134	2,390	263	2,653
			Projected Expenditure	**$2,817,810**	**$310,077**	**$3,127,887**

Growth-Related Expenditures for Coroner Facilities	$3,127,887

CORONER IMPACT FEE CREDIT ANALYSIS

Currently, there are no dedicated revenues being collected by the County to fund growth-related projects for coroner facilities. Furthermore, the maximum supportable impact fees are constructed to offset all growth-related capital costs for facilities. Evidence is given in this chapter that the projected capital costs from new development will be entirely offset by the development impact fees. As a result, no revenue credit is necessary in the impact fee calculation.

CORONER INPUT VARIABLES AND DEVELOPMENT IMPACT FEES

Figure 12 provides a summary of the input variables (described in the chapter sections above) used to calculate the net cost per person and vehicle trip. The residential Coroner Development Impact Fees are the product of persons per housing unit by type of dwelling unit multiplied by the total net capital cost per person. The nonresidential fees are the product of trips per 1,000 square feet multiplied by the net capital cost per nonresidential vehicle trip.

The fees represent the highest supportable amount for each type of applicable land use and represents new growth's fair share of the cost for capital facilities. The County may adopt fees that are less than the amounts shown. However, a reduction in impact fee revenue will necessitate an increase in other revenues, a decrease in planned capital expenditures, and/or a decrease in levels of service.

Figure 12. Coroner Input Variables and Maximum Supportable Impact Fees

Fee Component	Cost per Person	Cost per Vehicle Trip
Coroner Facilities	$22.47	$2.74
Impact Fee Study	$0.17	$0.05
Gross Total	$22.64	$2.79
Net Total	**$22.64**	**$2.79**

Residential

Housing Type	Persons per Housing Unit	Maximum Supportable Fee
Residential (per housing unit)		
Single Family	2.62	**$59**
Multifamily	1.81	**$41**

Nonresidential

Development Type	Vehicle Trips per KSF	Maximum Supportable Fee
Nonresidential (per 1,000 square feet)		
Retail	14.06	**$39**
Office	5.42	**$15**
Industrial	2.44	**$7**
Institutional	5.39	**$15**

CASH FLOW PROJECTIONS FOR CORONER MAXIMUM SUPPORTABLE IMPACT FEE

This section summarizes the potential cash flow to Ada County if the Coroner Development Impact Fee is implemented at the maximum supportable amounts. The cash flow projections are based on the assumptions detailed in this chapter and the development projections discussed in Appendix B.

The summary provides an indication of the impact fee revenue generated by new development. The fee for the average sized single family and multifamily units are used in the calculations. Shown at the bottom of the figure, the maximum supportable coroner impact fee is estimated to generate $3.1 million in revenue while there is a growth-related cost of $3.1 million. Thus, the impact fees offset all growth-related capital costs. (Note: rounding in the analysis results in the small remaining difference).

Importantly, the level of service has included demand from within the cities of Ada County. To ensure that the County captures the full potential revenue of the impact fees an intergovernmental agreement (IGA) is necessary for the Cities to collect the County impact fees on its behalf. Those revenues would be remitted to the County periodically. In the case there are no IGAs, the County will collect $321,000 (10.2 percent of the countywide growth-related capital costs).

Figure 13. Projected Revenue from Coroner Maximum Supportable Impact Fees

Infrastructure Costs for Coroner Facilities

	Total Cost	Growth Cost
Coroner Facilities	$3,127,887	$3,127,887
Impact Fee Study	$32,740	$32,740
Total Expenditures	**$3,160,627**	**$3,160,627**

Projected Development Impact Fee Revenue

		Single Family $59 per unit	Multifamily $41 per unit	Retail $39 per KSF	Office $15 per KSF	Industrial $7 per KSF	Institutional $15 per KSF
Year		**Housing Units**	**Housing Units**	**KSF**	**KSF**	**KSF**	**KSF**
Base	2023	182,342	37,833	41,938	21,670	41,668	25,911
1	2024	190,171	39,417	42,327	22,392	42,078	26,096
2	2025	198,180	41,005	42,715	23,114	42,487	26,281
3	2026	201,750	41,716	43,104	23,836	42,896	26,467
4	2027	205,321	42,426	43,492	24,558	43,305	26,652
5	2028	208,891	43,137	43,880	25,280	43,715	26,838
6	2029	212,462	43,847	44,268	26,002	44,124	27,023
7	2030	216,033	44,558	44,656	26,724	44,533	27,209
8	2031	218,774	45,110	45,037	27,434	44,936	27,392
9	2032	221,515	45,662	45,419	28,145	45,339	27,576
10	2033	224,256	46,215	45,800	28,856	45,741	27,760
Ten-Year Increase		41,914	8,382	3,862	7,186	4,073	1,849
Projected Revenue		$2,472,940	$343,651	$150,607	$107,791	$28,511	$27,735
						Projected Revenue =>	**$3,131,000**
						Projected Expenditures =>	**$3,161,000**
						Non-Impact Fee Funding =>	**$30,000**

PROPORTIONATE SHARE ANALYSIS

Development impact fees for Ada County are based on reasonable and fair formulas or methods. The fees do not exceed a proportionate share of the costs incurred or to be incurred by the County in the provision of system improvements to serve new development. The County will fund non-growth-related improvements with non-development impact fee funds as it has in the past. Specified in the Idaho Development Impact Fee Act (Idaho Code 67-8207), several factors must be evaluated in the development impact fee study and are discussed below.

1) The development impact fees for Ada County are based on new growth's share of the costs of previously built projects along with planned public facilities as provided by Ada County. Projects are included in the County's capital improvements plan and will be included in annual capital budgets.
2) TischlerBise estimated development impact fee revenue based on the maximum supportable development impact fees for the one, countywide service area; results are shown in the cash flow analyses in this report. Development impact fee revenue will entirely fund growth-related improvements less funding from other sources (i.e., federal and state grants).
3) TischlerBise has evaluated the extent to which new development may contribute to the cost of public facilities.
4) The relative extent to which properties will make future contributions to the cost of existing public facilities has also been evaluated in regards to existing debt. Outstanding debt for growth's portion of already constructed facilities will be paid from development impact fee revenue, therefore a future revenue credit is not necessary.
5) The County will evaluate the extent to which newly developed properties are entitled to a credit for system improvements that have been provided by property owners or developers. These "site-specific" credits will be available for system improvements identified in the annual capital budget and long-term Capital Improvements Plans. Administrative procedures for site-specific credits should be addressed in the development impact fee ordinance.
6) Extraordinary costs, if any, in servicing newly developed properties should be addressed through administrative procedures that allow independent studies to be submitted to the County. These procedures should be addressed in the development impact fee ordinance. One service area represented by Ada County is appropriate for the fees herein.
7) The time-price differential inherent in fair comparisons of amounts paid at different times has been addressed. All costs in the development impact fee calculations are given in current dollars with no assumed inflation rate over time. Necessary cost adjustments can be made as part of the annual evaluation and update of development impact fees.

IMPLEMENTATION AND ADMINISTRATION

The Idaho Act requires jurisdictions to form a Development Impact Fee Advisory Committee. The committee must have at least five members with a minimum of two members active in the business of real estate, building, or development. The committee acts in an advisory capacity and is tasked to do the following:

- Assist the governmental entity in adopting land use assumptions;
- Review the capital improvements plan, and proposed amendments, and file written comments;
- Monitor and evaluate implementation of the capital improvements plan;
- File periodic reports, at least annually, with respect to the capital improvements plan and report to the governmental entity any perceived inequities in implementing the plan or imposing the development impact fees; and
- Advise the governmental entity of the need to update or revise land use assumptions, the capital improvements plan, and development impact fees.

Per the above, the County formed a Development Impact Fee Advisory Committee (DIFAC). TischlerBise and County staff met with the DIFAC during the process and provided information on land use assumptions, level of service and cost assumptions, and draft development impact fee schedules. This report reflects comments and feedback received from the DIFAC.

The County must develop and adopt a capital improvements plan (CIP) that includes those improvements for which fees were developed. The Idaho Act defines a capital improvement as an "improvement with a useful life of ten years or more, by new construction or other action, which increases the service capacity of a public facility." Requirements for the CIP are outlined in Idaho Code 67-8208. Certain procedural requirements must be followed for adoption of the CIP and the development impact fee ordinance. Requirements are described in detail in Idaho Code 67-8206. The County has a CIP that meets the above requirements.

TischlerBise recommends that development impact fees be updated annually to reflect recent data. One approach is to adjust for inflation in construction costs by means of an index like the RSMeans or Engineering News Record (ENR). This index can be applied against the calculated development impact fee. If cost estimates change significantly the County should evaluate an adjustment to the CIP and development impact fees.

Idaho's enabling legislation requires an annual development impact fees report that accounts for fees collected and spent during the preceding year (Idaho Code 67-8210). Development impact fees must be deposited in interest-bearing accounts earmarked for the associated capital facilities as outlined in capital improvements plans. Also, fees must be spent within eight years of when they are collected (on a first in, first out basis) unless the local governmental entity identifies in writing (a) a reasonable cause why the

fees should be held longer than eight years; and (b) an anticipated date by which the fees will be expended but in no event greater than eleven years from the date they were collected.

Credits must be provided for in accordance with Idaho Code Section 67-8209 regarding site-specific credits or developer reimbursements for system improvements that have been included in the development impact fee calculations. Project improvements normally required as part of the development approval process are not eligible for credits against development impact fees. Specific policies and procedures related to site-specific credits or developer reimbursements for system improvements should be addressed in the ordinance that establishes the County's fees.

The general concept is that developers may be eligible for site-specific credits or reimbursements only if they provide system improvements that have been included in CIP and development impact fee calculations. If a developer constructs a system improvement that was included in the fee calculations, it is necessary to either reimburse the developer or provide a credit against the fees in the area that benefits from the system improvement. The latter option is more difficult to administer because it creates unique fees for specific geographic areas. Based on TischlerBise's experience, it is better for a reimbursement agreement to be established with the developer that constructs a system improvement. For example, if a developer elects to construct a system improvement, then a reimbursement agreement can be established to payback the developer from future development impact fee revenue. The reimbursement agreement should be based on the actual documented cost of the system improvement, if less than the amount shown in the CIP. However, the reimbursement should not exceed the CIP amount that has been used in the development impact fee calculations.

APPENDIX A. LAND USE DEFINITIONS

RESIDENTIAL DEVELOPMENT

As discussed below, residential development categories are based on data from the U.S. Census Bureau, American Community Survey. Ada County will collect impact fees from all new residential units. One-time impact fees are determined by the number of residential units.

Single Family Units:

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 as long as 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.

Multifamily Units:

1. 2+ units (duplexes and apartments) are 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.”
2. Boat, RV, Van, etc. 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 CATEGORIES

Nonresidential development categories used throughout this study are based on land use classifications from the book Trip Generation (ITE, 2021). A summary description of each development category is provided below.

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

Office: Establishments providing management, administrative, professional, or business services. By way of example, Office includes business offices, office parks, and corporate headquarters.

Industrial: Establishments primarily engaged in the production and transportation of goods. By way of example, Industrial includes manufacturing plants, trucking companies, warehousing facilities, 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, hospitals, health care facilities, and government buildings.

APPENDIX B. DEMOGRAPHIC ASSUMPTIONS

The data estimates and projections used in the study's calculations are detailed in this section. This chapter includes discussion and findings on:

- Household/housing unit size
- Current population and housing unit estimates
- Residential projections
- Current employment and nonresidential floor area estimates
- Nonresidential projections
- Functional population
- Vehicle trip generation and projections

POPULATION AND HOUSING CHARACTERISTICS

Impact fees often use per capita standards and persons per housing unit or persons per household to derive proportionate share fee amounts. Housing types have varying household sizes and, consequently, a varying demand on County infrastructure and services. Thus, it is important to differentiate between housing types and size.

When persons per housing unit (PPHU) is used in the development impact fee calculations, infrastructure standards are derived using year-round population. In contrast, when persons per household (PPHH) is used in the development impact fee calculations, the fee methodology assumes all housing units will be occupied, thus requiring seasonal or peak population to be used when deriving infrastructure standards. Thus, TischlerBise recommends that fees for residential development in Ada County be imposed according to persons per housing units.

Based on housing characteristics, TischlerBise recommends using two housing unit categories for the Impact Fee study: (1) Single Family and (2) Multifamily. Each housing type has different characteristics which results in a different demand on County facilities and services. Figure 14 shows the US Census American Community Survey 2021 5-Year Estimates data for Ada County. Single family units have a housing unit size of 2.62 persons and multifamily units have a housing unit size of 1.81 persons. Additionally, there is a housing mix of 83 percent single family and 17 percent multifamily.

The estimates in Figure 14 are for household size calculations. Base year population and housing units are estimated with another, more recent data source.

Figure 14. Ada County Persons per Housing Unit

Housing Type	Persons	Housing Units	Persons per Housing Unit	Households	Persons per Household	Housing Unit Mix
Single Family [1]	415,557	158,890	**2.62**	153,711	2.70	83%
Multifamily [2]	59,917	33,161	**1.81**	31,014	1.93	17%
Total	475,474	192,051	**2.48**	184,725	2.57	

[1] Includes attached and detached single family homes and mobile homes
[2] Includes all other types
Source: U.S. Census Bureau, 2021 American Community Survey 5-Year Estimates

The US Census American Community Survey 2021 5-Year Estimates data for incorporated Ada County is shown in Figure 15. Single family units have a housing unit size of 2.59 persons and multifamily units have a housing unit size of 1.80 persons. Additionally, there is a housing mix of 81 percent single family and 19 percent multifamily.

Figure 15. Incorporated Ada County Persons per Housing Unit

Housing Type	Persons	Housing Units	Persons per Housing Unit	Households	Persons per Household	Housing Unit Mix
Single Family [1]	363,946	140,266	**2.59**	135,502	2.69	81%
Multifamily [2]	58,871	32,691	**1.80**	30,619	1.92	19%
Total	422,817	172,957	**2.44**	166,121	2.55	

[1] Includes attached and detached single family homes and mobile homes
[2] Includes all other types
Source: U.S. Census Bureau, 2021 American Community Survey 5-Year Estimates

The US Census American Community Survey 2021 5-Year-Estimates data for unincorporated Ada County is shown in Figure 16. Single family units have a housing unit size of 2.77 persons and multifamily units have a housing unit size of 2.23 persons. Additionally, there is a housing mix of 98 percent single family and 2 percent multifamily.

Figure 16. Unincorporated Ada County Persons per Housing Unit

Housing Type	Persons	Housing Units	Persons per Housing Unit	Households	Persons per Household	Housing Unit Mix
Single Family [1]	51,611	18,624	**2.77**	18,209	2.83	98%
Multifamily [2]	1,046	470	**2.23**	395	2.65	2%
Total	52,657	19,094	**2.76**	18,604	2.83	

[1] Includes attached and detached single family homes and mobile homes
[2] Includes all other types
Source: U.S. Census Bureau, 2021 American Community Survey 5-Year Estimates

BASE YEAR POPULATION AND HOUSING UNITS

Available through the Community Planning Association of Southwest Idaho (COMPASS), the base year 2023 population in Ada County is estimated to be 554,590 residents shown in Figure 17. PPHU factors for

Incorporated and Unincorporated Ada County were used to estimate base year housing units for the whole County. The housing unit mix for Ada County was then applied to the total giving an estimated 182,342 single family units and 37,833 multifamily units.

Figure 17. Ada County Base Year Population and Housing Units

Ada County	Base Year 2023
Population [1]	544,590
Housing Units [2]	
Single Family	182,342
Multifamily	37,833
Total Housing Units	220,175

[1] COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model
[2] U.S. Census Bureau, 2021 American Community Survey 5-Year Estimates, TischlerBise analysis

Available through COMPASS, the base year 2023 population in unincorporated Ada County is estimated to be 63,510 residents shown in Figure 18. PPHU factors for unincorporated Ada County were used to estimate base year housing units. The housing unit mix was then applied to the total giving an estimated 22,444 single family units and 566 multifamily units.

Figure 18. Unincorporated Ada County Base Year Population and Housing Units

Ada County Unincorporated	Base Year 2023
Population [1]	63,510
Housing Units [2]	
Single Family	22,444
Multifamily	566
Total Housing Units	23,011

[1] COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model
[2] U.S. Census Bureau, 2021 American Community Survey 5-Year Estimates, TischlerBise analysis

The population estimate for unincorporated Ada County from COMPASS was subtracted from the population estimate for the whole of Ada County to find the estimated base year population for incorporated Ada County. Shown in Figure 19 the estimated population is 481,080. PPHU factors for incorporated Ada County were used to estimate base year housing units. The housing unit mix was then applied to the total giving an estimated 159,989 single family units and 37,266 multifamily units.

Figure 19. Incorporated Ada County Base Year Population and Housing Units

Ada County Incorporated	Base Year 2023
Population [1]	481,080
Housing Units [2]	
Single Family	159,898
Multifamily	37,266
Total Housing Units	197,164

[1] COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model
[2] U.S. Census Bureau, 2021 American Community Survey 5-Year Estimates, TischlerBise analysis

POPULATION AND HOUSING UNIT PROJECTIONS

The residential projections are based on a review of COMPASS published estimates, impact fee studies from cities and fire districts within Ada County, and PPHU factors. Impact fee studies comprising the main six cities within Ada County were used to affirm growth trends for whole county projections. From the 2023 base year housing unit totals, Ada County is projected to increase by 50,296 housing units over the next ten years. Additionally, there is a projected increase of 125,397 residents over the next ten years, a 23 percent increase.

Figure 20. Ada County Residential Development Projections

Ada County	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Population	544,590	568,015	591,946	602,628	613,310	623,991	634,673	645,355	653,566	661,776	669,987	**125,397**
Percent Increase		*4.3%*	*4.2%*	*1.8%*	*1.8%*	*1.7%*	*1.7%*	*1.7%*	*1.3%*	*1.3%*	*1.2%*	***23.0%***
Housing Units												
Single Family	182,342	190,171	198,180	201,750	205,321	208,891	212,462	216,033	218,774	221,515	224,256	**41,914**
Multifamily	37,833	39,417	41,005	41,716	42,426	43,137	43,847	44,558	45,110	45,662	46,215	**8,382**
Total Housing Units	220,175	229,588	239,185	243,466	247,747	252,028	256,309	260,591	263,884	267,177	270,471	**50,296**

Source: COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model; City & Fire District Impact Fee Studies; TischlerBise analysis

From the 2023 base year housing unit totals for incorporated Ada County, there is a projected increase of 44,844 new housing units over the next ten years. Additionally, there is a projected increase of 110,415 residents in incorporated Ada County, a 23 percent increase.

Figure 21. Incorporated Ada County Residential Development Projections

Ada County Incorporated	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Population	481,080	502,024	523,414	532,767	542,119	551,471	560,823	570,174	577,281	584,388	591,495	**110,415**
Percent Increase		*4.4%*	*4.3%*	*1.8%*	*1.8%*	*1.7%*	*1.7%*	*1.7%*	*1.2%*	*1.2%*	*1.2%*	***23.0%***
Housing Units												
Single Family	159,898	166,853	173,967	177,075	180,183	183,291	186,399	189,507	191,866	194,226	196,586	**36,688**
Multifamily	37,266	38,822	40,383	41,072	41,761	42,450	43,139	43,828	44,359	44,891	45,423	**8,156**
Total Housing Units	197,164	205,676	214,350	218,147	221,944	225,741	229,538	233,334	236,226	239,117	242,008	**44,844**

Source: COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model; City & Fire District Impact Fee Studies; TischlerBise analysis

From the 2023 base year housing unit total for unincorporated Ada County, there is a projected increase 5,453 new housing units over the next ten years. Additionally, there is a projected increase of 14,982 residents in unincorporated Ada County, a 23.6 percent increase.

Figure 22. Unincorporated Ada County Residential Development Projections

Ada County Unincorporated	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Population	63,510	65,991	68,532	69,861	71,190	72,520	73,850	75,181	76,284	77,388	78,492	**14,982**
Percent Increase		*3.9%*	*3.8%*	*1.9%*	*1.9%*	*1.9%*	*1.8%*	*1.8%*	*1.5%*	*1.4%*	*1.4%*	***23.6%***
Housing Units												
Single Family	22,444	23,318	24,213	24,675	25,138	25,600	26,063	26,526	26,908	27,289	27,671	**5,227**
Multifamily	566	594	622	644	665	687	708	730	751	771	792	**226**
Total Housing Units	23,011	23,912	24,835	25,319	25,803	26,287	26,772	27,256	27,658	28,061	28,464	**5,453**

Source: COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model; City & Fire District Impact Fee Studies; TischlerBise analysis

CURRENT EMPLOYMENT AND NONRESIDENTIAL FLOOR AREA

The impact fee study will include nonresidential development as well. Available through COMPASS Job projections from the Traffic Analysis Zone Model (TAZ) and *Communities in Motion 2050* there are an estimated 239,668 jobs in Ada County in 2023. These job projections are broken down by industry leading to an estimated 43,787 retail jobs, 130,780 office jobs, 35,745 industrial jobs, and 29,356 institutional jobs in the base year.

Base year nonresidential floor area estimates are based on Ada County GIS nonresidential parcel data. There is an estimated 131 million square feet of nonresidential floor area in Ada County. Retail and industrial sectors account for the greatest share with approximately 32 percent each. Institutional accounts for 20 percent, and office accounts for 17 percent of the total.

Figure 23. Ada County Base Year Employment and Nonresidential Floor Area

Ada County	Base Year Jobs [1]	% of Total	Base Year Sq. Ft. [2]	% of Total
Retail	43,787	18%	41,938,153	32%
Office	130,780	55%	21,670,098	17%
Industrial	35,745	15%	41,668,221	32%
Institutional	29,356	12%	25,911,213	20%
Total	**239,668**	**100%**	**131,187,685**	**100%**

[1] COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model; Communities in Motion 2050
[2] Source: Ada County GIS parcel data

The job and nonresidential floor area estimates were further broken down into incorporated and unincorporated areas. Incorporated Ada County has an estimated 230,704 jobs in 2023. These job projections are broken down by industry leading to an estimated 42,925 retail jobs, 125,936 office jobs, 34,547 industrial jobs, and 27,296 institutional jobs in the base year. Additionally, there is an estimated 127 million square feet of nonresidential floor area in incorporated Ada County. Retail accounts for the greatest share at 32 percent. Industrial accounts for 31 percent, institutional accounts for 19 percent, and office accounts for 17 percent of the total.

Figure 24. Incorporated Ada County Base Year Employment and Nonresidential Floor Area

Ada County Incorporated	Base Year Jobs [1]	% of Total	Base Year Sq. Ft. [2]	% of Total
Retail	42,925	19%	41,286,649	32%
Office	125,936	55%	21,370,261	17%
Industrial	34,547	15%	39,887,518	31%
Institutional	27,296	12%	24,605,169	19%
Total	**230,704**	**100%**	**127,149,597**	**100%**

[1] COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model; Communities in Motion 2050
[2] Source: Ada County GIS parcel data

Unincorporated Ada County has an estimated 8,964 jobs in 2023. These job projections are broken down by industry leading to an estimated 862 retail jobs, 4,844 office jobs, 1,198 industrial jobs, and 2,060 institutional jobs in the base year. Additionally, there is an estimated 4 million square feet of nonresidential floor area in unincorporated Ada County. Industrial accounts for the greatest share at 44 percent. Institutional accounts for 32 percent, retail accounts for 16 percent, and office accounts for 7 percent.

Figure 25. Unincorporated Ada County Base Year Employment and Nonresidential Floor Area

Ada County Unincorporated	Base Year Jobs [1]	% of Total	Base Year Sq. Ft. [2]	% of Total
Retail	862	10%	651,504	16%
Office	4,844	54%	299,837	7%
Industrial	1,198	13%	1,780,703	44%
Institutional	2,060	23%	1,306,044	32%
Total	**8,964**	**100%**	**4,038,088**	**100%**

[1] COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model; Communities in Motion
[2] Source: Ada County GIS parcel data

EMPLOYMENT AND NONRESIDENTIAL FLOOR AREA PROJECTIONS

Job projections for the industry sectors are calculated with the Institution of Transportation Engineers' (ITE) square feet per employee averages shown in Figure 26. For retail industries the Shopping Center land use factors are used; for office the General Office factors are used; for industrial the Light Industrial factors are used; for institutional the Hospital factors are used.

Figure 26. Institute of Transportation Engineers (ITE) Employment Density Factors

Employment Industry	ITE Code	Land Use	Demand Unit	Emp per Dmd Unit	Sq. Ft. per Emp
Retail	820	Shopping Center	1,000 Sq Ft	2.12	471
Office	710	General Office	1,000 Sq Ft	3.26	307
Industrial	110	Light Industrial	1,000 Sq Ft	1.57	637
Institutional	610	Hospital	1,000 Sq Ft	2.86	350

Source: *Trip Generation* , Institute of Transportation Engineers, 11th Edition (2021)

Job and nonresidential growth projections over the next ten years for Ada County are shown in Figure 27. It is estimated there will be an increase of 43,283 jobs, an 18 percent increase from the base year. The majority of the increase comes from the office sector (54 percent).

The nonresidential floor area projections are calculated by applying the ITE square feet per employee factors to the job growth. In the next ten years, the nonresidential floor area is projected to increase by 17 million square feet (rounded), a 13 percent increase from the base year. The office sector has the largest share of this growth at 42 percent.

Figure 27. Ada County Employment and Nonresidential Floor Area Projections

Ada County	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Jobs [1]												
Retail	43,787	44,612	45,437	46,262	47,086	47,910	48,734	49,557	50,367	51,177	51,986	**8,199**
Office	130,780	133,132	135,483	137,835	140,186	142,538	144,889	147,241	149,556	151,872	154,187	**23,407**
Industrial	35,745	36,388	37,030	37,673	38,315	38,958	39,600	40,242	40,875	41,507	42,139	**6,394**
Institutional	29,356	29,884	30,413	30,943	31,472	32,003	32,533	33,064	33,588	34,113	34,639	**5,283**
Total	239,668	244,016	248,364	252,712	257,060	261,408	265,756	270,104	274,386	278,669	282,951	**43,283**
Nonresidential Floor Area (1,000 sq. ft.) [2]												
Retail	41,938	42,327	42,715	43,104	43,492	43,880	44,268	44,656	45,037	45,419	45,800	**3,862**
Office	21,670	22,392	23,114	23,836	24,558	25,280	26,002	26,724	27,434	28,145	28,856	**7,186**
Industrial	41,668	42,078	42,487	42,896	43,305	43,715	44,124	44,533	44,936	45,339	45,741	**4,073**
Institutional	25,911	26,096	26,281	26,467	26,652	26,838	27,023	27,209	27,392	27,576	27,760	**1,849**
Total	131,188	132,893	134,598	136,302	138,007	139,712	141,417	143,121	144,800	146,479	148,157	**16,970**

[1] COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model; Communities in Motion 2050; TischlerBise analysis
[2] Source: Institute of Transportation Engineers, *Trip Generation* , 2021

Job and nonresidential growth projections over the next ten years for incorporated Ada County are shown in Figure 28. It is estimated there will be an increase of 41,040 jobs, an 18 percent increase from the base year. The majority of the increase comes from the office sector (55 percent).

The nonresidential floor area projections are calculated by applying the ITE square feet per employee factors to the job growth. In the next ten years, the nonresidential floor area is projected to increase by 16.1 million square feet (rounded), a 13 percent increase from the base year. The office sector has the largest share of this growth at 43 percent.

Figure 28. Incorporated Ada County Employment and Nonresidential Floor Area Projections

Ada County Incorporated	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Jobs [1]												
Retail	42,925	43,696	44,466	45,236	46,004	46,772	47,539	48,306	49,059	49,811	50,561	**7,636**
Office	125,936	128,198	130,458	132,715	134,970	137,223	139,474	141,723	143,933	146,138	148,339	**22,403**
Industrial	34,547	35,168	35,787	36,407	37,025	37,643	38,261	38,878	39,484	40,089	40,693	**6,146**
Institutional	27,296	27,786	28,276	28,765	29,254	29,742	30,230	30,718	31,197	31,675	32,152	**4,856**
Total	230,704	234,848	238,987	243,123	247,254	251,381	255,505	259,624	263,673	267,712	271,744	**41,040**
Nonresidential Floor Area (1,000 sq. ft.) [2]												
Retail	41,287	41,650	42,013	42,375	42,737	43,099	43,460	43,821	44,176	44,530	44,883	**3,597**
Office	21,370	22,065	22,758	23,451	24,144	24,835	25,526	26,217	26,895	27,572	28,248	**6,878**
Industrial	39,888	40,283	40,678	41,072	41,466	41,860	42,253	42,646	43,032	43,418	43,802	**3,915**
Institutional	24,605	24,777	24,948	25,119	25,291	25,461	25,632	25,803	25,970	26,138	26,305	**1,699**
Total	127,150	128,774	130,397	132,018	133,637	135,255	136,872	138,487	140,074	141,657	143,238	**16,088**

[1] COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model; Communities in Motion 2050; TischlerBise analysis
[2] Source: Institute of Transportation Engineers, *Trip Generation* , 2021

Job and nonresidential growth projections over the next ten years for unincorporated Ada County are shown in Figure 29. It is estimated there will be an increase of 2,244 jobs, a 25 percent increase from the base year. The majority of the increase comes from the office sector (45 percent).

The nonresidential floor area projections are calculated by applying the ITE square feet per employee factors to the job growth. In the next ten years, the nonresidential floor area is projected to increase by 881,000 square feet, a 22 percent increase from the base year. The office sector has the largest share of this growth at 35 percent.

Figure 29. Unincorporated Ada County Employment and Nonresidential Floor Area Projections

Ada County Unincorporated	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Jobs [1]												
Retail	862	916	971	1,026	1,082	1,138	1,194	1,251	1,308	1,366	1,425	**563**
Office	4,844	4,934	5,025	5,120	5,216	5,315	5,415	5,518	5,623	5,734	5,849	**1,005**
Industrial	1,198	1,220	1,243	1,266	1,290	1,314	1,339	1,365	1,391	1,418	1,446	**248**
Institutional	2,060	2,098	2,137	2,177	2,218	2,260	2,303	2,347	2,391	2,438	2,487	**427**
Total	8,964	9,168	9,377	9,589	9,806	10,027	10,251	10,480	10,714	10,957	11,208	**2,244**
Nonresidential Floor Area (1,000 sq. ft.) [2]												
Retail	652	677	703	729	755	781	808	835	862	889	917	**265**
Office	300	327	356	384	414	444	475	507	539	573	608	**308**
Industrial	1,781	1,795	1,809	1,824	1,839	1,855	1,871	1,887	1,904	1,921	1,939	**158**
Institutional	1,306	1,319	1,333	1,347	1,361	1,376	1,391	1,406	1,422	1,438	1,456	**150**
Total	4,038	4,119	4,201	4,285	4,370	4,457	4,545	4,634	4,726	4,821	4,920	**881**

[1] COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model; Communities in Motion 2050; TischlerBise analysis
[2] Source: Institute of Transportation Engineers, *Trip Generation* , 2021

VEHICLE TRIP GENERATION

RESIDENTIAL VEHICLE TRIPS BY HOUSING TYPE

A customized trip rate is calculated for the single family and multifamily units in Ada County. In Figure 30, the most recent data from the US Census American Community Survey is inputted into equations provided by the ITE to calculate the trip ends per housing unit factor. A single family unit is estimated to generate 10.66 trip ends and a multifamily unit is estimated to generate 5.42 trip ends on an average weekday.

Figure 30. Customized Residential Trip End Rates by Housing Type

		Households by Structure Type[2]			
Tenure by Units in Structure	Vehicles Available[1]	Single Family	Multifamily	Total	Vehicles per HH by Tenure
Owner-Occupied	289,778	129,602	1,468	131,070	2.21
Renter-Occupied	85,906	24,109	29,546	53,655	1.60
Total	375,684	153,711	31,014	184,725	2.03
	Housing Units[3]	158,890	33,161	192,051	

Housing Type	Persons in Households[4]	Trip Ends[5]	Vehicles by Type of Unit	Trip Ends[6]	Average Trip Ends	Local Trip Ends per HH	National Trip Ends per Unit[7]
Single Family	415,557	1,157,628	324,995	2,118,200	1,637,914	**10.66**	9.43
Multifamily	59,917	137,129	50,518	199,334	168,231	**5.42**	4.54
Total	475,474	1,294,757	375,513	2,317,534	1,806,145	**9.78**	

1. Vehicles available by tenure from Table B25046, 2021 American Community Survey 5-Year Estimates.
2. Households by tenure and units in structure from Table B25032, 2021 American Community Survey 5-Year Estimates.
3. Housing units from Table B25024, 2021 American Community Survey 5-Year Estimates.
4. Total population in households from Table B25033, 2021 American Community Survey 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 19 and the equation result multiplied by 19. For multi-family housing (ITE 221), the fitted curve equation is (2.29*persons)-81.02 (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(0.99*LN(vehicles)+1.93). To approximate the average number of vehicles in the ITE studies, vehicles available were divided by 34 and the equation result multiplied by 34. For multi-family housing (ITE 221), the fitted curve equation is (3.94*vehicles)+293.58 (ITE 2021).
7. Trip Generation, Institute of Transportation Engineers, 11th Edition (2021).

RESIDENTIAL VEHICLE TRIPS ADJUSTMENT FACTORS

A vehicle trip end is the out-bound or in-bound leg of a vehicle trip. As a result, so to not double count trips, a standard 50 percent adjustment is applied to trip ends to calculate a vehicle trip. For example, the out-bound trip from a person's home to work is attributed to the housing unit and the trip from work back home is attributed to the employer.

However, an additional adjustment is necessary to capture County residents' work bound trips that are outside of the County. The trip adjustment factor includes two components. According to the National Household Travel Survey, home-based work trips are typically 31 percent of out-bound trips (which are 50 percent of all trip ends). Also, utilizing the most recent data from the Census Bureau's web application "OnTheMap", 17 percent of Ada County workers travel outside the County for work. In combination, these factors account for 3 percent of additional production trips (0.31 x 0.50 x 0.17 = 0.03). Shown in Figure 31, the total adjustment factor for residential housing units includes attraction trips (50 percent of trip ends) plus the journey-to-work commuting adjustment (3 percent of production trips) for a total of 53 percent.

Figure 31. Residential Trip Adjustment Factor for Commuters

Trip Adjustment Factor for Commuters

Employed Ada County Residents (2020)	212,011
Residents Working in Ada County (2020)	175,359
Residents Commuting Outside of Ada County for Work	36,652
Percent Commuting Out of Ada County	17%
Additional Production Trips	**3%**

Standard Trip Adjustment Factor	**50%**
Residential Trip Adjustment Factor	**53%**

Source: U.S. Census, OnTheMap Application, 2020

NONRESIDENTIAL VEHICLE TRIPS

Vehicle trip generation for nonresidential land uses are calculated by using ITE's average daily trip end rates and adjustment factors found in their recently published 11th edition of Trip Generation. To estimate the trip generation in Ada County, the weekday trip end per 1,000 square feet factors listed in Figure 32 are used.

Figure 32. Institute of Transportation Engineers Nonresidential Factors

Employment Industry	ITE Code	Land Use	Demand Unit	Wkdy Trip Ends per Dmd Unit	Wkdy Trip Ends per Employee
Retail	820	Shopping Center	1,000 Sq Ft	37.01	17.42
Office	710	General Office	1,000 Sq Ft	10.84	3.33
Industrial	110	Light Industrial	1,000 Sq Ft	4.87	3.10
Institutional	610	Hospital	1,000 Sq Ft	10.77	3.77

Source: *Trip Generation* , Institute of Transportation Engineers, 11th Edition (2021)

For nonresidential land uses, the standard 50 percent adjustment is applied to office, industrial, and institutional land uses. A lower vehicle trip adjustment factor is used for retail uses because this type of development attracts vehicles as they pass-by on arterial and collector roads. For example, when someone stops at a convenience store on their way home from work, the convenience store is not their primary destination. In Figure 33, the Institute for Transportation Engineers' land use code, daily vehicle trip end rate, and trip adjustment factor is listed for each land use.

Figure 33. Daily Vehicle Trip Factors

Land Use	ITE Codes	Daily Vehicle Trip Ends	Trip Adj. Factor	Daily Vehicle Trips
Residential (per housing unit)				
Single Family	210	10.66	53%	5.65
Multifamily	220	5.42	53%	2.87
Nonresidential (per 1,000 square feet)				
Retail	820	37.01	38%	14.06
Office	710	10.84	50%	5.42
Industrial	110	4.87	50%	2.44
Institutional	610	10.77	50%	5.39

Source: *Trip Generation* , Institute of Transportation Engineers, 11th Edition (2021); 'National Household Travel Survey, 2009

VEHICLE TRIP PROJECTIONS

The base year vehicle trip totals and vehicle trip projections are calculated by combining the vehicle trip end factors, the trip adjustment factors, and the residential and nonresidential assumptions for housing stock and floor area. Countywide, residential land uses account for 1,138,874 vehicle trips and nonresidential land uses account for 948,256 vehicle trips in the base year shown in Figure 34.

Through 2033, it is projected that daily vehicle trips will increase by 374,018 trips with the majority of the growth being generated by single family (63 percent) and retail (15 percent) development.

Figure 34. Ada County Vehicle Trip Projections

Ada County	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Residential Trips												
Single Family	1,030,196	1,074,429	1,119,675	1,139,848	1,160,022	1,180,195	1,200,368	1,220,542	1,236,029	1,251,516	1,267,003	**236,807**
Multifamily	108,679	113,228	117,791	119,832	121,873	123,915	125,956	127,997	129,583	131,170	132,756	**24,077**
Subtotal	1,138,874	1,187,658	1,237,466	1,259,681	1,281,895	1,304,110	1,326,324	1,348,539	1,365,612	1,382,685	1,399,759	**260,884**
Nonresidential Trips												
Retail	589,810	595,277	600,742	606,204	611,664	617,121	622,576	628,029	633,398	638,762	644,120	**54,310**
Office	117,452	121,365	125,278	129,191	133,103	137,016	140,929	144,841	148,694	152,547	156,400	**38,948**
Industrial	101,462	102,459	103,456	104,452	105,449	106,445	107,442	108,438	109,419	110,399	111,380	**9,918**
Institutional	139,532	140,528	141,524	142,522	143,521	144,520	145,520	146,521	147,509	148,498	149,489	**9,957**
Subtotal	948,256	959,629	971,000	982,369	993,737	1,005,103	1,016,467	1,027,830	1,039,020	1,050,206	1,061,389	**113,134**
Vehicle Trips												
Grand Total	2,087,130	2,147,286	2,208,466	2,242,050	2,275,632	2,309,212	2,342,791	2,376,368	2,404,632	2,432,892	2,461,148	**374,018**

Source: Institute of Transportation Engineers, *Trip Generation* , 11th Edition (2021)

In incorporated Ada County, residential land uses account for 1,010,441 vehicle trips and nonresidential land uses account for 926,099 vehicle trips in the base year shown in Figure 35.

Through 2033, it is projected that daily vehicle trips will increase by 337,251 trips with the majority of the growth being generated by single family (61 percent) and retail (15 percent) development.

Figure 35. Incorporated Ada County Vehicle Trip Projections

Ada County Incorporated	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Residential Trips												
Single Family	903,389	942,688	982,879	1,000,440	1,018,000	1,035,559	1,053,117	1,070,675	1,084,006	1,097,336	1,110,670	**207,281**
Multifamily	107,051	111,521	116,004	117,983	119,963	121,942	123,921	125,899	127,427	128,954	130,481	**23,429**
Subtotal	1,010,441	1,054,210	1,098,883	1,118,423	1,137,962	1,157,500	1,177,038	1,196,575	1,211,433	1,226,289	1,241,151	**230,710**
Nonresidential Trips												
Retail	580,647	585,754	590,856	595,953	601,044	606,131	611,213	616,291	621,280	626,259	631,228	**50,580**
Office	115,827	119,591	123,351	127,107	130,859	134,608	138,353	142,095	145,772	149,442	153,103	**37,277**
Industrial	97,126	98,089	99,050	100,011	100,970	101,929	102,887	103,843	104,784	105,722	106,658	**9,532**
Institutional	132,499	133,423	134,346	135,268	136,189	137,110	138,029	138,948	139,851	140,752	141,651	**9,152**
Subtotal	926,099	936,857	947,603	958,338	969,063	979,778	990,482	1,001,177	1,011,687	1,022,174	1,032,640	**106,541**
Vehicle Trips												
Grand Total	1,936,539	1,991,066	2,046,486	2,076,761	2,107,025	2,137,278	2,167,520	2,197,752	2,223,120	2,248,464	2,273,791	**337,251**

Source: Institute of Transportation Engineers, *Trip Generation* , 11th Edition (2021)

In unincorporated Ada County, residential land uses account for 128,434 vehicle trips and nonresidential land uses account for 22,157 vehicle trips in the base year shown in Figure 36.

Through 2033, it is projected that daily vehicle trips will increase by 36,772 trips with the majority of the growth being generated by single family (80 percent) and retail (10 percent) development.

Figure 36. Unincorporated Ada County Vehicle Trip Projections

Ada County Unincorporated	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Residential Trips												
Single Family	126,807	131,741	136,796	139,409	142,022	144,636	147,251	149,866	152,023	154,180	156,338	**29,532**
Multifamily	1,627	1,707	1,787	1,849	1,911	1,973	2,035	2,097	2,157	2,216	2,275	**648**
Subtotal	128,434	133,448	138,583	141,258	143,933	146,609	149,286	151,964	154,179	156,396	158,613	**30,180**
Nonresidential Trips												
Retail	9,163	9,523	9,886	10,251	10,619	10,990	11,363	11,739	12,118	12,503	12,893	**3,730**
Office	1,625	1,774	1,927	2,084	2,244	2,408	2,575	2,746	2,922	3,106	3,297	**1,672**
Industrial	4,336	4,370	4,406	4,442	4,479	4,517	4,555	4,594	4,635	4,677	4,721	**385**
Institutional	7,033	7,105	7,178	7,254	7,331	7,410	7,491	7,573	7,658	7,746	7,838	**805**
Subtotal	22,157	22,772	23,397	24,031	24,673	25,325	25,985	26,652	27,333	28,032	28,749	**6,592**
Vehicle Trips												
Grand Total	150,591	156,220	161,980	165,288	168,606	171,934	175,271	178,616	181,512	184,428	187,363	**36,772**

Source: Institute of Transportation Engineers, *Trip Generation* , 11th Edition (2021)

EXHIBIT C

EMS CAPITAL IMPROVEMENT PLAN AND DEVELOPMENT IMPACT FEE STUDY

(50 pages – attached)

EMS Capital Improvement Plan and Development Impact Fee Study

Submitted to:

Ada County, Idaho

May 24, 2024

Prepared by:

TischlerBise
FISCAL | ECONOMIC | PLANNING

999 W Main St
Suite 100
Boise, ID 83702
800.424.4318
www.tischlerbise.com

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Impact Fee Study
Ada County, Idaho

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EXECUTIVE SUMMARY

Ada County, Idaho, retained TischlerBise, Inc. to calculate the impact fees to be imposed on new development to meet the new demands generated for public facilities in the County. It is the intent of Ada County to evaluate and establish impact fees for EMS facilities. This report presents the methodologies and calculations used to generate current levels of service and maximum supportable impact fees. It is intended to serve as supporting documentation for the evaluation and establishment of impact fees in Ada County.

The purpose of this study is to demonstrate the County's compliance with Idaho Statutes as authorized by the Idaho Legislature. Consistent with the statutory authorization for development impact fees (Idaho Code 67-8202(1-4)), it is the intent of Ada County to:

1. Collect impact fees to ensure that adequate public facilities are available to serve new growth and development;
2. Promote orderly growth and development by establishing uniform standards by which local governments may require that those who benefit from new growth and development pay a proportionate share of the cost of new public facilities needed to serve new growth and development;
3. Establish minimum standards for the adoption of development impact fee ordinances by government entities;
4. Ensure that those who benefit from new growth and development are required to pay no more than their proportionate share of the cost of public facilities needed to serve new growth and development and to prevent duplicate and ad hoc development requirements;

Impact fees are one-time payments used to construct system improvements needed to accommodate new development. An impact fee represents new growth's fair share of capital facility needs. By law, impact fees can only be used for capital improvements, not operating or maintenance costs. Impact fees are subject to legal standards, which require fulfillment of three key elements: need, benefit and proportionality.

- First, to justify a fee for public facilities, it must be demonstrated that new development will create a need for capital improvements.
- Second, new development must derive a benefit from the payment of the fees (i.e., in the form of public facilities constructed within a reasonable timeframe).
- Third, the fee paid by a particular type of development should not exceed its proportional share of the capital cost for system improvements.

TischlerBise evaluated possible methodologies and documented appropriate demand indicators by type of development for the levels of service and fees. Local demographic data and improvement costs were used to identify specific capital costs attributable to growth. This report includes summary tables indicating the specific factors, referred to as level of service standards, used to derive the impact fees.

The geographic area for the EMS impact fees is countywide. These facilities provide a countywide benefit and are services not provided by the cities within Ada County.

IDAHO DEVELOPMENT IMPACT FEE ENABLING LEGISLATION

The Enabling Legislation governs how development fees are calculated for municipalities in Idaho. All requirements of the Idaho Development Impact Fee Act (hereafter referred to as the Idaho Act) have been met in the supporting documentation prepared by TischlerBise. There are four requirements of the Idaho Act that are not common in the development impact fee enabling legislation of other states. This overview offers further clarification of these unique requirements.

First, as specified in 67-8204(2) of the Idaho Act, "development impact fees shall be calculated on the basis of levels of service for public facilities . . . applicable to existing development as well as new growth and development."

Second, Idaho requires a Capital Improvements Plan (CIP) [see 67-8208]. The CIP requirements are summarized in this report, with detailed documentation provided in the discussion on infrastructure.

Third, the Idaho Act also requires documentation of any existing deficiencies in the types of infrastructure to be funded by development impact fees [see 67-8208(1)(a)]. The intent of this requirement is to prevent charging new development to cure existing deficiencies. In the context of development impact fees for Ada County, the term "deficiencies" means a shortage or inadequacy of current system improvements when measured against the levels of service to be applied to new development. It does not mean a shortage or inadequacy when measured against some "hoped for" level of service.

TischlerBise used the current infrastructure cost per service unit (i.e., existing standards), or future levels of service where appropriate, multiplied by the projected increase in service units over an appropriate planning timeframe, to yield the cost of growth-related system improvements. The relationship between these three variables can be reduced to a mathematical formula, expressed as A x B = C. In section 67-8204(16), the Idaho Act simply reorganizes this formula, stating the cost per service unit (i.e., development impact fee) may not exceed the cost of growth-related system improvements divided by the number of projected service units attributable to new development (i.e., A = C ÷ B). By using existing infrastructure standards to determine the need for growth-related capital improvements, Ada County ensures the same level-of-service standards are applicable to existing and new development. Using existing infrastructure standards also means there are no existing deficiencies in the current system that must be corrected from non-development impact fee funding.

Fourth, Idaho requires a proportionate share determination [see 67-8207]. Basically, local government must consider various types of applicable credits and/or other revenues that may reduce the capital costs attributable to new development. The development impact fee methodologies and the cash flow analysis have addressed the need for credits to avoid potential double payment for growth-related infrastructure.

SUMMARY OF CAPITAL IMPROVEMENT PLAN AND DEVELOPMENT IMPACT FEES

METHODOLOGIES AND CREDITS

Development impact fees can be calculated by any one of several legitimate methods. The choice of a particular method depends primarily on the service characteristics and planning requirements for each facility type. Each method has advantages and disadvantages in a particular situation, and to some extent can be interchangeable, because each allocates facility costs in proportion to the needs created by development.

Reduced to its simplest terms, the process of calculating development impact 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 impact fees can become quite complicated because of the many variables involved in defining the relationship between development and the need for facilities. The following paragraphs discuss three basic methods for calculating development impact fees, and how each method can be applied.

Cost Recovery or Buy-In Fee Calculation. The rationale for the cost recovery approach 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 systems that were oversized such as sewer and water facilities.

Incremental Expansion Fee Calculation. The incremental expansion method documents the current level of service (LOS) for each type of public facility in both quantitative and qualitative measures, based on an existing service standard (such as park land acres per 1,000 residents). This approach ensures that there are no existing infrastructure deficiencies or surplus capacity in infrastructure. New development is only paying its proportionate share for growth-related infrastructure. An incremental expansion cost method is best suited for public facilities that will be expanded in regular increments, with LOS standards based on current conditions in the community.

Plan-Based Fee Calculation. The plan-based method allocates costs for a specified set of improvements to a specified amount of development. Facility plans identify needed improvements, and land use plans identify development. In this method, the total cost of relevant facilities is divided by total demand to calculate a cost per unit of demand. Then, the cost per unit of demand is multiplied by the amount of demand per unit of development (e.g., housing units or square feet of building area) in each category to arrive at a cost per specific unit of development (e.g., single family detached unit).

Credits. Regardless of the methodology, a consideration of "credits" is integral to the development of a legally valid impact fee methodology. There are two types of "credits," each with specific and distinct characteristics, but both of which should be addressed in the calculation of development impact fees. The first is a credit due to possible double payment situations. This could occur when contributions are made by the property owner toward the capital costs of the public facility covered by the impact fee. This type of credit is integrated into the impact fee calculation. The second is a credit toward the payment of a fee for dedication of public sites or improvements provided by the developer and for which the facility fee is imposed. This type of credit is addressed in the administration and implementation of a facility fee program.

Fee Methodologies

Of the fee methodologies discussed above, the incremental expansion method and the cost recovery method are used to calculate EMS impact fees for Ada County. Where capacity is sufficient to serve current demand the incremental expansion method documents the current Level of Service (LOS) for each type of public facility. While the cost of the impact fee study is captured through the cost recovery method. Additionally, Ada County anticipates working with the cities to collect the EMS impact fee countywide. The following table summarizes the method(s) used to derive the impact fee for each type of public facility in Ada County.

Figure 1. Summary of Impact Fee Methodologies

Fee Category	Service Area	Cost Recovery	Incremental Expansion	Plan-Based	Cost Allocation
EMS	Countywide	Impact Fee Study	EMS Stations, EMS Land, EMS Vehicles, and EMS Equipment		Person & Vehicle Trips

Capital Improvement Plan

The EMS development impact fee is based on the existing level of service provided for EMS facilities. The development impact fee is calculated for residential and nonresidential development. Figure 2 shows that to serve projected growth at current levels of service, EMS will need to provide 12,215 square feet of new facility space, 1.59 acres of land, 6.0 new vehicle units, and 41.9 new equipment units over the next ten years.

Figure 2. EMS Summary of Demand for Projected Growth

Facility Type	10-Year Need		10-Year Cost
Station Space	12,215	square feet	$7,096,915
Station Land	1.59	acres	$516,750
Apparatus	6.0	vehicles	$2,123,508
Equipment	41.9	units	$796,100
		Total	**$10,533,273**

Listed in Figure 3 are the capital improvement plans for facility expansion for the next ten years. The planned expansions are consistent and exceed growth-related needs to continue providing the current level of service.

Figure 3. EMS Capital Improvement Plan

10-Year Growth-Related Capital Plan	Unit		Cost per Unit	Total Cost
New Facility Space				
Station: Floating Feather/Horseshoe Bend	3,246	square feet	$581	$1,885,926
Station: Federal Way/Amity	3,246	square feet	$581	$1,885,926
Station: Fairview and Cloverdale	3,246	square feet	$581	$1,885,926
Station: Lake Hazel/Five Mile	3,246	square feet	$581	$1,885,926
Station: 10 Mile/Franklin	3,246	square feet	$581	$1,885,926
Subtotal	*16,230*	*square feet*		*$9,429,630*
New Facility Land				
5 New Stations (1-1.5 acres per station)	7.5	acres	$325,000	$2,437,500
Subtotal	*7.5*	*acres*		*$2,437,500*
New Apparatus				
Ambulance w/ required capital equipment	10	vehicles	$353,918	$3,539,177
Subtotal	*10*	*vehicles*		*$3,539,177*
New Equipment				
Portable radios	20	units	$7,644	$152,886
Mobile/station radios	20	units	$8,298	$165,952
Subtotal	*40*	*units*		*$318,838*

Station Cost	$11,867,130
Apparatus Cost	$3,539,177
Equipment Cost	$318,838
Grand Total	$15,725,145

Maximum Supportable Development Impact Fees by Type of Land Use

Figure 4 provides a schedule of the maximum supportable development impact fees by type of land use for Ada County. The fees represent the highest supportable amount for each type of applicable land use and represents new growth's fair share of the cost for capital facilities. The County may adopt fees that are less than the amounts shown. However, a reduction in impact fee revenue will necessitate an increase in other revenues, a decrease in planned capital expenditures, and/or a decrease in levels of service.

The fees for residential development are to be assessed per housing unit based on type. For nonresidential development, the fees are assessed per square foot of floor area (for illustrative purposes the nonresidential fee is listed per 1,000 square feet of development). Nonresidential development categories are consistent with the terminology and definitions contained in the reference book, Trip Generation 11th Edition, published by the Institute of Transportation Engineers. These definitions are provided in the Appendix A. Land Use Definitions.

Importantly, the Ada County Paramedics provide a countywide service and benefit. Thus, the impact fee study has calculated the maximum supportable fee based on a countywide level of service. In this case, Figure 4 lists the maximum amounts for all development within Ada County.

Figure 4. Summary of Maximum Supportable Development Impact Fees – Countywide

Development Type	EMS Maximum Supportable Fee
Residential (per housing unit)	
Single Family	**$175**
Multifamily	**$121**
Nonresidential (per 1,000 square feet)	
Retail	**$273**
Office	**$105**
Industrial	**$47**
Institutional	**$104**

CAPITAL IMPROVEMENT PLAN

The following section provides a summary of the Capital Improvement Plan depicting growth-related capital demands and costs on which the fees are based.

First, Figure 5 and Figure 6 lists the projected growth over the next ten years in Ada County. Overall, there is an estimated 23 percent increase in residential development (125,397 new residents and 50,296 new housing units) and an 18 percent increase in nonresidential development (43,283 new jobs and 16.9 million square feet of development). Further details on the development projections are provided in Appendix B. Demographic Assumptions.

Figure 5. Ten-Year Projected Residential Growth

Ada County	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Population	544,590	568,015	591,946	602,628	613,310	623,991	634,673	645,355	653,566	661,776	669,987	**125,397**
Percent Increase		*4.3%*	*4.2%*	*1.8%*	*1.8%*	*1.7%*	*1.7%*	*1.7%*	*1.3%*	*1.3%*	*1.2%*	***23.0%***
Housing Units												
Single Family	182,342	190,171	198,180	201,750	205,321	208,891	212,462	216,033	218,774	221,515	224,256	**41,914**
Multifamily	37,833	39,417	41,005	41,716	42,426	43,137	43,847	44,558	45,110	45,662	46,215	**8,382**
Total Housing Units	220,175	229,588	239,185	243,466	247,747	252,028	256,309	260,591	263,884	267,177	270,471	**50,296**

Source: COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model; City & Fire District Impact Fee Studies; TischlerBise analysis

Figure 6. Ten-Year Projected Nonresidential Growth

Ada County	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Jobs [1]												
Retail	43,787	44,612	45,437	46,262	47,086	47,910	48,734	49,557	50,367	51,177	51,986	**8,199**
Office	130,780	133,132	135,483	137,835	140,186	142,538	144,889	147,241	149,556	151,872	154,187	**23,407**
Industrial	35,745	36,388	37,030	37,673	38,315	38,958	39,600	40,242	40,875	41,507	42,139	**6,394**
Institutional	29,356	29,884	30,413	30,943	31,472	32,003	32,533	33,064	33,588	34,113	34,639	**5,283**
Total	239,668	244,016	248,364	252,712	257,060	261,408	265,756	270,104	274,386	278,669	282,951	**43,283**
Nonresidential Floor Area (1,000 sq. ft.) [2]												
Retail	41,938	42,327	42,715	43,104	43,492	43,880	44,268	44,656	45,037	45,419	45,800	**3,862**
Office	21,670	22,392	23,114	23,836	24,558	25,280	26,002	26,724	27,434	28,145	28,856	**7,186**
Industrial	41,668	42,078	42,487	42,896	43,305	43,715	44,124	44,533	44,936	45,339	45,741	**4,073**
Institutional	25,911	26,096	26,281	26,467	26,652	26,838	27,023	27,209	27,392	27,576	27,760	**1,849**
Total	131,188	132,893	134,598	136,302	138,007	139,712	141,417	143,121	144,800	146,479	148,157	**16,970**

[1] COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model; Communities in Motion 2050; TischlerBise analysis
[2] Source: Institute of Transportation Engineers, *Trip Generation* , 2021

The Idaho Development Impact Fee Act requires Capital Improvement Plans to be updated regularly, at least once every five years (Idaho Code 67-8208(2)). This report projects revenue and fees based on 10-year forecast in an effort to provide the public and elected officials with illustrative guidance of probable growth demands based on current trends however, per Idaho Code, it is expected that an update to all Capital Improvement Plans included in this study will occur within five years.

Funding Sources for Current Deficiencies

The majority of the CIP relates to the construction of five new stations, followed by new apparatus, acquiring land for future stations, and new equipment. In addition, it is estimated that $1,000,000 will be required for maintenance and repair of existing facilities over the next five years. Because replacement and addressing existing deficiencies are not eligible to be funded with impact fees, these costs will need to be funded by other sources, such as property taxes, in accordance with Idaho Code 67-8207(iv)(2)(h). The Board of Ada County Commissioners retain discretion and authority to fund deficiencies through the county's annual CIP budget process, accumulate savings annually in a construction fund, budget annually for one-time projects using unspent fund balance, or through the deferred maintenance budget annually appropriated to the Operations Department for these sorts of expenses.

Capital Improvement Plan

The EMS development impact fee is based on the existing level of service provided for EMS facilities. The development impact fee is calculated for residential and nonresidential development. Based on the 10-year growth projections, the following infrastructure is projected over the next ten years:

- 12,215 square feet of new facility
- 1.59 new acres of land for facilities
- 6.0 new vehicle units
- 41.9 new equipment units
- $10,533,000 total cost to Ada County

The projected demand is consistent with the Ada County EMS expansion plans. Currently, the department is exploring options for new stations and ambulances and will need more radios for staff hired to occupy the new stations over the next ten years. These projections are consistent with the EMS departments Capital Improvement Plan shown in Figure 7.

Figure 7. EMS Capital Improvement Plan

10-Year Growth-Related Capital Plan	Unit		Cost per Unit	Total Cost
New Facility Space				
Station: Floating Feather/Horseshoe Bend	3,246	square feet	$581	$1,885,926
Station: Federal Way/Amity	3,246	square feet	$581	$1,885,926
Station: Fairview and Cloverdale	3,246	square feet	$581	$1,885,926
Station: Lake Hazel/Five Mile	3,246	square feet	$581	$1,885,926
Station: 10 Mile/Franklin	3,246	square feet	$581	$1,885,926
Subtotal	*16,230*	*square feet*		*$9,429,630*
New Facility Land				
5 New Stations (1-1.5 acres per station)	7.5	acres	$325,000	$2,437,500
Subtotal	*7.5*	*acres*		*$2,437,500*
New Apparatus				
Ambulance w/ required capital equipment	10	vehicles	$353,918	$3,539,177
Subtotal	*10*	*vehicles*		*$3,539,177*
New Equipment				
Portable radios	20	units	$7,644	$152,886
Mobile/station radios	20	units	$8,298	$165,952
Subtotal	*40*	*units*		*$318,838*

Station Cost	$11,867,130
Apparatus Cost	$3,539,177
Equipment Cost	$318,838
Grand Total	$15,725,145

FUNDING SOURCES FOR CAPITAL IMPROVEMENTS

In determining the proportionate share of capital costs attributable to new development, the Idaho Development Fee Act states that local governments must consider historical, available, and alternative sources of funding for system improvements (Idaho Code 67-8207(2)). Currently, there are no dedicated revenues being collected by the County to fund growth-related projects for the infrastructure included in this study.

Furthermore, the maximum supportable impact fees are constructed to offset the growth-related capital costs to the County for EMS facilities. Evidence is given in the specific chapters of this report that the projected capital costs from new development will be offset by the development impact fees collection as long as the program is collected in the entire service area. Thus, no credits are needed in the impact fee calculation to offset double collection for growth-related capital costs.

EMERGENCY MEDICAL SERVICES DEVELOPMENT IMPACT FEE ANALYSIS

The EMS Development Impact Fee is based on the cost per service unit method specified in Idaho Code 67-8204(16), also referred to as the incremental expansion method elsewhere in this report.

The EMS components included in the impact fee analysis are:

- EMS facilities
- EMS land
- EMS vehicles
- EMS equipment
- Share of the development impact fee study

The residential portion of the fee is derived from the product of persons per housing unit by housing type multiplied by the net capital cost per person. To calculate nonresidential development impact fees, nonresidential vehicle trips are used as the demand indicator. Trip generation rates are highest for commercial developments, such as shopping centers, and lowest for industrial development. Office and institutional land uses trip rates fall between the other two categories. This ranking of trip rates is consistent with the relative demand for EMS facilities from nonresidential development and thus are the best demand indicators. Other possible nonresidential demand indicators, such as employment or floor area, do not accurately reflect the demand for service. If employees per thousand square feet were used as the demand indicator, EMS Development Impact Fees would be too high for office and institutional development. If floor area were used as the demand indicator, the development impact fees would be too high for industrial development. (See the Appendix for further discussion on trip rates and calculations.)

Specified in Idaho Code 67-8207(2), local governments must consider historical, available, and alternative sources of funding for system improvements. Currently, there are no dedicated revenues being collected by the County to fund growth-related projects for EMS facilities. Furthermore, the maximum supportable impact fees are constructed to offset all growth-related capital costs for EMS facilities. Evidence is given in this chapter that the projected capital costs from new development will be entirely offset by the development impact fees. Thus, no general tax dollars are assumed to be used to fund growth-related capital costs, requiring no further revenue credits.

COST ALLOCATION FOR EMS INFRASTRUCTURE

Both residential and nonresidential developments increase the demand for EMS services and facilities. To calculate the proportional share between residential and nonresidential demand, calls for service data from the Ada County Paramedics is analyzed. Shown at the top of Figure 8**,** 54 percent of calls are to residential locations, 23 percent to nonresidential locations, and 23 percent are classified as traffic calls.

Base year vehicle trips are used to assign traffic calls to residential and nonresidential land uses. This results in 4,534 additional residential calls (1,138,874 residential vehicle trips / 2,087,130 total vehicle trips x 8,310 traffic calls for service) and 3,775 additional nonresidential calls (948,256 nonresidential vehicle trips / 2,087,130 total vehicle trips x 8,310 traffic calls for service).

After this adjustment 67 percent of calls are attributed to residential development and 33 percent are attributed to nonresidential development. These percentages are used to attribute facilities to respective demand units. Later in Appendix C, Figure 43 shows a call volume heat map to indicate areas of higher demand.

Figure 8. Ada County EMS Calls for Service

Land Use	Annual Calls for Service	% of Total
Residential	19,510	54%
Nonresidential	8,310	23%
Traffic	8,310	23%
Total	**36,129**	**100%**

Land Use	Base Year Vehicle Trips	% of Total
Residential	1,138,874	55%
Nonresidential	948,256	45%
Total	**2,087,130**	**100%**

Land Use	Adj. Calls for Service	% of Total
Residential	24,044	**67%**
Nonresidential	12,085	**33%**
Total	**36,129**	**100%**

Source: Ada County Paramedics

EMS LEVEL OF SERVICE AND COST ANALYSIS

The following section details the level of service calculations and capital cost per person for each infrastructure category.

EMS FACILITIES

Listed in Figure 9, there is a total of 63,229 square feet occupied by the Ada County Paramedics. The proportionate share between residential and nonresidential demand of the facilities is found by applying the calls for service data percentages. As a result, 42,079 square feet are attributed to residential demand and 21,150 square feet is attributed to nonresidential demand. The current level of service is found by comparing the attributed square footage to the base year population and nonresidential vehicles trips. As a result, there is 77.3 square feet per 1,000 residents and 22.3 square feet per 1,000 vehicles trips.

The anticipated construction cost of a new station ($581 per square foot) is combined with the current levels of service to find the capital cost per demand unit. This results in a cost of $44.91 per person and $12.96 per vehicle trip (77.3 square feet per 1,000 persons x $581 per square foot = $44.91 per person).

Figure 9. EMS Facility Level of Service & Cost Analysis

Facility	Square Feet	Replacement Cost
Administration Building - Benjamin	24,351	$14,147,931
Station #13 - Gekeler	3,246	$1,885,926
Station #15 - Bannock	700	$406,700
Station #17 - Ridenbaugh	2,224	$1,292,144
Station #18 - Overland	3,246	$1,885,926
Station #22 - Chinden	3,246	$1,885,926
Station #23 - Glenwood	6,294	$3,656,814
Station #25 - Featherly Way	2,432	$1,412,992
Station #28 - McMillan	3,246	$1,885,926
Station #33 - Boise Ave	725	$421,225
Station #34 - Pine	4,137	$2,403,597
Station #36 - Linder	3,246	$1,885,926
Station #37 - Meridian Co-Location	2,890	$1,679,090
Station #38 - Dawes Place	3,246	$1,885,926
Total	**63,229**	**$36,736,049**

Level-of-Service Standards	Residential	Nonres
Proportional Share	67%	33%
Share of Square Feet	42,079	21,150
2023 Population/Nonres. Vehicle Trips	544,590	948,256
Square Feet per 1,000 Persons/Vehicle Trips	**77.3**	**22.3**

Cost Analysis	Residential	Nonres
Square Feet per 1,000 Persons/Vehicle Trips	77.3	22.3
Average Cost per Square Foot [1]	$581	$581
Capital Cost per Person/Vehicle Trip	**$44.91**	**$12.96**

[1] Square footage cost estimate from Ada County Paramedics

EMS LAND

Listed in Figure 10, there is a total of 8.09 acres occupied by the Ada County Paramedics. The proportionate share between residential and nonresidential demand of the facilities is found by applying the calls for service data percentages. As a result, 5.4 acres are attributed to residential demand and 2.7 acres are attributed to nonresidential demand. The current level of service is found by comparing the attributed acreage to the base year population and nonresidential vehicles trips. As a result, there is 0.010 acres per 1,000 residents and 0.003 acres per 1,000 vehicles trips.

The anticipated cost to purchase more land is combined with the current levels of service to find the capital cost per demand unit. This results in a cost of $3.25 per person and $0.98 per vehicle trip (0.010 acres per 1,000 persons x $325,000 per acre = $3.25 per person, rounded).

Figure 10. EMS Land Level of Service & Cost Analysis

Facility	Acres	Current Value
Administration Building - Benjamin	1.50	$487,500
Station #13 - Gekeler	0.50	$162,500
Station #15 - Bannock	0.02	$6,500
Station #17 - Ridenbaugh	0.14	$45,500
Station #18 - Overland	0.16	$52,000
Station #22 - Chinden	0.17	$55,250
Station #23 - Glenwood	1.00	$325,000
Station #25 - Featherly Way	0.06	$19,500
Station #28 - McMillan	0.32	$104,000
Station #33 - Boise Ave	0.02	$6,500
Station #34 - Pine	1.00	$325,000
Station #36 - Linder	1.67	$542,750
Station #37 - Meridian Co-Location	0.78	$253,500
Station #38 - Dawes Place	0.75	$243,750
Total	**8.09**	**$2,629,250**

Level-of-Service Standards	**Residential**	**Nonres**
Proportional Share	67%	33%
Share of Acres	5.4	2.7
2023 Population/Nonres. Vehicle Trips	544,590	948,256
Acres per 1,000 Persons/Vehicle Trips	**0.010**	**0.003**

Cost Analysis	**Residential**	**Nonres**
Acres per 1,000 Persons/Vehicle Trips	0.010	0.003
Average Cost per Acre [1]	$325,000	$325,000
Capital Cost per Person/Vehicle Trip	**$3.25**	**$0.98**

[1] Anticipated costs from Ada County Paramedics

EMS Vehicles

Listed in Figure 11, the EMS vehicle fleet consists of 31 vehicles. The proportionate share between residential and nonresidential demand of the facility is found by applying the calls for service data percentages. As a result, 20.6 units are attributed to residential demand and 10.4 units are attributed to nonresidential demand. The current level of service is found by comparing the attributed units to the base year population and nonresidential vehicles trips. As a result, there is 0.038 units per 1,000 residents and 0.011 units per 1,000 vehicles trips.

The average cost per unit is combined with the current levels of service to find the capital cost per demand unit. This results in a cost of $13.45 per person and $3.89 per vehicle trip (0.038 units per 1,000 persons x $353,918 per unit = $13.45 per person, rounded).

Figure 11. EMS Vehicle Level of Service & Cost Analysis

Vehicles	Units	Cost per Unit	Total Replacement Cost
Ambulances	31	$353,918	$10,971,458
Total	**31**		**$10,971,458**

Level-of-Service Standards	Residential	Nonres
Proportional Share	67%	33%
Share of Fleet	20.6	10.4
2023 Population/Nonres. Vehicle Trips	544,590	948,256
Units per 1,000 Persons/Vehicle Trips	**0.038**	**0.011**

Cost Analysis	Residential	Nonres
Units per 1,000 Persons/Vehicle Trips	0.038	0.011
Average Cost per Unit	$353,918	$353,918
Capital Cost per Person/Vehicle Trip	**$13.45**	**$3.89**

Source: Ada County Paramedics

EMS Equipment

Per the Idaho Act, capital improvements are limited to those improvements that have a certain lifespan. As specified in 67-8203(3) of the Idaho Act, "'Capital improvements' means improvements with a useful life of ten (10) years or more, by new construction or other action, which increase the service capacity of a public facility." Listed in Figure 12 is EMS equipment that have a useful life of ten or more years qualifying to be impact fee eligible.

The proportionate share between residential and nonresidential demand of the facility is found by applying the calls for service data percentages. As a result, 144 units are attributed to residential demand and 73 units are attributed to nonresidential demand. The current level of service is found by comparing the attributed units to the base year population and nonresidential vehicles trips. As a result, there is 0.265 units per 1,000 residents and 0.077 units per 1,000 vehicles trips.

The average cost per unit is combined with the current levels of service to find the capital cost per demand unit. This results in a cost of $5.04 per person and $1.46 per vehicle trip (0.265 units per 1,000 persons x $19,000 per unit = $5.04 per person, rounded).

Figure 12. EMS Equipment Level of Service & Cost Analysis

Equipment	Units	Cost per Unit	Total Replacement Cost
Portable Radios	93	$7,644	$710,921
Mobile/Station Radios	62	$8,298	$514,451
Cardiac Monitor	31	$28,000	$868,000
Gurney	31	$67,000	$2,077,000
Total	**217**		**$4,170,372**

Level-of-Service Standards	**Residential**	**Nonres**
Proportional Share	67%	33%
Share of Equipment	144	73
2023 Population/Nonres. Vehicle Trips	544,590	948,256
Units per 1,000 Persons/Vehicle Trips	**0.265**	**0.077**

Cost Analysis	**Residential**	**Nonres**
2023 Population/Nonres. Vehicle Trips	0.265	0.077
Average Cost per Unit	$19,000	$19,000
Capital Cost per Person/Vehicle Trip	**$5.04**	**$1.46**

Source: Ada County Paramedics
Note: Equipment w/10-Year useful life

Share of the Development Impact Fee Study

Under the Idaho enabling legislation, Ada County is able to recover the cost of the study through the collection of future fees. The total cost of the study has been evenly attributed to the four infrastructure categories, resulting in the EMS category share being $16,370. An impact fee study must be completed every five years, so the attributed cost is compared to the five-year projected increase. As a result, the cost per person is $0.14 and the cost per vehicle trip is $0.10.

Figure 13. EMS Share of the Development Impact Fee Study

Share of Study Cost	Residential Share	Nonresidential Share
$16,370	67%	33%

Residential Growth Cost	Five-Year Population Increase	Capital Cost per Person
$10,894	79,401	**$0.14**

Nonresidential Growth Cost	Five-Year Vehicle Trip Increase	Capital Cost per Vehicle Trip
$5,476	56,847	**$0.10**

EMS CAPITAL IMPROVEMENTS NEEDED TO SERVE GROWTH

Needs due to future growth were calculated using the levels of service and cost factors for the infrastructure components. Growth-related needs are a projection of the amount of infrastructure and estimated costs over the next ten years needed to maintain levels of service.

EMS FACILITIES

The current levels of service are combined with the population and vehicle trip projections to illustrate the need for new EMS facilities. Shown in Figure 14, over the next ten years, there is a need for 12,215 square feet. The average cost per square foot is multiplied by the need to find the projected capital need from growth ($7,096,915).

Figure 14. Projected Demand for EMS Facilities

Infrastructure	Level of Service				Cost/Unit
EMS Facilities	Residential	77	Square Feet	per 1,000 persons	$581
	Nonresidential	22		per 1,000 veh. trips	

Growth-Related Need for EMS Facilities						
Year		Population	Nonres. Vehicle Trips	Residential Square Feet	Nonresidential Square Feet	Total Square Feet
Base	2023	544,590	948,256	42,096	21,146	63,242
Year 1	2024	568,015	959,629	43,907	21,399	65,306
Year 2	2025	591,946	971,000	45,757	21,653	67,410
Year 3	2026	602,628	982,369	46,583	21,906	68,489
Year 4	2027	613,310	993,737	47,408	22,160	69,568
Year 5	2028	623,991	1,005,103	48,234	22,413	70,647
Year 6	2029	634,673	1,016,467	49,060	22,667	71,727
Year 7	2030	645,355	1,027,830	49,885	22,920	72,805
Year 8	2031	653,566	1,039,020	50,520	23,170	73,690
Year 9	2032	661,776	1,050,206	51,155	23,419	74,574
Year 10	2033	669,987	1,061,389	51,789	23,668	75,457
Ten-Year Increase		125,397	113,134	9,693	2,522	12,215
		Projected Expenditure		**$5,631,633**	**$1,465,282**	**$7,096,915**

Growth-Related Expenditures for EMS Facilities	$7,096,915

EMS LAND

The current levels of service are combined with the population and vehicle trip projections to illustrate the need for new EMS acres. Shown in Figure 15, over the next ten years, there is a need for 1.59 acres The average cost per acre is multiplied by the need to find the projected capital need from growth ($516,750).

Figure 15. Projected Demand for EMS Land

Infrastructure	Level of Service				Cost/Unit
EMS Land	Residential	0.010	Acres	per 1,000 persons	$325,000
	Nonresidential	0.003		per 1,000 veh. trips	

Growth-Related Need for EMS Land						
Year		Population	Nonres. Vehicle Trips	Residential Acres	Nonresidential Acres	Total Acres
Base	2023	544,590	948,256	5.44	2.84	8.28
Year 1	2024	568,015	959,629	5.68	2.87	8.55
Year 2	2025	591,946	971,000	5.91	2.91	8.82
Year 3	2026	602,628	982,369	6.02	2.94	8.96
Year 4	2027	613,310	993,737	6.13	2.98	9.11
Year 5	2028	623,991	1,005,103	6.23	3.01	9.24
Year 6	2029	634,673	1,016,467	6.34	3.04	9.38
Year 7	2030	645,355	1,027,830	6.45	3.08	9.53
Year 8	2031	653,566	1,039,020	6.53	3.11	9.64
Year 9	2032	661,776	1,050,206	6.61	3.15	9.76
Year 10	2033	669,987	1,061,389	6.69	3.18	9.87
Ten-Year Increase		125,397	113,134	1.25	0.34	1.59
		Projected Expenditure		**$406,250**	**$110,500**	**$516,750**

Growth-Related Expenditures for EMS Land	$516,750

EMS Vehicles

The current levels of service are combined with the population and vehicle trip projections to illustrate the need for new EMS vehicle units. Shown in Figure 16, over the next ten years, there is a need for 6.0 units. The average cost per unit is multiplied by the need to find the projected capital need from growth ($2,123,508).

Figure 16. Projected Demand for EMS Vehicles

Infrastructure	Level of Service				Cost/Unit
EMS Vehicles	Residential	0.04	Units	per 1,000 persons	$353,918
	Nonresidential	0.01		per 1,000 veh. trips	

Growth-Related Need for EMS Vehicles						
Year		Population	Nonres. Vehicle Trips	Residential Units	Nonresidential Units	Total Units
Base	2023	544,590	948,256	20.6	10.4	31.0
Year 1	2024	568,015	959,629	21.5	10.5	32.0
Year 2	2025	591,946	971,000	22.4	10.6	33.0
Year 3	2026	602,628	982,369	22.8	10.8	33.6
Year 4	2027	613,310	993,737	23.3	10.9	34.2
Year 5	2028	623,991	1,005,103	23.7	11.0	34.7
Year 6	2029	634,673	1,016,467	24.1	11.1	35.2
Year 7	2030	645,355	1,027,830	24.5	11.3	35.8
Year 8	2031	653,566	1,039,020	24.8	11.4	36.2
Year 9	2032	661,776	1,050,206	25.1	11.5	36.6
Year 10	2033	669,987	1,061,389	25.4	11.6	37.0
Ten-Year Increase		125,397	113,134	4.8	1.2	6.0
		Projected Expenditure		**$1,698,806**	**$424,702**	**$2,123,508**

Growth-Related Expenditures for EMS Vehicles	$2,123,508

EMS EQUIPMENT

The current levels of service are combined with the population and vehicle trip projections to illustrate the need for new EMS equipment units. Shown in Figure 17, over the next ten years, there is a need for 41.9 units. The average cost per unit is multiplied by the need to find the projected capital need from growth ($796,100).

Figure 17. Projected Demand for EMS Equipment

Infrastructure	Level of Service				Cost/Unit
Equipment	Residential	0.27	Units	per 1,000 persons	$19,000
	Nonresidential	0.08		per 1,000 veh. trips	

Growth-Related Need for Equipment						
Year		Population	Nonres. Vehicle Trips	Residential Units	Nonresidential Units	Total Units
Base	2023	544,590	948,256	144.3	73.0	217.3
Year 1	2024	568,015	959,629	150.5	73.8	224.3
Year 2	2025	591,946	971,000	156.8	74.7	231.5
Year 3	2026	602,628	982,369	159.6	75.6	235.2
Year 4	2027	613,310	993,737	162.5	76.5	239.0
Year 5	2028	623,991	1,005,103	165.3	77.3	242.6
Year 6	2029	634,673	1,016,467	168.1	78.2	246.3
Year 7	2030	645,355	1,027,830	171.0	79.1	250.1
Year 8	2031	653,566	1,039,020	173.1	80.0	253.1
Year 9	2032	661,776	1,050,206	175.3	80.8	256.1
Year 10	2033	669,987	1,061,389	177.5	81.7	259.2
Ten-Year Increase		125,397	113,134	33.2	8.7	41.9
		Projected Expenditure		**$630,800**	**$165,300**	**$796,100**

Growth-Related Expenditures for Equipment	$796,100

EMS DEVELOPMENT IMPACT FEE CREDIT ANALYSIS

Currently, there are no dedicated revenues being collected by the County to fund growth-related projects for EMS facilities. Furthermore, the maximum supportable impact fees are constructed to offset growth-related capital costs for facilities. Evidence is given in this chapter that the growth-related projected capital costs from new development will be almost entirely offset by the development impact fees. As a result, no revenue credit is necessary in the impact fee calculation.

EMS INPUT VARIABLES AND DEVELOPMENT IMPACT FEES

Figure 18 provides a summary of the input variables (described in the chapter sections above) used to calculate the net cost per person and vehicle trip. The residential EMS Development Impact Fees are the product of persons per housing unit by type of dwelling unit multiplied by the total net capital cost per person. The nonresidential fees are the product of trips per 1,000 square feet multiplied by the net capital cost per nonresidential vehicle trip.

The fees represent the highest supportable amount for each type of applicable land use and represent new growth's fair share of the cost for capital facilities. The County may adopt fees that are less than the amounts shown. However, a reduction in impact fee revenue will necessitate an increase in other revenues, a decrease in planned capital expenditures, and/or a decrease in levels of service.

Figure 18. EMS Input Variables and Maximum Supportable Impact Fees

Fee Component	Cost per Person	Cost per Vehicle Trip
EMS Facilities	$44.91	$12.96
EMS Land	$3.25	$0.98
EMS Vehicles	$13.45	$3.89
Equipment	$5.04	$1.46
Impact Fee Study	$0.14	$0.10
Gross Total	$66.79	$19.39
Net Total	**$66.79**	**$19.39**

Residential

Housing Type	Persons per Housing Unit	Maximum Supportable Fee
Residential (per housing unit)		
Single Family	2.62	**$175**
Multifamily	1.81	**$121**

Nonresidential

Development Type	Vehicle Trips per KSF	Maximum Supportable Fee
Nonresidential (per 1,000 square feet)		
Retail	14.06	**$273**
Office	5.42	**$105**
Industrial	2.44	**$47**
Institutional	5.39	**$104**

CASH FLOW PROJECTIONS FOR EMS MAXIMUM SUPPORTABLE IMPACT FEE

This section summarizes the potential cash flow to Ada County if the EMS Development Impact Fee is implemented at the maximum supportable amounts. The cash flow projections are based on the assumptions detailed in this chapter and the development projections discussed in Appendix B.

The summary provides an indication of the impact fee revenue generated by new development. Shown at the bottom of the figure, the maximum supportable EMS impact fee is estimated to generate $10.5 million in revenue while there is a growth-related cost of $10.5 million. Thus, the impact fees offset all growth-related capital costs.

Importantly, the level of service has included demand from within the cities of Ada County. To ensure that the County captures the full potential revenue of the impact fees an intergovernmental agreement (IGA) is necessary for the Cities to collect the County impact fees on its behalf. Those revenues would be remitted to the County periodically. In the case there are no IGAs, the County will collect $1 million in unincorporated areas (9.6 percent of the countywide growth-related capital costs).

Figure 19. Projected Revenue from EMS Maximum Supportable Impact Fees

Infrastructure Costs for EMS Facilities

	Total Cost	Growth Cost
EMS Stations	$7,096,915	$7,096,915
EMS Land	516,750	$516,750
EMS Vehicles	$2,123,508	$2,123,508
Equipment	$796,100	$796,100
Impact Fee Study	$32,740	$32,740
Total Expenditures	**$10,566,013**	**$10,566,013**

Projected Development Impact Fee Revenue

		Single Family $175 per unit	Multifamily $121 per unit	Retail $273 per KSF	Office $105 per KSF	Industrial $47 per KSF	Institutional $104 per KSF
Year		**Housing Units**	**Housing Units**	**KSF**	**KSF**	**KSF**	**KSF**
Base	2023	182,342	37,833	41,938	21,670	41,668	25,911
1	2024	190,171	39,417	42,327	22,392	42,078	26,096
2	2025	198,180	41,005	42,715	23,114	42,487	26,281
3	2026	201,750	41,716	43,104	23,836	42,896	26,467
4	2027	205,321	42,426	43,492	24,558	43,305	26,652
5	2028	208,891	43,137	43,880	25,280	43,715	26,838
6	2029	212,462	43,847	44,268	26,002	44,124	27,023
7	2030	216,033	44,558	44,656	26,724	44,533	27,209
8	2031	218,774	45,110	45,037	27,434	44,936	27,392
9	2032	221,515	45,662	45,419	28,145	45,339	27,576
10	2033	224,256	46,215	45,800	28,856	45,741	27,760
Ten-Year Increase		41,914	8,382	3,862	7,186	4,073	1,849
Projected Revenue		$7,334,992	$1,014,188	$1,054,248	$754,536	$191,431	$192,299
						Projected Revenue =>	**$10,542,000**
						Projected Expenditures =>	**$10,566,000**
						Non-Impact Fee Funding =>	**$24,000**

PROPORTIONATE SHARE ANALYSIS

Development impact fees for Ada County are based on reasonable and fair formulas or methods. The fees do not exceed a proportionate share of the costs incurred or to be incurred by the County in the provision of system improvements to serve new development. The County will fund non-growth-related improvements with non-development impact fee funds as it has in the past. Specified in the Idaho Development Impact Fee Act (Idaho Code 67-8207), several factors must be evaluated in the development impact fee study and are discussed below.

1) The development impact fees for Ada County are based on new growth's share of the costs of previously built projects along with planned public facilities as provided by Ada County. Projects are included in the County's capital improvements plan and will be included in annual capital budgets.
2) TischlerBise estimated development impact fee revenue based on the maximum supportable development impact fees for the one, countywide service area; results are shown in the cash flow analyses in this report. Development impact fee revenue will entirely fund growth-related improvements less funding from other sources (i.e., federal and state grants).
3) TischlerBise has evaluated the extent to which new development may contribute to the cost of public facilities.
4) The relative extent to which properties will make future contributions to the cost of existing public facilities has also been evaluated in regards to existing debt. Outstanding debt for growth's portion of already constructed facilities will be paid from development impact fee revenue, therefore a future revenue credit is not necessary.
5) The County will evaluate the extent to which newly developed properties are entitled to a credit for system improvements that have been provided by property owners or developers. These "site-specific" credits will be available for system improvements identified in the annual capital budget and long-term Capital Improvements Plans. Administrative procedures for site-specific credits should be addressed in the development impact fee ordinance.
6) Extraordinary costs, if any, in servicing newly developed properties should be addressed through administrative procedures that allow independent studies to be submitted to the County. These procedures should be addressed in the development impact fee ordinance. One service area represented by Ada County is appropriate for the fees herein.
7) The time-price differential inherent in fair comparisons of amounts paid at different times has been addressed. All costs in the development impact fee calculations are given in current dollars with no assumed inflation rate over time. Necessary cost adjustments can be made as part of the annual evaluation and update of development impact fees.

IMPLEMENTATION AND ADMINISTRATION

The Idaho Act requires jurisdictions to form a Development Impact Fee Advisory Committee. The committee must have at least five members with a minimum of two members active in the business of real estate, building, or development. The committee acts in an advisory capacity and is tasked to do the following:

- Assist the governmental entity in adopting land use assumptions;
- Review the capital improvements plan, and proposed amendments, and file written comments;
- Monitor and evaluate implementation of the capital improvements plan;
- File periodic reports, at least annually, with respect to the capital improvements plan and report to the governmental entity any perceived inequities in implementing the plan or imposing the development impact fees; and
- Advise the governmental entity of the need to update or revise land use assumptions, the capital improvements plan, and development impact fees.

Per the above, the County formed a Development Impact Fee Advisory Committee (DIFAC). TischlerBise and County staff met with the DIFAC during the process and provided information on land use assumptions, level of service and cost assumptions, and draft development impact fee schedules. This report reflects comments and feedback received from the DIFAC.

The County must develop and adopt a capital improvements plan (CIP) that includes those improvements for which fees were developed. The Idaho Act defines a capital improvement as an "improvement with a useful life of ten years or more, by new construction or other action, which increases the service capacity of a public facility." Requirements for the CIP are outlined in Idaho Code 67-8208. Certain procedural requirements must be followed for adoption of the CIP and the development impact fee ordinance. Requirements are described in detail in Idaho Code 67-8206. The County has a CIP that meets the above requirements.

TischlerBise recommends that development impact fees be updated annually to reflect recent data. One approach is to adjust for inflation in construction costs by means of an index like the RSMeans or Engineering News Record (ENR). This index can be applied against the calculated development impact fee. If cost estimates change significantly the County should evaluate an adjustment to the CIP and development impact fees.

Idaho's enabling legislation requires an annual development impact fees report that accounts for fees collected and spent during the preceding year (Idaho Code 67-8210). Development impact fees must be deposited in interest-bearing accounts earmarked for the associated capital facilities as outlined in capital improvements plans. Also, fees must be spent within eight years of when they are collected (on a first in, first out basis) unless the local governmental entity identifies in writing (a) a reasonable cause why the

fees should be held longer than eight years; and (b) an anticipated date by which the fees will be expended but in no event greater than eleven years from the date they were collected.

Credits must be provided for in accordance with Idaho Code Section 67-8209 regarding site-specific credits or developer reimbursements for system improvements that have been included in the development impact fee calculations. Project improvements normally required as part of the development approval process are not eligible for credits against development impact fees. Specific policies and procedures related to site-specific credits or developer reimbursements for system improvements should be addressed in the ordinance that establishes the County's fees.

The general concept is that developers may be eligible for site-specific credits or reimbursements only if they provide system improvements that have been included in CIP and development impact fee calculations. If a developer constructs a system improvement that was included in the fee calculations, it is necessary to either reimburse the developer or provide a credit against the fees in the area that benefits from the system improvement. The latter option is more difficult to administer because it creates unique fees for specific geographic areas. Based on TischlerBise's experience, it is better for a reimbursement agreement to be established with the developer that constructs a system improvement. For example, if a developer elects to construct a system improvement, then a reimbursement agreement can be established to payback the developer from future development impact fee revenue. The reimbursement agreement should be based on the actual documented cost of the system improvement, if less than the amount shown in the CIP. However, the reimbursement should not exceed the CIP amount that has been used in the development impact fee calculations.

APPENDIX A. LAND USE DEFINITIONS

RESIDENTIAL DEVELOPMENT

As discussed below, residential development categories are based on data from the U.S. Census Bureau, American Community Survey. Ada County will collect impact fees from all new residential units. One-time impact fees are determined by the number of residential units.

Single Family Units:

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 as long as 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.

Multifamily Units:

1. 2+ units (duplexes and apartments) are 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.”
2. Boat, RV, Van, etc. 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 CATEGORIES

Nonresidential development categories used throughout this study are based on land use classifications from the book Trip Generation (ITE, 2021). A summary description of each development category is provided below.

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

Office: Establishments providing management, administrative, professional, or business services. By way of example, Office includes business offices, office parks, and corporate headquarters.

Industrial: Establishments primarily engaged in the production and transportation of goods. By way of example, Industrial includes manufacturing plants, trucking companies, warehousing facilities, 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, hospitals, health care facilities, and government buildings.

APPENDIX B. DEMOGRAPHIC ASSUMPTIONS

The data estimates and projections used in the study's calculations are detailed in this section. This chapter includes discussion and findings on:

- Household/housing unit size
- Current population and housing unit estimates
- Residential projections
- Current employment and nonresidential floor area estimates
- Nonresidential projections
- Functional population
- Vehicle trip generation and projections

POPULATION AND HOUSING CHARACTERISTICS

Impact fees often use per capita standards and persons per housing unit or persons per household to derive proportionate share fee amounts. Housing types have varying household sizes and, consequently, a varying demand on County infrastructure and services. Thus, it is important to differentiate between housing types and size.

When persons per housing unit (PPHU) is used in the development impact fee calculations, infrastructure standards are derived using year-round population. In contrast, when persons per household (PPHH) is used in the development impact fee calculations, the fee methodology assumes all housing units will be occupied, thus requiring seasonal or peak population to be used when deriving infrastructure standards. Thus, TischlerBise recommends that fees for residential development in Ada County be imposed according to persons per housing units.

Based on housing characteristics, TischlerBise recommends using two housing unit categories for the Impact Fee study: (1) Single Family and (2) Multifamily. Each housing type has different characteristics which results in a different demand on County facilities and services. Figure 20 shows the US Census American Community Survey 2021 5-Year Estimates data for Ada County. Single family units have a housing unit size of 2.62 persons and multifamily units have a housing unit size of 1.81 persons. Additionally, there is a housing mix of 83 percent single family and 17 percent multifamily.

The estimates in Figure 20 are for household size calculations. Base year population and housing units are estimated with another, more recent data source.

Figure 20. Ada County Persons per Housing Unit

Housing Type	Persons	Housing Units	Persons per Housing Unit	Households	Persons per Household	Housing Unit Mix
Single Family [1]	415,557	158,890	**2.62**	153,711	2.70	83%
Multifamily [2]	59,917	33,161	**1.81**	31,014	1.93	17%
Total	475,474	192,051	**2.48**	184,725	2.57	

[1] Includes attached and detached single family homes and mobile homes
[2] Includes all other types
Source: U.S. Census Bureau, 2021 American Community Survey 5-Year Estimates

The US Census American Community Survey 2021 5-Year Estimates data for incorporated Ada County is shown in Figure 21. Single family units have a housing unit size of 2.59 persons and multifamily units have a housing unit size of 1.80 persons. Additionally, there is a housing mix of 81 percent single family and 19 percent multifamily.

Figure 21. Incorporated Ada County Persons per Housing Unit

Housing Type	Persons	Housing Units	Persons per Housing Unit	Households	Persons per Household	Housing Unit Mix
Single Family [1]	363,946	140,266	**2.59**	135,502	2.69	81%
Multifamily [2]	58,871	32,691	**1.80**	30,619	1.92	19%
Total	422,817	172,957	**2.44**	166,121	2.55	

[1] Includes attached and detached single family homes and mobile homes
[2] Includes all other types
Source: U.S. Census Bureau, 2021 American Community Survey 5-Year Estimates

The US Census American Community Survey 2021 5-Year-Estimates data for unincorporated Ada County is shown in Figure 22. Single family units have a housing unit size of 2.77 persons and multifamily units have a housing unit size of 2.23 persons. Additionally, there is a housing mix of 98 percent single family and 2 percent multifamily.

Figure 22. Unincorporated Ada County Persons per Housing Unit

Housing Type	Persons	Housing Units	Persons per Housing Unit	Households	Persons per Household	Housing Unit Mix
Single Family [1]	51,611	18,624	**2.77**	18,209	2.83	98%
Multifamily [2]	1,046	470	**2.23**	395	2.65	2%
Total	52,657	19,094	**2.76**	18,604	2.83	

[1] Includes attached and detached single family homes and mobile homes
[2] Includes all other types
Source: U.S. Census Bureau, 2021 American Community Survey 5-Year Estimates

BASE YEAR POPULATION AND HOUSING UNITS

Available through the Community Planning Association of Southwest Idaho (COMPASS), the base year 2023 population in Ada County is estimated to be 554,590 residents shown in Figure 23. PPHU factors for

Incorporated and Unincorporated Ada County were used to estimate base year housing units for the whole County. The housing unit mix for Ada County was then applied to the total giving an estimated 182,342 single family units and 37,833 multifamily units.

Figure 23. Ada County Base Year Population and Housing Units

Ada County	Base Year 2023
Population [1]	544,590
Housing Units [2]	
Single Family	182,342
Multifamily	37,833
Total Housing Units	220,175

[1] COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model
[2] U.S. Census Bureau, 2021 American Community Survey 5-Year Estimates, TischlerBise analysis

Available through COMPASS, the base year 2023 population in unincorporated Ada County is estimated to be 63,510 residents shown in Figure 24. PPHU factors for unincorporated Ada County were used to estimate base year housing units. The housing unit mix was then applied to the total giving an estimated 22,444 single family units and 566 multifamily units.

Figure 24. Unincorporated Ada County Base Year Population and Housing Units

Ada County Unincorporated	Base Year 2023
Population [1]	63,510
Housing Units [2]	
Single Family	22,444
Multifamily	566
Total Housing Units	23,011

[1] COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model
[2] U.S. Census Bureau, 2021 American Community Survey 5-Year Estimates, TischlerBise analysis

The population estimate for unincorporated Ada County from COMPASS was subtracted from the population estimate for the whole of Ada County to find the estimated base year population for incorporated Ada County. Shown in Figure 25 the estimated population is 481,080. PPHU factors for incorporated Ada County were used to estimate base year housing units. The housing unit mix was then applied to the total giving an estimated 159,898 single family units and 37,266 multifamily units.

Figure 25. Incorporated Ada County Base Year Population and Housing Units

Ada County Incorporated	Base Year 2023
Population [1]	481,080
Housing Units [2]	
Single Family	159,898
Multifamily	37,266
Total Housing Units	197,164

[1] COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model
[2] U.S. Census Bureau, 2021 American Community Survey 5-Year Estimates, TischlerBise analysis

POPULATION AND HOUSING UNIT PROJECTIONS

The residential projections are based on a review of COMPASS published estimates, impact fee studies from cities and fire districts within Ada County, and PPHU factors. Impact fee studies comprising the main six cities within Ada County were used to affirm growth trends for whole county projections. From the 2023 base year housing unit totals, Ada County is projected to increase by 50,296 housing units over the next ten years. Additionally, there is a projected increase of 125,397 residents over the next ten years, a 23 percent increase.

Figure 26. Ada County Residential Development Projections

Ada County	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Population	544,590	568,015	591,946	602,628	613,310	623,991	634,673	645,355	653,566	661,776	669,987	**125,397**
Percent Increase		*4.3%*	*4.2%*	*1.8%*	*1.8%*	*1.7%*	*1.7%*	*1.7%*	*1.3%*	*1.3%*	*1.2%*	***23.0%***
Housing Units												
Single Family	182,342	190,171	198,180	201,750	205,321	208,891	212,462	216,033	218,774	221,515	224,256	**41,914**
Multifamily	37,833	39,417	41,005	41,716	42,426	43,137	43,847	44,558	45,110	45,662	46,215	**8,382**
Total Housing Units	220,175	229,588	239,185	243,466	247,747	252,028	256,309	260,591	263,884	267,177	270,471	**50,296**

Source: COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model; City & Fire District Impact Fee Studies; TischlerBise analysis

From the 2023 base year housing unit totals for incorporated Ada County, there is a projected increase of 44,844 new housing units over the next ten years. Additionally, there is a projected increase of 110,415 residents in incorporated Ada County, a 23 percent increase.

Figure 27. Incorporated Ada County Residential Development Projections

Ada County Incorporated	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Population	481,080	502,024	523,414	532,767	542,119	551,471	560,823	570,174	577,281	584,388	591,495	**110,415**
Percent Increase		*4.4%*	*4.3%*	*1.8%*	*1.8%*	*1.7%*	*1.7%*	*1.7%*	*1.2%*	*1.2%*	*1.2%*	***23.0%***
Housing Units												
Single Family	159,898	166,853	173,967	177,075	180,183	183,291	186,399	189,507	191,866	194,226	196,586	**36,688**
Multifamily	37,266	38,822	40,383	41,072	41,761	42,450	43,139	43,828	44,359	44,891	45,423	**8,156**
Total Housing Units	197,164	205,676	214,350	218,147	221,944	225,741	229,538	233,334	236,226	239,117	242,008	**44,844**

Source: COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model; City & Fire District Impact Fee Studies; TischlerBise analysis

From the 2023 base year housing unit total for unincorporated Ada County, there is a projected increase 5,453 new housing units over the next ten years. Additionally, there is a projected increase of 14,982 residents in unincorporated Ada County, a 23.6 percent increase.

Figure 28. Unincorporated Ada County Residential Development Projections

Ada County Unincorporated	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Population	63,510	65,991	68,532	69,861	71,190	72,520	73,850	75,181	76,284	77,388	78,492	**14,982**
Percent Increase		*3.9%*	*3.8%*	*1.9%*	*1.9%*	*1.9%*	*1.8%*	*1.8%*	*1.5%*	*1.4%*	*1.4%*	***23.6%***
Housing Units												
Single Family	22,444	23,318	24,213	24,675	25,138	25,600	26,063	26,526	26,908	27,289	27,671	**5,227**
Multifamily	566	594	622	644	665	687	708	730	751	771	792	**226**
Total Housing Units	23,011	23,912	24,835	25,319	25,803	26,287	26,772	27,256	27,658	28,061	28,464	**5,453**

Source: COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model; City & Fire District Impact Fee Studies; TischlerBise analysis

CURRENT EMPLOYMENT AND NONRESIDENTIAL FLOOR AREA

The impact fee study will include nonresidential development as well. Available through COMPASS Job projections from the Traffic Analysis Zone Model (TAZ) and *Communities in Motion 2050* there are an estimated 239,668 jobs in Ada County in 2023. These job projections are broken down by industry leading to an estimated 43,787 retail jobs, 130,780 office jobs, 35,745 industrial jobs, and 29,356 institutional jobs in the base year.

Base year nonresidential floor area estimates are based on Ada County GIS nonresidential parcel data. There is an estimated 131 million square feet of nonresidential floor area in Ada County. Retail and industrial sectors account for the greatest share with approximately 32 percent each. Institutional accounts for 20 percent, and office accounts for 17 percent of the total.

Figure 29. Ada County Base Year Employment and Nonresidential Floor Area

Ada County	Base Year Jobs [1]	% of Total	Base Year Sq. Ft. [2]	% of Total
Retail	43,787	18%	41,938,153	32%
Office	130,780	55%	21,670,098	17%
Industrial	35,745	15%	41,668,221	32%
Institutional	29,356	12%	25,911,213	20%
Total	**239,668**	**100%**	**131,187,685**	**100%**

[1] COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model; Communities in Motion 2050
[2] Source: Ada County GIS parcel data

The job and nonresidential floor area estimates were further broken down into incorporated and unincorporated areas. Incorporated Ada County has an estimated 230,704 jobs in 2023. These job projections are broken down by industry leading to an estimated 42,925 retail jobs, 125,936 office jobs, 34,547 industrial jobs, and 27,296 institutional jobs in the base year. Additionally, there is an estimated 127 million square feet of nonresidential floor area in incorporated Ada County. Retail accounts for the greatest share at 32 percent. Industrial accounts for 31 percent, institutional accounts for 19 percent, and office accounts for 17 percent of the total.

Figure 30. Incorporated Ada County Base Year Employment and Nonresidential Floor Area

Ada County Incorporated	Base Year Jobs [1]	% of Total	Base Year Sq. Ft. [2]	% of Total
Retail	42,925	19%	41,286,649	32%
Office	125,936	55%	21,370,261	17%
Industrial	34,547	15%	39,887,518	31%
Institutional	27,296	12%	24,605,169	19%
Total	**230,704**	**100%**	**127,149,597**	**100%**

[1] COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model; Communities in Motion 2050
[2] Source: Ada County GIS parcel data

Unincorporated Ada County has an estimated 8,964 jobs in 2023. These job projections are broken down by industry leading to an estimated 862 retail jobs, 4,844 office jobs, 1,198 industrial jobs, and 2,060 institutional jobs in the base year. Additionally, there is an estimated 4 million square feet of nonresidential floor area in unincorporated Ada County. Industrial accounts for the greatest share at 44 percent. Institutional accounts for 32 percent, retail accounts for 16 percent, and office accounts for 7 percent.

Figure 31. Unincorporated Ada County Base Year Employment and Nonresidential Floor Area

Ada County Unincorporated	Base Year Jobs [1]	% of Total	Base Year Sq. Ft. [2]	% of Total
Retail	862	10%	651,504	16%
Office	4,844	54%	299,837	7%
Industrial	1,198	13%	1,780,703	44%
Institutional	2,060	23%	1,306,044	32%
Total	**8,964**	**100%**	**4,038,088**	**100%**

[1] COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model; Communities in Motion
[2] Source: Ada County GIS parcel data

EMPLOYMENT AND NONRESIDENTIAL FLOOR AREA PROJECTIONS

Job projections for the industry sectors are calculated with the Institution of Transportation Engineers' (ITE) square feet per employee averages shown in Figure 32. For retail industries the Shopping Center land use factors are used; for office the General Office factors are used; for industrial the Light Industrial factors are used; for institutional the Hospital factors are used.

Figure 32. Institute of Transportation Engineers (ITE) Employment Density Factors

Employment Industry	ITE Code	Land Use	Demand Unit	Emp per Dmd Unit	Sq. Ft. per Emp
Retail	820	Shopping Center	1,000 Sq Ft	2.12	471
Office	710	General Office	1,000 Sq Ft	3.26	307
Industrial	110	Light Industrial	1,000 Sq Ft	1.57	637
Institutional	610	Hospital	1,000 Sq Ft	2.86	350

Source: *Trip Generation* , Institute of Transportation Engineers, 11th Edition (2021)

Job and nonresidential growth projections over the next ten years for Ada County are shown in Figure 33. It is estimated there will be an increase of 43,283 jobs, an 18 percent increase from the base year. The majority of the increase comes from the office sector (54 percent).

The nonresidential floor area projections are calculated by applying the ITE square feet per employee factors to the job growth. In the next ten years, the nonresidential floor area is projected to increase by 17 million square feet (rounded), a 13 percent increase from the base year. The office sector has the largest share of this growth at 42 percent.

Figure 33. Ada County Employment and Nonresidential Floor Area Projections

Ada County	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Jobs [1]												
Retail	43,787	44,612	45,437	46,262	47,086	47,910	48,734	49,557	50,367	51,177	51,986	**8,199**
Office	130,780	133,132	135,483	137,835	140,186	142,538	144,889	147,241	149,556	151,872	154,187	**23,407**
Industrial	35,745	36,388	37,030	37,673	38,315	38,958	39,600	40,242	40,875	41,507	42,139	**6,394**
Institutional	29,356	29,884	30,413	30,943	31,472	32,003	32,533	33,064	33,588	34,113	34,639	**5,283**
Total	239,668	244,016	248,364	252,712	257,060	261,408	265,756	270,104	274,386	278,669	282,951	**43,283**
Nonresidential Floor Area (1,000 sq. ft.) [2]												
Retail	41,938	42,327	42,715	43,104	43,492	43,880	44,268	44,656	45,037	45,419	45,800	**3,862**
Office	21,670	22,392	23,114	23,836	24,558	25,280	26,002	26,724	27,434	28,145	28,856	**7,186**
Industrial	41,668	42,078	42,487	42,896	43,305	43,715	44,124	44,533	44,936	45,339	45,741	**4,073**
Institutional	25,911	26,096	26,281	26,467	26,652	26,838	27,023	27,209	27,392	27,576	27,760	**1,849**
Total	131,188	132,893	134,598	136,302	138,007	139,712	141,417	143,121	144,800	146,479	148,157	**16,970**

[1] COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model; Communities in Motion 2050; TischlerBise analysis
[2] Source: Institute of Transportation Engineers, *Trip Generation* , 2021

Job and nonresidential growth projections over the next ten years for incorporated Ada County are shown in Figure 34. It is estimated there will be an increase of 41,040 jobs, an 18 percent increase from the base year. The majority of the increase comes from the office sector (55 percent).

The nonresidential floor area projections are calculated by applying the ITE square feet per employee factors to the job growth. In the next ten years, the nonresidential floor area is projected to increase by 16.1 million square feet (rounded), a 13 percent increase from the base year. The office sector has the largest share of this growth at 43 percent.

Figure 34. Incorporated Ada County Employment and Nonresidential Floor Area Projections

Ada County Incorporated	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Jobs [1]												
Retail	42,925	43,696	44,466	45,236	46,004	46,772	47,539	48,306	49,059	49,811	50,561	**7,636**
Office	125,936	128,198	130,458	132,715	134,970	137,223	139,474	141,723	143,933	146,138	148,339	**22,403**
Industrial	34,547	35,168	35,787	36,407	37,025	37,643	38,261	38,878	39,484	40,089	40,693	**6,146**
Institutional	27,296	27,786	28,276	28,765	29,254	29,742	30,230	30,718	31,197	31,675	32,152	**4,856**
Total	230,704	234,848	238,987	243,123	247,254	251,381	255,505	259,624	263,673	267,712	271,744	**41,040**
Nonresidential Floor Area (1,000 sq. ft.) [2]												
Retail	41,287	41,650	42,013	42,375	42,737	43,099	43,460	43,821	44,176	44,530	44,883	**3,597**
Office	21,370	22,065	22,758	23,451	24,144	24,835	25,526	26,217	26,895	27,572	28,248	**6,878**
Industrial	39,888	40,283	40,678	41,072	41,466	41,860	42,253	42,646	43,032	43,418	43,802	**3,915**
Institutional	24,605	24,777	24,948	25,119	25,291	25,461	25,632	25,803	25,970	26,138	26,305	**1,699**
Total	127,150	128,774	130,397	132,018	133,637	135,255	136,872	138,487	140,074	141,657	143,238	**16,088**

[1] COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model; Communities in Motion 2050; TischlerBise analysis
[2] Source: Institute of Transportation Engineers, *Trip Generation* , 2021

Job and nonresidential growth projections over the next ten years for unincorporated Ada County are shown in Figure 35. It is estimated there will be an increase of 2,244 jobs, a 25 percent increase from the base year. The majority of the increase comes from the office sector (45 percent).

The nonresidential floor area projections are calculated by applying the ITE square feet per employee factors to the job growth. In the next ten years, the nonresidential floor area is projected to increase by 881,000 square feet, a 22 percent increase from the base year. The office sector has the largest share of this growth at 35 percent.

Figure 35. Unincorporated Ada County Employment and Nonresidential Floor Area Projections

Ada County Unincorporated	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Jobs [1]												
Retail	862	916	971	1,026	1,082	1,138	1,194	1,251	1,308	1,366	1,425	**563**
Office	4,844	4,934	5,025	5,120	5,216	5,315	5,415	5,518	5,623	5,734	5,849	**1,005**
Industrial	1,198	1,220	1,243	1,266	1,290	1,314	1,339	1,365	1,391	1,418	1,446	**248**
Institutional	2,060	2,098	2,137	2,177	2,218	2,260	2,303	2,347	2,391	2,438	2,487	**427**
Total	8,964	9,168	9,377	9,589	9,806	10,027	10,251	10,480	10,714	10,957	11,208	**2,244**
Nonresidential Floor Area (1,000 sq. ft.) [2]												
Retail	652	677	703	729	755	781	808	835	862	889	917	**265**
Office	300	327	356	384	414	444	475	507	539	573	608	**308**
Industrial	1,781	1,795	1,809	1,824	1,839	1,855	1,871	1,887	1,904	1,921	1,939	**158**
Institutional	1,306	1,319	1,333	1,347	1,361	1,376	1,391	1,406	1,422	1,438	1,456	**150**
Total	4,038	4,119	4,201	4,285	4,370	4,457	4,545	4,634	4,726	4,821	4,920	**881**

[1] COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model; Communities in Motion 2050; TischlerBise analysis
[2] Source: Institute of Transportation Engineers, *Trip Generation* , 2021

VEHICLE TRIP GENERATION

RESIDENTIAL VEHICLE TRIPS BY HOUSING TYPE

A customized trip rate is calculated for the single family and multifamily units in Ada County. In Figure 36, the most recent data from the US Census American Community Survey is inputted into equations provided by the ITE to calculate the trip ends per housing unit factor. A single family unit is estimated to generate 10.66 trip ends and a multifamily unit is estimated to generate 5.42 trip ends on an average weekday.

Figure 36. Customized Residential Trip End Rates by Housing Type

		Households by Structure Type[2]			
Tenure by Units in Structure	Vehicles Available[1]	Single Family	Multifamily	Total	Vehicles per HH by Tenure
Owner-Occupied	289,778	129,602	1,468	131,070	2.21
Renter-Occupied	85,906	24,109	29,546	53,655	1.60
Total	375,684	153,711	31,014	184,725	2.03
	Housing Units[3]	158,890	33,161	192,051	

Housing Type	Persons in Households[4]	Trip Ends[5]	Vehicles by Type of Unit	Trip Ends[6]	Average Trip Ends	Local Trip Ends per HH	National Trip Ends per Unit[7]
Single Family	415,557	1,157,628	324,995	2,118,200	1,637,914	**10.66**	9.43
Multifamily	59,917	137,129	50,518	199,334	168,231	**5.42**	4.54
Total	475,474	1,294,757	375,513	2,317,534	1,806,145	**9.78**	

1. Vehicles available by tenure from Table B25046, 2021 American Community Survey 5-Year Estimates.
2. Households by tenure and units in structure from Table B25032, 2021 American Community Survey 5-Year Estimates.
3. Housing units from Table B25024, 2021 American Community Survey 5-Year Estimates.
4. Total population in households from Table B25033, 2021 American Community Survey 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 19 and the equation result multiplied by 19. For multi-family housing (ITE 221), the fitted curve equation is (2.29*persons)-81.02 (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(0.99*LN(vehicles)+1.93). To approximate the average number of vehicles in the ITE studies, vehicles available were divided by 34 and the equation result multiplied by 34. For multi-family housing (ITE 221), the fitted curve equation is (3.94*vehicles)+293.58 (ITE 2021).
7. Trip Generation, Institute of Transportation Engineers, 11th Edition (2021).

RESIDENTIAL VEHICLE TRIPS ADJUSTMENT FACTORS

A vehicle trip end is the out-bound or in-bound leg of a vehicle trip. As a result, so to not double count trips, a standard 50 percent adjustment is applied to trip ends to calculate a vehicle trip. For example, the out-bound trip from a person's home to work is attributed to the housing unit and the trip from work back home is attributed to the employer.

However, an additional adjustment is necessary to capture County residents' work bound trips that are outside of the County. The trip adjustment factor includes two components. According to the National Household Travel Survey, home-based work trips are typically 31 percent of out-bound trips (which are 50 percent of all trip ends). Also, utilizing the most recent data from the Census Bureau's web application "OnTheMap", 17 percent of Ada County workers travel outside the County for work. In combination, these factors account for 3 percent of additional production trips (0.31 x 0.50 x 0.17 = 0.03). Shown in Figure 37, the total adjustment factor for residential housing units includes attraction trips (50 percent of trip ends) plus the journey-to-work commuting adjustment (3 percent of production trips) for a total of 53 percent.

Figure 37. Residential Trip Adjustment Factor for Commuters

Trip Adjustment Factor for Commuters

Employed Ada County Residents (2020)	212,011
Residents Working in Ada County (2020)	175,359
Residents Commuting Outside of Ada County for Work	36,652
Percent Commuting Out of Ada County	17%
Additional Production Trips	**3%**

Standard Trip Adjustment Factor	**50%**
Residential Trip Adjustment Factor	**53%**

Source: U.S. Census, OnTheMap Application, 2020

NONRESIDENTIAL VEHICLE TRIPS

Vehicle trip generation for nonresidential land uses are calculated by using ITE's average daily trip end rates and adjustment factors found in their recently published 11th edition of Trip Generation. To estimate the trip generation in Ada County, the weekday trip end per 1,000 square feet factors listed in Figure 38 are used.

Figure 38. Institute of Transportation Engineers Nonresidential Factors

Employment Industry	ITE Code	Land Use	Demand Unit	Wkdy Trip Ends per Dmd Unit	Wkdy Trip Ends per Employee
Retail	820	Shopping Center	1,000 Sq Ft	37.01	17.42
Office	710	General Office	1,000 Sq Ft	10.84	3.33
Industrial	110	Light Industrial	1,000 Sq Ft	4.87	3.10
Institutional	610	Hospital	1,000 Sq Ft	10.77	3.77

Source: *Trip Generation* , Institute of Transportation Engineers, 11th Edition (2021)

For nonresidential land uses, the standard 50 percent adjustment is applied to office, industrial, and institutional land uses. A lower vehicle trip adjustment factor is used for retail uses because this type of development attracts vehicles as they pass-by on arterial and collector roads. For example, when someone stops at a convenience store on their way home from work, the convenience store is not their primary destination. In Figure 39, the Institute for Transportation Engineers' land use code, daily vehicle trip end rate, and trip adjustment factor is listed for each land use.

Figure 39. Daily Vehicle Trip Factors

Land Use	ITE Codes	Daily Vehicle Trip Ends	Trip Adj. Factor	Daily Vehicle Trips
Residential (per housing unit)				
Single Family	210	10.66	53%	5.65
Multifamily	220	5.42	53%	2.87
Nonresidential (per 1,000 square feet)				
Retail	820	37.01	38%	14.06
Office	710	10.84	50%	5.42
Industrial	110	4.87	50%	2.44
Institutional	610	10.77	50%	5.39

Source: *Trip Generation* , Institute of Transportation Engineers, 11th Edition (2021); 'National Household Travel Survey, 2009

VEHICLE TRIP PROJECTIONS

The base year vehicle trip totals and vehicle trip projections are calculated by combining the vehicle trip end factors, the trip adjustment factors, and the residential and nonresidential assumptions for housing stock and floor area. Countywide, residential land uses account for 1,138,874 vehicle trips and nonresidential land uses account for 948,256 vehicle trips in the base year shown in Figure 40.

Through 2033, it is projected that daily vehicle trips will increase by 374,018 trips with the majority of the growth being generated by single family (63 percent) and retail (15 percent) development.

Figure 40. Ada County Vehicle Trip Projections

Ada County	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Residential Trips												
Single Family	1,030,196	1,074,429	1,119,675	1,139,848	1,160,022	1,180,195	1,200,368	1,220,542	1,236,029	1,251,516	1,267,003	**236,807**
Multifamily	108,679	113,228	117,791	119,832	121,873	123,915	125,956	127,997	129,583	131,170	132,756	**24,077**
Subtotal	1,138,874	1,187,658	1,237,466	1,259,681	1,281,895	1,304,110	1,326,324	1,348,539	1,365,612	1,382,685	1,399,759	**260,884**
Nonresidential Trips												
Retail	589,810	595,277	600,742	606,204	611,664	617,121	622,576	628,029	633,398	638,762	644,120	**54,310**
Office	117,452	121,365	125,278	129,191	133,103	137,016	140,929	144,841	148,694	152,547	156,400	**38,948**
Industrial	101,462	102,459	103,456	104,452	105,449	106,445	107,442	108,438	109,419	110,399	111,380	**9,918**
Institutional	139,532	140,528	141,524	142,522	143,521	144,520	145,520	146,521	147,509	148,498	149,489	**9,957**
Subtotal	948,256	959,629	971,000	982,369	993,737	1,005,103	1,016,467	1,027,830	1,039,020	1,050,206	1,061,389	**113,134**
Vehicle Trips												
Grand Total	2,087,130	2,147,286	2,208,466	2,242,050	2,275,632	2,309,212	2,342,791	2,376,368	2,404,632	2,432,892	2,461,148	**374,018**

Source: Institute of Transportation Engineers, *Trip Generation* , 11th Edition (2021)

In incorporated Ada County, residential land uses account for 1,010,441 vehicle trips and nonresidential land uses account for 926,099 vehicle trips in the base year shown in Figure 41.

Through 2033, it is projected that daily vehicle trips will increase by 337,251 trips with the majority of the growth being generated by single family (61 percent) and retail (15 percent) development.

Figure 41. Incorporated Ada County Vehicle Trip Projections

Ada County Incorporated	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Residential Trips												
Single Family	903,389	942,688	982,879	1,000,440	1,018,000	1,035,559	1,053,117	1,070,675	1,084,006	1,097,336	1,110,670	**207,281**
Multifamily	107,051	111,521	116,004	117,983	119,963	121,942	123,921	125,899	127,427	128,954	130,481	**23,429**
Subtotal	1,010,441	1,054,210	1,098,883	1,118,423	1,137,962	1,157,500	1,177,038	1,196,575	1,211,433	1,226,289	1,241,151	**230,710**
Nonresidential Trips												
Retail	580,647	585,754	590,856	595,953	601,044	606,131	611,213	616,291	621,280	626,259	631,228	**50,580**
Office	115,827	119,591	123,351	127,107	130,859	134,608	138,353	142,095	145,772	149,442	153,103	**37,277**
Industrial	97,126	98,089	99,050	100,011	100,970	101,929	102,887	103,843	104,784	105,722	106,658	**9,532**
Institutional	132,499	133,423	134,346	135,268	136,189	137,110	138,029	138,948	139,851	140,752	141,651	**9,152**
Subtotal	926,099	936,857	947,603	958,338	969,063	979,778	990,482	1,001,177	1,011,687	1,022,174	1,032,640	**106,541**
Vehicle Trips												
Grand Total	1,936,539	1,991,066	2,046,486	2,076,761	2,107,025	2,137,278	2,167,520	2,197,752	2,223,120	2,248,464	2,273,791	**337,251**

Source: Institute of Transportation Engineers, *Trip Generation* , 11th Edition (2021)

In unincorporated Ada County, residential land uses account for 128,434 vehicle trips and nonresidential land uses account for 22,157 vehicle trips in the base year shown in Figure 42.

Through 2033, it is projected that daily vehicle trips will increase by 36,772 trips with the majority of the growth being generated by single family (80 percent) and retail (10 percent) development.

Figure 42. Unincorporated Ada County Vehicle Trip Projections

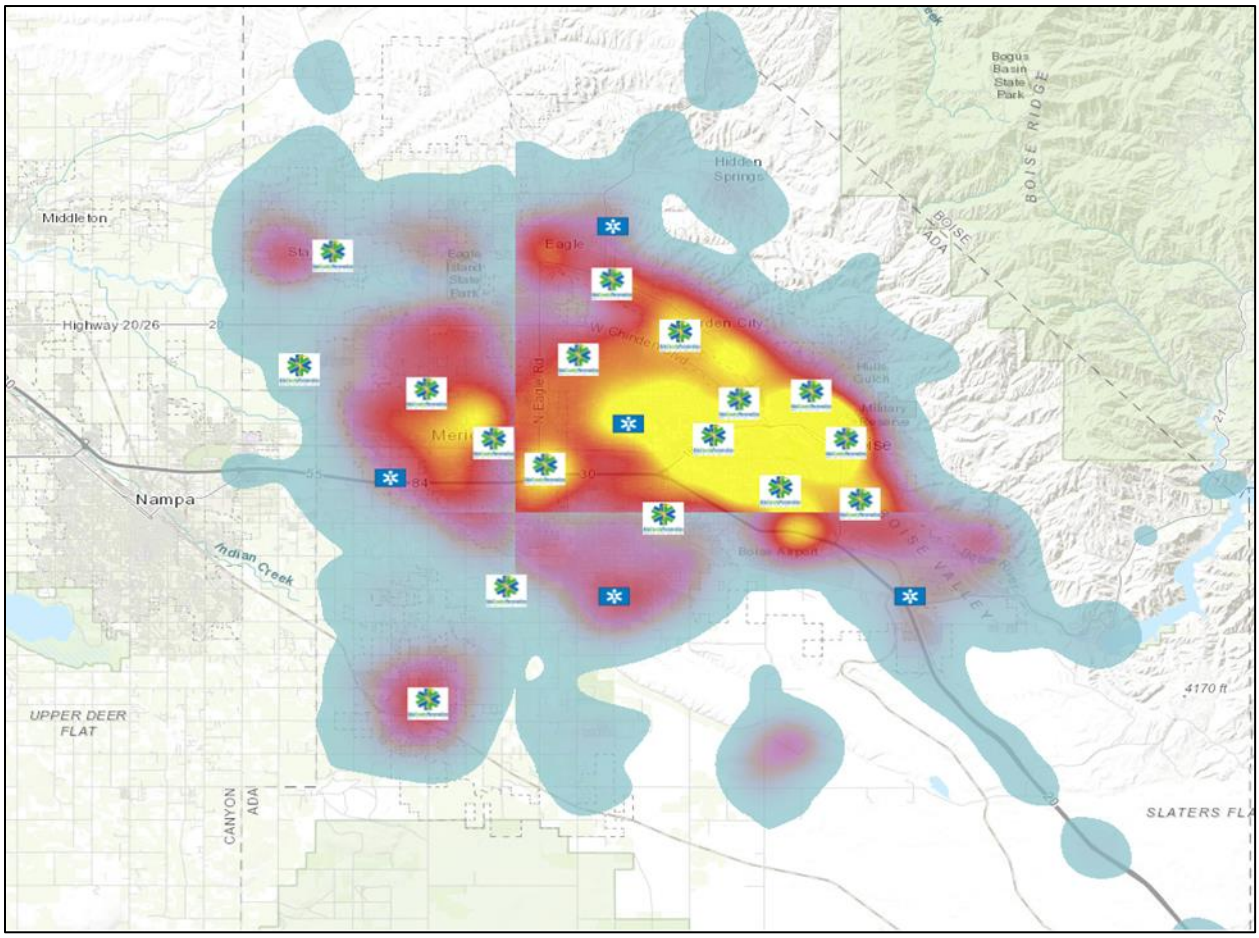
Ada County Unincorporated	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Residential Trips												
Single Family	126,807	131,741	136,796	139,409	142,022	144,636	147,251	149,866	152,023	154,180	156,338	**29,532**
Multifamily	1,627	1,707	1,787	1,849	1,911	1,973	2,035	2,097	2,157	2,216	2,275	**648**
Subtotal	128,434	133,448	138,583	141,258	143,933	146,609	149,286	151,964	154,179	156,396	158,613	**30,180**
Nonresidential Trips												
Retail	9,163	9,523	9,886	10,251	10,619	10,990	11,363	11,739	12,118	12,503	12,893	**3,730**
Office	1,625	1,774	1,927	2,084	2,244	2,408	2,575	2,746	2,922	3,106	3,297	**1,672**
Industrial	4,336	4,370	4,406	4,442	4,479	4,517	4,555	4,594	4,635	4,677	4,721	**385**
Institutional	7,033	7,105	7,178	7,254	7,331	7,410	7,491	7,573	7,658	7,746	7,838	**805**
Subtotal	22,157	22,772	23,397	24,031	24,673	25,325	25,985	26,652	27,333	28,032	28,749	**6,592**
Vehicle Trips												
Grand Total	150,591	156,220	161,980	165,288	168,606	171,934	175,271	178,616	181,512	184,428	187,363	**36,772**

Source: Institute of Transportation Engineers, *Trip Generation* , 11th Edition (2021)

APPENDIX C. EMERGENCY MEDICAL SERVICES CALL VOLUME DENSITY HEAT MAP

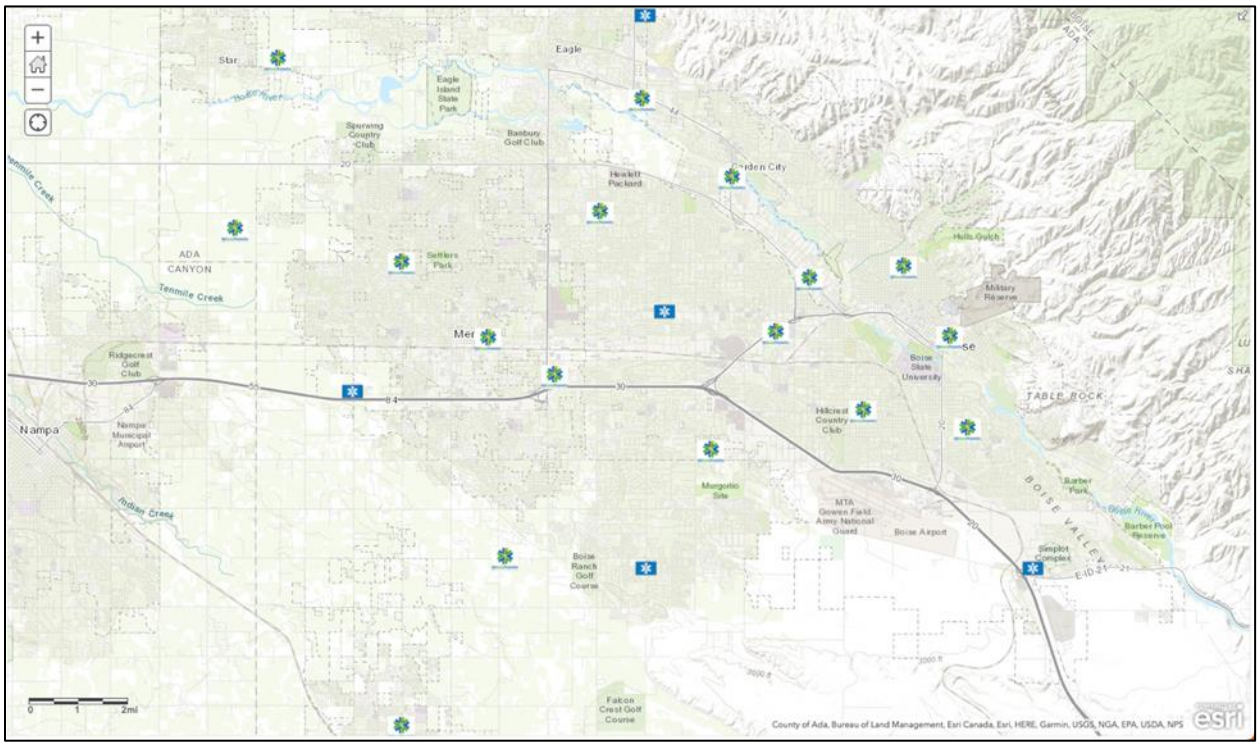
Shown below in Figure 43 is a heat map showing call volume density for Ada County EMS. Red and yellow areas indicate higher call volume. The heat map illustrates areas where station space will be needed to address future demand from growth.

Figure 43. EMS Call Volume Density



Below in Figure 44 is the 10 Year planned placement of future stations to maintain the current level of service and accommodate growth.

Figure 44. EMS Future Station Placement



Job and nonresidential growth projections over the next ten years for incorporated Ada County are shown in Figure 28. It is estimated there will be an increase of 41,040 jobs, an 18 percent increase from the base year. The majority of the increase comes from the office sector (55 percent).

The nonresidential floor area projections are calculated by applying the ITE square feet per employee factors to the job growth. In the next ten years, the nonresidential floor area is projected to increase by 16.1 million square feet (rounded), a 13 percent increase from the base year. The office sector has the largest share of this growth at 43 percent.

Figure 28. Incorporated Ada County Employment and Nonresidential Floor Area Projections

Ada County Incorporated	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Jobs [1]												
Retail	42,925	43,696	44,466	45,236	46,004	46,772	47,539	48,306	49,059	49,811	50,561	**7,636**
Office	125,936	128,198	130,458	132,715	134,970	137,223	139,474	141,723	143,933	146,138	148,339	**22,403**
Industrial	34,547	35,168	35,787	36,407	37,025	37,643	38,261	38,878	39,484	40,089	40,693	**6,146**
Institutional	27,296	27,786	28,276	28,765	29,254	29,742	30,230	30,718	31,197	31,675	32,152	**4,856**
Total	230,704	234,848	238,987	243,123	247,254	251,381	255,505	259,624	263,673	267,712	271,744	**41,040**
Nonresidential Floor Area (1,000 sq. ft.) [2]												
Retail	41,287	41,650	42,013	42,375	42,737	43,099	43,460	43,821	44,176	44,530	44,883	**3,597**
Office	21,370	22,065	22,758	23,451	24,144	24,835	25,526	26,217	26,895	27,572	28,248	**6,878**
Industrial	39,888	40,283	40,678	41,072	41,466	41,860	42,253	42,646	43,032	43,418	43,802	**3,915**
Institutional	24,605	24,777	24,948	25,119	25,291	25,461	25,632	25,803	25,970	26,138	26,305	**1,699**
Total	127,150	128,774	130,397	132,018	133,637	135,255	136,872	138,487	140,074	141,657	143,238	**16,088**

[1] COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model; Communities in Motion 2050; TischlerBise analysis
[2] Source: Institute of Transportation Engineers, *Trip Generation* , 2021

Job and nonresidential growth projections over the next ten years for unincorporated Ada County are shown in Figure 29. It is estimated there will be an increase of 2,244 jobs, a 25 percent increase from the base year. The majority of the increase comes from the office sector (45 percent).

The nonresidential floor area projections are calculated by applying the ITE square feet per employee factors to the job growth. In the next ten years, the nonresidential floor area is projected to increase by 881,000 square feet, a 22 percent increase from the base year. The office sector has the largest share of this growth at 35 percent.

Figure 29. Unincorporated Ada County Employment and Nonresidential Floor Area Projections

Ada County Unincorporated	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Jobs [1]												
Retail	862	916	971	1,026	1,082	1,138	1,194	1,251	1,308	1,366	1,425	**563**
Office	4,844	4,934	5,025	5,120	5,216	5,315	5,415	5,518	5,623	5,734	5,849	**1,005**
Industrial	1,198	1,220	1,243	1,266	1,290	1,314	1,339	1,365	1,391	1,418	1,446	**248**
Institutional	2,060	2,098	2,137	2,177	2,218	2,260	2,303	2,347	2,391	2,438	2,487	**427**
Total	8,964	9,168	9,377	9,589	9,806	10,027	10,251	10,480	10,714	10,957	11,208	**2,244**
Nonresidential Floor Area (1,000 sq. ft.) [2]												
Retail	652	677	703	729	755	781	808	835	862	889	917	**265**
Office	300	327	356	384	414	444	475	507	539	573	608	**308**
Industrial	1,781	1,795	1,809	1,824	1,839	1,855	1,871	1,887	1,904	1,921	1,939	**158**
Institutional	1,306	1,319	1,333	1,347	1,361	1,376	1,391	1,406	1,422	1,438	1,456	**150**
Total	4,038	4,119	4,201	4,285	4,370	4,457	4,545	4,634	4,726	4,821	4,920	**881**

[1] COMPASS (Community Planning Association of Southwest Idaho) Traffic Analysis Zone Model; Communities in Motion 2050; TischlerBise analysis
[2] Source: Institute of Transportation Engineers, *Trip Generation* , 2021

VEHICLE TRIP GENERATION

RESIDENTIAL VEHICLE TRIPS BY HOUSING TYPE

A customized trip rate is calculated for the single family and multifamily units in Ada County. In Figure 30, the most recent data from the US Census American Community Survey is inputted into equations provided by the ITE to calculate the trip ends per housing unit factor. A single family unit is estimated to generate 10.66 trip ends and a multifamily unit is estimated to generate 5.42 trip ends on an average weekday.

Figure 30. Customized Residential Trip End Rates by Housing Type

		Households by Structure Type[2]			
Tenure by Units in Structure	Vehicles Available[1]	Single Family	Multifamily	Total	Vehicles per HH by Tenure
Owner-Occupied	289,778	129,602	1,468	131,070	2.21
Renter-Occupied	85,906	24,109	29,546	53,655	1.60
Total	375,684	153,711	31,014	184,725	2.03
	Housing Units[3]	158,890	33,161	192,051	

Housing Type	Persons in Households[4]	Trip Ends[5]	Vehicles by Type of Unit	Trip Ends[6]	Average Trip Ends	Local Trip Ends per HH	National Trip Ends per Unit[7]
Single Family	415,557	1,157,628	324,995	2,118,200	1,637,914	**10.66**	9.43
Multifamily	59,917	137,129	50,518	199,334	168,231	**5.42**	4.54
Total	475,474	1,294,757	375,513	2,317,534	1,806,145	**9.78**	

1. Vehicles available by tenure from Table B25046, 2021 American Community Survey 5-Year Estimates.
2. Households by tenure and units in structure from Table B25032, 2021 American Community Survey 5-Year Estimates.
3. Housing units from Table B25024, 2021 American Community Survey 5-Year Estimates.
4. Total population in households from Table B25033, 2021 American Community Survey 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 19 and the equation result multiplied by 19. For multi-family housing (ITE 221), the fitted curve equation is (2.29*persons)-81.02 (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(0.99*LN(vehicles)+1.93). To approximate the average number of vehicles in the ITE studies, vehicles available were divided by 34 and the equation result multiplied by 34. For multi-family housing (ITE 221), the fitted curve equation is (3.94*vehicles)+293.58 (ITE 2021).
7. Trip Generation, Institute of Transportation Engineers, 11th Edition (2021).

RESIDENTIAL VEHICLE TRIPS ADJUSTMENT FACTORS

A vehicle trip end is the out-bound or in-bound leg of a vehicle trip. As a result, so to not double count trips, a standard 50 percent adjustment is applied to trip ends to calculate a vehicle trip. For example, the out-bound trip from a person's home to work is attributed to the housing unit and the trip from work back home is attributed to the employer.

However, an additional adjustment is necessary to capture County residents' work bound trips that are outside of the County. The trip adjustment factor includes two components. According to the National Household Travel Survey, home-based work trips are typically 31 percent of out-bound trips (which are 50 percent of all trip ends). Also, utilizing the most recent data from the Census Bureau's web application "OnTheMap", 17 percent of Ada County workers travel outside the County for work. In combination, these factors account for 3 percent of additional production trips (0.31 x 0.50 x 0.17 = 0.03). Shown in Figure 31, the total adjustment factor for residential housing units includes attraction trips (50 percent of trip ends) plus the journey-to-work commuting adjustment (3 percent of production trips) for a total of 53 percent.

Figure 31. Residential Trip Adjustment Factor for Commuters

Trip Adjustment Factor for Commuters

Employed Ada County Residents (2020)	212,011
Residents Working in Ada County (2020)	175,359
Residents Commuting Outside of Ada County for Work	36,652
Percent Commuting Out of Ada County	17%
Additional Production Trips	**3%**

Standard Trip Adjustment Factor	**50%**
Residential Trip Adjustment Factor	**53%**

Source: U.S. Census, OnTheMap Application, 2020

NONRESIDENTIAL VEHICLE TRIPS

Vehicle trip generation for nonresidential land uses are calculated by using ITE's average daily trip end rates and adjustment factors found in their recently published 11th edition of Trip Generation. To estimate the trip generation in Ada County, the weekday trip end per 1,000 square feet factors listed in Figure 32 are used.

Figure 32. Institute of Transportation Engineers Nonresidential Factors

Employment Industry	ITE Code	Land Use	Demand Unit	Wkdy Trip Ends per Dmd Unit	Wkdy Trip Ends per Employee
Retail	820	Shopping Center	1,000 Sq Ft	37.01	17.42
Office	710	General Office	1,000 Sq Ft	10.84	3.33
Industrial	110	Light Industrial	1,000 Sq Ft	4.87	3.10
Institutional	610	Hospital	1,000 Sq Ft	10.77	3.77

Source: *Trip Generation* , Institute of Transportation Engineers, 11th Edition (2021)

For nonresidential land uses, the standard 50 percent adjustment is applied to office, industrial, and institutional land uses. A lower vehicle trip adjustment factor is used for retail uses because this type of development attracts vehicles as they pass-by on arterial and collector roads. For example, when someone stops at a convenience store on their way home from work, the convenience store is not their primary destination. In Figure 33, the Institute for Transportation Engineers' land use code, daily vehicle trip end rate, and trip adjustment factor is listed for each land use.

Figure 33. Daily Vehicle Trip Factors

Land Use	ITE Codes	Daily Vehicle Trip Ends	Trip Adj. Factor	Daily Vehicle Trips
Residential (per housing unit)				
Single Family	210	10.66	53%	5.65
Multifamily	220	5.42	53%	2.87
Nonresidential (per 1,000 square feet)				
Retail	820	37.01	38%	14.06
Office	710	10.84	50%	5.42
Industrial	110	4.87	50%	2.44
Institutional	610	10.77	50%	5.39

Source: *Trip Generation* , Institute of Transportation Engineers, 11th Edition (2021); 'National Household Travel Survey, 2009

VEHICLE TRIP PROJECTIONS

The base year vehicle trip totals and vehicle trip projections are calculated by combining the vehicle trip end factors, the trip adjustment factors, and the residential and nonresidential assumptions for housing stock and floor area. Countywide, residential land uses account for 1,138,874 vehicle trips and nonresidential land uses account for 948,256 vehicle trips in the base year shown in Figure 34.

Through 2033, it is projected that daily vehicle trips will increase by 374,018 trips with the majority of the growth being generated by single family (63 percent) and retail (15 percent) development.

Figure 34. Ada County Vehicle Trip Projections

Ada County	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Residential Trips												
Single Family	1,030,196	1,074,429	1,119,675	1,139,848	1,160,022	1,180,195	1,200,368	1,220,542	1,236,029	1,251,516	1,267,003	**236,807**
Multifamily	108,679	113,228	117,791	119,832	121,873	123,915	125,956	127,997	129,583	131,170	132,756	**24,077**
Subtotal	1,138,874	1,187,658	1,237,466	1,259,681	1,281,895	1,304,110	1,326,324	1,348,539	1,365,612	1,382,685	1,399,759	**260,884**
Nonresidential Trips												
Retail	589,810	595,277	600,742	606,204	611,664	617,121	622,576	628,029	633,398	638,762	644,120	**54,310**
Office	117,452	121,365	125,278	129,191	133,103	137,016	140,929	144,841	148,694	152,547	156,400	**38,948**
Industrial	101,462	102,459	103,456	104,452	105,449	106,445	107,442	108,438	109,419	110,399	111,380	**9,918**
Institutional	139,532	140,528	141,524	142,522	143,521	144,520	145,520	146,521	147,509	148,498	149,489	**9,957**
Subtotal	948,256	959,629	971,000	982,369	993,737	1,005,103	1,016,467	1,027,830	1,039,020	1,050,206	1,061,389	**113,134**
Vehicle Trips												
Grand Total	2,087,130	2,147,286	2,208,466	2,242,050	2,275,632	2,309,212	2,342,791	2,376,368	2,404,632	2,432,892	2,461,148	**374,018**

Source: Institute of Transportation Engineers, *Trip Generation* , 11th Edition (2021)

In incorporated Ada County, residential land uses account for 1,010,441 vehicle trips and nonresidential land uses account for 926,099 vehicle trips in the base year shown in Figure 35.

Through 2033, it is projected that daily vehicle trips will increase by 337,251 trips with the majority of the growth being generated by single family (61 percent) and retail (15 percent) development.

Figure 35. Incorporated Ada County Vehicle Trip Projections

Ada County Incorporated	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Residential Trips												
Single Family	903,389	942,688	982,879	1,000,440	1,018,000	1,035,559	1,053,117	1,070,675	1,084,006	1,097,336	1,110,670	**207,281**
Multifamily	107,051	111,521	116,004	117,983	119,963	121,942	123,921	125,899	127,427	128,954	130,481	**23,429**
Subtotal	1,010,441	1,054,210	1,098,883	1,118,423	1,137,962	1,157,500	1,177,038	1,196,575	1,211,433	1,226,289	1,241,151	**230,710**
Nonresidential Trips												
Retail	580,647	585,754	590,856	595,953	601,044	606,131	611,213	616,291	621,280	626,259	631,228	**50,580**
Office	115,827	119,591	123,351	127,107	130,859	134,608	138,353	142,095	145,772	149,442	153,103	**37,277**
Industrial	97,126	98,089	99,050	100,011	100,970	101,929	102,887	103,843	104,784	105,722	106,658	**9,532**
Institutional	132,499	133,423	134,346	135,268	136,189	137,110	138,029	138,948	139,851	140,752	141,651	**9,152**
Subtotal	926,099	936,857	947,603	958,338	969,063	979,778	990,482	1,001,177	1,011,687	1,022,174	1,032,640	**106,541**
Vehicle Trips												
Grand Total	1,936,539	1,991,066	2,046,486	2,076,761	2,107,025	2,137,278	2,167,520	2,197,752	2,223,120	2,248,464	2,273,791	**337,251**

Source: Institute of Transportation Engineers, *Trip Generation* , 11th Edition (2021)

In unincorporated Ada County, residential land uses account for 128,434 vehicle trips and nonresidential land uses account for 22,157 vehicle trips in the base year shown in Figure 36.

Through 2033, it is projected that daily vehicle trips will increase by 36,772 trips with the majority of the growth being generated by single family (80 percent) and retail (10 percent) development.

Figure 36. Unincorporated Ada County Vehicle Trip Projections

Ada County Unincorporated	Base Year 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total Increase
Residential Trips												
Single Family	126,807	131,741	136,796	139,409	142,022	144,636	147,251	149,866	152,023	154,180	156,338	**29,532**
Multifamily	1,627	1,707	1,787	1,849	1,911	1,973	2,035	2,097	2,157	2,216	2,275	**648**
Subtotal	128,434	133,448	138,583	141,258	143,933	146,609	149,286	151,964	154,179	156,396	158,613	**30,180**
Nonresidential Trips												
Retail	9,163	9,523	9,886	10,251	10,619	10,990	11,363	11,739	12,118	12,503	12,893	**3,730**
Office	1,625	1,774	1,927	2,084	2,244	2,408	2,575	2,746	2,922	3,106	3,297	**1,672**
Industrial	4,336	4,370	4,406	4,442	4,479	4,517	4,555	4,594	4,635	4,677	4,721	**385**
Institutional	7,033	7,105	7,178	7,254	7,331	7,410	7,491	7,573	7,658	7,746	7,838	**805**
Subtotal	22,157	22,772	23,397	24,031	24,673	25,325	25,985	26,652	27,333	28,032	28,749	**6,592**
Vehicle Trips												
Grand Total	150,591	156,220	161,980	165,288	168,606	171,934	175,271	178,616	181,512	184,428	187,363	**36,772**

Source: Institute of Transportation Engineers, *Trip Generation* , 11th Edition (2021)