2021 Development Impact Fees

Prepared for:
City of Hailey, Idaho

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EXECUTIVE SUMMARY

DP Guthrie, LLC was hired to update development impact fees for the City of Hailey. Recommended facilities for impact fee funding include park improvements and paths/trails that have a citywide service area, fire station expansion plus apparatus, and multimodal street improvements along with additional rolling stock.

In contrast to project improvements, impact fees are intended to fund system improvements that benefit the entire service area by increasing infrastructure capacity. By law, impact fees can only be used for capital improvements, not operating or maintenance costs. Impact fees are subject to legal standards that satisfy three key tests: need, benefit, and proportionality.

- First, to justify a fee for public facilities, local government must demonstrate 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 should not exceed a development's proportionate share of the capital cost.

As documented in this report, the City of Hailey has complied with applicable legal precedents. Impact fees are proportionate and reasonably related to the capital improvement demands of new development. Specific costs have been identified using local data and current dollars. With input from City staff, DP Guthrie, LLC determined service units for each type of infrastructure and calculated proportionate share factors to allocate costs by type of development. This report documents the formulas and input variables used to calculate the impact fees for each type of public facility. Impact fee methodologies also identify the extent to which new development is entitled to various types of credits to avoid potential double payment of growth-related capital costs.

The Idaho Development Impact Fee Act (Idaho Code Title 67 Chapter 82) sets forth "an equitable program for planning and financing public facilities needed to serve new growth." The enabling legislation calls for three integrated products: 1) Land Use Assumptions (LUA) for at least 20 years, 2) Capital Improvements Plan (CIP), and 3) Development Impact Fees (DIFs). The LUA (see Appendix A) documents current estimates and projected increases in population and housing units, along with service units by residential size thresholds. In addition, the CIP and DIF for fire and street facilities require demographic data on nonresidential development. This document includes nonresidential land use assumptions such as jobs and floor area within the City of Hailey.

The CIP and DIF are in the middle section of this report, organized by chapters pertaining to each public facility type (i.e., parks/paths, fire, and streets). Each chapter documents existing infrastructure standards, the projected need for improvements to accommodate new development, the updated DIF compared to current fees, revenue projections, and a CIP listing specific improvements to be completed by the City of Hailey.

General Methods

There are three general methods for calculating development impact fees. The choice of a particular method depends primarily on the timing of infrastructure construction (past, concurrent, or future) and service characteristics of the facility type being addressed. Each method has advantages and disadvantages in a particular situation, and can be used simultaneously for different cost components.

Reduced to its simplest terms, the process of calculating development 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, the calculation of impact fees can become quite complicated due to many variables involved in defining the relationship between development and the need for facilities within the designated service area. The following paragraphs discuss three basic methods for calculating development impact fees and how those methods can be applied.

Cost Recovery (past improvements)

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

Incremental Expansion (concurrent improvements)

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

Plan-Based Fee (future improvements)

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

Credits

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

Unique Requirements of the Idaho Impact Fee Act

The Idaho Development Impact Fee Act has several requirements not common in the enabling legislation of other states. This overview summarizes these unique requirements, which have been met by the City of Hailey, as documented in this study. 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 [see 67-8208]. The CIP requirements are summarized in this report, with more detailed information maintained by City staff responsible for each type of infrastructure funded by impact fees. Third, the Idaho Act states the cost per

service unit (i.e., impact fee) may not exceed the cost of growth-related system improvements divided by the number of projected service units attributable to new development [see 67-8204(16)]. Fourth, Idaho requires a proportionate share determination [see 67-8207]. The City of Hailey has complied by considering various types of applicable credits that may reduce the capital costs attributable to new development. Fifth, Idaho requires a Development Impact Fee Advisory Committee established to: a) assist in adopting land use assumptions, b) review the CIP and file written comments, c) monitor and evaluate implementation of the CIP, d) file periodic reports on perceived inequities in implementing the plan or imposing DIFs, and e) advise the governmental entity of the need to update the LUA, CIP and DIF study.

Proposed Impact Fees

Figure 1 summarizes the methods and cost components used for each type of public facility in Hailey's impact fee study. After consideration of input during work sessions and public hearings, City Council may change the proposed impact fees by eliminating infrastructure types, cost components, and/or specific capital improvements. If changes are made during the adoption process, DP Guthrie, LLC will update the fee study to be consistent with legislative policy decisions.

Figure 1: Proposed Fee Methods and Cost Components

Type of Impact Fee	*Service Area*	*Plan-Based (future)*	*Cost Allocation*
Parks and Paths	Citywide	Park Improvements and Paths/Trails	Population
Fire	Citywide	Fire Apparatus and Station Expansion	Functional Population and Jobs
Streets	Citywide	Multi-modal Improvements and Rolling Stock	Vehicle Miles of Travel

Figure 2 summarizes proposed 2021 impact fees for new development in the City of Hailey. As discussed in Appendix A, DP Guthrie, LLC recommends that residential fees be imposed by dwelling size, based on heated and finished floor area. The residential size thresholds in the 2016 impact fee schedule start at 1000 square feet or less, then increase by increments of 600 square feet, with the upper end being 2801 or more square feet. The 2021 update extends the lower and upper size ranges, using increments of 400 square feet.

For nonresidential development, impact fees are stated per 1,000 square feet of floor area. Nonresidential development categories, defined below, represent general groups of land uses with a similar number of service units per development unit (e.g., average weekday vehicle trip ends per thousand square feet of floor area). For unique development types, Hailey may allow or require an independent impact fee assessment.

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

- Commercial: Establishments primarily selling merchandise, eating/drinking places, and entertainment uses. By way of example, Commercial includes shopping centers, supermarkets, pharmacies, restaurants, bars, nightclubs, automobile dealerships, and movie theaters.
- Institutional: Public and quasi-public buildings providing educational, social assistance, or religious services. By way of example, Institutional includes schools, universities, churches, daycare facilities, and government buildings.
- Office and Other Services: Establishments providing management, administrative, professional, or business services; personal and health care services; and lodging facilities. By way of example, Office and Other Services includes banks, business offices; hotels and motels; assisted-living facilities, nursing homes and hospitals.

Figure 2: 2021 Hailey Impact Fee Schedule

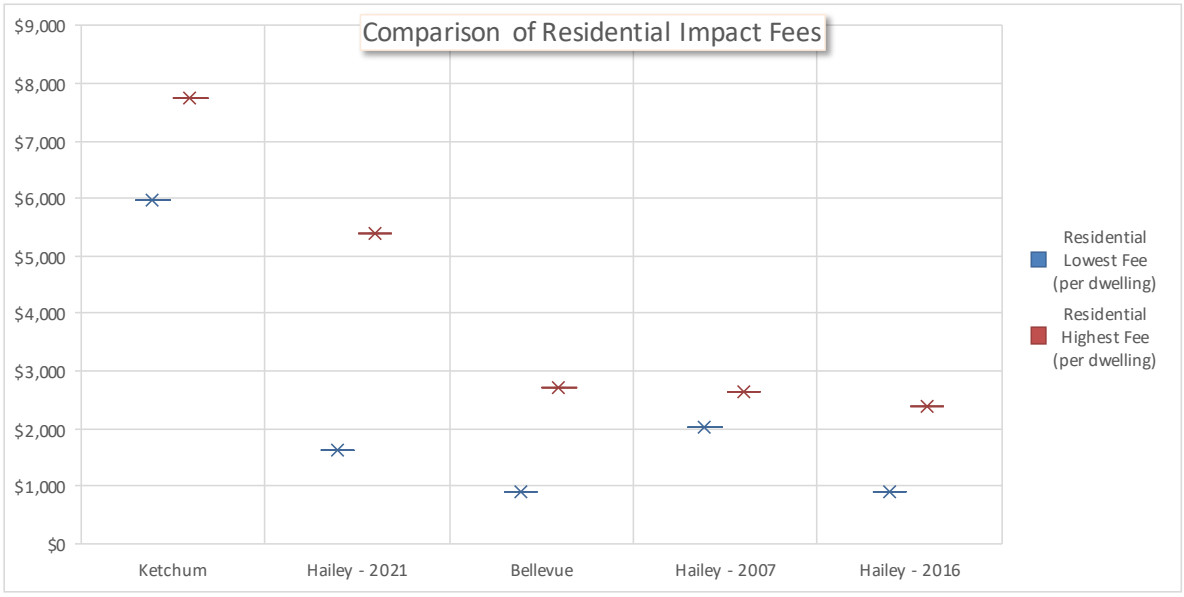
Citywide Service Area	*Parks and Paths*	*Fire*	*Streets*	*CIP*	***Proposed Total***	*Current Fee*	Increase / (Decrease)
Residential (per dwelling unit) by Finished Square Feet							
600 or less	$533	$136	$929	$22	**$1,620**	$881	$739
601 to 1000	$720	$184	$1,224	$30	**$2,158**	$881	$1,277
1001 to 1400	$907	$232	$1,519	$38	**$2,696**	$1,486	$1,210
1401 to 1800	$1,095	$280	$1,814	$46	**$3,235**	$1,893	$1,342
1801 to 2200	$1,282	$328	$2,109	$54	**$3,773**	$1,893	$1,880
2201 to 2600	$1,469	$376	$2,404	$62	**$4,311**	$2,202	$2,109
2601 to 3000	$1,656	$424	$2,699	$70	**$4,849**	$2,375	$2,474
3001 or more	$1,843	$472	$2,994	$78	**$5,387**	$2,375	$3,012
Nonresidential (per 1,000 Square Feet of Floor Area)							
Industrial	$0	$214	$718	$34	**$966**	$918	$48
Commercial	$0	$315	$2,760	$51	**$3,126**	$2,313	$813
Institutional	$0	$85	$1,697	$13	**$1,795**	$953	$842
Office & Other Services	$0	$400	$1,780	$65	**$2,245**	$1,400	$845

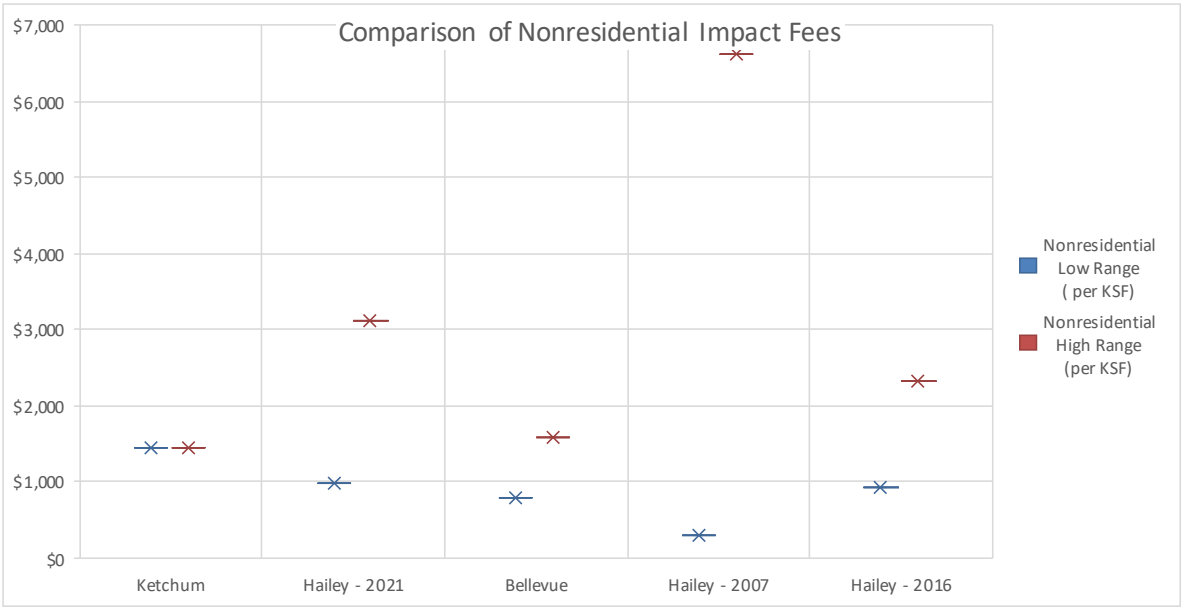
Fee Comparison with Adjacent Communities

Figure 3 provides a comparison of DIFs in Ketchum, Bellevue, and Hailey in 2007, 2016 and proposed fees for 2021. High and low values for each jurisdiction are plotted in the chart.

Figure 3: Impact Fees in Comparable Communities

City	*Types of Infrastructure Excluding Utilities*	*Residential Size Thresholds*	*Residential Lowest Fee (per dwelling)*	*Residential Highest Fee (per dwelling)*	*Nonresidential Categories*	*Nonresidential Low Range (per KSF)*	*Nonresidential High Range (per KSF)*
Ketchum	4	2 types	$5,976	$7,735	1	$1,444	$1,444
Hailey - 2021	4	8	$1,620	$5,387	4	$966	$3,126
Bellevue	8	5	$908	$2,724	3	$794	$1,583
Hailey - 2007	5	2 types	$2,010	$2,629	16	$280	$6,640
Hailey - 2016	4	5	$881	$2,375	4	$918	$2,313





PARKS AND PATHS CIP AND IMPACT FEES

As specified in 67-8203(29), development impact fees in Hailey exclude costs to repair, upgrade, update, expand or replace existing capital improvements to provide better service to existing development. The City's Comprehensive Plan, Municipal Code, and website describe existing public facilities. Existing parks and paths/trails are fully utilized and there is no surplus capacity for future development. Recommended improvements needed to accommodate additional development are listed in Figure 4. Total impact fee funding of $2,410,971 represents a growth share of 36%, requiring $4,271,285 from other revenue sources over the next 20 years.

Figure 4: CIP for Parks and Recreation

Description	*Year 1-5*	*Year 6-10*	*Total Cost*	*Impact Fee Share**	*Impact Fee Funding*
Park Play Structure Expansions		$350,000	$350,000	22%	$77,000
Balmoral Scooter Park Improvements	$250,000		$250,000	22%	$55,000
Greenway Master Plan Projects	$200,000		$200,000	22%	$44,000
Croy Canyon Road Side Path Grant Match	$150,000		$150,000	22%	$33,000
Restrooms at Lions Park		$100,000	$100,000	22%	$22,000
Road and Parking Improvements at Lions Park		$50,000	$50,000	22%	$11,000
East Croy Pathway TAP Match	$47,696		$47,696	22%	$10,493
Subtotal =>	$647,696	$500,000	$1,147,696		**$252,493**
Town Square - Land Acquisition*	$1,600,000		$1,600,000	39%	$624,000
Town Square - Construction*		$1,600,000	$1,600,000	39%	$624,000
Campground - Land acquisition*	$1,500,000		$1,500,000	39%	$585,000
Campground - Construction Cost*		$834,560	$834,560	39%	$325,478
Subtotal =>	$3,100,000	$2,434,560	$5,534,560		**$2,158,478**
TOTAL	$3,747,696	$2,934,560	$6,682,256	**36%**	$2,410,971
Funding from Other Revenue Sources =>			$4,271,285		
Share from Other Sources =>			64%		

** Projects funded by impact fees over 20 years have a larger growth share based on projected population.*

Revenue Credit Evaluation

A credit for future revenue is only necessary if there is potential double payment for the growth share of system improvements needed to accommodate new development. The City of Hailey plans to partially fund future improvements from impact fees. Because no additional revenues are required for the growth share of improvements for parks and paths, a revenue credit is not required.

Proposed Impact Fees for Parks and Paths

Figure 5 indicates cost factors for the proposed parks and paths impact fee. Proposed fees by dwelling size, measured in square feet of finished living space, are equal to the average number of persons per housing unit multiplied by the capital cost per person. For example, a residential unit that has 600 or less square feet would pay a fee of $533 (truncated) based on an average of 1.14 persons per housing unit multiplied by a capital cost of $468 per person.

Figure 5: Impact Fee Schedule for Parks and Paths

Input Variables	*Paid Over*		
	10 Years	*20 Years*	*Total*
Growth Cost of CIP =>	$252,493	$2,158,478	$2,410,971
Residential Share	100%	100%	
Additional Service Units (population)	2,557	5,830	
Cost per Person	$98	$370	$468

Residential (per housing unit)

Finished Square Feet	*Persons per Hsg Unit*	*Proposed Fee*	*Current Fee*	Increase / (Decrease)
600 or less	1.14	$533	$92	$441
601 to 1000	1.54	$720	$92	$628
1001 to 1400	1.94	$907	$171	$736
1401 to 1800	2.34	$1,095	$225	$870
1801 to 2200	2.74	$1,282	$225	$1,057
2201 to 2600	3.14	$1,469	$265	$1,204
2601 to 3000	3.54	$1,656	$288	$1,368
3001 or more	3.94	$1,843	$288	$1,555

Funding Strategy for Parks and Paths

Figure 6 summarizes growth-related parks and paths improvements to be constructed in Hailey over the next ten years. Impact fee revenue will provide approximately $1.2 million for park improvements and paths. As shown in the lower portion of the table, the expected ten-year increase of 1,035 housing units will provide impact fee revenue that approximates the growth cost of system improvements. This revenue projection is based on the demographic data described in Appendix A and the proposed fee amount for an average residential unit. To the extent the rate of development either accelerates or slows down, there will be a corresponding change in impact fee revenue and the need for growth-related capital improvements.

Figure 6: Summary of Growth Costs and Revenue for Parks and Paths

Growth Share of Parks and Paths CIP

Short-term improvements	$252,493	
Long-term improvements	$1,079,239	<= half shown to match ten-year revenue projection
Total	$1,331,732	

		Residential $1,155 per housing unit
	Year	*Hsg Units*
Base	2021	3,696
Year 1	2022	3,788
Year 2	2023	3,883
Year 3	2024	3,980
Year 4	2025	4,080
Year 5	2026	4,182
Year 6	2027	4,286
Year 7	2028	4,393
Year 8	2029	4,503
Year 9	2030	4,616
Year 10	2031	4,731
	Ten-Yr Increase	1,035
Projected Revenue (rounded) =>		$1,195,000

FIRE CIP AND IMPACT FEES

DP Guthrie, LLC recommends functional population to allocate the cost of additional fire apparatus and station expansion to residential and nonresidential development (see Figure 7). Functional population is similar to what the U.S. Census Bureau calls "daytime population," by accounting for people living and working in a jurisdiction, but also considers commuting patterns and time spent at home versus nonresidential locations. Residents that don't work are assigned 20 hours per day to residential development and four hours per day to nonresidential development (annualized averages). Residents that work in Hailey are assigned 14 hours to residential development and 10 hours to nonresidential development. Residents that work outside Hailey are assigned 14 hours to residential development. Inflow commuters are assigned 10 hours to nonresidential development. Based on 2018 data from the U.S. Census Bureau, the cost allocation for residential development is 75% while nonresidential development accounts for 25% of the demand for fire infrastructure.

Figure 7: Functional Population

		Demand Units in 2018		*Demand Hours/Day*	*Person Hours*
Residential					
	Population*	8,568			
61%	Residents Not Working		5,260	20	105,200
39%	Resident Workers**		3,308		
23%	Worked in City**		769	14	10,766
77%	Worked Outside City**		2,539	14	35,546
				Residential Subtotal	151,512
				Residential Share =>	**75%**
Nonresidential					
	Non-working Residents		5,260	4	21,040
	Jobs Located in City**		3,060		
	Residents Working in City**		769	10	7,690
	Non-Resident Workers (inflow commuters)		2,291	10	22,910
				Nonresidential Subtotal	51,640
				Nonresidential Share =>	**25%**
				TOTAL	203,152

** 2018 U.S. Census Bureau population estimate.*
*** 2018 Inflow/Outflow Analysis, OnTheMap web application, U.S. Census Bureau data for all jobs.*

Fire Infrastructure Needs

As specified in 67-8203(29), development impact fees in Hailey exclude costs to repair, upgrade, update, expand or replace existing capital improvements to provide better service to existing development. The City's Comprehensive Plan, Municipal Code, and website describe existing public facilities. The current inventory of fire apparatus is fully utilized and there is no surplus capacity for future development. To accommodate projected development over the next ten years, Hailey will purchase new fire apparatus. As shown in Figure 8, the projected growth share is only 20% of the apparatus cost, thus obligating the City to use other revenue sources to fully fund the planned improvement. In Years 6-10, Hailey plans to expand the fire station and acquire a ladder truck, which will be funded by impact fees to be collected over the next 20 years. The weighted average growth share for the entire CIP is 31%.

Figure 8: Growth-Related Need for Fire Facilities

Description	*Year 1-5*	*Year 6-10*	*Total Cost*	*Impact Fee Share**	*Impact Fee Funding*
Paid Over 10 Years					
Fire Apparatus	$725,000		$725,000	20%	$145,000
Paid Over 20 Years					
Ladder Truck		$1,200,000	$1,200,000	35%	$420,000
Fire Station Expansion		$552,000	$552,000	35%	$193,200
TOTAL	$725,000	$1,752,000	$2,477,000	**31%**	$758,200
Funding from Other Revenue Sources =>			$1,718,800		
Share from Other Sources =>			69%		

** Projects funded by impact fees over 20 years have a larger growth share based on projected population plus jobs.*

Proposed Fire Impact Fees

Figure 9 indicates proposed impact fees for fire facilities in Hailey. Residential fees are derived from average number of persons per housing unit and the cost per person. Nonresidential fees are based on average jobs per 1,000 square feet of floor area and the cost per job. The cost factors for fire facilities are summarized in the upper portion of Figure 9. Persons per unit, by dwelling size, are based on local data, as discussed in Appendix A. For nonresidential development, average jobs per thousand square feet of floor area are documented in Figures A3-A4 and related text.

Proposed development fees for fire facilities are shown in the column with light orange shading. To derive the proposed fee for residential development, multiply average persons per housing unit by the cost per person. For example, the impact fee for a dwelling of 600 square feet or less would be 1.14 x $120, or $136 (truncated). For a new warehouse with 100,000 square feet of floor area, the proposed fee would be $214 x 100, or $21,400.

Figure 9: DIF Schedule for Fire

Input Variables	*Paid Over*					
	10 Years		*20 Years*		*Total*	
Growth Cost of CIP =>	$145,000		$613,200		$758,200	
	Residential	Nonresidential	Residential	Nonresidential		
Cost Allocation	75%	25%	75%	25%		
Additional Service Units	2,557	786	5,830	1,707		
	Person	Job	Person	Job	Person	Job
Cost per Service Unit	$42	$46	$78	$89	$120	$135

Residential (per housing unit)

Finished Square Feet	*Persons per Hsg Unit*	*Proposed Fee*	*Current Fee*	Increase / (Decrease)	% Change
600 or less	1.14	$136	$120	$16	13%
601 to 1000	1.54	$184	$120	$64	53%
1001 to 1400	1.94	$232	$224	$8	4%
1401 to 1800	2.34	$280	$294	($14)	-5%
1801 to 2200	2.74	$328	$294	$34	12%
2201 to 2600	3.14	$376	$347	$29	8%
2601 to 3000	3.54	$424	$377	$47	12%
3001 or more	3.94	$472	$377	$95	25%

Nonresidential (per 1,000 square feet of building)

Type	*Jobs per 1,000 Sq Ft*	*Proposed Fee*	*Current Fee*	Increase / (Decrease)	% Change
Industrial	1.59	$214	$297	($83)	-28%
Commercial	2.34	$315	$258	$57	22%
Institutional	0.63	$85	$126	($41)	-33%
Office & Other Services	2.97	$400	$428	($28)	-7%

Funding Strategy for Fire Facilities

Revenue projections shown in Figure 10 assume implementation of the proposed fire fees and that development over the next ten years is consistent with the land use assumptions described in Appendix A. To the extent the rate of development either accelerates or slows down, there will be a corresponding change in the development fee revenue.

The expected ten-year increase in development units will provide impact fee revenue that approximates the growth cost of system improvements. As shown in the column on the right below, Hailey expects to add 90,000 square feet of "Office & Other Services" over the next ten years. This nonresidential development category includes business and personal services, such as medical offices and health care facilities. Office & Other Services are projected to pay approximately $36,000 in fire impact fees over the next ten years.

Figure 10: Growth Costs and Fee Revenue for Fire Facilities

Growth Share of Fire CIP

Short-term improvements	$145,000	
Long-term improvements	$306,600	<= half shown to match ten-year revenue projection
Total	$451,600	

		Residential $296 per housing unit	*Industrial* $214 per 1000 Sq Ft	*Commercial* $315 per 1000 Sq Ft	*Insitutional* $85 per 1000 Sq Ft	*Office & Other Services* $400 per 1000 Sq Ft
	Year	*Hsg Units*	*Sq Ft x 1000*	*Sq Ft x 1000*	*Sq Ft x 1000*	*Sq Ft x 1000*
Base	2021	3,696	660	450	1,330	550
Year 1	2022	3,788	670	460	1,350	560
Year 2	2023	3,883	680	470	1,370	560
Year 3	2024	3,980	690	470	1,390	570
Year 4	2025	4,080	700	480	1,410	580
Year 5	2026	4,182	720	490	1,440	590
Year 6	2027	4,286	730	500	1,460	600
Year 7	2028	4,393	740	510	1,480	610
Year 8	2029	4,503	750	510	1,510	620
Year 9	2030	4,616	760	520	1,530	630
Year 10	2031	4,731	770	530	1,560	640
	Ten-Yr Increase	1,035	110	80	230	90
	Projected Fees =>	$306,000	$24,000	$25,000	$20,000	$36,000
	Total Projected Revenue (rounded) =>		$411,000			

STREETS CIP AND IMPACT FEES

Impact fees for streets are derived using a plan-based approach for growth-related improvements. The streets impact fee is derived from trip generation rates, trip rate adjustment factors, and the growth cost of capital improvements per vehicle mile of travel. The latter is a function of the average trip length, trip-length weighting factor, and growth share of street improvements. Each component is described below.

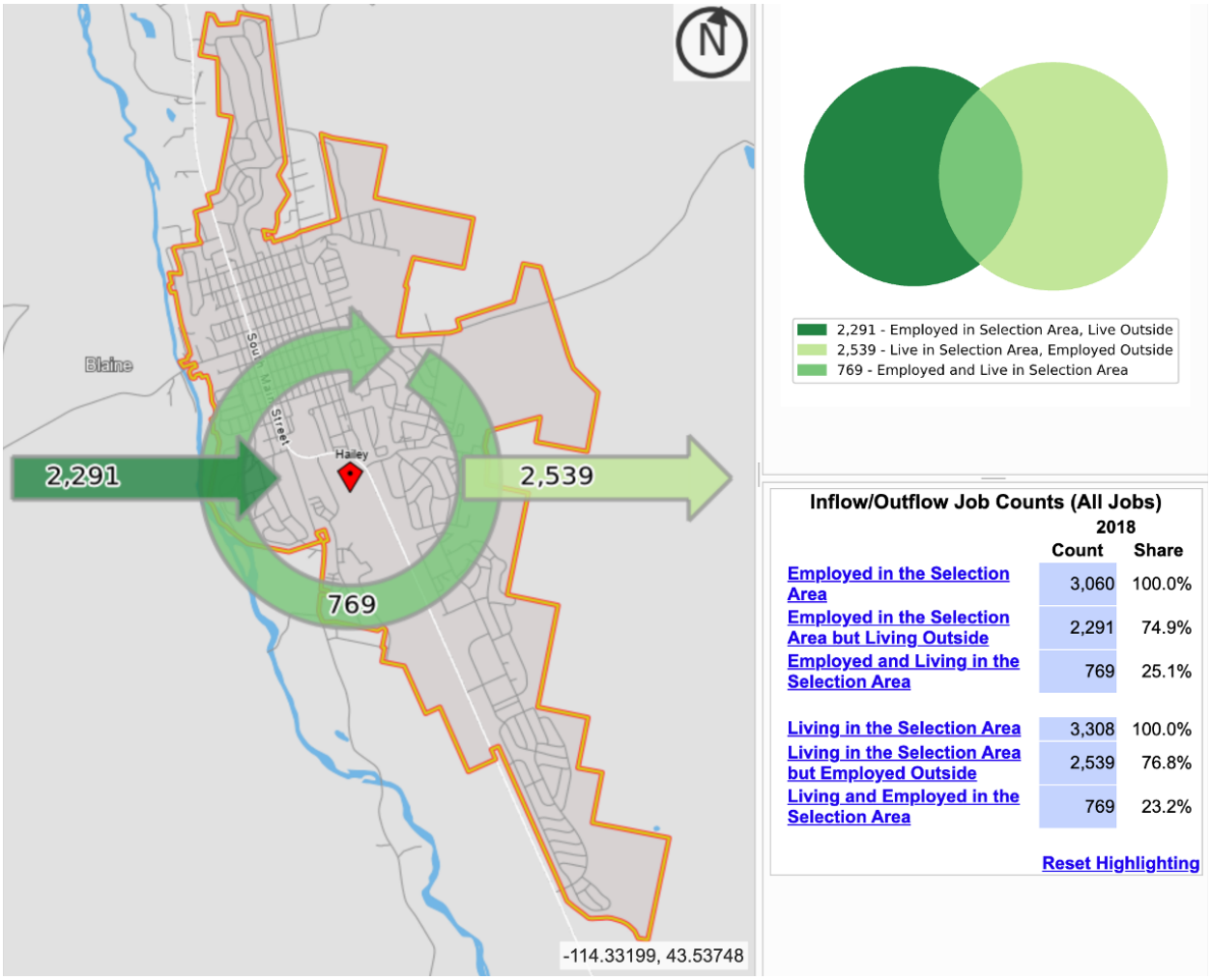
Trip Generation Rates

Hailey's street impact fees are based on average weekday vehicle trip ends. Trip generation rates are from the reference book Trip Generation published by the Institute of Transportation Engineers (ITE 10th Edition 2017). A vehicle trip end represents a vehicle either entering or exiting a development (as if a traffic counter were placed across a driveway). To calculate street impact fees, trip generation rates require an adjustment factor to avoid double counting each trip at both the origin and destination points. Therefore, the basic trip adjustment factor is 50%. As discussed further below, the impact fee methodology includes additional adjustments to make the fees proportionate to the infrastructure demand for particular types of development.

Adjustments for Commuting Patterns and Pass-By Trips

Residential development has a larger trip adjustment factor of 59% to account for commuters leaving Hailey for work. According to the 2017 National Household Travel Survey, weekday work trips are typically 22.8% of production trips (i.e., all out-bound trips, which are 50% of trip-ends). As shown in Figure 11, the Census Bureau's web application OnTheMap indicates that 76.8% of resident workers traveled outside the city for work in 2018. In combination, these factors (0.228 x 0.50 x 0.768 = 0.09) support the additional 9% allocation of trips to residential development.

Figure 11: Inflow/Outflow Analysis



For commercial development, the trip adjustment factor is less than 50% because retail development and some services, like schools, attract vehicles as they pass by on arterial and collector roads. For example, when someone stops at a convenience store on the way home from work, the convenience store is not the primary destination. For the average shopping center, ITE indicates that 34% of the vehicles that enter are passing by on their way to some other primary destination. The remaining 66% of attraction trips have the commercial site as their primary destination. Because attraction trips are half of all trips, the trip adjustment factor is 66% multiplied by 50%, or approximately 33% of the trip ends. As documented in Appendix B, DP Guthrie, LLC recommends a pass-by adjustment of 24% for smaller commercial development, which is typical in Hailey.

Vehicle Miles of Travel

A Vehicle Mile of Travel (VMT) is a measurement unit equal to one vehicle traveling one mile. In the aggregate, VMT is the product of vehicle trips multiplied by the average trip length[1]. The average trip length in Hailey is calibrated using data on existing infrastructure and a lane capacity standard (discussed below).

Lane Capacity

Street impact fees are based on a lane capacity standard of 2,900 vehicles per lane, based on a two lane, undivided, signalized, non-state arterial with a posted speed limit of 35 miles per hour or slower, operating at Level-Of-Service (LOS) "C". The lane capacity standard was reviewed by City staff and found to be consistent with actual traffic counts on Hailey arterials.

Trip Length Weighting Factor by Type of Land Use

The streets impact fee methodology includes a percentage adjustment, or weighting factor, to account for trip length variation by type of land use. As documented in the 2017 National Household Travel Survey, vehicle trips from residential development are approximately 114% of the average trip length. The residential trip length adjustment factor includes data on home-based work trips, social, and recreational purposes. Conversely, shopping trips associated with commercial development are roughly 75% of the average trip length, while other nonresidential development typically accounts for trips that are 90% of the average for all trips.

Development Prototypes and Projected Travel Demand

The relationship between the amount of development in Hailey and system improvements is documented below. Figure 12 summarizes the input variables used to determine the average trip length on Hailey arterials and collectors. In the table below HU means housing units, KSF means square feet of nonresidential development, in thousands, Institute of Transportation Engineers is abbreviated ITE, and VTE means vehicle trip ends. Trip generation rates by bedroom range are documented in Appendix A.

Projected development in Hailey over the next 20 years, and the corresponding need for additional lane miles, is shown in the middle section of Figure 12. Trip generation rates and trip adjustment factors convert projected development into average weekday vehicle trips. A typical vehicle trip, such as a person leaving their home and traveling to work, generally begins on a local street that connects to a collector street, which connects to an arterial road and eventually to a state or interstate highway. This progression of travel up and down the functional classification chain limits the average trip length determination, for the purpose of impact fees, to the following question, "What is the average vehicle trip length on impact fee system improvements?" Given the relatively minor increase in Hailey's street network since the previous impact fee study, an average trip length of approximately 3.2 miles was evaluated an held constant in the 2021 impact fee update.

[1] Typical VMT calculations for development-specific traffic studies, along with most transportation models of an entire urban area, are derived from traffic counts on particular road segments multiplied by the length of that road segment. For the purpose of impact fees, VMT calculations are based on attraction (inbound) trips to development located in the service area, with the trip lengths calibrated to the road network considered to be system improvements. This refinement eliminates pass-through or external- external trips, and travel on roads that are not system improvements (e.g., state highways).

Figure 12: Projected Travel Demand and Trip Length Calibration

Travel Model Inputs	*ITE Code*	*Dev Type*	*Weekday VTE*	*Dev Unit*	*Trip Adj*	*Trip Length Wt Factor*
R1	210	Residential	7.13	HU	59%	1.14
NR1	140	Industrial	3.93	KSF	50%	0.90
NR2	820	Commercial	37.75	KSF	24%	0.75
NR3	530	Institutional	14.07	KSF	33%	0.90
NR4	710	Office & Other Services	9.74	KSF	50%	0.90
Avg Trip Length (miles)	3.20					
Capacity Per Lane	2,900					

Year->	*Base*	*1*	*2*	*3*	*4*	*5*	*10*	*20*	*20-Year*
Hailey Land Use Assumptions	*2021*	*2022*	*2023*	*2024*	*2025*	*2026*	*2031*	*2041*	*Increase*
Residential Units	3,696	3,788	3,883	3,980	4,080	4,182	4,731	6,056	2,360
Industrial KSF	660	670	680	690	700	720	770	910	250
Commercial KSF	450	460	470	470	480	490	530	620	170
Institutional KSF	1,330	1,350	1,370	1,390	1,410	1,440	1,560	1,820	490
Office & Other Services KSF	550	560	560	570	580	590	640	750	200
Residential Trips	15,548	15,935	16,335	16,743	17,163	17,592	19,902	25,476	
Industrial Trips	1,297	1,317	1,336	1,356	1,376	1,415	1,513	1,788	
Commercial Trips	4,077	4,168	4,258	4,258	4,349	4,439	4,802	5,617	
Institutional Trips	6,175	6,268	6,361	6,454	6,547	6,686	7,243	8,450	
Office & Other Services Trips	2,679	2,727	2,727	2,776	2,825	2,873	3,117	3,653	
Total Vehicle Trips	29,776	30,415	31,017	31,587	32,259	33,006	36,577	44,984	
Vehicle Miles of Travel (VMT)	95,738	97,831	99,831	101,784	104,000	106,437	118,321	146,423	**50,685**
						VMT Increase over 20 Years =>			35%

Planned Street Improvements

As specified in 67-8203(29), development impact fees in Hailey exclude costs to repair, upgrade, update, expand or replace existing capital improvements to provide better service to existing development. The City's Comprehensive Plan, Municipal Code, and website describe existing public facilities. The inventory of arterial and collector streets is fully utilized and there is no surplus capacity for future development.

Planned transportation improvements are listed in Figure 13. Even though the projects recommended for impact fee funding are selected from Hailey's CIP, the "need" for improvements is more difficult to determine for streets than for utility systems. The key difference is that water and sewer utilities are closed systems, but a street network is an open system. The demand for street capacity can be influenced by development units outside the service area and by what is known as "triple convergence." In essence, this concept acknowledges that street capacity is consumed by drivers changing their time, route, and mode of travel, with the latter being more significant in urban areas. Also, "traffic congestion" is a relative and more subjective measure that is closely connected with a person's willingness to pay. Given this complexity, the list of street improvements can be reduced by City Council during the public hearing process to eliminate lower priority projects, or growth shares can be lowered (assuming additional funding is available from revenue sources other than impact fees). Conversely, if elected officials desire to expand the list of street improvements, proposed impact fees would increase proportionately.

As shown in Figure 13, growth-related street improvements over the next 20 years have a total cost of $17.4 million, with $6.4 million to be funded by impact fees (37%) and the other 63% to be funded from other revenues. Proposed street improvements will enhance connectivity, provide safer and more desirable multi-modal routes (i.e., for pedestrians and cyclists) and relieve vehicular congestion.

Figure 13: Streets CIP

Project Description	*Short Range*	*Long Range*	*Total Cost*	*Growth Share*	*Impact Fee Funding*
Eastridge/8th	$3,720,000	$0	$3,720,000	40%	$1,488,000
River Street North of Downtown	$0	$2,510,000	$2,510,000	40%	$1,004,000
River Street South of Downtown	$0	$1,670,000	$1,670,000	40%	$668,000
River Street Downtown	$1,340,000	$0	$1,340,000	40%	$536,000
Broadford Road Pathway	$0	$1,760,000	$1,760,000	30%	$528,000
1st Ave/Wertheimer	$1,060,000	$0	$1,060,000	40%	$424,000
Rolling Stock	$500,000	$500,000	$1,000,000	30%	$300,000
Airport Way	$432,000	$0	$432,000	40%	$172,800
East Croy Pathway TAP Grant Construction (Date TBD)	$482,264		$482,264	30%	$144,679
Second Ave/ Bullion Street	$350,000	$0	$350,000	40%	$140,000
Cedar/Broadford/SH-75	$350,000	$0	$350,000	33%	$115,500
Airport Way/SH-75	$350,000	$0	$350,000	33%	$115,500
Fox Acres/SH-75	$0	$350,000	$350,000	33%	$115,500
Bullion/SH-75	$350,000	$0	$350,000	33%	$115,500
Elm Street (West)	$0	$280,000	$280,000	40%	$112,000
Myrtle/SH-75	$0	$350,000	$350,000	33%	$115,500
Elm/SH-75	$0	$350,000	$350,000	33%	$115,500
Bicycle and Pedestrian mobility improvements	$250,000		$250,000	30%	$75,000
Missing Sidewalk Connections	$50,000	$50,000	$100,000	40%	$40,000
Streets Salt Storage Shed Phase 1	$100,000		$100,000	30%	$30,000
Streets Salt Storage Shed Phase 2	$100,000		$100,000	30%	$30,000
Myrtle (East)	$0	$63,489	$63,489	40%	$25,396
Construct pathway along east side of relocated 8th Street	$75,000		$75,000	30%	$22,500
Plan pathway along east side of relocated 8th Street	$5,000		$5,000	30%	$1,500
TOTAL	$9,514,264	$7,883,489	$17,397,753	**37%**	$6,434,875
Revenue from Sources Other Than Impact Fees =>				63%	$10,962,878

Revenue Credit Evaluation

A credit for other revenues is only necessary if there is potential double payment for system improvements. In Hailey, gas tax, property tax, and other General Fund revenues will be used for maintenance of existing facilities, correcting existing deficiencies, and for capital projects that are not impact fee system improvements. As shown below in the Figure 15, cumulative impact fee revenue over the next 20 years roughly matches the growth cost of system improvements. There is no potential double payment from other revenues because street impact fees will exclusively fund the growth share of system improvements.

Proposed Impact Fees for Streets

Input variables for street impact fees are shown in the upper section of Figure 14. Inbound vehicle trips by type of development are multiplied by the capacity cost per vehicle mile of travel to yield the impact fees. Given the City's improvements plan ($6.4 million funded by impact fees) and the projected increase of 50,685 vehicle miles of travel over the next 20 years, the capital cost is $126.96 per vehicle miles of travel. To derive the impact fee for the commercial development per 1000 square feet of floor area, multiply the following factors from Figure 14.

37.75 weekday vehicle trip ends per 1000 square feet
x
0.24 adjustment factor for inbound trips, including pass-by
x
3.2 average miles per trip
x
0.75 trip length adjustment factor for commercial development
x
$126.96 growth cost per VMT
=
$2,760 per 1000 square feet (truncated)

The text below from Trip Generation (ITE) supports the consultant's recommendation to use ITE 820 Shopping Center as a reasonable proxy for all commercial development. The shopping center trip generation rates are based on 302 studies with an r-squared value of 0.79. The latter is a goodness-of-fit indicator with values ranging from 0 to 1. Higher values indicate the independent variable (floor area) provides a better prediction of the dependent variable (average weekday vehicle trip-ends). If the r-squared value is less than 0.50, ITE does not publish the value because factors other than floor area provide a better prediction of trip rates.

> *"A shopping center is an integrated group of commercial establishments. Shopping centers, including neighborhood, community, regional, and super regional centers, were surveyed for this land use. Some of these centers contained non-merchandising facilities, such as office buildings, movie theaters, restaurants, post offices, banks, and health clubs. Many shopping centers, in addition to the integrated unit of shops in one building or enclosed around a mall, include out parcels (peripheral buildings or pads located on the perimeter of the center adjacent to the streets and major access points). These buildings are typically drive-in banks, retail stores, restaurants, or small offices. Although the data herein do not indicate which of the centers studied include peripheral buildings, it can be assumed that some of the data show their effect."*

Figure 14: Street Impact Fee Schedule

Input Variables

Average Miles per Trip	3.20
Impact Fee Share of CIP	$6,434,875
VMT Increase Over 20 Years	50,685
Capital Cost per VMT	$126.96

Development Type	*Avg Wkdy Veh Trip Ends*	*Trip Rate Adjustment*	*Trip Length Adjustment*	*Proposed Fee*	*Current Fee*	Increase / (Decrease)	% Change
Residential (per housing unit) by Finished Square Feet							
600 or less	3.40	59%	114%	**$929**	$638	$291	46%
601 to 1000	4.48	59%	114%	**$1,224**	$638	$586	92%
1001 to 1400	5.56	59%	114%	**$1,519**	$1,033	$486	47%
1401 to 1800	6.64	59%	114%	**$1,814**	$1,298	$516	40%
1801 to 2200	7.72	59%	114%	**$2,109**	$1,298	$811	62%
2201 to 2600	8.80	59%	114%	**$2,404**	$1,500	$904	60%
2601 to 3000	9.88	59%	114%	**$2,699**	$1,612	$1,087	67%
3001 or more	10.96	59%	114%	**$2,994**	$1,612	$1,382	86%
Nonresidential (per 1,000 Square Feet of Floor Area)							
Industrial	3.93	50%	90%	**$718**	$543	$175	32%
Commercial	37.75	24%	75%	**$2,760**	$1,987	$773	39%
Institutional	14.07	33%	90%	**$1,697**	$794	$903	114%
Office and Other Services	9.74	50%	90%	**$1,780**	$860	$920	107%

Funding Strategy for Street Improvements

The 20-year plan for street improvements has a growth cost of approximately $6.4 million to be funded by impact fees. As shown in Figure 15, cumulative impact fee revenue is approximately equal to the growth cost of improvements over the next 20 years. Revenue projections shown below assume implementation of the proposed street impact fees and the development projections described in Appendix A. To the extent the rate of development either accelerates or slows down, there will be a corresponding change in the impact fee revenue. Given strong economic incentives for locating close to customers, most Commercial, Institutional, and Office/Other Services will typically follow residential development and choose to locate in Hailey. For "foot loose" industrial development (i.e., employers that have multiple options on where to locate), impact fees might hinder economic development efforts, but the table below indicates industrial development will only pay street impact fees averaging $9,000 per year.

Figure 15: Projected Growth Costs and Fee Revenue

20-Year Cost of Street Improvements

Growth Share => $6,434,875

Transportation Impact Fee Revenue

		Average-Size Residential	*Industrial*	*Commercial*	*Institutional*	*Office & Other Services*
		$1,948	$718	$2,760	$1,697	$1,780
	Year	per housing unit	per 1000 Sq Ft	per 1000 Sq Ft	per 1000 Sq Ft	per 1000 Sq Ft
		Hsg Units	*KSF*	*KSF*	*KSF*	*KSF*
Base	2021	3,696	660	450	1,330	550
Year 1	2022	3,788	670	460	1,350	560
Year 2	2023	3,883	680	470	1,370	560
Year 3	2024	3,980	690	470	1,390	570
Year 4	2025	4,080	700	480	1,410	580
Year 5	2026	4,182	720	490	1,440	590
Year 6	2027	4,286	730	500	1,460	600
Year 7	2028	4,393	740	510	1,480	610
Year 8	2029	4,503	750	510	1,510	620
Year 9	2030	4,616	760	520	1,530	630
Year 10	2031	4,731	770	530	1,560	640
Year 20	2041	6,056	910	620	1,820	750
20-Yr Increase		2,360	250	170	490	200
Projected Revenue =>		$4,597,000	$180,000	$469,000	$832,000	$356,000
					Total Projected Revenues (rounded) =>	$6,434,000

FEE IMPLEMENTATION AND ADMINISTRATION

Capital improvements and development impact fees must be evaluated and updated at least every five years to comply with Idaho's enabling legislation. Some jurisdictions make annual adjustments for inflation using the Engineering News Record (ENR) Construction Cost Index published by McGraw-Hill Companies. This index could be applied to the adopted impact fee schedule. If cost estimates or demand indicators change significantly, Hailey should redo the fee calculations.

Fees must be spent within eight years of when they are collected, with the expenditures limited to growth-related system improvements or debt service on growth-related infrastructure, as specified in the impact fee study. General practice is to track fees based on aggregate, first in and first out accounting (rather than project-specific tracking). Impact fees and accrued interest should be maintained in a separate fund that is not comingled with other revenues. In Idaho, an annual report is mandatory, indicating impact fee collections, expenditures, and fund balances by type of infrastructure.

Service Areas

To ensure substantial benefit to new development paying impact fees, the City of Hailey has evaluated collection and expenditure zones for public facilities that may have distinct benefit or service areas. In the City of Hailey, impact fees for parks and paths, fire apparatus and stations, and street improvements will benefit new development throughout the entire incorporated area. DP Guthrie, LLC recommends one citywide service area for Hailey impact fees.

Cost of CIP Preparation Attributable to Impact Fee Determination

As stated in Idaho's enabling legislation, a surcharge on the collection of development impact fees may be used to fund the cost of preparing the CIP that is attributable to the impact fee determination. Because development fees must be updated at least every five years, this cost was allocated to the projected increase in service units over five years. As shown in Figure 16, proportionate share factors based on functional population were used to allocate the cost of CIP preparation by development category.

Figure 16: Surcharge for Cost of CIP Preparation

Input Variables

2021 Update of LUA, CIP, and DIF	$12,400
Transportation Master Plan Update	$10,000
2026 Update to HGMP (40% attributable to DIF)	$6,000
Hailey share of 2022 Blaine County Bike/Ped Master Plan	$5,000
Total =>	**$33,400**

Proportionate Share	75%	25%
	Population	Jobs
Five-Year Increase in Service Units	1,200	377
	Cost per Person	*Cost per Job*
	$20	$22

Residential (per housing unit)

Finished Square Feet	*Persons per Hsg Unit*	*Proposed Fee*	*Current Fee*	Increase / (Decrease)	% Change
600 or less	1.14	$22	$31	($9)	-29%
601 to 1000	1.54	$30	$31	($1)	-3%
1001 to 1400	1.94	$38	$58	($20)	-34%
1401 to 1800	2.34	$46	$76	($30)	-39%
1801 to 2200	2.74	$54	$76	($22)	-29%
2201 to 2600	3.14	$62	$90	($28)	-31%
2601 to 3000	3.54	$70	$98	($28)	-29%
3001 or more	3.94	$78	$98	($20)	-20%

Nonresidential (per 1,000 square feet of building)

Type	*Jobs per 1,000 Sq Ft*	*Proposed Fee*	*Current Fee*	Increase / (Decrease)	% Change
Industrial	1.59	$34	$78	($44)	-56%
Commercial	2.34	$51	$68	($17)	-25%
Institutional	0.63	$13	$33	($20)	-61%
Office & Other Services	2.97	$65	$112	($47)	-42%

Development Categories

Proposed impact fees for residential development are by square feet of finished living space, excluding unfinished basement and garage floor area. Appendix A provides further documentation of demographic data by size threshold.

The four general nonresidential development categories in the proposed impact fee schedule can be used for all new construction within Hailey. Nonresidential development categories represent general groups of land uses that share similar average weekday vehicle trip generation rates and job density (i.e., jobs per 1,000 square feet of floor area), as documented in Appendix A. "Industrial" includes the processing or production of goods, along with warehousing, transportation, communications, and utilities. "Commercial" includes retail development and eating/drinking places. "Institutional" development includes public and quasi-public buildings such as schools, daycare, and churches. "Office & Other Services" includes offices, business services, lodging, and personal services such as health care.

An applicant may submit an independent study to document unique demand indicators for a particular development. The independent study must be prepared by a professional engineer or certified planner and use the same type of input variables as those in Hailey's impact fee study. For residential development, impact fees are based on average persons per housing unit and average weekday vehicle trip ends per housing unit. For nonresidential development, impact fees are based on average weekday vehicle trips ends per 1,000 square feet of floor area, and the average number of jobs per 1,000 square feet of floor area. The independent fee study will be reviewed by City staff and can be accepted as the basis for a unique fee calculation. If staff determines the independent fee study is not reasonable, the applicant may appeal the administrative decision to Hailey's elected officials for their consideration.

Credits and Reimbursements

A general requirement that is common to impact fee methodologies is the evaluation of credits. A revenue credit may be necessary to avoid potential double payment situations arising from one-time impact fees plus on-going payment of other revenues that may also fund growth-related capital improvements. The determination of revenue credits is dependent upon the impact fee methodology used in the cost analysis.

Policies and procedures related to site-specific credits should be addressed in the ordinance that establishes the impact fees. Project-level improvements, required as part of the development approval process, are not eligible for credits against impact fees. If a developer constructs a system improvement included in the fee calculations, it will be 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 national experience, DP Guthrie, LLC recommends a jurisdiction establish a reimbursement agreement with the developer that constructs a system improvement. The reimbursement agreement should be limited to a payback period of no more than ten years and Hailey should not pay interest on the outstanding balance. The developer must provide sufficient documentation of the actual cost incurred for the system improvement. Hailey should only agree to pay the lesser of the actual construction cost or the estimated cost used in the impact fee analysis. If the City pays more than the cost used in the fee analysis, there will be insufficient fee revenue. Reimbursement agreements should only obligate Hailey to reimburse developers annually according to actual fee collections from the benefiting area. Supporting documentation for each type of impact fee illustrates the types of infrastructure considered to be system improvements. Site specific credits or developer reimbursements for one type of system improvement does not negate an impact fee for other system improvements.

APPENDIX A: LAND USE ASSUMPTIONS

Appendix A provides the population, housing unit, jobs and nonresidential floor area data for the 2021 development impact fee study. To evaluate the demand for growth-related infrastructure from various types of development, DP Guthrie, LLC also prepared documentation of average weekday vehicle trip generation rates and demand indicators by size of dwelling. These metrics (explained further below) are the "service units" or demand indicators that will be used to update Hailey's impact fees.

Development impact fees must be proportionate by type of development and based on the need for growth-related improvements. The demographic data and development projections discussed below will be used to demonstrate proportionality and the anticipated need for additional infrastructure. All land use assumptions and projected growth rates are consistent with Hailey's Comprehensive Plan and Master Plans for specific infrastructure (e.g., Water Reclamation Facility, Transportation). In contrast to these plans, which are more general and have a long-range horizon, development impact fees require more specific quantitative analysis and have a shorter timeframe. Typically, impact fee studies look forward ten years, with the expectation that fees will be periodically updated (e.g., every 5 years). Infrastructure standards will be calibrated using fiscal year 2020-21 data. In the City of Hailey, the fiscal year begins on October 1st.

Summary of Growth Indicators

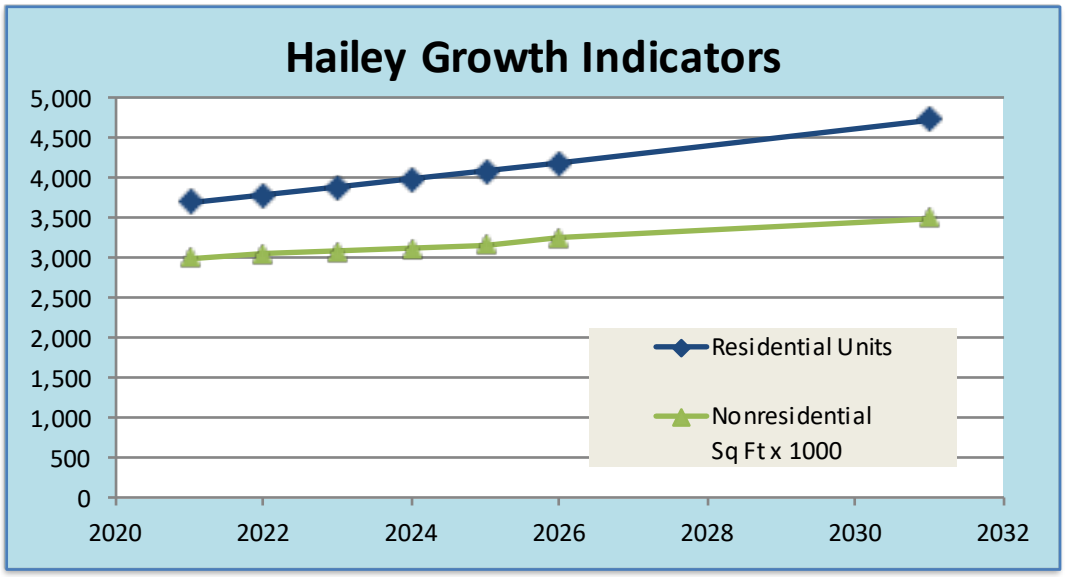
As shown in Figure A1, key development projections for the City of Hailey are housing units and nonresidential floor area. These projections will be used to estimate development fee revenue and to indicate the anticipated need for growth-related infrastructure. The goal is to have reasonable projections without being overly concerned with precision. Because impact fees methods are designed to reduce sensitivity to development projections in the determination of the proportionate-share fee amounts, if actual development is slower than projected, fee revenue will decline, but so will the need for growth-related infrastructure. In contrast, if development is faster than anticipated, the City will receive an increase in fee revenue, but will also need to accelerate capital improvements to keep pace with the actual rate of development.

Consistent with the latest Water Reclamation Facility Plan for Hailey, the 2021 impact fee study assumes 2.5% annual growth for population and housing units. Conversion of year-round residents to housing units assumes 2.47 persons per housing unit, as documented below (see Figure A2 and related text). During the next five years, the impact fee study assumes an average increase of 97 housing units per year.

The projected increase in floor area is based on a growth rate of 1.6% per year, matching the historical increase in traffic volume from 2013 through 2018, as documented in the Transportation Master Plan. The current estimate of nonresidential floor area is based on the Blaine County Assessor's property database. Over the next five years, Hailey expects an average increase of 50,000 square feet of nonresidential floor area per year. The weighted average job increase is also 1.6% per year.

Figure A1: Summary of Development Projections and Growth Rates

Hailey, Idaho	Year							2021 to 2026 Average Annual	
	2021	*2022*	*2023*	*2024*	*2025*	*2026*	*2031*	*Increase*	*Compound Growth Rate*
Residential Units	3,696	3,788	3,883	3,980	4,080	4,182	4,731	97	2.5%
Nonresidential Sq Ft x 1000	2,990	3,040	3,080	3,120	3,170	3,240	3,500	50	1.6%



Residential Development and Persons per Housing Unit

Starting with the 2010 census, the U.S. Census Bureau conducts ongoing monthly surveys. The American Community Survey (ACS) enables data to be updated annually but the process is constrained by sample-sizes. For example, data on detached housing units are now combined with attached single units (commonly known as townhouses). Part of the rationale for deriving fees by unit size, as discussed further below, is to address this ACS data limitation. Because townhouses generally have fewer bedrooms than detached units, fees by bedroom range ensure proportionality and facilitate construction of affordable units.

As shown Figure A2, dwellings with a single unit per structure (detached and attached) average 2.68 persons per housing unit. Dwellings in structures with two or more units average 2.06 year-round residents per unit. This category includes duplexes, which have two dwellings on a single parcel of land. According to the latest available data, the overall average is 2.47 year-round residents per housing unit.

According to the U.S. Census Bureau, a household is a housing unit that is occupied by year-round residents. Development fees often use per capita standards and persons per housing unit, or persons per household, to derive proportionate-share fee amounts. DP Guthrie, LLC recommends that fees for residential development in the City of Hailey be imposed according to the number of year-round residents per housing unit.

Figure A2: Year-Round Persons per Unit by Type of Housing

2019 Five-Year Estimate by Type of Housing

Units in Structure	*Persons*	*House-holds*	*Persons per Household*	*Housing Units*	***Persons per Housing Unit***	*Housing Mix*	*Vacancy Rate*
Single Unit*	5,954	1,705	3.49	2,221	2.68	65%	23%
2+ Units	2,429	957	2.54	1,178	2.06	35%	19%
Subtotal	8,383	2,662	3.15	3,399	2.47		22%
Group Quarters	25						
TOTAL	8,408						

** Single unit includes detached and attached (zero mobile homes).*

Source: Tables B25024, B25032, B25033, and B26001.

Five-Year Estimates, 2019 American Community Survey, U.S. Census Bureau.

Jobs and Nonresidential Development

In addition to data on residential development, the calculation of impact fees requires data on nonresidential development. DP Guthrie, LLC uses the term "jobs" to refer to employment by place of work. In Figure A3, color shading indicates four nonresidential development prototypes that will be used to derive average weekday Vehicle Miles of Travel (VMT) and nonresidential floor area. Current floor area estimates for industrial, commercial, institutional, and office/other services, are derived using national averages of square feet per job (Trip Generation, Institute of Transportation Engineers, 2017). For future industrial development, Manufacturing (ITE code 140) is a reasonable proxy with an average 629 square feet per job. The prototype for future commercial development is an average-size Shopping Center (ITE code 820). Commercial development (i.e., retail and eating/drinking places) is assumed to average 427 square feet per job. For institutional development, such as pubic buildings, schools and churches, floor area in Hailey is based on education and government jobs, assuming an average of 1,587 square feet per job. The prototype for institutional development is a High School (ITE 530). For office and other services, an average-size Office (ITE 710) is the prototype for future development, averaging of 337 square feet per job.

Figure A3: Average Weekday Vehicle Trip Ends

ITE Code	*Land Use / Size*	*Demand Unit*	*Wkdy Trip Ends Per Dmd Unit**	*Wkdy Trip Ends Per Employee**	*Emp Per Dmd Unit*	*Sq Ft Per Emp*
110	Light Industrial	1,000 Sq Ft	4.96	3.05	1.63	613
140	Manufacturing	1,000 Sq Ft	3.93	2.47	1.59	629
150	Warehousing	1,000 Sq Ft	1.74	5.05	0.34	2,941
520	Elementary School	1,000 Sq Ft	19.52	21.00	0.93	1,075
530	High School	1,000 Sq Ft	14.07	22.25	0.63	1,587
610	Hospital	1,000 Sq Ft	10.72	3.79	2.83	353
620	Nursing Home	1,000 Sq Ft	6.64	2.91	2.28	439
710	General Office	1,000 Sq Ft	9.74	3.28	2.97	337
760	Research & Dev Center	1,000 Sq Ft	11.26	3.29	3.42	292
770	Business Park	1,000 Sq Ft	12.44	4.04	3.08	325
820	Shopping Center (avg size)	1,000 Sq Ft	37.75	16.11	2.34	427
857	Discount Club	1,000 Sq Ft	41.80	32.21	1.30	769

** Trip Generation, Institute of Transportation Engineers, 10th Edition (2017).*

Figure A4 indicates 2018 estimates of jobs within Hailey. Job estimates, by type of nonresidential, are from Hailey's Work Area Profile from the U.S. Census Bureau's online web application known as OnTheMap. In the table below, the number of jobs in Hailey is based on quarterly workforce reports supplied by employers.

Figure A4: Jobs and Floor Area Estimates

	2018 Jobs (1)		*Sq Ft per Job (2)*	*Jobs per 1000 Sq Ft (2)*
Industrial (3)	704	23.0%	629	1.59
Commercial (4)	710	23.2%	427	2.34
Institutional (5)	560	18.3%	1,587	0.63
Office & Other Services (6)	1,086	35.5%	337	2.97
TOTAL	3,060	100%		

(1) Jobs in 2018 from Work Area Profile, OnTheMap, U.S. Census Bureau web application.
(2) Derived from data in Trip Generation, published by the Institute of Transportation Engineers, 2017.
(3) Major sectors are Construction, Manufacturing, and Transportation/Warehousing.
(4) Major sectors are Retail and Accommodation/Food Services.
(5) Major sectors are Educational Services and Public Administration.
(6) Major sectors are Professional/Scientific/Technical Services and Health Care.

Detailed Land Use Assumptions

Demographic data shown in Figure A5 are key inputs for Hailey's impact fee update. Cumulative data are shown at the top and projected annual increases, by type of development, are shown at the bottom of the table. The 2019 population estimate of 8,689 year-round residents in Hailey is from the U.S. Census Bureau and the estimate of 4,427 jobs in Hailey is from Sun Valley Economic Development. The 2020 estimate of approximately 2.5 million square feet of nonresidential development in Hailey is consistent with the Blaine County Assessor's property database. Annual data for years 6-9 and 11-19 are included in the impact fee analysis but hidden below to enable the table to fit on a single page.

Figure A5: Annual Demographic Data

Hailey, Idaho	*FY20-21*	*FY21-22*	*FY22-23*	*FY23-24*	*FY24-25*	*FY25-26*	*FY30-31*	*FY40-41*
Begins Oct 1st	*2021*	*2022*	*2023*	*2024*	*2025*	*2026*	*2031*	*2041*
	Base Yr	*1*	*2*	*3*	*4*	*5*	*10*	*20*
Total Population								
City of Hailey	9,129	9,357	9,591	9,831	10,077	10,328	11,686	14,959
Housing Units								
City of Hailey	3,696	3,788	3,883	3,980	4,080	4,182	4,731	6,056
Persons per Hsg Unit	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47
Jobs in City of Hailey								
Industrial	1,051	1,068	1,085	1,103	1,120	1,138	1,232	1,444
Commercial	1,060	1,077	1,094	1,112	1,130	1,148	1,243	1,456
Institutional	836	850	863	877	891	905	980	1,149
Office & Other	1,622	1,648	1,674	1,701	1,728	1,756	1,901	2,228
Total Jobs	4,570	4,643	4,717	4,793	4,869	4,947	5,356	6,277
Jobs to Housing Ratio	1.24	1.23	1.21	1.20	1.19	1.18	1.13	1.04
Nonresidential Floor Area (square feet in thousands)								
Industrial	660	670	680	690	700	720	770	910
Commercial	450	460	470	470	480	490	530	620
Institutional	1,330	1,350	1,370	1,390	1,410	1,440	1,560	1,820
Office & Other	550	560	560	570	580	590	640	750
Total KSF	2,990	3,040	3,080	3,120	3,170	3,240	3,500	4,100
Avg Sq Ft Per Job	654	655	653	651	651	655	653	653
Avg Jobs per KSF	1.53	1.53	1.53	1.54	1.54	1.53	1.53	1.53
							2021-2031	
Annual Increases							***Avg Anl***	
Total Population	228	234	240	246	252	258	256	
Housing Units	92	95	97	100	102	104	104	
Jobs	73	74	76	76	78	79	79	
Industrial KSF	10	10	10	10	20	10	11	
Commercial KSF	10	10	0	10	10	10	8	
Institutional KSF	20	20	20	20	30	20	23	
Office & Other KSF	10	0	10	10	10	10	9	
Total Nonres KSF/Yr =>	50	40	40	50	70	50	51	

Demand Indicators by Dwelling Size

Impact fees must be proportionate to the demand for infrastructure. Because averages per housing unit, for both persons and vehicle trips, have a strong, positive correlation to the number of bedrooms, DP Guthrie, LLC recommends residential fee schedules that increase by dwelling size. Custom tabulations of demographic data by bedroom range can be created from individual survey responses provided by the U.S. Census Bureau, in files known as Public Use Microdata Samples (PUMS). PUMS files are only available for areas of at least 100,000 persons, with the City of Hailey included in Public Use Microdata Area (PUMA) 01000 that includes the following seven counties: Blaine, Elmore, Jerome, Minidoka, Gooding, Lincoln, and Camas. As shown in Figure A6, DP Guthrie, LLC derived trip generation rates and average persons per housing unit by bedroom range, from un-weighted PUMS data. The recommended multipliers by bedroom range (shown below) are for all types of housing units, adjusted to the control totals for Hailey. Hailey averages 2.47 persons per housing unit, which is lower than the national average derived from trip generation rates (see the middle section in the table below). In contrast, Hailey averages 1.42 vehicles available per housing unit, which is slightly higher than the national average derived from trip generation rates.

Figure A6: Vehicle Trip Ends and Persons by Bedroom Range

2019 Public Use Microdata Sample (PUMS)

Bedroom Range	*Persons (1)*	*Vehicles Available (1)*	*Housing Units (1)*	*Hailey Hsg Mix*	*Unadjusted Persons/HU*	***Adjusted Persons/HU (2)***	*Unadjusted VehAvl/HU*	*Adjusted VehAvl/HU (2)*
0	38	30	42	1%	0.90	**1.06**	0.71	0.57
1	159	153	167	6%	0.95	**1.12**	0.92	0.73
2	1,051	868	683	23%	1.54	**1.81**	1.27	1.01
3	2,990	2,647	1,357	47%	2.20	**2.59**	1.95	1.56
4	1,423	1,115	513	18%	2.77	**3.26**	2.17	1.73
5+	461	359	149	5%	3.09	**3.63**	2.41	1.92
Total	6,122	5,172	2,911		2.10	**2.47**	1.78	1.42

National Averages (ITE 2017)

ITE Code	*AWVTE per Person*	*AWVTE per Veh Avl*	*AWVTE per Dwelling Unit*	*Hailey Hsg Mix*	*Persons per Housing Unit*	*Veh Avl per Housing Unit*
220 & 221 MF	1.84	5.10	5.44	35%	2.96	1.07
210 SFD	2.65	6.36	9.44	65%	3.56	1.48
Wgtd Avg	2.37	5.92	8.05		3.35	1.34

AWVTE per Housing Unit by Bedroom Range

Bedroom Range	*AWVTE per Housing Unit Based on Persons (3)*	*AWVTE per Housing Unit Based on Veh Avl (4)*	***AWVTE per Housing Unit (5)***
0	2.51	3.37	**2.94**
1	2.65	4.32	**3.49**
2	4.29	5.98	**5.14**
3	6.14	9.24	**7.69**
4	7.73	10.24	**8.99**
5+	8.60	11.37	**9.99**
Total	5.85	8.41	**7.13**

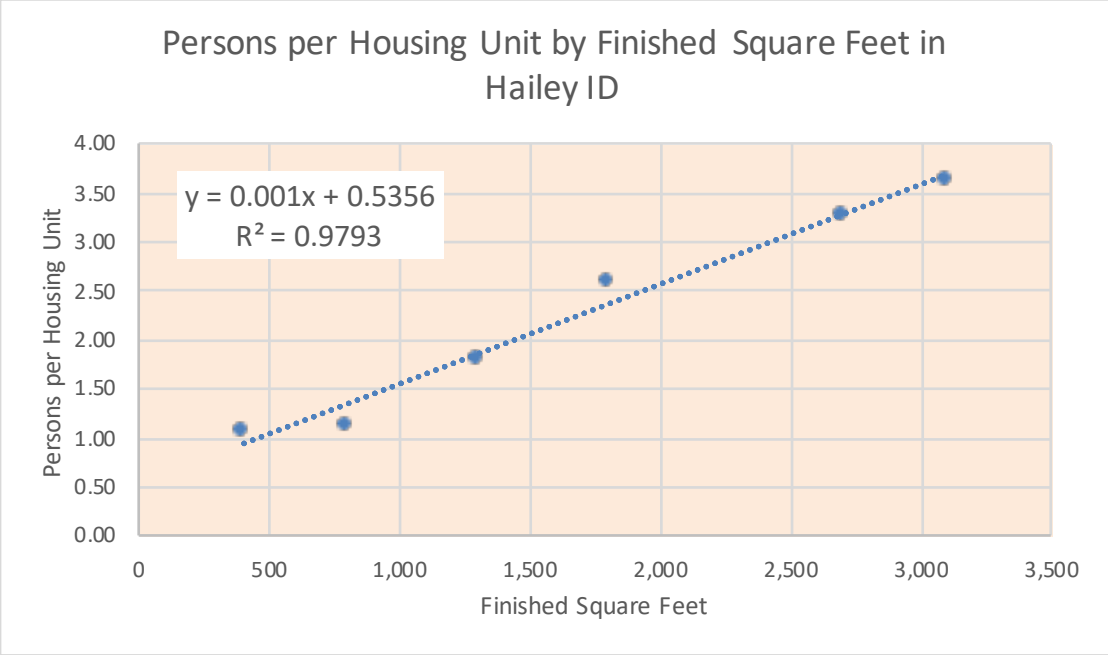
(1) American Community Survey (ACS), Public Use Microdata Sample for AIDPUMA 1000 (2019 Five-Year unweighted data).
(2) Adjusted multipliers are scaled to make the average PUMS values match control totals for Hailey. Vehicles Available is from table B25046, ACS 2019 5-year data.
(3) Adjusted persons per household multiplied by national weighted average trip rate per person.
(4) Adjusted vehicles available per household multiplied by national weighted average trip rate per vehicle available.
(5) Average of trip rates based on persons and vehicles available per household.

Average floor area and number of persons by bedroom range are plotted in Figure A7, with a linear trend line derived from six actual averages for the area that includes Hailey. Using the trend line formula shown in the chart, DP Guthrie, LLC derived the estimated average number of persons, by dwelling size, using 400 square feet intervals. For the purpose of impact fees, DP Guthrie, LLC recommends a minimum fee based on a unit size of 600 square feet and a maximum fee for units 3001 square feet or larger. The Blaine County Assessor's residential database indicates that single family houses with one to four units per structure, constructed in Hailey over the past 20 years average 400 square feet for a zero-bedroom studio, 800 square feet of finished floor area for a one-bedroom unit, 1300 square feet for a two-bedroom unit, 1800 square feet for a three-bedroom unit, 2700 square feet for four bedrooms, and 3100 square feet for five or more bedrooms.

Figure A7: Persons by Square Feet of Living Space

Blaine County property database is the source for average square feet of dwellings. Average persons per housing unit is from 2019 ACS PUMS for the PUMA that includes Hailey.

Actual Averages per Hsg Unit			*Trend Line Values*	
Bedrooms	*Square Feet*	*Persons*	*Sq Ft Range*	*Persons*
0	400	1.06	600 or less	**1.14**
1	800	1.12	601 to 1000	**1.54**
2	1,300	1.81	1001 to 1400	**1.94**
3	1,800	2.59	1401 to 1800	**2.34**
4	2,700	3.26	1801 to 2200	**2.74**
5+	3,100	3.63	2201 to 2600	**3.14**
			2601 to 3000	**3.54**
			3001 or more	**3.94**



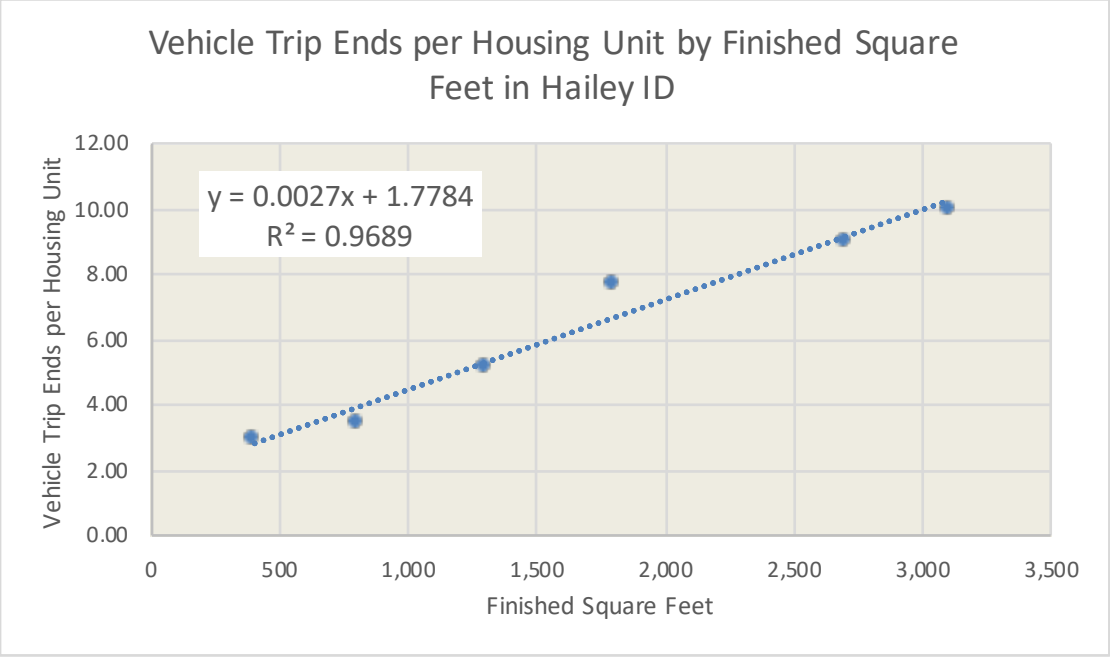
To derive average weekday vehicle trip ends by house size, DP Guthrie, LLC combined demographic data derived from U.S. Census Bureau PUMS files with average unit size data from the Blaine County Assessor's residential database. Average floor area and weekday vehicle trip ends, by bedroom range, are plotted in Figure A8, with a linear trend line derived from six actual averages for the area that includes Hailey. DP Guthrie, LLC used the trend line formula to derive estimated trip ends by dwelling size, in 400 square feet intervals.

In contrast to the trip generation rates shown below, that increase in proportion to unit size, the national average trip generation rate for Multifamily Low-Rise housing is 7.32 average weekday vehicle trip ends per unit and the average for Single Family Detached housing is 9.44 average weekday vehicle trip ends per unit (ITE, 2017). DP Guthrie, LLC does not recommend a "one-size-fits-all" approach that would require small units to pay more than their proportionate share while large units would pay less than their proportionate share.

Figure A8: Vehicle Trips by Dwelling Size

Blaine County property database is the source for average square feet of dwellings. Average persons per housing unit is from 2019 ACS PUMS for the PUMA that includes Hailey.

Actual Averages per Hsg Unit			*Trend Line Values*	
Bedrooms	*Square Feet*	*AWVTE*	*Sq Ft Range*	*Trip Ends*
0	400	2.94	600 or less	**3.40**
1	800	3.49	601 to 1000	**4.48**
2	1,300	5.14	1001 to 1400	**5.56**
3	1,800	7.69	1401 to 1800	**6.64**
4	2,700	8.99	1801 to 2200	**7.72**
5+	3,100	9.99	2201 to 2600	**8.80**
			2601 to 3000	**9.88**
			3001 or more	**10.96**



APPENDIX B: PASS-BY TRIP ADJUSTMENT FACTORS BY COMMERCIAL BUILDING SIZE

For commercial developments, trip generation rates are only one of the steps needed to determine traffic impacts. Because commercial developments attract vehicles passing by on adjacent streets, pass-by trip percentages reduce trip generation rates to more accurately assess travel demand. The following meta-analysis documents a methodology for deriving pass-by trip percentages based on the floor area of a commercial development. A fitted curve equation is provided using data from traffic studies published in the second edition of Trip Generation Handbook (ITE, 2004). The recommended methodology is suitable for impact fees, which are derived using average characteristics of the transportation system.

Purpose

Transportation impact fees typically rely on trip generation rates published by the Institute of Transportation Engineers (ITE). For shopping centers, trip generation rates are derived from a formula using floor area as the independent variable. The fitted curve is a logarithmic equation that yields declining vehicle trip rates per thousand square feet as shopping center size increases. However, trip generation alone does not provide a complete evaluation of traffic impacts due to pass-by and diverted trips to commercial developments. Because diverted trips still increase vehicle miles of travel, transportation impact fees apply pass-by trip adjustments or derive the "percentage of new trips" associated with new development (Oliver, 1991; Tindale, 1991). This article provides a methodology for deriving pass-by trip percentages from the floor area of commercial development. The analysis of pass-by trip percentages from traffic studies reported in Trip Generation Handbook (ITE, 2004) indicates a similar relationship to the trip generation formula for shopping centers. This Appendix specifies the decline in pass-by trip percentages as commercial floor area increases.

Literature Review

The literature review in this section is discussed in chronological order beginning with the 1991 version of Trip Generation. In Table VII-1, pass-by trip percentages were reported for 67 shopping centers ranging in size from 44,000 to 1,200,000 square feet. These data indicate a decline in pass-by trip percentages as shopping center size increases. During 1991 and 1992, ITE also published four journal articles on the topic of pass-by trips and how these adjustments could be applied in the calculation of impact fees.

In March of 1991, Moussavi and Gorman examined how pass-by trip percentages were influenced by building size and the average daily traffic on adjacent streets. Their findings regarding the relationship between average daily trips on adjacent streets and pass-by percentages are not relevant to general impact fee formulas that estimate average travel characteristics for an entire service area. Although limited to an analysis of only 12 sites, their regression analysis did confirm that floor area is a strong predictor of pass-by trips for discount stores, but not grocery stores. Because traditional grocery stores and the more modern-day version known as "discount supermarkets" tend to attract more primary trips than other comparably sized stores, this study excludes these development types.

In April of 1991, William Oliver discussed how to determine average trip length from survey data and then use the results in transportation impact fees. A key concept from this article is the idea that impact fees should only assess for the percentage of new trips attributable to new development, after accounting for internal trip capture, diverted and pass-by trips. The methodologies described by Oliver are useful for individual impact fee assessments of large-scale development, but they do not address more universal adjustments for pass-by trips, which is the focus of this research.

In May of 1991, Steven Tindale provided a detailed discussion of various technical issues related to transportation impact fees, including trip capture. The article is similar to Oliver's in advocating original data collection to establish trip rates, lengths and percentage of new trips. However, due to time and budget constraints, most jurisdictions derive impact fees using input variables readily available from regional, state or national sources such as Trip Generation.

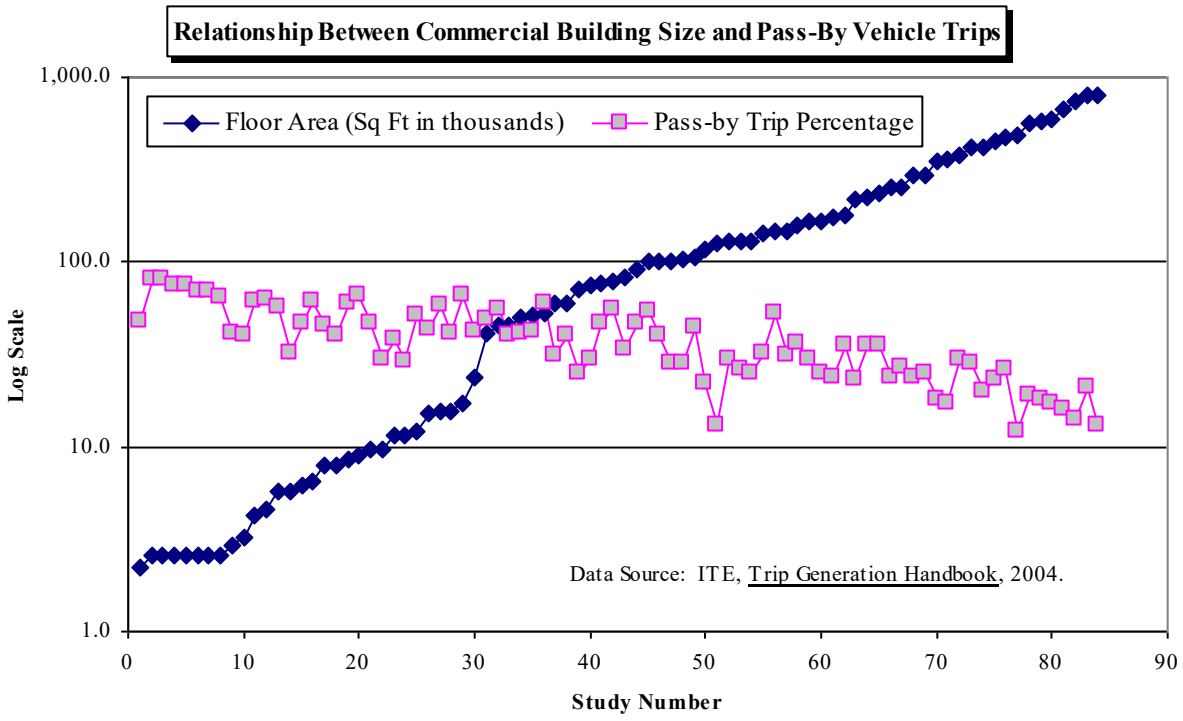
In May of 1992, Moussavi and Gorman provide a follow-up "refinement" to their 1991 article. One of the suggested refinements incorporated into the research presented below, was to use logarithmic, rather than linear regression.

The second edition of Trip Generation Handbook (ITE, 2004), provides a data plot of average pass-by trip percentage based on gross leasable floor area of a shopping center. The fitted curve equation shown in Figure 5.5 of ITE's 2004 publication indicates a fitted logarithmic curve with an R-squared value of 0.37. The analysis presented below in Figure C3 improves the "goodness" of fit, yielding an R-squared value of approximately 0.64.

Analysis

The general relationship between commercial building size and pass-by vehicle trips is illustrated in Figure C1. When commercial floor area, measured in thousands of square feet, is plotted on a log scale and rank-ordered, it is clear that increasing commercial building size decreases the pass-by trip percentage. In other words, small retail establishments, like a convenience store have higher pass-by trip percentages than large regional shopping malls.

Figure C1



To improve the correlation between commercial building size and pass-by trip percentage, this study used the following criteria. First, the number of interviews reported by a traffic study had to have at least 96 interviews, which ensures a maximum error of 10% in the mean at a 95% level of confidence (see Appendix B in Meyer and Miller, 2001). Second, the traffic study had to report a specific floor area of at least 1,000 square feet, rather than a floor area range. Third,

traffic surveys included in the database are not older than 1989. The studies prior to 1989 include very large shopping centers of approximately one million square feet, which are rarely constructed in the current real estate market. Fourth, for consistency this analysis only includes PM-peak hour data.

Figure C2 provides a summary of the pass-by trip database, indicating types of development, the number of studies for each type, average floor area (in thousands of square feet) and average pass-by trip percentage. Shopping centers account for almost half of the studies and had the largest floor area, averaging 280,000 square feet. In total, the 84 studies analyzed had an average floor area of 159,000 square feet and an average of 39% pass-by trips.

Figure C2

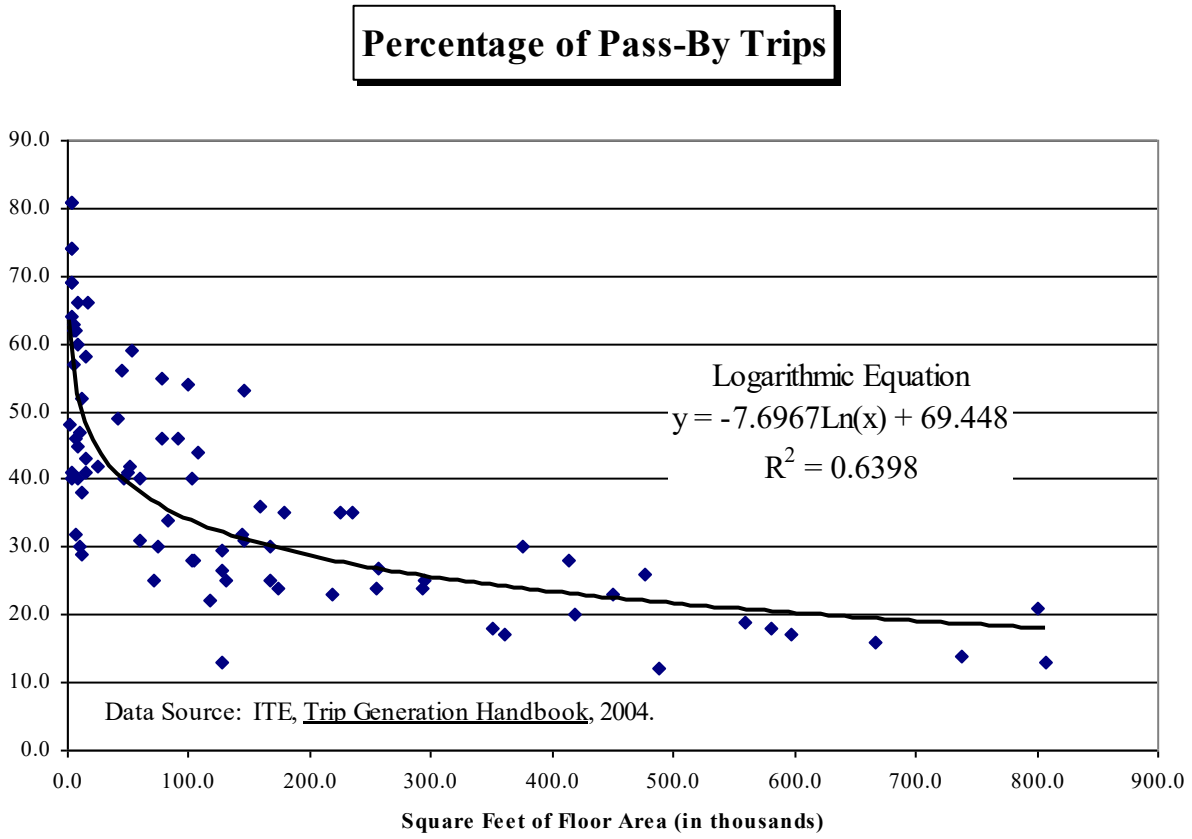
Summary of Pass-By Trips Database

ITE Code	*Description*	*# of Studies*	*AvgSqFt (thousands)*	*AvgPass-By Trip Pct*
813	Free-Standing Discount Superstore	8	151	28
815	Free-Standing Discount Store	3	128	23
820	Shopping Center	40	280	31
843	Automobile Parts Sales	1	15	43
851	Convenience Market	4	3	72
853	Convenience Market w Gas Pumps	4	3	68
862	Home Improvement Superstore	3	99	48
863	Electronics Superstore	1	46	40
880	Pharmacy/Drugstore w/o Window	3	10	47
881	Pharmacy/Drugstore w Drive-Through	3	14	49
890	Furniture Store	2	33	46
931	Quality Restaurant	2	7	54
932	High-Turnover Restaurant	7	8	44
934	Fast-Food with Drive-Through	3	3	48
	TOTAL	84	159	39

Studies in the database meet the following criteria: 1) PM-peak data; 2) Traffic survey in 1989 or afterwards; 3) Floor area at least 1,000 square feet; 4) Sample size of at least 96 interviews, which ensures a maximum error of 10% in the mean at a 95% level of confidence.

Figure C3 indicates a scatter plot of floor area versus percentage of pass-by trips. The best trend-line correlation between pass-by trips and floor area is a logarithmic curve with the equation ((-7.6967*LN(KSF)) + 69.448). The R-squared value for this curve is 0.6398, indicating the floor area accounts for approximately 64% of the variation in pass-by trip percentage.

Figure C3



The fitted curve equation allows a specific pass-by trip estimate for any size commercial building. To illustrate the change in trip generation rates and pass-by trips by size of commercial development, Figure C4 provides data for seven building-size thresholds ranging from 10,000 to 800,000 square feet of floor area.

Figure C4

Trip Rates and Adjustment Factors by Size Threshold

Floor Area in thousands (KSF)	***Shopping Centers*** (ITE 820 Weekday*)		***Shopping Centers*** (ITE 820 PM-Peak Hour*)		Commercial Pass-by Trips**	Commercial Trip Adj Factor***
	Trip Ends	Rate/KSF	Trip Ends	Rate/KSF		
10	1,520	152.03	137	13.70	52%	24%
25	2,758	110.32	251	10.03	45%	28%
50	4,328	86.56	396	7.92	39%	31%
100	6,791	67.91	626	6.26	34%	33%
200	10,656	53.28	989	4.95	29%	36%
400	16,722	41.80	1,563	3.91	23%	39%
800	26,239	32.80	2,470	3.09	18%	41%

* Trip Generation, ITE, 2003.
** Based on data published by ITE in Trip Generation Handbook (2004), the best trendline correlation between pass-by trips and floor area is a logarithmic curve with the equation ((-7.6967*LN(KSF)) + 69.448).
*** To convert trip ends to vehicle trips, the standard adjustment factor is 50%. Due to pass-by trips, commercial trip adjustment factors are lower, as derived from the following formula (0.50*(1-passby pct)).

To avoid double counting the same vehicle trip at both the origin and destination points, transportation impact fees typically convert trip ends to trips using a standard adjustment factor of 50%. For commercial development, trip adjustment factors are less than 50% because retail development and some services (like banks) attract vehicles as they pass by on arterial and collector roads. As shown above, for a small-size commercial development with 10,000 square feet of floor area, an average of 52% of the vehicles that enter are passing by on their way to some other primary destination. The remaining 48% of attraction trips have the commercial development as their primary destination. Because attraction trips are half of all trips, the commercial trip adjustment factor is 48% multiplied by 50%, or approximately 24% of the trip ends.

Conclusions

The methodology presented above significantly improves the "goodness" of fit between the independent variable of commercial floor area and the dependent variable of pass-by trip percentage. Commercial trip adjustment factors may be derived for any size commercial building using the recommended logarithmic regression, thus avoiding the use of a simple average pass-by trip percentage for an individual ITE land use code. The recommended methodology also avoids the small sample-size problem that currently exists for most of the ITE land use codes that only provide pass-by data for a limited number of traffic studies. The recommended use of pass-by trip adjustment factors by size of commercial development will improve transportation impact fees that are intended to proportionately allocate the cost of growth-related infrastructure to new development.

References

Institute of Transportation Engineers. 2003. Trip Generation. Washington, DC.

Institute of Transportation Engineers. 2004. Trip Generation Handbook. Washington, DC.

Meyer, Michael D. and Eric J. Miller. 2001. Urban Transportation Planning: A Decision-Oriented Approach. New York: McGraw-Hill Higher Education.

Moussavi, Massoum and Michael Gorman. "A Study of Pass-By Trips Associated with Retail Developments." ITE Journal, March 1991: 43-47.

Moussavi, Massoum and Michael Gorman. "Refinement of Procedures Used for Estimating Pass-By Trip Percentages." ITE Journal, May 1992: 13-16.

Oliver, William E. "Measuring Travel Characteristics for Transportation Impact Fees." ITE Journal, April 1991: 11-15.

Tindale, Steven A. "Impact Fees: Issues, Concepts and Approaches." ITE Journal, May 1991: 33-40.