CANYON HIGHWAY DISTRICT NO. 4

Traffic Impact Fee Program

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Prepared for:

Canyon Highway District No. 4 City of Star, Idaho City of Middleton, Idaho

TABLE OF CONTENTS

Introduction3	
What is a Traffic Impact Fee?3	
State Requirements3	
Service Area4	
Methodology4	
Land Use Assumptions4	
Traffic Impact Fee Calculation7	
Total TIF-Eligible Costs7	
Change in VMT & VMT Cost7	
Peak Hour Trip Generation Rate & New Trip Factor8	
Average Trip Length8	
Network Adjustment Factor9	
Impact Fee Schedule9	
References11	
LIST OF TABLES	
Table 1. Year 2020 and Year 2040 Demographics in Mid-Star Service Area	5
Table 2. Change in Vehicle Miles Traveled (Year 2020 to Year 2040)	8
Table 3. Impact Fee Schedule	10
LIST OF FIGURES	
Figure 1 Service Area and Service Network	6

LIST OF APPENDICES

Appendix A – Individual Assessment Methodology

INTRODUCTION

What is a Traffic Impact Fee?

Canyon Highway District No. 4 (CHD4) has developed a Traffic Impact Fee (TIF) program in coordination with the City of Middleton, the City of Star, Canyon County, and the Development Impact Fee Advisory Committees (DIFAC) from these agencies. The TIF program was created in conjunction with the Middleton-Star (Mid-Star) Service Area Capital Improvements Plan (CIP) (Reference 1) and meets the requirements of the Idaho Development Impact Fee Act (Idaho Code 67-82) (Reference 2). The TIF program identifies impact-fee eligible projects from the Mid-Star Service Area CIP to fund through transportation impact fees collected from new growth and development within the Mid-Star service area.

Traffic impact fees are one-time fees charged to new developments to pay for capital improvement projects associated with increased demand. Impact fees are attributed to new developments using a proportionate share concept, ensuring that developments and all partner agencies only pay their proportionate share for roadway facility improvements. Capital improvement project costs may be entirely or partially eligible for traffic impact fees, based on the Idaho Development Impact Fee Act.

This TIF program establishes traffic impact fees that represent the cost *per service unit* for new developments – service units are defined as the additional vehicle miles traveled on the eligible highway network as a result of new vehicle trips generated by new growth and development. Service units from a variety of land use types (e.g. single-family residential, multi-family residential, retail, office, light industrial) are considered based on established trip generation rates and other factors related to the land use.

State Requirements

The following defines the basic requirements for impact fees under Idaho Code 67-82:

- Impact fee programs must be based on an accompanying CIP, to be updated at least once every five years. The CIP must include projected demand for improvement projects over a reasonable period of time, not to exceed twenty years¹.
- Impact fees must not exceed a proportionate share of the cost of system improvements.

 Proportionate share should be determined in consideration of a number of factors, including the cost and funding of existing system improvements.
- Impact fee programs must provide a detailed description of the methodology by which costs per service unit are determined.
- Impact fee programs must include a schedule of development impact fees for various land uses per unit of development.

¹ Further discussion regarding CIP requirements is available in the CHD4 Capital Improvements Plan (2020).

- Impact fee programs must include a description of acceptable levels of service for system improvements.
- Development of an impact fee program must be in coordination with a development impact fee advisory committee.
- Development impact fee ordinances shall allow the developer to provide an individual assessment of
 the proportionate share of development impact fees. The individual assessment may be used to justify
 traffic impact fees lower than required of a development as part of the CHD4 Traffic Impact Fee
 Program for the Mid-Star service area. The methodology for individual assessments is presented in
 Appendix A.

Service Area

Figure 1 shows the service area for CHD4's TIF program. The service area includes multiple jurisdictions, including the City of Middleton, the western portion of the City of Star, portions of unincorporated Canyon County, and CHD4. The service area is defined as that portion of Canyon County lying north of the Boise River, east of Interstate 84, south of Payette and Gem Counties, and west of Ada County; and also the City of Middleton Area of Impact south of the Boise River lying east of KCID Road, north of Lincoln Road, and west of Midland Boulevard.

METHODOLOGY

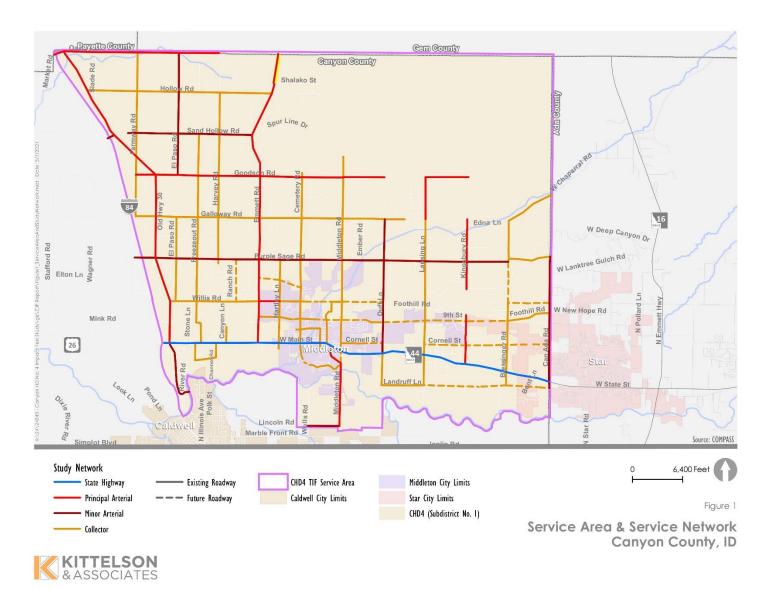
Land Use Assumptions

Traffic impact fee calculations are based on the cost of capital improvements projects identified in the Mid-Star Service Area CIP (Reference 1). The CIP identified existing and future roadway and intersection deficiencies using output from the COMPASS Regional Travel Demand Model.

Land use and demographic assumptions within the 2020 COMPASS model were modified to depict existing residential density using the 2019 orthophotography provided by COMPASS, and to include expected development in the service area based on current growth patterns identified in Canyon County, the City of Middleton, and the City of Star Comprehensive Plans (References 3, 4, and 5). Population and employment estimates for years 2020 and 2040 are provided in Table 1. The growth assumptions developed for the 20-year planning period are equivalent to approximately 4% annual population growth, which is conservatively below the 6% average annual traffic growth measured in the service area between 2000 and 2018.

Table 1. Year 2020 and Year 2040 Demographics in Mid-Star Service Area										
	Population				Employment					
Jurisdiction	2020	2040	Change	Percent	2020	2040	Change	Percent		
City of Middleton	9,710	27,342	+17,632	+182%	1,521	3,952	+2,431	+160%		
City of Star (in Canyon County)	150	12,646	+12,496	+8,331%	20	361	+341	+1,705%		
Unincorporated Canyon County	10,544	4,287	-6,257	-59%	801	600	-201	-25%		
Total Service Area	20,414	44,315	+23,901	+117%	2,342	4,939	+2,597	+111%		

Figure 1 Service Area and Service Network



Traffic Impact Fee Calculation

Traffic impact fees are calculated for different land uses (i.e., single-family residential, multi-family residential, retail, office, light industrial) based on their trip generation characteristics using an average vehicle-milestraveled (VMT) cost.

Impact fees are calculated by multiplying a static cost-per-mile value by the total number of new miles generated from a development. The TIF calculation is shown below followed by a description of each factor included in the TIF calculation.

$$\frac{\textit{Traffic}}{\textit{Impact Fee}} = \frac{ \frac{\textit{Total TIF-Eligible Costs}}{\textit{Change in VMT from}}}{\textit{New Development}} \times \frac{\textit{Peak Hour Trip}}{\textit{Generation Rate}} \times \frac{\textit{New Trip}}{\textit{Factor}} \times \frac{\textit{Average}}{\textit{Trip}} \times \frac{\textit{Adjustment}}{\textit{Length}} \times \frac{\textit{Adjustment}}{\textit{Factor}}$$

Total TIF-Eligible Costs

Total TIF-eligible costs for capital improvement projects were estimated as part of the Mid-Star Service Area CIP. Each project in the Mid-Star Service Area CIP includes a total project cost, as well as the proportion of that cost that is TIF-eligible. The sum of these TIF-eligible costs represents the maximum amount that may be charged as impact fees. Impact fee eligibility is based on the requirements in Idaho Code 67-82, which states that impact fee funding should meet the following criteria:

- Address deficiencies in capacity
- Address deficiencies that are attributable to future development (not existing deficiencies)
- Are included in the CIP (requiring updating every five years)

Impact fee eligibility is further discussed in the Mid-Star Service Area CIP.

The total TIF-Eligible costs in the Mid-Star Service Area CIP is equal to \$67,126,695.

Change in VMT & VMT Cost

Vehicle-Miles-Traveled (VMT) measures the total number of miles traveled on CHD4 arterials and collectors within the service area during the PM peak hour. Trips on facilities maintained by the Idaho Transportation Department, including SH-44 and I-84, are excluded from the VMT calculation.

The change in total VMT within the service area between the year 2020 and year 2040 is used to determine the relative impact of new growth and development. Dividing total TIF-eligible costs by the change in VMT results in cost per mile associated with new development (VMT cost) and acts as the basis for the TIF calculation. This VMT cost is then multiplied by various factors to determine final TIF values.

COMPASS's travel demand model provides total VMT for the service area based on land use characteristics approved by partner agencies and the DIFAC. Table 2 shows the total system VMT for years 2020 and 2040 from the COMPASS travel demand model.

Table 2. Change in Vehicle Miles Traveled (Year 2020 to Year 2040)						
	Total Service Area VMT					
Year 2020	11,743					
Year 2040	35,023					
Net New System VMT (Change in VMT from New Development)	23,280					

The resulting VMT cost calculation is shown below. The VMT cost is equal to \$2,883 per VMT.

$$VMT\ Cost = \frac{Total\ TIF\ Eligible\ Costs}{Change\ in\ VMT\ from\ New\ Development} = \frac{\$67,126,695}{23,280\ VMT} = \$2,883/VMT$$

Peak Hour Trip Generation Rate & New Trip Factor

Peak hour trip generation rates are used to estimate the number of peak hour trips generated by various land uses. This program uses rates published in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 10th Edition* (Reference 6), except where modified by local data. For each new development, the number of new peak hour trips is determined using the trip generation per unit shown in Table 3 to establish the proportionate share of growth attributable to the development. Peak hour trips are used for the PM peak hour and are divided by two to reduce to one-way trips and avoid double counting both the origin and destination.

Some new developments attract trips that are already in the system, rather than generating new trips. These are known as pass-by trips. Since impact fees are associated with new trips to the system, pass-by trips are eliminated from the calculation. A new trip factor is applied to the total peak hour trips for each land use to account for pass-by trips. New trip factors are provided for each land use type as established in Table 3.

Average Trip Length

The average trip length within the service area is multiplied by the number of generated trips to determine the total number of vehicle-miles-traveled generated by a new development. COMPASS's travel demand model provides an average trip length for all PM peak hour trips within the service area.

The average trip length used in the traffic impact fee calculation is equal to 11.2 miles.

Different land uses can result in different trip patterns and trip lengths. According to the National Household Travel Survey Summary of Travel Trends (Reference 7), trip lengths vary by trip purpose, and trips to shopping destinations are approximately 32% shorter than average trip lengths. Trip Length adjustment factors of 75%, 50%, and 25% are applied to the average trip length for certain commercial and industrial uses as shown in Table 3.

Network Adjustment Factor

A network adjustment factor is applied to the VMT to account for vehicle-miles-traveled on Idaho Transportation Department (ITD) roadways within the service area, since ITD facilities are not TIF-eligible. These include State Highway 44 and Interstate 84. COMPASS's travel demand model provides a network adjustment factor for all trips within the service area, and shows that approximately 68% of all VMT within the service area is on ITD facilities.

The network adjustment factor used in the traffic impact fee calculation is equal to 0.317.

IMPACT FEE SCHEDULE

The traffic impact fee schedule for the service area is shown in Table 3. Traffic impact fees were calculated using the process described in previous sections and using the equation shown below:

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Table 3. Impact Fee Schedule									
	Land Use Type	ITE Land Use Code	Peak Hour Trip Gen Rate	Trip Gen Unit- Type	Netwo rk Adjust ment Factor	New Trip Factor (Pass- By)	Average Trip Length (miles) (See Note 2)	VMT Cost (per mile)	Traffic Impact Fee per Unit
	Single Family Housing	210	0.495	per dwelling unit	0.317	1.00	11.2	\$2,883	\$5,050
ses	Multifamily Housing, Low-Rise	220	0.28	per dwelling unit	0.317	1.00	11.2	\$2,883	\$2,857
Residential Uses	Multifamily Housing, Mid-Rise	221	0.22	per dwelling unit	0.317	1.00	11.2	\$2,883	\$2,245
ıtia	Mobile Home	240	0.23	per dwelling unit	0.317	1.00	11.2	\$2,883	\$2,347
den	Accessory Dwelling Unit	See Note 1	0.155	per dwelling unit	0.317	1.00	11.2	\$2,883	\$1,581
esi	Senior Adult Housing - Attached	252	0.13	per dwelling unit	0.317	1.00	11.2	\$2,883	\$1,326
8	Senior Adult Housing - Detached	251	0.15	per dwelling unit	0.317	1.00	11.2	\$2,883	\$1,530
	Assisted Living	254	0.13	per bed	0.317	1.00	11.2	\$2,883	\$1,326
	Hotel Motel	310 320	0.3	per room	0.317	1.00	11.2	\$2,883 \$2,883	\$3,061 \$1,939
	Automobile Care Center/Repair	942	1.555	per room per 1000 SF	0.317	0.72	2.8	\$2,883	\$2,856
	Automobile Parts Sales	843	2.455	per 1000 SF	0.317	0.72	2.8	\$2,883	\$3,569
	Bank (No Drive-Thru)	911	6.065	per 1000 SF	0.317	0.65	2.8	\$2,883	\$10,056
	Bank (With Drive-Thru)	912	10.225	per 1000 SF	0.317	0.65	2.8	\$2,883	\$16,953
	Building Materials and Lumber	812	1.03	per 1000 SF	0.317	1.00	11.2	\$2,883	\$10,509
	Church	560	0.245	per 1000 SF	0.317	1.00	5.6	\$2,883	\$1,250
	Coffee / Donut Shop No Drive-Thru	936	18.155	per 1000 SF	0.317	0.50	2.8	\$2,883	\$23,154
	Coffee / Donut Shop with Drive-Thru	937	21.69	per 1000 SF	0.317	0.50	2.8	\$2,883	\$27,663
	Coffee Shop with Drive-Thru No Indoor Seats	938	41.665	per 1000 SF	0.317	0.11	2.8	\$2,883	\$11,690
	Convenience Market (24hrs, No Gas)	851	24.555	per 1000 SF	0.317	0.49	2.8	\$2,883	\$30,690
ĺ	Day Care	565	5.56	per 1000 SF	0.317	1.00	2.8	\$2,883	\$14,182
	Discount Club	857	2.09	per 1000 SF	0.317	0.63	8.4	\$2,883	\$10,076
	High-Cube Transload and Short-Term Storage Warehouse	154	0.05	per 1000 SF	0.317	1.00	11.2	\$2,883	\$510
	Drinking Place/Bar	925	5.68	per 1000 SF	0.317	0.57	2.8	\$2,883	\$8,258
	Free-standing Discount Store	815	2.415	per 1000 SF	0.317	0.83	8.4	\$2,883	\$15,339
	Free-standing Discount Superstore	813	2.165	per 1000 SF	0.317	0.83	8.4	\$2,883	\$13,751
S	Furniture Store Hardware/Paint Store	890 816	0.26 1.34	per 1000 SF per 1000 SF	0.317	0.47	8.4	\$2,883 \$2,883	\$935 \$7,588
Uses	Home Improvement Superstore	862	1.165	per 1000 SF	0.317	0.74	8.4	\$2,883	\$5,171
al C	Hospital	610	0.485	per 1000 SF	0.317	1.00	8.4	\$2,883	\$3,711
Ţ	Light Industrial	110	0.315	per 1000 SF	0.317	1.00	11.2	\$2,883	\$3,214
Commercial	Manufacturing	140	0.335	per 1000 SF	0.317	1.00	11.2	\$2,883	\$3,418
E O	Mini-Warehouse (Self Storage)	See Note 1	0.052	per 1000 SF	0.317	1.00	5.6	\$2,883	\$265
Ö	Automobile Sales, New	840	1.215	per 1000 SF	0.317	1.00	8.4	\$2,883	\$9,297
	Automobile Sales, Used	841	1.875	per 1000 SF	0.317	1.00	8.4	\$2,883	\$14,348
	Pharmacy/Drug store (No Drive-Thru)	880	4.255	per 1000 SF	0.317	0.47	2.8	\$2,883	\$5,101
	Pharmacy/Drug store (With Drive-Thru)	881	5.145	per 1000 SF	0.317	0.51	2.8	\$2,883	\$6,693
	Restaurant - Fast Food (No Drive-Thru)	933	14.17	per 1000 SF	0.317	0.57	2.8	\$2,883	\$20,602
	Restaurant - Fast Food (With Drive-Thru)	934	16.335	per 1000 SF	0.317	0.50	2.8	\$2,883	\$20,833
	Restaurant - High Turnover	932	4.885	per 1000 SF	0.317	0.57	2.8	\$2,883	\$7,102
	Shopping Center	820	1.905	per 1000 SF	0.317	0.66	5.6	\$2,883	\$6,414
	Supermarket (Free Standing) Tire Store	850 848	4.62 1.99	per 1000 SF per 1000 SF	0.317	0.64	2.8 8.4	\$2,883 \$2,883	\$7,542 \$10,964
	Variety Store (Dollar Store)	814	3.42	per 1000 SF	0.317	0.72	8.4	\$2,883	\$10,904
	Warehousing	150	0.095	per 1000 SF	0.317	1.00	11.2	\$2,883	\$969
	Gas Station with Conv Mkt (Fueling Position)	945	6.995	per fueling position	0.317	0.44	2.8	\$2,883	\$7,851
	Gas Station (Fueling Position)	944	7.015	per fueling position	0.317	0.58	2.8	\$2,883	\$10,378
	Golf Course (Hole)	430	1.455	per hole	0.317	1.00	11.2	\$2,883	\$14,845
	Movie Theater	444	0.045	per seat	0.317	1.00	8.4	\$2,883	\$344
	Public Park	411	0.055	per acre	0.317	1.00	5.6	\$2,883	\$281
	Quick Lubrication	941	2.425	per servicing positions	0.317	0.58	2.8	\$2,883	\$3,588
	Self-Service Car Wash	947	2.77	per stall	0.317	0.58	2.8	\$2,883	\$4,098
	Sup Conv Mkt/Gas Station >3,000 sf and >10 FP	960	11.48	per fueling position	0.317	0.44	2.8	\$2,883	\$12,884
ice es	Dental/Vision	See Note 1	1.315	per 1000 SF	0.317	1.00	8.4	\$2,883	\$10,063
Office Uses	General Office	710	0.575	per 1000 SF	0.317	1.00	8.4	\$2,883	\$4,400
	Medical	720	1.73	per 1000 SF	0.317	1.00	8.4	\$2,883	\$13,238

¹Trip generation data based on local data. Collected by Ada County Highway District (ACHD) through individual assessment process.

²Vehicle trips generated by commercial land uses typically have lower lengths than trips generated by residential or office land-uses. The U.S. Department of Transportation's Summary of Travel Trends: 2017 National Household Travel Survey states that the average trip length of shopping trips and other family/personal errands are approximately 32% shorter than the average trip lengths for all trips. The COMPASS 2012 Regional Household Travel Survey states that Home-Based-Shop trips are approximately 59% shorter than Home-Based-Work trips. Trip reduction factors of 75% (correlates with 25% correlates). decrease), 50%, and 25% were applied to land uses that are expected to have average trip lengths lower than 11.2 miles. These reduction factors were applied based on the guidance in the travel surveys and expected development patterns in the Mid-Star service area. Commercial and office-related development is expected to be centered on the SH 44 corridor and will result in trip lengths significantly shorter than trips that require travel external to the Mid-Star service area.

REFERENCES

- 1. Canyon Highway District No. 4. *Draft Capital Improvements Plan*. Accessed 2021 (Plan is in progress).
- 2. Idaho Statutes. Title 67 Chapter 82 Development Impact Fees. Accessed 2020.
- 3. Canyon County. Canyon County 2020 Comprehensive Plan. 2020.
- 4. City of Middleton. City of Middleton Comprehensive Plan. 2016.
- 5. City of Star. City of Star Comprehensive Plan. 2019.
- 6. Institute of Transportation Engineers. *Trip Generation Manual*, 10th Edition. 2017.
- 7. National Household Travel Survey. *Summary of Travel Trends*. 2017.

APPENDIX A: Individual Assessment Methodology

INDIVIDUAL ASSESSMENT METHODOLOGY

Introduction

The methodology for individual assessments of the Middleton-Star (Mid-Star) Service Area Traffic Impact Fee (TIF) Program is discussed in this document. As per Idaho Code 67-82, development impact fee ordinances shall allow the developer to provide an individual assessment of the proportionate share of development impact fees. The individual assessment may be used to justify traffic impact fees lower than required of a development as part of the CHD4 Traffic Impact Fee Program for the Middleton-Star (Mid-Star) service area.

Individual Assessment Methodology

An individual assessment consists of the evaluation of traffic impact fee calculation factors for site-specific conditions. The traffic impact fee calculation is shown below and the calculation factors that are eligible for individual assessment are <u>underlined</u>. The Vehicle-Miles-Traveled (VMT) Cost is calculated based on project costs in the Mid-Star Service Area Capital Improvements Plan and COMPASS travel demand model output and cannot be changed based on site-specific assessments.

To show that a proposed development is paying impact fees greater than their proportionate share, the developer should prove that one or more of the impact fee calculation factors is not representative of the proposed development. Site-specific data should be used to support the re-calculation and assessment of the impact fee. This section describes the necessary steps and data required for assessment of each traffic impact fee calculation factor.

Site Selection

Site-specific data should be collected from the development after it has been constructed or from a representative development site. If the data is collected from the development, it should be collected after the development, or a representative portion of the development, is constructed and occupied. The *Institute of Transportation Engineer's (ITE) Trip Generation Handbook 3rd Edition* (Reference 1) recommends an occupancy rate of at least 75% to 90% depending on land use type. Collecting data from the development provides the most accurate data and can be used to justify a partial refund on impact fees that have already

been paid by the applicant. If the data is collected from a different site, the site should be representative of the proposed development in land-use type and location.

Assumptions related to site-specific data should be discussed with the Mid-Star Service Area Impact Fee administrators prior to data collection.

Peak Hour Trip Generation

The Peak Hour Trip Generation represents the average number of one-way trips that a development unit (i.e., residential unit, 1,000 square feet of retail land use, 1,000 square feet of industrial land use) generates in the PM peak hour. The traffic impact fee schedule was calculated with peak hour trip generation rates from the *ITE Generation Manual 10th Edition* (Reference 2).

A developer may establish site-specific trip generation rates by collecting traffic counts at the development (post-construction) or at sites with representative land-uses to the proposed development. The traffic counts should be collected during a weekday PM peak period (4 p.m. to 6 p.m.). Traffic counts should be collected in fifteen-minute intervals and at each site access point.

Additional information regarding traffic count collection may be found in *ITE's Trip Generation Handbook 3*rd *Edition*.

New Trip Factor

The New Trip Factor represents the percent of trips that are newly generated. The factor is used to reduce the trip generation rate to account for pass-by trips. This factor is typically only applicable to retail land uses. *ITE's Trip Generation Handbook 3rd Edition* provides pass-by trip reduction factors that are used to determine the New Trip Factors in the Mid-Star Service Area traffic impact fee schedule.

A site-specific New Trip Factor should be determined through origin-destination surveys at the development (post-construction) or at sites with representative land-uses to the proposed development. The origin-destination survey should ask participants if the trip was of primary nature (e.g., was the development the primary destination of the trip). Trips to the development that are not primary in nature may be considered as pass-by trips.

Average Trip Length

The Average Trip Length indicates the average, one-way vehicle trip length generated by a land-use within the Mid-Star Service Area. The Average Trip Length was determined from the COMPASS travel demand model (Reference 3) and adjusted based on data from the National Household Travel Survey (Reference 4).

A site-specific Average Trip Length should be determined through origin-destination surveys at the development (post-construction) or at sites with representative land-uses to the proposed development. The origin-destination survey should ask participants about their trip origin, trip destination and trip routes. This information can be used to determine average trip lengths.

Network Adjustment Factor

The Network Adjustment Factor indicates the proportion of trips that take place on non-impact fee eligible roadways (i.e., Idaho Transportation Department facilities) within the Mid-Star Service Area. The Network Adjustment Factor is obtained from the COMPASS travel demand model.

A site-specific Network Adjustment Factor should be determined at the development (post-construction) or at sites with representative land-uses to the proposed development. The survey should ask participants about their trip route. The percent of the trip routes that take place on non-impact fee eligible roadways should determine the Network Adjustment Factor.

REFERENCES

- 1. Institute of Transportation Engineers. *Trip Generation Handbook 3rd Edition*. 2017.
- 2. Institute of Transportation Engineers. *Trip Generation Manual 10th Edition.* 2017.
- 3. Community Planning Association of Southwest Idaho. Communities in Motion 2040 2.0. 2018.
- 4. Federal Highway Administration. *Summary of Travel Trends 2017 National Household Travel Survey.* 2017.