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CITY OF Grand Junction COLORADO

GRAND JUNCTION CITY COUNCIL
MONDAY, DECEMBER 3, 2018

PRE-MEETING (DINNER) 5:00 P.M. ADMINISTRATION CONFERENCE ROOM
WORKSHOP, 5:30 P.M.
CITY HALL AUDITORIUM
250 N. 5TH STREET

To become the most livable community west of the Rockies by 2025

1. Discussion Topics

a. Growth and Development Policy / Transportation Impact Fees

b. First Responder Needs / Update on Service and Funding Options

2. Next Workshop Topics

3. Other Business

What is the purpose of a Workshop?

The purpose of a Workshop is for the presenter to provide information to City Council about an item or topic that they may be discussing at a future meeting. The less formal setting of a Workshop is intended to facilitate an interactive discussion among Councilmembers.

How can I provide my input about a topic on tonight's Workshop agenda?

Individuals wishing to provide input about Workshop topics can:

1. Send an email (addresses found here www.gjcity.org/city-government/) or call one or more members of City Council (970-244-1504);

2. Provide information to the City Manager (citymanager@gjcity.org) for dissemination to the City Council. If your information is submitted prior to 3 p.m. on the date of the Workshop, copies will be provided to Council that evening. Information provided after 3 p.m. will be disseminated the next business day.

3. Attend a Regular Council Meeting (generally held the 1st and 3rd Wednesdays of each month

at 6 p.m. at City Hall) and provide comments during “Citizen Comments.”

Grand Junction City Council

Workshop Session

Item #1.a.

Meeting Date: December 3, 2018

Presented By: Trent Prall, Public Works Director

Department: Public Works - Engineering

Submitted By: Trent Prall, Public Works Director
Kathy Portner, Acting Community Development Department Director

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Information

SUBJECT:

Growth and Development Policy / Transportation Impact Fees

EXECUTIVE SUMMARY:

The current Transportation Capacity Payment (TCP) program and the associated Growth Management and Streets Policy have been in place since 2004. City staff has been working with the development community on updating the Growth Management and Streets policy and has a number of potential changes to discuss. TCP fees, also known as Transportation Impact Fees, are currently being reviewed and updated based on a process that is being led by the Grand Valley Metropolitan Planning Organization (GVMPO). The update of the 2002 study, again by Duncan and Associates, is nearing completion and a draft of the study and associated methodology will be presented and discussed by Clancy Mullen of Duncan and Associates.

BACKGROUND OR DETAILED INFORMATION:

In 2004, the City adopted Ordinance No. 3641 that provided the approach for calculation and collection of the City's Transportation Capacity Payment (TCP) fee. The City also adopted a Growth Management and Streets Policy that, at that time, significantly revised the City's approach to both the City's and developer's obligation for the construction of public access and street safety improvements. At the time of adoption, and as stated in the recitals of the adopted Ordinance, the premise for adopting a new approach was due to concerns raised that the method of addressing traffic impacts was "not always fair" and the previous methodology required the first development in an area to complete infrastructure improvements while others who

followed later were not burdened with similar costs.

The 2004 policy tried to address the instance where a "developer of land immediately adjacent to one or more unimproved or under-improved streets may be required to pay for the improvement of all adjacent street improvement due to location, or the configuration of parcels such that it does not abut an unimproved street, may not be required to make the same improvements to the street system even though each development may add the same amount of traffic."

To address that problem, among others, the City updated the TCP fee and adopted the Growth Management and Streets policy.

Transportation Capacity Program – The TCP was modeled so that the City would pay for improvements to the street system that either provided capacity to the system or added safety improvements. The streets identified for the use of the TCP funds were only those streets shown on the adopted Grand Valley Circulation Plan functional classification map and that were considered part of the City's Major Street System. Though the Streets Policy required the City to pay for safety improvements (such as turn lanes or traffic signals) those costs were not included in the calculation of the TCP fee.

The TCP fees and methodology were based on a fee study conducted by Duncan and Associates in 2002. The fees were adopted at a rate of 52% of what was recommended by the study and were set at a level at which a "substantial portion of the cost to build new transportation facilities caused by Growth is paid for by Growth." The fee was to be adopted annually by resolution of the Council and be adjusted annually for inflation in the Consumer Price Index. This has not happened consistently.

Since adoption in 2004, the City adjusted the fee for residential development (based on the CPI) from $1,500 to $1,589 between 2004 and 2007 then to its current fee of $2,554 in 2008 which has not been adjusted since. The TCP fee for Commercial development was originally adopted at a rate of $2,461 per 1,000 square feet (*e.g.* Shopping Center) and was adjusted upwards in 2008 to $2,607 and then in 2013, 2014 and 2015 to a rate of $4,189 per 1,000 square feet (*e.g.* Shopping Center) that is being collected today.

In 2013 the City Council adopted Resolution 15-13, which provided for infill and redevelopment incentives. Within the defined redevelopment area TCP fees were reduced. The boundary included Downtown, the river district area as well as the North Avenue corridor between State Highway 6 & 50 and I-70 Business Loop, was intended to encourage development of infill parcels and redevelopment of underutilized land within certain areas of the City.

The TCP fees are currently undergoing a review and update process that is being led by the Grand Valley Metropolitan Planning Organization (GVMPO). The study, again by Duncan and Associates, is expected to be completed this fall.

Growth Management and Streets Policy – At the same time the City adopted updated TCP fees in 2004, the City adopted a Growth and Development Related Streets Policy. At that time the City determined that there are three key components to a meaningful growth and development related street/traffic policy. These included:

- Collection of a realistic TCP fees for all new development projects,
- A clear articulation of what minimum requirements (in addition to TCP fees) each development must construct; and,
- City funding and/or other means of participation in construction of street improvements.

In addition to the key policy components, the policy also set forth seven principles of the policy. Summarized, these principles included:

1. All development shall pay a TCP fee and must pay its fair share of added traffic that it creates.

2. The TCP was set to ensure the developer contributes to the value of capacity consumption proportional to its impacts but is credited for the value of taxes generated from the development.

3. TCP funds are intended to be used for improvements to the major street system while improvements to the local system are the responsibility of the property owners abutting the local street.

4. The developer is required to construct Minimum Street Access Improvements, defined as follows:

a. Construction of full asphalt radii, and necessary drainage improvements for each intersection with a perimeter street and/or improvements necessitated if the proposed development creates lots with direct access to the perimeter street(s) as determined by the Director.

b. Curb, gutter and sidewalk improvements when connecting directly to a street with like improvements.

c. The City's multi-modal plan shall be incorporated into determining what improvements are required associated with a connection to the adjacent street system.

d. Dedication of necessary ROW to provide safe ingress/egress to the proposed development.

e. Construction of drainage structures and/or bridges associated the connection of the development to the street system.

f. Preparation of Traffic Studies as necessary.

g. Extension of utilities including water, sewer, storm water improvements gas, electric, cable and telephone, etc.

5. The developer must construct all internal streets specific to their development.

6. The developer is responsible for the design of the Minimum Street Access Improvements.

7. Should the development trigger the need for public improvements beyond available city funding from the TCP, the City may enter into an agreement that would provide for the reimbursement of a portion of the costs of the public improvement.

The 2004 policy replaced the previous policy that required developers to pay for the improvement of the half of the street(s) that was directly abutting their project ("half street improvements") and eliminated the need for the developer to build any safety improvements (*e.g.*, turn lanes into their development) as well as eliminated any need for the developer to pay for any off-site improvements (*e.g.*, intersection improvements and traffic signals).

As the Policy and Fees are today, there are significant implications for how the City funds street capacity and safety improvements. Those implications include:

- The cost of safety improvements (such as turn lanes into a specific development) were not included in the cost of capacity improvements in calculating the TCP fee. Because safety improvements were not included in the overall costs, the TCP that is collected does not consider those improvements; the end result being that the City pays for *all* safety improvements, even those related to a specific development and benefitting only a specific development(s).

- When a development abuts a street that is classified as a "collector" or (higher functional class) in the Circulation Plan, the obligation to improve that street is carried in full by the City – even if the improvements are necessary for access to a specific development. Only if the street is considered a "local or unclassified" street is the developer required to construct it. The net effect is two-fold, whereas 1) the City carries the full cost of improving the street and 2), it

generally finds itself moving money toward certain street projects to serve specific development, but that may not be of the greatest overall community benefit or need.

In a survey of other jurisdictions, staff found that cities generally require the developer to pay for the adjacent street to be developed to a local street standard (or that adequate to serve the development) including curb, gutter and sidewalk and then the city pays the portion of the cost required to "upsize" the street to a higher classification (*e.g.*, minor collector, arterial, *etc.*).

Recommended Policy and Zoning and Development Code Modifications – Staff has reviewed the 2004 ordinance and policy as codified in the Zoning and Development Code and has discussed with members of the development community the realities of the City being unable to fund, through current means, the commitments made through the policy. As a result of those discussions, the development community recognizes that the City does not have the capacity to develop all components of the necessary road infrastructure and that those improvements related to safety (*e.g.*, turn lanes into a development) are appropriate to have the development community pay for and construct. Conversations regarding the responsibility to construct adjacent local roads are ongoing and staff recommends that aspect of the policy be considered concurrently with discussions regarding an updated Transportation Capacity Fee (the Duncan impact fee study). The Grand Valley Regional Transportation Planning Office is leading the effort to update the 16 year old study. Clancy Mullen with Duncan and Associates will present the proposed update and answer questions regarding the update.

Staff recommends the City Council consider two future actions including:

1. Repeal the Growth and Development Related Street Policy (as adopted as part of Ordinance No. 3641 as this policy is tied directly to the ordinance adopting impact fees that will be proposed for updating in the near future) because the policy is largely redundant to the text found within the Zoning and Development; and

2. Initiate an amendment to §21.06.010 of the Zoning and Development Code to include the requirement for development to pay for street safety improvements related to the direct impacts of a development.

Staff anticipates the Zoning and Development Code changes to be heard by the Planning Commission December 11th and for ordinance changes to be scheduled for City Council for adoption at the January 16th meeting.

FISCAL IMPACT:

This is a workshop item in which policies and fees will be reviewed and potential

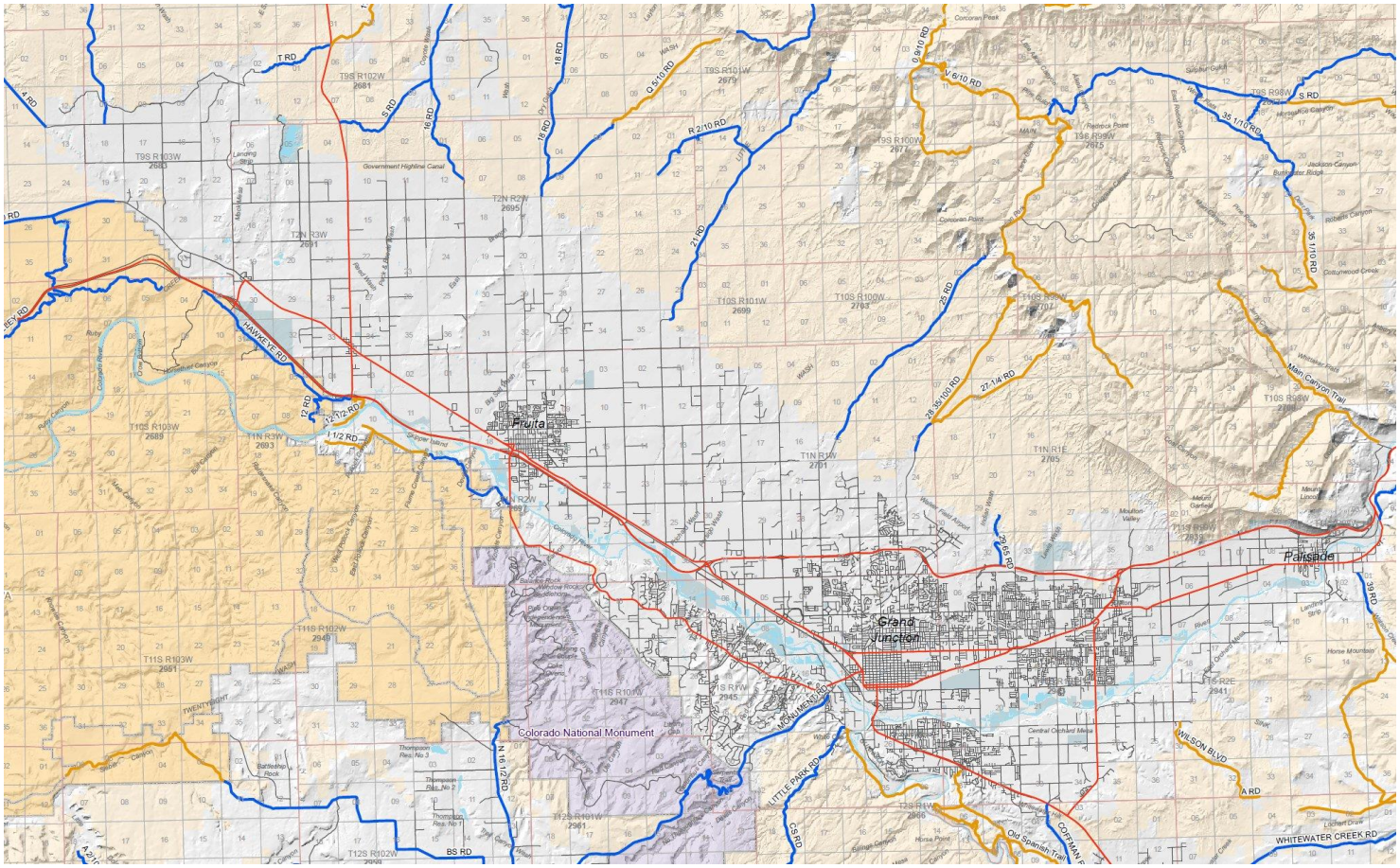
changes will be discussed. Pending Council discussion and direction, a fiscal impact of the proposed modifications will be calculated in preparation for a future meeting.

SUGGESTED ACTION:

Workshop discussion of proposed changes in the calculation of Transportation Impact Fees as well as the Growth and Development Street Policy.

Attachments

1. Mesa County TIF Study 20181128
2. Mesa County TIF Impact Fee



Transportation Impact Fee Study

for Mesa County, Colorado

prepared by

Duncan Associates

November 2018

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prepared by Duncan Associates
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EXECUTIVE SUMMARY

The purpose of this project is to assist Mesa County and participating municipalities (Grand Junction, Palisades and Fruita) by updating the county-wide transportation impact fees study. The previous study was prepared in 2002.[1] The fees calculated in that study and the fees currently being charged by the participating jurisdictions are summarized in Table 1, and are illustrated in Figure 1 on the following page for five major land use categories.

All jurisdictions originally adopted the fees at a lower rate than calculated in the 2002 study, and some have adjusted the fees periodically for inflation. Except for Fruita's residential fees, the current fees being charged are lower than the fees calculated 16 years ago.

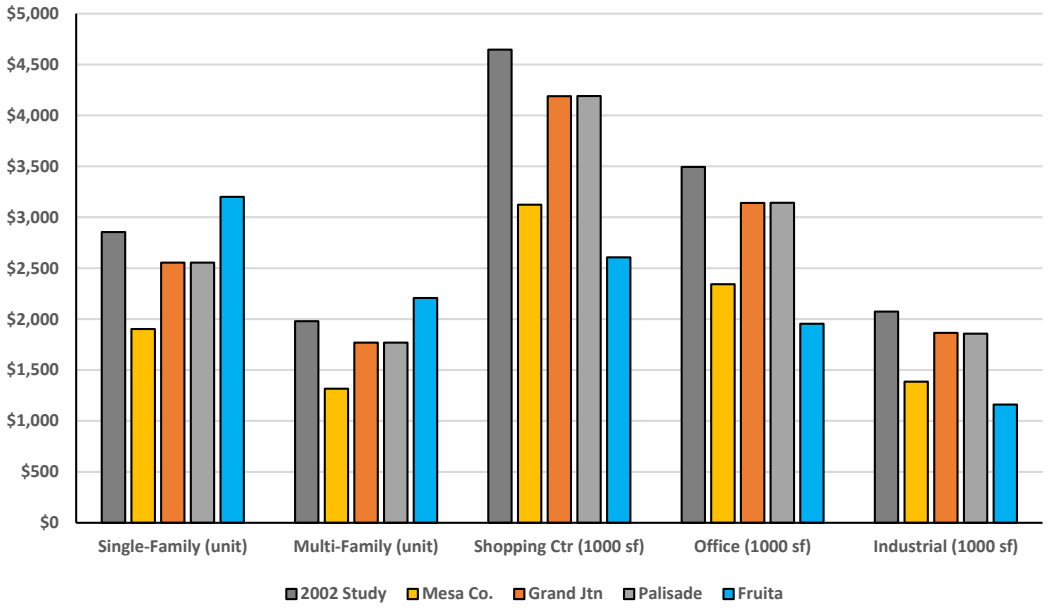
Table 1. Current Transportation Impact Fees

Land Use	Unit	2002 Study	Mesa County	Grand Junction	Palisade	Fruita
Single-Family Detached	Dwelling	$2,854	$1,902	$2,554	$2,554	$3,200
Multi-Family	Dwelling	$1,979	$1,317	$1,769	$1,769	$2,208
Mobile Home/RV Park	Pad	$1,435	$958	$1,284	$1,284	$795
Hotel/Motel	Room	$2,687	$1,795	$2,407	$2,407	$1,494
Shopping Center (0 to <100k sf)	1,000 sf	$4,646	$3,124	$4,189	$4,190	$2,606
Shopping Center (100k to <249k sf)	1,000 sf	$4,393	$2,935	$3,933	$3,935	$2,447
Shopping Center (250k to <500k sf)	1,000 sf	$4,267	$2,843	$3,805	$3,815	$2,368
Shopping Center (500k sf or more)	1,000 sf	$3,942	$2,627	$3,525	$3,521	$2,193
Auto Sales/Service	1,000 sf	$4,232	$2,824	$3,780	$3,785	$2,352
Bank	1,000 sf	$7,117	$4,744	$6,359	$6,365	$3,957
Convenience Store w/Gas Sales	1,000 sf	$10,191	$6,818	$9,143	$9,149	$5,689
Golf Course	Hole	$6,578	$4,439	$5,951	$5,954	$3,702
Health Club	1,000 sf	$3,813	$2,542	$3,422	$3,410	$2,129
Movie Theater	1,000 sf	$11,834	$7,889	$10,574	$10,584	$6,578
Restaurant, Sit Down	1,000 sf	$5,757	$3,838	$5,159	$5,150	$3,210
Restaurant, Fast Food	1,000 sf	$12,846	$8,596	$11,544	$11,532	$7,182
Office, General (0 to <99k sf)	1,000 sf	$3,494	$2,342	$3,141	$3,142	$1,954
Office, General (100 sf or more)	1,000 sf	$2,973	$1,997	$2,682	$2,675	$1,668
Office, Medical	1,000 sf	$9,807	$6,607	$8,862	$8,865	$5,514
Hospital	1,000 sf	$4,554	$3,069	$4,112	$4,117	$2,558
Nursing Home	1,000 sf	$1,276	$860	$1,149	$1,153	$715
Church	1,000 sf	$2,184	$1,462	$1,967	$1,961	$1,224
Day Care Center	1,000 sf	$4,553	$3,052	$4,086	$4,094	$2,542
Elementary/Secondary School	1,000 sf	$713	$478	$639	$641	$397
Industrial Park	1,000 sf	$2,073	$1,385	$1,864	$1,857	$1,160
Warehouse	1,000 sf	$1,477	$987	$1,328	$1,324	$826
Mini-Warehouse	1,000 sf	$512	$344	$460	$463	$286

Source: 2002 study fees from Duncan Associates, *Transportation Impact Fee Study for Mesa County, Colorado*, September 2002; Mesa County fees from resolution adjusting the fees for inflation adopted January 8, 2018; Palisade fees from Town of Palisade, February 5, 2018; Fruita fees from 2018 fee schedule from City of Fruita, February 5, 2018.

[1] Duncan Associates, *Transportation Impact Fee Study for Mesa County, Colorado*, September 2002

Figure 1. Existing Transportation Impact Fees, Mesa County



Note: Shopping center and office fees based on 100,000 sq. ft. building

Update Overview

This study retains the general methodology used in the 2002 study (see discussion of methodology in Appendix D). The original study calculated regional and non-regional fees, under the expectation that the participating jurisdictions would pool the regional fees and use them to improve regional roadways. Instead, the jurisdictions are spending the fees they collect to improve roads within their jurisdiction, regardless of the regional/non-regional road distinction. This update does not calculate separate fees for the two categories.

Participating jurisdictions can adopt the updated fees at any level up to 100% of the amounts calculated in this study. The adoption percentage should be the same for all land uses to retain the proportionality of the fees to the impact on the major roadway system. If disproportionate reductions are made in fees assessed on selected types of development, the shortfall should be made up with general fund revenue, and a revenue credit should be calculated to avoid non-favored development paying more than its fair share (see Proportionality section in Appendix C).

This study calculates fees that exclude right-of-way (ROW) costs, both to keep the fees from increasing so much and to give jurisdictions the option not to provide developer credits for ROW exactions. However, if a jurisdiction opts not give developers credit against the fees for required ROW dedications, that jurisdiction should consider restricting the funds collected from being spent on ROW (see Developer Credit section of Appendix C).

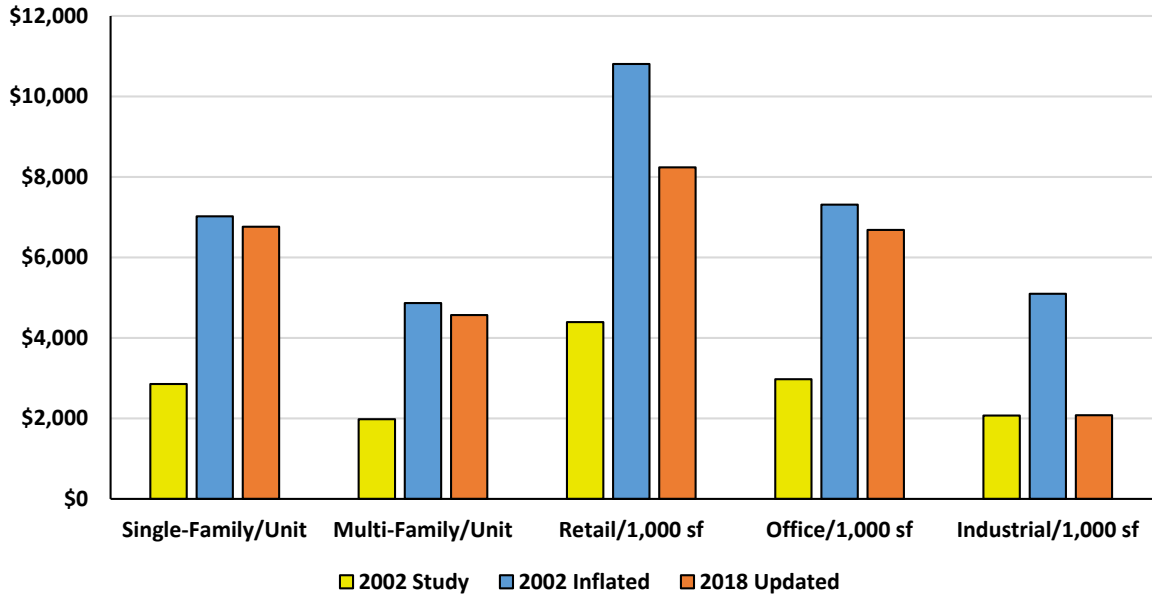
The inputs into the fee calculations are updated in this study based on the most current available data. Trip rates have been updated based on the September 2017 edition of the Institute of Transportation Engineers (ITE) *Trip Generation Manual*. Updated average trip lengths are from the U.S. Department of Transportation's 2017 *National Household Travel Survey*. An updated inventory of the county-wide major roadway system is used to calibrate the travel demand factors and ensure that they are consistent with existing travel on the major roadway system in Mesa County.

Several modifications to the fee schedule land use categories are made in this update to better reflect current available data and/or simplify the process of fee determination and collection. A discussion of the reasons for individual changes can be found in the summary section of the Travel Demand chapter. Recommended definitions for the land use categories are provided in Appendix B.

Updated Fees

The updated fees are compared with the fees calculated in the 2002 study in Table 2 on the following page. Not surprisingly, the fees are considerably higher than those calculated 16 years ago for most land uses. Construction costs have increased considerably over this time. The Colorado Department of Transporations Construction Cost Index is 2.46 times what it was in 2002. Compared to inflation-adjusted 2002 study fees, the updated fees are lower for the majority of land uses, including the major categories of single-family, multi-family, retail/commercial, general office, and industrial/warehouse uses, as illustrated in Figure 2.

Figure 2. Comparison of Current and Updated Transportation Impact Fees



The wide variation in percentage changes between land use categories reflects changes in travel demand factors, including trip generation rates (1997 versus 2017 ITE manual), percent new trips (also from ITE manual), and average trip lengths (1995 versus 2017 national travel survey).

Table 2. Comparison of Current and Updated Transportation Impact Fees

		2002 Study		Updated	% Change from	
Land Use Type	Unit	Original	Inflated	Fees	Original	Inflated
Single-Family Detached	Dwelling	$2,854	$7,021	$6,763	137%	-4%
Multi-Family	Dwelling	$1,979	$4,868	$4,570	131%	-6%
Mobile Home/RV Park	Pad	$1,435	$3,530	$3,583	150%	1%
Hotel/Motel	Room	$2,687	$6,610	$4,183	56%	-37%
Shopping Center/Commercial	1,000 sf	$4,393	$10,807	$8,240	88%	-24%
Auto Sales/Service	1,000 sf	$4,267	$10,497	$9,258	117%	-12%
Bank, Drive-In	1,000 sf	$7,117	$17,508	$18,365	158%	5%
Convenience Store w/Gas Sales	1,000 sf	$10,191	$25,070	$26,395	159%	5%
Golf Course	Hole	$6,578	$16,182	$12,850	95%	-21%
Movie Theater	1,000 sf	$11,834	$29,112	$33,028	179%	13%
Restaurant, Standard	1,000 sf	$5,757	$14,162	$14,975	160%	6%
Restaurant, Drive-Through	1,000 sf	$12,846	$31,601	$33,203	158%	5%
Office, General	1,000 sf	$2,973	$7,314	$6,685	125%	-9%
Office, Medical	1,000 sf	$9,807	$24,125	$25,665	162%	6%
Animal Hospital/Vet Clinic	1,000 sf	n/a	n/a	$15,858	n/a	n/a
Hospital	1,000 sf	$4,554	$11,203	$7,905	74%	-29%
Nursing Home	1,000 sf	$1,276	$3,139	$3,120	145%	-1%
Place of Worship	1,000 sf	$2,184	$5,373	$2,725	25%	-49%
Day Care Center	1,000 sf	$4,553	$11,200	$4,485	-1%	-60%
Elementary/Secondary School	1,000 sf	$713	$1,754	$1,688	137%	-4%
Public/Institutional	1,000 sf	n/a	n/a	$3,813	n/a	n/a
Industrial	1,000 sf	$2,073	$5,100	$2,078	0%	-59%
Warehouse	1,000 sf	$1,477	$3,633	$1,248	-16%	-66%
Mini-Warehouse	1,000 sf	$512	$1,260	$1,075	110%	-15%

Source: Original 2002 study fees from Duncan Associates, *Transportation Impact Fee Study for Mesa County, Colorado*, September 2002 (sum of regional road fees without major structure costs and nonregional road fees); inflated 2002 fees are 2.46 times the original fee, based on the increase in the Colorado Department of Transportation *Construction Cost Index* from 2nd quarter 2012 to 2nd quarter 2018; updated fees from Table 17.

Comparative Jurisdictions

Communities in the process of updating impact fees are naturally interested in knowing what other nearby or comparable jurisdictions are charging. However, concerns about "competitiveness" with other jurisdictions are not necessarily well-founded. Studies have found that reducing or eliminating fees did not have any perceptible effect on the rate of development that subsequently occurred. This is not surprising, given the myriad other market and regulatory factors that differ between jurisdictions besides transportation impact fees.

The fees from the 2002 study and this update are compared to transportation impact fees currently charged by 12 other Colorado jurisdictions in Table 3. Note that while only transportation fees are compared, two-thirds of the comparison jurisdictions also charge other types of impact fees.

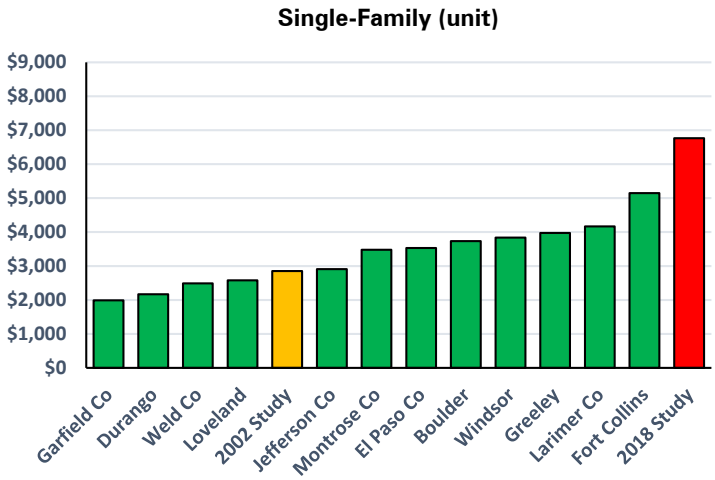
Table 3. Transportation Impact Fees in Colorado

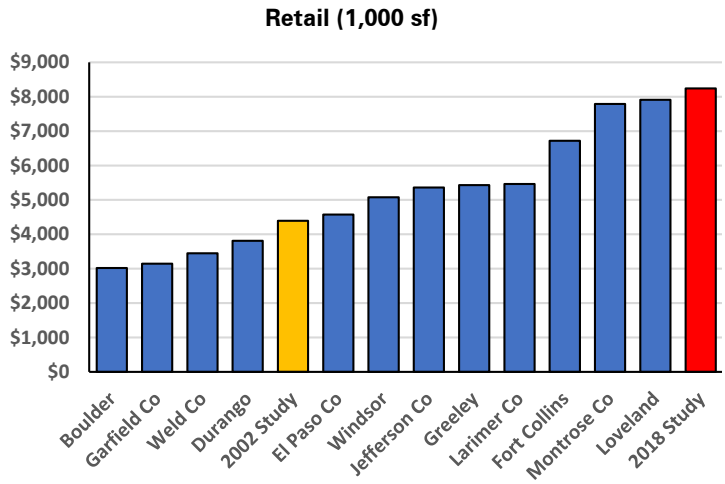
Jurisdiction	Study/ Adoption Year	Single-Family (per unit)	Multi-Family (per unit)	Retail (per 1,000 sq. ft.)	Office (per 1,000 sq. ft.)	Industrial (per 1,000 sq. ft.)
Boulder (1)	2017	$3,734	$2,702	$3,020	$2,700	$2,620
Durango	n/a	$2,169	$1,298	$3,810	$2,823	$1,963
El Paso County	2017	$3,532	$2,220	$4,572	$2,933	$3,366
Fort Collins	2017	$5,150	$3,392	$6,721	$4,951	$1,598
Garfield County (2)	2017	$1,992	$1,230	$3,145	$1,361	$472
Greeley	2015	$3,973	$2,565	$5,428	$4,650	$1,609
Jefferson County (3)	n/a	$2,911	$2,051	$5,360	$3,590	$1,550
Larimer County	2018	$4,168	$2,955	$5,461	$3,213	$1,296
Loveland	n/a	$2,578	$1,801	$7,910	$3,550	$1,890
Mesa Co (2002)	2002	$2,854	$1,979	$4,393	$2,973	$2,073
Mesa Co (updated)	2018	$6,763	$4,570	$8,240	$6,685	$2,078
Montrose County	2007	$3,480	$2,440	$7,790	$4,000	$2,530
Weld County	2011	$2,488	$1,630	$3,450	$2,275	$2,251
Windsor	2017	$3,838	$2,436	$5,076	$4,674	$2,016

Notes: (1) includes transportation excise tax; (2) average of two areas; (3) single-family fee is average of fees for up-to-two-car garages and three-or-more-car garages
Source: Duncan Associates internet survey, October 5, 2018 (where fees vary by size, assumes 2,000 sq. ft. single-family unit, 1,000 sq. ft. multi-family unit, and 1 million square foot retail center or office building).

Single-family and retail transportation fees charged by Mesa County and the other 12 Colorado jurisdictions are illustrated in the two charts below. The 2002 study fees for Mesa County are well below the median of the other jurisdictions for both single-family and retail. The updated fees are at the high end of what the other 12 jurisdictions currently charge. Multi-family and office fee comparisons are not shown, but are similar. Industrial fees are not going up much in this update.

Figure 3. Comparative Transportation Fees, Colorado Jurisdictions





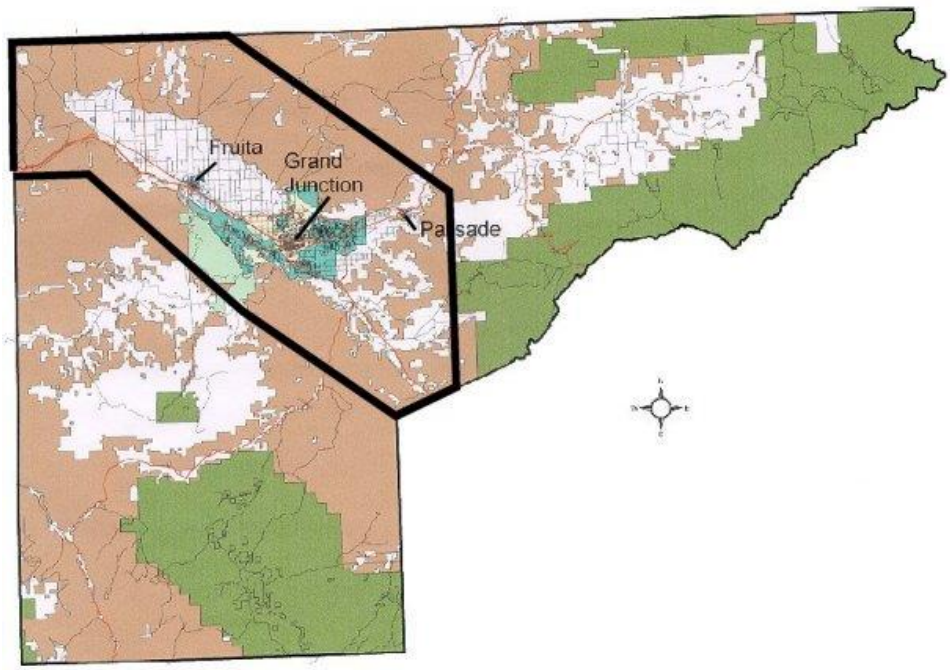
SERVICE AREAS

There are two kinds of geographic areas in impact fee systems: service areas and benefit districts. A service area is an assessment area that is served by a defined group of capital facilities and subject to a uniform impact fee schedule. A benefit district is an area within which fees collected are earmarked to be spent.

Generally, transportation impact fees tend to have a single service area and a uniform fee schedule, whether at the municipal level or the regional, county-wide level. That is because the arterial road system is designed to move traffic from one part of a community to another, and improvements to this system are generally of community-wide benefit. In some communities, major collectors may function as part of the arterial system as well.

The transportation impact fees apply only in the most rapidly developing area of the County. The boundaries of the Grand Valley Airshed as defined by the Colorado Department of Health for the purposes of monitoring air pollution is used as the transportation impact fee service area. Based on the 6,000-foot elevation line on the valley walls, the Airshed defines the developing area in and around the municipalities of Grand Junction, Palisades and Fruita. This transportation impact fee service area is about one-quarter of the area of the entire county, including roughly twice as much privately-owned land area as the area used in regional transportation planning. This area continues to be appropriate as the boundary of the service area for the transportation impact fees (see Figure 4).

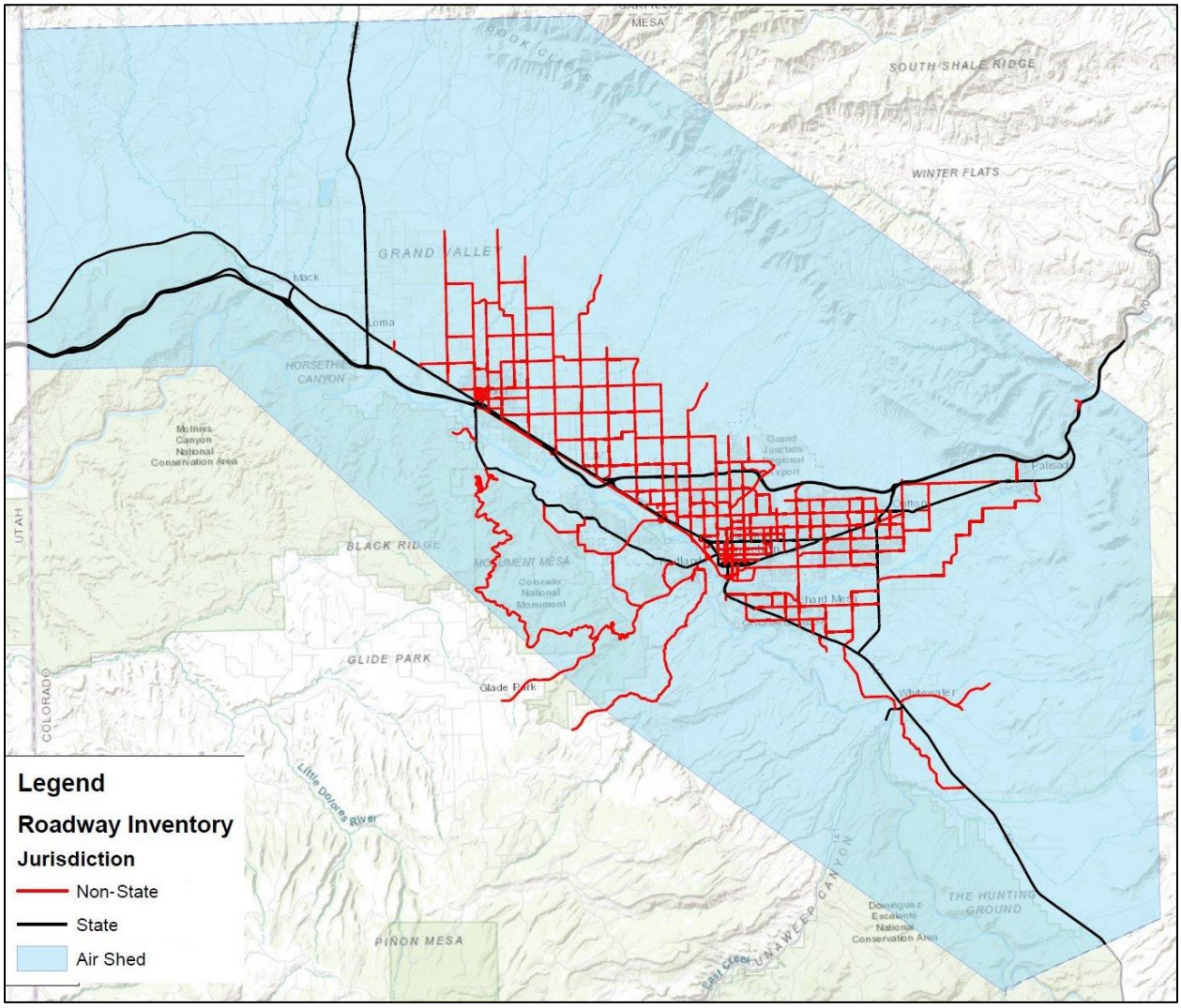
Figure 4. Transportation Impact Fee Service Area



MAJOR ROADWAY SYSTEM

A transportation impact fee system should include a clear definition of the major roadway system that is to be funded with the impact fees. The major roadway system consists of all state and federal highways (excluding I-70), principal arterials (e.g., 24 Road, Patterson Road), minor arterials, and major collector roads within the transportation impact fee service area (illustrated in Figure 5). Other roads will not be funded with transportation impact fees, nor will developer improvements to roads not included in the major roadway system be eligible for credits against the transportation impact fees. A detailed listing of the current road segments included in the major roadway system is provided in Table 18 in Appendix A.

Figure 5. Major Roadway System



TRAVEL DEMAND

The travel demand generated by specific land use types in Mesa County is a product of three factors: 1) trip generation, 2) percent new trips, and 3) average trip length. The first two factors are well documented in the professional literature – the average trip generation characteristics identified in studies of communities around the nation should be reasonably representative of trip generation characteristics in Mesa County. In contrast, trip lengths are much more likely to vary between communities, depending on the geographic size and shape of the community and its major roadway system.

Trip Generation

Trip generation rates are based on information published in the most recent edition of the Institute of Transportation Engineers' (ITE) Trip Generation manual. Trip generation rates represent trip ends, or driveway crossings at the site of a land use. Thus, a single trip from home to work counts as one trip end for the residence and one trip end for the work place, for a total of two trip ends. To avoid over counting, all trip rates are divided by two. This allocates travel equally between the origin and destination of the trip and avoids double charging. This update utilizes the most current edition of the ITE manual (the 10th edition published in 2017).

New Trip Factor

Trip rates must also be adjusted by a "new trip factor" to exclude pass by and diverted-linked trips. This adjustment is intended to reduce the possibility of over-counting by only including primary trips generated by the development. Pass by trips are those trips that are already on a particular route for a different purpose and simply stop at a development on that route. For example, a stop at a convenience store on the way home from the office is a pass by trip for the convenience store. A pass by trip does not create an additional burden on the street system and therefore should not be counted in the assessment of impact fees. A diverted-linked trip is similar to a pass by trip, but a diversion is made from the regular route to make an interim stop. The reduction for pass by and diverted-linked trips is drawn from ITE manual and other published information.

Average Trip Length

In the context of a transportation impact fee based on a consumption-based methodology, it is important to determine the average length of a trip on the major roadway system within Mesa County. The average trip length can be determined by dividing the total vehicle-miles of travel (VMT) on the major roadway system by the total number of trips generated by existing development in the service area. Total VMT on the major roadway system is estimated by multiplying the length of each road segment by the current traffic volume on that segment and summing for the entire system. Total trips can be estimated by multiplying existing land uses by the appropriate trip generation rates (adjusted for new trip factors and divided by two) and summing for all existing development in the service area.

Existing land use information was compiled for all jurisdictions within the transportation impact fee service area to determine an average trip length. Existing land uses in each of the general categories are multiplied by average daily trip generation rates and summed to determine a reasonable estimate of total daily trips within the service area. As shown in Table 4, existing land uses within the transportation impact fee service area generate approximately 428,000 average daily trips.

Table 4. Existing Average Daily Trips

Land Use Type	ITE Code	Unit	Existing Units	Trips/ Unit	Daily Trips
Single-Family Detached	210	Dwelling	44,535	4.72	210,205
Multi-Family	220/221	Dwelling	11,383	3.19	36,312
Subtotal, Residential			55,918		246,517
Hotel/Motel	310/320	Rooms	3,806	2.92	11,114
Commercial	820	1,000 Sq. Ft.	13,754	8.30	114,158
Office	710	1,000 Sq. Ft.	3,028	4.87	14,746
Industrial	130	1,000 Sq. Ft.	3,655	1.68	6,140
Warehousing	150	1,000 Sq. Ft.	6,130	0.87	5,333
Public/Institutional	620	1,000 Sq. Ft.	8,999	3.32	29,877
Subtotal, Nonresidential			35,566		181,368
Total					427,885

Source: Existing development in service area from Mesa County GIS, March 12, 2018; trips per unit from Table 7.

A reasonable estimate of Mesa County's average trip length can be derived by dividing total daily VMT on the major roadway system by the total number of daily trips generated by existing development within the service area. This calculation, presented in Table 5, indicates that the average trip length on the major roadway system is about 5.5 miles.

Table 5. Average Trip Length

Daily VMT on Major Roads	2,347,636
÷ Daily Trips in Service Area	427,885
Average Trip Length (miles)	5.49

Source: VMT from Table 18; trips from Table 4.

Average trip lengths by trip purpose for the western region are available from the U.S. Department of Transportation's 2017 *National Household Travel Survey*. In addition, a residential trip length is determined, using a weighting of 20 percent work trips and 80 percent average trips. The average trip length on the major roadway system is 62.6% of the regional average trip length. Using this ratio, reasonable trip lengths were derived for specific trip purposes, including home-to-work trips, shopping, school/church and other personal trips, as shown in Table 6.

Table 6. Average Trip Lengths by Trip Purpose

Trip Purpose	Regional Trip Length (miles)	Local Ratio	Local Trip Length (miles)
To or from work	10.77	0.626	6.74
Residential	9.16	0.626	5.73
Doctor/Dentist	9.42	0.626	5.90
School/Church	5.01	0.626	3.14
Family/Personal	6.00	0.626	3.76
Shopping	6.34	0.626	3.97
Average of All Trip Purposes*	8.76	0.626	5.49

* weighted (not simple average of trip purposes shown)

Source: Regional average trip lengths for the western Census region from US. Department of Transportation, *National Household Travel Survey*, 2017; regional residential trip length estimated based on weighting of 20% work trips and 80% average trips (20% work trip factor based on 2016 5-year U.S. Census sample data for Mesa County showing the average dwelling unit has 0.91 workers, and 0.91 work trips per unit is 20% of average trips per unit, derived from Table 4); average local trip length from Table 5; ratio is average local to regional trip length; local trip length by purpose is product of regional trip length and local ratio.

Travel Demand Summary

The result of combining trip generation rates, new trip factors, average trip lengths and the local adjustment factor is the travel demand schedule. The travel demand schedule establishes the average daily vehicle-miles of travel (VMT) generated by various land use types per unit of development in the service area. The updated demand schedule reflects updated trip generation rates from the Institute of Transportation Engineers (ITE), *Trip Generation Manual*, 10th edition, 2017. Average trip lengths are updated with the 2017 *National Household Travel Survey*. The adjustment factor ensures that the VMT generated by existing land uses does not exceed current observed VMT on the major roadway system. The updated travel demand schedule is presented in Table 7. For each land use, daily VMT is a factor of trip rate, trip length, new trip factor, and the local adjustment factor.

Some modifications to the land use categories are made in this update to better reflect available data and to simplify the process of fee determination and collection. Recommended definitions of all the categories are provided in Appendix B.

- The current four shopping center size categories are combined into a single retail/commercial category. It is based on average trip characteristics for shopping centers, which tend to include a relatively broad mix of commercial uses. While trip generation rates are available for shopping centers by size, data on new trip factors and average trip lengths by size are harder to come by. Trip generation rates tend to go down by shopping center size, but this is counterbalanced by fewer pass by trips and longer trip lengths. The average shopping center rate is the appropriate default for a wide range of retail and commercial uses not specifically identified in the fee schedule. Health club is merged into the new "Shopping Center/Commercial" category because the ITE manual does not have a daily trip generation rate, and the PM peak hour rate is similar to shopping center.

- The current two office categories by building size are combined into a single general office category, for the same reasons of data availability and counterbalancing applicable to shopping centers.

- Two new categories have been added: animal hospital/vet clinic and public/institutional. The new ITE manual now has an average daily trip rate for animal hospital. The public/institutional category, based on trip data for junior/community college, is intended to provide a default category for other public/institutional uses not specifically listed in the fee schedule.

- The sit-down and fast food restaurant categories have been renamed "standard" and "drive-through," and are defined by whether they have drive-through/drive-in facilities. This provides an administratively simple way to distinguish between them and is consistent with the ITE category from which the fast food trip rate is derived.

- Church has been renamed "Place of Worship" to better reflect its nondenominational character. Industrial park has been renamed "Industrial" to reflect its broader applicability.

Table 7. Travel Demand Schedule

Land Use Type	ITE Code	Unit	Trips	% New	Miles	VMT
Single-Family Detached	210	Dwelling	4.72	100%	5.73	27.05
Multi-Family	220/230	Dwelling	3.19	100%	5.73	18.28
Mobile Home/RV Park	240	Pad	2.50	100%	5.73	14.33
Hotel/Motel	310/320	Room	2.92	100%	5.73	16.73
Shopping Center/Commercial	820	1,000 sf	18.87	44%	3.97	32.96
Auto Sales/Service	840	1,000 sf	13.92	67%	3.97	37.03
Bank, Drive-In	912	1,000 sf	50.01	37%	3.97	73.46
Convenience Store w/Gas Sales	853	1,000 sf	312.10	17%	1.99	105.58
Golf Course	430	Hole	15.19	90%	3.76	51.40
Movie Theater	444	1,000 sf	39.04	90%	3.76	132.11
Restaurant, Standard	931	1,000 sf	41.92	38%	3.76	59.90
Restaurant, Drive-Through	934	1,000 sf	235.47	30%	1.88	132.81
Office, General	710	1,000 sf	4.87	100%	5.49	26.74
Office, Medical	720	1,000 sf	17.40	100%	5.90	102.66
Animal Hospital/Vet Clinic	650	1,000 sf	10.75	100%	5.90	63.43
Hospital	610	1,000 sf	5.36	100%	5.90	31.62
Nursing Home	620	1,000 sf	3.32	100%	3.76	12.48
Place of Worship	560	1,000 sf	3.47	100%	3.14	10.90
Day Care Center	565	1,000 sf	23.81	24%	3.14	17.94
Elementary/Secondary School	520/522/530	1,000 sf	8.96	24%	3.14	6.75
Public/Institutional	540	1,000 sf	10.12	48%	3.14	15.25
Industrial	130	1,000 sf	1.45	100%	5.73	8.31
Warehouse	150	1,000 sf	0.87	100%	5.73	4.99
Mini-Warehouse	151	1,000 sf	0.75	100%	5.73	4.30

Source: 1-way trips are ½ of trip ends (to avoid double-counting as described earlier) from Institute of Transportation Engineers (ITE), *Trip Generation Manual*, 10th Edition, 2017; new trip percentages for retail/commercial uses from ITE, *Trip Generation Handbook*, 3rd Edition, 2017; new trip percentage for day care and schools based on Preston Hitchens, "Trip Generation of Day Care Centers," *1990 ITE Compendium*; average trip lengths from Table 6 (convenience store is one half retail, drive-through restaurant is one-half standard restaurant); VMT is product of trip rate, percent new trips, and trip length.

Comparisons of existing and updated travel demand factors are shown in Table 8. Travel demand per unit of development by land use type is lower for most land uses in this update. The change in travel demand per unit by land use exhibits considerable variation, ranging from a decline of 68% for warehouse to an increase of 7% for movie theater.

Table 8. Travel Demand Comparison

		VMT per Unit		Percent
Land Use Type	Unit	2002	Updated	Change
Single-Family Detached	Dwelling	29.70	27.05	-9%
Multi-Family	Dwelling	20.59	18.28	-11%
Mobile Home/RV Park	Pad	14.94	14.33	-4%
Hotel/Motel	Room	27.96	16.73	-40%
Shopping Center/Commercial	1,000 sf	44.91	32.96	-27%
Auto Sales/Service	1,000 sf	43.97	37.03	-16%
Bank, Drive-In	1,000 sf	73.94	73.46	-1%
Convenience Store w/Gas Sales	1,000 sf	106.28	105.58	-1%
Golf Course	Hole	69.15	51.40	-26%
Movie Theater	1,000 sf	122.94	132.11	7%
Restaurant, Standard	1,000 sf	59.82	59.90	0%
Restaurant, Drive-Through	1,000 sf	133.96	132.81	-1%
Office, General	1,000 sf	33.80	26.74	-21%
Office, Medical	1,000 sf	103.00	102.66	0%
Hospital	1,000 sf	47.83	31.62	-34%
Nursing Home	1,000 sf	13.40	12.48	-7%
Place of Worship	1,000 sf	22.80	10.90	-52%
Day Care Center	1,000 sf	47.55	17.94	-62%
Elementary/Secondary School	1,000 sf	7.45	6.75	-9%
Industrial	1,000 sf	21.57	8.31	-61%
Warehouse	1,000 sf	15.37	4.99	-68%
Mini-Warehouse	1,000 sf	5.38	4.30	-20%

Source: 2002 VMT from Duncan Associates, *Transportation Impact Fee Study*, September 2002; updated VMT from Table 7.

COST PER SERVICE UNIT

There are two components to determining the average cost to add a unit of capacity to the major roadway system: the cost of a set of improvements, and the capacity added by those improvements. This section describes both components used to calculate the average cost per service unit.

This update excludes right-of-way (ROW) costs from the fee calculation. The exclusion of ROW eliminates the most variable component of project costs, keeps the fees lower, and allows jurisdictions the option of not providing developer credit for ROW dedication.

Average Cost per Lane-Mile

The first step is to determine the cost to add an additional lane-mile of roadway. While transportation impact fees can be used to pay for a variety of types of improvements that expand the capacity of the major roadway system without adding lanes, such as intersection improvements and signalization, it is difficult to quantify the vehicle-miles of capacity (VMC) added by these types of improvements. The cost per lane-mile can be calculated based on a representative list of historical or planned improvements. The average cost per lane-mile developed for this study uses a weighted average of urban and rural road improvements. Right-of-way costs have been excluded in this update.

Costs for improving urban road sections are drawn from cost data provided by the City of Grand Junction. The estimated costs of the City's planned improvements over the next ten years are summarized in Table 9. Mesa County engineers confirm these costs are reasonably representative of urban road capacity expansion in other parts of the county. None of the projects include major structures, such as overpasses, elevated ramps or bridges. As shown, the weighted average cost of urban road expansions is about $3.3 million per lane-mile.

Table 9. Urban Average Cost per Lane-Mile

				Lanes		New	Project	Cost per
Road	From	To	Miles	Ex.	Fut.	Ln-Mi.	Cost	Lane-Mile
24 Road	Patterson	I-70	1.20	3	5	2.40	$8,100,000	$3,375,000
25 Road	I-70B	F 1/4	0.75	3	5	1.50	$7,290,000	$4,860,000
25 Road	F 1/4 Road	G Road	0.75	2	3	0.75	$3,060,000	$4,080,000
26 Road	Patterson	H Road	2.00	2	3	2.00	$6,480,000	$3,240,000
26 1/2 Road	Horizon	Summerhill	2.20	2	3	2.20	$8,019,000	$3,645,000
28 1/4 Road	Patterson	Hawthorne	0.38	0	2	0.76	$390,000	$513,158
28 3/4 Road	North Ave	Orchard Ave	0.50	2	3	0.50	$4,500,000	$9,000,000
29 Rd Pkwy	F Road	I-70	1.00	2	5	3.00	$9,000,000	$3,000,000
Crosby Ave	25 1/2 Rd	Main St	0.63	2	3	0.63	$4,025,700	$6,390,000
D 1/2 Road	29 Road	30 Road	1.00	2	3	1.00	$4,500,000	$4,500,000
F 1/2 Pkwy	I-70B	F 1/4 Rd	1.70	0	3	5.10	$9,720,000	$1,905,882
G Road	24 Road	27 Road	3.00	2	3	3.00	$10,700,000	$3,566,667
Total			15.11			22.84	$75,784,700	$3,318,069

Source: Planned projects descriptions and costs in 2018 dollars from Trent Prall, Public Works Director, City of Grand Junction, September 19, 2018; cost per lane-mile is project cost divided by new lane-miles.

The cost of recent County rural road projects constructed or estimated in engineering studies are summarized in Table 10. All these projects or studies are from about three years ago and have been adjusted to current dollars. The costs do not include any bridge work, which the County often does as part of such projects. The list does not include any urban projects, or projects in the high country, which tend to cost quite a bit more. Many of these projects do not actually add new travel lanes, but rather the equivalent amount of pavement provided by new shoulders. The resulting average rural road cost is about $1.68 million per lane-mile in current dollars.

Table 10. Rural Average Cost per Lane-Mile

Road	From	To	Project Description	Miles	Lanes Ex.	Lanes Fut.	New Ln-Mi.	Project Cost	Cost/ Lane-Mile
22 Road	Ranchman's Ditch	H Road	Added 3rd lane w/shldrs	0.27	2	3	0.27	$948,300	$3,512,222
22 Road	H Road	H 1/2 Road	Added 3rd lane w/shldrs	0.41	2	3	0.41	$1,046,400	$2,552,195
22 Road	H 1/2 Road	I Road	Added 6' shoulders	0.59	2	3	0.59	$997,350	$1,690,424
22 Road	I Road	GVIC Canal	Added 6' shoulders	0.66	2	3	0.66	$1,008,250	$1,527,652
22 Road	GVIC Canal	J 1/2 Road	Added 6' shoulders	0.70	2	3	0.70	$1,057,300	$1,510,429
22 Road	J 1/2 Road	K Road	Added 6' shoulders	0.58	2	3	0.58	$784,800	$1,353,103
K Road	19 Road	19 1/2 Road	Added 6' shoulders	0.61	2	3	0.61	$833,850	$1,366,967
K Road	19 1/2 Road	20.2 Road	Added 6' shoulders	0.70	2	3	0.70	$1,286,200	$1,837,429
K Road	Adobe	20.8 Road	Added 6' shoulders	0.63	2	3	0.63	$693,240	$1,100,381
Total				5.15			5.15	$8,655,690	$1,680,717

Source: Mesa County Engineering, October 5, 2018; original costs inflated by the change in the CDOT Construction Cost Index over the last three years; cost per lane-mile is project cost divided by new lane-miles.

Average urban and rural costs per lane-mile identified above are converted to a weighted average cost per lane-mile in Table 11 based on the distribution of existing lane-miles. The weighted average is about $2.8 million per lane-mile.

Table 11. Weighted Average Cost per Lane-Mile

	Urban	Rural	Total
Average Cost per Lane-Mile	$3,318,069	$1,680,717	n/a
x Percent of Lane-Miles	66.2%	33.8%	100.0%
Weighted Average Cost per Lane-Mile	$2,196,562	$568,082	$2,764,644

Source: Average cost per lane-mile from Table 9 (urban) and Table 10; distribution of urban and rural major roadway lane-miles within the service area from Mesa County GIS, September 28, 2018.

Cost per Service Unit Summary

Dividing the weighted average cost per lane-mile by the average daily capacity per lane yields an average cost of per vehicle-mile of capacity or VMC. Under the modified consumption-based methodology, the cost per VMC needs to be multiplied by the VMC/VMT ratio (see discussion in Appendix D: Methodology) to determine the cost per vehicle-mile of travel or VMT. As shown in Table 12, the cost per service unit to accommodate the traffic generated by new development is $353 per VMT. Note that this updated cost per service unit excludes ROW costs.

Table 12. Transportation Cost per Service Unit

Weighted Average Cost per Lane-Mile	$2,764,644
÷ Average Daily Capacity per Lane	7,827
Average Cost per Vehicle-Mile of Capacity (VMC)	$353
x VMC/VMT Ratio	1.00
Cost per Vehicle-Mile of Travel (VMT)	$353

Source: Weighted average cost per lane-mile from Table 11; average capacity per lane derived from Table 18 (total VMC ÷ total lane-miles); VMC/VMT ratio is recommended ratio from Table 19.

As discussed in Appendix C: Legal Framework, revenue credits may be warranted for existing deficiencies, outstanding debt, the availability of State/Federal funding, and the historical use of local funding for major roadway expansion. There are no existing deficiencies from the perspective of the transportation impact fees because the fees are based on a level of service that is lower than what is currently provided to existing development.

The City of Grand Junction is the only one of the four jurisdictions that has any outstanding debt on existing major roadways. The City has about $25 million in outstanding debt for the Riverside Parkway widening. However, Riverside Parkway accounts for only about 4% of the total excess capacity in the major roadway system that is available for new development. The fees that Grand Junction collects could be used to retire this debt, although that is not the City's current practice. Consequently, no revenue credit is required for the outstanding debt.

While not necessarily required, as discussed in the Revenue Credits section of Appendix C, revenue credits will be calculated for direct state and federal funding for road improvements, and for local government's historical use of funding for capacity-expanding improvements.

Direct funding of road improvements with State and Federal funds is programmed through the *Transportation Improvement Program* (TIP) prepared by the Grand Valley Metropolitan Planning Organization. The current TIP includes $2.7 million in annual funding over next four years for improvements that are capacity-expanding. These improvements are summarized in Table 13.

Table 13. Average Annual State/Federal Road Capacity Funding, FY 2019-2022

Facility	Location	Description	Amount
I-70B	24 Rd-15th St	Widening	$2,000,000
US 6	Clifton-Palisade	Preliminary Engineering	$7,200,000
US 6	Fruita-I-70B	Highway & Intersection Improvements	$1,650,000
Total State/Federal Funding			$10,850,000
÷ Number of Years			4
Average Annual Funding			$2,712,500

Source: Grand Valley Metropolitan Planning Organization, *Transportation Improvement Program, State FY 2019 to 2022*, amended October 22, 2018.

In addition to direct state and federal funding for road improvements, other state highway revenues, primarily highway user taxes and motor vehicle registration fees, are allocated to local jurisdictions and earmarked for transportation-related expenditures. Other major local sources of revenue for road expenditures include Mesa County's sales tax and Grand Junction's general fund. The consultant analyzed the four jurisdictions' annual reports for the last five years to determine how much is spent on right-of-way, new roads, and roadway capacity improvements. As can be seen from Table 14, local governments in Mesa County are spending about $10 million annually on capacity improvements.

Table 14. Average Annual Local Road Capacity Expenditures

Jurisdiction	5-Yr. Avg.
Mesa County	$7,184,091
City of Grand Junction	$2,431,028
City of Fruita	$441,301
Town of Palisade	$0
Total	$10,056,420

Source: *Local Highway Finance Reports*, 2012-2016 for Mesa County and Grand Junction, 2013-2017 for Fruita and Palisade.

The amount of the revenue credit is determined by first dividing the total annual funding available for road capacity improvements by total VMT on the major roadway system, then multiplying by a present value factor. This results in a credit per service unit that is the current equivalent of the future 30-year stream of funding that will be available to help defray the growth-related costs of improving the major roadway system.

Table 15. Transportation Funding Credit

Annual State/Federal Capital Funding	$2,712,500
Annual Local Capital Expenditures	$10,056,420
Total Annual Capital Funding	$12,768,920
÷ Daily VMT on Major Road System	2,347,636
Annual Funding per Daily VMT	$5.44
x Present Value Factor (30 Years)	18.86
Funding Credit per Daily VMT	$103

Source: State/Federal funding from Table 13; local expenditures from Table 14; existing VMT from Table 18; present value factor is based on a discount rate of 3.30%, which is the national average yield on AAA 30-year municipal bonds from fmsbonds.com on November 27, 2018.

The net cost per service unit is the cost per VMT less the revenue credit for non-impact fee funding. As shown in Table 16, the net cost per service unit is $250 per VMT.

Table 16. Transportation Net Cost per Service Unit

Cost per Vehicle-Mile of Travel	$353
– Credit per Vehicle-Mile of Travel	-$103
Net Cost per Vehicle-Mile of Travel	$250

Source: Cost per VMT from Table 12; credit from Table 15.

NET COST SCHEDULE

The updated transportation impact fees for the various land use categories are shown in Table 17. Fees shown exclude ROW costs. The impact fee calculation for each land use category is the product of daily VMT per development unit on the major roadway system and the net cost per VMT, which takes into account the average cost to add roadway capacity as well as future revenue that will be generated by new development to help offset those costs. The comparison of the updated fees with current fees is presented in the Executive Summary.

Table 17. Updated Transportation Impact Fees

Land Use Type	Unit	VMT/ Unit	Net Cost/ VMT	Net Cost/ Unit
Single-Family Detached	Dwelling	27.05	$250	$6,763
Multi-Family	Dwelling	18.28	$250	$4,570
Mobile Home/RV Park	Pad	14.33	$250	$3,583
Hotel/Motel	Room	16.73	$250	$4,183
Shopping Center/Commercial	1,000 sf	32.96	$250	$8,240
Auto Sales/Service	1,000 sf	37.03	$250	$9,258
Bank, Drive-In	1,000 sf	73.46	$250	$18,365
Convenience Store w/Gas Sales	1,000 sf	105.58	$250	$26,395
Golf Course	Hole	51.40	$250	$12,850
Movie Theater	1,000 sf	132.11	$250	$33,028
Restaurant, Standard	1,000 sf	59.90	$250	$14,975
Restaurant, Drive-Through	1,000 sf	132.81	$250	$33,203
Office, General	1,000 sf	26.74	$250	$6,685
Office, Medical	1,000 sf	102.66	$250	$25,665
Animal Hospital/Vet Clinic	1,000 sf	63.43	$250	$15,858
Hospital	1,000 sf	31.62	$250	$7,905
Nursing Home	1,000 sf	12.48	$250	$3,120
Place of Worship	1,000 sf	10.90	$250	$2,725
Day Care Center	1,000 sf	17.94	$250	$4,485
Elementary/Secondary School	1,000 sf	6.75	$250	$1,688
Public/Institutional	1,000 sf	15.25	$250	$3,813
Industrial	1,000 sf	8.31	$250	$2,078
Warehouse	1,000 sf	4.99	$250	$1,248
Mini-Warehouse	1,000 sf	4.30	$250	$1,075

Source: VMT per unit from Table 17; net cost per VMT from Table 16.

APPENDIX A: MAJOR ROAD INVENTORY

Table 18. Existing Major Roadway Inventory

Street	From	To	Type	Miles	Lns	Capacity	ADT	VMC	VMT
1 9/10 Rd	Highline Canal Rd	I-70	COL	0.588	2	12,000	97	7,056	57
4th Ave	S of S 7th St	S 9th 9th St	COL	0.558	2	12,000	228	6,696	127
14 Rd	Hwy 6 & 50	Node	COL	0.340	2	12,000	193	4,080	66
15 Rd	Hwy 6 & 50	L Rd	COL	0.114	2	12,000	151	1,368	17
15th St	North Ave	Patterson Rd	COL	0.998	2	12,000	838	11,976	836
16 Rd	Hwy 6 nd 50	Q Rd	COL	5.770	2	12,000	638	69,240	3,681
17 1/2 Rd	Applewood Dr	N 3/10 Rd	COL	2.827	2	12,000	1,502	33,924	4,246
17 Rd	K Rd	O Rd	COL	3.996	2	12,000	562	47,952	2,246
18 1/2 Rd	K Rd	N 3/10 Rd	COL	3.669	2	12,000	2,382	44,028	8,740
18 Rd	K 6/10 Rd	Node	COL	3.142	2	12,000	75	37,704	236
19 Rd	Hwy 6 and 50	Node	COL	6.690	2	12,000	3,349	80,280	22,405
20 1/2 Rd	Spoon Ct	E 3/4 Rd	COL	0.849	2	12,000	286	10,188	243
20 Rd	E 3/4 Rd	N Rd	COL	5.663	2	12,000	1,612	67,956	9,129
21 1/2 Rd	Hwy 6 & 50	I Rd	COL	0.979	2	12,000	536	11,748	525
21 Rd	Node	Node	COL	8.129	2	12,000	1,423	97,548	11,568
22 Rd	Hwy 6 & 50	Node	COL	5.128	2	12,000	146	61,536	749
23 Rd	Hwy 6 & 50	Orchard Ave	COL	5.600	2	12,000	2,928	67,200	16,397
24 1/2 Rd	Hwy 6 & 50	Patterson Rd	MA	0.301	4	40,000	11,141	12,040	3,353
24 1/2 Rd	Patterson Rd	F 3/8 Rd	COL	0.368	2	18,000	9,238	6,624	3,400
24 1/2 Rd	F 3/8 Rd	H Rd	COL	1.629	2	12,000	4,691	19,548	7,642
24 Rd	Node	Node	PA	0.466	2	18,000	5,041	8,388	2,349
24 Rd	Patterson Rd	I-70 Ramp	PA	1.290	2	26,000	14,869	33,540	19,181
24 Rd	I-70 Ramp	I-70 Ramp	COL	0.079	4	24,000	8,730	1,896	690
24 Rd	I-70 Ramp	K Rd	COL	3.438	2	12,000	6,335	41,256	21,780
25 1/2 Rd	Independent Ave	Patterson Rd	COL	0.753	2	18,000	4,696	13,554	3,536
25 1/2 Rd	Patterson Rd	Fall Valley Ave	COL	0.267	2	12,000	2,672	3,204	713
25 1/2 Rd	Fall Valley Ave	Moonridge Dr	COL	0.544	2	18,000	1,795	9,792	976
25 1/2 Rd	Moonridge Dr	G Rd	COL	0.201	2	12,000	1,309	2,412	263
25 Rd	Hwy 6 And 50	Riverside Pkwy	PA	0.332	4	44,000	17,671	14,608	5,867
25 Rd	Hwy 6 & 50	Patterson Rd	MA	0.610	2	24,000	18,733	14,640	11,427
25 Rd	Patterson Rd	Foresight Cir	MA	0.169	2	16,000	9,182	2,704	1,552
25 Rd	Foresight Cir	F 1/2 Rd	PA	0.326	2	18,000	9,066	5,868	2,956
25 Rd	F 1/2 Rd	Hayes Dr	MA	0.248	2	16,000	8,493	3,968	2,106
25 Rd	Hayes Dr	G Rd	MA	0.254	2	24,000	7,228	6,096	1,836
25 Rd	G Rd	Node	COL	4.344	2	12,000	2,728	52,128	11,850
26 1/2 Rd	Horizon Dr	H Rd	MA	1.740	2	16,000	254	27,840	442
26 1/2 Rd	H Rd	I Rd	COL	0.998	2	12,000	254	11,976	253
26 Rd	Patterson Rd	G 1/2 Rd	MA	1.453	2	16,000	6,526	23,248	9,482
26 Rd	G 1/2 Rd	Node	MA	0.110	2	24,000	4,332	2,640	477
26 Rd	Node	H Rd	MA	0.435	2	16,000	4,332	6,960	1,884
26 Rd	H Rd	I Rd	COL	0.999	2	12,000	1,113	11,988	1,112
27 1/2 Rd	Patterson Rd	Horizon Dr	COL	1.020	2	18,000	9,077	18,360	9,259
27 1/4 Rd	H Rd	Node	COL	0.926	2	12,000	52	11,112	48
27 Rd	B Rd	C Rd	COL	0.902	2	12,000	2,829	10,824	2,552
27 Rd	G Rd	H Rd	MA	0.999	2	16,000	3,138	15,984	3,135
28 1/2 Rd	Hwy 50	Orchard Ave	COL	1.944	2	12,000	6,159	23,328	11,973
28 1/4 Rd	North Ave	Orchard Ave	COL	0.504	2	18,000	2,666	9,072	1,344

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Table 18. Existing Major Roadway Inventory (continued)

Street	From	To	Type	Miles	Lns	Capacity	ADT	VMC	VMT
28 1/4 Rd	Orchard Ave	Patterson Rd	MA	0.498	4	32,000	7,803	15,936	3,886
28 1/4 Rd	Patterson Rd	Park Dr	COL	0.210	2	18,000	2,666	3,780	560
28 Rd	B 1/2 Rd	Unaweep Ave	COL	0.504	2	12,000	382	6,048	193
28 Rd	I-70 B	Node	MA	0.282	2	16,000	5,494	4,512	1,549
28 Rd	Node	Orchard Ave	MA	0.788	2	24,000	5,494	18,912	4,329
28 Rd	Patterson Rd	Ridge Dr	COL	0.498	2	18,000	3,302	8,964	1,644
28 Rd	Ridge Dr	Cortland Ave	COL	0.252	2	12,000	1,912	3,024	482
29 1/2 Rd	Hwy 50	F 1/2 Rd	COL	2.006	2	12,000	481	24,072	965
29 3/4 Rd	Old WW Rd	Hwy 50	COL	0.724	2	12,000	21	8,688	15
29 Rd	Hwy 50	Unaweep Ave	COL	0.987	2	18,000	3,125	17,766	3,084
29 Rd	Unaweep Ave	D Rd	PA	1.276	2	26,000	14,078	33,176	17,964
29 Rd	D Rd	D 1/2 Rd	PA	0.413	4	44,000	15,766	18,172	6,511
29 Rd	D 1/2 Rd	North Ave	PA	0.590	4	36,000	22,096	21,240	13,037
29 Rd	North Ave	Patterson Rd	MA	0.998	2	24,000	10,566	23,952	10,545
29 Rd	Patterson Rd	29 Rd	PA	0.876	2	18,000	5,850	15,768	5,125
29 Rd	G Rd	N I-70 Frontg Rd	COL	0.424	2	12,000	5	5,088	2
2nd St	Front St	F Rd	COL	0.276	2	12,000	1,410	3,312	389
30 Rd	Hwy 50	B 1/2 Rd	COL	1.231	2	12,000	766	14,772	943
30 Rd	D Rd	E Rd	MA	0.878	2	24,000	7,489	21,072	6,575
30 Rd	E Rd	Patterson Rd	MA	1.120	4	40,000	17,250	44,800	19,320
30 Rd	Patterson Rd	F 1/2 Rd	COL	0.497	2	12,000	6,188	5,964	3,075
31 1/2 Rd	E Rd	F 1/2 Rd	COL	1.456	2	12,000	3,895	17,472	5,671
31 Rd	Hwy 50	F 1/2 Rd	COL	4.399	2	12,000	1,440	52,788	6,335
32 Rd	I-70 B	Frontage Rd	MA	0.023	4	32,000	3,440	736	79
32 Rd	E 1/2 Rd	32 Rd	MA	0.217	4	40,000	5,896	8,680	1,279
32 Rd	32 Rd	F Rd	MA	0.246	2	16,000	6,713	3,936	1,651
32 Rd	F Rd	E 1/2 Rd	COL	0.500	2	12,000	2,518	6,000	1,259
32 1/2 Rd	E Rd	F Rd	COL	0.836	2	12,000	2,209	10,032	1,847
33 Rd	D 1/2 Rd	D 3/4 Rd	COL	0.249	2	12,000	1,877	2,988	467
33 Rd	D 3/4 Rd	E Rd	COL	0.751	2	18,000	369	13,518	277
33 Rd	E 1/2 Rd	Node	COL	1.672	2	12,000	91	20,064	152
34 1/2 Rd	C 1/2 Rd	D Rd	COL	0.504	2	12,000	1,319	6,048	665
34 Rd	E 1/4 Rd	G Rd	COL	1.757	2	12,000	48	21,084	84
35 1/2 Rd	E Rd	E 1/2 Rd	COL	0.497	2	12,000	454	5,964	226
35 Rd	34 1/2 Rd	E Rd	COL	1.435	2	12,000	1,319	17,220	1,893
36 Rd	E 1/2 Rd	F Rd	COL	0.496	2	12,000	454	5,952	225
37 1/4 Rd	F Rd	F 1/4 Rd	COL	0.243	2	12,000	1,079	2,916	262
37 3/10 Rd	G Rd	I-70	COL	0.777	2	12,000	2,168	9,324	1,685
38 Rd	Horse Mntn Rd	G Rd	COL	0.921	2	12,000	1,947	11,052	1,793
A 1/2 Rd	30 Rd	31 Rd	COL	0.999	2	12,000	182	11,988	182
American Way	Base Rock St	Maldonado St	COL	0.236	2	12,000	3867	2,832	913
B 1/2 Rd	Hwy 50	27 1/2 Rd	MA	0.208	2	24,000	4,382	4,992	911
B 1/2 Rd	27 1/2 Rd	32 Rd	MA	4.520	2	16,000	4382	72,320	19,807
B Rd	27 Rd	30 Rd	COL	3.055	2	12,000	2269	36,660	6,932
Base Rock	Node	Node	COL	0.556	2	18,000	4,509	10,008	2,507
Belford Ave	N 4th St	N 5th St	MA	0.092	4	16,000	1,447	1,472	133
Belford Ave	N 24th St	28 Rd	COL	0.199	2	12,000	3,642	2,388	725
Bookcliff Ave	26 1/2 Rd	N 12th St	COL	0.467	2	12,000	2,623	5,604	1,225
C 1/2 Rd	32 Rd	34 1/2 Rd	COL	2.549	2	12,000	1,656	30,588	4,221
C Rd	31 Rd	32 Rd	COL	0.998	2	12,000	128	11,976	128

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Table 18. Existing Major Roadway Inventory (continued)

Street	From	To	Type	Miles	Lns	Capacity	ADT	VMC	VMT
Canon St	Node	Hwy 50	COL	0.221	2	12,000	2,839	2,652	627
Coffman Rd	Hwy 141	Broadway	COL	3.662	2	12,000	10	43,944	37
Colorado Ave	S 3rd St	S 7th St	COL	0.365	2	12,000	7,799	4,380	2,847
Cortland Ave	27 1/2 Rd	28 Rd	COL	0.500	2	12,000	2,735	6,000	1,368
Crosby Ave	American Way	Broadway	COL	0.465	2	12,000	2,367	5,580	1,101
Crossroads Blvd	27 Rd	Horizon Dr	MA	1.088	2	16,000	6,177	17,408	6,721
D 1/2 Rd	29 Rd	D 1/2 Ct	COL	0.245	2	18,000	7,050	4,410	1,727
D 1/2 Rd	D 1/2 Ct	30 1/4 Rd	COL	1.044	2	12,000	7,050	12,528	7,360
D 1/2 Rd	30 1/4 Rd	Node	COL	0.077	2	18,000	9,619	1,386	741
D 1/2 Rd	Node	33 Rd	COL	2.669	2	12,000	7,669	32,028	20,469
D Rd	Monument Rd	Rosevale Rd	COL	0.306	2	12,000	2,191	3,672	670
D Rd	Node	Node	MA	0.373	4	32,000	4,849	11,936	1,809
D Rd	Node	Node	MA	0.300	2	16,000	4,983	4,800	1,495
D Rd	Node	Riverside Pkwy	MA	0.044	4	32,000	4,983	1,408	219
D Rd	D Rd	Node	PA	0.054	2	26,000	12,164	1,404	657
D Rd	29 Rd	32nd Rd	MA	2.993	2	16,000	15,986	47,888	47,846
Desert Rd	Hwy 50	Hwy 141	COL	4.787	2	12,000	11	57,444	53
DS Rd	17 3/10 Rd	Rim Rock Dr	COL	4.883	2	12,000	979	58,596	4,780
E 1/2 Rd	30 Rd	36 Rd	MA	1.497	2	16,000	5,706	23,952	8,542
E 1/2 Rd	32 Rd	Aaron Ct	COL	1.606	2	12,000	3,642	19,272	5,849
E 1/4 Rd	33 Rd	34 Rd	COL	1.009	2	12,000	833	12,108	840
E 3/4 Rd	20 1/2 Rd	20 3/4 Rd	COL	0.247	2	12,000	996	2,964	246
E Aspen Ave	N Mesa St	N Peach St	COL	1.212	2	12,000	4,328	14,544	5,246
E Grand Ave	Hwy 6 And 50	S PINE St	COL	0.485	2	12,000	612	5,820	297
E Ottley Ave	N Mesa St	Node	COL	0.447	2	12,000	4,369	5,364	1,953
E Pabor Ave	N Mesa St	N Maple St	COL	0.249	2	12,000	846	2,988	211
E Rd	30 Rd	35 1/2 Rd	COL	3.539	2	12,000	10,048	42,468	35,560
Elm Ave	N 7th St	Houston Ave	COL	1.848	2	12,000	2,868	22,176	5,300
F Rd	I-70 B	33 Rd	PA	0.675	2	26,000	17,935	17,550	12,106
F Rd	33 Rd	33 1/2 Rd	PA	0.512	2	18,000	8,076	9,216	4,135
F Rd	31 Rd	33 1/2 Rd	PA	1.320	4	44,000	19,165	58,080	25,298
F Rd	33 1/2 Rd	37 1/4 Rd	COL	1.721	2	12,000	1,323	20,652	2,277
F 1/4 Rd	37 1/4 Rd	Horse Mntain Rd	COL	0.809	2	12,000	1,485	9,708	1,201
F 1/2 Rd	25 Rd	32 Rd	COL	4.041	2	12,000	2,078	48,492	8,397
Frontage Rd	Timber Falls Dr	Hwy 6 and 50	COL	0.777	2	12,000	2,992	9,324	2,325
Frontage Rd	31 1/2 Rd	32 Rd	MA	0.487	2	16,000	3,860	7,792	1,880
G Rd	Power Rd	Hwy 6 & 50	COL	0.048	2	12,000	3,338	576	160
G Rd	Hwy 6 & 50	Horizon Dr	MA	4.944	2	16,000	1,727	79,104	8,538
G Rd	33 Rd	Front St	COL	3.710	2	12,000	1,398	44,520	5,187
Grand Ave	N 1ST St	N 7th St	MA	0.532	4	40,000	19,966	21,280	10,622
Grand Ave	N 7th St	N 12th St	MA	0.466	2	24,000	8,449	11,184	3,937
Grand Ave	N 12th St	28 Rd	COL	1.009	2	12,000	6,344	12,108	6,401
Gunnison Ave	N 1st St	N 9th St	COL	0.706	2	12,000	6,335	8,472	4,473
Gunnison Ave	N 9th St	N 12th St	COL	0.290	2	18,000	7,753	5,220	2,248
Gunnison Ave	N 12th St	Mantlo Cir	COL	0.809	2	12,000	3,912	9,708	3,165
H Rd	21 Rd	26 1/2 Rd	COL	4.495	2	12,000	1,074	53,940	4,828
H Rd	26 1/2 Rd	Jamaica Dr	COL	0.204	2	18,000	4,329	3,672	883
H Rd	Jamaica Dr	North Crest Dr	COL	1.131	2	12,000	3,117	13,572	3,525
H Rd	North Crest Dr	Horizon Dr	COL	0.455	2	18,000	1,659	8,190	755
Horizon Dr	26 1/2 Rd	N 2th St	MA	0.670	2	16,000	7,489	10,720	5,018

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Table 18. Existing Major Roadway Inventory (continued)

Street	From	To	Type	Miles	Lns	Capacity	ADT	VMC	VMT
O Rd	16 Rd	19 Rd	COL	1.999	2	12,000	185	23,988	370
Old 6 and 50	Node	2 8/10 Rd	MA	11.956	2	16,000	64	191,296	765
Orchard Ave	1st St	26 Rd	COL	2.016	2	12,000	4,826	24,192	9,729
Orchard Ave	28 Rd	30 Rd	MA	0.591	2	24,000	9,842	14,184	5,817
Orchard Ave	Normandy Dr	29 Rd	MA	0.397	2	16,000	8,059	6,352	3,199
Orchard Ave	29 Rd	29 1/2 Rd	MA	0.503	2	24,000	7,877	12,072	3,962
Orchard Ave	29 1/2 Rd	30 Rd	MA	0.500	2	16,000	5,282	8,000	2,641
Ottley Ave	Node	N Pine St	COL	0.300	2	12,000	2,779	3,600	834
Patterson Rd	Hwy 6 & 50	26 Rd	PA	2.417	4	44,000	8,723	106,348	21,083
Patterson Rd	26 Rd	Mira Vista Rd	PA	0.297	4	36,000	30,773	10,692	9,140
Patterson Rd	Mira Vista Rd	View Point Dr	PA	0.385	4	44,000	30,640	16,940	11,796
Patterson Rd	View Point Dr	Node	PA	0.209	4	36,000	28,741	7,524	6,007
Patterson Rd	Node	31 Rd	PA	4.108	4	44,000	26,667	180,752	109,548
Pkwy Ramp	Node	Riverside Pkwy	RMP	0.380	2	12,000	1,651	4,560	627
Pkwy Ramp	Node	Node	PA	0.027	1	9,000	186	243	5
Pkwy Ramp	Node	Node	RMP	0.542	2	6,000	2,915	3,252	1,580
Pitkin Ave	Ute Ave	2nd St	PA	0.114	4	18,000	13,144	2,052	1,498
Pitkin Ave	S 2nd St	S 12th St	PA	0.921	6	27,000	13,144	24,867	12,106
Pitkin Ave	S 12th St	Node	PA	0.440	4	18,000	12,263	7,920	5,396
Rabbit Valley Rd	Node	Node	RMP	0.170	2	12,000	9	2,040	2
Redlands Pkwy	S Broadway	Broadway	COL	0.440	2	12,000	7,715	5,280	3,395
Redlands Pkwy	Colorado River	Pkwy Ramp	PA	0.809	4	36,000	17,688	29,124	14,310
Redlands Pkwy	S Camp Rd	S Broadway	COL	0.262	2	12,000	7,715	3,144	2,021
Redlands Pkwy	Broadway	Colorado River	PA	0.827	2	18,000	12,843	14,886	10,621
Redlands Pkwy	Node	Node	PA	0.022	4	36,000	17,435	792	384
Redlands Pkwy	Node	Node	PA	0.336	2	18,000	8,540	6,048	2,869
Redlands-Riverside	Node	Node	RMP	0.095	2	6,000	608	570	58
Reeder Mesa Rd	Hwy 50	Goodfellow Ct	COL	2.567	2	12,000	381	30,804	978
Ridges Blvd	Ridgeway Ct	Broadway	COL	0.753	2	12,000	7,717	9,036	5,811
Rimrock Dr	N 16 1/2 Rd	S Camp Rd	COL	23.005	2	12,000	288	276,060	6,625
River Rd	Frontage Rd	Pkwy Ramp	COL	4.607	2	12,000	3,886	55,284	17,903
Riverside Pkwy	Pkwy Ramp	Overpass	COL	1.389	2	18,000	2,722	25,002	3,781
Riverside Pkwy	Node	Node	COL	0.161	2	12,000	1,980	1,932	319
Riverside Pkwy	Node	Node	COL	0.039	4	24,000	444	936	17
Riverside Pkwy	Node	29 Rd	MA	1.556	2	24,000	12,885	37,344	20,049
Riverside Pkwy	Node	Node	PA	0.306	2	9,000	1,215	2,754	372
Riverside Pkwy	Node	Node	PA	0.115	4	44,000	17,227	5,060	1,981
Riverside Pkwy	Node	Node	PA	0.132	2	9,000	1,536	1,188	203
Riverside Pkwy	Node	Node	PA	1.713	4	44,000	17,670	75,372	30,269
Riverside Pkwy	Hwy 50 Exit	Hwy 50 on-ramp	PA	0.230	4	44,000	12,420	10,120	2,857
Riverside Pkwy	Node	S 9th St	PA	0.330	4	44,000	12,276	14,520	4,051
Riverside Pkwy	S 9th St	D Rd	PA	1.011	2	26,000	10,253	26,286	10,366
Riverside Pkwy	Node	Node	RMP	0.252	2	6,000	10,313	1,512	2,599
Riverside Pkwy	Node	Node	RMP	0.255	1	6,000	177	1,530	45
Riverside Pkwy	Node	Node	RMP	0.264	2	6,000	9,264	1,584	2,446
Rood Ave	N 1st St	N 7th St	COL	0.529	2	12,000	3,134	6,348	1,658
Rosevale Rd	S Redlands Rd	D Rd	COL	0.820	2	12,000	1,570	9,840	1,287
S 1st St	Ute Ave	Main St	PA	0.116	4	36,000	25,971	4,176	3,013
S 5th St	Hwy 50	Pitkin Ave	EXP	1.143	4	24,000	14,590	27,432	16,676
S 5th St	Pitkin Ave	Ute Ave	MA	0.068	4	32,000	15,318	2,176	1,042

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Table 18. Existing Major Roadway Inventory (continued)

Street	From	To	Type	Miles	Lns	Capacity	ADT	VMC	VMT
S 4th St	Pitkin Ave	Main St	MA	0.205	4	16,000	4,410	3,280	904
S 5th St	Ute Ave	Main St	MA	0.131	6	24,000	7,584	3,144	994
S 7th St	Riverside Pkwy	Pitkin Ave	COL	0.539	2	18,000	1,203	9,702	648
S 7th St	Pitkin Ave	Main St	MA	0.202	4	40,000	8,117	8,080	1,640
S 9th St	Riverside Pkwy	4th Ave	COL	0.230	2	12,000	848	2,760	195
S 9th St	4th Ave	Ute Ave	MA	0.416	2	16,000	1,526	6,656	635
S 12th St	Pitkin Ave	Colorado Ave	PA	0.133	2	18,000	3,127	2,394	416
S 12th St	Colorado Ave	Main St	PA	0.070	2	26,000	3,127	1,820	219
S Broadway	Mnmnt Canyon Dr	S Camp Rd	COL	3.462	2	12,000	5,224	41,544	18,085
SB Pkwy on-ramp	Broadway	Riverside Pkwy	RMP	0.224	2	6,000	3,872	1,344	867
S Camp Rd	Monument Rd	Rimrock Rd	COL	0.626	2	12,000	3,335	7,512	2,088
S Camp Rd	Rimrock Rd	Buffalo Dr	COL	0.873	2	12,000	3,166	10,476	2,764
S Camp Rd	Buffalo Dr	Mckinley Dr	COL	0.858	2	18,000	2,419	15,444	2,076
S Camp Rd	Mckinley Dr	S Broadway	COL	0.295	2	12,000	3,605	3,540	1,063
S Coulson St	Hwy 6 & 50	W Aspen Ave	COL	0.051	2	12,000	3,664	612	187
S Maple St	Hwy 6 & 50	E Aspen Ave	COL	0.358	2	12,000	1,864	4,296	667
S Mesa St	Hwy 6 & 50	W Aspen Ave	COL	0.184	2	12,000	2,109	2,208	388
S Pine St	Hwy 6 & 50	J 2/10 Rd	COL	0.339	2	18,000	8,893	6,102	3,015
S Pine St	J 2/10 Rd	E Aspen Ave	COL	0.371	2	12,000	7,461	4,452	2,768
S Redlands Rd	Mount Sopris Dr	Monument Rd	COL	0.402	2	12,000	3,057	4,824	1,229
Teller Ave	I-70 B	29 Rd	RMP	0.189	4	24,000	3,973	4,536	751
Unaweep Ave	Hwy 50	29 Rd	COL	2.847	2	18,000	9,028	51,246	25,703
Ute Ave	S 1st St	N 5th St	PA	0.355	4	18,000	10,652	6,390	3,781
Ute Ave	S 5th St	S 12th St	PA	0.646	6	27,000	11,357	17,442	7,337
Ute Ave	S 12th St	I-70 B	PA	0.424	4	18,000	10,777	7,632	4,569
Warrior Way	I-70 B	E 1/2 Rd	COL	0.112	2	18,000	7,513	2,016	841
West Ave	Broadway	Riverside Pkwy	COL	0.170	2	12,000	8,172	2,040	1,389
W Aspen Ave	N Coulson St	N Mesa St	COL	0.250	2	12,000	4,037	3,000	1,009
W Grand Ave	Mulberry St	N 1st St	PA	0.154	4	44,000	20,840	6,776	3,209
W Ottley Ave	Hwy 6 And 50	N Mesa St	COL	0.885	2	12,000	1,256	10,620	1,112
W Pabor Ave	N Cherry St	N Mesa St	COL	0.251	2	12,000	2,587	3,012	649
Whitewtr Crk Rd	Reeder Mesa Rd	Node	COL	1.633	2	12,000	111	19,596	181
Subtotal, Non-State Roads				350.168				5,325,416	1,326,921
EB Off-Ramp	Node	Node	RMP	0.224	2	6,000	9,260	1,344	2,074
EB Off-Ramp	Node	Node	RMP	0.047	2	6,000	49	282	2
EB On-Ramp	Node	Node	RMP	0.031	2	6,000	2,984	186	93
EB On-Ramp	Node	Node	RMP	0.055	2	6,000	313	330	17
EB On-Ramp	Node	Node	RMP	0.321	2	6,000	3,110	1,926	998
EB to EB Off-ramp	Node	Node	RMP	0.201	2	6,000	9,211	1,206	1,851
EB to WB Off-ramp	Node	Node	RMP	0.035	2	6,000	29	210	1
EB to WB On-ramp	Node	Node	RMP	0.061	2	6,000	80	366	5
Hwy 6	N 1st St	I-70 B	PA	3.819	4	44,000	25,380	168,036	96,926
Hwy 6	Node	Node	RMP	0.316	4	12,000	11,903	3,792	3,761
Hwy 6	Node	Node	RMP	0.477	2	6,000	10,907	2,862	5,203
Hwy 6	Node	Node	RMP	0.101	4	12,000	11,903	1,212	1,202
Hwy 6	Node	N 1st St	PA	0.101	4	44,000	22,848	4,444	2,308
Hwy 6	F Rd	G Rd	PA	3.320	2	18,000	7,854	59,760	26,075
Hwy 6	G Rd	Shiraz Dr	PA	0.284	2	26,000	8,038	7,384	2,283
Hwy 6	Shiraz Dr	37 3/10 Rd	PA	0.388	2	18,000	6,705	6,984	2,602

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Table 18. Existing Major Roadway Inventory (continued)

Street	From	To	Type	Miles	Lns	Capacity	ADT	VMC	VMT
Hwy 6	37 3/10 Rd	Peach Ave	PA	0.382	2	26,000	5,940	9,932	2,269
Hwy 6	Peach Ave	Rapid Creek Rd	PA	2.482	2	18,000	3,985	44,676	9,891
Hwy 6	Node	Node	RMP	0.418	2	6,000	673	2,508	281
Hwy 6	Rapid Creek Rd	I-70	RMP	0.372	2	6,000	475	2,232	177
Hwy 6/50 offramp	Hwy 6 and 50	Redlands Pkwy	RMP	0.244	2	6,000	659	1,464	161
Hwy 6/50 onramp	Redlands Pkwy	Hwy 6 & 50	RMP	0.265	2	6,000	5,266	1,590	1,395
Hwy 6 and 50	Node	Old Hwy 6 & 50	EXP	0.763	2	24,000	446	18,312	340
Hwy 6 and 50	Hwy 6 & 50	past 22 Rd	EXP	13.894	2	24,000	1,082	333,456	15,033
Hwy 6 and 50	Node	Node	EXP	0.081	4	48,000	25,077	3,888	2,031
Hwy 6 and 50	Node	Node	EXP	0.430	4	24,000	11,656	10,320	5,012
Hwy 6 and 50	Node	Patterson Rd	EXP	2.003	4	48,000	29,287	96,144	58,662
Hwy 6 and 50	Node	Node	EXP	0.984	4	24,000	13,115	23,616	12,905
Hwy 6 and 50	Node	Node	EXP	0.155	6	36,000	15,170	5,580	2,351
Hwy 6 and 50	Node	Rimrock Ave	EXP	1.259	6	72,000	32,103	90,648	40,418
Hwy 6 and 50	Rimrock Ave	Node	EXP	0.794	6	24,000	19,314	19,056	15,335
Hwy 6 and 50	Node	Node	EXP	0.256	6	12,000	8,406	3,072	2,152
Hwy 6 and 50	Node	Node	EXP	0.514	6	24,000	10,339	12,336	5,314
Hwy 6 and 50	Node	Node	EXP	0.216	6	48,000	20,001	10,368	4,320
Hwy 50	Unaweep Ave	Palisade St	EXP	0.428	4	48,000	40,563	20,544	17,361
Hwy 50	Unaweep Ave	Unaweep Ave	EXP	1.116	4	24,000	19,139	26,784	21,359
Hwy 50	Palisade St	27 Rd	EXP	0.409	4	48,000	27,092	19,632	11,081
Hwy 50	27 Rd	B 1/2 Rd	EXP	0.294	4	24,000	13,212	7,056	3,884
Hwy 50	27 Rd	Hwy 50 Ramp	EXP	0.358	2	24,000	13,219	8,592	4,732
Hwy 50	B 1/2 Rd	27 1/2 Rd	EXP	0.375	4	24,000	9,085	9,000	3,407
Hwy 50	27 1/2 Rd	County Line	EXP	18.666	4	48,000	18,631	895,968	347,766
Hwy 50 Ramp	Hwy 50	Node	MA	0.135	2	8,000	4,114	1,080	555
Hwy 50 Ramp	Node	B 1/2 Rd	MA	0.221	2	24,000	4,148	5,304	917
Hwy 139	Node	Co Rd 258	MA	13.643	2	16,000	1,569	218,288	21,406
Hwy 141	Node	Hwy 50	MA	0.964	2	16,000	1,914	15,424	1,845
Hwy 141	Hwy 50	D Rd	PA	3.650	2	18,000	6,192	65,700	22,601
Hwy 141	D Rd	I-70 B	PA	1.792	4	44,000	17,659	78,848	31,645
Hwy 340	Raptor Rd	Red Cliffs Dr	MA	0.603	4	40,000	5,926	24,120	3,573
Hwy 340	Red Cliffs Dr	Kings View Rd	MA	0.655	4	32,000	3,553	20,960	2,327
Hwy 340	Kings View Rd	S Broadway	MA	4.026	2	16,000	2,884	64,416	11,611
Hwy 340	S Broadway	W Scenic Dr	PA	5.073	2	18,000	3,324	91,314	16,863
Hwy 340	W Scenic Dr	Pleasant Ridge Ln	PA	0.209	2	26,000	13,630	5,434	2,849
Hwy 340	Pleasant Ridge Ln	Ridges Blvd	PA	0.351	2	18,000	14,473	6,318	5,080
Hwy 340	Ridges Blvd	Country Club Park	PA	0.472	4	36,000	19,465	16,992	9,187
Hwy 340	Country Club Park	West Ave	PA	0.840	4	44,000	19,524	36,960	16,400
Hwy 340	West Ave	Pkwy On Ramp	PA	0.024	4	36,000	23,980	864	576
Hwy 340	Pkwy On Ramp	past Crosby Ave	PA	0.297	4	44,000	20,635	13,068	6,129
Hwy 340	W Aspen Ave	I-70	MA	0.209	4	40,000	15,948	8,360	3,333
Hwy 340	Ramp	Ramp	MA	0.095	4	40,000	14,906	3,800	1,416
I-70 B Ramp	I-70 B	29 Rd	RMP	0.277	2	6,000	5,356	1,662	1,484
I-70 Access Rd	Node	Node	RMP	0.179	2	6,000	6,429	1,074	1,151
I-70 Access Rd	Node	Node	RMP	0.529	2	6,000	5,558	3,174	2,940
I-70 Access Rd	Node	Node	RMP	0.562	2	6,000	5,733	3,372	3,222
I-70 B	Node	Node	EXP	0.147	4	24,000	17,021	3,528	2,502
I-70 B	Node	I-70 Off Ramp	EXP	5.886	4	48,000	18,112	282,528	106,607
I-70 B	Node	Node	EXP	0.377	4	24,000	12,901	9,048	4,864

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Table 18. Existing Major Roadway Inventory (continued)

Street	From	To	Type	Miles	Lns	Capacity	ADT	VMC	VMT
I-70 B	Node	Node	RMP	0.353	2	6,000	7,341	2,118	2,591
Ramp	Node	Node	RMP	0.049	2	6,000	2,799	294	137
WB Off-Ramp	Node	Node	RMP	0.015	2	6,000	3,068	90	46
WB Off-Ramp	Node	Node	RMP	0.287	2	6,000	3,224	1,722	925
WB On-Ramp	Node	Node	RMP	0.245	2	6,000	8,387	1,470	2,055
WB On-Ramp	Node	Node	RMP	0.010	2	6,000	8,331	60	83
WB-EB off-ramp	Node	Node	RMP	0.065	2	6,000	222	390	14
WB-WB off-ramp	Node	Node	RMP	0.084	2	6,000	3,280	504	276
WB-WB on-ramp	Node	Node	RMP	0.054	2	6,000	8,645	324	467
Subtotal, State Roads				99.317				2,925,706	1,020,715
Total				449.485				8,251,122	2,347,636

Notes: ADT is average daily traffic volume; VMC is vehicle-miles of capacity, VMT is vehicle-miles of travel
Source: Mesa County GIS, March 19, 2018.

APPENDIX B: LAND USE DEFINITIONS

Recommended definitions for the land uses in the updated impact fee schedule are provided below. If these are adopted by ordinance or resolution, those that differ from or overlap with zoning or general definitions should have a disclaimer that they only apply to the impact fee section.

Single-Family Detached means the use of a lot for only one dwelling unit, including a mobile home not located in a mobile home park, provided that a single-family detached use may also include an accessory dwelling unit, if allowed by zoning, which shall be assessed the rate for a multi-family unit.

Multi-Family means a building containing two or more dwelling units. It includes duplexes, apartments, residential condominiums, townhouses, and timeshares.

Mobile Home/RV Park means a parcel (or portion thereof) or abutting parcels of land designed, used or intended to be used to accommodate two or more occupied mobile homes or recreational vehicles, with necessary utilities, vehicular pathways, and concrete pads or vehicle stands.

Hotel/Motel means a building or group of buildings on the same premises and under single control, consisting of sleeping rooms kept, used, maintained or advertised as, or held out to the public to be, a place where sleeping accommodations are supplied for pay to transient guests or tenants. This land use category includes rooming houses, boardinghouses, and bed and breakfast establishments.

Shopping Center/Commercial means an integrated group of commercial establishments planned, developed, owned or managed as a unit, or a free-standing retail or commercial use not otherwise listed in the impact fee schedule. Uses located on a shopping center outparcel are considered free-standing for the purposes of this definition. A retail or commercial use shall mean the use of a building or structure primarily for the sale to the public of nonprofessional services, or goods or foods that have not been made, assembled or otherwise changed in ways generally associated with manufacturing or basic food processing in the same building or structure. This category includes but is not limited to all uses located in shopping centers and the following free-standing uses:

Amusement park
Auto parts store
Auto wrecking yard
Automobile repair
Bank without drive-through facilities
Bar and cocktail lounge
Camera shop
Car wash
Convenience food and beverage store without gas pumps
Department store
Florist shop
Food store
Grocery
Hardware store

Health or fitness club
Hobby, toy and game shop
Junkyard
Laundromat
Laundry or dry cleaning
Lawn and garden supply store
Massage establishment
Music store
Newsstand
Nightclub
Racetrack
Recreation facility, commercial
Rental establishment
Repair shop, other than auto repair
School, commercial
Specialty retail shop
Supermarket
Theater, indoor (excluding movie theaters)
Used merchandise store
Variety store
Vehicle and equipment dealer

Auto Sales/Service means an establishment primarily engaged in selling new or used motor vehicles, and which may also provide repair and maintenance services.

Bank, Drive-In means an establishment providing banking services to the public that includes drive-in or drive-through facilities.

Convenience Store w/Gas Sales means an establishment offering the sale of motor fuels and convenience items to motorists.

Golf Course means a golf course that is not restricted primarily for use by residents of a residential development of which it is a part, including commercial uses such as pro shop or bar that are designed primarily to serve patrons.

Movie Theater means a stand-alone establishment, not located in a shopping center, offering the viewing of motion pictures for sale to the public.

Restaurant, Standard means a stand-alone establishment, not located in a shopping center but may be located on an out-parcel, that sells meals prepared on site, and does not provide drive-through or drive-in service.

Restaurant, Drive-Through means a stand-alone establishment, not located in a shopping center but may be located on an out-parcel, that sells meals prepared on site, and provides drive-through or drive-in service.

Office, General means a building exclusively containing establishments providing executive, management, administrative, financial, or non-medical professional services, and which may include ancillary services for office workers, such as a restaurant, coffee shop, newspaper or candy stand, or child care facilities. It may be the upper floors of a multi-story office building with ground floor retail uses. Typical uses include banks without drive-in facilities, real estate, insurance, property management, investment, employment, travel, advertising, secretarial, data processing, telephone answering, telephone marketing, music, radio and television recording and broadcasting studios; professional or consulting services in the fields of law, architecture, design, engineering, accounting and similar professions; interior decorating consulting services; and business offices of private companies, utility companies, trade associations, unions and nonprofit organizations. This category does not include an administrative office that is ancillary to a principal commercial or industrial use.

Office, Medical means a building primarily used for the examination and/or treatment of patients on an outpatient basis (with no overnight stays by patients) by health professionals, and which may include ancillary services for medical office workers or a medical laboratory to the extent necessary to carry out diagnostic services for the medical office's patients.

Animal Hospital/Vet Clinic means the use of a site primarily for the provision of medical care and treatment of animals, and which may include ancillary boarding facilities.

Hospital means an establishment primarily engaged in providing medical, surgical, or skilled nursing care to persons, including overnight or longer stays by patients.

Nursing Home means an establishment primarily engaged in providing limited health care, nursing and health-related personal care but not continuous nursing services.

Place of Worship means a structure designed primarily for accommodating an assembly of people for the purpose of religious worship, including related religious instruction for 100 or fewer children during the week and other related functions.

Day Care Center means a facility or establishment that provides care, protection and supervision for six or more children unrelated to the operator and which receives a payment, fee or grant for any of the children receiving care, whether or not operated for profit. The term does not include public or nonpublic schools.

Elementary/Secondary School means a school offering an elementary through high school curriculum.

Public/Institutional means a governmental, quasi-public or institutional use, or a non-profit recreational use, not located in a shopping center or separately listed in the impact fee schedule. Typical uses include higher education institutions, city halls, courthouses, post offices, jails, libraries, museums, military bases, airports, bus stations, fraternal lodges, parks and playgrounds. It also includes bus terminals, fraternal clubs, adult day care centers, dormitories, and prisons.

Industrial means an establishment primarily engaged in the fabrication, assembly or processing of goods. Typical uses include manufacturing plants, industrial parks, research and development laboratories, welding shops, wholesale bakeries, dry cleaning plants, and bottling works.

Warehouse means an establishment primarily engaged in the display, storage and sale of goods to other firms for resale, as well as activities involving significant movement and storage of products or equipment. Typical uses include wholesale distributors, storage warehouses, trucking terminals, moving and storage firms, recycling facilities, trucking and shipping operations and major mail processing centers.

Mini-Warehouse means an enclosed storage facility containing independent, fully enclosed bays that are leased to persons for storage of their household goods or personal property.

APPENDIX C: LEGAL FRAMEWORK

Impact fees are a way for local governments to require new developments to pay a proportionate share of the infrastructure costs they impose on the community. In contrast to "negotiated" developer exactions, impact fees are charges assessed on new development using a standard formula based on objective characteristics, such as the number and type of dwelling units constructed. The fees are a one-time, up-front charge, with the payment made at the time of building permit issuance. Impact fees require that each new development project pay a pro-rata share of the cost of new capital facilities required to serve that development.

Dual Rational Nexus Test

Impact fees were pioneered in states that lacked specific enabling legislation, and they have generally been legally defended as an exercise of local government's broad "police power" to regulate land development in order to protect the health, safety and welfare of the community. To distinguish regulatory impact fees from unauthorized taxes, state courts have developed guidelines for constitutionally-valid impact fees, based on the "rational nexus" standard. The standard essentially requires that fees must be proportional to the need for additional infrastructure created by the new development, and the fees must be spent to provide that same type of infrastructure to benefit new development. A Florida district court of appeals described the dual rational nexus test in 1983 as follows, and this language was subsequently quoted and followed by the Florida Supreme Court in its 1991 St. Johns County decision:[2]

> *In order to satisfy these requirements, the local government must demonstrate a reasonable connection, or rational nexus, between the need for additional capital facilities and the growth in population generated by the subdivision. In addition, the government must show a reasonable connection, or rational nexus, between the expenditures of the funds collected and the benefits accruing to the subdivision. In order to satisfy this latter requirement, the ordinance must specifically earmark the funds collected for use in acquiring capital facilities to benefit the new residents.*

The Need Test

To meet the first prong of the dual rational nexus test, it is necessary to demonstrate that new development creates the need for additional roadway facilities. The demand on roadways created by new developments of different types is quantified in the form of trip generation rates per housing unit and per various measures of nonresidential development. Transportation impact fees are designed to be proportional to the capacity needed to accommodate each new development.

The Benefit Test

To meet the second prong of the dual rational nexus test, it is necessary to demonstrate that new development subject to the fee will benefit from the expenditure of the impact fee funds. One requirement is that the fees actually be used to fill the need that serves as the justification for the fees under the first part of the test.

[2] St. Johns County v. Northeast Florida Builders Association, Inc., 583 So.2d 635, April 18, 1991

Colorado Statutes

Impact fees were pioneered by local governments in the absence of explicit state enabling legislation. Consequently, such fees were originally defended as an exercise of local government's broad "police power" to protect the health, safety and welfare of the community. The courts gradually developed guidelines for constitutionally valid impact fees, based on a "rational nexus" that must exist between the regulatory fee or exaction and the activity that is being regulated.

Prior to 2001, the authority of counties in Colorado to impose transportation impact fees was not entirely clear. Several counties had adopted impact fees, which they felt were authorized under counties' implied powers. This changed with the passage of SB 15 by the Legislature and its signature by the governor on November 16, 2001. Among other things, this bill created a new section 104.5: Impact Fees, in Article 20 of Title 29, Colorado Revised Statutes, which includes the following authorization and major requirements:

> *(1) Pursuant to the authority granted in section 29-20-104 (1) (g) and as a condition of issuance of a development permit, a local government may impose an impact fee or other similar development charge to fund expenditures by such local government … needed to serve new development. No impact fee or other similar development charge shall be imposed except pursuant to a schedule that is:*
>
> *(a) Legislatively adopted;*
> *(b) Generally applicable to a broad class of property; and*
> *(c) Intended to defray the projected impacts on capital facilities caused by proposed development.*
>
> *(2) (a) A local government shall quantify the reasonable impacts of proposed development on existing capital facilities and establish the impact fee or development charge at a level no greater than necessary to defray such impacts directly related to proposed development. No impact fee or other similar development charge shall be imposed to remedy any deficiency in capital facilities that exists without regard to the proposed development.*
> …
> *(3) Any schedule of impact fees or other similar development charges adopted by a local government pursuant to this section shall include provisions to ensure that no individual landowner is required to provide any site specific dedication or improvement to meet the same need for capital facilities for which the impact fee or other similar development charge is imposed. …*

SB 15 clearly authorized counties in Colorado to assess impact fees. It also imposed requirements relating to level of service, proportionality, and developer credits. Another important legal requirement not addressed in Colorado statutes but firmly rooted in impact fee case law is the need to provide revenue credits to avoid double-charging by charging both impact fees and other taxes (rather than improvements required as a condition of development). These topics are discussed below. Other statutory provisions require accounting for fee revenues in special funds and authorize waivers of fees for affordable housing.

Level of Service

Subsection 104.5(2)(a) of the Impact Fees statute requires that the fees not exceed the cost directly related to the proposed development, and that they not be used to remedy any existing deficiency. The statute does not use the term "level of service," but the concept is implicit in establishing the relationship of the cost of improvements to the new development, as well as in determining existing deficiencies. These provisions get to the heart of the one of the most fundamental principles established in impact fee case law, which is that impact fees should not charge new development for a higher level of service than is provided to existing development. Basing the fees on a higher level of service (LOS) than is being provided to existing development means there is a deficiency in existing facilities to provide the same LOS new development is paying for through the impact fee. Such a deficiency needs to be paid for in such a way that it does not burden new development. The methodology used in this study results in a fee that does not exceed the cost to maintain the existing LOS.

Proportionality

One of the fundamental legal principles of impact fee case law is that the fees for each individual land use type should be proportional to the impact of that use. This is reflected in subsection (2)(a), which requires that the fees be "directly related" to the impacts of new development. The language could also be read as allowing lower fees for some uses compared to others, as long as the fee for each use does not exceed the cost attributable to the development. However, if the fees are not based on the actual impact of the development, there is a risk that the courts may deem it to be an unauthorized tax rather than a fee. There may be a temptation to simply adopt fees at a lower rate for certain types of development that are seen as more desirable. A better approach would be to appropriate general fund monies to pay a portion of the fees for desired types of development. It would also be advisable to calculate a revenue credit to account for future general fund taxes that non-subsidized development will generate that will be used to subsidize fees for other classes of development.

Developer Credits

Another fundamental requirement articulated in impact fee case law is the need to avoid double-charging new development through impact fees and other requirements or taxes. Subsection 104.5(3) reflects this principle in the context of improvements required as a condition of development approval. It states that developers should not be required to make "site-specific dedications or improvements" that "meet the same need" being addressed by the impact fees while also being required to pay the fee. In general, impact fees should be reduced by the value of dedications or improvements required of developers for the same type of improvements that would be eligible to be funded with the impact fees. These reductions are referred to as developer credits.

It is reasonable to have some restrictions on the types of improvements that are eligible for credit. Granting credits is essentially spending future impact fees, and the fees should be spent for priority improvements that benefit the community at large. Developers should not be allowed to monopolize the fees for localized improvements if they choose to develop in areas that lack adequate infrastructure.

For example, credit eligibility could be restricted to contributions related to projects identified in a local or regional transportation master plan or capital improvements plan. However, developers should be eligible for credits for required improvements related to projects that are consistent with the jurisdiction's land use and capital plans.

The updated fees do not include the cost of rights-of-way (ROW). This does not mean that the fees cannot be spent to acquire ROW needed to accommodate future capacity-expanding improvements. However, if a jurisdiction decides not to give developers credit for required ROW dedications on the major roadway system related to a future capacity-expanding project, it might be appropriate to restrict the fees collected to be spent only on improvements. This issue has not been litigated, but the expenditure restriction would establish a bright line between what the fees are and are not designed to pay for, and avoid any argument that developments paying the fee are not getting the full benefit of the improvements they are paying for through the fees.

Revenue Credits

A revenue credit is a reduction from the cost per service unit designed to equalize the burden between existing and new development arising from the expenditure of future revenues that can be attributed in part to new development. While developer credits are provided on a case-by-case basis, revenue credits must be addressed in the fee calculation study.

As noted above, if there are existing deficiencies with respect to the level of service used in the fee calculation, the fees should be reduced by a credit that accounts for the contribution of new development toward remedying the existing deficiencies. A similar situation arises when the existing level of service has not been fully paid for. Outstanding debt on existing facilities that are counted in the existing level of service will be retired, in part, by revenues generated from new development. Given that new development will pay impact fees to provide the existing level of service for itself, the fact that new development may also be paying for the facilities that provide that level of service for existing development could amount to paying for more than its proportionate share. Consequently, impact fees should be reduced to account for future payments that will retire outstanding debt on existing facilities that provide the level of service on which the fees are based for existing development.

The issue is less clear-cut when it comes to other types of revenue that may be used to make capacity-expanding capital improvements of the same type being funded by impact fees. The clearest case occurs when non-impact fee general fund tax revenues are programmed for capacity-expanding improvements on an "as available" basis because impact fees are insufficient to fund all needed growth-related improvements. These capacity-adding projects that may be funded in the future with non-impact fee dollars will be paid for by both existing and new development and will increase the overall level of service, benefitting both existing development and future growth.

Similar considerations apply to dedicated funding sources, such as special taxes that can only be used for the same type of facilities as the impact fees. Like discretionary revenue, these types of dedicated revenue sources are typically not specifically dedicated only for capacity-expanding improvements, and even if they are, their use to fund capacity-related improvements improves the level of service for both existing and new development.

Outside funding or grants for capacity-expanding improvements to major roads that can reasonably be anticipated in the future could warrant a credit, but this is not clear-cut. In addition to the argument made above (i.e., the additional funding raises the level of service and benefits both new development and existing development), two additional arguments can be made against providing credits for such funding. First, new development in a community does not directly pay for State and Federal grants in the same way they pay local gasoline and property taxes. Second, future grant funding is far more uncertain than dedicated revenue streams.

While these arguments are compelling, they have not been litigated, and the law on whether revenue credits may be warranted in situations other than existing deficiencies or outstanding debt on existing facilities is currently unclear In addition, such credits were provided in the original 2002 impact fee study. This update continues to incorporate revenue credits for both local and Federal/State non-impact fee funding anticipated to be available to help fund growth-related transportation improvements.

If fees are disproportionately reduced or waived for selected land use categories or types of development, a revenue credit should probably be provided for other land uses not subject to the reduction. Even if the targeted reductions are replaced with general funds, new development that is not eligible for the reduction will generate future general fund revenues that will be used to pay for the reduced fees for eligible development. This could arguably amount to new development that is not eligible paying more than its proportionate share of transportation improvement costs. While this issue has not been litigated, the prudent course would be either not to apply targeted fee reductions or else calculate an appropriate revenue credit for non-eligible development types.

APPENDIX D: METHODOLOGY

This appendix describes the methodology used to develop the transportation impact fees. A key concept in any transportation impact fee methodology is the definition of the "service unit," which is described first. This description is followed by an explanation of the "consumption-based" model used in this study. Finally, the appendix concludes with a description of the formula used to calculate the transportation impact fees.

Service Unit

A service unit creates the link between supply (roadway capacity) and demand (traffic generated by new development). An appropriate service unit basis for transportation impact fees is vehicle-miles of travel (VMT). Vehicle-miles is a combination of the number of vehicles traveling during a given time period and the distance (in miles) those vehicles travel.

The two time periods most often used in traffic analysis are the 24-hour day (average daily trips or ADT) and the single hour of the day with the highest traffic volume (peak hour trips or PHT). The current transportation impact fee system is based on ADT. The regional transportation model is also based on ADT. Daily trips will continue to be used in this update.

Consumption-Based Model

The two traditional alternative methodologies for calculating transportation impact fees are the "improvements-driven" and "consumption-based" approaches. The consumption-based methodology continues to be recommended for Mesa County's transportation impact fees.

The "improvements-driven" approach essentially divides the cost of growth-related improvements required over a fixed planning horizon by the number new service units (e.g., vehicle-mile of travel or VMT) projected to be generated by growth over the same planning horizon in order to determine a cost per service unit. The improvements-driven approach depends on accurate planning and forecasting. For example, the fees will be accurate only if the forecasted increase in traffic actually necessitates all of the improvements identified in the transportation master plan. If many of the planned improvements will provide excess capacity that will be available to serve additional development beyond the planning horizon on which the fees are based, the fees may be too high.

The "consumption-based" approach does not depend on knowing in advance what improvements will be made or what type or density of development will occur. The consumption-based model simply charges a new development the cost of replacing the capacity that it will consume on the major roadway system. That is, for every service unit of traffic generated by the development, the transportation impact fee charges the net cost to construct an additional service unit of capacity. Compiling a list of planned improvements needed to accommodate projected growth is not necessary for the development of consumption-based transportation impact fees, which can be calculated based on any representative list of road improvements, including an historical list or a list of projects needed at build-out.

In a consumption-based system, the list of road improvements is used to determine the cost per unit of capacity. Thus, doubling the total cost of the list of road improvements will not double the fee and in fact may very well not increase the fee at all. Only if the improvements added to the list were more expensive, per unit of capacity created, would their addition have the effect of increasing the impact fee.

In most rapidly growing communities, some roadways will be experiencing an unacceptable level of congestion at any given point in time. One of the principles of impact fees is that new development should not be charged, through impact fees, for a higher level of service than is provided to existing development. A consumption-based fee, unlike an improvements-driven one, is not designed to recover the full costs to maintain the desired LOS on all roadway segments. Instead, it is only designed to maintain a minimum system-wide ratio between demand and capacity. Virtually all major roadway systems have more capacity (VMC) than demand (VMT) on a system-wide basis. Consequently, under a consumption-based system, the level of service standard is the system-wide VMC/VMT ratio. If the major roadway system currently has a VMC/VMT ratio higher than the one on which the fees are based, there are no existing deficiencies.

Since travel is never evenly distributed throughout a roadway system, actual roadway systems require more than one unit of capacity for every unit of demand in order for the system to function at an acceptable level of service. Suppose, for example, that the community completes a major arterial widening project. The completed arterial is likely to have a significant amount of excess capacity for some time. If the entire system has just enough capacity to accommodate all the vehicle-miles of travel, then the excess capacity on this segment must be balanced by another segment being over-capacity. Clearly, roadway systems in the real world need more total aggregate capacity than the total aggregate demand, because the traffic does not always precisely match the available capacity. Consequently, the standard consumption-based model generally underestimates the full cost of growth.

A modified consumption-based transportation impact fee model that more accurately identifies the full growth-related cost of maintaining desired service levels uses the system-wide ratio of capacity to demand. Essentially, this approach requires that new development pay for the cost to construct more capacity than it directly consumes in order to maintain the system-wide ratio of capacity to demand. In this system, the cost per vehicle-mile of capacity (VMC) is multiplied by the system-wide ratio of VMC/VMT to determine the cost per VMT. The existing major roadway system has an overall ratio of 3.51 vehicle-miles of capacity for every vehicle-mile of travel, as shown in Table 19. However, that ratio may not be sustainable over the long term. As communities grow and become more urban, the ratio tends to fall. The 2002 study used a 1.50 VMC/VMT ratio. The 1.00 ratio implicit in the standard consumption-based methodology is recommended for this update.

Table 19. Existing Major Roadway Level of Service

	Non-State Roads	State Roads	Total System
Daily VMC on Major Roads	5,325,416	2,925,706	8,251,122
÷ Daily VMT on Major Roads	1,326,921	1,020,715	2,347,636
Existing VMC/VMT Ratio	4.01	2.87	3.51
Recommended VMC/VMT Ratio for Impact Fee Calculation			1.00

Source: VMC and VMT from Table 18 in the appendix.

The formula for the modified consumption-based methodology used in this study is summarized in Figure 6. The maximum fee calculated under this methodology is the number of service units (VMT) that will be generated by the development times the net cost per service unit. The inputs into the formula are described in more detail below.

Figure 6. Transportation Impact Fee Formula

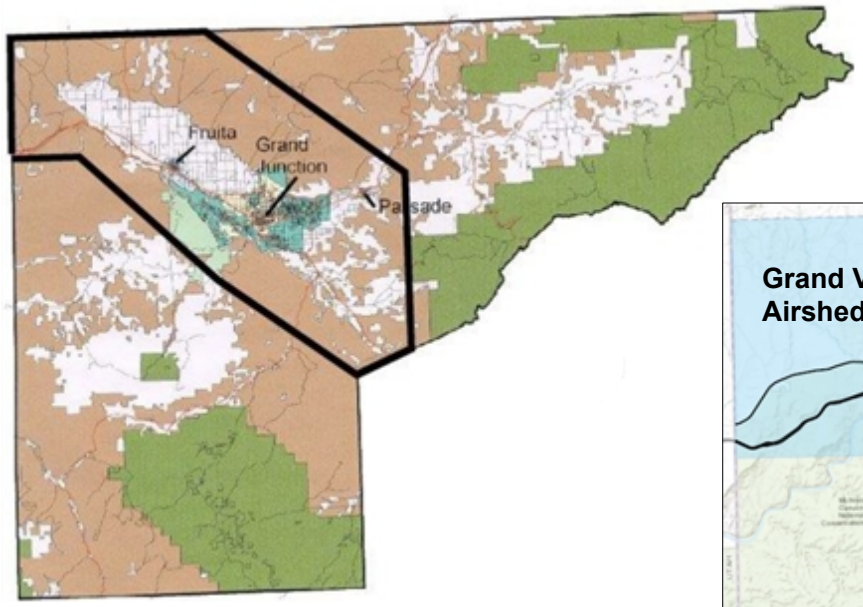
FEE = VMT x NET COST/VMT

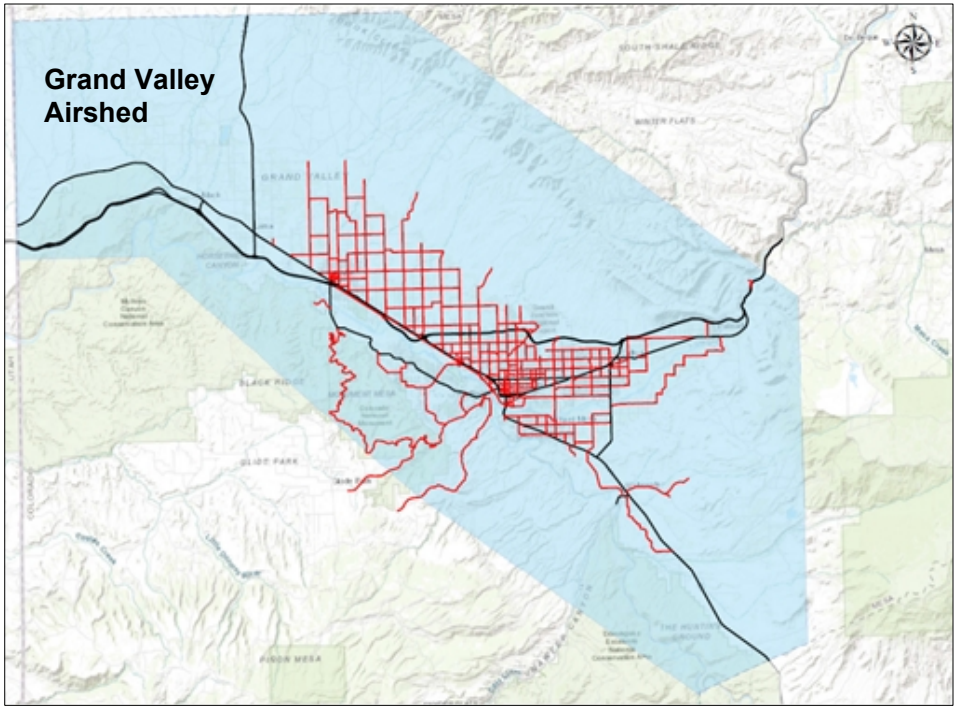
Where:

VMT	=	TRIPS x % NEW x LENGTH
TRIPS	=	1/2 average daily trip ends generated by the development during the work week
% NEW	=	Percent of trips that are primary trips, as opposed to passby or diverted-link trips
LENGTH	=	Average length of a trip on major roadway system
NET COST/VMT	=	COST/VMT - CREDIT/VMT
COST/VMT	=	COST/VMC x VMC/VMT
COST/VMC	=	Average cost to create a new VMC based on historical or planned improvements
VMC/VMT	=	The system-wide ratio of capacity to demand in the major roadway system
CREDIT/VMT	=	Credit per VMT, based on revenues to be generated by new development

Transportation Impact Fee Update

Mesa County, Cities of Grand Junction and Fruita, Town of Palisade

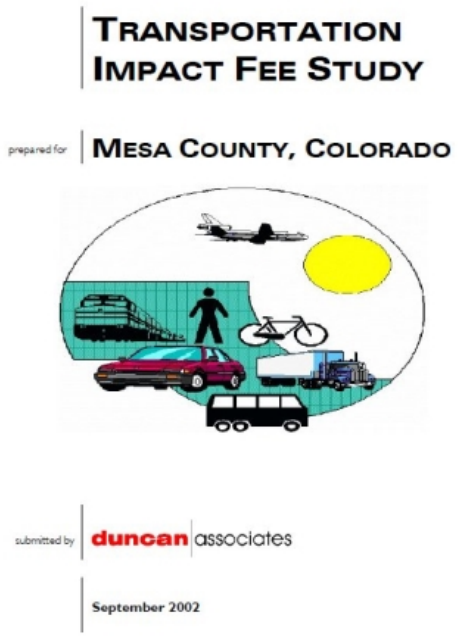




City of Grand Junction
Presentation by Duncan Associates
December 3, 2018

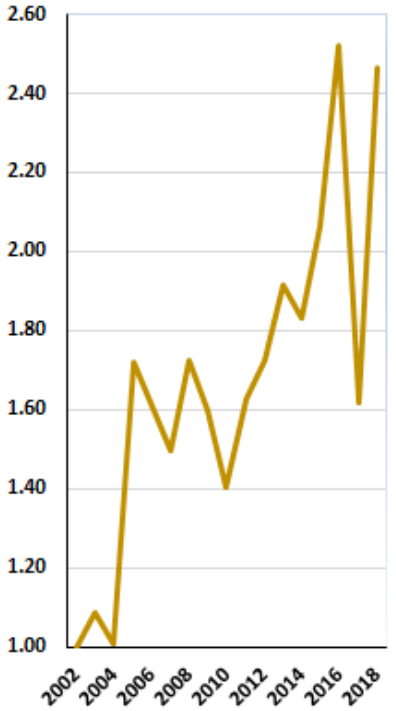
Background

- **History in Mesa County**
  - What is a Transportation Impact Fee (TIF)?
  - Original study prepared in 2002
  - Fees address impacts on major roads in the Grand Valley Airshed
  - Grand Junction, Mesa County, Fruita, and Palisade adopted to some level following 2002 study

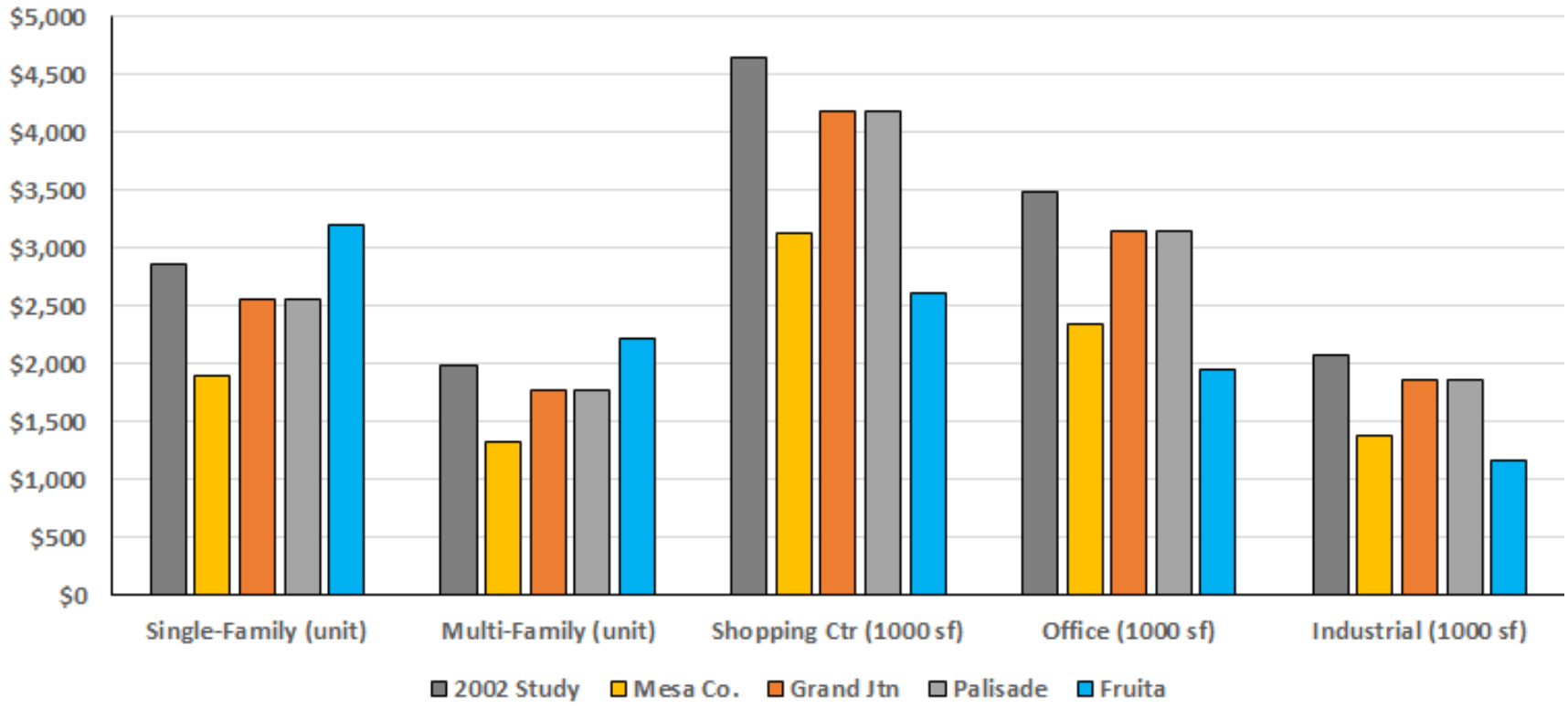


Need for Update

- **Travel demand data by land use is over 20 years old**
  - Update based on 2017 ITE trip manual vs. 1997
  - Update based on 2017 trip length data vs. 1995
- **Road costs have more than doubled in last 16 years**
  - In the 2nd quarter of 2018, the CDOT Construction Cost Index was 2.4 times what it was in 2002 (see chart)



Current Transportation Impact Fees



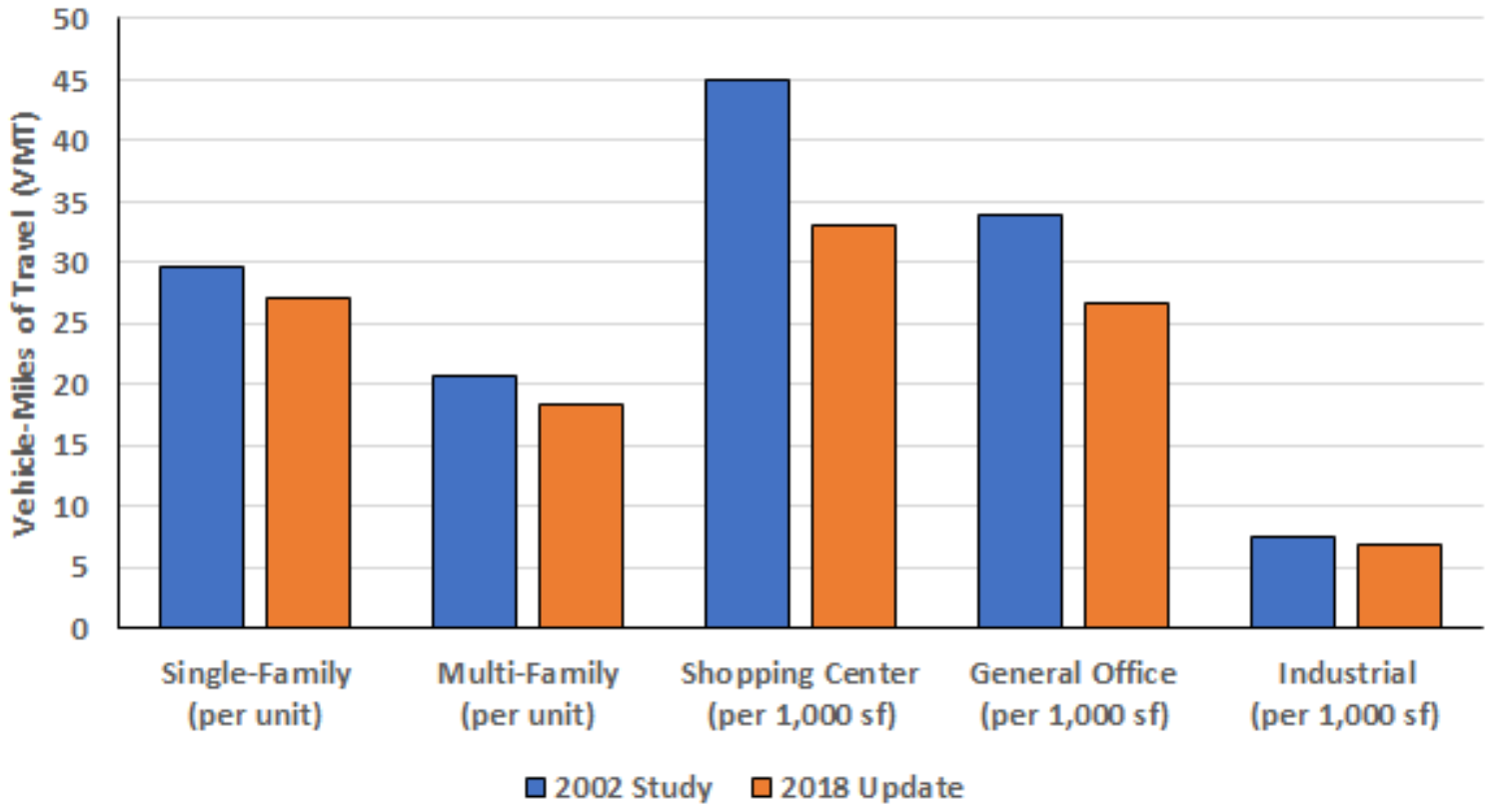
Basic Legal Principles

- **Don’t charge for existing deficiencies**
  - Fees should not exceed the cost to maintain the level of service provided for existing development
- **Avoid Double-Payment**
  - Account for other funding sources
  - Provide developer credits for eligible improvements
- **Maintain proportionality to impact**
  - Don’t discount fees for only some land uses

Major Changes

- **Excludes right-of-way costs**
  - Fees should not be spent on ROW
- **Charges only for capacity directly consumed**
  - 2002 study used a 1.50 ratio of capacity to demand
  - Update uses 1.00 ratio
- **Modifies categories in fee schedule**
  - For consistency with current travel demand data and ease of administration

Change in Travel Demand per Unit

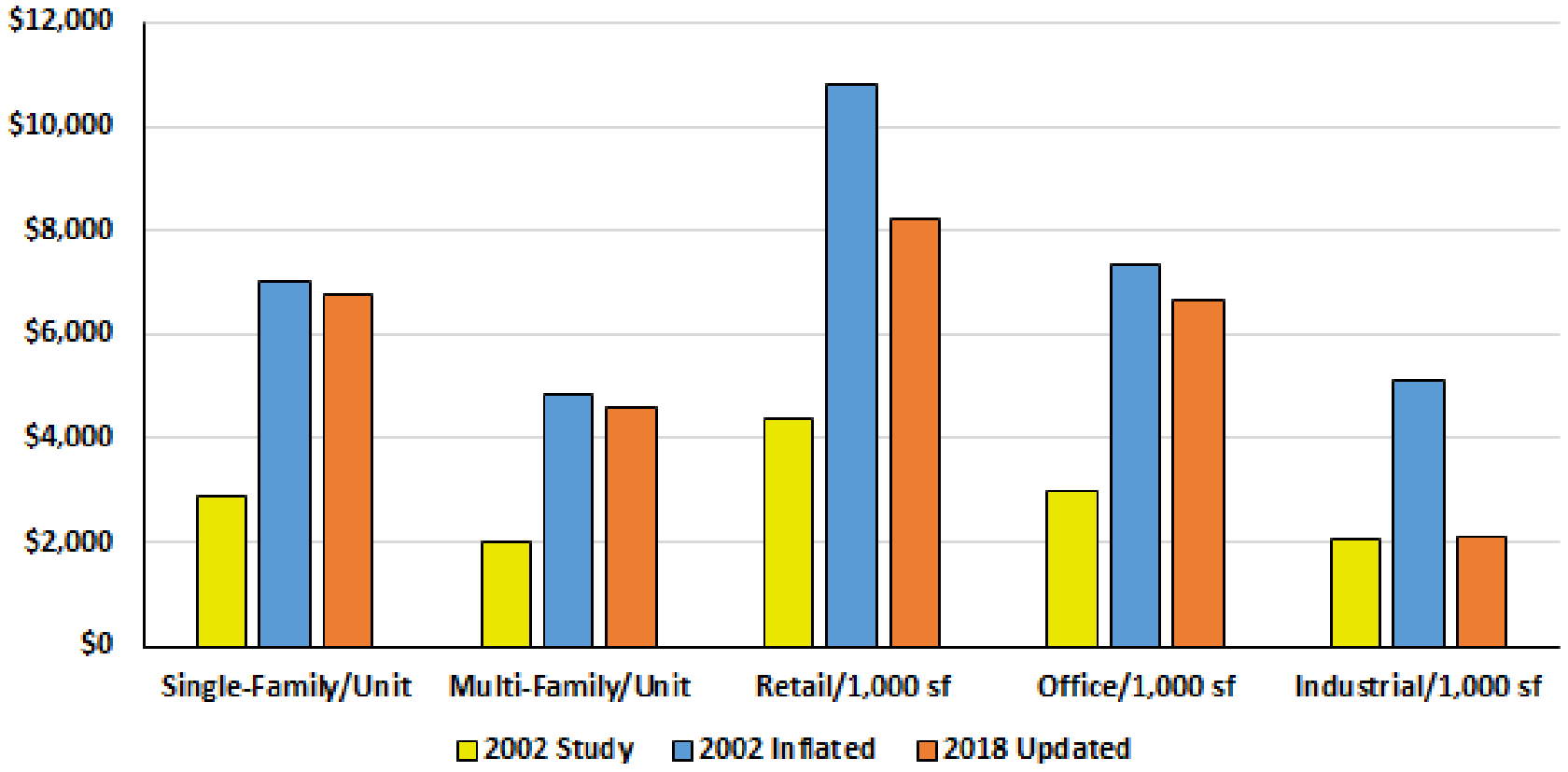


Change in Cost per Daily VMT

- **2018 Update:**
  - Continues to exclude cost of major structures
  - Excludes ROW cost
  - Reduces VMC/VMT ratio from 1.50 to 1.00
  - Uses weighted cost of urban and rural projects
  - Cost per VMT up by about the same rate as inflation

	2002 Study	2018 Update	2018/2002 Ratio
Weighted Average Cost per Lane-Mile	$710,861	$2,764,644	3.89
÷ Average Daily Capacity per Lane	7,108	7,827	1.10
Average Cost per Vehicle-Mile of Capacity (VMC)	$100	$353	3.53
x VMC/VMT Ratio	1.50	1.00	0.67
Cost per Vehicle-Mile of Travel (VMT)	$150	$353	2.35

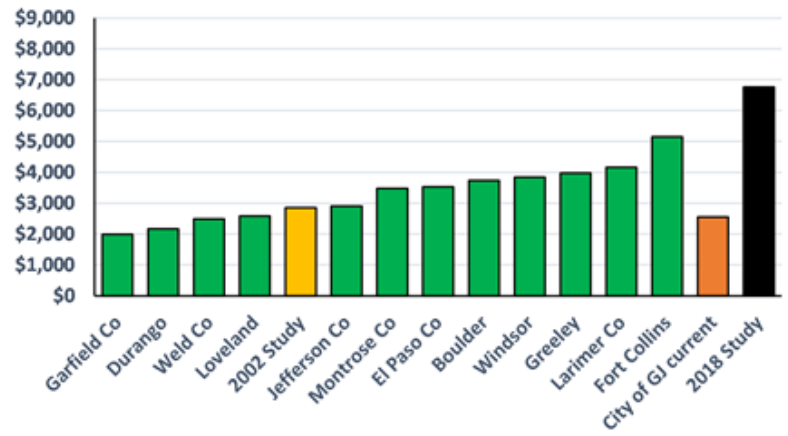
Updated Transportation Fees



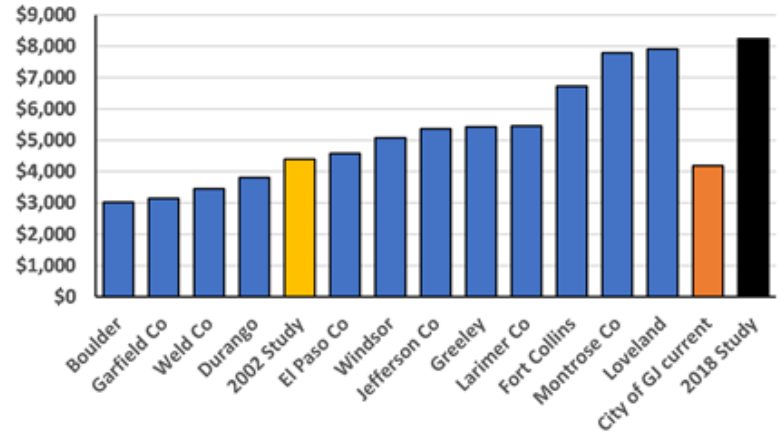
Comparative Fees

- **Fees compared to other Colorado jurisdictions**
  - Road fees only one factor affecting “competitiveness”
  - Most comparison jurisdictions charge other fees as well
  - Some comparison jurisdictions have additional requirements
  - Fee increases of this size unlikely to affect growth
  - Updated fees can be adopted at less than 100%

Single-Family (per unit)



Retail (per 1,000 sf)



Grand Junction City Council

Workshop Session

Item #1.b.

Meeting Date: December 3, 2018

Presented By: Greg Caton, City Manager, Ken Watkins, Fire Chief, Doug Shoemaker, Chief of Police

Department: City Manager

Submitted By:

Information

SUBJECT:

First Responder Needs / Update on Service and Funding Options

EXECUTIVE SUMMARY:

As detailed in previous memorandums, presentations and discussions, the needs of the first responders of the Fire and Police Departments far exceed existing resources. In a 2008 study it was identified that three additional fire stations (Stations #6, #7, #8) were needed immediately to provide acceptable response times according to national standards. Currently the Fire Department is meeting those standards on only 52% of emergency calls. Each station requires 21 positions each to provide 24 hour/365 day coverage with a fire unit and ambulance. It has not been possible to fund either the capital or operational costs of the stations within current revenues. Police national and international standards state that for every hour a police officer works, a minimum of 22 minutes should be available to conduct proactive policing efforts which has a direct impact on reducing criminal activity. Currently, due to understaffing, the police officers only have an average of 6 minutes per hour for these proactive efforts. It would take an additional 18 sworn positions to meet the standard. Additional civilian positions are also need in the Communication Center and to support police operations.

The Fire Department estimates operational needs of $6.3 million to staff the three new fire stations, add a fire inspector, and two civilian positions. The capital needs for three stations is estimated at $17 million. The operational needs of the Police Department were originally estimated to cost $3.8 million for sworn officers and civilian personnel. Because of the ability to fund eight positions for the Police Department in the 2019 recommended budget the estimated costs are reduced. Also, based on input received

during the budget process, a position for an additional code enforcement officer has been added bringing the estimated needs for the Police Department to $3.3 million per year.

Despite adding positions in the Fire and Police Departments in each of the last three budget cycles, both departments are understaffed and struggling to provide first responder services to this community. Between the two departments a total of 88 positions are needed. Fire and Police operations are largely funded by the City's 2% sales tax and that revenue stream is just back to pre-recession levels without taking inflation into account. As a result, existing resources are only sufficient to add one to two first responder positions each year. City staff has continued to evaluate these needs as well as potential new funding sources which are presented for Council discussion.

BACKGROUND OR DETAILED INFORMATION:

FISCAL IMPACT:

SUGGESTED ACTION:

Attachments

1. Public Safety Needs 061517
2. Public Safety Pt II Memo080118
3. Public Safety Pt III Memo092518
4. Revenue Options Memo010218
5. Road Expansion053118
6. Roadway Expansion Part II Memo 071818
7. First Responder Presentation

CITY OF Grand Junction COLORADO

CITY MANAGER'S OFFICE

Memorandum

TO: Mayor and Members of the City Council

FROM: Greg Caton, City Manager

CC: John Camper, Chief of Police

Ken Watkins, Chief of Fire

DATE: June 15, 2017

SUBJECT: City of Grand Junction's Public Safety Needs

The City of Grand Junction has public safety requirements that have developed over time and are increasingly in need of addressing. While some of these are one-time capital projects, the more persistent needs result in ongoing costs. Total Police Department requirements are estimated at $2.6 million and total Fire Department are estimated at $2.9 million. As Mesa County proposes to implement a County-wide public safety sales tax, their proposed proportion of new tax revenue of $500,000 for the City is not enough to adequately address the combined $5.5 million in needs identified by the public safety departments.

Police Department and Grand Junction Regional Communications Center (GJRCC) Needs & Priorities – While there are existing capital needs, the on-going operational costs for the Police Department, including the GJRCC, are approximately $2.6 million. This total estimation does not include some one-time costs associated with equipment and uniforms.

Police Department Operations – The most immediate need in the Police Department operations is to increase the number of authorized sworn positions. Total operational needs and priorities cost an approximate $1.7 million:

- Adding seven officers to expand each patrol team by one officer would cost an estimated $665,676. Alternatively, an additional team could be staffed, requiring a Sergeant. The estimated cost is $781,679 with a Sergeant.
- Adding two detectives to the Investigations Unit, one dealing with crimes against persons and one for crimes against property would cost an estimated $190,193.
- Adding an evidence technician would cost an estimated $71,449.
- Adding a full-time traffic team, would cost an estimated $285,290. Adding a traffic detective, raises the cost to approximately $380,387.
- Adding one officer for a crisis response team consisting of a police officer, paramedic, and a mental health worker is estimated to cost $95,097.
- Adding two School Resource Officers would cost an estimated $190,193.

Communications Center – Immediate needs in the Communication Center are to provide sufficient staffing to alleviate pressures to maintain console coverage without the significant amount of overtime currently being incurred. Increased staffing and implementing tiered hiring can help alleviate these pressures. An additional two supervisors and 10 telecommunicators provides coverage for an additional Police Department primary channel for 12 hours per day, an additional Fire primary channel for 12 hours per day, and two additional call-taker positions covering 10 hours per day. Tiered hiring helps to remedy the gap caused by attrition and the time it takes to train telecommunication staff. The estimated cost of these increases is $929,816 for labor and benefits.

With only $500,000 of funding, the Communication Center could anticipate staffing only an additional PD channel for 12 hours per day, and an additional call-taker position for 10 hours per day. This would be a staffing increase of only one supervisor and five telecommunicators. With only $500,000, the Communication Center loses the opportunity to implement a tiered hiring approach, add another Fire channel, monitor a tactical channel, and is unable to relieve staff by having dedicated call takers.

Fire Department Needs & Priorities – Total Fire Department needs are approximately $2.9 million. This estimation does not include the capital costs of these projects.

North Fire Station – North Fire Station (Station 6) at a total cost of $2.2 million. The fire station is needed to cover areas north of Patterson. This station will reduce response times to this area and help balance out the high call volume of Fire Stations 2 and 3. Cost estimates include salary and benefits for 18 personnel and three coverage staff. Costs also include personal protective gear, uniforms, and the firefighter training academy for station staff.

Fire Department Operations – An additional non-fire ambulance is needed to address the increasing medical demand of the community at an estimated cost of $377,532. Costs include the salary and benefits of four personnel in addition to their personal protective gear, uniforms, and EMS academy.

Adding one paramedic for a crisis response team consisting of a police officer, paramedic, and a mental health worker is estimated to cost $94,744.

Two fire inspector positions would conduct annual fire safety inspections of businesses that are currently assigned to operational crews at an estimated cost of $234,106. Due to the high call volume of response crews, theses inspections are not always completed, completed late, or not of the quality we expect. The cost includes salary and benefits for the two personnel, plus related operating costs.

CITY OF Grand Junction COLORADO

CITY MANAGER'S OFFICE

Memorandum

TO: Mayor and Members of Council

FROM: Greg Caton, City Manager

DATE: August 1, 2018

SUBJECT: Police and Fire Department Budgetary Outlook

Last year, we provided a memorandum regarding the public safety needs of the City of Grand Junction. That memorandum identified approximately $5.5 million in requests, with total Police Department requirements estimated at $2.6 million and the total Fire Department needs were estimated at $2.9 million. At the time of delivery, Mesa County had proposed their County-wide public safety sales tax, with a proposed portion designated for the City at around $500,000. Staff identified that the City's proportion of the County's new tax revenue was not enough to adequately address the $5.5 million in needs identified by our public safety departments. Also identified was the need for alternative sources of revenue to help bridge the gap between the expectation of services by the community and the City's ability to fund such services. The information in this memorandum is meant to continue the discussion on public safety.

The passage of the County-wide public safety tax provides new revenue for public safety organizations like the Sheriff's Office but failed to directly address other components of public safety, such as municipal police, fire departments or emergency medical services, or 911 dispatch. These first responders arguably demonstrate a similar need for additional sources of funding, and while the term *public safety* collectively refers to police, fire, and emergency medical services, it is important to differentiate between the services that contribute to public safety. In our community, fire and EMS services are typically combined as one service, which differs in scope from police services. In addition, the City provides 911 dispatch services for 23 agencies throughout the County.

The 2018 Adopted Budget includes certain public safety elements such as an additional four police officers to reestablish a traffic unit, six firefighters to establish a North-Area Ambulance Station and adds ambulances to the fleet. However, these additions do not adequately represent a complete solution to the need. This memorandum is meant as a follow up to the previous memo and to provide an updated list of public safety needs and to provide options for alternative sources of public safety funding for City Council consideration.

Fire Department Operational Needs – An additional ambulance is needed to address the increasing medical demand of the community at an estimated operational cost of $540,076. Costs include the salary and benefits of six personnel in addition to their personal protective gear, uniforms, and training academy. Capital cost for the ambulance and equipment alone is estimated at $271,075.

Through a State grant, two crisis response teams were added in 2018 consisting of a police or sheriff officer and a mental health worker. Originally the plan included a paramedic be part of these teams, but the grant would not cover these expenses. Adding a paramedic to each team would eliminated the need for an ambulance to respond to mental health incidents for medical clearance. Cost for two paramedics is estimated to be $194,225.

One Fire Inspector/Investigator was added in 2018 to conduct annual fire safety inspections of businesses that are currently assigned to operational crews. Due to the high call volume of response crews, theses inspections are not always completed, completed late, or not of the quality we expect. The estimated cost for one Fire Inspector/Investigator is $117,053 which includes salary, benefits and related operating costs.

Fire Department Station Operating & Capital Needs – In 2008, a third-party Fire Station Study called for the immediate construction of three additional fire stations to meet the service needs in 2008. Without that additional revenue coupled with the recession and poor economy none of these projects have moved forward. Despite the ballot failure, the Fire Department was able to relocate and construct a new Fire Station 4 to help provide a quicker response and greater coverage area to incidents in Orchard Mesa. However, to improve public safety the additional stations listed below are needed to address the current and growing incident volume resulting from current and future growth in the community. Since the fire stations require significant staffing, the operational costs of each station are included.

North Area Fire Station (Station 6) – The cost of operating the North Fire Station (Station 6) is estimated at $2.2 million. The fire station is needed to cover areas north of Patterson and will reduce response times as well as relieve pressure from the high call volumes of Fire Stations 2 and 3. Cost estimates include salary and benefits for 18 personnel and three coverage staff. Costs also include personal protective gear, uniforms, and the firefighter training academy for station staff. The capital cost for this station and apparatus is an additional $4.9 million and likely will be higher due to a planned construction year of 2023.

Northwest Area Fire Station – This station is planned for the vicinity of 23 and I Roads. Currently much of the area is in the Grand Junction Rural Fire Protection District which contracts with the City for fire and medical services. The rural district board is evaluating a possible ballot issue to increase revenue to help with these projects. Costs for this station are estimated at $2.2 million in operating and $6 million in capital depending on a planned construction between years 2026 & 2027.

Southeast Area Fire Station – A station in the southeast area of the community in the vicinity of 31 and D Roads was identified in the 2008 Fire Station Study. City annexation, as the result of the urban growth boundary and the City/County wastewater system has created a mix of City and County that is served by both the Grand Junction Fire Department and the Clifton Fire Protection District. The City and District had previously been in negotiation for a joint station for this area, but those discussions have ceased. As this area grows in population, development and incident volume this station will become a critical need for both agencies. It only makes sense that a partnership be formed to solve this need.

The total estimated cost of capital needs for the Fire Department is approximately $10.9 million. This estimation could increase depending on the cost of a fire station in the southeast area. The total operating costs for staffing these stations is estimated at $6.6 million, or approximately $2.2 million per station. When the other operational needs of approximately $1.1 million are added to the $6.6 million, the total operational needs for the Fire Department are $7.7 million annually. It is important to note that the increase in the cost of Fire Department needs is the result of contemplating the cost of necessary fire stations.

Police Department Operational Needs – A primary concern for GJPD is providing an adequate level of staffing to become a more proactive and service-based police department,

rather than reactive. This means that the most immediate need for Police Department operations is to increase the number of authorized sworn positions. Rather than relying on the generally accepted ratio of 2.5 officers per 1,000 in population (which would result in 162 sworn officers as the target number), the Police Department is instead focusing on the “Rule of 60” as established by the International City & County Managers Association (ICMA) and International Association of Chiefs of Police (IACP). This rule states that for every 60 minutes of an officer’s shift, 22 minutes should be available to conduct proactive policing efforts. This roughly equates to 37% for noncommitted time, a percentage roughly three times higher than the current Grand Junction Police Department levels. As it currently stands, GJPD officers are operating at a 12% noncommitted time level, meaning that 88% of an officer’s day is spent responding to calls and completing reports based on those calls.

Currently, there are 120 sworn positions within GJPD. Given the necessary compromise from the ideal number of 162 sworn and the current staffing allocation, our approach is to look at specific need to address staffing across a variety of services. The following is a detailed request on those positions:

- Increasing the number of patrol staff will allow for officers to proactively police the neighborhoods and businesses they serve. Total estimated cost for increasing patrol staff is $1.1 million.
- The Street Crimes Unit works on high profile crimes and is not currently staffed due to patrol shortages. Total estimated cost for a Street Crimes Unit is $182,600 for just officers, or $191,600 with a corporal upgrade.
- The number of required additional duties of the Police Department requires the addition of a Special Units Commander and Sergeant to oversee special units. Total estimated cost for a Special Units Commander and Sergeant is $263,245.
- The addition of two officers to the Traffic Unit is estimated to cost $182,600.
- The total estimated cost of adding one Police Service Technician is $76,726.
- Adding two detectives would cost an estimated $181,600.
- Adding an Intel Officer to assist the Crime Analyst, Detectives and Narcotics would cost approximately $91,300.
- Increasing the number of officers increases the need to process reports and arrest records. The addition of one Lead Records Technician and one Records Technician would cost an estimated $124,424.
- The Crime Lab will need additional staff as storage of and requests for evidence increases. Potential needs include a Lead Evidence Technician, Evidence Technician, Digital Forensic Technician, and an Equipment Technician. The estimated cost of two of these positions (based on need) is approximately $140,000.
- To implement tiered and specialized dispatching, the Communications Center will need to hire ten telecommunicators and two supervisors to provide coverage for an additional Police Department primary channel for 12 hours per day, an additional Fire Department primary channel for 12 hours per day, and two additional call-taker positions covering ten hours per day. The total estimated cost of additional dispatchers and supervisors is $904,270 and is not covered entirely by the County’s public safety sales tax and the cost would be split among the users of GJRCC.

The needs listed above include salaries, benefits, uniforms and gear, and vehicles if necessary. Total estimated training impact for adding 22 sworn officers, 12 personnel for the communications center, and four civilian police staff would require an additional $100,000,

which is the average cost of training and for new academy positions. The total estimated cost of operational needs is approximately $3.3 million annually.

Police Department Capital Needs – The Police Department currently lacks adequate space for the storage and processing of evidence. This includes all evidentiary cases, from temporary to long term storage needs. In 2016, a survey was completed for the Police Annex Building Master Plan, which would address not only evidence storage, but vehicle storage as well. The minimum cost estimated was $13.1 million, with the higher option coming in at $14.9 million. A temporary solution to the high cost of constructing an annex to the Police Station is to install high-density storage within the current facility. This temporary solution would cost approximately $175,000.

Funding Options – Historically, the growing expectation to provided additional services has not been met with a proportional increase in a willingness to increase funding. At the time the previous memo was drafted, the total cost of the Police Department's needs was estimated at $2.6 million and the total cost of the Fire Department's needs was estimated at $2.9 million, totaling approximately $5.5 million. Currently, the operating needs of the Police Department total an estimated $3.3 million, and capital needs range from $175,000 to $14.9 million. Fire Department combined operational needs now total an estimated $7.7 million and the total capital needs of the department are estimated at $10.9 million. Combined public safety operating needs total approximately $11 million, and with a temporary solution for Police, the capital needs for public safety also total approximately $11 million.

As discussed in a previous memo, sales taxes are currently collected on only certain items at a rate of 2.75% with 0.75% going to maintaining road infrastructure and economic development. A sales tax increase of a quarter percent would increase revenues by about $4 million. With Police Department operational needs totaling an approximate $3.3 million and a temporary solution for Police capital needs estimated at $175,000, new revenue from a quarter percent increase could be used to fund ongoing Police needs. The total operating needs of the Fire Department, however, are estimated at $7.7 million. To cover these costs by sales tax would require an increase of a half-percent.

Alternative Sources of Revenue – When resources are scarce, it is important to be creative in finding solutions to funding challenges. Given the current list of public safety needs, the City could explore alternative sources of revenue to help fund public safety. Expanding the scope of the City's sales tax could generate more revenue by collecting tax on items or services not currently taxed by the City. These kinds of new revenues could be used to cover ongoing costs, while other new sources of revenues could be used to pay for one-time costs such as capital and infrastructure.

- *Sales Tax on Grocery Items* – In Colorado, certain grocery items are exempt from state sales tax, though municipalities can tax these items. The City of Fort Collins, for example, has a 2.25% tax on food for home consumption. The City of Aspen does not exempt food from sales tax but refunds a fixed amount per person that lived in the city for the entire preceding year. By doing so, Aspen is able to collect sales tax on food purchased by visitors, while minimizing the impact on residents through a refund.

- *Property Tax* – Property tax is based on the value of real estate and personal property that a person owns within a jurisdiction and is calculated by multiplying the value of the property by the assessment rate and mill levy. Increasing the City's property tax would increase revenues, however with the current rate of just 8 mills in the City of Grand

Junction, property tax would have to be significantly increased to match the potential revenues of increasing other sources, such as sales tax. For example, current property tax revenues in the City are approximately $7.5 million from our existing 8 mills. If an increase in sales tax by 0.25% generates roughly $4 million in additional revenue, generating a similar amount of new revenue from property tax would require the mill levy to increase by an additional 4.22 mills.

C: Ken Watkins, Fire Chief
Doug Shoemaker, Police Chief
Department Directors

CITY OF Grand Junction COLORADO

CITY MANAGER'S OFFICE

Memorandum

TO: Mayor and Members of Council

FROM: Greg Caton, City Manager

DATE: September 25, 2018

SUBJECT: Public Safety Memorandum III – First Responder Tax

In a memorandum distributed to City Council on August 1st regarding the public safety needs of the City of Grand Junction, we identified the operational and capital needs of both the Fire and Police Departments. Operational needs for the Fire Department were estimated to be $5 million while operational needs for Police were estimated at $3.3 million. The total capital needs for two fire stations was estimated at $10.9 million.

While the 2018 Adopted Budget included certain public safety elements such as an additional four police officers, six firefighters to establish a North-Area Ambulance Station and an ambulance, these additions did not represent a complete solution to the need. This memorandum serves as a follow up and provides an updated list of funding options for the City's first responders for City Council consideration.

First Responder Needs – As detailed in the previous memorandum, the needs of the Fire and Police Departments exceed existing resources. The Fire Department has an estimated operational need of $6.3 million to staff three new fire stations, add a fire inspector, two civilian positions and the capital needs for these three stations of approximately $17 million. The operational needs of the Police Department are estimated to cost $3.8 million for 22 sworn officers and 16 civilian personnel.

Fire Department Needs – The Fire Department's greatest needs are the construction and staffing of Fire and EMS stations in areas with high incident volume or anticipated growth. These additional stations must be added in currently underserved areas to meet the increasing demand for service and response time standards. The Fire Department has been able to make some changes to address this issue, but a lack of adequate funding has prevented the department from reaching a complete solution. Fire Station 4 was recently relocated to provide better responses in Orchard Mesa. Nine full time personnel were added in the last two years, investments have been made in the development of a fire training facility, and in 2016 the Fire Department was nationally recognized for excellence in responses to cardiac emergencies.

Due to a lack of necessary stations, the Fire Department is underfunded and understaffed, and residents in outlying or high growth areas do not receive the same level of service as residents located in more central parts of the city. Currently the areas of heaviest use center around medical and assisted living facilities in the center of the city. These calls heavily rely on Stations 1, 2, and 3, and often draw resources from Stations 4 and 5, which primarily serve the outer portions of the city. For every 1,000 residents in Grand Junction, the department responds to twice as many calls as comparable departments. This high number of calls causes the department to rely on mutual aid from other agencies as evidenced by the number of calls that Clifton Fire District responds to in the City.

While GJFD is proud of the service it provides to the community, the needs of our community are changing and we have a responsibility to continue to provide excellent service. A decade ago, Emergency Services Consulting Inc. conducted a study that recommended the three new fire stations listed below, bringing the total number of fire stations to eight. The need for these additional stations has not changed and has become more critically important as the community continues to grow. Capital needs for the stations range between $4.9 million and $6.1 million per station because of construction inflation and continued staffing costs of $2.2 million per additional station.

North Area Station (Station 6) – The study identified that a station around 27 Road & G Road was needed to help cover the growing north area and would help reduce the high call volumes of Fire Stations 2 & 3. The City has moved forward with a plan to open a temporary station at this site and has hired personnel for an ambulance that will respond from this location. For the permanent station, 15 additional firefighters are needed at a cost of $1.6 million and an estimated capital cost of $4.9 million.

Northwest Area Station (Station 7) – The study also identified the need for a northwest area station around 23 Road & I Road to address the current gap in fire protection on the western and northwestern boundary as it relates to future growth in the City. The estimated cost of this station is $6 million, considering the year it will be built, with an additional $2.2 million in operating and staffing costs.

Southeast Area Station (Station 8) – Finally, the study identified the need for a southeast-area station around 31 Road & D Road. This station functions best if Clifton Fire and Grand Junction Fire collaborate in building and staffing this station to meet the growth in population, development, and call volume. This station is estimated to cost $6.1 million and an additional $2.2 million will be needed annually for operating and staffing costs. Clifton currently uses a combination of full, part time and volunteer staff to respond to a high number of calls in their district and is currently understaffed. While the per capita demand in our community is much higher, this station would benefit both City and Clifton residents.

Community help is needed for these long-term needs. The three additional fire stations will require 57 sworn employees and capital funding for the buildings, apparatus and equipment. As the department grows it will also need three additional administrative positions for an estimated cost of $300,000. Total capital needs for three identified fire stations is $17 million. The total operational needs of the department are approximately $6.3 million.

<u>Police Department Needs</u> – A primary concern for GJPD is providing an adequate level of staffing to become a more proactive and service-based police department, rather than reactive. As of August 15th of this year, GJPD officers are operating at a level of noncommitted time of just 10%. This means that 90% of an officer's day is spent responding to calls and completing reports based on those calls. This is down from the previously reported 12%. To reach the desired level of noncommitted time for officers, 37%, GJPD would require 142 sworn officers. Currently, there are 120 sworn positions allotted to the Grand Junction Police Department. Of those 120 sworn, we are currently at 101 deployable personnel, to include the 11 vacant positions that are open due to recent departures.

The estimated cost of the Police Department's operational needs includes salaries, benefits, uniforms and gear, and vehicles if necessary. After the Police Service Technician and four sworn officers included in the 2019 Recommended Budget, the Police need for 18 sworn

officers and 15 civilian positions would cost an estimated $3.3 million. Due to the significant time required to hire and train personnel, these costs would not initially occur all at once. The hiring would likely be spread over the course of a few years in order for the Police Department to maintain a high level of recruiting standards that ensures the best candidates are selected.

First Responder Sales Tax – The August 1st memorandum discussed funding options to address the needs of the City's Fire and Police departments. As discussed, the growing expectation to provide additional services has not been met with a proportional increase in funding. Sales tax is currently collected on certain items at a rate of 2.75% with 0.75% going to capital and economic development. A sales tax increase of a quarter percent would increase revenues by about $4.3 million.

It is important to understand the difference between needs that are one-time costs versus the needs that require ongoing funding The Police Department operational needs total approximately $3.3 million and the total operating needs of the Fire Department are estimated at $6.3 million. Total capital needs of the Fire Department are estimated at $17 million, and the debt repayment on these capital needs is estimated to be $1.3 million annually. Therefore, the need to increase the number of first responders to meet the community's needs must be met with sustainable sources of funding. The following are options for funding such needs:

Option A: Utilize Current Public Safety Funding – If the City chooses to use only existing resources to fund these first responder needs, then the City risks widening the gap in service as the community continues to grow. By utilizing only existing revenues, the completion date for all capital projects and reaching full staffing levels can be expected to be far in the future since we are currently already not meeting the public safety needs of the community. A complete solution to our first responder needs would not be reached as the City is only able to add 4-5 first responder positions each year and one fire station using the resources currently available. Therefore, Option A would entail utilizing existing resources to only fund a small percentage of our needs.

Option B: First Responder Sales Tax – Posing a ballot question to increase the sales tax rate could provide the City with the opportunity to more adequately fund first responders. The total cost of the Police and Fire Departments operational needs are $3.3 million and $6.3 million, respectively. The $17 million in capital costs for three fire stations would result in annual payments of approximately $1.3 million over the life of a 20-year bond. A complete solution for first responders would total approximately $10.9 million annually. If these needs are to be addressed solely by new revenues, our sales tax would need to be increased by 0.63%. This significant increase would bring the City's sales and use tax to 3.38%.

Option C: First Responder Sales Tax Scaled Approach – A hybrid approach could be used to leverage existing resources with new sources of revenue. If new tax revenue is able to be used for the operational costs (staffing) for two of the three identified fire stations, estimated at $4.1 million, and 18 sworn officers and 15 non-sworn positions for the Police Department, at an estimated cost of $3.3 million, the total operational cost would be an estimated $7.4 million in addition to capital costs. This new operational cost could be covered by a 0.43% tax increase. The annual debt repayment on $10.9 million in capital for two fire stations is approximately $838,000. Therefore, the annualized cost for capital and operations needs increases to $8.2 million and could be covered by a 0.48% increase in tax.

If City Council believes there is a percentage increase the community would support (plus or minus 0.48%), Council could consider an increase in the range between 0.38% and 0.63%. By selecting a percentage tax increase in this range, staff could modify the number of first responder positions accordingly. New revenues generated by a tax increase within this range would allow some of the first responder needs to be addressed.

Comparison to Other Colorado Communities – Other Colorado communities and special districts are entertaining tax increases to help address their respective public safety needs.

Fire Protection Districts – Fire protection districts across the state are looking to increase their revenues to both meet increases in demand and to address the challenge of the Gallagher Amendment to the Colorado Constitution. For example, Fort Lewis Mesa Fire Protection District has filed the paperwork for two ballot measures in November. The first measure is a mill levy increase, and the second measure is a proposal to "de-Gallagherize," the district from the reigns of the Gallagher Amendment. Closer to home, Lower Valley Fire Protection District went to the voters in May to increase the mill levy by three mills. This increase was in response to increased calls for service in a district with growing population. Lands End Fire Protection District in Whitewater also went to the voters in May and increased their mill levy by five mills and was also able to de-Gallagherize.

This fall, both Clifton Fire Protection District and Central Orchard Mesa Volunteer Fire District will ask the voters to de-Gallagherize. Due to the constricting effects of the Gallagher Amendment, Clifton Fire Protection District has experienced nearly a 15% drop in funding from 2016 to 2017. Clifton Fire is asking voters this fall to let the fire district keep the revenues that the Gallagher Amendment formula would have reduced. Central Orchard Mesa is asking voters to approve a mill-levy increase from 4.035 mills to 10 mills in addition to its de-Gallagherizing measure.

Durango – Durango City Council recently reached a consensus on likely sales and property tax questions to go in front of the voters this November. Revenue from the new taxes is expected to raise about $7.5 million in 2019 and would be used for city services such as street maintenance and police. The questions will ask for a 5.4 mill property tax increase and a 0.55% increase in sales tax, bringing the City's total tax rate in Durango from 3% to 3.55%.

CITY OF Grand Junction COLORADO

CITY MANAGER'S OFFICE

Memorandum

TO: Mayor and Members of Council

FROM: Greg Caton, City Manager

DATE: January 2, 2018

SUBJECT: Revenue Options

A core responsibility of the City of Grand Junction is to be a responsible steward of our finances. Recent community conversations have highlighted the potential need to increase funding for public safety in response to increased demands and needs. Historically, the growing expectation to provided additional services has not been met with a proportional increase in a willingness to increase funding. This creates a gap where expenditures do not match revenues. However, when resources are scarce, it is important to be creative in finding solutions to funding challenges. Given the current environment, the City could explore alternative sources of revenue to help close this gap. The following memo explores some revenue source options that the City may consider moving forward.

Increase & Expand Sales Tax – Sales tax is a major and primary source of revenue for cities. Sales taxes are currently collected on only a certain amount of items at a rate of 2.75%. This rate could be increased as the City's current sales tax rate is lower than the average of other cities in Colorado. An increase in sales tax to 3% would increase revenues by about $4.17 million. The types of items from which sales tax is currently collected could be expanded as well:

Sales Tax on Grocery Items – In Colorado, certain grocery items are exempt from state sales tax, though municipalities can tax these items. The City of Fort Collins, for example, has a 2.25% tax on food for home consumption. The City of Aspen does not exempt food from sales tax, but refunds a fixed amount per person that lived in the city for the entire preceding year. By doing so, Aspen is able to collect sales tax on food purchased by visitors, while minimizing the impact on residents through a refund.

Sales Tax on Services – Sales tax collections could also be expanded to include services not currently taxed. Increasing revenues from services would help capture consumer dollars spent on discretionary items and would ensure that consumer spending is taxed broadly and evenly. Examples of services that are not currently taxed locally are a variety of personal services, business services, computer services, admissions and amusements, and professional services. Like collecting tax on internet sales, the standards for this would likely have to come from the Federal or state level.

Sales Tax on Internet Sales – Consumer spending patterns have shifted in recent years with an increase in spending at online retailers. Although the idea of collecting tax for online sales appears to be an easy source of revenue, it should be noted that in Colorado, physical presence applies for internet sales. While some companies like Amazon have made separate tax partnership agreements with municipalities to collect taxes on behalf of the local governments, companies that do not have a physical presence in Colorado are not required to collect sales tax on items sold to Colorado residents. Uniformly collecting tax on internet sales is a venture best made at the Federal or state-level and would likely require a special vote. A roadblock to

this concept is that Colorado lacks a universal tax base, meaning some municipalities tax items that others do not. We currently receive revenue from Amazon sales.

Lodging Tax – The current City lodging tax is 3%. Grand Junction, compared to other markets, is relatively competitive. Boulder has a 7.5% lodging tax, and guests pay 12.30% tax in total per room. Steamboat Springs, in comparison, only has a 1% lodging tax, but guests pay 11.65% in total taxes per room. An increase of 1% to Grand Junction's lodging tax would increase revenues by approximately $500,000. An option to expand lodging tax revenue is to collect taxes on short-term vacation rentals:

Short-Term Vacation Rentals – Short-term vacation rentals, like the popular companies *Airbnb* and *VRBO,* are gaining in popularity nationwide. Municipalities frequently use tax partnerships with companies like these to help with tax collection. For example, the City of Loveland recently signed an agreement with *Airbnb* for guests staying within city limits to pay an additional 3% lodging tax on their bills. The short term vacation rental company already collects a 3% sales tax, a local marketing district tax, and a 2.9% Colorado state sales tax to price listings. *Airbnb* will collect the new tax on behalf of the city, then remit the tax back. This is a key part of the agreement, since tax collection will be ensured by being performed by the company.

TABOR and de-Brucing – The passage of the TABOR law in November 1992 required voter approval on all tax increases in all taxing districts within the state. These include tax rate increases, imposition of new taxes, and increases in property tax assessment ratios. The law also explicitly prohibits the implementation of certain types of taxes including new or increased real estate transfer taxes, local income taxes, state property taxes, and state income tax surcharges. TABOR also requires voter approval to change any existing spending limits or revenue growth limits. Equally important, TABOR restricts general revenues to the prior year's revenues adjusted for population growth and inflation. Any excess revenues must be rebated back to the population through tax reductions or cash rebates. Voter approval is needed to override any of these provisions.

There is, however, a method for reducing the restrictions brought by TABOR. When local governments are allowed to keep revenues in excess of TABOR's specified limit in lieu of returning it to the citizens, it is known as d*e-Brucing*. The term d*e-Bruce* is in reference to Douglas Bruce, the architect of the TABOR amendment. A common misconception of the practice is that it strips the voters of their right to vote on taxes. However, d*e-Brucing* only allows local governments to keep excess revenues collected.

Mill Levy Adjustments & Property Tax – A mill levy adjustment would allow the City to maintain revenue in response to changes in property tax from the 1982 Gallagher Amendment, which maintains Colorado's base property tax ratio at 55% for commercial property and 45% for residential. It is important to remember that under this law, commercial property is assessed at a fixed 29% rate, requiring that the residential assessment rate be lowered periodically in order to balance. Grand Junction currently enjoys low mill levy rates relative to other parts of the state. Adjusting mill levies would allow the City to also maintain revenue despite changes in valuation across the state. Alternatively, rural fire districts could adjust their respective mill levies to keep their revenues from decreasing.

Property Tax – Property tax is based on the value of real estate and personal property that a person owns within a jurisdiction and is calculated by multiplying the value of the property by the assessment rate and mill levy. Increasing the City's property tax would increase revenues,

however with the current rate of just 8 mills in the City of Grand Junction, property tax would have to be significantly increased to match the potential revenues of increasing other sources, such as sales tax. For example, current property tax revenues in the City are approximately $7.5 million from our 8 mills. If an increase in sales tax by $0.25 generates roughly $4 million in additional revenue, generating a similar amount of new revenue from property tax would require the mill levy to increase by an additional 4.22 mills. Furthermore, the sales tax base is much larger than the base for property tax. Using the same example, approximately $4 million would be generated by a sales tax increase of 0.25%, compared to an increase in property tax of 0.42%.

CITY OF Grand Junction COLORADO

CITY MANAGER'S OFFICE

Memorandum

TO: Mayor and Members of Council

FROM: Greg Caton, City Manager

DATE: May 31, 2018

SUBJECT: Roadway Expansion Projects

The ability to move around the community with relative ease is important to maintaining the overall quality of life of Grand Junction residents. Planning and Infrastructure is one of City Council's directives as identified in the adopted Strategic Plan. When we put forth the ballot question in the spring of 2017 (Ballot Question 2B), we knew that was a solution for improving the condition (pavement condition index) of our existing roadways; however, we knew we would need to develop another solution for roadway expansion. The purpose of this memorandum is to identify projects that expand the transportation system and begin the discussion regarding funding for these improvements.

City staff works closely with the Regional Transportation Planning Office(RTPO) on traffic models that project population growth, travel routes, and future impacts to the transportation network. These models also help forecast "hotspots" and understand which areas require attention and resources to avoid significant delays on daily trips. The current model is slated to be updated later this year and published in 2019.

Transportation capacity improvement projects proposed for consideration include:

- 29 Road & I-70 Interchange
- Widening 24 Road
- Creating the F ½ Road Parkway
- Widening 25 Road
- Riverside Parkway interchange with 24 Road

Grand Junction Loop, 29 Road & I-70 Interchange – The City currently has several transportation capacity needs, and several notable roadway expansion projects would help to complete the beltway system known as the Grand Junction Loop. For approximately thirty years, the City of Grand Junction and Mesa County have identified the need for a beltway system. The concept of the Grand Junction Loop was developed in the late 1990s. In 2008, the Riverside Parkway opened, followed by the I-70B and 29 Road interchange in 2011.

An element of the Loop not yet completed is the I-70 & 29 Road interchange. The 2010 Grand Junction Comprehensive Plan envisions the 29 Road corridor as a Multi-use Opportunity Corridor and is part of the north-south corridor of the Grand Junction Loop that not only serves as the eastern portion of the loop but also connects I-70 to US 50. The 2040 Regional Transportation Plan (RTP) plan identifies two projects for the corridor. The first project will widen 29 Road from two to four lanes between F Road north to I-70 and construct an interchange on I-70. The second project will involve widening 29 Road from three lanes to five lanes between North Avenue and Patterson Road. The planned projects are multi-modal, including pedestrian and bicycle facilities. Total project cost for the I-70 & 29 Road interchange and widening north of Patterson is approximately $60 million.

The City of Grand Junction and Mesa County recently approved an agreement to move forward on a Planning and Environmental Linkages (PEL) study that should be completed in the next 9 months. The study will help the City, County and CDOT determine the best configuration and location for the interchange and as well as develop a budget from which to explore funding opportunities at the federal, state and local levels.

Western Corridors of the Grand Junction Loop – The western corridors of the Grand Junction Loop include the components around the Mesa Mall and commercial areas in the western part of the City. Transportation capacity improvement projects in this area include the widening of 24 Road, creating the F ½ Road Parkway, widening 25 Road and the Riverside Parkway interchange with 24 Road.

2010 Comprehensive Plan envisions 24 Road as a corridor connecting I-70 and I-70B with the Riverside Parkway. The 24 Road Corridor Plan establishes 24 Road with a distinctive "parkway" character along the roadway that can serve as a gateway to the Grand Junction community. Reconstruction of the interchange with I-70 has already occurred, creating a desired gateway feature through coordination with and project construction by CDOT. Expansion of 24 Road would create a five-lane parkway with a landscaped median, landscaped right-of-way on the west and east (including transitions to the Leach Creek natural corridor), street lighting, bike lanes, and a detached sidewalk on the west side. Currently, no sidewalk is planned for the east side because a multi-use trail is planned for the Leach Creek natural corridor. This section is planned for future transit system expansion. The cost of a project widening of 24 Road is approximately $10 million.

The vision for a F 1/2 Road Parkway is primarily to increase mobility as well as improve safety between I-70B and 25 Road as an alternative to Patterson Road. The Parkway corridor would be constructed with multi-modal features and a distinctive "parkway" character that could serve as a bypass around the Mesa Mall area as well as serve the anticipated additional growth in residential, commercial and industrial property along the corridor. F 1/2 Road at buildout is proposed to have four lanes with a 30-foot landscaped median with 10-foot detached shared use paths on both sides complete with street and pedestrian level lighting. Future travel modes include passenger vehicles, possibly bus service, as well as bicycles and pedestrians. The estimated cost of creating an interim three lane F 1/2 Road Parkway, similar to that which exists just east of 24 Road is $10 million.

A 25 Road widening project would provide much needed improvements to a corridor connecting a future F 1/2 Road Parkway and I-70B. This project would also join with an existing interchange between the Riverside Parkway and 25 Road, adding connectivity to the overall Grand Junction Loop System. Expansion of 25 Road would also serve future residential, commercial and industrial property along the corridor. The cost of a project to improve 25 Road is approximately $8 million.

The Riverside Parkway and 24 Road Interchange is not as intuitive as originally envisioned and has been the subject a few suggestions by citizens. The estimated cost for more conventional ramps, right of way acquisition, and Union Pacific Railroad coordination is $20 million.

Project Costs & Financing Options – The total estimated cost of these projects is $108 million which makes them unattainable using the current annual capital improvement funding. Debt will

need to be issued in order to appropriately fund these sizable projects and construct them over a feasible time-frame.

In April of 2017, voters approved using TABOR excess towards pavement maintenance. Over the next several years, both the planned and authorized expenditures will allow us to bring our pavement condition index up to 73, which is the desirable condition. The voter approved authorization of dollars in excess of the TABOR limitation sunsets in 2022. Depending on sales tax growth, property tax growth and the allowed amount of growth under TABOR, the average projected revenues in excess of the TABOR imposed limitation over the next 10 years ranges from $800,000 per year to $1,000,000 per year.

The City currently has outstanding debt on the Riverside Parkway that matures in 2024. That annual debt service payment is $3.8 million. Without another authorization from voters to use excess TABOR funds after 2022, the funds now being used for the Riverside Parkway debt service will be subject to a refund to the taxpayers.

An option to consider for a roadway expansion solution is to ask the voters to use TABOR excess funds beyond 2022 to help pay the debt service on these projects. Funds from TABOR excess would be combined with funds being used for the Riverside Parkway debt service (after maturity) and growth in existing capital revenues to service the debt required to construct these projects. Considering the County's estimated participation in the 29 Road and I-70 interchange, the net cost of the projects to the City would be approximately $78 million. It is estimated that the debt service would range between $5 and 6 million per year to fund the improvements.

As the community has recently felt the demand on the housing with additional people moving to the community, we are feeling a sense of urgency to discuss, and finalize, solutions for expanding the transportation system. Many of these projects will have a positive impact on the surrounding private properties and will create economic development opportunities. Due to the complex nature of these projects and other important factors such as available resources and existing sales tax revenue, posing a question to the voters in spring of 2019 could be advantageous for these projects.

C: Department Directors

CITY OF Grand Junction COLORADO

CITY MANAGER'S OFFICE

Memorandum

TO: Mayor and Members of Council

FROM: Greg Caton, City Manager

DATE: July 18, 2018

SUBJECT: Roadway Expansion – Part II

We recently provided a memorandum regarding roadway expansion. That memorandum (attached for reference) has produced some healthy exchanges and additional questions. This memorandum is meant as a follow up to these questions and provide additional options for City Council consideration. We are seeing an increasing need for expanding the transportation system as we have felt the demand on the housing market with the recent influx of people moving to the community. Projects that improve and expand the existing transportation system will have a positive impact on properties in the City and will help create economic development opportunities. Due to the complex nature of these projects and other important factors such as available resources and existing sales tax revenue, posing a question to the voters in spring of 2019 could be advantageous for these projects. The purpose of this memorandum is to continue the discussion on roadway projects that expand the transportation system in the City of Grand Junction and our options for funding for these improvements.

Roadway Expansion Projects – As discussed in a previous memorandum, transportation capacity improvement projects proposed for consideration included the list below. The total estimated cost of these projects is $108 million which makes them unattainable using the current annual capital improvement funding. If Mesa County participates in the 29 Road & I-70 interchange project, then the City's approximate cost of these projects is reduced to $78 million. As discussed in the aforementioned memo, debt will need to be issued in order to appropriately fund these sizable projects and construct them over a feasible time-frame.

- 29 Road & I-70 Interchange
- Widening of 24 Road
- Creating the F ½ Road Parkway
- Widening of 25 Road
- Riverside Parkway & 24 Road Interchange

Complete Roadway Expansion Projects List – We received a request from Council for a complete solution. In addition to the projects highlighted by the preceding memo (as shown above), staff has identified 24 additional roadway expansion projects that would complete the necessary expansion of the City's roadway network. The cost of these new projects is estimated to total over $106 million. These new improvement projects increase capacity of the network and help to change roads that are currently rural in nature to those that are urbanized. Projects include:

- 23 Road between H Road and I-70
- 23 Road and I-70 bridge structure
- 24 Road and I-70 bridge structure
- 24 ½ Road
- 25 Road from F ½ to G 3/8 Roads
- 26 Road
- 26 Road and I-70 bridge structure
- 26 ½ Road
- 26 ½ Road and I-70 bridge structure
- G Road from 23 Road and Horizon Drive
- 27 Road and I-70 bridge structure
- Intersection improvements at G Road and 27 Road

- F ½ Road
- F ½ Road
- D Road in Pear Park
- D ½ Road in Pear Park
- E Road in Pear Park
- Intersection improvements along D Road at 30, 31, and D ½ Roads
- B ½ Road in Orchard Mesa
- 27 ½ Road in Orchard Mesa
- Intersection improvements at 27 ½ Road and Unaweep and B ½ Roads
- F ½ Road across Matchett Park
- F ½ Road form 30 Road to 31 Road
- South Broadway improvements in the Redlands

These projects would increase capacity for neighborhoods throughout the City of Grand Junction and would improve mobility between all areas of the city and the downtown core. Improvements to corridors such as 26 Road and 26 1/2 Road are currently identified outside the 10-year capital plan. Projects listed within the 10-year CIP are north area improvements such as to the G Road corridor, F 1/2 Rd, 24 Road and 25 Road corridors. While identified in the CIP, they are outside the balanced portion of the CIP. When added to the $78 million described in the previous memo, the total estimated cost of all transportation expansion projects is $184 million.

Option A: Utilize Current Transportation Funding – If the City chooses to use only existing resources to fund these transportation projects, especially without bonding, then the completion date for all projects can be expected to be far in the future. The current 10-year capital improvement plan includes some small capacity projects, such as roundabouts and turn lanes that are funded in the 5-year projection. However, in the latter years, other transportation capacity projects remain unfunded. Using the CIP as a guide, the City currently has capacity to fund approximately $15 million in roadway infrastructure projects over ten years.

Voters approved using TABOR excess towards pavement maintenance in April of 2017. The voter approved authorization of dollars in excess of the TABOR limitation sunsets in 2022. Depending on sales tax growth, property tax growth and the allowed amount of growth under TABOR, the average projected revenues in excess of the TABOR imposed limitation over the next 10 years ranges from $800,000 per year to $1,000,000 per year. The City currently has outstanding debt on the Riverside Parkway that matures in 2024. That annual debt service payment is $3.8 million. Without another authorization from voters to use excess TABOR funds after 2022, the funds now being used for the Riverside Parkway debt service will be subject to a refund to the taxpayers. The approximate amount of funds devoted to transportation is $4.8 million. Using the resources available to the City currently, the total value of projects we can fund is approximately $64 million. Therefore, Option A would entail utilizing existing resources, including reauthorization of the TABOR excess, to fund major projects through bonding that totals approximately $64 million.

Option B: Sales Tax Increase – Even with bonding, the City's limited existing funds pose challenges to achieving a complete transportation solution. With consideration of increasing revenue sources, the City has the opportunity to complete more projects resulting in a comprehensive road network solution. Combined with existing resources, new sources of revenue would allow the City to pay the debt service on transportation projects throughout the community. The cost of the projects from the expanded list, indicated in this memo is approximately $106 million. Also, of important note is the existing resources can fund $4.8 million per year for a total of $64 million. So, there is a gap between $64 million that we can fund with existing resources and the $78 million needed to fund the original list of projects. The debt

service on $78 million and $106 million would be $5.8 million and $7.8 million, respectively, over the 20-year life of the debt. Combined debt service of the complete solution would be approximately $13.6 million.

The total estimated cost of all projects is $184 million. Debt will need to be issued in order to appropriately fund these sizable projects and construct them over a reasonable time-frame. An option is to ask voters to increase sales tax within the City to fund these transportation projects. New revenues from sales tax, in combination with existing funds could provide a complete solution to roadway expansion. A half-percent increase on sales tax would result in approximately $8 million in revenue to the City annually. This means that debt service on some of the proposed projects could be covered in part by increasing the sales tax.

Posing a ballot question to increase the tax rate could provide the City with the opportunity to complete capacity projects. However, with the cost of a total transportation solution estimated at approximately $184 million, the timeline to complete these projects is also important to consider. The number of projects the City can complete is dependent on the availability of funding. A potential ballot question, in combination with existing resources, could be enough to address most of the transportation needs present in the community. Alternatively, these projects could be completed over longer periods of time. For example, the City could propose to do half of these projects with quarter percent sales tax increase and do the other half after 20 years. However, as the community continues to grow, a less aggressive approach would leave inadequate portions of the City's transportation network in place for longer. Therefore, Option B would entail additional revenue through a sales tax increase. To fully fund the $106 million, annual debt service is approximately $7.8 million. A half-percent would provide $8 million annually. An alternative option (let's call it Option B Light) could be to fund approximately half of the $106 million (or $53 million) and request a quarter-percent sales tax increase. If Option A is combined with Option B Light, then a quarter-percent sales tax increase would be requested and in conjunction with existing revenues, we could fund $117 million worth of major projects.

Additional and Supplemental Sources of Funding – Senate Bill 18-001 provides two years of General Fund transfers to CDOT, totaling approximately $451.5 million, authorizes a 2019 ballot initiative for $2.3 billion in bonds if 2018 ballot initiatives fail, and retains the first year of funds authorized by SB 17-267, with future years contingent on the outcomes of 2018 ballot initiatives.

Ballot Initiative #153 will ask Colorado voters to increase the state sales tax by 0.62% for 20 years. Of the total amount collected in year one, 45% will go to the State and is estimated to collect approximately $345 million. Another 15% will be used for the multimodal fund and is estimated to collect $115 million in its first year. 85% of this revenue will be used for local priorities. The final 40%, or approximately $306.7 million in the first year will go to local agencies and is projected to net approximately $8 billion over the span of the increase. Revenue is to be split evenly between counties and cities and will be based off the HUTF formula. The City budgeted approximately $2.3 million for HUTF funds in 2018. New revenue from Ballot Initiative #153 is estimated to provide an additional $2.7 million in its first year.

Attachment

CITY OF Grand Junction COLORADO

CITY MANAGER'S OFFICE

Memorandum

TO: Mayor and Members of Council

FROM: Greg Caton, City Manager

DATE: May 31, 2018

SUBJECT: Roadway Expansion Projects

The ability to move around the community with relative ease is important to maintaining the overall quality of life of Grand Junction residents. Planning and Infrastructure is one of City Council's directives as identified in the adopted Strategic Plan. When we put forth the ballot question in the spring of 2017 (Ballot Question 2B), we knew that was a solution for improving the condition (pavement condition index) of our existing roadways; however, we knew we would need to develop another solution for roadway expansion. The purpose of this memorandum is to identify projects that expand the transportation system and begin the discussion regarding funding for these improvements.

City staff works closely with the Regional Transportation Planning Office(RTPO) on traffic models that project population growth, travel routes, and future impacts to the transportation network. These models also help forecast "hotspots" and understand which areas require attention and resources to avoid significant delays on daily trips. The current model is slated to be updated later this year and published in 2019.

Transportation capacity improvement projects proposed for consideration include:

- 29 Road & I-70 Interchange
- Widening 24 Road
- Creating the F ½ Road Parkway
- Widening 25 Road
- Riverside Parkway interchange with 24 Road

Grand Junction Loop, 29 Road & I-70 Interchange – The City currently has several transportation capacity needs, and several notable roadway expansion projects would help to complete the beltway system known as the Grand Junction Loop. For approximately thirty years, the City of Grand Junction and Mesa County have identified the need for a beltway system. The concept of the Grand Junction Loop was developed in the late 1990s. In 2008, the Riverside Parkway opened, followed by the I-70B and 29 Road interchange in 2011.

An element of the Loop not yet completed is the I-70 & 29 Road interchange. The 2010 Grand Junction Comprehensive Plan envisions the 29 Road corridor as a Multi-use Opportunity Corridor and is part of the north-south corridor of the Grand Junction Loop that not only serves as the eastern portion of the loop but also connects I-70 to US 50. The 2040 Regional Transportation Plan (RTP) plan identifies two projects for the corridor. The first project will widen 29 Road from two to four lanes between F Road north to I-70 and construct an interchange on I-70. The second project will involve widening 29 Road from three lanes to five lanes between North Avenue and Patterson Road. The planned projects are multi-modal, including pedestrian and bicycle facilities. Total project cost for the I-70 & 29 Road interchange and widening north of Patterson is approximately $60 million.

The City of Grand Junction and Mesa County recently approved an agreement to move forward on a Planning and Environmental Linkages (PEL) study that should be completed in the next 9 months. The study will help the City, County and CDOT determine the best configuration and location for the interchange and as well as develop a budget from which to explore funding opportunities at the federal, state and local levels.

Western Corridors of the Grand Junction Loop – The western corridors of the Grand Junction Loop include the components around the Mesa Mall and commercial areas in the western part of the City. Transportation capacity improvement projects in this area include the widening of 24 Road, creating the F ½ Road Parkway, widening 25 Road and the Riverside Parkway interchange with 24 Road.

2010 Comprehensive Plan envisions 24 Road as a corridor connecting I-70 and I-70B with the Riverside Parkway. The 24 Road Corridor Plan establishes 24 Road with a distinctive "parkway" character along the roadway that can serve as a gateway to the Grand Junction community. Reconstruction of the interchange with I-70 has already occurred, creating a desired gateway feature through coordination with and project construction by CDOT. Expansion of 24 Road would create a five-lane parkway with a landscaped median, landscaped right-of-way on the west and east (including transitions to the Leach Creek natural corridor), street lighting, bike lanes, and a detached sidewalk on the west side. Currently, no sidewalk is planned for the east side because a multi-use trail is planned for the Leach Creek natural corridor. This section is planned for future transit system expansion. The cost of a project widening of 24 Road is approximately $10 million.

The vision for a F 1/2 Road Parkway is primarily to increase mobility as well as improve safety between I-70B and 25 Road as an alternative to Patterson Road. The Parkway corridor would be constructed with multi-modal features and a distinctive "parkway" character that could serve as a bypass around the Mesa Mall area as well as serve the anticipated additional growth in residential, commercial and industrial property along the corridor. F 1/2 Road at buildout is proposed to have four lanes with a 30-foot landscaped median with 10-foot detached shared use paths on both sides complete with street and pedestrian level lighting. Future travel modes include passenger vehicles, possibly bus service, as well as bicycles and pedestrians. The estimated cost of creating an interim three lane F 1/2 Road Parkway, similar to that which exists just east of 24 Road is $10 million.

A 25 Road widening project would provide much needed improvements to a corridor connecting a future F 1/2 Road Parkway and I-70B. This project would also join with an existing interchange between the Riverside Parkway and 25 Road, adding connectivity to the overall Grand Junction Loop System. Expansion of 25 Road would also serve future residential, commercial and industrial property along the corridor. The cost of a project to improve 25 Road is approximately $8 million.

The Riverside Parkway and 24 Road Interchange is not as intuitive as originally envisioned and has been the subject a few suggestions by citizens. The estimated cost for more conventional ramps, right of way acquisition, and Union Pacific Railroad coordination is $20 million.

Project Costs & Financing Options – The total estimated cost of these projects is $108 million which makes them unattainable using the current annual capital improvement funding. Debt will

need to be issued in order to appropriately fund these sizable projects and construct them over a feasible time-frame.

In April of 2017, voters approved using TABOR excess towards pavement maintenance. Over the next several years, both the planned and authorized expenditures will allow us to bring our pavement condition index up to 73, which is the desirable condition. The voter approved authorization of dollars in excess of the TABOR limitation sunsets in 2022. Depending on sales tax growth, property tax growth and the allowed amount of growth under TABOR, the average projected revenues in excess of the TABOR imposed limitation over the next 10 years ranges from $800,000 per year to $1,000,000 per year.

The City currently has outstanding debt on the Riverside Parkway that matures in 2024. That annual debt service payment is $3.8 million. Without another authorization from voters to use excess TABOR funds after 2022, the funds now being used for the Riverside Parkway debt service will be subject to a refund to the taxpayers.

An option to consider for a roadway expansion solution is to ask the voters to use TABOR excess funds beyond 2022 to help pay the debt service on these projects. Funds from TABOR excess would be combined with funds being used for the Riverside Parkway debt service (after maturity) and growth in existing capital revenues to service the debt required to construct these projects. Considering the County's estimated participation in the 29 Road and I-70 interchange, the net cost of the projects to the City would be approximately $78 million. It is estimated that the debt service would range between $5 and 6 million per year to fund the improvements.

As the community has recently felt the demand on the housing with additional people moving to the community, we are feeling a sense of urgency to discuss, and finalize, solutions for expanding the transportation system. Many of these projects will have a positive impact on the surrounding private properties and will create economic development opportunities. Due to the complex nature of these projects and other important factors such as available resources and existing sales tax revenue, posing a question to the voters in spring of 2019 could be advantageous for these projects.

C: Department Directors

First Responder Needs

Update on Service and Funding Options

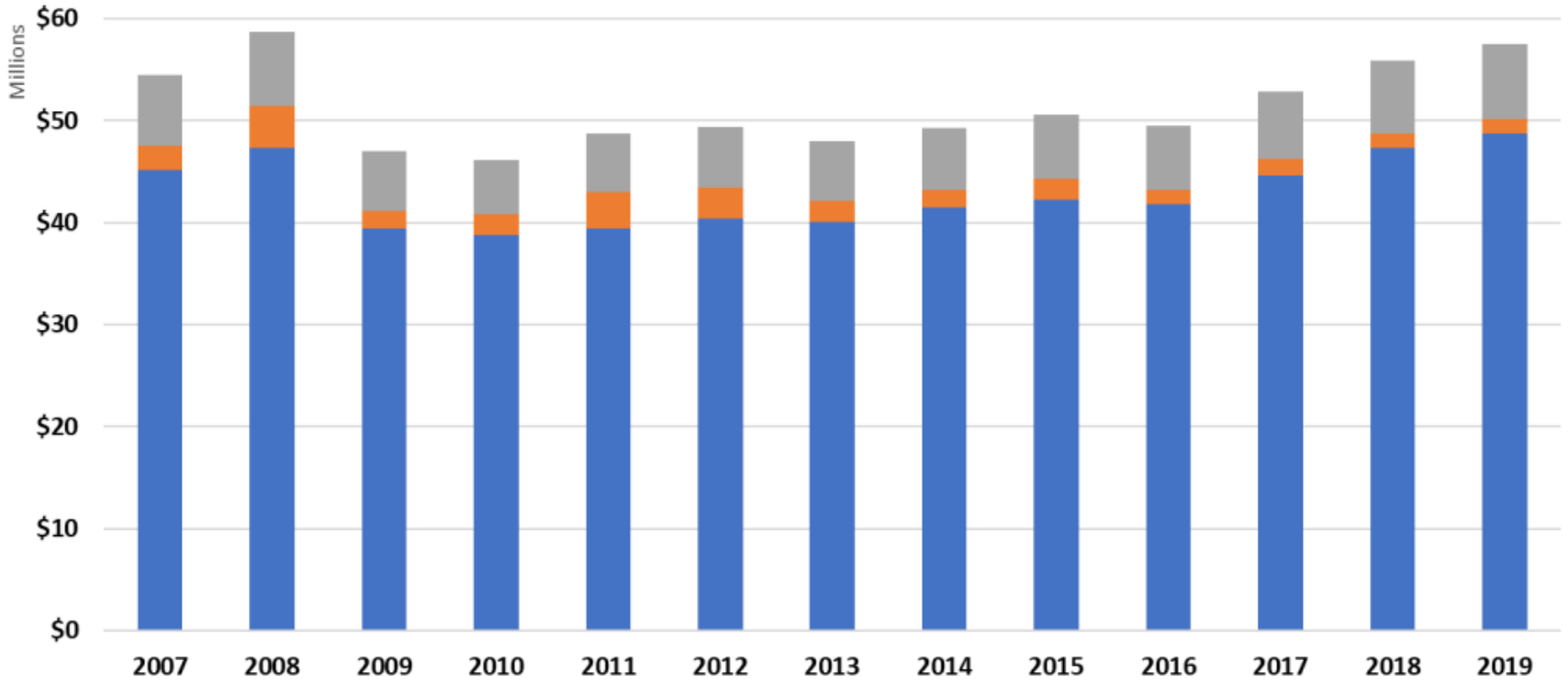
City Council Workshop

December 3rd, 2018

First Responder Needs

- Fire
  - 2008 Station Study indicated immediate need for three additional stations to meet national standards for response time
  - Currently only meeting those standards 52% of the time on emergency calls - well below the 90% target
  - Requires 21 positions to provide 24 hour/365 day coverage for each station
  - Need 57 positions to staff Station #6, #7, and #8, one inspector, and 2 civilian positions
  - Total ongoing need of $6.3 million per year
- Police
  - Officers going from call to call, response times too long on priority calls
  - Currently only have an average of 6 minutes per hour (10%) for proactive policing efforts
  - Standard is a minimum of 22 minutes (37%)
  - Need 18 sworn positions, 5 civilian positions, and 8 communication center positions
  - Total ongoing need of $3.3 million per year

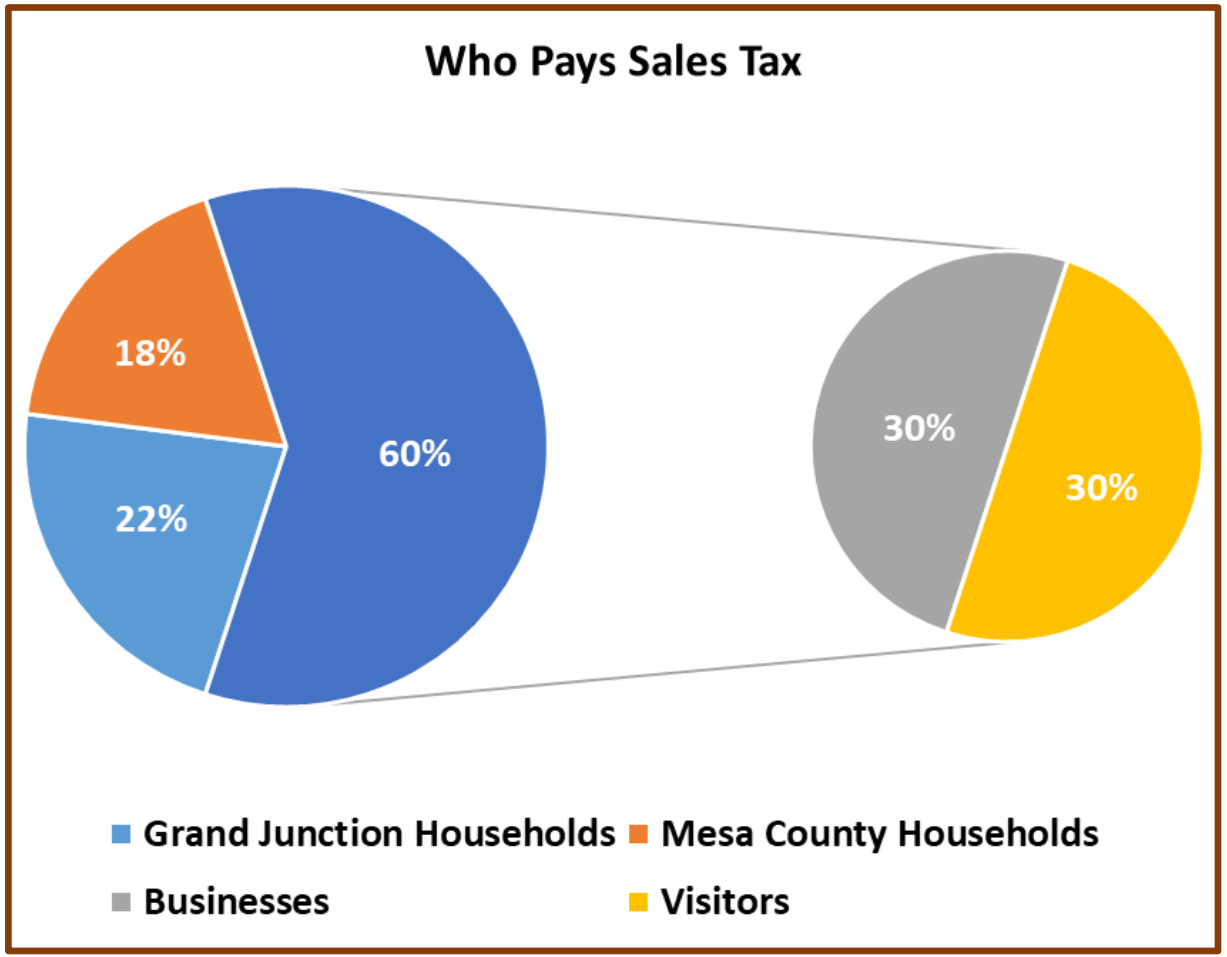
City Historical Sales and Use Taxes



Sales Tax	$	45.18	$	47.28	$	39.39	$	38.79	$	39.48	$	40.36	$	40.05	$	41.43	$	42.24	$	41.82	$	44.58	$	47.37	$	48.79
Use Tax	$	2.38	$	4.13	$	1.79	$	1.99	$	3.57	$	3.03	$	2.06	$	1.83	$	2.05	$	1.44	$	1.65	$	1.39	$	1.40
City Share of County 2%	$	6.92	$	7.25	$	5.85	$	5.33	$	5.70	$	5.96	$	5.90	$	6.06	$	6.33	$	6.19	$	6.60	$	7.15	$	7.37
Total	**$**	**54.47**	**$**	**58.66**	**$**	**47.03**	**$**	**46.11**	**$**	**48.74**	**$**	**49.36**	**$**	**48.01**	**$**	**49.31**	**$**	**50.61**	**$**	**49.45**	**$**	**52.83**	**$**	**55.91**	**$**	**57.56**

Sales Tax

Total Sales Tax Breakdown in Grand Junction		
City of Grand Junction General Fund	2.00%	
City of Grand Junction Capital and Economic Development	0.75%	
City of Grand Junction Total		**2.75%**
Mesa County (City receives 16% or 32% of second 1%)	2.00%	
Mesa County Public Safety Tax (City receives 6.97%)	0.37%	
Mesa County Total		**2.37%**
State of Colorado Total		**2.90%**
Total Combined Sales Tax Rate		**8.02%**



First Responder Funding Sources

- Sales tax is major source of revenue and is paid in large part by non-City residents and businesses
- Increase in sales tax is spread over a large population and reduces the tax burden to City residents
- .25% increase in sales tax generates $4.3 million based on current retail sales
- Property tax comprises 10% of revenue from a levy of 8 mills
- Property tax mill levy has not been increased in over 25 years
- In order to reduce tax increase to City residents and businesses, eliminate property tax

First Responder Funding Options

Option A-Fund Fire and Police .50% Sales Tax Increase	
Need Funded	Sales Tax Increase
Fire	0.35%
Police	0.15%
Total	**0.50%**

Option B-Fund Fire Only .35% Sales Tax Increase	
Need Funded	Sales Tax Increase
Fire	0.35%

Option C-Fund Police Only .15% Sales Tax Increase	
Need Funded	Sales Tax Increase
Police	0.15%

Option D-Fund Fire and Police, Eliminate Property Tax, 1% Sales Tax Increase	
Need Funded	Sales Tax Increase
Fire	0.35%
Police	0.15%
Replace Property Tax Reve	0.50%
Total	**1.00%**

Roadway Expansion Needs

- Grand Junction Loop with 29 Road & I-70 Interchange estimated costs total $78 million
  - 29 Road & I-70 Interchange (County pays 1/2)
  - Riverside Parkway & 24 Road
  - Widening of 24 Road Creating F ½ Road Parkway
- Widening 25 Road Roadway Expansion Projects Part II estimated costs total $106 million
  - 24 projects increasing capacity for neighborhoods and improving mobility
- Total estimated cost of expansion projects is $184 million

Option E-Fund Fire and Police, Eliminate Property Tax, Fund Roadway Expansion, 1.25% Sales Tax Increase	
Need Funded	Sales Tax Increase
Fire	0.35%
Police	0.15%
Replace Property Tax Reve	0.50%
Roadway Expansion Projec	0.25%
Total	**1.25%**

Impact of Potential Tax Increases

All Based on a Monthly Comparison					
	Sales Tax Rate Increase	Sales Tax Increase Per Grand Junction Household	Residential Property Tax Reducton based on Median Home Value $240,000	Residential Property Tax Reducton based on Home Value $300,000	Residential Property Tax Reducton based on Home Value $350,000
Current		$ 30.84			
Option A-Fire and Police	0.50%	$ 5.61	$ -	$ -	$ -
Option B-Fire Only	0.35%	$ 3.93	$ -	$ -	$ -
Option C-Police Only	0.15%	$ 1.68	$ -	$ -	$ -
Option D-Fire, Police, Eliminate Property Tax	1.00%	$ 11.21	$ (11.52)	$ (14.40)	$ (16.80)
Option E-Fire, Police, Eliminate Property Tax, Fund Roadway Expansion	1.25%	$ 14.02	$ (11.52)	$ (14.40)	$ (16.80)

Currently 38 % of property tax revenue is from residential properties

Sales Tax Rates Across the State

- Grand Junction is currently on the lower end for stand alone city sales tax rates compared to other full- service cities around Colorado. Many cities tax food for home consumption and residential utilities.
- Most front range cities have a dedicated transportation tax for public transit.
- The City of Grand Junction funds fire and emergency medical services (EMS) through sales tax and property tax.
- Many cities have fire protection districts that provide fire and EMS to their residents. Those residents pay a separate property tax for those services.
- For illustration purposes, a City of Fruita resident pays 3% Fruita City Sales tax and a property tax mill of 10.14 for City services other than fire and EMS. They pay a mill levy of 8.31 to the fire district for fire and EMS.

Questions & Discussion