2018-2019 ROADWAY IMPACT FEE UPDATE



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Table of Contents

EXECU	ITIVE SUMMARY4	
l.	INTRODUCTION	
II.	LAND USE ASSUMPTIONS	
III.	ROADWAY IMPACT FEE ROADWAY IMPROVEMENTS PLAN	
1. 2. 3. 4. 5. 6.	METHODOLOGY FOR ROADWAY IMPACT FEES 27 A. Service Areas	32 33 33 34
V.	ROADWAY IMPACT FEE CALCULATION	
VI.	SAMPLE CALCULATIONS	
VII.	ADOPTION AND ADMINISTRATION OF ROADWAY IMPACT FEES	
VIII.	CONCLUSION73	
IX.	APPENDICES	





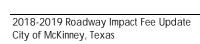
LIST OF EXHIBITS

1	Service Areas	15
2	10-Year Roadway Impact Fee Roadway Improvements Plan	26
LIST	OF TABLES	
1	Residential and Non-Residential Projections for the City of McKinney	16
2	10-Year Roadway Impact Fee Roadway Improvements Plan	
	Service Area A	18
	Service Area B	18
	Service Area C	
	Service Area D	
	Service Area E	
	Service Area F	
	Service Area G	
	Service Area H	
	Service Area I	
	Service Area J	
	Service Area K	
	Service Area L	
	Service Area M	
3A	Service Volumes for Proposed Facilities	
3B	Service Volumes for Existing Facilities	
4	Construction Cost Pay Items.	
5	10-Year Roadway Impact Fee RIP with Conceptual Level Cost Projections	
	Service Area A	35
	Service Area B	
	Service Area C	
	Service Area D	
	Service Area E	
	Service Area F	
	Service Area G	
	Service Area H	
	Service Area I	
	Service Area J	
	Service Area K	
	Service Area L	
	Service Area M	
6	Maximum Trip Lengths by Service Area	
7	Transportation Demand Factor Calculations	
•	Service Area C Examples	46
	Service Area I Examples	
8.	10-Year Growth Projections	
9	Maximum Assessable Roadway Impact Fee Calculation	
•		5 50





10	Maximum Assessable Roadway Impact Fee	54
11	Land Use/Vehicle-Mile Equivalency Table (I	UVMET)
	Service Area A	57
	Service Area B	58
		59
	Service Area D	60
	Service Area E	61
	Service Area F	62
	Service Area G	63
	Service Area H	64
	Service Area I	65
	Service Area J	66
	Service Area K	67
	Service Area L	68
	Service Area M	69
12	Land Use Descriptions	70







EXECUTIVE SUMMARY

Introduction

Impact Fees are a mechanism for funding the public infrastructure necessitated by new development. Across the country, they are used to fund police and fire facilities, parks, schools, roads, and utilities. In Texas, the legislature has allowed their use for water, wastewater, roadway, and drainage facilities. In 2003, the City began exploring Water, Wastewater, and Roadway Impact Fees as a funding tool for infrastructure needs as a result of significant growth in the City of McKinney.

In the most basic terms, impact fees are meant to recover the incremental cost of the impact of each new unit of development creating new infrastructure needs. In the case of Roadway Impact Fees, the infrastructure need is the increased capacity on arterial and thoroughfare roadways that serve the overall transportation system. The purpose of the 2018-2019 Roadway Impact Fee Update is to identify the fee per unit of new development necessary to fund these improvements in accordance with the enabling legislation, Chapter 395 of the Texas Local Government Code.

Impact Fees are a mathematical calculation that determines a maximum impact fee that would be equivalent for growth paying for growth. The Maximum Roadway Impact Fee per Service Unit for Roadway Facilities is considered an appropriate measure of the impacts generated by a new unit of development on the City's Master Thoroughfare Plan. An impact fee program is anticipated to be designed so that it is predictable for both the development community and City.

An impact fee program is transparent. This report describes in detail how the fee is calculated and how the Capital Improvements Advisory Committee (CIAC) monitors the Impact Fee program. An impact fee program is flexible in that funds can be used on priority projects and not just on projects adjacent to a specific development. An impact fee program is consistent with other City goals and objectives for growth. For example, the actual collection rate set by Council may be determined to be less than the Maximum Roadway Impact Fee to achieve and be in alignment with other City goals and objectives for growth.





Impact Fee Basics

Roadway Impact Fees are determined by several key variables, each described below in greater detail.

Impact Fee Study

The 2018-2019 Roadway Impact Fee Update was completed to determine the maximum impact fee per unit of new development chargeable as allowed by the state law. This determination is not a recommendation; the actual fee amount ultimately assessed is at the discretion of the McKinney City Council, so long as it does not exceed the maximum assessable fee allowed by law. The study looks at a period of 10 years to project new growth and corresponding capacity needs, as required by state law. The study and corresponding maximum fees must be restudied at least every five years. However, the study can be updated at any time to accommodate significant changes in any of the key variables of the impact fee equation.

Service Areas

A Service Area is a geographic area within which a unique maximum impact fee is determined. All fees collected within the Service Area must be spent on eligible improvements within the same Service Area. For Roadway Impact Fees, the Service Area may not exceed 6 miles. In McKinney, this results in the creation of thirteen (13) separate Service Areas. A map of the Service Areas can be found on Page 15. It is to be noted that Service Area A and F were assumed to be no fee Service Areas.

In defining the Service Area boundaries, the project team considered the corporate boundary, required size limit, adjacent land uses, highway facilities, and topography. The Service Areas used in the 2018-2019 Roadway Impact Fee Update are approximately the same as in the previous impact fee update with some minor modifications to accommodate recent annexations and roadway realignments. Since each Service Area has a unique maximum impact fee, the per-unit maximum fee for an identical land use will vary from one Service Area to the next.





Land Use Assumptions

The Impact Fee determination is required to be based on the projected growth and corresponding capacity needs in a 10-year window. This study considers the years 2019-2029. Acknowledging that the parameters of the study (city limits, Master Thoroughfare Plan, Comprehensive Plan, zoning maps, existing development, etc.) are changing constantly, this study is based on conditions as they were in January 2019.

One of the key elements in the determination of the impact fee is the amount of new development anticipated over 10 years. The residential and non-residential growth projections were performed using reasonable and generally accepted forecasting and planning principles by City of McKinney staff in a separate report titled 2019 Land Use Assumptions.

Roadway Impact Fee Roadway Improvements Plan

The Roadway Impact Fee Roadway Improvements Plan (RIF RIP) is distinct and separate from the City's traditional Capital Improvements Program (CIP). The RIF RIP is a list of projects eligible for funding through impact fees. The City's Master Thoroughfare Plan is the ultimate plan for the infrastructure within the City Limits. Only capacity improvements still needed to build out the City's Master Thoroughfare Plan to accommodate the expected growth within the next 10-years are included in the RIF RIP. Capacity improvements may include the addition of lanes, intersection improvements, or the extension of a new road. Resurfacing or other maintenance activities do not qualify as capacity improvements under impact fee law in Texas and cannot be funded with Roadway Impact Fees.

The cost of the RIF RIP is one of the fundamental factors in the calculation of the per-unit maximum impact fee. The RIF RIP's cost was calculated through systematic evaluation of each eligible project. In determining project limits, the team identified roadway segments with uniform need. For Example, Hardin Boulevard has a portion with one third of a six-lane divided facility built north of Wilmeth Road, while approximately 3,590' south of the future Bloomdale Road extension, Wilmeth Road has two thirds of a six-lane divided facility built. These were split as two separate projects based on uniform need. Developing unit costs based on input from local staff, uniform costs were determined for the major items of work, additional construction items, and project delivery costs. Section III provides a listing of the 10-Year RIF RIP by service area in Tables 2.A – 2.M and a city-wide map of the RIF RIP in Exhibit 2.





Finally, detailed cost projections by project can be found in Appendix A. It should be noted that these cost projections are based on conceptual level planning and are subject to refinement upon final design. Only those projects listed in the RIF RIP are eligible to utilize impact fee funds.

Only the costs associated with providing the additional capacity at an anticipated level of service D necessitated by 10 years of growth can be used to calculate the maximum impact fee. To calculate the maximum impact fee, the total cost of the RIF RIP at build-out was reduced to account for (1) the portion of new capacity that will address existing needs, and (2) the portion of new capacity that will not be necessitated until beyond the 10-year growth window. A ratio that compares 10 years' demand for capacity to the net supply of capacity (total new capacity in the RIF RIP minus existing needs) can be calculated. That ratio, which may not exceed 100%, is then applied to the cost of the net capacity supplied. The result is a determination of the costs attributable to the next 10 years' growth, which is then used to calculate the maximum impact fee in accordance with state law. The result is known as the recoverable cost of the RIF RIP. The projected recoverable cost to construct infrastructure needed through 2029 by service area are:

Service Area	Recoverable Cost of RIP and Financing \$0
В	\$10,479,185
C	\$43,752,749
D	\$141,971,941
E	\$39,294,334
F	\$0
G	\$8,942,328
Н	\$11,297,580
T I	\$23,188,757
J	\$8,633,827
K	\$10,208,369
L	\$3,868,782
M	\$731,486





A portion of the remainder can be assessed as the planning window extends beyond 2029 and as the impact fees are updated in the future.

Service Unit

The "service unit" is a measure of consumption or use of the capital facilities by new development. In other words, it is the unit of measure used in the 2018-2019 Roadway Impact Fee Update to quantify the supply and demand for roads in the City. For transportation purposes, the service unit is defined as a vehicle-mile. A vehicle-mile is the capacity consumed in a single lane in the PM peak hour by a vehicle making a trip one mile in length. The PM Peak is used as the basis for transportation planning and the estimation of trips caused by new development.

For each type of development, the City of McKinney uses the Land Use/Vehicle-Mile Equivalency Table (LUVMET) to determine the number of service units. Based on the City's 10-year growth projections and associated demand (consumption) values the vehicle-miles of demand in each service area are:

Service	Total Vehicle-Miles of
Area	Demand over Ten Years
А	0
В	9,578
C	15,582
D	41,299
E	17,845
F	0
G	7,742
Н	31,324
1	18,332
J	24,864
K	8,530
L	1,893
M	304





Impact Fee Calculation

In the simplest terms, the maximum impact fee allowable by law is calculated by dividing the recoverable cost of the RIF RIP by the number of new service units of development. In accordance with state law, both the cost of the RIF RIP and the number of new service units of development used in the equation are based on the growth and corresponding capacity needs projected to occur within a 10-year window. This calculation is performed for each service area individually; each service area has a stand-alone RIF RIP and 10-year growth projection.

In practice, there are many factors that complicate this calculation. The maximum impact fee allowable by law for each service area is calculated in Table 10. A detailed discussion of the calculation is found on Page 48, and is walked through in Table 9.

Collection and Use of Roadway Impact Fees

Roadway Impact Fees are assessed when a final plat is recorded. The assessment defines the impact of each unit at the time of platting, according to land use, and may not exceed the maximum impact fee allowed by law. An existing plat would be assessed at the adoption of the ordinance and would be exempt from impact fees for one year. Roadway Impact Fees are collected when a building permit is issued. Therefore, funds are not collected until development-impacts are introduced to the transportation system. Funds collected within a service area can be used only within the same service area. Finally, fees must be utilized within 10 years of collection in the designated service area or must be refunded with interest. Fees should be utilized in a first in, first out basis.

Adoption Process

Chapter 395 of the Texas Local Government Code stipulates a specific process for the adoption of Roadway Impact Fees. A Capital Improvements Advisory Committee (CIAC) is required to review the Land Use Assumptions and RIF RIP used in calculating the maximum fee, and to provide the Committee's findings for consideration by the City Council. The CIAC also reviews the Roadway Impact Fee ordinance and provides its findings to the City Council. The composition of the CIAC (Planning and Zoning Commission in McKinney) is required to have one representative of the building and development communities. The City Council then conducts a public hearing on the Land Use Assumptions, RIF RIP, and Impact Fee Ordinance. A public hearing is required for the 2018-2019 Roadway Impact Fee Update.





Following policy adoption, the CIAC is tasked with advising the City Council of the need to update the Land Use Assumptions or the RIF RIP at any time within five years of adoption. Finally, the CIAC oversees the proper administration of the Impact Fee, once in place, and advises the Council as necessary.

2018-2019 Roadway Impact Fee Update Results

Below is the comparison of the maximum assessable impact fee per service unit (Vehicle-Mile) for the 2012-2013 and 2018-2019 Roadway Impact Fee Updates:

Service	2018–2019 Maximum Fee Per Service	2012–2013 Maximum Fee Per Service
Area	Unit (Per Vehicle-Mile)	Unit (Per Vehicle-Mile)
А	\$0	\$0
В	\$1,094	\$1,793
С	\$2,808	\$1,410
D	\$3,438	\$1,707
E	\$2,202	\$2,085
F	\$0	\$0
G	\$1,155	\$628
Н	\$361	\$393
I	\$1,265	\$750
J	\$347	\$854
K	\$1,197	\$1,178
L	\$2,044	\$1,265
М	\$2,406	\$0





I. INTRODUCTION

Chapter 395 of the Texas Local Government Code describes the procedure political subdivisions must follow to create and implement impact fees. Chapter 395 defines an Impact Fee as "a charge or assessment imposed by a political subdivision against new development in order to generate revenue for funding or recouping the costs of roadway improvements or facility expansions necessitated by and attributable to the new development."

The City has retained Kimley-Horn and Associates, Inc. to provide professional transportation engineering services for the update of their Rodway Impact Fees. This report includes details of the Roadway Impact Fee calculation methodology in accordance with Chapter 395, the applicable Land Use Assumptions, development of the RIF RIP, and the Land Use Equivalency Table.

This report references two of the basic inputs to the Roadway Impact Fee:

- 1) Land Use Assumptions (Pg. 13)
- 2) Roadway Impact Fee Roadway Improvements Plan (RIF RIP) (Pg. 17)

Information from these Land Use Assumptions and RIF RIP are used extensively throughout the remainder of the report.

There is a detailed discussion of the methodology for the computation of impact fees. This discussion is broken into three components:

- 1) Methodology for Roadway Impact Fees (Pg. 27)
- 2) Roadway Impact Fee Calculation (Pg. 48)
- 3) Plan for the Roadway Impact Fee Credit (Pg. 50)





The components of the Methodology for Roadway Impact Fees include development of:

- Service Areas (Pg. 27)
- Service Units (Pg. 27)
- Cost Per Service Unit (Pg. 30)
- RIF RIP Costing Methodology (Pg. 30)
- Summary of RIF RIP Costs (Pg. 34)
- Service Unit Calculation (Pg. 42)

The Roadway Impact Fee is then calculated as:

- Maximum Assessable Impact Fee Per Service Unit (Pg. 48)
- Service Unit Demand Per Unit of Development (Pg. 55)

The final section of the report is the Conclusion, which presents the findings of the updated analysis and summarizes the report.





II. LAND USE ASSUMPTIONS

A. Purpose and Overview

In order to assess an impact fee, Land Use Assumptions must be developed to provide the basis for residential and non-residential growth projections within a political subdivision. As defined by Chapter 395 of the Texas Local Government Code, these assumptions include a description of changes in land uses, densities, and population in the service area. The land use assumptions used in this report were developed by City of McKinney staff and are presented in a separate report titled 2019 Land Use Assumptions. These land use assumptions were adopted by City Council on September 17, 2019.

The residential and non-residential estimates and projections were compiled in accordance with the following categories:

Units: Number of dwelling units.

Population: Number of people, based on person per dwelling unit factor.

Employment: Square feet of building area based on three (3) different classifications. Each classification has unique trip making characteristics.

<u>Retail</u>: Land use activities which provide for the retail sale of goods which primarily serve households and whose location choice is oriented toward the household sector, such as grocery stores and restaurants.

<u>Service</u>: Land use activities which provide personal and professional services, such as government and other professional offices.

<u>Basic</u>: Land use activities that produce goods and services such as those which are exported outside of the local economy, such as manufacturing, construction, transportation, wholesale, trade, warehousing, and other industrial uses.



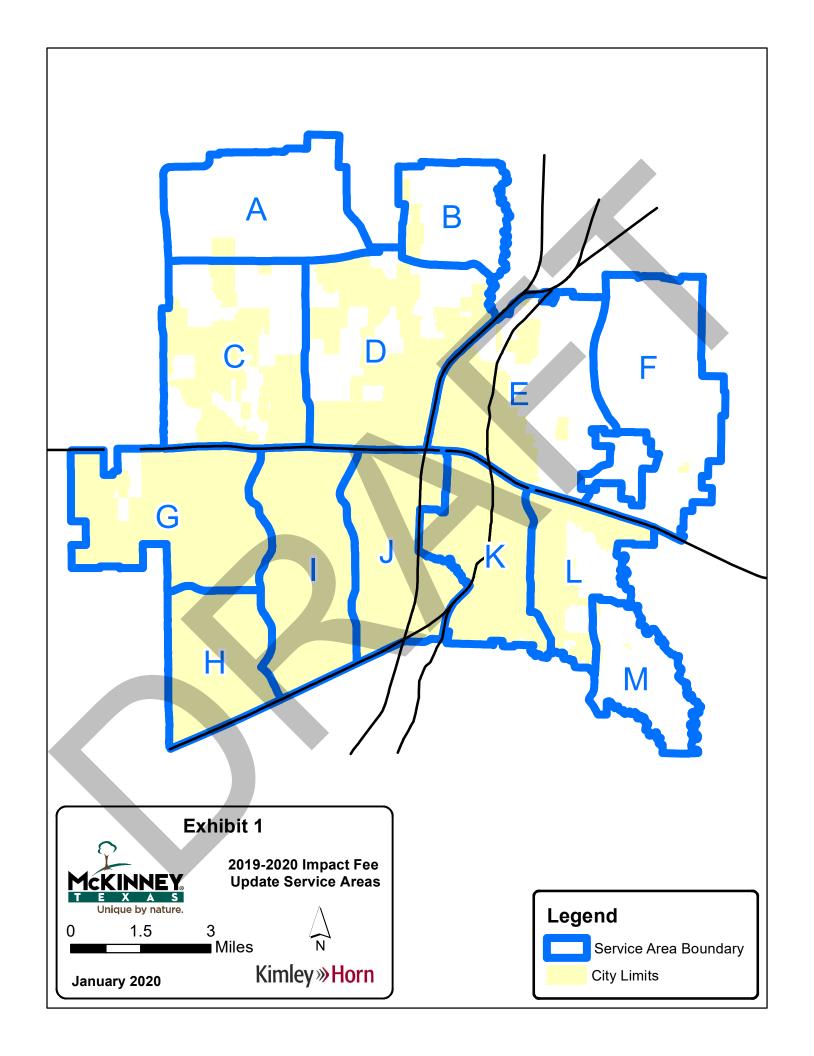


The above categories are used in the development of the assumptions for impact fees; however, expanded classifications used in the assessment of impact fees are found in the Land Use / Vehicle-Mile Equivalency Table (Pg. 57 - 69).

B. Roadway Impact Fee Service Areas

The geographic boundaries of the proposed impact fee service areas for transportation facilities are shown in Exhibit 1. The City of McKinney is currently divided into thirteen (13) service areas, each based upon a six (6) mile limit as required by Chapter 395. For roadway facilities, the service areas are limited to those areas within the current corporate limits. Therefore, areas within the extraterritorial jurisdiction (ETJ) are excluded from this study.

At locations where service area boundaries follow a thoroughfare facility, the proposed boundary is intended to follow the centerline of the roadway. In cases where a service area boundary follows the City Limits, only those portions of the facility within the City Limits are included in the service area.







C. Land Use Assumptions Summary

Table 1 summarizes the residential and non-residential 10-year growth projections within the City of McKinney for 2019 and 2029. The previously referenced *2019 Land Use Assumptions* is the source for this data.

Table 1. Residential and Non-Residential Projections for the City of McKinney

	Service		Resid	lential	Non-Residential Square Feet		
	Area	Year	Population	Dwelling Units	Basic	Service	Retail
	А	2019	306	115	23,500	0	81,515
	A	2029	306	115	23,500	0	81,515
	В	2019	2,834	973	0	0	16,699
	D	2029	24,705	7,932	10,071	207,903	102,935
	С	2019	8,429	2,959	227,746	632,125	278,982
	C	2029	15,374	5,271	227,746	1,358,193	717,975
	D	2019	11,213	3,343	0	3,104,234	1,255,451
	D	2029	28,583	9,620	59,635	3,804,295	2,085,852
	E	2019	3,905	1,204	3,624,114	478,284	1,754,956
	L	2029	6,411	2,077	6,106,522	678,020	2,480,149
	F	2019	1,485	556	212,216	27,295	263,232
		2029	2,198	674	232,107	99,078	475,970
	G	2019	50,272	17,987	899,720	1,889,230	2,428,620
		2029	51,402	18,422	930,350	1,958,638	3,147,880
	Н	2019	29,944	12,197	581,141	1,933,505	2,627,061
		2029	38,383	15,692	596,073	3,740,251	3,414,730
		2019	39,502	13,959	352,879	2,397,595	1,433,682
		2029	43,720	15,567	464,983	2,650,436	2,633,350
		2019	24,011	10,072	1,649,518	2,754,401	3,513,500
	7	2029	28,123	11,462	1,876,524	4,487,519	4,288,131
	K	2019	20,558	7,651	5,125,000	2,871,086	2,325,009
	K	2029	22,258	8,290	5,629,951	3,118,347	2,656,021
	L	2019	182	75	561,885	499,422	82,826
	١	2029	182	75	1,159,239	612,935	99,263
	M	2019	370	164	66,320	14,572	0
		2029	439	187	237,897	46,200	13,786
	Sub-Total – 202	`	69,073	24,129	4,230,560	6,160,065	6,136,024





III. ROADWAY IMPACT FEE ROADWAY IMPROVEMENTS PLAN

The City has identified the transportation projects needed to accommodate the projected growth within the City. The City's Master Thoroughfare Plan is the ultimate plan for the infrastructure within the City Limits. Only capacity improvements still needed to build out the City's Master Thoroughfare Plan to accommodate the expected growth within the next 10-years are included in the RIF RIP. The RIF RIP consists of 4 categories of projects. They are as follows:

- New Any future roadway identified by the City to be included in the RIP.
- Widening Existing roadways not currently built to the ultimate classification in the
 Master Thoroughfare Plan and must be completely reconstructed.
- Partial Widening Existing roadways that only have a portion of the ultimate classification cross section to be built.
- Previously Completed Completed projects with excess capacity available to serve new growth that the City contributed to financially.

The RIF RIP includes roadway facilities as well as major intersection improvements. All the roadway facilities identified are included in the currently adopted Master Thoroughfare Plan.

Major intersection improvements were based on direction from City of McKinney staff. Improvements were categorized as follows:

- Signal New signal.
- Interchange Signals Assumes new signals at each frontage road intersection of the interchange.
- Signal Mod Signal modification to an existing signal due to construction of a new roadway approach or a future signal modification identified by the City.
- Intersection Improvement Assumes addition of turn lanes.
- Roundabout Roundabout construction.
- Under Construction Intersection with ongoing improvements identified by the City.





All intersection improvement recommendations are recommended to undergo a design level evaluation before implementation to ensure the most appropriate improvements are made. In the case where a design level evaluation determines improvements contrary to the RIF RIP, such as turn lane improvements in place of a signal, the RIF RIP cost allocated to the intersection may still be applied to the alternate improvements. The intersection improvement costs were based on standard costs for each improvement and no engineering was done when assuming these costs, unless cost projections were provided by the City.

The proposed RIF RIP is listed in Tables 2.A – 2.M and mapped in Exhibit 2 (Individual SA RIP Maps in Appendix). The tables show the length of each project as well as the facility's Master Thoroughfare Plan classification. The RIF RIP was developed in conjunction with input from City of McKinney staff and represents projects that will be needed to accommodate the growth projected in the 2019 Land Use Assumptions.

Table 2.A. 10-Year Roadway Impact Fee Roadway Improvements Plan – Service Area A

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area
	A-1, C-1	M6D	UNNAMED 5 (1)	635' W OF STONEBRIDGE DR TO CR 168	0.63	50%
A	A-2, D-1	M6D	UNNAMED 5 (3)	CR 168 TO 1,560' E OF CR 168	0.30	50%
	A-3	G4D	STONEBRIDGE DR (1)	2,635' N OF UNNAMED 5 TO UNNAMED 5	0.50	50%

Note: The 10-Year Roadway Impact Fee RIP is not in a prioritized order.

Table 2.B. 10-Year Roadway Impact Fee Roadway Improvements Plan – Service Area B

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area
	B-1, D-2	M6D	UNNAMED 5 (4)	1,050' W OF HARDIN BLVD TO 1,200' E OF HARDIN BLVD	0.43	50%
	B-2	G6D	HARDIN BLVD (1)	CR 204 TO CR 206	0.08	50%
В	B-3	G6D	HARDIN BLVD (2)	1,670' N OF OLYMPIC TO 730' S OF OLYMPIC	0.45	50%
ь	B-4	G6D	HARDIN BLVD (3)	1,940' N OF UNNAMED 5 TO UNNAMED 5	0.37	100%
	1	Inter-	Signal	HARDIN BLVD & OLYMPIC		50%
	3	section	Signal	HARDIN BLVD & UNNAMED 5		50%





Table 2.C. 10-Year Roadway Impact Fee Roadway Improvements Plan – Service Area C

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area
	A-1, C-1	M6D	UNNAMED 5 (1)	635' W OF STONEBRIDGE DR TO CR 168	0.63	50%
	C-2	M6D	UNNAMED 5 (2)	RIDGE RD TO 1,505' E OF RIDGE RD	0.29	50%
	C-3	G6D	LAUD HOWELL PKWY (1)	695' W OF CUSTER RD TO CUSTER RD	0.13	50%
	C-4	G6D	LAUD HOWELL PKWY (2)	CUSTER RD TO 1,225' E OF CUSTER RD	0.23	100%
	C-5	G6D	LAUD HOWELL PKWY (3)	1,225' E OF CUSTER RD TO 2,070' E OF CUSTER RD	0.16	50%
	C-6	G6D	LAUD HOWELL PKWY (4)	840' E OF STONEBRIDGE DR TO 2,905' E OF STONEBRIDGE DR	0.39	50%
	C-7	G6D	LAUD HOWELL PKWY (5)	1,985' W OF RIDGE RD TO 1,230' E OF RIDGE RD	0.61	50%
	C-8	P6D	BLOOMDALE RD (1)	CUSTER RD TO 1,310' E OF CUSTER RD	0.25	100%
	C-9	P6D	BLOOMDALE RD (2)	1,310' E OF CUSTER RD TO 2,030' W OF STONEBRIDGE DR	0.40	50%
	C-10	P6D	BLOOMDALE RD (3)	2,030' W OF STONEBRIDGE DR TO 3,245' E OF STONEBRIDGE DR	1.00	100%
	C-11	P6D	BLOOMDALE RD (4)	3,245' E OF STONEBRIDGE DR TO 695' W OF RIDGE RD	0.26	50%
	C-12	P6D	BLOOMDALE RD (5)	695' W OF RIDGE RD TO RIDGE RD	0.13	100%
	C-13	P6D(2/3)	BLOOMDALE RD (6)	3,400' W OF LAKE FOREST DR TO LAKE FOREST DR	0.64	50%
	C-14	G4D	WILMETH RD (1)	3,725' W OF STONEBRIDGE DR TO 815' E OF STONEBRIDGE DR	0.86	100%
	C-15	G4D	WILMETH RD (2)	815' E OF STONEBRIDGE DR TO 995' W OF RIDGE RD	0.63	50%
	C-16	G4D(1/2)	WILMETH RD (3)	RIDGE RD TO 585' E OF RIDGE RD	0.11	100%
	C-17	G4D(1/2)	WILMETH RD (4)	1,095' E OF RIDGE RD TO 1,365' E OF RIDGE RD	0.05	100%
	C-18	P6D	CUSTER RD (1)	1,855' N OF LAUD HOWELL PKWY TO LAUD HOWELL PKWY	0.35	50%
	C-19	P6D	CUSTER RD (2)	LAUD HOWELL PKWY TO 2,775 N OF BLOOMDALE RD	0.53	100%
	C-20	P6D	CUSTER RD (3)	2,655 N OF BLOOMDALE RD TO 375' N OF WILMETH RD	1.19	50%
	C-21	G4D	STONEBRIDGE DR (2)	UNNAMED 5 TO 1,280' S OF UNNAMED 5	0.24	100%
C	C-22	G4D	STONEBRIDGE DR (3)	1,570' S OF LAUD HOWELL PKWY TO 280' S OF WILMETH RD	1.51	100%
	C-23	G4D	STONEBRIDGE DR (4)	280' S OF WILMETH RD TO 1,195' S OF WILMETH RD	0.17	50%
	C-24	G4D	STONEBRIDGE DR (5)	1,195' S OF WILMETH RD TO 5,555' S OF WILMETH RD	0.83	100%
	C-25	G4D	STONEBRIDGE DR (6)	580' N OF US HIGHWAY 380 TO US HIGHWAY 380	0.11	100%
	C-26	M6D	RIDGE RD (1)	UNNAMED 5 TO 1,485' S OF UNNAMED 5	0.28	50%
	C-27	M6D	RIDGE RD (2)	LAUD HOWELL PKWY TO BAXTER WELL RD	0.59	100%
	C-28	M6D	RIDGE RD (3)	BAXTER WELL RD TO 2,160' S OF BLOOMDALE RD	0.83	50%
	C-29	M6D	RIDGE RD (4)	1,590' N OF WILMETH RD TO WILMETH RD	0.30	50%
	C-30	M6D(1/3)	RIDGE RD (5)	WILMETH RD TO 2,280' S OF WILMETH RD	0.43	100%
	C-31	M6D(1/3)	RIDGE RD (6)	1,860' N OF US HIGHWAY 380 TO 1,390' N OF US HIGHWAY 380	0.09	50%
	C-32	M6D(1/3)	RIDGE RD (7)	775' N OF US HIGHWAY 380 TO US HIGHWAY 380	0.15	100%
	C-33	M6D(1/3)	LAKE FOREST DR (2)	BLOOMDALE RD TO WILMETH RD	1.02	50%
	C-34, D-22	M6D(1/3)	LAKE FOREST DR (3)	WILMETH RD TO US HIGHWAY 380	0.98	50%
	2		Signal	RIDGE RD & UNNAMED 5		25%
	4		Signal	LAUD HOWELL PKWY & CUSTER RD		75%
	5		Signal	LAUD HOWELL PKWY & RIDGE RD		50%
	12		Intersection Improvement	CUSTER RD & BLOOMDALE RD		50%
	13	Ę	Signal	BLOOMDALE RD & STONEBRIDGE DR		100%
	14	ctio	Signal	BLOOMDALE RD & RIDGE RD		50%
	15	Intersection	Signal	BLOOMDALE RD & LAKE FOREST DR		25%
	23	inte	Signal	STONEBRIDGE DR & WILMETH RD		100%
	24]	Signal	WILMETH RD & RIDGEKNOLL AVE		100%
	25] [Roundabout	LAKE FOREST DR & WILMETH RD		50%
	33		Signal Mod	US HIGHWAY 380 & STONEBRIDGE DR		50%
	34		Signal	US HIGHWAY 380 & FOREST RIDGE LN		50%
	35		Signal	US HIGHWAY 380 & AUBURN HILLS PKWY		50%





Table 2.D. 10-Year Roadway Impact Fee Roadway Improvements Plan – Service Area D

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area
	A-2, D-1	M6D	UNNAMED 5 (3)	CR 168 TO 1,560' E OF CR 168	0.30	50%
	B-1, D-2	M6D	UNNAMED 5 (4)	1,050' W OF HARDIN BLVD TO 1,200' E OF HARDIN BLVD	0.43	50%
	D-3	G6D	LAUD HOWELL PKWY (6)	LAKE FOREST DR TO 1860' E OF HARDIN BLVD	2.65	100%
	D-4	G6D	LAUD HOWELL PKWY (7)	4,170' N OF TRINITY FALLS PKWY TO 240' N OF TRINITY	0.74	100%
	D-5	G6D(1/3)	LAUD HOWELL PKWY (8)	240' N OF TRINITY FALLS PKWY TO US HIGHWAY 75	0.38	100%
	D-6	G4D	TRINITY FALLS PKWY (1)	HARDIN BLVD TO 1,910' E OF HARDIN BLVD	0.36	100%
	D-7	G4D	TRINITY FALLS PKWY (2)	1,910' E OF HARDIN BLVD TO 2,675' E OF HARDIN BLVD	0.14	50%
	D-8	G4D	TRINITY FALLS PKWY (3)	COMMUNITY AVE TO 2,200' W OF LAUD HOWELL PKWY	0.34	50%
	D-9	G4D	TRINITY FALLS PKWY (4)	LAUD HOWELL PKWY TO 2,200' W OF LAUD HOWELL PKWY	0.42	100%
	D-10	M6D(1/3)	TRINITY FALLS PKWY (5)	4,275' N OF WESTON RD TO LAUD HOWELL PKWY	1.05	100%
	D-11	P6D	BLOOMDALE RD (7)	1,820' W OF TAYLOR-BURK DR TO TAYLOR-BURK DR	0.34	50%
	D-12	P6D	BLOOMDALE RD (8)	1,485' E OF CR 1006 TO 1,215' W OF CR 1007	0.29	100%
	D-13	P6D	BLOOMDALE RD (9)	1,225' W OF CR 1007 TO CR 1007	0.23	50%
	D-14	P6D(2/3)	BLOOMDALE RD (10)	CR 1007 TO HARDIN BLVD	0.37	100%
	D-15	P6D(1/3)	BLOOMDALE RD (11)	HARDIN BLVD TO COMMUNITY AVE	0.49	100%
	D-16	G4D	WILMETH RD (5)	LAKE FOREST DR TO UNNAMED A	0.90	50%
	D-17	G4D	WILMETH RD (6)	UNNAMED A TO 825' E OF UNNAMED A	0.16	100%
	D-18	G4D(1/2)	WILMETH RD (7)	825' E OF TAYLOR-BURK DR TO 1,380' E OF TAYLOR-BURK DR	0.11	100%
	D-19	G4D	WILMETH RD (8)	1,380' E OF TAYLOR-BURK DR TO HARDIN BLVD	0.42	50%
	D-20	M6D(1/3)	WILMETH RD (9)	HARDIN BLVD TO US HIGHWAY 75	1.16	100%
	D-21	G6D	LAKE FOREST DR (1)	LAUD HOWELL PKWY TO 3,200' S OF LAUD HOWELL PKWY	0.61	50%
	C-34, D-22	· · · / ·	LAKE FOREST DR (3)	WILMETH RD TO US HIGHWAY 380	0.98	50%
	D-23	G4D	UNNAMED A (1)	5,785' N OF LAUD HOWELL PKWY TO 2,710' S OF LAUD	1.61	100%
	D-24	G4D	UNNAMED A (2)	2,710' S OF LAUD HOWELL PKWY TO BLOOMDALE RD	0.49	50%
	D-25	G4D	UNNAMED A (3)	1,105' N OF WILMETH RD TO WILMETH RD	0.21	50%
_	D-26	M4D	UNNAMED A (4)	WILMETH RD TO HARDIN BLVD	0.75	100%
D	D-27	M4D	TAYLOR-BURK DR (1)	HARDIN BLVD TO SKYLINE DR	0.28	100%
	D-28	G6D	HARDIN BLVD (4)	UNNAMED 5 TO 1,550' S OF UNNAMED 5	0.29	50%
	D-29	G6D	HARDIN BLVD (5)	1,545' S OF UNNAMED 5 TO TRINITY FALLS PKWY	1.38	100%
	D-30	G6D	HARDIN BLVD (6)	TRINITY FALLS PKWY TO 1,815' S OF TRINITY FALLS PKWY	0.34	50%
	D-31	G6D	HARDIN BLVD (7)	1,815' S OF TRINITY FALLS PKWY TO 1,190' S OF BLOOMDALE	0.36	100%
	D-32	G6D(1/3)	HARDIN BLVD (8)	1,190' S OF BLOOMDALE RD TO 3,590' S OF BLOOMDALE RD	0.45	100%
	D-33	G6D(2/3)	HARDIN BLVD (9)	3,590' S OF BLOOMDALE RD TO WILMETH RD	0.33	50%
	D-34 D-35	G6D(1/3) G4D	HARDIN BLVD (10)	WILMETH RD TO US HIGHWAY 380 TRINITY FALLS PKWY TO 1,275' S OF TRINITY FALLS PKWY	1.23 0.24	100%
	D-35 D-36	G4D(1/2)	COMMUNITY AVE (1)	1,275' S OF TRINITY FALLS PKWY TO BLOOMDALE RD	0.24	100%
	D-36 D-37	M4U(1/2)	COMMUNITY AVE (2) COMMUNITY AVE (3)	BLOOMDALE RD TO 2,305' S OF BLOOMDALE RD	0.30	100%
	33	W14U(1/2)	Signal	HARDIN BLVD & UNNAMED 5	0.44	50%
	6		Signal	LAUD HOWELL PKWY & LAKE FOREST DR		50%
	7		Signal	LAUD HOWELL PKWY & UNNAMED A		100%
	8		Signal	LAUD HOWELL PKWY & HARDIN BLVD		100%
	9		Signal	HARDIN BLVD & TRINITY FALLS PKWY		75%
	10		Roundabout	TRINITY FALLS PKWY & COMMUNITY AVE		50%
	11	u I	Interchange Signals	US HIGHWAY 75 & LAUD HOWELL PKWY		50%
	16	ctic	Signal Signal	BLOOMDALE RD & UNNAMED A		25%
	17	Intersection	Signal	BLOOMDALE RD & UNIVAMED A BLOOMDALE RD & HARDIN BLVD		100%
	18	Inte	Signal	BLOOMDALE RD & COMMUNITY AVE		100%
	19		Interchange Signals	US HIGHWAY 75 & BLOOMDALE RD		50%
	25		Roundabout	LAKE FOREST DR & WILMETH RD		50%
	26		Roundabout	WILMETH RD & UNNAMED A		75%
	27		Roundabout	HARDIN BLVD & WILMETH RD		75%
	32		Roundabout	HARDIN BLVD & TAYLOR-BURK DR		100%
	36		Under Construction	US HIGHWAY 380 & HARDIN BLVD		50%





Table 2.E. 10-Year Roadway Impact Fee Roadway Improvements Plan – Service Area E

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area
	E-1	P6D(1/3)	BLOOMDALE RD (12)	US HIGHWAY 75 TO REDBUD BLVD	0.48	100%
	E-2	P6D(2/3)	BLOOMDALE RD (13)	REDBUD BLVD TO AIRPORT DR	0.51	100%
	E-3	M6D(1/3)	WILMETH RD (10)	US HIGHWAY 75 TO 2,570' E OF REDBUD BLVD	0.78	100%
	E-4	M6D(2/3)	WILMETH RD (11)	2,570' E OF REDBUD BLVD TO STATE HIGHWAY 5	0.41	100%
	E-5	M6D	WILMETH RD (12)	STATE HIGHWAY 5 TO 2,100' E OF SH 5	0.40	100%
	E-6	M6D	WILMETH RD (13)	2,100' E OF SH 5 TO 980' W OF AIRPORT DR	0.25	100%
	E-7	M6D	WILMETH RD (14)	980' W OF AIRPORT DR TO 235' E OF AIRPORT DR	0.23	50%
	E-8	M6D	WILMETH RD (15)	1,150' W OF FM 2933 TO 400' E OF FM 2933	0.29	50%
	E-9	M4D	REDBUD BLVD (1)	BLOOMDALE RD TO 2,930' S OF BLOOMDALE RD	0.55	100%
	E-10	M4D(1/2)	REDBUD BLVD (2)	2,930' S OF BLOOMDALE RD TO WILMETH RD	0.31	100%
	E-11	M6D	LAUD HOWELL PKWY (9)	US HIGHWAY 75 TO 2,620' S OF US HIGHWAY 75	0.50	50%
	E-12	M6D	LAUD HOWELL PKWY (10)	2,620' S OF US HIGHWAY 75 TO BLOOMDALE RD	0.31	100%
	E-13	P6D	LAUD HOWELL PKWY (11)	BLOOMDALE RD TO STATE HIGHWAY 5	0.16	100%
	E-14	M6D	STATE HIGHWAY 5 (1)	4,700' N OF AIRPORT DR TO 3,995' N OF AIRPORT DR	0.13	50%
	E-15	M6D	STATE HIGHWAY 5 (2)	1,915' N OF AIRPORT DR TO US HIGHWAY 380	2.27	100%
E	E-16	P6D	AIRPORT DR (1)	STATE HIGHWAY 5 TO 4,070 S OF STATE HIGHWAY 5	0.77	100%
	E-17	P6D	AIRPORT DR (2)	WILMETH RD TO WOODLAWN RD (N)	0.53	100%
	E-18	P6D	AIRPORT DR (3)	WOODLAWN RD (N) TO WOODLAWN RD (S)	0.29	100%
	E-19	P6D	AIRPORT DR (4)	WOODLAWN RD (S) TO US HIGHWAY 380	0.73	100%
	E-20	P6D(1/3)	UNNAMED C (1)	410' E OF STATE HIGHWAY 5 TO 3,010' E OF STATE HIGHWAY 5	0.49	100%
	E-21	P6D	UNNAMED C (2)	WILMETH RD TO 2,615' S OF WILMETH RD	0.50	50%
	11		Interchange Signals	US HIGHWAY 75 & LAUD HOWELL PKWY		50%
	19		Interchange Signals	US HIGHWAY 75 & BLOOMDALE RD		50%
	20		Signal	BLOOMDALE RD & REDBUD BLVD		100%
	21	ion	Signal	LAUD HOWELL PKWY & BLOOMDALE RD		100%
	22	ect	Signal Mod	STATE HIGHWAY 5 & LAUD HOWELL PKWY		100%
	28	Intersection	Signal	WILMETH RD & REDBUD BLVD		100%
	29	In	Signal Mod	STATE HIGHWAY 5 & WILMETH RD		100%
	30		Signal	AIRPORT DR & WILMETH RD		50%
	31		Signal	UNNAMED C & WILMETH RD		50%
	41		Signal Mod	US HIGHWAY 380 & AIRPORT DR		50%

Table 2.F. 10-Year Roadway Impact Fee Roadway Improvements Plan – Service Area F

No Impact Fee Eligible Roadway Projects





Table 2.G. 10-Year Roadway Impact Fee Roadway Improvements Plan – Service Area G

Service Area	Proj. #	Class	Roadway	Limits		% In Service Area
	G-1	M6D(1/3)	VIRGINIA PKWY (1)	COIT RD TO 500' W OF INDEPENDENCE PKWY	0.90	100%
	G-2	M6D(1/3)	VIRGINIA PKWY (2)	500' W OF INDEPENDENCE PKWY TO 325' E OF FORKHORN DR	0.33	50%
	G-3 M6D(1/3) VIRGINIA PKWY (3) 325' E OF FORKHORN DR TO 935' W OF VIRGINIA HILLS D		0.28	50%		
	G-4	M6D(1/3)	VIRGINIA PKWY (4)	935' W OF VIRGINIA HILLS DR TO CUSTER RD	0.51	100%
	G-5	M6D(1/3)	VIRGINIA PKWY (5)	CUSTER RD TO 410' E OF DANBURY RD	0.49	100%
	G-6	M6D(1/6)	VIRGINIA PKWY (6)	410' E OF DANBURY RD TO VIRGINIA PARKLANDS BLVD	0.39	100%
	G-7	M6D(1/3)	WESTRIDGE BLVD (1)	COIT RD TO 1,635' E OF COIT RD	0.31	50%
	G-8	M6D(1/3)	WESTRIDGE BLVD (2)	1,635' E OF COIT RD TO 2,720' E OF INDEPENDENCE PKWY	1.22	100%
	G-9	M6D(1/3)	WESTRIDGE BLVD (3)	2,720' E OF INDEPENDENCE PKWY TO CUSTER RD	0.50	50%
	H-1, G-10	G6D(1/3)	ELDORADO PKWY (1)	CUSTER RD TO RIDGE RD	2.05	50%
	G-11	M6D(1/3)	COIT RD (1)	US HIGHWAY 380 TO 2,610' S OF VIRGINIA PKWY	1.53	50%
	G-12	M6D(1/3)	COIT RD (2)	WESTRIDGE BLVD TO 2,595' S OF WESTRIDGE BLVD	0.49	50%
	G-13	M6D(1/3)	INDEPENDENCE PKWY (1)	2,380' S OF US HIGHWAY 380 TO 4,465' S OF US HIGHWAY 380	0.39	100%
	G-14	M6D(1/3)	INDEPENDENCE PKWY (2)	VIRGINIA PKWY TO 2,690' S OF WESTRIDGE BLVD	1.52	100%
G	G-15	P6D	CUSTER RD (4)	US HIGHWAY 380 TO WESTRIDGE BLVD	2.03	100%
G	G-16	P6D	CUSTER RD (5)	WESTRIDGE BLVD TO ELDORADO PKWY	1.02	100%
	G-17, I-8	G4D	RIDGE RD (8)	US HIGHWAY 380 TO CREEKSIDE DR	1.30	50%
	33		Signal Mod	US HIGHWAY 380 & STONEBRIDGE DR		50%
	34		Signal	US HIGHWAY 380 & FOREST RIDGE LN		50%
	37		Signa1	STONEBRIDGE DR & LACIMA DR		100%
	38		Signal	RIDGE RD & HABERSHAM WAY		50%
	43	п	Signal	INDEPENDENCE PKWY & VIRGINIA PKWY		50%
	44	Intersection	Under Construction	VIRGINIA PKWY & RIDGE RD		50%
	47	rse	Signal	INDEPENDENCE PKWY & WESTRIDGE BLVD		100%
	48	nte	Under Construction	CUSTER RD & WESTRIDGE BLVD		75%
	49		Roundabout	STONEBRIDGE DR & GLEN OAKS DR		100%
	50		Roundabout	RIDGE RD & GLEN OAKS DR		50%
	55		Signal	STONEBRIDGE DR & ALMA DR		100%
	56		Signal	RIDGE RD & RUSH CREEK RD		50%
	57		Signal	RIDGE RD & BERKSHIRE RD		50%

Table 2.H. 10-Year Roadway Impact Fee Roadway Improvements Plan – Service Area H

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area
	H-1, G-10	G6D(1/3)	ELDORADO PKWY (1)	CUSTER RD TO RIDGE RD	2.05	50%
	H-2	M4D(1/2)	SILVERADO TRL (1)	CUSTER RD TO BURNETT DR	0.37	100%
	H-3	M4D	SILVERADO TRL (2)	ALMA DR TO ALFALFA DR	0.22	100%
	H-4	P6D(1/3)	STACY RD (1)	CUSTER RD TO RIDGE RD	2.03	100%
	H-5	P6D	CUSTER RD (6)	ELDORADO PKWY TO STONEBRIDGE DR	0.39	100%
	H-6	G4D	ALMA DR (1)	805' S OF BEAVER CREEK DR TO SILVERADO TRL	0.37	100%
	H-7	M6D(1/3)	ALMA DR (2)	SILVERADO TRL TO STACY RD	0.50	100%
H	H-8, I-9	M6D(1/3)	RIDGE RD (9)	MCKINNEY RANCH PKWY TO STACY RD	0.69	50%
	H-9	M6D(1/3)	MCKINNEY RANCH PKWY (1)	RIDGE RD TO STACY RD	0.77	100%
	65		Signal	CUSTER RD & SILVERADO TRL		50%
	66	ion	Signal Signal	MCKINNEY RANCH PKWY & SILVERADO TRL		100%
	71	ecti	Signal	STACY RD & MCKINNEY RANCH PKWY		100%
	75	Intersection	Signal	CUSTER RD & PARADISE DR		50%
	76	Ini	Signal	STACY RD & COLLIN MCKINNEY PKWY		50%
	77		Signal	ALMA DR & HENNEMAN WAY		100%





Table 2.I. 10-Year Roadway Impact Fee Roadway Improvements Plan – Service Area I

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area
	I-1	M6D	VIRGINIA PKWY (7)	1035' E OF RIDGE RD TO 1355' W OF HARDIN BLVD	1.43	100%
	I-2	M6D	VIRGINIA PKWY (8)	1355' W OF HARDIN BLVD TO HARDIN BLVD	0.26	100%
	I-3	G6D(1/3)	ELDORADO PKWY (2)	RIDGE RD TO HARDIN BLVD	2.07	100%
	I-4	M6D(1/3)	MCKINNEY RANCH PKWY (2)	RIDGE RD TO HARDIN BLVD	1.80	100%
	I-5	G4D	COLLIN MCKINNEY PKWY (2)	LAKE FOREST DR TO COTTONWOOD CREEK	0.31	100%
	I-6	G4D(1/2)	COLLIN MCKINNEY PKWY (3)	COTTONWOOD CREEK TO 1110' E OF TINA DR	0.55	100%
	I-7	G4D	COLLIN MCKINNEY PKWY (4)	1110' E OF TINA TO HARDIN BLVD	0.19	100%
	G-17, I-8	G4D	RIDGE RD (8)	US HIGHWAY 380 TO CREEKSIDE DR	1.30	50%
	H-8, I-9	M6D(1/3)	RIDGE RD (9)	MCKINNEY RANCH PKWY TO STACY RD	0.69	50%
	I-10, J-6	G6D(1/3) HARDIN BLVD (11) US HIGHWAY 380 TO VIRGINIA PKWY			1.58	50%
	I-11, J-7	G6D(1/3)	HARDIN BLVD (12)	VIRGINIA PKWY TO MCKINNEY RANCH PKWY	2.64	50%
	35		Signal	US HIGHWAY 380 & AUBURN HILLS PKWY		50%
	36		Under Construction	US HIGHWAY 380 & HARDIN BLVD		25%
I	38		Signal	RIDGE RD & HABERSHAM WAY		50%
	44		Under Construction	VIRGINIA PKWY & RIDGE RD		50%
	45		Signal	VIRGINIA PKWY & JOPLIN DR		100%
	46		Signal	VIRGINIA PKWY & VILLAGE DR		100%
	50	ion	Roundabout	RIDGE RD & GLEN OAKS DR		50%
	51	Intersection	Roundabout	LAKE FOREST DR & GLEN OAKS DR		100%
	56	ters	Signal	RIDGE RD & RUSH CREEK RD		50%
	57	In	Signal	RIDGE RD & BERKSHIRE RD		50%
	58		Signal	HARDIN BLVD & MAVERICK TRL		50%
	59		Signal	ELDORADO PKWY & WOODSON DR		100%
	60		Signal	ELDORADO PKWY & HIGHLANDS DR		100%
	72		Signal	LAKE FOREST DR & COLLIN MCKINNEY PKWY		100%
	73		Signal	HARDIN BLVD & COLLIN MCKINNEY PKWY		50%
	76		Signal	STACY RD & COLLIN MCKINNEY PKWY		50%

Table 2.J. 10-Year Roadway Impact Fee Roadway Improvements Plan – Service Area J

Service Area	Proj. #	Class	Roadway			% In Service Area
	J-1	M4D	WHITE AVE (1)	HARDIN BLVD TO BOIS D'ARC RD	0.17	100%
	J-2	M4D	WHITE AVE (2)	BOIS D'ARC RD TO COMMUNITY AVE	0.93	100%
	J-3	M6D	VIRGINIA PKWY (9)	HARDIN BLVD TO US HIGHWAY 75	1.60	100%
	J-4	G6D(1/3)	ELDORADO PKWY (3)	710' E OF US HIGHWAY 75 TO 1,180' E OF BARRANCA WAY	1.08	100%
	J-5	M3U	COLLIN MCKINNEY PKWY (5)	2,100' E OF HARDIN BLVD TO MCKINNEY RANCH PKWY	0.33	100%
	I-10, J-6	G6D(1/3)	HARDIN BLVD (11)	US HIGHWAY 380 TO VIRGINIA PKWY	1.58	50%
	I-11, J-7	G6D(1/3)	HARDIN BLVD (12)	VIRGINIA PKWY TO MCKINNEY RANCH PKWY	2.64	50%
	J-8	M4D	MEDICAL CENTER DR	STATE HIGHWAY 121 TO 1,685' S OF STATE HIGHWAY 121	0.32	100%
	J-9, K-7	M6D	STATE HIGHWAY 5 (4)	640' S OF HARRY MCKILLOP BLVD / FM 546 TO STATE	0.47	50%
J	J-10, K-8	M4D	STATE HIGHWAY 5 (5)	STATE HIGHWAY 121 TO 3,525' S OF STATE HIGHWAY 121	0.67	50%
3	J-11	M4D	STATE HIGHWAY 5 (6)	3,525' S OF STATE HIGHWAY 121 TO 4,520' S OF STATE	0.19	50%
	36		Under Construction	US HIGHWAY 380 & HARDIN BLVD		25%
Ì	39		Signal	WHITE AVE & JORDAN RD		100%
	58	u	Signal	HARDIN BLVD & MAVERICK TRL		50%
	61	ctio	Intersection Improvements	ELDORADO PKWY & CRAIG DR		100%
	62	rse	Signal	STATE HIGHWAY 5 & STEWART RD		50%
	67	Intersection	Signal	MCKINNEY RANCH PKWY & COLLIN MCKINNEY PKWY		100%
	68		Signal	COLLIN MCKINNEY PKWY & CRAIG DR		100%
	69		Signal	STATE HIGHWAY 5 & ENTERPRISE DR		50%
	73		Signal	HARDIN BLVD & COLLIN MCKINNEY PKWY		50%





Table 2.K. 10-Year Roadway Impact Fee Roadway Improvements Plan – Service Area K

Service Area	Proj. #	Class	Roadway	Limits		% In Service Area
	K-1	2UO	VIRGINIA STREET	225' W OF AIRPORT DR TO AIRPORT DR	0.04	100%
	K-2	G6D(1/3)	ELDORADO PKWY (4)	1,180' E OF BARRANCA WAY TO STATE HIGHWAY 5	0.40	100%
	K-3	P6D(1/3)	HARRY MCKILLOP BLVD / FM 546 (1)	STATE HIGHWAY 121 TO AIRPORT DR	1.46	100%
	K-4, L-1	P6D(1/3)	HARRY MCKILLOP BLVD / FM 546 (2)	AIRPORT DR TO 980' E OF AIRPORT DR	0.19	50%
	K-5, L-2	P6D	HARRY MCKILLOP BLVD / FM 546 (3)	975' E OF AIRPORT DR TO 510' W OF HARRY MCKILLOP BLVD / FM 546 (N)	0.60	50%
	K-6	M6D STATE HIGHWAY 5 (3) INDUSTRIAL BLVD TO 640' S OF HARRY MCKILLOP BLVD		0.40	100%	
	J-9, K-7	M6D	STATE HIGHWAY 5 (4)	FATE HIGHWAY 5 (4) 640' S OF HARRY MCKILLOP BLVD / FM 546 TO STATE		50%
K	J-10, K-8	M4D	STATE HIGHWAY 5 (5)	STATE HIGHWAY 121 TO 3,525' S OF STATE HIGHWAY 121	0.67	50%
	K-9, L-6	P6D(1/3)	AIRPORT DR (5)	US HIGHWAY 380 TO 470' N OF HARRY MCKILLOP BLVD / FM	2.63	50%
	K-10, L-7	P6D	AIRPORT DR (6)	470' N OF HARRY MCKILLOP BLVD / FM 546 TO HARRY	0.09	50%
	40		Signal	STATE HIGHWAY 5 & SMITH ST		100%
	41		Signal Mod	US HIGHWAY 380 & AIRPORT DR		50%
	52	ion	Roundabout	WILSON CREEK PKWY & PARK VIEW AVE		100%
	53	ect	Signal	WILSON CREEK PKWY & COLLEGE ST		100%
	54	Intersection	Signal	AIRPORT DR & ELM ST		50%
	62	In	Signal	STATE HIGHWAY 5 & STEWART RD		50%
	63		Signal	HARRY MCKILLOP BLVD / FM 546 & AIRPORT DR		75%
	69		Signal	STATE HIGHWAY 5 & ENTERPRISE DR		50%

Table 2.L. 10-Year Roadway Impact Fee Roadway Improvements Plan – Service Area L

Service Area	Proj. #	Class	Roadway	Limits		% In Service Area
	K-4, L-1	P6D(1/3)	HARRY MCKILLOP BLVD / FM 546 (2)	AIRPORT DR TO 980' E OF AIRPORT DR	0.19	50%
	K-5, L-2 P6D		HARRY MCKILLOP BLVD / FM 546 (3)	975' E OF AIRPORT DR TO 510' W OF HARRY MCKILLOP BLVD / FM 546 (N)	0.60	50%
	L-3	P6D	HARRY MCKILLOP BLVD / FM 546 (S) (1)	510' W OF HARRY MCKILLOP BLVD / FM 546 (N) TO 1,335' E OF HARRY MCKILLOP BLVD / FM 546 (N)	0.35	100%
	L-4	P6D	HARRY MCKILLOP BLVD / FM 546 (S) (2)	3,480' W OF UNNAMED D TO UNNAMED D	0.66	100%
	L-5	M6D	HARRY MCKILLOP BLVD / FM 546 (N) (1)	HARRY MCKILLOP BLVD / FM 546 (S) TO 1,865' E OF HARRY MCKILLOP BLVD / FM 546 (S)	0.35	100%
	K-9, L-6	P6D(1/3)	AIRPORT DR (5)	US HIGHWAY 380 TO 470' N OF HARRY MCKILLOP BLVD / FM 546	2.63	50%
L	K-10, L-7 P6D		AIRPORT DR (6)	470' N OF HARRY MCKILLOP BLVD / FM 546 TO HARRY MCKILLOP BLVD / FM 546	0.09	50%
	L-8	P6D	UNNAMED C (3)	US HIGHWAY 380 TO 2,435' S OF US HIGHWAY 380	0.46	100%
	L-9, M-5	P6D	UNNAMED C (4)	2,525' N OF HARRY MCKILLOP BLVD / FM 546 TO 1,230' N OF HARRY MCKILLOP BLVD / FM 546	0.25	50%
	L-10, M-6	P6D	UNNAMED C (5)	HARRY MCKILLOP BLVD / FM 546 (N) TO 705' S OF HARRY MCKILLOP BLVD / FM 546 (S)	0.87	50%
	41		Signal Mod	US HIGHWAY 380 & AIRPORT DR		50%
	42	Ę.	Signal	US HIGHWAY 380 & UNNAMED C		50%
	54	ctio	Signal	AIRPORT DR & ELM ST		50%
	63	, rrse	Signal	HARRY MCKILLOP BLVD / FM 546 & AIRPORT DR		75%
	70	Intersection	Signal	HARRY MCKILLOP BLVD / FM 546 (S) & HARRY MCKILLOP BLVD / FM 546 (N)		100%
	74		Signal	UNNAMED C & HARRY MCKILLOP BLVD / FM 546 (S)		50%

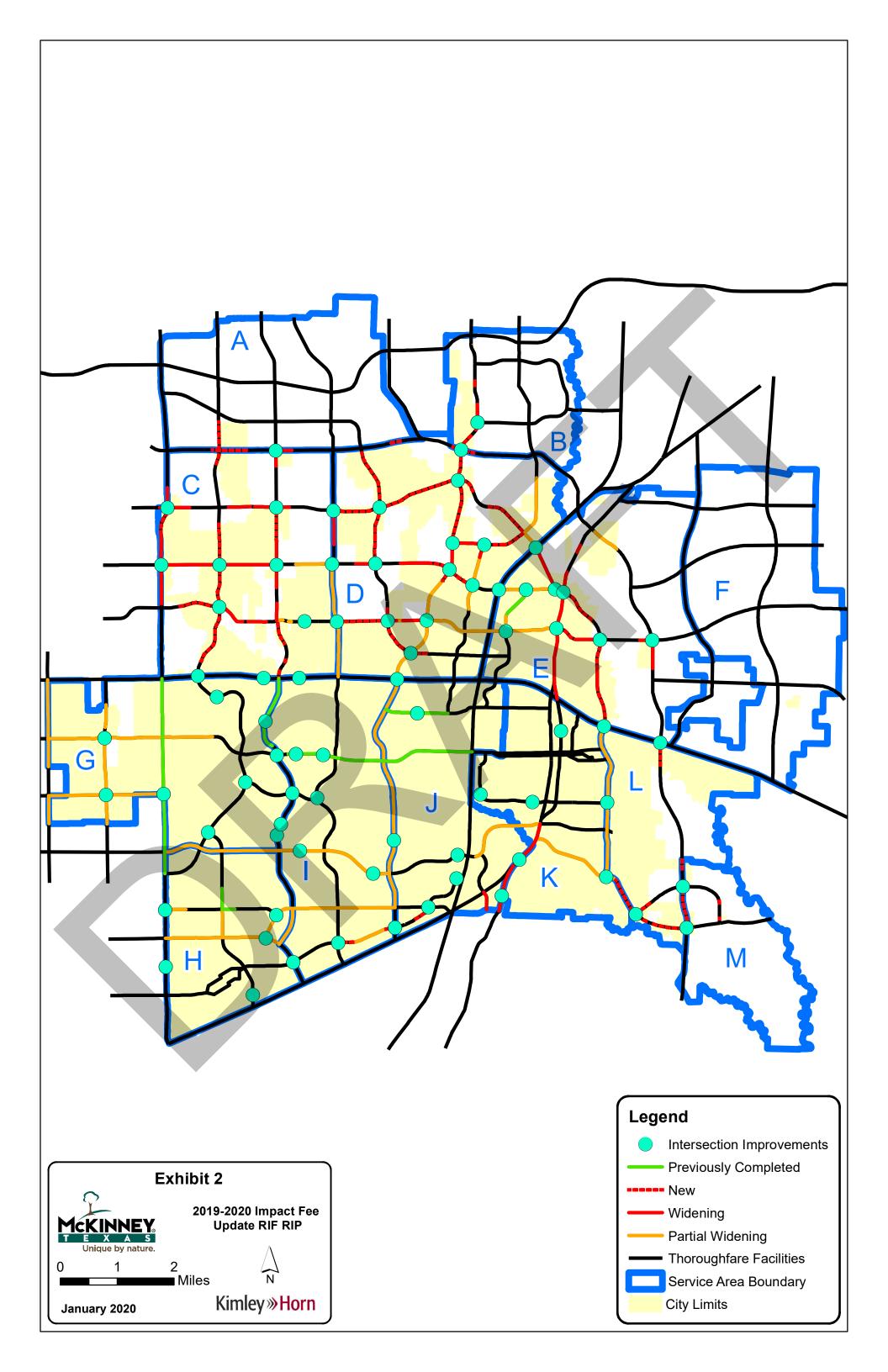




Table 2.M. 10-Year Roadway Impact Fee Roadway Improvements Plan – Service Area M

Service Area	Proj. #	Class	Roadway	Limits		% In Service Area
	M-1	M6D	HARRY MCKILLOP BLVD / FM 546 (N) (2)	110' E OF UNNAMED C TO 300' E OF UNNAMED C	0.04	50%
	M-2 M-3 M-4	M6D	HARRY MCKILLOP BLVD / FM 546 (N) (3)	1,700' N OF HARRY MCKILLOP BLVD / FM 546 TO 2,050' N OF HARRY MCKILLOP BLVD / FM 546	0.07	50%
		M6D	HARRY MCKILLOP BLVD / FM 546 (N) (4)	405' N OF HARRY MCKILLOP BLVD / FM 546 TO 675' N OF HARRY MCKILLOP BLVD / FM 546	0.05	50%
M		P6D	HARRY MCKILLOP BLVD / FM 546 (S) (3)	UNNAMED C TO 695' E OF UNNAMED C	0.13	100%
	L-9, M-5	P6D	UNNAMED C (4)	2,525' N OF HARRY MCKILLOP BLVD / FM 546 TO 1,230' N OF HARRY MCKILLOP BLVD / FM 546	0.25	50%
	L-10, M-6) M-6 P6D UNNAMED C (5)		HARRY MCKILLOP BLVD / FM 546 (N) TO 705' S OF HARRY MCKILLOP BLVD / FM 546 (S)	0.87	50%
	64	Inter-	Signal	UNNAMED C & HARRY MCKILLOP BLVD / FM 546 (N)		50%
	74	section	Signal	UNNAMED C & HARRY MCKILLOP BLVD / FM 546 (S)		50%









IV. METHODOLOGY FOR ROADWAY IMPACT FEES

A. Service Areas

The thirteen (13) service areas used in the 2018-2019 Roadway Impact Fee Update are shown in the previously referenced Exhibit 1. These service areas cover the entire corporate boundary of the City of McKinney. Chapter 395 of the Texas Local Government Code specifies that "the service area is limited to an area within the corporate boundaries of the political subdivision and shall not exceed six (6) miles." The service areas in the 2018-2019 Roadway Impact Fee Update are approximately the same as in the previous impact fee update (adopted in 2013) with some minor modifications to accommodate recent annexations and the realignment of roadways that were formerly used as boundaries.

B. Service Units

The "service unit" is a measure of consumption or use of the capital facilities by new development. In other words, it is the unit of measure used in the 2018-2019 Roadway Impact Fee Update to quantify the supply and demand for roads in the City. For transportation purposes, the service unit is defined as a vehicle-mile. Below is the definition for vehicle-mile.

<u>Vehicle-Mile</u>: The capacity consumed in a single lane in the PM peak hour by a vehicle making a trip one mile in length. The PM Peak is used as the basis for transportation planning and the estimation of trips caused by new development.

<u>Total Vehicle-Miles of Supply</u>: Based on the total length (miles), number of lanes, and capacity (vehicles per hour) provided by the Master Thoroughfare Plan (see Appendix B).

<u>Total Vehicle-Miles of Demand</u>: Based on the 10-year growth projections (Pg. 47). The demand is equal to PM Trip Rate (trips) * Trip Length (miles).

The capacity values used in the 2018-2019 Roadway Impact Fee Update are based upon generally accepted thoroughfare capacity criteria. Tables 3A and 3B show the service volumes as a function of the facility classification and type.





For "Partial Widening" projects, no existing volume was assumed and only the additional capacity of the new lanes were assumed for the calculation of impact fees, unless a previous contribution from the City existed. If this was the case, the existing volume was accounted for along with the ultimate cross section.







Table 3A. Service Volumes for Proposed Facilities

(used in Appendix B – Roadway Impact Fee RIP Service Units of Supply)

Proposed Cross Section	Facility Classification	Median Configuration	Hourly Vehicle-Mile Capacity per Lane-Mile of Roadway Facility
G6D	Greenway Arterial	Divided	700
P6D	Principal Arterial	Divided	780
M6D	Major Arterial	Divided	700
G4D	Greenway Arterial	Divided	700
M4D	Minor Arterial	Divided	700
M4U	Minor Arterial	Undivided	525
M3U	Minor Arterial	Undivided	550
2UO	Town Thoroughfare	Undivided	500

Table 3B. Service Volumes for Existing Facilities

(used in Appendix C – Existing Roadway Facilities Inventory)

Roadway		Hourly Vehicle-Mile
	Description	Capacity per Lane-Mile of
Туре		Roadway Facility
2UG	Rural Two-lane Undivided Cross-Section	150
	(i.e., gravel, dirt, etc.)	100
2U	Two-lane Undivided	475
2UO	Two-lane Undivided One-way	475
3U	Three-lane Undivided (TWLTL)	525
4U	Four-lane Undivided	525
4D	Four-lane Divided	700
5U	Five-lane Undivided (TWLTL)	625
5D	Five-lane Divided	700
6D	Six-lane Divided	780





C. Cost Per Service Unit

A fundamental step in the impact fee process is to establish the cost for each service unit. In the case of the Roadway Impact Fee, this is the cost for each vehicle-mile of travel. Thus, it is the cost to construct a roadway (lane-mile) needed to accommodate a vehicle-mile of travel. The cost per service unit is calculated for each service area based on the roadway projects within that service area.

The second component of the cost per service unit is the determination of the number of service units in each service area. This number is the measure of the growth in transportation demand that is projected to occur in the ten-year period. Chapter 395 requires that Impact Fees be assessed only to pay for growth projected to occur in the city limits within the next ten-years. As noted earlier, the units of demand are vehicle-miles of travel.

D. Roadway Impact Fee RIP Costing Methodology

All of the project costs for a facility which serves the overall transportation system are eligible to be included in the RIF RIP. Chapter 395 of the Texas Local Government Code specifies that the allowable costs are "...including and limited to the:

- 1. Construction contract price;
- 2. Surveying and engineering fees;
- 3. Land acquisition costs, including land purchases, court awards and costs, attorney's fees, and expert witness fees; and
- 4. Fees actually paid or contracted to be paid to an independent qualified engineer or financial consultant preparing or updating the Roadway Improvements Plan who is not an employee of the political subdivision."

The engineer's opinion of the probable costs of the projects in the RIF RIP is based, in part, on the calculation of a unit cost of construction. This means that a cost per linear foot of roadway is calculated based on an average price for the various components of roadway construction. This allows the probable cost to be determined by the type of facility being constructed, the number of lanes, and the length of the project. The cost for location specific items such as bridges, drainage structures, railroad crossings, or any other special

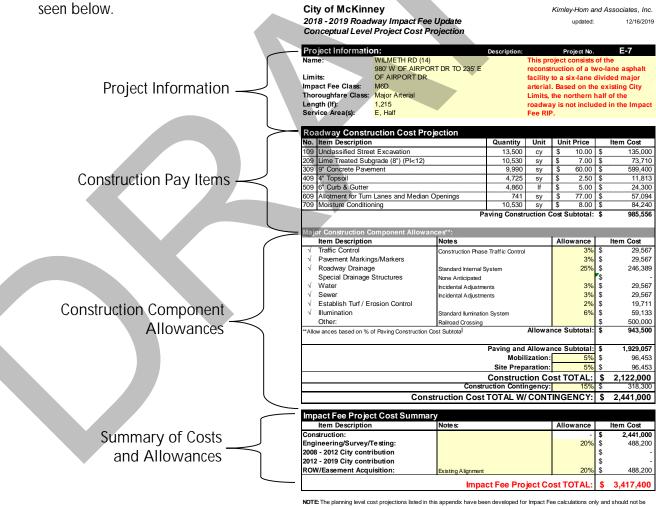




components are added to each project, as appropriate. In addition, projects in which the City has contributed a portion, or all, of the project costs have been included in the RIP as lump sum projects. For future projects on the state highway system, a separate costing methodology was utilized that incorporated design criteria and unit prices unique to state highway projects. Based upon discussions with City of McKinney staff, it was determined that on average, 50% of TxDOT projects would be funded by the City. The following is a detailed description of the costing worksheet/ methodology for the Roadway Impact Fee RIP.

1. Overview of Roadway Impact Fee RIP Costing Worksheets

For each project a specific costing worksheet was developed (see Appendix A). Each worksheet contains project information, construction pay items, construction component allowances, and a summary of costs and allowances. An example of the costing sheets can be



used for any future Capital improvement Planning within the City of McKinney.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engin specific project.





2. Project Information

In order to correctly estimate the cost of a roadway project, several attributes are first identified:

- <u>Project Number</u> Identifies which Service Area the project is in with a corresponding number. The corresponding number does not represent any prioritizations and is used only to identify projects. For example, Project E-7 is in Service Area E and is the 7th project on the list.
- Name A unique identifier for each project.
- Limits Represents the beginning and ending location for each project.
- Impact Fee Class The costing class to be used in the analysis. The impact fee class provides the width and depth for the various elements in the facility cross section. The construction costs are variable, based on the proposed Master Thoroughfare Plan classification of the roadway. Additional classifications are utilized in cases where a portion of the facility currently exists, and the road is only to be widened. The following notations are used for these projects:
 - o "(1/6)" for future six-lane facilities where one additional lane is needed;
 - o "(1/3)" for future six-lane facilities where two additional lanes are needed;
 - o "(1/2)" for facilities where half the facility still needs to be constructed;
 - o "(2/3)" for future six-lane facilities where four additional lanes are needed.
- <u>Thoroughfare Class</u> The ultimate classification according to the Master Thoroughfare Plan.
- <u>Description</u> Describes the type of project identified. Includes; New, Widening, Partial Widening, and Previously Completed. Other specialized situations are noted such as previous City contributions.
- <u>Length (ft)</u> The distance measured in feet that is used to cost out the project.
- <u>Service Area(s)</u> Represents the service area where the project is located. Multiple service areas will be listed if the project lies along a service area boundary.





3. Construction Cost Pay Items

A typical roadway project consists of a number of costs, including the following: planning, survey, design engineering, permitting, right-of way acquisition, construction, and inspection. While the construction cost component of a project may actually consist of approximately 100 various pay items, a simplified approach was used for developing the conceptual level project costs. The pay items for both City and TxDOT roads are shown in Table 4.

Table 4. Construction Cost Pay Items

City Pay Items	TxDOT Pay Items
Unclassified Street Excavation	Unclassified Street Excavation
 Lime Treated Subgrade 	Lime Treated Subgrade
Concrete Pavement	HMAC Underlayment
Top Soil	Concrete Pavement
Curb and Gutter	Top Soil
Turn Lanes and Median Openings	Curb and Gutter
Moisture Conditioning	Turn Lanes and Median Openings

4. Construction Component Allowances

A percentage of the paving construction cost is allotted for various major construction component allowances, as appropriate. These allowances include traffic control, pavement markings, drainage, water/sewer adjustments, turf/erosion control, and illumination. If the project type is "New," traffic control was set to 1% and water/sewer adjustments were set to 0%. If the project is a "Partial Widening" drainage, water/sewer adjustments, and illumination were set to 0%. It is to be noted that this percentage is taken from the roadway construction cost.

An allotment of 5% was given for mobilization and site preparation based on the paving and allowance subtotal. In addition, contingency of 15% was given based on the construction cost total.





Lump sum dollar allowances are provided for special drainage structures and railroad crossings. The dollar amount for the drainage structure is based on project type and crossing length and has a minimum amount of \$250,000. An allotment of \$500,000 for railroad crossings were assumed.

5. RIP Allowances

To determine the total Impact Fee project cost, 20% of the construction with contingency cost is added for engineering, surveying, and testing. An additional allowance is given for right-of-way (ROW)/easement acquisition. New projects assumed a 35% allotment, Widening projects assumed a 20% allotment, and Partial Widenings assumed none. Additionally, City project cost contributions from 2008-2012 and from 2012-2019 were included, if applicable.

6. Impact Fee Project Cost

The Impact Fee Project Cost Total is then the Roadway Construction Items, Major Construction Component Allowances, and RIP Allowances. Based upon discussions with City of McKinney staff, TxDOT projects were included with a projected contribution of fifty percent (50%) of the total project. In addition, some projects have been included based on cost estimates from the City.

E. Summary of Roadway Impact Fee RIP Costs

Tables 5.A – 5.M are the 10-Year RIF RIP project lists for each service area with planning level project costs. Individual project cost worksheets can be seen in Appendix A, Conceptual Level Project Cost Projections. It should be noted that these tables reflect only conceptual-level opinions or assumptions regarding the portions of future project costs that are potentially recoverable through impact fees. Actual project costs are likely to change with time and are dependent on market and economic conditions that cannot be predicted.

The RIF RIP establishes the list of projects for which Impact Fees may be utilized. Projects not included in the RIF RIP are not eligible to receive impact fee funding. The cost projections utilized in this study should not be utilized for the City's construction CIP.





Table 5.A – 10-Year Roadway Impact Fee RIP with Conceptual Level Cost Projections – Service Area A

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
	A-1, C-1	M6D	UNNAMED 5 (1)	635' W OF STONEBRIDGE DR TO CR 168	0.63	50%	\$ 7,715,900	\$ 3,857,950
	A-2, D-1	M6D	UNNAMED 5 (3)	CR 168 TO 1,560' E OF CR 168	0.30	50%	\$ 7,517,500	\$ 3,758,750
A	A-3	G4D	STONEBRIDGE DR (1)	2,635' N OF UNNAMED 5 TO UNNAMED 5	0.50	50%	\$ 4,679,450	\$ 2,339,725
				Servi	ce Area	Project	Cost Subtotal	\$ 9,956,425
				Roadway Impact Fac Lit	ndata Co	et (Pars	Carvica Araa)	\$ 11.602

Total Cost in SERVICE AREA A \$ 9,968,11

- a. These planning level cost projections have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Projects within the City of McKinney.
- b. These planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.

Table 5.B – 10-Year Roadway Impact Fee RIP with Conceptual Level Cost Projections – Service Area B

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
	B-1, D-2	M6D	UNNAMED 5 (4)	1,050' W OF HARDIN BLVD TO 1,200' E OF HARDIN BLVD	0.43	50%	\$ 4,904,200	\$ 2,452,100
	B-2	G6D	HARDIN BLVD (1)	CR 204 TO CR 206	0.08	50%	\$ 877,800	\$ 438,900
	B-3	G6D	HARDIN BLVD (2)	1,670' N OF OLYMPIC TO 730' S OF OLYMPIC	0.45	50%	\$ 4,837,000	\$ 2,418,500
- D	B-4	G6D	HARDIN BLVD (3)	1,940' N OF UNNAMED 5 TO UNNAMED 5	0.37	100%	\$ 4,090,450	\$ 4,090,450
В	1	Inter-	Signal	HARDIN BLVD & OLYMPIC		50%	\$ 300,000	\$ 150,000
	3	section	Signal	HARDIN BLVD & UNNAMED 5		50%	\$ 300,000	\$ 150,000
				Servi	ce Area	Project	Cost Subtotal	\$ 9,699,950
	Roadway Impact Fee Update Cost (Per Service Area)							

Total Cost in SERVICE AREA B \$ 9,711,642

- a. These planning level cost projections have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Projects within the City of McKinney.
- b. These planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.







Table 5.C – 10-Year Roadway Impact Fee RIP with Conceptual Level Cost Projections – Service Area C

Service	Proj. #	Class	Roadway	Limits	Length	% In Service	Total Project	Cost in Service		
Area	1103. //	Ciass	Roduway	Dilling.	(mi)	Area	Cost	Area		
	A-1, C-1	M6D	UNNAMED 5 (1)	635' W OF STONEBRIDGE DR TO CR 168	0.63	50%	\$ 7,715,900	\$ 3,857,950		
	C-2	M6D	UNNAMED 5 (2)	RIDGE RD TO 1,505' E OF RIDGE RD	0.29	50%	\$ 3,137,400	\$ 1,568,700		
	C-3	G6D	LAUD HOWELL PKWY (1)	695' W OF CUSTER RD TO CUSTER RD	0.13	50%	\$ 665,000	\$ 332,500		
	C-4	G6D	LAUD HOWELL PKWY (2)	CUSTER RD TO 1,225' E OF CUSTER RD	0.23	100%	\$ 1,171,800	\$ 1,171,800		
	C-5	G6D	LAUD HOWELL PKWY (3)	1,225' E OF CUSTER RD TO 2,070' E OF CUSTER RD	0.16	50%	\$ 808,500	\$ 404,250		
	C-6	G6D	LAUD HOWELL PKWY (4)	840' E OF STONEBRIDGE DR TO 2,905' E OF STONEBRIDGE DR	0.39	50%	\$ 2,859,500	\$ 1,429,750		
	C-7	G6D	LAUD HOWELL PKWY (5)	1,985' W OF RIDGE RD TO 1,230' E OF RIDGE RD	0.61	50%	\$ 3,073,000	\$ 1,536,500		
	C-8	P6D	BLOOMDALE RD (1)	CUSTER RD TO 1,310' E OF CUSTER RD	0.25	100%	\$ 3,179,400	\$ 3,179,400		
	C-9	P6D	BLOOMDALE RD (2)	1,310' E OF CUSTER RD TO 2,030' W OF STONEBRIDGE DR	0.40	50%	\$ 4,838,400	\$ 2,419,200		
	C-10	P6D	BLOOMDALE RD (3)	2,030' W OF STONEBRIDGE DR TO 3,245' E OF STONEBRIDGE DR	1.00	100%	\$ 13,314,000	\$ 13,314,000		
	C-11	P6D	BLOOMDALE RD (4)	3,245' E OF STONEBRIDGE DR TO 695' W OF RIDGE RD	0.26	50%	\$ 3,292,800	\$ 1,646,400		
	C-12	P6D	BLOOMDALE RD (5)	695' W OF RIDGE RD TO RIDGE RD	0.13	100%	\$ 1,453,200	\$ 1,453,200		
	C-13	P6D(2/3)	BLOOMDALE RD (6)	3,400' W OF LAKE FOREST DR TO LAKE FOREST DR	0.64	50%	\$ 4,650,800	\$ 2,325,400		
	C-14	G4D	WILMETH RD (1)	3,725' W OF STONEBRIDGE DR TO 815' E OF STONEBRIDGE DR	0.86	100%	\$ 8,845,850	\$ 8,845,850		
	C-15	G4D	WILMETH RD (2)	815' E OF STONEBRIDGE DR TO 995' W OF RIDGE RD	0.63	50%	\$ 6,200,600	\$ 3,100,300		
	C-16	G4D(1/2)	WILMETH RD (3)	RIDGE RD TO 585' E OF RIDGE RD	0.11	100%	\$ 1,593,000	\$ 1,593,000		
	C-17	G4D(1/2)	WILMETH RD (4)	1,095' E OF RIDGE RD TO 1,365' E OF RIDGE RD	0.05	100%	\$ 708,000	\$ 708,000		
	C-18	P6D	CUSTER RD (1)	1,855' N OF LAUD HOWELL PKWY TO LAUD HOWELL PKWY	0.35	50%	\$ 1,834,000	\$ 917,000		
	C-19	P6D	CUSTER RD (2)	LAUD HOWELL PKWY TO 2,775 N OF BLOOMDALE RD	0.53	100%	\$ 2,869,825	\$ 2,869,825		
	C-20	P6D	CUSTER RD (3)	2,655 N OF BLOOMDALE RD TO 375' N OF WILMETH RD	1.19	50%	\$ 8,071,300	\$ 4,035,650		
	C-21	G4D	STONEBRIDGE DR (2)	UNNAMED 5 TO 1,280' S OF UNNAMED 5	0.24	100%	\$ 2,763,650	\$ 2,763,650		
	C-22	G4D	STONEBRIDGE DR (3)	1,570' S OF LAUD HOWELL PKWY TO 280' S OF WILMETH RD	1.51	100%	\$ 14,194,900	\$ 14,194,900		
	C-23	G4D	STONEBRIDGE DR (4)	280' S OF WILMETH RD TO 1,195' S OF WILMETH RD	0.17	50%	\$ 2,117,300	\$ 1,058,650		
	C-24	G4D	STONEBRIDGE DR (5)	1,195' S OF WILMETH RD TO 5,555' S OF WILMETH RD	0.83	100%	\$ 8,232,050	\$ 8,232,050		
C	C-25	G4D	STONEBRIDGE DR (6)	580' N OF US HIGHWAY 380 TO US HIGHWAY 380	0.11	100%	\$ 1,030,750	\$ 1,030,750		
	C-26	M6D	RIDGE RD (1)	UNNAMED 5 TO 1,485' S OF UNNAMED 5	0.28	50%	\$ 3,095,400	\$ 1,547,700		
1 .	C-27	M6D	RIDGE RD (2)	LAUD HOWELL PKWY TO BAXTER WELL RD	0.59	100%	\$ 7,267,950	\$ 7,267,950		
1 .	C-28	M6D	RIDGE RD (3)	BAXTER WELL RD TO 2,160' S OF BLOOMDALE RD	0.83	50%	\$ 9,144,800	\$ 4,572,400		
	C-29	M6D	RIDGE RD (4)	1,590' N OF WILMETH RD TO WILMETH RD	0.30	50%	\$ 3,756,200	\$ 1,878,100		
	C-30	M6D(1/3)	RIDGE RD (5)	WILMETH RD TO 2,280' S OF WILMETH RD	0.43	100%	\$ 7,411,200	\$ 7,411,200		
	C-31	M6D(1/3)	RIDGE RD (6)	1,860' N OF US HIGHWAY 380 TO 1,390' N OF US HIGHWAY 380	0.09	50%	\$ 1,455,000	\$ 727,500		
	C-32	M6D(1/3)	RIDGE RD (7)	775' N OF US HIGHWAY 380 TO US HIGHWAY 380	0.15	100%	\$ 2,857,200	\$ 2,857,200		
	C-33	M6D(1/3)	LAKE FOREST DR (2)	BLOOMDALE RD TO WILMETH RD	1.02	50%	\$ 5,008,981	\$ 2,504,491		
	C-34, D-22	M6D(1/3)	LAKE FOREST DR (3)	WILMETH RD TO US HIGHWAY 380	0.98	50%	\$ 2,350,800	\$ 1,175,400		
	2		Signal	RIDGE RD & UNNAMED 5		25%	\$ 300,000	\$ 75,000		
	4		Signal	LAUD HOWELL PKWY & CUSTER RD		75%	\$ 300,000	\$ 225,000		
	5		Signal	LAUD HOWELL PKWY & RIDGE RD		50%	\$ 300,000	\$ 150,000		
	12		Intersection Improvement	CUSTER RD & BLOOMDALE RD		50%	\$ 150,000	\$ 75,000		
	13		Signal	BLOOMDALE RD & STONEBRIDGE DR		100%	\$ 300,000	\$ 300,000		
	14		Signal	BLOOMDALE RD & RIDGE RD		50%	\$ 300,000	\$ 150,000		
	15	Intersection	Signal	BLOOMDALE RD & LAKE FOREST DR		25%	\$ 300,000	\$ 75,000		
	23]	Signal	STONEBRIDGE DR & WILMETH RD	1	100%	\$ 300,000	\$ 300,000		
	24 25	4	Signal	WILMETH RD & RIDGEKNOLL AVE	1	100%	\$ 300,000 \$ 1,830,000	\$ 300,000 \$ 915,000		
1			Roundabout	LAKE FOREST DR & WILMETH RD	1	50%	\$ 1,830,000 \$ 150,000			
1	33 34		Signal Mod	US HIGHWAY 380 & STONEBRIDGE DR	-	50% 50%	\$ 150,000	\$ 75,000 \$ 150,000		
	35		Signal Signal	US HIGHWAY 380 & FOREST RIDGE LN US HIGHWAY 380 & AUBURN HILLS PKWY	-	50%	\$ 300,000	\$ 150,000 \$ 150,000		
1	33		Signai							
						•	Cost Subtotal	\$ 116,870,616		
	Roadway Impact Fee Update Cost (Per Service Area) \$ 11,692									

Total Cost in SERVICE AREA C \$ 116,882,308

- a. These planning level cost projections have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Projects within the City of McKinney.
- b. These planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.





Table 5.D – 10-Year Roadway Impact Fee RIP with Conceptual Level Cost Projections – Service Area D

Service					Length	% In	Total Proje	rt C	Cost in Service
Area	Proj. #	Class	Roadway	Limits	(mi)	Service Area	Cost		Area
	A-2, D-1	M6D	UNNAMED 5 (3)	CR 168 TO 1,560' E OF CR 168	0.30	50%	\$ 7,517,50	0 \$	3,758,750
	B-1, D-2	M6D	UNNAMED 5 (4)	1,050' W OF HARDIN BLVD TO 1,200' E OF HARDIN BLVD	0.43	50%	\$ 4,904.20	_	- / /
	D-1, D-2	G6D	LAUD HOWELL PKWY (6)	LAKE FOREST DR TO 1860' E OF HARDIN BLVD	2.65	100%	\$ 39,497,10		, , , , , ,
	D-4	G6D	LAUD HOWELL PKWY (7)	4,170' N OF TRINITY FALLS PKWY TO 240' N OF TRINITY FALLS	0.74	100%	\$ 8,774,55	_	
	D-5	G6D(1/3)	LAUD HOWELL PKWY (8)	240' N OF TRINITY FALLS PKWY TO US HIGHWAY 75	0.38	100%	\$ 2,220,02		
	D-6	G4D	TRINITY FALLS PKWY (1)	HARDIN BLVD TO 1,910' E OF HARDIN BLVD	0.36	100%	\$ 3,243,80	_	, .,
	D-7	G4D	TRINITY FALLS PKWY (2)	1,910' E OF HARDIN BLVD TO 2,675' E OF HARDIN BLVD	0.14	50%	\$ 1,300,60		-, -,
	D-8	G4D	TRINITY FALLS PKWY (3)	COMMUNITY AVE TO 2,200' W OF LAUD HOWELL PKWY	0.34	50%	\$ 5,976,80		2,988,400
	D-9	G4D	TRINITY FALLS PKWY (4)	LAUD HOWELL PKWY TO 2,200' W OF LAUD HOWELL PKWY	0.42	100%	\$ 8,418,05		8,418,050
	D-10	M6D(1/3)	TRINITY FALLS PKWY (5)	4,275' N OF WESTON RD TO LAUD HOWELL PKWY	1.05	100%	\$ 7,622,40		7,622,400
	D-11	P6D	BLOOMDALE RD (7)	1,820' W OF TAYLOR-BURK DR TO TAYLOR-BURK DR	0.34	50%	\$ 3,799,60		1,899,800
	D-12	P6D	BLOOMDALE RD (8)	1,485' E OF CR 1006 TO 1,215' W OF CR 1007	0.29	100%	\$ 3,206,00		,,,,,,,,,
	D-13	P6D	BLOOMDALE RD (9)	1,225' W OF CR 1007 TO CR 1007	0.23	50%	\$ 3,001,60	_	
	D-14	P6D(2/3)	BLOOMDALE RD (10)	CR 1007 TO HARDIN BLVD	0.37	100%	\$ 5,885,81		
	D-15	P6D(1/3)	BLOOMDALE RD (11)	HARDIN BLVD TO COMMUNITY AVE	0.49	100%	\$ 5,165,39	0 \$	5,165,390
	D-16	G4D	WILMETH RD (5)	LAKE FOREST DR TO UNNAMED A	0.90	50%	\$ 10,991,05	0 \$	5,495,525
	D-17	G4D	WILMETH RD (6)	UNNAMED A TO 825' E OF UNNAMED A	0.16	100%	\$ 1,401,40	0 \$	1,401,400
	D-18	G4D(1/2)	WILMETH RD (7)	825' E OF TAYLOR-BURK DR TO 1,380' E OF TAYLOR-BURK DR	0.11	100%	\$ 411,60	0 \$	411,600
	D-19	G4D	WILMETH RD (8)	1,380' E OF TAYLOR-BURK DR TO HARDIN BLVD	0.42	50%	\$ 3,803,80	0 \$	1,901,900
	D-20	M6D(1/3)	WILMETH RD (9)	HARDIN BLVD TO US HIGHWAY 75	1.16	100%	\$ 2,799,60	0 \$	2,799,600
	D-21	G6D	LAKE FOREST DR (1)	LAUD HOWELL PKWY TO 3,200' S OF LAUD HOWELL PKWY	0.61	50%	\$ 6,448,40	0 \$	3,224,200
	C-34, D-22	M6D(1/3)	LAKE FOREST DR (3)	WILMETH RD TO US HIGHWAY 380	0.98	50%	\$ 2,350,80	0 \$	1,175,400
	D-23	G4D	UNNAMED A (1)	5,785' N OF LAUD HOWELL PKWY TO 2,710' S OF LAUD HOWELL	1.61	100%	\$ 17,435,95	0 \$	17,435,950
	D-24	G4D	UNNAMED A (2)	2,710' S OF LAUD HOWELL PKWY TO BLOOMDALE RD	0.49	50%	\$ 4,598,85	0 \$	2,299,425
	D-25	G4D	UNNAMED A (3)	1,105' N OF WILMETH RD TO WILMETH RD	0.21	50%	\$ 1,876,00	0 \$	938,000
	D-26	M4D	UNNAMED A (4)	WILMETH RD TO HARDIN BLVD	0.75	100%	\$ 5,969,05	0 \$	5,969,050
	D-27	M4D	TAYLOR-BURK DR (1)	HARDIN BLVD TO SKYLINE DR	0.28	100%	\$ 2,038,25	0 \$	2,038,250
D	D-28	G6D	HARDIN BLVD (4)	UNNAMED 5 TO 1,550' S OF UNNAMED 5	0.29	50%	\$ 3,267,40	0 \$	1,633,700
	D-29	G6D	HARDIN BLVD (5)	1,545' S OF UNNAMED 5 TO TRINITY FALLS PKWY	1.38	100%	\$ 21,290,80	0 \$	21,290,800
	D-30	G6D	HARDIN BLVD (6)	TRINITY FALLS PKWY TO 1,815' S OF TRINITY FALLS PKWY	0.34	50%	\$ 4,102,00	0 \$	2,051,000
	D-31	G6D	HARDIN BLVD (7)	1,815' S OF TRINITY FALLS PKWY TO 1,190' S OF BLOOMDALE RD	0.36	100%	\$ 4,538,40	0 \$	4,538,400
	D-32	G6D(1/3)	HARDIN BLVD (8)	1,190' S OF BLOOMDALE RD TO 3,590' S OF BLOOMDALE RD	0.45	100%	\$ 1,070,40	0 \$	1,070,400
	D-33	G6D(2/3)	HARDIN BLVD (9)	3,590' S OF BLOOMDALE RD TO WILMETH RD	0.33	50%	\$ 2,249,80	0 \$	1,124,900
	D-34	G6D(1/3)	HARDIN BLVD (10)	WILMETH RD TO US HIGHWAY 380	1.23	100%	\$ 2,904,00	0 \$	2,904,000
	D-35	G4D	COMMUNITY AVE (1)	TRINITY FALLS PKWY TO 1,275' S OF TRINITY FALLS PKWY	0.24	100%	\$ 2,164,40	_	2,164,400
	D-36	G4D(1/2)	COMMUNITY AVE (2)	1,275' S OF TRINITY FALLS PKWY TO BLOOMDALE RD	0.50	100%	\$ 1,960,00	_	, ,
	D-37	M4U(1/2)	COMMUNITY AVE (3)	BLOOMDALE RD TO 2,305' S OF BLOOMDALE RD	0.44	100%	\$ 1,174,60		1,174,600
	3		Signal	HARDIN BLVD & UNNAMED 5		50%	\$ 300,00		
	6	ļ	Signal	LAUD HOWELL PKWY & LAKE FOREST DR		50%	\$ 300,00		
	7		Signal	LAUD HOWELL PKWY & UNNAMED A		100%	\$ 300,00		
	8	ļ	Signal	LAUD HOWELL PKWY & HARDIN BLVD	ļ	100%	\$ 300,00	_	
	9	ļ	Signal	HARDIN BLVD & TRINITY FALLS PKWY	ļ	75%	\$ 300,00	_	.,
	10		Roundabout	TRINITY FALLS PKWY & COMMUNITY AVE	ļ	50%	\$ 200,00		,
	11		Interchange Signals	US HIGHWAY 75 & LAUD HOWELL PKWY	ļ	50%	\$ 600,00		,
	16	Intersection	Signal	BLOOMD ALE RD & UNNAMED A	ļ	25%	\$ 300,00	_	,
	17		Signal	BLOOMDALE RD & HARDIN BLVD	ļ	100%	\$ 300,00	_	,
	18	ļ	Signal	BLOOMDALE RD & COMMUNITY AVE	<u> </u>	100%	\$ 300,00	_	,
	19	ļ	Interchange Signals	US HIGHWAY 75 & BLOOMDALE RD		50%	\$ 600,00		
	25		Roundabout	LAKE FOREST DR & WILMETH RD		50%	\$ 1,830,00		,
	26		Roundabout	WILMETH RD & UNNAMED A	 	75%	\$ 200,00	_	,
	27		Roundabout	HARDIN BLVD & WILMETH RD	 	75%	\$ 2,100,00	_	1,575,000
	32		Roundabout	HARDIN BLVD & TAYLOR-BURK DR	l	100%	\$ 1,200,00	_	1,200,000
	36		Under Construction	US HIGHWAY 380 & HARDIN BLVD	L	50%	\$ 780,68	_	
								189,016,118	
				Roadway Impact Fee Up	pdate Co	st (Per S	Service Area) \$	11,692

Total Cost in SERVICE AREA D \$ 189,027,810

- a. These planning level cost projections have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Projects within the City of McKinney.
- b. These planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.





Table 5.E – 10-Year Roadway Impact Fee RIP with Conceptual Level Cost Projections – Service Area E

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area	Tot	tal Project Cost	Cost	t in Service Area
	E-1	P6D(1/3)	BLOOMDALE RD (12)	US HIGHWAY 75 TO REDBUD BLVD	0.48	100%	\$	955,200	\$	955,200
	E-2	P6D(2/3)	BLOOMDALE RD (13)	REDBUD BLVD TO AIRPORT DR	0.51	100%	\$	3,361,400	\$	3,361,400
	E-3	M6D(1/3)	WILMETH RD (10)	US HIGHWAY 75 TO 2,570' E OF REDBUD BLVD	0.78	100%	\$	1,935,600	\$	1,935,600
	E-4	M6D(2/3)	WILMETH RD (11)	2,570' E OF REDBUD BLVD TO STATE HIGHWAY 5	0.41	100%	\$	2,608,200	\$	2,608,200
	E-5	M6D	WILMETH RD (12)	STATE HIGHWAY 5 TO 2,100' E OF SH 5	0.40	100%	\$	5,068,500	\$	5,068,500
	E-6	M6D	WILMETH RD (13)	2,100' E OF SH 5 TO 980' W OF AIRPORT DR	0.25	100%	\$	2,804,200	\$	2,804,200
	E-7	M6D	WILMETH RD (14)	980' W OF AIRPORT DR TO 235' E OF AIRPORT DR	0.23	50%	\$	3,417,400	\$	1,708,700
	E-8	M6D	WILMETH RD (15)	1,150' W OF FM 2933 TO 400' E OF FM 2933	0.29	50%	\$	3,229,800	\$	1,614,900
	E-9	M4D	REDBUD BLVD (1)	BLOOMDALE RD TO 2,930' S OF BLOOMDALE RD	0.55	100%	\$	650,000	\$	650,000
	E-10	M4D(1/2)	REDBUD BLVD (2)	2,930' S OF BLOOMDALE RD TO WILMETH RD	0.31	100%	\$	852,600	\$	852,600
	E-11	M6D	LAUD HOWELL PKWY (9)	US HIGHWAY 75 TO 2,620' S OF US HIGHWAY 75	0.50	50%	\$	3,909,500	\$	1,954,750
	E-12	M6D	LAUD HOWELL PKWY (10)	2,620' S OF US HIGHWAY 75 TO BLOOMDALE RD	0.31	100%	\$	1,876,700	\$	1,876,700
	E-13	P6D	LAUD HOWELL PKWY (11)	BLOOMDALE RD TO STATE HIGHWAY 5	0.16	100%	\$	861,000	\$	861,000
	E-14	M6D	STATE HIGHWAY 5 (1)	4,700' N OF AIRPORT DR TO 3,995' N OF AIRPORT DR	0.13	50%	\$	695,100	\$	347,550
	E-15	M6D	STATE HIGHWAY 5 (2)	1,915' N OF AIRPORT DR TO US HIGHWAY 380	2.27	100%	\$	13,994,400	\$	13,994,400
	E-16	P6D	AIRPORT DR (1)	STATE HIGHWAY 5 TO 4,070 S OF STATE HIGHWAY 5	0.77	100%	\$	9,379,050	\$	9,379,050
E	E-17	P6D	AIRPORT DR (2)	WILMETH RD TO WOODLAWN RD (N)	0.53	100%	\$	6,582,850	\$	6,582,850
	E-18	P6D	AIRPORT DR (3)	WOODLAWN RD (N) TO WOODLAWN RD (S)	0.29	100%	\$	3,648,400	\$	3,648,400
	E-19	P6D	AIRPORT DR (4)	WOODLAWN RD (S) TO US HIGHWAY 380	0.73	100%	\$	8,952,800	\$	8,952,800
	E-20	P6D(1/3)	UNNAMED C (1)	410' E OF STATE HIGHWAY 5 TO 3,010' E OF STATE HIGHWAY 5	0.49	100%	\$	986,400	\$	986,400
	E-21	P6D	UNNAMED C (2)	WILMETH RD TO 2,615' S OF WILMETH RD	0.50	50%	\$	2,806,300	\$	1,403,150
	11		Interchange Signals	US HIGHWAY 75 & LAUD HOWELL PKWY		50%	\$	600,000	\$	300,000
	19		Interchange Signals	US HIGHWAY 75 & BLOOMDALE RD		50%	\$	600,000	\$	300,000
	20		Signal	BLOOMDALE RD & REDBUD BLVD		100%	\$	300,000	\$	300,000
	21		Signal	LAUD HOWELL PKWY & BLOOMDALE RD		100%	\$	300,000	\$	300,000
	22	T	Signal Mod	STATE HIGHWAY 5 & LAUD HOWELL PKWY		100%	\$	150,000	\$	150,000
	28	Intersection	Signal	WILMETH RD & REDBUD BLVD		100%	\$	300,000	\$	300,000
	29		Signal Mod	STATE HIGHWAY 5 & WILMETH RD		100%	\$	150,000	\$	150,000
	30		Signal	AIRPORT DR & WILMETH RD		50%	\$	300,000	\$	150,000
	31		Signal	UNNAMED C & WILMETH RD		50%	\$	300,000	\$	150,000
	41		Signal Mod	US HIGHWAY 380 & AIRPORT DR		50%	\$	150,000	\$	75,000
		-		Servi	ce Area	Project (Cost	Subtotal	\$ 7	73,721,350
	Roadway Impact Fee Update Cost (Per Service Area) \$ 1							11,692		

Total Cost in SERVICE AREA E \$ 73,733,042

- a. These planning level cost projections have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Projects within the City of McKinney.
- b. These planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.

Table 5.F – 10-Year Roadway Impact Fee RIP with Conceptual Level Cost Projections – Service Area F

	Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
4					No Impact Fee Eligible Roadway Projects				
	F				110 Impact ree Engale Roddwdy 110jecus				
								Cost Subtotal	
					Roadway Impact Fee Up	pdate Co	st (Per S	Service Area)	\$ 11,692

Total Cost in SERVICE AREA F \$ 11,6

- a. These planning level cost projections have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Projects within the City of McKinney.
- b. These planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.





Table 5.G – 10-Year Roadway Impact Fee RIP with Conceptual Level Cost Projections – Service Area G

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area		Project Cost	Cost in Service Area
	G-1	M6D(1/3)	VIRGINIA PKWY (1)	COIT RD TO 500' W OF INDEPENDENCE PKWY	0.90	100%	\$ 2	,158,800	\$ 2,158,800
	G-2	M6D(1/3)	VIRGINIA PKWY (2)	500' W OF INDEPENDENCE PKWY TO 325' E OF FORKHORN DR	0.33	50%	\$	794,400	\$ 397,200
	G-3	M6D(1/3)	VIRGINIA PKWY (3)	325' E OF FORKHORN DR TO 935' W OF VIRGINIA HILLS DR	0.28	50%		,	\$ 456,598
	G-4	M6D(1/3)	VIRGINIA PKWY (4)	935' W OF VIRGINIA HILLS DR TO CUSTER RD	0.51	100%		,661,863	\$ 1,661,863
	G-5	M6D(1/3)	VIRGINIA PKWY (5)	CUSTER RD TO 410' E OF DANBURY RD	0.49	100%	\$ 1	,182,000	\$ 1,182,000
	G-6	M6D(1/6)	VIRGINIA PKWY (6)	410' E OF DANBURY RD TO VIRGINIA PARKLANDS BLVD	0.39	100%	\$	392,400	\$ 392,400
	G-7	M6D(1/3)	WESTRIDGE BLVD (1)	COIT RD TO 1,635' E OF COIT RD	0.31	50%	\$	745,200	\$ 372,600
	G-8	M6D(1/3)	WESTRIDGE BLVD (2)	1,635' E OF COIT RD TO 2,720' E OF INDEPENDENCE PKWY	1.22	100%	\$ 2	2,931,600	\$ 2,931,600
	G-9	M6D(1/3)	WESTRIDGE BLVD (3)	2,720' E OF INDEPENDENCE PKWY TO CUSTER RD	0.50	50%	\$ 1	,192,800	\$ 596,400
	H-1, G-10	G6D(1/3)	ELDORADO PKWY (1)	CUSTER RD TO RIDGE RD	2.05	50%	\$ 5	,202,000	\$ 2,601,000
	G-11	M6D(1/3)	COIT RD (1)	US HIGHWAY 380 TO 2,610' S OF VIRGINIA PKWY	1.53	50%	\$ 3	,681,600	\$ 1,840,800
	G-12	M6D(1/3)	COIT RD (2)	WESTRIDGE BLVD TO 2,595' S OF WESTRIDGE BLVD	0.49	50%	\$ 1	,184,400	\$ 592,200
	G-13	M6D(1/3)	INDEPENDENCE PKWY (1)	2,380' S OF US HIGHWAY 380 TO 4,465' S OF US HIGHWAY 380	0.39	100%	\$	951,600	\$ 951,600
	G-14	M6D(1/3)	INDEPENDENCE PKWY (2)	VIRGINIA PKWY TO 2,690' S OF WESTRIDGE BLVD	1.52	100%	\$ 3	,666,000	\$ 3,666,000
	G-15	P6D	CUSTER RD (4)	US HIGHWAY 380 TO WESTRIDGE BLVD	2.03	100%	\$ 3	,260,945	\$ 3,260,945
G	G-16	P6D	CUSTER RD (5)	WESTRIDGE BLVD TO ELDORADO PKWY	1.02	100%	\$ 1	,476,398	\$ 1,476,398
G	G-17, I-8	G4D	RIDGE RD (8)	US HIGHWAY 380 TO CREEKSIDE DR	1.30	50%	\$	550,813	\$ 275,407
	33		Signal Mod	US HIGHWAY 380 & STONEBRIDGE DR		50%	\$	150,000	\$ 75,000
	34		Signal	US HIGHWAY 380 & FOREST RIDGE LN		50%	\$	300,000	\$ 150,000
	37		Signal	STONEBRIDGE DR & LACIMA DR		100%	\$	300,000	\$ 300,000
	38		Signal	RIDGE RD & HABERSHAM WAY		50%	\$	343,000	\$ 171,500
	43		Signal	INDEPENDENCE PKWY & VIRGINIA PKWY		50%	\$	80,000	\$ 40,000
	44		Under Construction	VIRGINIA PKWY & RIDGE RD		50%	\$	390,341	\$ 195,171
	47	Intersection	Signal	INDEPENDENCE PKWY & WESTRIDGE BLVD		100%	\$	300,000	\$ 300,000
	48		Under Construction	CUSTER RD & WESTRIDGE BLVD		75%	\$	390,341	\$ 292,756
	49		Roundabout	STONEBRIDGE DR & GLEN OAKS DR		100%	\$ 1	,950,000	\$ 1,950,000
	50		Roundabout	RIDGE RD & GLEN OAKS DR		50%	\$ 2	2,640,000	\$ 1,320,000
	55		Signal	STONEBRIDGE DR & ALMA DR		100%	\$	300,000	\$ 300,000
	56		Signal	RIDGE RD & RUSH CREEK RD		50%	\$	300,000	\$ 150,000
	57		Signal	RIDGE RD & BERKSHIRE RD		50%	\$	300,000	\$ 150,000
		•		Servi	ice Area	Project	Cost S	Subtotal	\$ 30,208,237
				Roadway Impact Fee U	pdate Co	ost (Per S	Servic	e Area)	\$ 11,692

Total Cost in SERVICE AREA G \$ 30,219,929

- a. These planning level cost projections have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Projects within the City of McKinney.
- b. These planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.

Table 5.H – 10-Year Roadway Impact Fee RIP with Conceptual Level Cost Projections – Service Area H

	ervice Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area		al Project Cost	Cost in Service Area
		H-1, G-10	G6D(1/3)	ELDORADO PKWY (1)	CUSTER RD TO RIDGE RD	2.05	50%	\$	5,202,000	\$ 2,601,000
		H-2	M4D(1/2)	SILVERADO TRL (1)	CUSTER RD TO BURNETT DR	0.37	100%	\$	2,746,293	\$ 2,746,293
		H-3	M4D	SILVERADO TRL (2)	ALMA DR TO ALFALFA DR	0.22	100%	\$	141,088	\$ 141,088
4		H-4	P6D(1/3)	STACY RD (1)	CUSTER RD TO RIDGE RD	2.03	100%	\$	4,479,991	\$ 4,479,991
		H-5	P6D	CUSTER RD (6)	ELDORADO PKWY TO STONEBRIDGE DR	0.39	100%	\$	622,725	\$ 622,725
		H-6	G4D	ALMA DR (1)	805' S OF BEAVER CREEK DR TO SILVERADO TRL	0.37	100%	\$	239,850	\$ 239,850
		H-7	M6D(1/3)	ALMA DR (2)	SILVERADO TRL TO STACY RD	0.50	100%	\$	1,522,102	\$ 1,522,102
	н	H-8, I-9	M6D(1/3)	RIDGE RD (9)	MCKINNEY RANCH PKWY TO STACY RD	0.69	50%	\$	1,662,000	\$ 831,000
	n .	H-9	M6D(1/3)	MCKINNEY RANCH PKWY (1)	RIDGE RD TO STACY RD	0.77	100%	\$	1,857,600	\$ 1,857,600
		65		Signal	CUSTER RD & SILVERADO TRL		50%	\$	300,000	\$ 150,000
		66		Signal	MCKINNEY RANCH PKWY & SILVERADO TRL		100%	\$	300,000	\$ 300,000
		71	Intersection	Signal	STACY RD & MCKINNEY RANCH PKWY		100%	\$	300,000	\$ 300,000
		75	mersection	Signal	CUSTER RD & PARADISE DR		50%	\$	300,000	\$ 150,000
		76		Signal	STACY RD & COLLIN MCKINNEY PKWY		50%	\$	300,000	\$ 150,000
		77		Signal	ALMA DR & HENNEMAN WAY		100%	\$	300,000	\$ 300,000
					Servi	ce Area	Project (Cost	Subtotal	\$ 16,391,649
					Roadway Impact Fee Ur	ndate Co	st (Per S	Servi	ce Area)	\$ 11.692

Total Cost in SERVICE AREA H \$ 16,403,341

- a. These planning level cost projections have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Projects within the City of McKinney.
- b. These planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.





Table 5.I – 10-Year Roadway Impact Fee RIP with Conceptual Level Cost Projections – Service Area I

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area		l Project Cost	Cost in Service Area
	I-1	M6D	VIRGINIA PKWY (7)	1035' E OF RIDGE RD TO 1355' W OF HARDIN BLVD	1.43	100%	\$ 4	2,567,378	\$ 2,567,378
	I-2	M6D	VIRGINIA PKWY (8)	1355' W OF HARDIN BLVD TO HARDIN BLVD	0.26	100%	\$	531,979	\$ 531,979
	I-3	G6D(1/3)	ELDORADO PKWY (2)	RIDGE RD TO HARDIN BLVD	2.07	100%	\$ 4	4,857,600	\$ 4,857,600
	I-4	M6D(1/3)	MCKINNEY RANCH PKWY (2)	RIDGE RD TO HARDIN BLVD	1.80	100%	\$ 4	4,338,000	\$ 4,338,000
	I-5	G4D	COLLIN MCKINNEY PKWY (2)	LAKE FOREST DR TO COTTONWOOD CREEK	0.31	100%	\$ 1	1,777,105	\$ 1,777,105
	I-6	G4D(1/2)	COLLIN MCKINNEY PKWY (3)	COTTONWOOD CREEK TO 1110' E OF TINA DR	0.55	100%	\$ 3	3,221,002	\$ 3,221,002
	I-7	G4D	COLLIN MCKINNEY PKWY (4)	1110' E OF TINA TO HARDIN BLVD	0.19	100%	\$ 1	1,101,893	\$ 1,101,893
	G-17, I-8	G4D	RIDGE RD (8)	US HIGHWAY 380 TO CREEKSIDE DR	1.30	50%	\$	550,813	\$ 275,407
	H-8, I-9	M6D(1/3)	RIDGE RD (9)	MCKINNEY RANCH PKWY TO STACY RD	0.69	50%	\$:	1,662,000	\$ 831,000
	I-10, J-6	G6D(1/3)	HARDIN BLVD (11)	US HIGHWAY 380 TO VIRGINIA PKWY	1.58	50%	\$ 13	3,584,097	\$ 6,792,049
	I-11, J-7	G6D(1/3)	HARDIN BLVD (12)	VIRGINIA PKWY TO MCKINNEY RANCH PKWY	2.64	50%	\$ 6	5,208,800	\$ 3,104,400
	35		Signal	US HIGHWAY 380 & AUBURN HILLS PKWY		50%	\$	300,000	\$ 150,000
	36		Under Construction	US HIGHWAY 380 & HARDIN BLVD		25%	\$	780,682	\$ 195,171
	38		Signal	RIDGE RD & HABERSHAM WAY		50%	\$	343,000	\$ 171,500
I	44		Under Construction	VIRGINIA PKWY & RIDGE RD		50%	\$	390,341	\$ 195,171
	45		Signal	VIRGINIA PKWY & JOPLIN DR		100%	\$	300,000	\$ 300,000
	46		Signal	VIRGINIA PKWY & VILLAGE DR		100%	\$	300,000	\$ 300,000
	50		Roundabout	RIDGE RD & GLEN OAKS DR		50%	\$ 2	2,640,000	\$ 1,320,000
	51	Intersection	Roundabout	LAKE FOREST DR & GLEN OAKS DR		100%	\$:	1,900,000	\$ 1,900,000
	56	mersection	Signal	RIDGE RD & RUSH CREEK RD		50%	\$	300,000	\$ 150,000
	57		Signal	RIDGE RD & BERKSHIRE RD		50%	\$	300,000	\$ 150,000
	58		Signal	HARDIN BLVD & MAVERICK TRL		50%	\$	300,000	\$ 150,000
	59		Signal	ELDORADO PKWY & WOODSON DR		100%	\$	300,000	\$ 300,000
	60		Signal	ELDORADO PKWY & HIGHLANDS DR		100%	\$	300,000	\$ 300,000
	72		Signal	LAKE FOREST DR & COLLIN MCKINNEY PKWY		100%	\$	300,000	\$ 300,000
	73		Signal	HARDIN BLVD & COLLIN MCKINNEY PKWY		50%	\$	300,000	\$ 150,000
	76		Signal	STACY RD & COLLIN MCKINNEY PKWY		50%	\$	300,000	\$ 150,000
		•		Servi	ce Area	Project (Cost S	Subtotal	\$ 35,579,653
				Roadway Impact Fee U	pdate Co	st (Per S	Servic	e Area)	\$ 11,692

Total Cost in SERVICE AREA I \$ 35,591,345

- a. These planning level cost projections have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Projects within the City of McKinney.
- b. These planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.

Table 5.J – 10-Year Roadway Impact Fee RIP with Conceptual Level Cost Projections – Service Area J

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area		al Project Cost	Cost in Service Area
	J-1	M4D	WHITE AVE (1)	HARDIN BLVD TO BOIS D'ARC RD	0.17	100%	\$	981,328	\$ 981,328
	J-2	M4D	WHITE AVE (2)	BOIS D'ARC RD TO COMMUNITY AVE	0.93	100%	\$	213,991	\$ 213,991
	J-3	M6D	VIRGINIA PKWY (9)	HARDIN BLVD TO US HIGHWAY 75	1.60	100%		3,267,873	
	J-4	G6D(1/3)	ELDORADO PKWY (3)	710' E OF US HIGHWAY 75 TO 1,180' E OF BARRANCA WAY	1.08	100%	\$.	4,047,600	\$ 4,047,600
	J-5	M3U	COLLIN MCKINNEY PKWY (5)	2,100' E OF HARDIN BLVD TO MCKINNEY RANCH PKWY	0.33	100%	\$	1,953,000	\$ 1,953,000
	I-10, J-6	G6D(1/3)	HARDIN BLVD (11)	US HIGHWAY 380 TO VIRGINIA PKWY	1.58	50%	\$ 1	3,584,097	\$ 6,792,049
4	I-11, J-7	G6D(1/3)	HARDIN BLVD (12)	VIRGINIA PKWY TO MCKINNEY RANCH PKWY	2.64	50%	\$	6,208,800	\$ 3,104,400
	J-8	M4D	MEDICAL CENTER DR	STATE HIGHWAY 121 TO 1,685' S OF STATE HIGHWAY 121	0.32	100%	\$	2,240,000	\$ 2,240,000
	J-9, K-7	M6D	STATE HIGHWAY 5 (4)	640' S OF HARRY MCKILLOP BLVD / FM 546 TO STATE HIGHWAY	0.47	50%	\$.	4,647,300	\$ 2,323,650
4	J-10, K-8	M4D	STATE HIGHWAY 5 (5)	STATE HIGHWAY 121 TO 3,525' S OF STATE HIGHWAY 121	0.67	50%	\$	2,223,200	\$ 1,111,600
т.	J-11	M4D	STATE HIGHWAY 5 (6)	3,525' S OF STATE HIGHWAY 121 TO 4,520' S OF STATE HIGHWAY	0.19	50%	\$	627,900	\$ 313,950
,	36		Under Construction	US HIGHWAY 380 & HARDIN BLVD		25%	\$	780,682	\$ 195,171
	39	[Signal	WHITE AVE & JORDAN RD		100%	\$	300,000	\$ 300,000
	58	[Signal	HARDIN BLVD & MAVERICK TRL		50%	\$	300,000	\$ 150,000
	61	[Intersection Improvements	ELDORADO PKWY & CRAIG DR		100%	\$	150,000	\$ 150,000
	62	Intersection	Signal	STATE HIGHWAY 5 & STEWART RD		50%	\$	300,000	\$ 150,000
	67	. [Signal	MCKINNEY RANCH PKWY & COLLIN MCKINNEY PKWY		100%	\$	300,000	\$ 300,000
	68		Signal	COLLIN MCKINNEY PKWY & CRAIG DR		100%	\$	300,000	\$ 300,000
	69		Signal	STATE HIGHWAY 5 & ENTERPRISE DR		50%	\$	300,000	\$ 150,000
	73		Signal	HARDIN BLVD & COLLIN MCKINNEY PKWY		50%	\$	300,000	\$ 150,000
				Servi	ce Area	Project	Cost	Subtotal	\$ 28,194,611
				Roadway Impact Fee Up	pdate Co	st (Per S	Servi	ce Area)	\$ 11,692

Total Cost in SERVICE AREA J \$ 28,206,303

- a. These planning level cost projections have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Projects within the City of McKinney.
- b. These planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.





Table 5.K – 10-Year Roadway Impact Fee RIP with Conceptual Level Cost Projections – Service Area K

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area	Tot	al Project Cost	Cost	in Service Area
	K-1	2UO	VIRGINIA STREET	225' W OF AIRPORT DR TO AIRPORT DR	0.04	100%	\$	779,650	\$	779,650
	K-2	G6D(1/3)	ELDORADO PKWY (4)	1,180' E OF BARRANCA WAY TO STATE HIGHWAY 5	0.40	100%	\$	1,699,200	\$	1,699,200
	K-3	P6D(1/3)	HARRY MCKILLOP BLVD / FM 546 (1)	STATE HIGHWAY 121 TO AIRPORT DR	1.46	100%	\$	1,839,600	\$	1,839,600
	K-4, L-1	P6D(1/3)	HARRY MCKILLOP BLVD / FM 546 (2)	AIRPORT DR TO 980' E OF AIRPORT DR	0.19	50%	\$	234,600	\$	117,300
	K-5, L-2	P6D	HARRY MCKILLOP BLVD / FM 546 (3)	975' E OF AIRPORT DR TO 510' W OF HARRY MCKILLOP BLVD / FM 546 (N)	0.60	50%	\$	3,267,400	\$	1,633,700
	K-6	M6D	STATE HIGHWAY 5 (3)	INDUSTRIAL BLVD TO 640' S OF HARRY MCKILLOP BLVD / FM 546	0.40	100%	\$	2,064,300	\$	2,064,300
	J-9, K-7	M6D	STATE HIGHWAY 5 (4)	640' S OF HARRY MCKILLOP BLVD / FM 546 TO STATE HIGHWAY 121	0.47	50%	\$	4,647,300	\$	2,323,650
	J-10, K-8	M4D	STATE HIGHWAY 5 (5)	STATE HIGHWAY 121 TO 3,525' S OF STATE HIGHWAY 121	0.67	50%	\$	2,223,200	\$	1,111,600
K	K-9, L-6	P6D(1/3)	AIRPORT DR (5)	US HIGHWAY 380 TO 470' N OF HARRY MCKILLOP BLVD / FM 546	2.63	50%	\$	6,322,800	\$	3,161,400
	K-10, L-7	P6D	AIRPORT DR (6)	470' N OF HARRY MCKILLOP BLVD / FM 546 TO HARRY MCKILLOP BLVD / FM 546	0.09	50%	\$	2,925,200	\$	1,462,600
	40		Signal	STATE HIGHWAY 5 & SMITH ST		100%	\$	300,000	\$	300,000
	41		Signal Mod	US HIGHWAY 380 & AIRPORT DR		50%	\$	150,000	\$	75,000
	52		Roundabout	WILSON CREEK PKWY & PARK VIEW AVE		100%	\$	1,820,000	\$	1,820,000
	53	Intersection	Signal	WILSON CREEK PKWY & COLLEGE ST		100%	\$	300,000	\$	300,000
	54	inciscetton	Signal	AIRPORT DR & ELM ST		50%	\$	300,000	\$	150,000
	62		Signal	STATE HIGHWAY 5 & STEWART RD		50%	\$	300,000	\$	150,000
	63		Signal	HARRY MCKILLOP BLVD / FM 546 & AIRPORT DR		75%	\$	300,000	\$	225,000
	69		Signal	STATE HIGHWAY 5 & ENTERPRISE DR		50%	\$	300,000	\$	150,000
				Servi	ce Area	Project (Cost	Subtotal	\$ 1	19,363,000
				Roadway Impact Fee Up	date Co	st (Per S	ervi	ice Area)	\$	11,692

Total Cost in SERVICE AREA K \$ 19,374,692

- a. These planning level cost projections have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Projects within the City of McKinney.
- b. These planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.

Table 5.L – 10-Year Roadway Impact Fee RIP with Conceptual Level Cost Projections – Service Area L

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area		al Project Cost	Cos	st in Service Area
	K-4, L-1	P6D(1/3)	HARRY MCKILLOP BLVD / FM 546 (2)	AIRPORT DR TO 980' E OF AIRPORT DR	0.19	50%	\$	234,600	\$	117,300
	K-5, L-2	P6D	HARRY MCKILLOP BLVD / FM 546 (3)	975' E OF AIRPORT DR TO 510' W OF HARRY MCKILLOP BLVD / FM 546 (N)	0.60	50%	\$	3,267,400	\$	1,633,700
	L-3	P6D	HARRY MCKILLOP BLVD / FM 546 (S) (1)	510' W OF HARRY MCKILLOP BLVD / FM 546 (N) TO 1,335' E OF HARRY MCKILLOP BLVD / FM 546 (N)	0.35	100%	\$	2,153,725	\$	2,153,725
	L-4	P6D	HARRY MCKILLOP BLVD / FM 546 (S) (2)	3,480' W OF UNNAMED D TO UNNAMED D	0.66	100%	\$	3,843,225	\$	3,843,225
	L-5	M6D	HARRY MCKILLOP BLVD / FM 546 (N) (1)	HARRY MCKILLOP BLVD / FM 546 (S) TO 1,865' E OF HARRY MCKILLOP BLVD / FM 546 (S)	0.35	100%	\$	2,166,900	\$	2,166,900
	K-9, L-6	P6D(1/3)	AIRPORT DR (5)	US HIGHWAY 380 TO 470' N OF HARRY MCKILLOP BLVD / FM 546	2.63	50%	\$	6,322,800	\$	3,161,400
4	K-10, L-7	P6D	AIRPORT DR (6)	470' N OF HARRY MCKILLOP BLVD / FM 546 TO HARRY MCKILLOP BLVD / FM 546	0.09	50%	\$	2,925,200	\$	1,462,600
	L-8	P6D	UNNAMED C (3)	US HIGHWAY 380 TO 2,435' S OF US HIGHWAY 380	0.46	100%	\$	5,807,850	\$	5,807,850
L	L-9, M-5	P6D	UNNAMED C (4)	2,525' N OF HARRY MCKILLOP BLVD / FM 546 TO 1,230' N OF HARRY MCKILLOP BLVD / FM 546	0.25	50%	\$	2,830,300	\$	1,415,150
	L-10, M-6	P6D	UNNAMED C (5)	HARRY MCKILLOP BLVD / FM 546 (N) TO 705' S OF HARRY MCKILLOP BLVD / FM 546 (S)	0.87	50%	\$ 1	10,002,150	\$	5,001,075
	41		Signal Mod	US HIGHWAY 380 & AIRPORT DR		50%	\$	150,000	\$	75,000
	42		Signal	US HIGHWAY 380 & UNNAMED C		50%	\$	300,000	\$	150,000
	54		Signal	AIRPORT DR & ELM ST		50%	\$	300,000	\$	150,000
	63	Intersection	Signal	HARRY MCKILLOP BLVD / FM 546 & AIRPORT DR		75%	\$	300,000	\$	225,000
	70		Signal	HARRY MCKILLOP BLVD / FM 546 (S) & HARRY MCKILLOP BLVD / FM 546 (N)		100%	\$	300,000	\$	300,000
	74		Signal	UNNAMED C & HARRY MCKILLOP BLVD / FM 546 (S)		50%	\$	300,000	\$	150,000
				Servi	ce Area	Project	Cost	Subtotal	\$	27,812,925
				Roadway Impact Fee U _I	date Co	st (Per S	Servi	ce Area)	\$	11,692

Total Cost in SERVICE AREA L \$ 27,824,617

- a. These planning level cost projections have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Projects within the City of McKinney.
- b. These planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.





Table 5.M – 10-Year Roadway Impact Fee RIP with Conceptual Level Cost Projections – Service Area M

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
	M-1	M6D	HARRY MCKILLOP BLVD / FM 546 (N) (2)	110' E OF UNNAMED C TO 300' E OF UNNAMED C	0.04	50%	\$ 196,075	\$ 98,038
	M-2	M6D	HARRY MCKILLOP BLVD / FM 546 (N) (3)	1,700' N OF HARRY MCKILLOP BLVD / FM 546 TO 2,050' N OF HARRY MCKILLOP BLVD / FM 546	0.07	50%	\$ 361,150	\$ 180,575
	M-3	M6D	HARRY MCKILLOP BLVD / FM 546 (N) (4)	405' N OF HARRY MCKILLOP BLVD / FM 546 TO 675' N OF HARRY MCKILLOP BLVD / FM 546	0.05	50%	\$ 279,000	\$ 139,500
	M-4	P6D	HARRY MCKILLOP BLVD / FM 546 (S) (3)	UNNAMED C TO 695' E OF UNNAMED C	0.13	100%	\$ 719,975	\$ 719,975
M	L-9, M-5	P6D	UNNAMED C (4)	2,525' N OF HARRY MCKILLOP BLVD / FM 546 TO 1,230' N OF HARRY MCKILLOP BLVD / FM 546	0.25	50%	2830300	\$ 1,415,150
	L-10, M-6	P6D	UNNAMED C (5)	HARRY MCKILLOP BLVD / FM 546 (N) TO 705' S OF HARRY MCKILLOP BLVD / FM 546 (S)	0.87	50%	\$ 10,002,150	\$ 5,001,075
	64	Inter-	Signal	UNNAMED C & HARRY MCKILLOP BLVD / FM 546 (N)		50%	\$ 300,000	\$ 150,000
	74	section	Signal	UNNAMED C & HARRY MCKILLOP BLVD / FM 546 (S)		50%	\$ 300,000	\$ 150,000
				Servi	ce Area	Project (Cost Subtotal	\$ 7,854,313
				Roadway Impact Fee Up	date Co	st (Per S	Service Area)	\$ 11,692

Total Cost in SERVICE AREA M \$ 7,866,005

- a. These planning level cost projections have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Projects within the City of McKinney.
- b. These planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.

F. Service Unit Calculation

The basic service unit for the computation of McKinney's RIF is the vehicle-mile of travel during the afternoon peak-hour (as explained on Pg. 27). To determine the cost per service unit, it is necessary to project the growth in vehicle-miles of travel for the service areas for the ten-year period.

The growth in vehicle-miles from 2019 to 2029 is based upon projected changes in residential units and non-residential growth for the period. To determine this growth, estimates of residential units, basic, service, and retail square footages for 2019 were made by the City, along with growth projections for each of these demographic statistics through 2029. The 2019 Land Use Assumptions details the growth estimates used for impact fee determination.

The population and non-residential square footage statistics in the Land Use Assumptions provides the "independent variables" that are used to calculate the existing (2019) and projected (2029) transportation service units used to establish the roadway impact fee maximum rates within each service area. The roadway demand service units (vehicle-miles) for each service area are the sum of the vehicle-miles "generated" by each category of land use in the service area.





For the purposes of impact fees, all developed and developable land is categorized as either residential or non-residential. For residential land uses, the existing and projected number of dwelling units are estimated. The number of dwelling units in each service area is multiplied by a *transportation demand factor* (discussed in more detail below) to compute the vehicle-miles of travel that occur during the afternoon peak hour. This factor indicates the average amount of demand created by the residential land uses in the service area.

For non-residential land uses, the process is similar. The Land Use Assumptions section of this report provides the existing and projected number of building square footages for three (3) categories of non-residential uses – basic, service, and retail. These categories correspond to an aggregation of other specific land use categories based on the North American Industrial Classification System (NAICS).

Building square footage is the most common independent variable for the estimation of non-residential trips in the *Institute of Transportation Engineers (ITE) Trip Generation Manual*, 10th *Edition*. This characteristic is more appropriate than the number of employees, because building square footage is tied more closely to trip generation and is known at the time of application for any development that would require the assessment of an impact fee.

The existing and projected land use assumptions for the dwelling units and the square footage of basic, service, and retail land uses provide the basis for the projected increase in vehicle-miles of travel. As noted earlier, a *transportation demand factor* is applied to these values and then summed to calculate the total peak hour vehicle-miles of demand for each service area.

The transportation demand factors are aggregate rates derived from two sources – the ITE Trip Generation Manual, 10th Edition and information from the National Household Travel Survey (NHTS) performed by the Federal Highway Administration (FHWA).

The *ITE Trip Generation Manual*, 10th Edition provides the number of trips that are produced or attracted to the land use for each dwelling unit, square foot of building, or other corresponding unit. For the retail category of land uses, the rate is adjusted to account for the fact that a percentage of retail trips are made by people who would otherwise be





traveling past that particular establishment anyway, such as a trip between work and home. These trips are called pass-by trips, and since the travel demand is accounted for in the land use calculations relative to the primary trip, it is necessary to discount the retail trip generation rates to avoid double counting trips.

The next component of the *transportation demand factor* accounts for the length of each trip. The average trip length for each category is based on the region-wide travel characteristics survey conducted by NHTS and other generally accepted planning principles.

The computation of the transportation demand factor is based on the following equation:

$$TDF = T * (1 - P_b) * L_{Max}$$
Where...L_{Max} = min (L * OD or SA_L)

Variables:

TDF = Transportation Demand Factor,

T = Trip Rate (peak hour trips / unit),

P_b = Pass-By Discount (% of trips),

L = Average Trip Length (miles),

 L_{Max} = Maximum Trip Length (miles),

OD = Origin-Destination Reduction (50%); and

SA_L = Max Service Area Trip Length (see Table 6)

The maximum trip length, for land uses which are characterized by longer average trip lengths (primarily residential uses), has been limited to a length based on the nature of the roadway network within the service area, along with consideration of the existing City boundaries. Although Chapter 395 of the Texas Local Government Code allows for a service area diameter of six (6) miles, the City of McKinney has set service area boundaries in anticipation of the ultimate corporate limits. Therefore, the individual service areas have different trip characteristics. In order to account for these differences, the values shown in Table 6 were used for calculation of the *transportation demand factor* for each service area.





Table 6. Maximum Trip Lengths by Service Area

Service Area	Max. Trip Length (mi)	Service Area	Max. Trip Length (mi)
А	0.50	Н	4.65
В	1.30	I	6.00
С	4.00	J	6.00
D	6.00	K	5.30
E	4.80	L	3.50
F	0.00	M	1.50
G	6.00		

The adjustment made to the average trip length statistic in the computation of the maximum trip length is the origin-destination reduction. This adjustment is made because the RIF is charged to both the origin and destination end of the trip. For example, impact fee methodology will account for a trip from home to work within McKinney to both residential and non-residential land uses. To avoid counting these trips twice as both residential and non-residential trips, a 50% origin-destination (OD) reduction factor is applied. Therefore, only half of the trip length is assessed to each land use, and the total trip is only counted once.





Tables 7A and 7B show the derivation of the *Transportation Demand Factor* for the residential land uses and the three (3) non-residential land use categories in Service Areas C and I. The values utilized for all variables shown in the *transportation demand factor* equation are also shown in the table.

Table 7.A. Transportation Demand Factor Calculations – SA C Examples

Variable	Single Family	Basic	Service	Retail
T	0.99	0.63	1.15	3.81
Pb	0%	0%	0%	34%
L _{Max} *	4.00	4.00	4.00	2.80
TDF	3.96	2.52	4.60	7.03

Table 7.B. Transportation Demand Factor Calculations – SA I Examples

Variable	Single Family	Basic	Service	Retail
Т	0.99	0.63	1.15	3.81
P _b	0%	0%	0%	34%
L _{Max} *	4.90	5.01	6.00	2.80
TDF	4.85	3.16	6.90	7.03

The application of the demographic projections and the *transportation demand factors* are presented in the 10-Year Growth Projections in Table 8. This table shows the total vehicle-miles by service area for the years 2019 and 2029. These estimates and projections lead to the Vehicle-Miles of Travel for the 10-year period.





Table 8. 10-Year Growth Projections

Year 2019

SERVICE	RESIDE	ENTIAL VEHICL	E-MILE	S		SQUARE FEET	1	TRANS	. DEMAND FA	ACTOR ⁵	NON-	RESIDENTIA	L VEHICLE-N	IILES ⁹	TOTAL
AREA	POPULATION ¹	DWELLING UNITS ¹	TDF ²	VEHICLE MILES ³	BASIC	SERVICE	RETAIL	BASIC ⁶	SERVICE ⁷	RETAIL ⁸	BASIC	SERVICE	RETAIL	TOTAL	VEHICLE MILES ¹⁰
Α	306	115	0.50	58	23,500	0	81,515	0.32	0.58	1.26	8	0	103	111	169
В	2,834	973	1.29	1,255	0	0	16,699	0.82	1.50	3.26	0	0	54	54	1,309
С	8,429	2,959	3.96	11,718	227,746	632,125	278,982	2.52	4.60	7.03	574	2,908	1,961	5,443	17,161
D	11,213	3,343	4.85	16,214	0	3,104,234	1,255,451	3.16	6.90	7.03	0	21,419	8,826	30,245	46,459
E	3,905	1,204	4.75	5,719	3,624,114	478,284	1,754,956	3.02	5.52	7.03	10,945	2,640	12,337	25,922	31,641
F	1,485	556	0.00	0	212,216	27,295	263,232	0.00	0.00	0.00	0	0	0	0	0
G	50,272	17,987	4.85	87,237	899,720	1,889,230	2,428,620	3.16	6.90	7.03	2,843	13,036	17,073	32,952	120,189
Н	29,944	12,197	4.60	56,106	581,141	1,933,505	2,627,061	2.93	5.35	7.03	1,703	10,344	18,468	30,515	86,621
I	39,502	13,959	4.85	67,701	352,879	2,397,595	1,433,682	3.16	6.90	7.03	1,115	16,543	10,079	27,737	95,438
J	24,011	10,072	4.85	48,849	1,649,518	2,754,401	3,513,500	3.16	6.90	7.03	5,212	19,005	24,700	48,917	97,766
K	20,558	7,651	4.85	37,107	5,125,000	2,871,086	2,325,009	3.16	6.10	7.03	16,195	17,514	16,345	50,054	87,161
L	182	75	3.47	260	561,885	499,422	82,826	2.21	4.03	7.03	1,242	2,013	582	3,837	4,097
М	370	164	1.49	244	66,320	14,572	0	0.95	1.73	3.77	63	25	0	88	332
Totals	193,011	71,255		332,468	13,324,039	16,601,749	16,061,533				39,900	105,447	110,528	255,875	588,343

Year 2029

SERVICE	RESIDE	NTIAL VEHICL	E-MILES	3		SQUARE FEET		TRANS	. DEMAND F	ACTOR ⁵	NON-	RESIDENTIA	L VEHICLE-N	IILES ⁹	TOTAL
AREA	POPULATION ¹	DWELLING UNITS ¹	TDF ²	VEHICLE MILES ³	BASIC	SERVICE	RETAIL	BASIC ⁶	SERVICE ⁷	RETAIL ⁸	BASIC	SERVICE	RETAIL	TOTAL	VEHICLE MILES ¹⁰
Α	306	115	0.50	58	23,500	0	81,515	0.32	0.58	1.26	8	0	103	111	169
В	24,705	7,932	1.29	10,232	10,071	207,903	102,935	0.82	1.50	3.26	8	312	336	656	10,888
С	15,374	5,271	3.96	20,873	227,746	1,358,193	717,975	2.52	4.60	7.03	574	6,248	5,047	11,869	32,742
D	28,583	9,620	4.85	46,657	59,635	3,804,295	2,085,852	3.16	6.90	7.03	188	26,250	14,664	41,102	87,759
E	6,411	2,077	4.75	9,866	6,106,522	678,020	2,480,150	3.02	5.52	7.03	18,442	3,743	17,435	39,620	49,486
F	2,198	674	0.00	0	232,107	99,078	475,970	0.00	0.00	0.00	0	0	0	0	0
G	51,402	18,422	4.85	89,347	930,350	1,958,638	3,147,880	3.16	6.90	7.03	2,940	13,515	22,130	38,585	127,932
н	38,383	15,692	4.60	72,183	596,073	3,740,251	3,414,730	2.93	5.35	7.03	1,746	20,010	24,006	45,762	117,945
I	43,720	15,567	4.85	75,500	464,983	2,650,436	2,633,350	3.16	6.90	7.03	1,469	18,288	18,512	38,269	113,769
J	28,123	11,462	4.85	55,591	1,876,524	4,487,519	4,288,130	3.16	6.90	7.03	5,930	30,964	30,146	67,040	122,631
K	22,258	8,290	4.85	40,207	5,629,952	3,118,346	2,656,021	3.16	6.10	7.03	17,791	19,022	18,672	55,485	95,692
L	182	75	3.47	260	1,159,239	612,935	99,263	2.21	4.03	7.03	2,562	2,470	698	5,730	5,990
М	439	187	1.49	279	237,897	46,200	13,786	0.95	1.73	3.77	226	80	52	358	637
Totals	262,084	95,384		421,053	17,554,599	22,761,814	22,197,557				51,884	140,902	151,801	344,587	765,640

VEHICLE-MILES OF INCREASE (2019 - 2029)11

VEHICLE-MILES OF INCREASE				
SERVICE AREA	VEH-MILES			
Α	0			
В	9,578			
С	15,582			
D	41,299			
E	17,845			
F	0			
G	7,742			
Н	31,324			
ı	18,332			
J	24,864			
K	8,530			
L	1,893			
М	304			
Total	177,293			

Notes:

- ¹ From 2019 Land Use Assumptions Report
- ² Transportation Demand Factor for each Service Area (from LUVMET) using Single Family Detached Housing land use and *trip generation rate*
- ³ Calculated by multiplying TDF by the number of dwelling units
- ⁴ From 2019 Land Use Assumptions Report
- 5 Trip generation rate and Transportation Demand Factors from LUVMET for each land use
- $^{\rm 6}$ 'Basic' corresponds to General Light Industrial land use and $\it trip\ generation\ rate$
- ⁷ 'Service' corresponds to General Office land use and *trip generation rate*
- ⁸ 'Retail' corresponds to Shopping Center land use and *trip generation rate*
- ⁹ Calculated by multiplying Transportation Demand Factor by the number of thousand square feet for each land use
- Residential plus non-residential vehicle-mile totals for each Service Area
- ¹ Total Vehicle-Miles (2019) subtracted from Total Vehicle Miles (2029)





V. ROADWAY IMPACT FEE CALCULATION

A. Maximum Assessable Impact Fee Per Service Unit

This section presents the maximum assessable impact fee rate calculated for each service area. The maximum assessable impact fee is the sum of the eligible RIF RIP costs for the service area divided by the growth in travel attributable to new development projected to occur within the 10-year period. A majority of the components of this calculation have been described and presented in previous sections of this report. The purpose of this section is to document the computation for each service area and to demonstrate that the guidelines provided by Chapter 395 of the Texas Local Government Code have been addressed.

Table 9 illustrates the computation of the maximum assessable impact fee computed for each service area. Each row in the table is numbered to simplify explanation of the calculation.

Table 9. Maximum Assessable Roadway Impact Fee Computation

Line	Title	Description
	Total Vehicle-Miles of	The total number of vehicle-miles added to the service area based on
1	Capacity Added by the	the capacity, length, and number of lanes in each project (from
	RIF RIP	Appendix B – RIF RIP Units of Supply)

Each project identified in the RIP will add a certain amount of capacity to the City's roadway network based on its length and classification. This line displays the total amount added within each service area.

2	Total Vehicle-Miles of Existing Demand	A measure of the amount of traffic currently using the roadway facilities upon which capacity is being added. (from Appendix B – RIF RIP Units of Supply)

A number of facilities identified in the RIF RIP have traffic currently utilizing a portion of their existing capacity. This line displays the total amount of capacity along these facilities currently being used by existing traffic.

3	Total Vehicle-Miles of Existing Deficiencies	Number of vehicle-miles of travel that are not accommodated by the existing roadway system (from Appendix C – Existing Facilities Inventory)

In order to ensure that existing deficiencies on the City's roadway network are not recoverable through impact fees, this line is based on the entire roadway network within the service area. Any roadway within the service area that is deficient – even those not identified on the Impact Fee RIP – will have these additional trips removed from the calculation.





4	Net Amount of Vehicle-	A measurement of the amount of vehicle-miles added by the RIP that
4	Miles of Capacity Added	will not be utilized by existing demand (Line 1 – Line 2 – Line 3)

This calculation identifies the portion of the Impact Fee RIP (in vehicle-miles) that may be recoverable through the collection of impact fees.

5	Total Cost of the RIP within the Service Area	The total cost of the projects within each service area (from Table 5: 10-Year Roadway Impact Fee RIP with Conceptual Level Cost Opinions)
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This line simply identifies the total cost of all of the projects identified in each service area.

6	Cost of Net Capacity Supplied	The total RIP cost (Line 5) prorated by the ratio of Net Capacity Added (Line 4) to Total Capacity Added (Line 1). [(Line 4 / Line 1) * (Line 5)]
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Using the ratio of vehicle-miles added by the Impact Fee RIP available to serve future growth to the total vehicle-miles added, the total cost of the Impact Fee RIP is reduced to the amount available for future growth (i.e. excluding existing usage and deficiencies).

7	Cost to Meet Existing	The difference between the Total Cost of the RIP (Line 5) and the
,	Needs and Usage	Cost of the Net Capacity supplied (Line 6). (Line 5 – Line 6)

This line is provided for information purposes only – it is to present the portion of the total cost of the Impact Fee RIP that is required to meet existing demand.

	Total Vehicle-Miles of	Based upon the growth projection provided in the Land Use
8	New Demand over Ten	Assumptions, an estimate of the number of new vehicle-miles within
	Years	the service area over the next ten years. (from Table 8)

This line presents the amount of growth (in vehicle-miles) projected to occur within each service area over the next ten years.

	Percent of Capacity	The result of dividing Total Vehicle-Miles of New Demand (Line 8) by
9	Added Attributable to	the Net Amount of Capacity Added (Line 4), limited to 100% (Line
	New Growth	10). This calculation is required by Chapter 395 to ensure capacity
10	Chapter 395 Check	added is attributable to new growth.

In order to ensure that the vehicle-miles added by the RIF RIP do not exceed the amount needed to accommodate growth beyond the ten-year window, a comparison of the two values is performed. If the amount of vehicle-miles added by the RIF RIP exceeds the growth projected to occur in the next ten years, the RIF RIP cost is reduced accordingly.

•			
-	J	Cost of Capacity Added	The result of multiplying the Cost of Net Capacity Added (Line 6) by
	11	Attributable to New	the Percent of Capacity Added Attributable to New Growth, limited
		Growth	to 100% (Line 9).

This value is the total Impact Fee RIP project costs (excluding financial costs) that may be recovered through impact fees. This line is determined considering the limitations to impact fees required by the Texas legislature.





B. Plan for the Roadway Impact Fee Credit

Chapter 395 of the Texas Local Government Code requires the RIF RIP to contain specific enumeration of a plan for awarding the impact fee credit. Section 395.014 of the Code requires:

- (A) a credit for the portion of ad valorem tax and utility service revenues generated by new service units during the program period that is used for the payment of improvements, including the payment of debt, that are included in the capital improvements plan; or
- (B) In the alternative, a credit equal to 50 percent of the total projected cost of implementing the Capital Improvements Plan..."

The plan following 395.014(T)(A) is summarized, as prepared by NewGen Strategies & Solutions, Inc., in Appendix D and E, Plan for Awarding the Roadway Impact Fee Credit. The following table summarizes the portions of Table 9 that utilize this credit calculation.

Table 9 (Cont'd). Maximum Assessable Roadway Impact Fee Computation

Line	Title	Description
12	Financing Costs	(from Appendix D – Plan for Awarding the Roadway Impact Fee Credit)
13	Existing Fund Balance	(from Appendix D – Plan for Awarding the Roadway Impact Fee Credit)
14	Interest Earnings	(from Appendix D – Plan for Awarding the Roadway Impact Fee Credit)
15	Cost of the RIP and Financing Attributable to New Growth	The sum of the Cost of Capacity Added Attributable to New Growth, Financing Costs, and Interest Earnings. (Line 11 + Line 12 + Line 13+Line 14)
16	Pre-Credit Maximum Fee Per Service Unit	Found by dividing the Cost of the RIP and Financing Attributable to New Growth (Line 15) by the Total Vehicle-Miles of New Demand Over Ten Years (Line 8). (Line 15 / Line 8)
17	Credit for Ad Valorem Taxes	A credit for the portion of ad valorem taxes projected to be generated by the new service units, as per Section 395.014 of the Local Government Code. (from Appendix D – Plan for Awarding the Roadway Impact Fee Credit)
18	Recoverable Cost of RIP and Financing	The difference between the Cost of the RIP and Financing Attributable to New Growth (Line 15) and the Credit for Ad Valorem Taxes (Line 17). (Line 15 + Line 17)
19	Maximum Assessable Fee Per Service Unit	Found by dividing the Recoverable Cost of the RIP and Financing (Line 18) by the Total Vehicle-Miles of New Demand Over Ten Years (Line 8). (Line 18 / Line 8)





C. Financial Component of Impact Fee Determination

The impact fee determination method employed by NewGen Strategies and Solutions, LLC is developed through a financial based model, which fully recognizes the requirements of Chapter 395, including the recognition of cash and/or debt financing, interest earnings, fund balances, and applicable credits associated with the use of ad valorem taxes. In developing the components of the financial model several assumptions must be made, including the following:

- Financing
 - Method of financing (i.e. cash or debt financing)
 - The level of financing (e.g. 100% debt)
 - Cost of financing
 - Debt repayment structure
- Timing and Level of Expenditures and Revenues
- Interest Earnings
- Annual Vehicle Mile Growth
- Portion of Ad Valorem Tax Revenue Used to Fund Impact Fee Roadway Improvements

The assumptions employed in the maximum assessable impact fee determination provide a reasonable basis for forecasting; however, it must be emphasized that these assumptions may not necessarily reflect actual future conditions. To address this, Chapter 395 requires the monitoring of impact fees through the Capital Improvements Advisory Committee and allows for the option to update or revise impact fees to reflect the actual implementation of the impact fee program.

Once the cost of capacity added that is attributable to growth (Table 10 - line 11) is determined, it must then be decided how the cost will be financed: cash and/or debt. For any previously funded projects, whether partially funded or in full, actual costs of capital have been included. Based on discussions with City staff, unless specific funding has already been determined, it is assumed that the City will debt finance 50% of the future project costs, and the remaining 50% with cash.





For debt financing, the cost of financing is based on the City staff estimates of future debt costs for bonds issued with 20-year terms, as shown in Appendix E. Debt service payments for each future debt issue are assumed to remain constant over the issue's term.

Currently, the exact timing and annual level of cash capital expenditures over the forecast period is indeterminate; therefore, it is assumed that capital expenditures will occur in equal amounts over the 10-year program period. It is also assumed that for debt-financed capital projects, the City will expend debt proceeds over a 3-year timeframe. For the calculation of the maximum assessable impact fee, debt is assumed to be issued in equal amounts for each year. In order to recognize the full amount of debt to be issued for the cost of capacity added that is attributable to growth during the 10-year period, a portion of years 8, 9, and 10 are assumed to be spent in the final 3 years.

Because debt is issued over 20-year terms and impact fees developed herein are to be charged over a 10-year period, sufficient fund balance must be generated to meet the future debt service obligations. Fund balances were identified for each service area as a potential source for the current Impact Fee CIP. Because of the generation of the fund balance, excess monies will be available for interest earnings.

Chapter 395 states that interest earnings are funds of the impact fee account and are to be held to the same restrictions as impact fee revenues. Therefore, in order to recognize that interest earnings are used to fund only impact fee eligible improvements, interest earnings are credited against the costs recoverable through impact fees. It should be noted that Chapter 395 does not require the upfront recognition of interest earnings in the impact fee determination; however, in an effort to acknowledge the time value of the impact fee payers' monies, interest earnings have been credited. Interest is assumed to be earned at an annual rate of 2% per City staff.

As with the timing and level of the capital expenditures over the 10-year forecast, the timing and annual level of vehicle mile growth over the 10-year program period is indeterminate at the present time. As such, it is assumed that vehicle mile growth will be consistent over the 10-year forecast.





Chapter 395 requires a plan for awarding either a credit for the portion of ad valorem tax and/or utility service revenues generated by new vehicle miles during the program period that are used for payment of improvements that are included in the Roadway Impact Fee CIP. As an alternative, a credit equal to 50% of the total cost of implementing the Roadway Impact Fee CIP may be used. The City has elected to pursue the determination of a credit for the portion of ad valorem tax revenues generated by new vehicle miles during the program period that are used for payment of improvements that are included in the Roadway Impact Fee CIP. It should be noted that the credit is not a determination to recognize the total ad valorem tax revenue generated by new vehicle miles, but is only a credit for the portion of ad valorem tax revenue that is used for payment of improvements that are included in the Roadway Impact Fee CIP. Theoretically, the credit determination could be zero (\$0) if the City does not utilize any of the new vehicle mile ad valorem tax revenue to fund improvements that are included in the Roadway Impact Fee CIP. However, to be conservative and recognize potential cash flow issues that can occur with the funding of major capital improvement projects, it is assumed that the debt-funded projects (50% of the improvement costs included in the Roadway Impact Fee CIP but not otherwise funded) could potentially be funded by ad valorem tax revenue.

Since payments made through ad valorem tax revenue will consist of not only the revenue generated by new vehicle miles in the defined service area, but also existing property owners throughout the City, the portion attributable to the new vehicle miles in the defined service area must be isolated, as illustrated in the credit calculation in Appendix E.





Table 10. Maximum Assessable Roadway Impact Fee

SERVICE AREA:	A	В	C	D	E	F	G	Н	I	J	K	L	M
TOTAL VEH-MI OF CAPACITY ADDED BY THE RIP (FROM RIP UNITS OF SUPPLY, APPENDIX B)	2,653	3,570	43,092	59,041	36,038	0	29,072	19,076	22,925	12,550	10,297	14,785	3,565
TOTAL VEH-MI OF EXISTING DEMAND (FROM RIP UNITS OF SUPPLY, APPENDIX B)	0	27	2,321	1,923	3,602	0	10,520	7,085	6,301	7,106	3,061	2	0
TOTAL VEH-MI OF EXISTING DEFICIENCIES (FROM EXISTING FACILITIES INVENTORY, APPENDIX C)	0	0	55	663	427	0	0	113	507	1,163	1,972	302	0
NET AMOUNT OF VEH-MI OF CAPACITY ADDED (LINE 1 - LINE 2 - LINE 3)	2,653	3,543	40,716	56,455	32,009	0	18,552	11,878	16,117	4,281	5,264	14,481	3,565
TOTAL COST OF THE RIP WITHIN SERVICE AREA (FROM TABLE 4)	\$ 9,968,117	\$ 9,711,642	\$ 116,882,308 \$	189,027,810	\$ 73,733,042	\$ 11,692	\$ 30,219,929	\$ 16,403,341	\$ 35,591,345	\$ 28,206,303	\$ 19,374,692	\$ 27,824,617	\$ 7,866,00
COST OF NET CAPACITY SUPPLIED (LINE 4 / LINE 1) * (LINE 5)	\$ 9,968,117	\$ 9,638,193	\$ 110,437,669 \$	180,748,378	\$ 65,489,787	\$ -	\$ 19,284,539	\$ 10,213,823	\$ 25,021,841	\$ 9,621,608	\$ 9,904,669	\$ 27,252,504	\$ 7,866,00
COST TO MEET EXISTING NEEDS AND USAGE (LINE 5 - LINE 6)	\$ -	\$ 73,449	\$ 6,444,639 \$	8,279,432	\$ 8,243,255	\$ 11,692	\$ 10,935,390	\$ 6,189,518	\$ 10,569,504	\$ 18,584,695	\$ 9,470,023	\$ 572,113	\$
TOTAL VEH-MI OF NEW DEMAND OVER TEN YEARS (FROM TABLES and Land Use Assumptions)	0	9,578	15,582	41,299	17,845	0	7,742	31,324	18,332	24,864	8,530	1,893	304
PERCENT OF CAPACITY ADDED ATTRIBUTABLE TO GROWTH (LINE 8 / LINE 4)	0.0%	270.3%	38.2%	73.1%	55.7%	0.0%	41.7%	263.7%	113.7%	580.7%	162.0%	13.0%	8.5%
IF LINE 8 > LINE 4, REDUCE LINE 9 TO 100%, OTHERWISE NO CHANGE	0.0%	100.0%	38.2%	73.1%	55.7%	0.0%	41.7%	100.0%	100.0%	100.0%	100.0%	13.0%	8.5%
COST OF CAPACITY ADDED ATTRIBUTABLE TO GROWTH (LINE 6 * LINE 10)	\$ -	\$ 9,638,193	\$ 42,187,190 \$	132,127,064	\$ 36,477,811	\$ -	\$ 8,041,653	\$ 10,213,823	\$ 25,021,841	\$ 9,621,608	\$ 9,904,669	\$ 3,542,826	\$ 668,61
FINANCING COSTS (FROM APPENDIX D)	\$ -	\$ 2,272,855	\$ 9,640,068 \$	32,193,283	\$ 8,560,746	\$ -	\$ 2,552,974	\$ 2,942,747	\$ 7,106,451	\$ 2,915,731	\$ 2,590,329	\$ 829,021	\$ 157,67
EXISTING FUND BALANCE (FROM APPENDIX D)	\$ -	\$ -	\$ (1,784,813) \$	(131,981)	\$ (129,689)	\$ -	\$ (448,086)	\$ (293,933)	\$ (5,189,258)	\$ (2,179,356)	\$ (779,111)	\$ (5,532)	\$
INTEREST EARNINGS (FROM APPENDIX D)	\$ -	\$ (1,349,526)	\$ (5,688,458) \$	(17,212,335)	\$ (5,036,323)	\$ -	\$ (1,137,019)	\$ (1,231,934)	\$ (3,301,274)	\$ (1,467,153)	\$ (1,427,017)	\$ (491,577)	\$ (94,613
COST OF RIP AND FINANCING ATTRIBUTABLE TO GROWTH (LINE 11 + LINE 12 + LINE 13 + LINE 14)	\$ -	\$ 10,561,522	\$ 44,353,987 \$	146,976,031	\$ 39,872,546	\$ -	\$ 9,009,522	\$ 11,630,704	\$ 23,637,760	\$ 8,890,830	\$ 10,288,870	\$ 3,874,737	\$ 731,66
PRE-CREDIT MAX FEE PER SERVICE UNIT (\$ PER VEH-MI) (LINE 15 / LINE 8)	\$ -	\$ 1,103	\$ 2,846 \$	3,559	\$ 2,234	\$ -	\$ 1,164	\$ 371	\$ 1,289	\$ 358	\$ 1,206	\$ 2,047	\$ 2,40
CREDIT FOR AD VALOREM TAXES (FROM APPENDIX D)	\$ -	\$ (82,337)	\$ (601,239) \$	(5,004,090)	\$ (578,212)	\$ -	\$ (67,194)	\$ (333,123)	\$ (449,003)	\$ (257,003)	\$ (80,502)	\$ (5,956)	\$ (18
RECOVERABLE COST OF RIP AND FINANCING (LINE 15 + LINE 17)	\$ -	\$ 10,479,185	\$ 43,752,749 \$	141,971,941	\$ 39,294,334	\$ -	\$ 8,942,328	\$ 11,297,580	\$ 23,188,757	\$ 8,633,827	\$ 10,208,369	\$ 3,868,782	\$ 731,48
MAX ASSESSABLE FEE PER SERVICE UNIT (\$ PER VEH-MI) (LINE 18 / LINE 8)	\$ -	\$1,094	\$2,808	\$3,438	\$2,202	\$ -	\$1,155	\$361	\$1,265	\$347	\$1,197	\$2,044	\$2,406
	TOTAL VEH-MI OF CAPACITY ADDED BY THE RIP (FROM RIP UNITS OF SUPPLY, APPENDIX B) TOTAL VEH-MI OF EXISTING DEMAND (FROM RIP UNITS OF SUPPLY, APPENDIX B) TOTAL VEH-MI OF EXISTING DEFICIENCIES (FROM EXISTING FACILITIES INVENTORY, APPENDIX C) NET AMOUNT OF VEH-MI OF CAPACITY ADDED (LINE 1 - LINE 2 - LINE 3) TOTAL COST OF THE RIP WITHIN SERVICE AREA (FROM TABLE 4) COST OF NET CAPACITY SUPPLIED (LINE 4 / LINE 1) * (LINE 5) COST TO MEET EXISTING NEEDS AND USAGE (LINE 5 - LINE 6) TOTAL VEH-MI OF NEW DEMAND OVER TEN YEARS (FROM TABLE 8 and Land Use Assumptions) PERCENT OF CAPACITY ADDED ATTRIBUTABLE TO GROWTH (LINE 8 / LINE 4) IF LINE 8 > LINE 4, REDUCE LINE 9 TO 100%, OTHERWISE NO CHANGE COST OF CAPACITY ADDED ATTRIBUTABLE TO GROWTH (LINE 6 * LINE 10) FINANCING COSTS (FROM APPENDIX D) EXISTING FUND BALANCE (FROM APPENDIX D) COST OF RIP AND FINANCING ATTRIBUTABLE TO GROWTH (LINE 11 + LINE 12 + LINE 13 + LINE 14) PRE-CREDIT MAX FEE PER SERVICE UNIT (\$ PER VEH-MI) (LINE 15 / LINE 8) CREDIT FOR AD VALOREM TAXES (FROM APPENDIX D) RECOVERABLE COST OF RIP AND FINANCING (LINE 15 + LINE 17) MAX ASSESSABLE FEE PER SERVICE UNIT (\$ PER VEH-MI)	TOTAL VEH-MI OF CAPACITY ADDED BY THE RIP (FROM RIP UNITS OF SUPPLY, APPENDIX B) TOTAL VEH-MI OF EXISTING DEMAND (FROM RIP UNITS OF SUPPLY, APPENDIX B) O TOTAL VEH-MI OF EXISTING DEFICIENCIES (FROM EXISTING FACILITIES INVENTORY, APPENDIX C) NET AMOUNT OF VEH-MI OF CAPACITY ADDED (LINE 1 - LINE 2 - LINE 3) TOTAL COST OF THE RIP WITHIN SERVICE AREA (FROM TABLE 4) COST OF NET CAPACITY SUPPLIED (LINE 4 / LINE 1) * (LINE 5) COST TO MEET EXISTING NEEDS AND USAGE (LINE 5 - LINE 6) TOTAL VEH-MI OF NEW DEMAND OVER TEN YEARS (FROM TABLE 8 and Land Use Assumptions) PERCENT OF CAPACITY ADDED ATTRIBUTABLE TO GROWTH (LINE 8 / LINE 4, REDUCE LINE 9 TO 100%, OTHERWISE NO CHANGE COST OF CAPACITY ADDED ATTRIBUTABLE TO GROWTH (LINE 6 * LINE 10) FINANCING COSTS (FROM APPENDIX D) EXISTING FUND BALANCE (FROM APPENDIX D) S - COST OF RIP AND FINANCING ATTRIBUTABLE TO GROWTH (LINE 11 + LINE 12 + LINE 13 + LINE 14) PRE-CREDIT MAX FEE PER SERVICE UNIT (8 PER VEH-MI) (LINE 15 / LINE 8) CREDIT FOR AD VALOREM TAXES (FROM APPENDIX D) RECOVERA BLE COST OF RIP AND FINANCING (LINE 15 + LINE 17) MAX ASSESSABLE FEE PER SERVICE UNIT (8 PER VEH-MI) S - RECOVERA BLE COST OF RIP AND FINANCING (LINE 15 + LINE 17)	TOTAL VEH-MI OF CAPACITY ADDED BY THE RIP (FROM RIP UNITS OF SUPPLY, APPENDIX B)	TOTAL VEH-MI OF CAPACITY ADDED BY THE RIP (FROM RIP UNITS OF SUPPLY, APPENDIX B)	TOTAL VEH MI OF CAPACITY ADDED BY THE RIP (FROM RP UNITS OF SUPPLY, APPENDIX R) TOTAL VEH MI OF EXISTING DEPAIND (R) NET AMOUNT OF VEH MI OF CAPACITY ADDED (L) RE 1 (L) RE 2 (L) RE 3 (L) RE 3 (L) RE 4 (L) RE 3 (L) RE 3 (L) RE 4 (L) RE 4 (L) RE 3 (L) RE 4 (L) RE 4 (L) RE 4 (L) RE 5 (L) RE 5 (L) RE 4 (L) RE 5 (L)	TOTAL VEHMI OF CAPACITY ADDED BY THE REP GROW RY UNITS OF SUPPLY, APPENDIX B) TOTAL VIEHMI OF EXISTING DEFINITION TOTAL VEHMI OF EXISTING VEHMI OF EXIS	TOTAL VEH MI OF CAPACITY ADDED BY THE RIP (FROM RULNITS OF SUPPLY, APPENDIX B) TOTAL VEH MI OF EXISTING DEBAND (FROM RULNITS OF SUPPLY, APPENDIX B) TOTAL VEH MI OF EXISTING DEBAND (FROM INDIVISION OF SUPPLY, APPENDIX B) TOTAL VEH MI OF EXISTING DEBCEINCES (FROM INDIVISION OF THE RULN OF CAPACITY ADDED) (JUNI) LINE 2 LINE 2 (1983) TOTAL VEH MI OF CAPACITY ADDED (JUNI) LINE 2 LINE 3) TOTAL VEH MI OF CAPACITY SUPPLIED (JUNI) LINE 2 (1983) TOTAL VEH MI OF CAPACITY SUPPLIED (JUNI) LINE 2 (1983) TOTAL VEH MI OF CAPACITY SUPPLIED (JUNI) LINE 3 (1984) COST OF ITE RAP WITHIN SERVICE AREA (FROM ADDED) (JUNI) LINE 3 (1984) TOTAL VEH MI OF CAPACITY SUPPLIED (JUNI) LINE 3 (1984) TOTAL VEH MI OF CAPACITY SUPPLIED (JUNI) LINE 3 (1984) TOTAL VEH MI OF NEW DEMAND OVER ITY YEARS (JUNI) LINE 3 (1984) TOTAL VEH MI OF NEW DEMAND OVER ITY YEARS (JUNI) LINE 3 (1984) TOTAL VEH MI OF NEW DEMAND OVER ITY YEARS (JUNI) LINE 3 (1984) TOTAL VEH MI OF NEW DEMAND OVER ITY YEARS (JUNI) LINE 3 (1984) TOTAL VEH MI OF NEW DEMAND OVER ITY YEARS (JUNI) LINE 3 (1984) TOTAL VEH MI OF NEW DEMAND OVER ITY YEARS (JUNI) LINE 3 (1984) TOTAL VEH MI OF NEW DEMAND OVER ITY YEARS (JUNI) LINE 3 (1984) TOTAL VEH MI OF NEW DEMAND OVER ITY YEARS (JUNI) LINE 3 (1984) TOTAL VEH MI OF NEW DEMAND OVER ITY YEARS (JUNI) LINE 3 (1984) TOTAL VEH MI OF NEW DEMAND OVER ITY YEARS (JUNI) LINE 3 (1984) TOTAL VEH MI OF NEW DEMAND OVER ITY YEARS (JUNI) LINE 3 (1984) TOTAL VEH MI OF NEW DEMAND OVER ITY YEARS (JUNI) LINE 3 (1984) TOTAL VEH MI OF NEW DEMAND OVER ITY YEARS (JUNI) LINE 3 (1984) TOTAL VEH MI OF NEW DEMAND OVER ITY YEARS (JUNI) LINE 3 (1984) TOTAL VEH MI OF NEW DEMAND OVER ITY YEARS (JUNI) LINE 3 (1984) TOTAL VEH MI OF NEW DEMAND OVER ITY YEARS (JUNI) LINE 3 (1984) TOTAL VEH MI OF NEW DEMAND OVER ITY YEARS (JUNI) LINE 3 (1984) TOTAL VEH MI OF NEW DEMAND OVER ITY YEARS (JUN) LINE 3 (1984) TOTAL VEH MI OF NEW DEMAND OVER ITY YEARS (JUN) LINE 3 (1984) TOTAL VEH MI OF NEW DEMAND OVER ITY YEARS (JUN) LINE 3 (1984) TOTAL VEH MI OF NEW DEMAND O	TOTAL VIBIN IL DE CAPACITY ADDED BY THE RIP SROM REPUNITS OF SUPPLY, APPENDIX BY TOTAL VIBIN FOR PERSTRUCTED BANADO GROWN REPUNITS OF SUPPLY, APPENDIX BY TOTAL VIBIN FOR PERSTRUCTED BANADO GROWN REPUNITS OF SUPPLY, APPENDIX BY TOTAL VIBIN FOR PERSTRUCTION CAPTURED TO 0 0 0 0 55 663 427 0 0 0 18.552 TOTAL VIBIN FOR PERSTRUCTION, APPENDIX BY TOTAL VIBIN FOR PERSTRUCTION, APPENDIX BY ORD RESTRUCTORY, APPENDIX BY TOTAL VIBIN FOR PERSTRUCTION, APPENDIX BY TOTAL COST OF HER RIP WITHOUT SAMPLE APPENDIX FROM PERSTRUCTORY, APPENDIX BY TOTAL COST OF HER RIP WITHOUT SAMPLE APPENDIX COST OF HER RIP WITHOUT SAMPLE APPENDIX GROWN FOR PERSTRUCTION PERSTRUCTION SOME SAMPLE APPENDIX FROM TABLE 4) 5 9.968,117 5 9.638,193 5 110,437,669 5 189,027,810 \$ 73,733,042 \$ 11,692 \$ 30,219,929 COST OF NET CAPACITY SUPPLIED COST OF NET CAPACITY ADDITION PERSTRUCTED APPENDIX FROM TABLE 8: 10,000 5 9,9578 15,582 41,299 17,845 0 7,742 FERGUNT OF CAPACITY ADDITION PERSTRUCTED TOORS. TOTAL VIBRADIA OF NET PERSTRUCTED TOORS. COST OF CAPACITY ADDITION APPENDIX FROM TABLE 8: 10,000 5 10,000 5 10,000 5 18,254 73,1% 55,7% 0.0% 41,7% COST OF CAPACITY ADDITION APPENDIX FROM TABLE 8: 10,000 5 10,000 5 10,000 5 18,254 73,1% 55,7% 0.0% 41,7% COST OF CAPACITY ADDITION APPENDENCY APPENDIX FROM APPEND	TOTAL VISHMI OF CAPACITY A DIRECT METHOR BY A DIRECT METHOR BY TOTAL VISHMI OF EXISTING DEBAN NO	TOTAL MEMBRING CRANATTY ADDRESS BY 2,653 3,570 43,992 99,041 36,038 0 29,072 19,076 22,925	TOTAL MASSING PRINTED 2.653 3.570	Triangle of the properties o	TOTAL SHAM MONE CONSISTENCE SHEET CONSISTENCE





D. Service Unit Demand Per Unit of Development

The Roadway Impact Fee is determined by multiplying the impact fee rate by the number of service units projected for the proposed development. For this purpose, the City utilizes the Land Use/Vehicle-Mile Equivalency Table (LUVMET), presented in Table 11. This table lists the predominant land uses that may occur within the City of McKinney. For each land use, the development unit that defines the development's magnitude with respect to transportation demand is shown. Although every possible use cannot be anticipated, the majority of local uses are found in this table. If the exact use is not listed, one similar in trip-making characteristics can serve as a reasonable proxy. The individual land uses are grouped into categories, such as residential, office, commercial, industrial, and institutional.

The trip rates presented for each land use is a fundamental component of the LUVMET. The trip rate is the average number of trips generated during the afternoon peak hour by each land use per development unit. The next column in Table 11, if applicable to the land use, presents the number of trips to and from certain land uses reduced by pass-by trips, as previously discussed.

The definitive source of the trip generation and pass-by statistics is the *ITE Trip Generation Manual*, 10th Edition, the latest edition. This manual utilizes trip generation studies for a variety of land uses throughout the United States, and is the standard used by traffic engineers and transportation planners for traffic impact analysis, site design, and transportation planning.

To convert vehicle trips to vehicle-miles, it is necessary to multiply trips by trip length. The trip length values are based on land use, as explained in Chapter IV, section F – Service Unit Calculation.





The remaining column in the LUVMET shows the vehicle-miles per development unit. This number is the product of the trip rate and the maximum trip length. This number, previously referred to as the *Transportation Demand Factor*, is used in the impact fee to compute the number of service units attributed to each land use category. The number of service units is multiplied by the impact fee rate (established by City ordinance) in order to determine the impact fee for a development.

E. Land Use Descriptions

In the process of assessing and collecting roadway impact fees within the City of McKinney, there are instances in which questions have arisen as to the appropriate application of the Land Use / Vehicle-Mile Equivalency Table (LUVMET) when the type of land use may seem to fit into multiple categories. Table 12 provides the City with a more detailed description of the various land uses for the ITE Trip Generation Manual, 10th Edition for a reference.







Table 11.A. Service Area A - Land Use / Vehicle-Mile Equivalency Table (LUVMET)

Land Use Category	ITE Land Use Code	Development Unit	Trip Gen Rate (PM)	Pass- by Rate	Pass-by Source	Trip Rate	Trip Length (mi)	Adj. For O-D	Adj. Trip Length (mi)	Max Trip Length (mi) SA-A	Veh-Mi Per Dev- Unit SA - A
PORT AND TERMINAL										0.50	
Truck Terminal	030	1,000 SF GFA	1.87			1.87	10.02	50%	5.01	0.50	0.94
INDUSTRIAL	030	1,000 51 GI 71	1.07			1.07	10.02	3070	5.01	0.50	0.74
General Light Industrial	110	1,000 SF GFA	0.63			0.63	10.02	50%	5.01	0.50	0.32
Industrial Park	130	1,000 SF GFA	0.40			0.40	10.02	50%	5.01	0.50	0.20
Warehousing	150	1,000 SF GFA	0.19			0.19	10.02	50%	5.01	0.50	0.10
Mini-Warehouse	151	1,000 SF GFA	0.17			0.17	10.02	50%	5.01	0.50	0.09
RESIDENTIAL											
Single-Family Detached Housing	210	Dwelling Unit	0.99			0.99	9.79	50%	4.90	0.50	0.50
Townhomes Multifamily Housing (Low-Rise)	220 220	Dwelling Unit Dwelling Unit	0.56			0.56	9.79	50%	4.90 4.90	0.50	0.28
Multifamily Housing (Mid-Rise)	221	Dwelling Unit	0.44			0.44	9.79	50%	4.90	0.50	0.22
Multifamily Housing (High-Rise)	222	Dwelling Unit	0.36			0.36	9.79	50%	4.90	0.50	0.18
Mid-Rise Residential with 1st Floor Commercial	231	Dwelling Unit	0.36			0.36	9.79	50%	4.90	0.50	0.18
Mobile Home Park / Manufactured Housing	240	Dwelling Unit	0.46			0.46	9.79	50%	4.90	0.50	0.23
Senior Adult Housing-Detached	251	Dwelling Unit	0.30			0.30	9.79	50%	4.90	0.50	0.15
Senior Adult Housing-Attached	252	Dwelling Unit	0.26			0.26	9.79	50%	4.90	0.50	0.13
Congregate Care Facility	253	Dwelling Unit	0.18			0.18	9.79	50%	4.90	0.50	0.09
Assisted Living	254	Beds	0.26		r .	0.26	9.79	50%	4.90	0.50	0.13
LODGING	210	D-	0.50			0.50	C 12	5001	2.22	0.50	0.20
Hotel Motel / Other Lodging Facilities	310	Rooms	0.60			0.60	6.43	50%	3.22	0.50	0.30
Motel / Other Lodging Facilities	320	Rooms	0.38			0.38	6.43	50%	3.22	0.50	0.19
RECREATIONAL Golf Course	430	Holes	2.91			2.91	7.86	50%	3.93	0.50	1.46
Miniature Golf Course	431	Holes	0.33			0.33	7.86	50%	3.93	0.50	0.17
Golf Driving Range	431	Driving Positions	1.25			1.25	7.86	50%	3.93	0.50	0.63
Multiplex Movie Theater	445	Screens	13.73			13.73	15.77	50%	7.89	0.50	6.87
Ice Skating Rink	465	1,000 SF GFA	1.33			1.33	7.86	50%	3.93	0.50	0.67
Racquet / Tennis Club	491	Courts	3.82			3.82	7.86	50%	3.93	0.50	1.91
Recreational Community Center	495	1,000 SF GFA	2.31			2.31	7.86	50%	3.93	0.50	1.16
INSTITUTIONAL											
Elementary School	520	Students	0.17			0.17	3.49	50%	1.75	0.50	0.09
Middle School / Junior High School	522	Students	0.17			0.17	3.49	50%	1.75	0.50	0.09
High School	530	Students	0.14			0.14	3.49	50%	1.75	0.50	0.07
Junior / Community College	540	Students	0.11			0.11	10.44	50%	5.22	0.50	0.06
University / College	550	Students	0.15			0.15	10.44	50%	5.22	0.50	0.08
Church	560	1,000 SF GFA	0.49			0.49	8.31	50%	4.16	0.50	0.25
Day Care Center	565	1,000 SF GFA	11.12	44%	В	6.23	3.49	50%	1.75	0.50	3.12
MEDICAL Hospital	610	Beds	1.89			1.89	9.85	50%	4.93	0.50	0.95
Nursing Home	620	Beds	0.22			0.22	9.85	50%	4.93	0.50	0.93
Clinic	630	1,000 SF GFA	3.28			3.28	9.85	50%	4.93	0.50	1.64
Animal Hospital / Veterinary Clinic	640	1,000 SF GFA	3,53	30%	В	2.47	9.85	50%	4.93	0.50	1.24
OFFICE											
General Office Building	710	1,000 SF GFA	1.15			1.15	14.65	50%	7.33	0.50	0.58
Corporate Headquarters Building	714	1,000 SF GFA	0.60			0.60	14.65	50%	7.33	0.50	0.30
Single Tenant Office Building	715	1,000 SF GFA	1.71			1.71	14.65	50%	7.33	0.50	0.86
Medical-Dental Office	720	1,000 SF GFA	3.46			3.46	9.85	50%	4.93	0.50	1.73
Office Park	750	1,000 SF GFA	1.07	<u> </u>		1.07	14.65	50%	7.33	0.50	0.54
COMMERCIAL											
Automobile Related	940	1,000 CE CEA	2.42	200/	- P	1.04	5.00	500/	200	0.50	0.07
Automobile Sales (New) Automobile Parts Sales	840 843	1,000 SF GFA 1,000 SF GFA	2.43 4.91	20% 43%	B A	1.94 2.80	5.60 4.45	50% 50%	2.80	0.50	0.97
Tire Store	848	1,000 SF GFA	3.98	28%	A	2.87	4.45	0.50	2.23	0.50	1.40
Quick Lubrication Vehicle Shop	941	Servicing Positions	4.85	40%	В	2.91	4.45	50%	2.23	0.50	1.46
Automobile Care Center	942	1,000 SF GLA	3.11	40%	В	1.87	4.45	50%	2.23	0.50	0.94
Gasoline / Service Station	944	Vehicle Fueling Positions	14.03	42%	A	8.14	1.20	50%	0.60	0.50	4.07
Gasoline / Service Station w/ Convenience Market	945	Vehicle Fueling Positions	13.99	56%	A	6.16	1.20	50%	0.60	0.50	3.08
Self-Service Car Wash	947	Stalls	5.54	40%	В	3.32	1.20	50%	0.60	0.50	1.66
Dining											
Quality Restaurant	931	1,000 SF GFA	7.80	44%	A	4.37	5.64	50%	2.82	0.50	2.19
High Tumover (Sit-Down) Restaurant	932	1,000 SF GFA	9.77	43%	A	5.57	5.64	50%	2.82	0.50	2.79
Fast Food Restaurant without Drive-Thru Window	933	1,000 SF GFA	28.34	50%	В	14.17	5.64	50%	2.82	0.50	7.09
Fast Food Restaurant with Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window	934 937	1,000 SF GFA 1,000 SF GFA	32.67 43.38	50% 70%	A B	16.34 13.01	5.64	50%	2.82	0.50	8.17
Other Retail	93/	1,000 SF UFA	45.38	70%	ď	15.01	5.64	JU%	2.82	0.30	6.51
Free-Standing Discount Store	815	1,000 SF GFA	4.83	30%	С	3.38	5.60	50%	2.80	0.50	1.69
Nursery (Garden Center)	817	1,000 SF GFA	6.94	30%	В	4.86	5.60	50%	2.80	0.50	2.43
Shopping Center	820	1,000 SF GLA	3.81	34%	A	2.51	5.60	50%	2.80	0.50	1.26
Supermarket	850	1,000 SF GFA	9.24	36%	A	5.91	5.60	50%	2.80	0.50	2.96
Home Improvement Superstore	862	1,000 SF GFA	2.33	42%	A	1.35	5.60	50%	2.80	0.50	0.68
Toy / Children's Superstore	864	1,000 SF GFA	5.00	30%	В	3.50	5.60	50%	2.80	0.50	1.75
Department Store	875	1,000 SF GFA	1.95	30%	В	1.37	5.60	50%	2.80	0.50	0.69
Pharmacy / Drugstore without Drive-Thru Window	880	1,000 SF GFA	8.51	53%	A	4.00	5.60	50%	2.80	0.50	2.00
Pharmacy / Drugstore with Drive-Thru Window	881	1,000 SF GFA	10.29	49%	A	5.25	5.60	50%	2.80	0.50	2.63
SERVICES		1,000,00									
Walk-In Bank	911	1,000 SF GFA	12.13	40%	В	7.28	4.45	50%	2.23	0.50	3.64
Drive-In Bank Hair Salon	912	Drive-in Lanes	27.15	35%	A	17.65	4.45	50%	2.23	0.50	8.83
	918	1,000 SF GFA	1.45	30%	В	1.02	6.41	50%	3.21	0.50	0.51

A: ITE Trip Generation Handbook 3rd Edition (September 2017)
B: Estimated by Kimley-Horn based on ITE rates for similar categories

C: ITE rate adjusted upward by KHA based on logical relationship to other categories





Table 11.B. Service Area B - Land Use / Vehicle-Mile Equivalency Table (LUVMET)

Land Use Category	ITE Land Use Code	Development Unit	Trip Gen Rate (PM)	Pass- by Rate	Pass-by Source	Trip Rate	Trip Length (mi)	Adj. For O-D	Adj. Trip Length (mi)	Max Trip Length (mi) SA - B	Veh-Mi
PORT AND TERMINAL										1.30	
Truck Terminal	030	1,000 SF GFA	1.87			1.87	10.02	50%	5.01	1.30	2.43
INDUSTRIAL		.,									
General Light Industrial	110	1,000 SF GFA	0.63			0.63	10.02	50%	5.01	1.30	0.82
Industrial Park	130	1,000 SF GFA	0.40			0.40	10.02	50%	5.01	1.30	0.52
Warehousing	150	1,000 SF GFA	0.19			0.19	10.02	50%	5.01	1.30	0.25
Mini-Warehouse	151	1,000 SF GFA	0.17			0.17	10.02	50%	5.01	1.30	0.22
RESIDENTIAL	210	Dwelling Unit	0.99			0.99	9.79	50%	4.90	1.30	1.29
Single-Family Detached Housing Townhomes	220	Dwelling Unit	0.56			0.56	9.79	50%	4.90	1.30	0.73
Multifamily Housing (Low-Rise)	220	Dwelling Unit	0.56			0.56	9.79	50%	4.90	1.30	0.73
Multifamily Housing (Mid-Rise)	221	Dwelling Unit	0.44			0.44	9.79	50%	4.90	1.30	0.73
Multifamily Housing (High-Rise)	222	Dwelling Unit	0.36			0.36	9.79	50%	4.90	1.30	0.47
Mid-Rise Residential with 1st Floor Commercial	231	Dwelling Unit	0.36			0.36	9.79	50%	4.90	1.30	0.47
Mobile Home Park / Manufactured Housing	240	Dwelling Unit	0.46			0.46	9.79	50%	4.90	1.30	0.60
Senior Adult Housing-Detached	251	Dwelling Unit	0.30			0.30	9.79	50%	4.90	1.30	0.39
Senior Adult Housing-Attached	252	Dwelling Unit	0.26	-4		0.26	9.79	50%	4.90	1.30	0.34
Congregate Care Facility	253 254	Dwelling Unit	0.18			0.18	9.79	50%	4.90	1.30	0.23
Assisted Living LODGING	234	Beds	0.26			0.26	9.79	50%	4.90	1.30	0.34
Hotel	310	Rooms	0.60			0.60	6.43	50%	3.22	1.30	0.78
Motel / Other Lodging Facilities	320	Rooms	0.38			0.38	6.43	50%	3.22	1.30	0.49
RECREATIONAL											
Golf Course	430	Holes	2.91			2.91	7.86	50%	3.93	1.30	3.78
Miniature Golf Course	431	Holes	0.33			0.33	7.86	50%	3.93	1.30	0.43
Golf Driving Range	432	Driving Positions	1.25			1.25	7.86	50%	3.93	1.30	1.63
Multiplex Movie Theater	445	Screens	13.73			13.73	15.77	50%	7.89	1.30	17.85
Ice Skating Rink	465	1,000 SF GFA	1.33			1.33	7.86	50%	3.93	1.30	1.73
Racquet / Tennis Club	491	Courts	3.82			3.82	7.86	50%	3.93	1.30	4.97
Recreational Community Center INSTITUTIONAL	495	1,000 SF GFA	2.31			2.31	7.86	50%	3.93	1.30	3.00
Elementary School	520	Students	0.17			0.17	3.49	50%	1.75	1.30	0.22
Middle School / Junior High School	522	Students	0.17			0.17	3.49	50%	1.75	1.30	0.22
High School	530	Students	0.14			0.14	3.49	50%	1.75	1.30	0.18
Junior / Community College	540	Students	0.11			0.11	10.44	50%	5.22	1.30	0.14
University / College	550	Students	0.15		7	0.15	10.44	50%	5.22	1.30	0.20
Church	560	1,000 SF GFA	0.49			0.49	8.31	50%	4.16	1.30	0.64
Day Care Center	565	1,000 SF GFA	11.12	44%	В	6.23	3.49	50%	1.75	1.30	8.10
MEDICAL	610		1.00			1.00	0.05	500/	4.02	1.20	2.45
Hospital	610	Beds	0.22			1.89 0.22	9.85 9.85	50%	4.93 4.93	1.30	2.46
Nursing Home Clinic	620	Beds 1,000 SF GFA	3.28			3.28	9.85	50%	4.93	1.30	0.29 4.26
Animal Hospital / Veterinary Clinic	640	1,000 SF GFA	3,53	30%	В	2.47	9.85	50%	4.93	1.30	3.21
OFFICE											
General Office Building	710	1,000 SF GFA	1.15			1.15	14.65	50%	7.33	1.30	1.50
Corporate Headquarters Building	714	1,000 SF GFA	0.60			0.60	14.65	50%	7.33	1.30	0.78
Single Tenant Office Building	715	1,000 SF GFA	1.71			1.71	14.65	50%	7.33	1.30	2.22
Medical-Dental Office	720	1,000 SF GFA	3.46			3.46	9.85	50%	4.93	1.30	4.50
Office Park	750	1,000 SF GFA	1.07			1.07	14.65	50%	7.33	1.30	1.39
COMMERCIAL Automobile Related											
Automobile Sales (New)	840	1,000 SF GFA	2.43	20%	В	1.94	5.60	50%	2.80	1.30	2.52
Automobile Sales (New) Automobile Parts Sales	843	1,000 SF GFA	4.91	43%	A	2.80	4.45	50%	2.23	1.30	3.64
Tire Store	848	1,000 SF GFA	3.98	28%	A	2.87	4.45	0.50	2.23	1.30	3.73
Quick Lubrication Vehicle Shop	941	Servicing Positions	4.85	40%	В	2.91	4.45	50%	2.23	1.30	3.78
Automobile Care Center	942	1,000 SF GLA	3.11	40%	В	1.87	4.45	50%	2.23	1.30	2.43
Gasoline / Service Station	944	Vehicle Fueling Positions	14.03	42%	A	8.14	1.20	50%	0.60	0.60	4.88
Gasoline / Service Station w/ Convenience Market	945	Vehicle Fueling Positions	13.99	56%	A	6.16	1.20	50%	0.60	0.60	3.70
Self-Service Car Wash	947	Stalls	5.54	40%	В	3.32	1.20	50%	0.60	0.60	1.99
Dining Ouglity Pastourent	931	1,000 SF GFA	7 90	44%		4.37	5 61	50%	202	1.30	5 60
Quality Restaurant High Tumover (Sit-Down) Restaurant	931	1,000 SF GFA 1,000 SF GFA	7.80 9.77	43%	A A	5.57	5.64 5.64	50%	2.82	1.30	5.68 7.24
Fast Food Restaurant without Drive-Thru Window	932	1,000 SF GFA	28.34	50%	B	14.17	5.64	50%	2.82	1.30	18.42
Fast Food Restaurant with Drive-Thru Window	934	1,000 SF GFA	32.67	50%	A	16.34	5.64	50%	2.82	1.30	21.24
Coffee / Donut Shop with Drive-Thru Window	937	1,000 SF GFA	43.38	70%	В	13.01	5.64	50%	2.82	1.30	16.91
Other Retail											
Free-Standing Discount Store	815	1,000 SF GFA	4.83	30%	С	3.38	5.60	50%	2.80	1.30	4.39
Nursery (Garden Center)	817	1,000 SF GFA	6.94	30%	В	4.86	5.60	50%	2.80	1.30	6.32
Shopping Center	820	1,000 SF GLA	3.81	34%	A	2.51	5.60	50%	2.80	1.30	3.26
Supermarket	850	1,000 SF GFA	9.24	36%	A	5.91	5.60	50%	2.80	1.30	7.68
Home Improvement Superstore Toy / Children's Superstore	862	1,000 SF GFA	2.33	42%	A B	1.35	5.60	50%	2.80	1.30	1.76
	864	1,000 SF GFA 1,000 SF GFA	5.00 1.95	30%	В	3.50 1.37	5.60 5.60	50%	2.80	1.30	4.55 1.78
			1.93	JU70							5.20
Department Store	875 880		8 51	5396	Δ	4 (1)	5.60	50%	2.80	1 30	
Department Store Pharmacy / Drugstore without Drive-Thru Window	880	1,000 SF GFA	8.51 10.29	53% 49%	A A	4.00 5.25	5.60 5.60	50%	2.80	1.30	
Department Store Pharmacy / Drugstore without Drive-Thru Window Pharmacy / Drugstore with Drive-Thru Window			8.51 10.29	53% 49%	A	5.25	5.60 5.60	50%	2.80	1.30	6.83
Department Store Pharmacy / Drugstore without Drive-Thru Window	880	1,000 SF GFA	10.29								
Department Store Pharmacy / Drugstore without Drive-Thru Window Pharmacy / Drugstore with Drive-Thru Window SERVICES	880 881	1,000 SF GFA 1,000 SF GFA		49%	A	5.25	5.60	50%	2.80	1.30	6.83

A: ITE Trip Generation Handbook 3rd Edition (September 2017)
B: Estimated by Kimley-Horn based on ITE rates for similar categories

C: ITE rate adjusted upward by KHA based on logical relationship to other categories





Table 11.C. Service Area C - Land Use / Vehicle-Mile Equivalency Table (LUVMET)

Table 11.C. Service Area C	, - Lai	iu use / ve	писте	-IVII	IE E	_l uIV	arency	ıal	ne (L	_U V IV	
Land Use Category	ITE Land Use Code	Development Unit	Trip Gen Rate (PM)	Pass- by Rate	Pass-by Source	Trip Rate	Trip Length (mi)	Adj. For O-D	Adj. Trip Length (mi)	Max Trip Length (mi) SA-C	Veh-Mi Per Dev- Unit SA - C
DODE AND TEDMINAL										4.00	
PORT AND TERMINAL Truck Terminal	030	1,000 SF GFA	1.87			1.87	10.02	50%	5.01	4.00	7.48
INDUSTRIAL	030	1,000 01 011	1.07			1.07	10.02	3070	3.01	1.00	7.10
General Light Industrial	110	1,000 SF GFA	0.63			0.63	10.02	50%	5.01	4.00	2.52
Industrial Park	130	1,000 SF GFA	0.40			0.40	10.02	50%	5.01	4.00	1.60
Warehousing Mini-Warehouse	150 151	1,000 SF GFA 1,000 SF GFA	0.19			0.19	10.02	50%	5.01	4.00	0.76
RESIDENTIAL	131	1,000 51 G171	0.17			0.17	10.02	5070	5.01	4.00	0.00
Single-Family Detached Housing	210	Dwelling Unit	0.99	***************************************		0.99	9.79	50%	4.90	4.00	3.96
Townhomes	220	Dwelling Unit	0.56			0.56	9.79	50%	4.90	4.00	2.24
Multifamily Housing (Low-Rise)	220	Dwelling Unit Dwelling Unit	0.56			0.56	9.79	50%	4.90	4.00	2.24
Multifamily Housing (Mid-Rise) Multifamily Housing (High-Rise)	221 222	Dwelling Unit	0.44			0.44	9.79 9.79	50% 50%	4.90 4.90	4.00	1.76
Mid-Rise Residential with 1st Floor Commercial	231	Dwelling Unit	0.36	***************************************		0.36	9.79	50%	4.90	4.00	1.44
Mobile Home Park / Manufactured Housing	240	Dwelling Unit	0.46			0.46	9.79	50%	4.90	4.00	1.84
Senior Adult Housing-Detached	251	Dwelling Unit	0.30			0.30	9.79	50%	4.90	4.00	1.20
Senior Adult Housing-Attached	252	Dwelling Unit	0.26	-4		0.26	9.79	50%	4.90	4.00	1.04
Congregate Care Facility Assisted Living	253 254	Dwelling Unit Beds	0.18			0.18	9.79 9.79	50%	4.90	4.00	0.72 1.04
LODGING	/-	2503	5.20			5.20	7.17	5070			1.04
Hotel	310	Rooms	0.60			0.60	6.43	50%	3.22	3.22	1.93
Motel / Other Lodging Facilities	320	Rooms	0.38			0.38	6.43	50%	3.22	3.22	1.22
RECREATIONAL	420	YY. 1	201			201	7.00	500/	2.02	2.02	11.44
Golf Course Miniature Golf Course	430 431	Holes Holes	2.91 0.33		_	2.91 0.33	7.86 7.86	50% 50%	3.93 3.93	3.93 3.93	11.44
Golf Driving Range	431	Driving Positions	1.25			1.25	7.86	50%	3.93	3.93	4.91
Multiplex Movie Theater	445	Screens	13.73			13.73	15.77	50%	7.89	4.00	54.92
Ice Skating Rink	465	1,000 SF GFA	1.33			1.33	7.86	50%	3.93	3.93	5.23
Racquet / Tennis Club	491	Courts	3.82			3.82	7.86	50%	3.93	3.93	15.01
Recreational Community Center INSTITUTIONAL	495	1,000 SF GFA	2.31			2.31	7.86	50%	3.93	3.93	9.08
Elementary School	520	Students	0.17			0.17	3.49	50%	1.75	1.75	0.30
Middle School / Junior High School	522	Students	0.17			0.17	3.49	50%	1.75	1.75	0.30
High School	530	Students	0.14			0.14	3.49	50%	1.75	1.75	0.25
Junior / Community College	540	Students	0.11			0.11	10.44	50%	5.22	4.00	0.44
University / College	550	Students 1,000 SF GFA	0.15			0.15	10.44 8.31	50%	5.22	4.00	0.60
Church Day Care Center	560 565	1,000 SF GFA	11.12	44%	В	6.23	3.49	50%	4.16 1.75	1.75	1.96
MEDICAL	500	1,000 51 (2.11	11.12	1170		0.20	5.19	5070	1.75	1.75	10.50
Hospital	610	Beds	1.89			1.89	9.85	50%	4.93	4.00	7.56
Nursing Home	620	Beds	0.22			0.22	9.85	50%	4.93	4.00	0.88
Clinic Animal Hospital / Veterinary Clinic	630 640	1,000 SF GFA 1,000 SF GFA	3.28	30%	В	3.28 2.47	9.85 9.85	50%	4.93	4.00	13.12 9.88
OFFICE	040	1,000 SF GFA	3.33	3070	ь	2.47	9.63	30%	4.93	4.00	9.00
General Office Building	710	1,000 SF GFA	1.15			1.15	14.65	50%	7.33	4.00	4.60
Corporate Headquarters Building	714	1,000 SF GFA	0.60			0.60	14.65	50%	7.33	4.00	2.40
Single Tenant Office Building	715	1,000 SF GFA	1.71			1.71	14.65	50%	7.33	4.00	6.84
Medical-Dental Office Office Park	720 750	1,000 SF GFA	3.46			3.46 1.07	9.85	50% 50%	4.93 7.33	4.00	13.84 4.28
COMMERCIAL	730	1,000 SF GFA	1.07			1.07	14.65	30%	1.33	4.00	4.20
Automobile Related											
Automobile Sales (New)	840	1,000 SF GFA	2.43	20%	В	1.94	5.60	50%	2.80	2.80	5.43
Automobile Parts Sales	843	1,000 SF GFA	4.91	43%	A	2.80	4.45	50%	2.23	2.23	6.24
Tire Store	848	1,000 SF GFA	3.98	28%	A	2.87	4.45	0.50	2.23	2.23	6.40
Quick Lubrication Vehicle Shop Automobile Care Center	941 942	Servicing Positions 1,000 SF GLA	4.85 3.11	40%	B B	2.91	4.45 4.45	50% 50%	2.23	2.23	6.49 4.17
Gasoline / Service Station	944	Vehicle Fueling Positions	14.03	42%	A	8.14	1.20	50%	0.60	0.60	4.88
Gasoline / Service Station w/ Convenience Market	945	Vehicle Fueling Positions	13.99	56%	A	6.16	1.20	50%	0.60	0.60	3.70
Self-Service Car Wash	947	Stalls	5.54	40%	В	3.32	1.20	50%	0.60	0.60	1.99
Dining Quality Restaurant	931	1,000 SF GFA	7.80	44%	A	4.37	5.64	50%	2.82	2.82	12.32
High Tumover (Sit-Down) Restaurant	931	1,000 SF GFA 1,000 SF GFA	9.77	43%	A	5.57	5.64	50%	2.82	2.82	15.71
Fast Food Restaurant without Drive-Thru Window	933	1,000 SF GFA	28.34	50%	В	14.17	5.64	50%	2.82	2.82	39.96
Fast Food Restaurant with Drive-Thru Window	934	1,000 SF GFA	32.67	50%	A	16.34	5.64	50%	2.82	2.82	46.08
Coffee / Donut Shop with Drive-Thru Window	937	1,000 SF GFA	43.38	70%	В	13.01	5.64	50%	2.82	2.82	36.69
Other Retail	015	1,000 00 004	4.02	200/		2 20	5.00	500/	200	200	0.46
Free-Standing Discount Store Nursery (Garden Center)	815 817	1,000 SF GFA 1,000 SF GFA	4.83 6.94	30%	C B	3.38 4.86	5.60	50% 50%	2.80	2.80	9.46 13.61
Shopping Center	820	1,000 SF GLA	3.81	34%	A	2.51	5.60	50%	2.80	2.80	7.03
Supermarket	850	1,000 SF GFA	9.24	36%	A	5.91	5.60	50%	2.80	2.80	16.55
Home Improvement Superstore	862	1,000 SF GFA	2.33	42%	A	1.35	5.60	50%	2.80	2.80	3.78
Toy / Children's Superstore	864 875	1,000 SF GFA 1,000 SF GFA	5.00 1.95	30%	B B	3.50 1.37	5.60	50%	2.80	2.80	9.80 3.84
Department Store Pharmacy / Drug store without Drive-Thru Window	880	1,000 SF GFA 1,000 SF GFA	8.51	53%	A	4.00	5.60	50%	2.80	2.80	11.20
Pharmacy / Drugstore with Drive-Thru Window Pharmacy / Drugstore with Drive-Thru Window	881	1,000 SF GFA	10.29	49%	A	5.25	5.60	50%	2.80	2.80	14.70
SERVICES											
Walk-In Bank	911	1,000 SF GFA	12.13	40%	В	7.28	4.45	50%	2.23	2.23	16.23
Drive-In Bank	912	Drive-in Lanes	27.15	35%	A	17.65	4.45	50%	2.23	2.23	39.36
Hair Salon	918	1,000 SF GFA	1.45	30%	В	1.02	6.41	50%	3.21	3.21	3.27

B: TE Trip Generation Handbook 3rd Edition (September 2017)
B: Estimated by Kimley-Horn based on ITE rates for similar categories
C: ITE rate adjusted upward by KHA based on logical relationship to other categories





Table 11 D. Service Area D.-Land Use / Vehicle-Mile Equivalency Table (LUVMFT)

Land Use Category	ITE Land Use Code	Development Unit	Trip Gen Rate (PM)	Pass- by Rate	Pass-by Source	Trip Rate	Trip Length (mi)	Adj. For O-D	Adj. Trip Length (mi)	Max Trip Length (mi) SA-D	Veh-Mi Per Dev- Unit SA - D
PORT AND TERMINAL										6.00	-
Truck Terminal	030	1,000 SF GFA	1.87			1.87	10.02	50%	5.01	5.01	9.37
INDUSTRIAL											
General Light Industrial	110	1,000 SF GFA	0.63			0.63	10.02	50%	5.01	5.01	3.16
Industrial Park Warehousing	130 150	1,000 SF GFA 1,000 SF GFA	0.40			0.40	10.02 10.02	50%	5.01	5.01 5.01	2.00 0.95
Mini-Warehouse	151	1,000 SF GFA	0.19			0.19	10.02	50%	5.01	5.01	0.95
RES IDENTIAL		1,000 00 00 10									
Single-Family Detached Housing	210	Dwelling Unit	0.99	***************************************		0.99	9.79	50%	4.90	4.90	4.85
Townhomes	220	Dwelling Unit	0.56			0.56	9.79	50%	4.90	4.90	2.74
Multifamily Housing (Low-Rise) Multifamily Housing (Mid-Rise)	220 221	Dwelling Unit Dwelling Unit	0.56 0.44			0.56	9.79 9.79	50% 50%	4.90 4.90	4.90 4.90	2.74
Multifamily Housing (Mid-Rise) Multifamily Housing (High-Rise)	222	Dwelling Unit	0.36			0.36	9.79	50%	4.90	4.90	1.76
Mid-Rise Residential with 1st Floor Commercial	231	Dwelling Unit	0.36			0.36	9.79	50%	4.90	4.90	1.76
Mobile Home Park / Manufactured Housing	240	Dwelling Unit	0.46			0.46	9.79	50%	4.90	4.90	2.25
Senior Adult Housing-Detached	251	Dwelling Unit	0.30			0.30	9.79	50%	4.90	4.90	1.47
Senior Adult Housing-Attached	252 253	Dwelling Unit	0.26	-		0.26	9.79 9.79	50%	4.90 4.90	4.90 4.90	1.27 0.88
Congregate Care Facility Assisted Living	254	Dwelling Unit Beds	0.18			0.16	9.79	50%	4.90	4.90	1.27
LODGING		2000	520			3.20	,	2070		0	1.21
Hotel	310	Rooms	0.60			0.60	6.43	50%	3.22	3.22	1.93
Motel / Other Lodging Facilities	320	Rooms	0.38			0.38	6.43	50%	3.22	3.22	1.22
RECREATIONAL	420	11-1	201			201	7.06	5001	2.02	202	11.4.
Golf Course Miniature Golf Course	430 431	Holes Holes	2.91 0.33	ļ		2.91 0.33	7.86 7.86	50% 50%	3.93 3.93	3.93 3.93	11.44
Golf Driving Range	431	Driving Positions	1.25			1.25	7.86	50%	3.93	3.93	4.91
Multiplex Movie Theater	445	Screens	13.73	l		13.73	15.77	50%	7.89	6.00	82.38
Ice Skating Rink	465	1,000 SF GFA	1.33			1.33	7.86	50%	3.93	3.93	5.23
Racquet / Tennis Club	491	Courts	3.82			3.82	7.86	50%	3.93	3.93	15.01
Recreational Community Center	495	1,000 SF GFA	2.31			2.31	7.86	50%	3.93	3.93	9.08
INSTITUTIONAL Street	520	Condons	0.17			0.17	3.49	500/	1.75	1.75	0.20
Elementary School Middle School / Junior High School	520 522	Students Students	0.17			0.17	3.49	50% 50%	1.75 1.75	1.75	0.30
High School	530	Students	0.14			0.14	3.49	50%	1.75	1.75	0.25
Junior / Community College	540	Students	0.11			0.11	10.44	50%	5.22	5.22	0.57
University / College	550	Students	0.15		_	0.15	10.44	50%	5.22	5.22	0.78
Church	560	1,000 SF GFA	0.49			0.49	8.31	50%	4.16	4.16	2.04
Day Care Center MEDICAL	565	1,000 SF GFA	11.12	44%	В	6.23	3.49	50%	1.75	1.75	10.90
Hospital	610	Beds	1.89			1.89	9.85	50%	4.93	4.93	9.32
Nursing Home	620	Beds	0.22			0.22	9.85	50%	4.93	4.93	1.08
Clinic	630	1,000 SF GFA	3.28			3.28	9.85	50%	4.93	4.93	16.17
Animal Hospital / Veterinary Clinic	640	1,000 SF GFA	3.53	30%	В	2.47	9.85	50%	4.93	4.93	12.18
OFFICE	710	1 000 GE GE4	1.15			1 15	14.55	500/	7.22	5.00	5.00
General Office Building Corporate Headquarters Building	710 714	1,000 SF GFA 1,000 SF GFA	0.60			1.15 0.60	14.65 14.65	50% 50%	7.33 7.33	6.00	6.90 3.60
Single Tenant Office Building	715	1,000 SF GFA	1.71			1.71	14.65	50%	7.33	6.00	10.26
Medical-Dental Office	720	1,000 SF GFA	3.46			3.46	9.85	50%	4.93	4.93	17.06
Office Park	750	1,000 SF GFA	1.07			1.07	14.65	50%	7.33	6.00	6.42
COMMERCIAL											
Automobile Related Automobile Sales (New)	840	1,000 SF GFA	2.43	20%	В	1.94	5.60	50%	2.80	2.80	5.43
Automobile Sales (New) Automobile Parts Sales	840	1,000 SF GFA 1,000 SF GFA	4.91	43%	A A	2.80	5.60 4.45	50%	2.80	2.80	6.24
Tire Store	848	1,000 SF GFA	3.98	28%	A	2.87	4.45	0.50	2.23	2.23	6.40
Quick Lubrication Vehicle Shop	941	Servicing Positions	4.85	40%	В	2.91	4.45	50%	2.23	2.23	6.49
Automobile Care Center	942	1,000 SF GLA	3.11	40%	В	1.87	4.45	50%	2.23	2.23	4.17
Gasoline / Service Station Gasoline / Service Station w/ Convenience Market	944 945	Vehicle Fueling Positions	14.03 13.99	42% 56%	A	8.14	1.20	50% 50%	0.60	0.60	4.88 3.70
Self-Service Car Wash	945	Vehicle Fueling Positions Stalls	5.54	40%	A B	6.16 3.32	1.20	50%	0.60	0.60	1.99
Dining	, , , , , , , , , , , , , , , , , , ,	Stans	J.J.	7,70		2.22	1.20	20/0	0.00	0.00	1.99
Quality Restaurant	931	1,000 SF GFA	7.80	44%	A	4.37	5.64	50%	2.82	2.82	12.32
High Tumover (Sit-Down) Restaurant	932	1,000 SF GFA	9.77	43%	A	5.57	5.64	50%	2.82	2.82	15.71
Fast Food Restaurant without Drive-Thru Window	933	1,000 SF GFA	28.34	50%	В	14.17	5.64	50%	2.82	2.82	39.96
Fast Food Restaurant with Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window	934 937	1,000 SF GFA 1,000 SF GFA	32.67 43.38	50% 70%	A B	16.34 13.01	5.64 5.64	50% 50%	2.82	2.82	46.08 36.69
Other Retail	/31	1,000 DI GITI	.5.50	7.570		15.01	5.04	50/0	2.02	2.02	33.03
Free-Standing Discount Store	815	1,000 SF GFA	4.83	30%	С	3.38	5.60	50%	2.80	2.80	9.46
Nursery (Garden Center)	817	1,000 SF GFA	6.94	30%	В	4.86	5.60	50%	2.80	2.80	13.61
Shopping Center	820	1,000 SF GLA	3.81	34%	A	2.51	5.60	50%	2.80	2.80	7.03
Supermarket	850	1,000 SF GFA 1,000 SF GFA	9.24	36%	A	5.91	5.60	50%	2.80	2.80	16.55
Home Improvement Superstore Toy / Children's Superstore	862 864	1,000 SF GFA 1,000 SF GFA	2.33 5.00	42% 30%	A B	1.35 3.50	5.60 5.60	50% 50%	2.80	2.80	3.78 9.80
Department Store	875	1,000 SF GFA	1.95	30%	В	1.37	5.60	50%	2.80	2.80	3.84
Pharmacy / Drugstore without Drive-Thru Window	880	1,000 SF GFA	8.51	53%	A	4.00	5.60	50%	2.80	2.80	11.20
Pharmacy / Drugstore with Drive-Thru Window	881	1,000 SF GFA	10.29	49%	A	5.25	5.60	50%	2.80	2.80	14.70
SERVICES		1.000 5		40							
Walk-In Bank	911	1,000 SF GFA	12.13	40%	В	7.28	4.45	50%	2.23	2.23	16.23
Drive-In Bank	912	Drive-in Lanes	27.15	35%	A	17.65	4.45	50%	2.23	2.23	39.36
Hair Salon	918	1,000 SF GFA	1.45	30%	В	1.02	6.41	50%	3.21	3.21	3.27

B: TE Trip Generation Handbook 3rd Edition (September 2017)
B: Estimated by Kimley-Horn based on ITE rates for similar categories
C: ITE rate adjusted upward by KHA based on logical relationship to other categories





Table 11.E. Service Area E - Land Use / Vehicle-Mile Equivalency Table (LUVMET)

Land Use Category	ITE Land Use Code	Development Unit	Trip Gen Rate (PM)	Pass- by Rate	Pass-by Source	Trip Rate	Trip Length (mi)	Adj. For O-D	Adj. Trip Length (mi)	Max Trip Length (mi) SA - E	Veh-Mi Per Dev- Unit SA - E
PORT AND TERMINAL										4.80	
Truck Terminal	030	1,000 SF GFA	1.87			1.87	10.02	50%	5.01	4.80	8.98
INDUSTRIAL	030	1,000 51 GI 71	1.07			1.07	10.02	3070	5.01	4.00	0.70
General Light Industrial	110	1,000 SF GFA	0.63			0.63	10.02	50%	5.01	4.80	3.02
Industrial Park	130	1,000 SF GFA	0.40			0.40	10.02	50%	5.01	4.80	1.92
Warehousing	150	1,000 SF GFA	0.19	***************************************		0.19	10.02	50%	5.01	4.80	0.91
Mini-Warehouse	151	1,000 SF GFA	0.17			0.17	10.02	50%	5.01	4.80	0.82
RESIDENTIAL											
Single-Family Detached Housing	210	Dwelling Unit	0.99			0.99	9.79	50%	4.90	4.80	4.75
Townhomes	220	Dwelling Unit	0.56			0.56	9.79	50%	4.90	4.80	2.69
Multifamily Housing (Low-Rise) Multifamily Housing (Mid-Rise)	220 221	Dwelling Unit Dwelling Unit	0.56 0.44			0.56	9.79 9.79	50% 50%	4.90 4.90	4.80	2.69
Multifamily Housing (High-Rise)	222	Dwelling Unit	0.36			0.36	9.79	50%	4.90	4.80	1.73
Mid-Rise Residential with 1st Floor Commercial	231	Dwelling Unit	0.36			0.36	9.79	50%	4.90	4.80	1.73
Mobile Home Park / Manufactured Housing	240	Dwelling Unit	0.46			0.46	9.79	50%	4.90	4.80	2.21
Senior Adult Housing-Detached	251	Dwelling Unit	0.30			0.30	9.79	50%	4.90	4.80	1.44
Senior Adult Housing-Attached	252	Dwelling Unit	0.26			0.26	9.79	50%	4.90	4.80	1.25
Congregate Care Facility	253	Dwelling Unit	0.18			0.18	9.79	50%	4.90	4.80	0.86
Assisted Living	254	Beds	0.26		_	0.26	9.79	50%	4.90	4.80	1.25
LODGING	210	D	0.50			0.70			2.22	2.22	1.00
Hotel Motel / Other Lodeine Facilities	310	Rooms	0.60			0.60	6.43	50%	3.22	3.22	1.93
Motel / Other Lodging Facilities	320	Rooms	0.38			0.38	6.43	50%	3.22	3.22	1.22
RECREATIONAL Golf Course	430	Holes	2.91			2.91	7.86	50%	3.93	3.93	11.44
Miniature Golf Course	430	Holes	0.33		1	0.33	7.86	50%	3.93	3.93	1.30
Golf Driving Range	432	Driving Positions	1.25			1.25	7.86	50%	3.93	3.93	4.91
Multiplex Movie Theater	445	Screens	13.73			13.73	15.77	50%	7.89	4.80	65.90
Ice Skating Rink	465	1,000 SF GFA	1.33			1.33	7.86	50%	3.93	3.93	5.23
Racquet / Tennis Club	491	Courts	3.82			3.82	7.86	50%	3.93	3.93	15.01
Recreational Community Center	495	1,000 SF GFA	2.31			2.31	7.86	50%	3.93	3.93	9.08
INSTITUTIONAL											
Elementary School	520	Students	0.17			0.17	3.49	50%	1.75	1.75	0.30
Middle School / Junior High School	522	Students	0.17			0.17	3.49	50%	1.75	1.75	0.30
High School	530	Students	0.14			0.14	3.49	50%	1.75	1.75	0.25
Junior / Community College	540 550	Students Students	0.11			0.11	10.44 10.44	50%	5.22 5.22	4.80	0.53
University / College	560	1,000 SF GFA	0.13	_		0.13	8.31	50%	4.16	4.16	2.04
Church Day Care Center	565	1,000 SF GFA	11.12	44%	В	6.23	3.49	50%	1.75	1.75	10.90
MEDICAL	303	1,000 SI GIA	11.12	4470	ь	0.23	3.49	3070	1.75	1.75	10.90
Hospital	610	Beds	1.89			1.89	9.85	50%	4.93	4.80	9.07
Nursing Home	620	Beds	0.22			0.22	9.85	50%	4.93	4.80	1.06
Clinic	630	1,000 SF GFA	3.28			3.28	9.85	50%	4.93	4.80	15.74
Animal Hospital / Veterinary Clinic	640	1,000 SF GFA	3,53	30%	В	2.47	9.85	50%	4.93	4.80	11.86
OFFICE		\									
General Office Building	710	1,000 SF GFA	1.15			1.15	14.65	50%	7.33	4.80	5.52
Corporate Headquarters Building	714	1,000 SF GFA	0.60			0.60	14.65	50%	7.33	4.80	2.88
Single Tenant Office Building	715	1,000 SF GFA	1.71			1.71	14.65	50%	7.33	4.80	8.21
Medical-Dental Office Office Park	720 750	1,000 SF GFA 1,000 SF GFA	3.46			3.46 1.07	9.85 14.65	50%	4.93 7.33	4.80	16.61 5.14
COMMERCIAL	730	1,000 SF GFA	1.07	-		1.07	14.00	JU70	1.33	4.00	3.14
Automobile Related											
Automobile Sales (New)	840	1,000 SF GFA	2.43	20%	В	1.94	5.60	50%	2.80	2.80	5.43
Automobile Parts Sales	843	1,000 SF GFA	4.91	43%	A	2.80	4.45	50%	2.23	2.23	6.24
Tire Store	848	1,000 SF GFA	3.98	28%	A	2.87	4.45	0.50	2.23	2.23	6.40
Quick Lubrication Vehicle Shop	941	Servicing Positions	4.85	40%	В	2.91	4.45	50%	2.23	2.23	6.49
Automobile Care Center	942	1,000 SF GLA	3.11	40%	В	1.87	4.45	50%	2.23	2.23	4.17
Gasoline / Service Station	944	Vehicle Fueling Positions	14.03	42%	A	8.14	1.20	50%	0.60	0.60	4.88
Gasoline / Service Station w/ Convenience Market	945	Vehicle Fueling Positions	13.99	56%	A	6.16	1.20	50%	0.60	0.60	3.70
Self-Service Car Wash Dining	947	Stalls	5.54	40%	В	3.32	1.20	50%	0.60	0.60	1.99
Quality Restaurant	931	1,000 SF GFA	7.80	44%	A	4.37	5.64	50%	2.82	2.82	12.32
High Tumover (Sit-Down) Restaurant	932	1,000 SF GFA	9.77	43%	A	5.57	5.64	50%	2.82	2.82	15.71
Fast Food Restaurant without Drive-Thru Window	933	1,000 SF GFA	28.34	50%	В	14.17	5.64	50%	2.82	2.82	39.96
Fast Food Restaurant with Drive-Thru Window	934	1,000 SF GFA	32.67	50%	A	16.34	5.64	50%	2.82	2.82	46.08
Coffee / Donut Shop with Drive-Thru Window	937	1,000 SF GFA	43.38	70%	В	13.01	5.64	50%	2.82	2.82	36.69
Other Retail											
Free-Standing Discount Store	815	1,000 SF GFA	4.83	30%	C	3.38	5.60	50%	2.80	2.80	9.46
Nursery (Garden Center)	817	1,000 SF GFA	6.94	30%	В	4.86	5.60	50%	2.80	2.80	13.61
Shopping Center	820	1,000 SF GLA	3.81	34%	A	2.51	5.60	50%	2.80	2.80	7.03
Supermarket	850	1,000 SF GFA	9.24	36%	A	5.91	5.60	50%	2.80	2.80	16.55
Home Improvement Superstore Toy / Children's Superstore	862 864	1,000 SF GFA 1,000 SF GFA	2.33 5.00	42% 30%	A B	1.35 3.50	5.60 5.60	50%	2.80 2.80	2.80	3.78 9.80
Department Store	875	1,000 SF GFA	1.95	30%	В	1.37	5.60	50%	2.80	2.80	3.84
Pharmacy / Drugstore without Drive-Thru Window	880	1,000 SF GFA	8.51	53%	A	4.00	5.60	50%	2.80	2.80	11.20
Pharmacy / Drugstore without Drive-Thru Window	881	1,000 SF GFA	10.29	49%	A	5.25	5.60	50%	2.80	2.80	14.70
SERVICES		,									
Walk-In Bank	911	1,000 SF GFA	12.13	40%	В	7.28	4.45	50%	2.23	2.23	16.23
Drive-In Bank	912	Drive-in Lanes	27.15	35%	A	17.65	4.45	50%	2.23	2.23	39.36
Dive-in Bank											

A: ITE Trip Generation Handbook 3rd Edition (September 2017)
B: Estimated by Kimley-Horn based on ITE rates for similar categories

C: ITE rate adjusted upward by KHA based on logical relationship to other categories





Table 11.F. Service Area F - Land Use / Vehicle-Mile Equivalency Table (LUVMET)

Land Use Category	ITE Land Use Code	Development Unit	Trip Gen Rate (PM)	Pass- by Rate	Pass-by Source	Trip Rate	Trip Length (mi)	Adj. For O-D	Adj. Trip Length (mi)	Max Trip Length (mi) SA - F	Veh-Mi Per Dev- Unit SA - F
PORT AND TERMINAL										0.00	
Truck Terminal	030	1,000 SF GFA	1.87			1.87	10.02	50%	5.01	0.00	0.00
INDUSTRIAL											
General Light Industrial	110	1,000 SF GFA	0.63			0.63	10.02	50%	5.01	0.00	0.00
Industrial Park	130	1,000 SF GFA	0.40			0.40	10.02	50%	5.01	0.00	0.00
Warehousing	150	1,000 SF GFA	0.19			0.19	10.02	50%	5.01	0.00	0.00
Mini-Warehouse	151	1,000 SF GFA	0.17			0.17	10.02	50%	5.01	0.00	0.00
RES IDENTIAL Single-Family Detached Housing	210	Dwelling Unit	0.99			0.99	9.79	50%	4.90	0.00	0.00
Townhomes	220	Dwelling Unit	0.56			0.56	9.79	50%	4.90	0.00	0.00
Multifamily Housing (Low-Rise)	220	Dwelling Unit	0.56			0.56	9.79	50%	4.90	0.00	0.00
Multifamily Housing (Mid-Rise)	221	Dwelling Unit	0.44			0.44	9.79	50%	4.90	0.00	0.00
Multifamily Housing (High-Rise)	222	Dwelling Unit	0.36			0.36	9.79	50%	4.90	0.00	0.00
Mid-Rise Residential with 1st Floor Commercial	231	Dwelling Unit	0.36			0.36	9.79	50%	4.90	0.00	0.00
Mobile Home Park / Manufactured Housing	240	Dwelling Unit	0.46		4	0.46	9.79	50%	4.90	0.00	0.00
Senior Adult Housing-Detached	251	Dwelling Unit	0.30			0.30	9.79	50%	4.90	0.00	0.00
Senior Adult Housing-Attached	252	Dwelling Unit	0.26	-4		0.26	9.79	50%	4.90	0.00	0.00
Congregate Care Facility Assisted Living	253 254	Dwelling Unit Beds	0.18			0.18	9.79 9.79	50%	4.90 4.90	0.00	0.00
LODGING	4-ايد	Dous	0.20			0.20	7.17	5070	7.70	0.00	0.00
Hotel	310	Rooms	0.60			0.60	6.43	50%	3.22	0.00	0.00
Motel / Other Lodging Facilities	320	Rooms	0.38			0.38	6.43	50%	3.22	0.00	0.00
RECREATIONAL											00000000000
Golf Course	430	Holes	2.91			2.91	7.86	50%	3.93	0.00	0.00
Miniature Golf Course	431	Holes	0.33			0.33	7.86	50%	3.93	0.00	0.00
Golf Driving Range	432	Driving Positions	1.25			1.25	7.86	50%	3.93	0.00	0.00
Multiplex Movie Theater	445 465	Screens	13.73			13.73	15.77	50%	7.89	0.00	0.00
Ice Skating Rink Racquet / Tennis Club	491	1,000 SF GFA Courts	1.33 3.82			1.33 3.82	7.86 7.86	50%	3.93 3.93	0.00	0.00
Recreational Community Center	495	1,000 SF GFA	2.31			2.31	7.86	50%	3.93	0.00	0.00
INSTITUTIONAL	473	1,000 51 0171	2.31			2,31	7.00	3070	3.73	0.00	0.00
Elementary School	520	Students	0.17			0.17	3.49	50%	1.75	0.00	0.00
Middle School / Junior High School	522	Students	0.17			0.17	3.49	50%	1.75	0.00	0.00
High School	530	Students	0.14			0.14	3.49	50%	1.75	0.00	0.00
Junior / Community College	540	Students	0.11			0.11	10.44	50%	5.22	0.00	0.00
University / College	550	Students	0.15			0.15	10.44	50%	5.22	0.00	0.00
Church	560	1,000 SF GFA	0.49	1.10/		0.49	8.31	50%	4.16	0.00	0.00
Day Care Center MEDICAL	565	1,000 SF GFA	11.12	44%	В	6.23	3.49	50%	1.75	0.00	0.00
Hospital	610	Beds	1.89			1.89	9.85	50%	4.93	0.00	0.00
Nursing Home	620	Beds	0.22			0.22	9.85	50%	4.93	0.00	0.00
Clinic	630	1,000 SF GFA	3.28			3.28	9.85	50%	4.93	0.00	0.00
Animal Hospital / Veterinary Clinic	640	1,000 SF GFA	3.53	30%	В	2.47	9.85	50%	4.93	0.00	0.00
OFFICE											
General Office Building	710	1,000 SF GFA	1.15			1.15	14.65	50%	7.33	0.00	0.00
Corporate Headquarters Building	714	1,000 SF GFA	0.60			0.60	14.65	50%	7.33	0.00	0.00
Single Tenant Office Building	715	1,000 SF GFA	1.71			1.71	14.65	50%	7.33	0.00	0.00
Medical-Dental Office Office Park	720 750	1,000 SF GFA 1,000 SF GFA	3.46			3.46 1.07	9.85 14.65	50%	4.93 7.33	0.00	0.00
COMMERCIAL	750	1,000 SI GLA	1.07			1.07	17.00	5070	1.55	0.00	0.00
Automobile Related											***************************************
Automobile Sales (New)	840	1,000 SF GFA	2.43	20%	В	1.94	5.60	50%	2.80	0.00	0.00
Automobile Parts Sales	843	1,000 SF GFA	4.91	43%	A	2.80	4.45	50%	2.23	0.00	0.00
Tire Store	848	1,000 SF GFA	3.98	28%	A	2.87	4.45	0.50	2.23	0.00	0.00
Quick Lubrication Vehicle Shop	941	Servicing Positions	4.85	40%	В	2.91	4.45	50%	2.23	0.00	0.00
Automobile Care Center	942	1,000 SF GLA	3.11	40%	В	1.87	4.45	50%	2.23	0.00	0.00
Gasoline / Service Station Gasoline / Service Station w/ Convenience Market	944 945	Vehicle Fueling Positions Vehicle Fueling Positions	14.03	42% 56%	A A	8.14 6.16	1.20 1.20	50%	0.60	0.00	0.00
Self-Service Car Wash	947	Stalls	5.54	40%	В	3.32	1.20	50%	0.60	0.00	0.00
Dining	777	Stans	J.J.T	40/0		3.32	1.20	3070	0.00	0.00	0.00
	931	1,000 SF GFA	7.80	44%	A	4.37	5.64	50%	2.82	0.00	0.00
Quality Restaurant				43%	A	5.57	5.64	50%	2.82	0.00	0.00
High Tumover (Sit-Down) Restaurant	932	1,000 SF GFA	9.77						2.02		0.00
High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Drive-Thru Window	933	1,000 SF GFA	28.34	50%	В	14.17	5.64	50%	2.82	0.00	
High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Drive-Thru Window Fast Food Restaurant with Drive-Thru Window	933 934	1,000 SF GFA 1,000 SF GFA	28.34 32.67	50%	A	16.34	5.64	50%	2.82	0.00	0.00
High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Drive-Thru Window Fast Food Restaurant with Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window	933	1,000 SF GFA	28.34	***************************************						~~~~~	
High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Drive-Thru Window Fast Food Restaurant with Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window Other Retail	933 934 937	1,000 SF GFA 1,000 SF GFA 1,000 SF GFA	28.34 32.67 43.38	50% 70%	A B	16.34 13.01	5.64 5.64	50% 50%	2.82 2.82	0.00	0.00
High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Drive-Thru Window Fast Food Restaurant with Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window Other Retail Free-Standing Discount Store	933 934 937 815	1,000 SF GFA 1,000 SF GFA 1,000 SF GFA 1,000 SF GFA	28.34 32.67 43.38 4.83	50% 70% 30%	A B C	16.34 13.01 3.38	5.64 5.64 5.60	50% 50%	2.82 2.82 2.80	0.00	0.00
High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Drive-Thru Window Fast Food Restaurant with Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window Other Retail Free-Standing Discount Store Nursery (Carden Center)	933 934 937 815 817	1,000 SF GFA 1,000 SF GFA 1,000 SF GFA 1,000 SF GFA 1,000 SF GFA	28.34 32.67 43.38 4.83 6.94	50% 70% 30% 30%	A B C B	16.34 13.01 3.38 4.86	5.64 5.64 5.60 5.60	50% 50% 50% 50%	2.82 2.82 2.80 2.80	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Drive-Thru Window Fast Food Restaurant with Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window Other Retail Free-Standing Discount Store Nursery (Carden Center) Shopping Center	933 934 937 815	1,000 SF GFA 1,000 SF GFA 1,000 SF GFA 1,000 SF GFA	28.34 32.67 43.38 4.83	50% 70% 30%	A B C	16.34 13.01 3.38	5.64 5.64 5.60	50% 50%	2.82 2.82 2.80	0.00	0.00
High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Drive-Thru Window Fast Food Restaurant with Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window Other Retail Free-Standing Discount Store Nursery (Carden Center)	933 934 937 815 817 820	1,000 SF GFA 1,000 SF GFA 1,000 SF GFA 1,000 SF GFA 1,000 SF GFA 1,000 SF GFA	28.34 32.67 43.38 4.83 6.94 3.81	50% 70% 30% 30% 34%	A B C B A	16.34 13.01 3.38 4.86 2.51	5.64 5.60 5.60 5.60	50% 50% 50% 50% 50%	2.82 2.82 2.80 2.80 2.80	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Drive-Thru Window Fast Food Restaurant with Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window Other Retail Free-Standing Discount Store Nursery (Carden Center) Shopping Center Supermarket	933 934 937 815 817 820 850 862 864	1,000 SF GFA	28.34 32.67 43.38 4.83 6.94 3.81 9.24 2.33 5.00	50% 70% 30% 30% 34% 36% 42% 30%	A B C B A A B B	3.38 4.86 2.51 5.91 1.35 3.50	5.64 5.60 5.60 5.60 5.60 5.60 5.60 5.60	50% 50% 50% 50% 50% 50% 50% 50%	2.82 2.82 2.80 2.80 2.80 2.80 2.80 2.80	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Dive-Thru Window Fast Food Restaurant with Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window Other Retail Free-Standing Discount Store Nursery (Carden Center) Shopping Center Supermarket Home Improvement Superstore Toy / Children's Superstore Department Store	933 934 937 815 817 820 850 862 864 875	1,000 SF GFA	28.34 32.67 43.38 4.83 6.94 3.81 9.24 2.33 5.00 1.95	50% 70% 30% 30% 34% 36% 42% 30% 30%	A B B A A B B B	3.38 4.86 2.51 5.91 1.35 3.50 1.37	5.64 5.60 5.60 5.60 5.60 5.60 5.60 5.60 5.60	50% 50% 50% 50% 50% 50% 50% 50% 50%	2.82 2.82 2.80 2.80 2.80 2.80 2.80 2.80	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Drive-Thru Window Fast Food Restaurant with Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window Other Retail Free-Standing Discount Store Nursery (Carden Center) Shopping Center Supermarket Home Implovement Superstore Toy / Children's Superstore Department Store Pharmacy / Drugstore without Drive-Thru Window	933 934 937 815 817 820 850 862 864 875 880	1,000 SF GFA	28.34 32.67 43.38 4.83 6.94 3.81 9.24 2.33 5.00 1.95 8.51	50% 70% 30% 30% 34% 36% 42% 30% 30% 53%	A B C B A A B B B A	3.38 4.86 2.51 5.91 1.35 3.50 1.37 4.00	5.64 5.60 5.60 5.60 5.60 5.60 5.60 5.60 5.60	50% 50% 50% 50% 50% 50% 50% 50% 50% 50%	2.82 2.82 2.80 2.80 2.80 2.80 2.80 2.80	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Drive-Thru Window Fast Food Restaurant with Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window Other Retail Free-Standing Discount Store Nursery (Carden Center) Shopping Center Supermarket Home Improvement Superstore Toy / Children's Superstore Department Store Pharmacy / Drugstore without Drive-Thru Window Pharmacy / Drugstore with Drive-Thru Window	933 934 937 815 817 820 850 862 864 875	1,000 SF GFA	28.34 32.67 43.38 4.83 6.94 3.81 9.24 2.33 5.00 1.95	50% 70% 30% 30% 34% 36% 42% 30% 30%	A B B A A B B B	3.38 4.86 2.51 5.91 1.35 3.50 1.37	5.64 5.60 5.60 5.60 5.60 5.60 5.60 5.60 5.60	50% 50% 50% 50% 50% 50% 50% 50% 50%	2.82 2.82 2.80 2.80 2.80 2.80 2.80 2.80	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window Other Retail Free-Standing Discount Store Nursery (Garden Center) Shopping Center Supermarket Home Improvement Superstore Toy / Children's Superstore Department Store Pharmacy / Drugstore without Drive-Thru Window Pharmacy / Drugstore with Drive-Thru Window SERVICES	933 934 937 815 817 820 850 862 864 875 880 881	1,000 SF GFA	28.34 32.67 43.38 4.83 6.94 3.81 9.24 2.33 5.00 1.95 8.51 10.29	50% 70% 30% 30% 34% 36% 42% 30% 30% 53% 49%	A B C B A A A A B B A A A	16.34 13.01 3.38 4.86 2.51 5.91 1.35 3.50 1.37 4.00 5.25	5.64 5.60 5.60 5.60 5.60 5.60 5.60 5.60 5.60	50% 50% 50% 50% 50% 50% 50% 50% 50% 50%	2.82 2.80 2.80 2.80 2.80 2.80 2.80 2.80	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Drive-Thru Window Fast Food Restaurant with Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window Other Retail Free-Standing Discount Store Nursery (Carden Center) Shopping Center Supermarket Home Improvement Superstore Toy / Children's Superstore Department Store Pharmacy / Drugstore without Drive-Thru Window Pharmacy / Drugstore with Drive-Thru Window	933 934 937 815 817 820 850 862 864 875 880	1,000 SF GFA	28.34 32.67 43.38 4.83 6.94 3.81 9.24 2.33 5.00 1.95 8.51	50% 70% 30% 30% 34% 36% 42% 30% 30% 53%	A B C B A A B B B A	3.38 4.86 2.51 5.91 1.35 3.50 1.37 4.00	5.64 5.60 5.60 5.60 5.60 5.60 5.60 5.60 5.60	50% 50% 50% 50% 50% 50% 50% 50% 50% 50%	2.82 2.82 2.80 2.80 2.80 2.80 2.80 2.80	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

A: ITE Trip Generation Handbook 3rd Edition (September 2017)
B: Estimated by Kimley-Horn based on ITE rates for similar categories

C: ITE rate adjusted upward by KHA based on logical relationship to other categories





Table 11 G. Service Area G - Land Use / Vehicle-Mile Equivalency Table (LUVMET)

Land Use Category	ITE Land Use Code	Development Unit	Trip Gen Rate (PM)	Pass- by Rate	Pass-by Source	Trip Rate	Trip Length (mi)	Adj. For O-D	Adj. Trip Length (mi)	Max Trip Length (mi) SA-G	Veh-Mi Per Dev Unit SA - G
PORT AND TERMINAL										6.00	
Truck Terminal	030	1,000 SF GFA	1.87			1.87	10.02	50%	5.01	5.01	9.37
INDUSTRIAL											
General Light Industrial	110	1,000 SF GFA	0.63			0.63	10.02	50%	5.01	5.01	3.16
Industrial Park Warehousing	130 150	1,000 SF GFA 1,000 SF GFA	0.40			0.40	10.02 10.02	50%	5.01	5.01 5.01	2.00 0.95
Mini-Warehouse	151	1,000 SF GFA	0.19			0.19	10.02	50%	5.01	5.01	0.95
RESIDENTIAL		.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,									
Single-Family Detached Housing	210	Dwelling Unit	0.99			0.99	9.79	50%	4.90	4.90	4.85
Townhomes	220	Dwelling Unit	0.56			0.56	9.79	50%	4.90	4.90	2.74
Multifamily Housing (Low-Rise) Multifamily Housing (Mid-Rise)	220 221	Dwelling Unit Dwelling Unit	0.56			0.56	9.79 9.79	50% 50%	4.90 4.90	4.90 4.90	2.74
Multifamily Housing (Mid-Rise) Multifamily Housing (High-Rise)	222	Dwelling Unit	0.36			0.36	9.79	50%	4.90	4.90	1.76
Mid-Rise Residential with 1st Floor Commercial	231	Dwelling Unit	0.36			0.36	9.79	50%	4.90	4.90	1.76
Mobile Home Park / Manufactured Housing	240	Dwelling Unit	0.46			0.46	9.79	50%	4.90	4.90	2.25
Senior Adult Housing-Detached	251	Dwelling Unit	0.30			0.30	9.79	50%	4.90	4.90	1.47
Senior Adult Housing-Attached	252 253	Dwelling Unit	0.26	-4		0.26	9.79 9.79	50%	4.90 4.90	4.90 4.90	1.27 0.88
Congregate Care Facility Assisted Living	253	Dwelling Unit Beds	0.18			0.18	9.79	50%	4.90	4.90	1.27
LODGING											
Hotel	310	Rooms	0.60			0.60	6.43	50%	3.22	3.22	1.93
Motel / Other Lodging Facilities	320	Rooms	0.38	7		0.38	6.43	50%	3.22	3.22	1.22
RECREATIONAL	420	Hol	2.01			201	7.96	500/	2.02	2.02	11.44
Golf Course Miniature Golf Course	430 431	Holes Holes	2.91 0.33			2.91 0.33	7.86 7.86	50% 50%	3.93 3.93	3.93 3.93	11.44
Golf Driving Range	431	Driving Positions	1.25			1.25	7.86	50%	3.93	3.93	4.91
Multiplex Movie Theater	445	Screens	13.73			13.73	15.77	50%	7.89	6.00	82.38
Ice Skating Rink	465	1,000 SF GFA	1.33			1.33	7.86	50%	3.93	3.93	5.23
Racquet / Tennis Club	491	Courts	3.82			3.82	7.86	50%	3.93	3.93	15.01
Recreational Community Center	495	1,000 SF GFA	2.31			2.31	7.86	50%	3.93	3.93	9.08
INSTITUTIONAL Elementary School	520	Students	0.17			0.17	3.49	50%	1.75	1.75	0.30
Middle School / Junior High School	522	Students	0.17			0.17	3.49	50%	1.75	1.75	0.30
High School	530	Students	0.14			0.14	3.49	50%	1.75	1.75	0.25
Junior / Community College	540	Students	0.11			0.11	10.44	50%	5.22	5.22	0.57
University / College	550	Students	0.15			0.15	10.44	50%	5.22	5.22	0.78
Church	560	1,000 SF GFA	0.49	1.10/	ъ	0.49	8.31	50%	4.16	4.16	2.04
Day Care Center MEDICAL	565	1,000 SF GFA	11.12	44%	В	6.23	3.49	50%	1.75	1.75	10.90
Hospital	610	Beds	1.89			1.89	9.85	50%	4.93	4.93	9.32
Nursing Home	620	Beds	0.22			0.22	9.85	50%	4.93	4.93	1.08
Clinic	630	1,000 SF GFA	3.28			3.28	9.85	50%	4.93	4.93	16.17
Animal Hospital / Veterinary Clinic	640	1,000 SF GFA	3,53	30%	В	2.47	9.85	50%	4.93	4.93	12.18
OFFICE General Office Building	710	1,000 SF GFA	1.15			1.15	14.65	50%	7.33	6.00	6.90
Corporate Headquarters Building	714	1,000 SF GFA	0.60			0.60	14.65	50%	7.33	6.00	3.60
Single Tenant Office Building	715	1,000 SF GFA	1.71			1.71	14.65	50%	7.33	6.00	10.26
Medical-Dental Office	720	1,000 SF GFA	3.46			3.46	9.85	50%	4.93	4.93	17.06
Office Park	750	1,000 SF GFA	1.07			1.07	14.65	50%	7.33	6.00	6.42
COMMERCIAL Automobile Related											
Automobile Sales (New)	840	1,000 SF GFA	2.43	20%	В	1.94	5.60	50%	2.80	2.80	5.43
Automobile Parts Sales	843	1,000 SF GFA	4.91	43%	A	2.80	4.45	50%	2.23	2.23	6.24
Tire Store	848	1,000 SF GFA	3.98	28%	A	2.87	4.45	0.50	2.23	2.23	6.40
Quick Lubrication Vehicle Shop	941	Servicing Positions	4.85	40%	В	2.91	4.45	50%	2.23	2.23	6.49
Automobile Care Center Gasoline / Service Station	942 944	1,000 SF GLA	3.11	40%	B	1.87	4.45	50%	2.23	2.23	4.17
Gasoline / Service Station Gasoline / Service Station w/ Convenience Market	944	Vehicle Fueling Positions Vehicle Fueling Positions	14.03	42% 56%	A	8.14 6.16	1.20	50%	0.60	0.60	4.88 3.70
Self-Service Car Wash	947	Stalls	5.54	40%	В	3.32	1.20	50%	0.60	0.60	1.99
Dining											
Quality Restaurant	931	1,000 SF GFA	7.80	44%	A	4.37	5.64	50%	2.82	2.82	12.32
High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Drive-Thru Window	932	1,000 SF GFA	9.77	43%	A	5.57	5.64	50% 50%	2.82	2.82	15.71
Fast Food Restaurant without Drive-Thru Window	933 934	1,000 SF GFA 1,000 SF GFA	28.34 32.67	50%	B A	14.17 16.34	5.64 5.64	50%	2.82	2.82	39.96 46.08
Coffee / Donut Shop with Drive-Thru Window	937	1,000 SF GFA	43.38	70%	В	13.01	5.64	50%	2.82	2.82	36.69
Other Retail											
Free-Standing Discount Store	815	1,000 SF GFA	4.83	30%	C	3.38	5.60	50%	2.80	2.80	9.46
Nursery (Garden Center)	817	1,000 SF GFA	6.94	30%	В	4.86	5.60	50%	2.80	2.80	13.61
Shopping Center Supermarket	820 850	1,000 SF GLA 1,000 SF GFA	3.81 9.24	34%	A A	2.51 5.91	5.60 5.60	50%	2.80 2.80	2.80	7.03 16.55
Home Improvement Superstore	862	1,000 SF GFA	2.33	42%	A	1.35	5.60	50%	2.80	2.80	3.78
Toy / Children's Superstore	864	1,000 SF GFA	5.00	30%	В	3.50	5.60	50%	2.80	2.80	9.80
Department Store	875	1,000 SF GFA	1.95	30%	В	1.37	5.60	50%	2.80	2.80	3.84
Pharmacy / Drugstore without Drive-Thru Window	880	1,000 SF GFA	8.51	53%	A	4.00	5.60	50%	2.80	2.80	11.20
Pharmacy / Drugstore with Drive-Thru Window	881	1,000 SF GFA	10.29	49%	A	5.25	5.60	50%	2.80	2.80	14.70
SERVICES Walk-In Bank	911	1,000 SF GFA	12.13	40%	В	7.28	4.45	50%	2.23	2.23	16.23
				35%	A	17.65	4.45	50%	2.23	2.23	39.36
Drive-In Bank	912	Drive-in Lanes	27.15								

B: TE Trip Generation Handbook 3rd Edition (September 2017)
B: Estimated by Kimley-Horn based on ITE rates for similar categories
C: ITE rate adjusted upward by KHA based on logical relationship to other categories





Table 11.H. Service Area H - Land Use / Vehicle-Mile Equivalency Table (LUVMET)

Land Use Category	ITE Land Use Code	Development Unit	Trip Gen Rate (PM)	Pass- by Rate	Pass-by Source	Trip Rate	Trip Length (mi)	Adj. For O-D	Adj. Trip Length (mi)	Max Trip Length (mi) SA-H	Vob Mi
PORT AND TERMINAL										4.05	
Truck Terminal	030	1,000 SF GFA	1.87			1.87	10.02	50%	5.01	4.65	8.70
INDUSTRIAL											
General Light Industrial	110	1,000 SF GFA	0.63			0.63	10.02	50%	5.01	4.65	2.93
Industrial Park	130	1,000 SF GFA	0.40			0.40	10.02	50%	5.01	4.65	1.86
Warehousing	150	1,000 SF GFA	0.19			0.19	10.02	50%	5.01	4.65	0.88
Mini-Warehouse	151	1,000 SF GFA	0.17			0.17	10.02	50%	5.01	4.65	0.79
RES IDENTIAL Single-Family Detached Housing	210	Dwelling Unit	0.99			0.99	9.79	50%	4.90	4.65	4.60
Townhomes	220	Dwelling Unit	0.56			0.56	9.79	50%	4.90	4.65	2.60
Multifamily Housing (Low-Rise)	220	Dwelling Unit	0.56			0.56	9.79	50%	4.90	4.65	2.60
Multifamily Housing (Mid-Rise)	221	Dwelling Unit	0.44			0.44	9.79	50%	4.90	4.65	2.05
Multifamily Housing (High-Rise)	222	Dwelling Unit	0.36		4	0.36	9.79	50%	4.90	4.65	1.67
Mid-Rise Residential with 1st Floor Commercial	231	Dwelling Unit	0.36			0.36	9.79	50%	4.90	4.65	1.67
Mobile Home Park / Manufactured Housing	240	Dwelling Unit	0.46			0.46	9.79	50%	4.90	4.65	2.14
Senior Adult Housing-Detached	251	Dwelling Unit	0.30			0.30	9.79	50%	4.90	4.65	1.40
Senior Adult Housing-Attached	252	Dwelling Unit	0.26	-4		0.26	9.79	50%	4.90	4.65	1.21
Congregate Care Facility Assisted Living	253 254	Dwelling Unit Beds	0.18			0.18	9.79 9.79	50%	4.90 4.90	4.65 4.65	0.84 1.21
LODGING	4.74	Deus	0.20			0.20	9.19	3070	4.90	4.03	1.21
Hotel	310	Rooms	0.60			0.60	6.43	50%	3.22	3.22	1.93
Motel / Other Lodging Facilities	320	Rooms	0.38			0.38	6.43	50%	3.22	3.22	1.22
RECREATIONAL											00000000000
Golf Course	430	Holes	2.91			2.91	7.86	50%	3.93	3.93	11.44
Miniature Golf Course	431	Holes	0.33			0.33	7.86	50%	3.93	3.93	1.30
Golf Driving Range	432	Driving Positions	1.25			1.25	7.86	50%	3.93	3.93	4.91
Multiplex Movie Theater	445 465	Screens	13.73			13.73	15.77	50%	7.89	4.65	63.84
Ice Skating Rink Racquet / Tennis Club	491	1,000 SF GFA Courts	1.33 3.82			1.33 3.82	7.86 7.86	50%	3.93 3.93	3.93 3.93	5.23 15.01
Recreational Community Center	495	1,000 SF GFA	2.31			2.31	7.86	50%	3.93	3.93	9.08
INSTITUTIONAL	1,7,5	1,000 51 Carr	2.0.1			2.01	7.00	3070	3.75	3.73	7.00
Elementary School	520	Students	0.17			0.17	3.49	50%	1.75	1.75	0.30
Middle School / Junior High School	522	Students	0.17			0.17	3.49	50%	1.75	1.75	0.30
High School	530	Students	0.14			0.14	3.49	50%	1.75	1.75	0.25
Junior / Community College	540	Students	0.11			0.11	10.44	50%	5.22	4.65	0.51
University / College	550	Students	0.15			0.15	10.44	50%	5.22	4.65	0.70
Church	560	1,000 SF GFA	0.49	1.10/	ъ	0.49	8.31	50%	4.16	4.16	2.04
Day Care Center MEDICAL	565	1,000 SF GFA	11.12	44%	В	6.23	3.49	50%	1.75	1.75	10.90
Hospital	610	Beds	1.89			1.89	9.85	50%	4.93	4.65	8.79
Nursing Home	620	Beds	0.22			0.22	9.85	50%	4.93	4.65	1.02
Clinic	630	1,000 SF GFA	3.28			3.28	9.85	50%	4.93	4.65	15.25
Animal Hospital / Veterinary Clinic	640	1,000 SF GFA	3,53	30%	В	2.47	9.85	50%	4.93	4.65	11.49
OFFICE											
General Office Building	710	1,000 SF GFA	1.15			1.15	14.65	50%	7.33	4.65	5.35
Corporate Headquarters Building	714	1,000 SF GFA	0.60			0.60	14.65	50%	7.33	4.65	2.79
Single Tenant Office Building Medical-Dental Office	715 720	1,000 SF GFA 1,000 SF GFA	3.46			1.71 3.46	14.65 9.85	50%	7.33 4.93	4.65 4.65	7.95
Office Park	750	1,000 SF GFA	1.07			1.07	14.65	50%	7.33	4.65	16.09 4.98
COMMERCIAL	,50	1,000 01 01 11	1.07			1.07	1	2070	,		/0
Automobile Related											
Automobile Sales (New)	840	1,000 SF GFA	2.43	20%	В	1.94	5.60	50%	2.80	2.80	5.43
Automobile Parts Sales	843	1,000 SF GFA	4.91	43%	A	2.80	4.45	50%	2.23	2.23	6.24
Tire Store	848	1,000 SF GFA	3.98	28%	A	2.87	4.45	0.50	2.23	2.23	6.40
Quick Lubrication Vehicle Shop	941	Servicing Positions		40%	В	2.91	4.45	50%	2.23	2.23	6.49
			4.85			4.05					
Automobile Care Center	942	1,000 SF GLA	3.11	40%	В	1.87	4.45	50%	~~~~~~~~~	2.23	4.17
Gasoline / Service Station	944	1,000 SF GLA Vehicle Fueling Positions	3.11 14.03	40% 42%	B A	8.14	1.20	50%	0.60	0.60	4.88
Gasoline / Service Station Gasoline / Service Station w/ Convenience Market	~~~~~~	1,000 SF GLA	3.11	40%	В	8.14 6.16	1.20 1.20		~~~~~~~~~	0.60 0.60	4.88 3.70
Gasoline / Service Station	944 945	1,000 SF GLA Vehicle Fueling Positions Vehicle Fueling Positions	3.11 14.03 13.99	40% 42% 56%	B A A	8.14	1.20	50% 50%	0.60 0.60	0.60	4.88
Casoline / Service Station Casoline / Service Station w/ Convenience Market Self-Service Car Wash	944 945	1,000 SF GLA Vehicle Fueling Positions Vehicle Fueling Positions	3.11 14.03 13.99	40% 42% 56% 40%	B A A	8.14 6.16	1.20 1.20	50% 50% 50%	0.60 0.60	0.60 0.60	4.88 3.70
Gasoline / Service Station Gasoline / Service Station w/ Convenience Market Self-Service Car Wash Dining Quality Restaurant High Tumover (Sit-Down) Restaurant	944 945 947 931 932	1,000 SF GLA Vehicle Fueling Positions Vehicle Fueling Positions Stalls 1,000 SF GFA 1,000 SF GFA	3.11 14.03 13.99 5.54 7.80 9.77	40% 42% 56% 40% 44% 43%	B A A B	8.14 6.16 3.32 4.37 5.57	1.20 1.20 1.20 5.64 5.64	50% 50% 50% 50% 50%	0.60 0.60 0.60 2.82 2.82	0.60 0.60 0.60 2.82 2.82	4.88 3.70 1.99 12.32 15.71
Casoline / Service Station Casoline / Service Station w/ Convenience Market Self-Service Car Wash Dining Quality Restaurant High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Drive-Thru Window	944 945 947 931 932 933	1,000 SF GLA Vehicle Fueling Positions Vehicle Fueling Positions Stalls 1,000 SF GFA 1,000 SF GFA 1,000 SF GFA	3.11 14.03 13.99 5.54 7.80 9.77 28.34	40% 42% 56% 40% 44% 43% 50%	B A A B A A B	8.14 6.16 3.32 4.37 5.57 14.17	1.20 1.20 1.20 5.64 5.64 5.64	50% 50% 50% 50% 50% 50%	0.60 0.60 0.60 2.82 2.82 2.82	0.60 0.60 0.60 2.82 2.82 2.82	4.88 3.70 1.99 12.32 15.71 39.96
Gasoline / Service Station Gasoline / Service Station w/ Convenience Market Self-Service Car Wash Dining Quality Restaurant High Tumover (Sit-Down) Restaurant Fast Food Restaurant with Drive-Thru Window Fast Food Restaurant with Drive-Thru Window	944 945 947 931 932 933 934	1,000 SF GLA Vehicle Fueling Positions Vehicle Fueling Positions Stalls 1,000 SF GFA 1,000 SF GFA 1,000 SF GFA 1,000 SF GFA	3.11 14.03 13.99 5.54 7.80 9.77 28.34 32.67	40% 42% 56% 40% 44% 43% 50% 50%	B A A B A A A A A A A A A A A B A	8.14 6.16 3.32 4.37 5.57 14.17 16.34	1.20 1.20 1.20 5.64 5.64 5.64 5.64	50% 50% 50% 50% 50% 50% 50%	0.60 0.60 0.60 2.82 2.82 2.82 2.82	0.60 0.60 0.60 2.82 2.82 2.82 2.82	4.88 3.70 1.99 12.32 15.71 39.96 46.08
Gasoline / Service Station Gasoline / Service Station w/ Convenience Market Self-Service Car Wash Dining	944 945 947 931 932 933	1,000 SF GLA Vehicle Fueling Positions Vehicle Fueling Positions Stalls 1,000 SF GFA 1,000 SF GFA 1,000 SF GFA	3.11 14.03 13.99 5.54 7.80 9.77 28.34	40% 42% 56% 40% 44% 43% 50%	B A A B A A B	8.14 6.16 3.32 4.37 5.57 14.17	1.20 1.20 1.20 5.64 5.64 5.64	50% 50% 50% 50% 50% 50%	0.60 0.60 0.60 2.82 2.82 2.82	0.60 0.60 0.60 2.82 2.82 2.82	4.88 3.70 1.99 12.32 15.71 39.96
Gasoline / Service Station Gasoline / Service Station w/ Convenience Market Self-Service Car Wash Dining Quality Restaurant High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Drive-Thru Window Fast Food Restaurant with Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window Other Retail	944 945 947 931 932 933 934 937	1,000 SF GLA Vehicle Fueling Positions Vehicle Fueling Positions Stalls 1,000 SF GFA	3.11 14.03 13.99 5.54 7.80 9.77 28.34 32.67 43.38	40% 42% 56% 40% 44% 43% 50% 50% 70%	B A A B A A B A A B B A B B A B A B B	8.14 6.16 3.32 4.37 5.57 14.17 16.34 13.01	1.20 1.20 1.20 5.64 5.64 5.64 5.64 5.64	50% 50% 50% 50% 50% 50% 50% 50%	0.60 0.60 0.60 2.82 2.82 2.82 2.82 2.82	0.60 0.60 0.60 2.82 2.82 2.82 2.82 2.82	4.88 3.70 1.99 12.32 15.71 39.96 46.08 36.69
Gasoline / Service Station Gasoline / Service Station w/ Convenience Market Self-Service Car Wash Dining Quality Restaurant High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Drive-Thru Window Fast Food Restaurant with Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window Other Retail Free-Standing Discount Store	944 945 947 931 932 933 934 937	1,000 SF GLA Vehicle Fueling Positions Vehicle Fueling Positions Stalls 1,000 SF GFA	3.11 14.03 13.99 5.54 7.80 9.77 28.34 32.67 43.38	40% 42% 56% 40% 44% 43% 50% 50% 70%	B A A B A B B C C	8.14 6.16 3.32 4.37 5.57 14.17 16.34 13.01	1.20 1.20 1.20 5.64 5.64 5.64 5.64 5.64 5.64	50% 50% 50% 50% 50% 50% 50% 50%	0.60 0.60 0.60 2.82 2.82 2.82 2.82 2.82 2.82	0.60 0.60 0.60 2.82 2.82 2.82 2.82 2.82 2.82	4.88 3.70 1.99 12.32 15.71 39.96 46.08 36.69
Gasoline / Service Station Gasoline / Service Station w/ Convenience Market Self-Service Car Wash Dining Quality Restaurant High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Drive-Thru Window Fast Food Restaurant with Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window Other Retail	944 945 947 931 932 933 934 937	1,000 SF GLA Vehicle Fueling Positions Vehicle Fueling Positions Stalls 1,000 SF GFA	3.11 14.03 13.99 5.54 7.80 9.77 28.34 32.67 43.38	40% 42% 56% 40% 44% 43% 50% 50% 70%	B A A B A A B A A B B A B B A B A B B	8.14 6.16 3.32 4.37 5.57 14.17 16.34 13.01	1.20 1.20 1.20 5.64 5.64 5.64 5.64 5.64	50% 50% 50% 50% 50% 50% 50% 50%	0.60 0.60 0.60 2.82 2.82 2.82 2.82 2.82	0.60 0.60 0.60 2.82 2.82 2.82 2.82 2.82	4.88 3.70 1.99 12.32 15.71 39.96 46.08 36.69
Gasoline / Service Station Gasoline / Service Station w/ Convenience Market Self-Service Car Wash Dining	944 945 947 931 932 933 934 937 815 817	1,000 SF GLA Vehicle Fueling Positions Vehicle Fueling Positions Stalls 1,000 SF GFA	3.11 14.03 13.99 5.54 7.80 9.77 28.34 32.67 43.38	40% 42% 56% 40% 44% 43% 50% 50% 70% 30% 30%	B A A B A B C B	8.14 6.16 3.32 4.37 5.57 14.17 16.34 13.01 3.38 4.86	1.20 1.20 1.20 5.64 5.64 5.64 5.64 5.64 5.60 5.60	50% 50% 50% 50% 50% 50% 50% 50% 50% 50%	0.60 0.60 0.60 2.82 2.82 2.82 2.82 2.82 2.82 2.82 2.82	0.60 0.60 0.60 2.82 2.82 2.82 2.82 2.82 2.82 2.82 2.82	4.88 3.70 1.99 12.32 15.71 39.96 46.08 36.69 9.46 13.61
Gasoline / Service Station Gasoline / Service Station w/ Convenience Market Self-Service Car Wash Dining Quality Restaurant High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Drive-Thru Window Fast Food Restaurant with Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window Other Retail Free-Standing Discount Store Nursery (Carden Center) Shopping Center	944 945 947 931 932 933 934 937 815 817 820	1,000 SF GLA Vehicle Fueling Positions Vehicle Fueling Positions Stalls 1,000 SF GFA	3.11 14.03 13.99 5.54 7.80 9.77 28.34 32.67 43.38 4.83 6.94 3.81	40% 42% 56% 40% 44% 43% 50% 70% 30% 30% 34%	B A A B A B B A A A B A A A A B A A A A B A A A A B A A A A B A A A A B A A A A A B A A A A A B A A A A A B A A A A B A A A A B A A A A B A A A A A B A A A A A B A A A A A B A A A A B A A A B A A A A B A A A A B A A A A A B A A A A A A B A A A A A A B A	8.14 6.16 3.32 4.37 5.57 14.17 16.34 13.01 3.38 4.86 2.51	1.20 1.20 1.20 1.20 5.64 5.64 5.64 5.64 5.64 5.60 5.60	50% 50% 50% 50% 50% 50% 50% 50% 50% 50%	0.60 0.60 0.60 2.82 2.82 2.82 2.82 2.82 2.80 2.80 2.80	0.60 0.60 0.60 2.82 2.82 2.82 2.82 2.82 2.80 2.80 2.80	4.88 3.70 1.99 12.32 15.71 39.96 46.08 36.69 9.46 13.61 7.03
Gasoline / Service Station Gasoline / Service Station w/ Convenience Market Self-Service Car Wash Dining Quality Restaurant High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Drive-Thru Window Fast Food Restaurant with Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window Tree-Standing Discount Store Nursery (Carden Center) Shopping Center Supermarket Self-Service Station Self-Service Station Carden Center Shopping Center Supermarket Carden Center Carden Ce	944 945 947 931 932 933 934 937 815 817 820 862 864	1,000 SF GLA Vehicle Fueling Positions Vehicle Fueling Positions Stalls 1,000 SF GFA	3.11 14.03 13.99 5.54 7.80 9.77 28.34 32.67 43.38 4.83 6.94 3.81 9.24 2.33 5.00	40% 42% 56% 40% 44% 43% 50% 70% 30% 30% 34% 36% 42% 30%	B A A B B C C B A A A B B	8.14 6.16 3.32 4.37 5.57 14.17 16.34 13.01 3.38 4.86 2.51 5.91 1.35 3.50	1.20 1.20 1.20 1.20 5.64 5.64 5.64 5.64 5.60 5.60 5.60 5.60 5.60	50% 50% 50% 50% 50% 50% 50% 50% 50% 50%	0.60 0.60 0.60 2.82 2.82 2.82 2.82 2.82 2.80 2.80 2.80 2.80 2.80	0.60 0.60 0.60 2.82 2.82 2.82 2.82 2.82 2.80 2.80 2.80 2.80 2.80	4.88 3.70 1.99 12.32 15.71 39.96 46.08 36.69 9.46 13.61 7.03 16.55 3.78 9.80
Gasoline / Service Station Gasoline / Service Station w/ Convenience Market Self-Service Car Wash Dining Quality Restaurant High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Drive-Thru Window Fast Food Restaurant with Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window Other Retail Free-Standing Discount Store Nursery (Carden Center) Shopping Center Supermarket Home Improvement Superstore Toy / Children's Superstore Department Store	944 945 947 931 932 933 934 937 815 817 820 850 864 875	1,000 SF GLA Vehicle Fueling Positions Vehicle Fueling Positions Stalls 1,000 SF GFA	3.11 14.03 13.99 5.54 7.80 9.77 28.34 32.67 43.38 4.83 6.94 3.81 9.24 2.33 5.00 1.95	40% 42% 56% 40% 44% 43% 50% 50% 70% 30% 30% 34% 42% 30% 30%	B A A B B A A A B B B B B B	8.14 6.16 3.32 4.37 5.57 14.17 16.34 13.01 3.38 4.86 2.51 5.91 1.35 3.50 1.37	1.20 1.20 1.20 5.64 5.64 5.64 5.64 5.60 5.60 5.60 5.60 5.60	50% 50% 50% 50% 50% 50% 50% 50% 50% 50%	0.60 0.60 0.60 2.82 2.82 2.82 2.82 2.82 2.80 2.80 2.80 2.80 2.80 2.80 2.80	0.60 0.60 0.60 2.82 2.82 2.82 2.82 2.80 2.80 2.80 2.80 2.80 2.80 2.80 2.80	4.88 3.70 1.99 12.32 15.71 39.96 46.08 36.69 9.46 13.61 7.03 16.55 3.78 9.80 3.84
Gasoline / Service Station Gasoline / Service Station w/ Convenience Market Self-Service Car Wash Dining Quality Restaurant High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window Other Retail Free-Standing Discount Store Nursery (Garden Center) Shopping Center Supermarket Home Improvement Superstore Toy / Children's Superstore Department Store Pharmacy / Drugstore without Drive-Thru Window	944 945 947 931 932 933 934 937 815 817 820 850 862 864 875 880	1,000 SF GLA Vehicle Fueling Positions Vehicle Fueling Positions Stalls 1,000 SF GFA	3.11 14.03 13.99 5.54 7.80 9.77 28.34 32.67 43.38 4.83 6.94 3.81 9.24 2.33 5.00 1.95 8.51	40% 42% 56% 40% 44% 43% 50% 50% 70% 30% 30% 34% 42% 30% 30% 53%	B A A B B A A A A B B B A A	8.14 6.16 3.32 4.37 5.57 14.17 16.34 13.01 3.38 4.86 2.51 5.91 1.35 3.50 1.37 4.00	1.20 1.20 1.20 5.64 5.64 5.64 5.60 5.60 5.60 5.60 5.60 5.60 5.60	50% 50% 50% 50% 50% 50% 50% 50% 50% 50%	0.60 0.60 0.60 2.82 2.82 2.82 2.82 2.82 2.80	0.60 0.60 0.60 2.82 2.82 2.82 2.82 2.82 2.82 2.80	4.88 3.70 1.99 12.32 15.71 39.96 46.08 36.69 9.46 13.61 7.03 16.55 3.78 9.80 3.84 11.20
Gasoline / Service Station Gasoline / Service Station w/ Convenience Market Self-Service Car Wash Dining Quality Restaurant High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Drive-Thru Window Fast Food Restaurant with Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window Other Retail Free-Standing Discount Store Nursery (Garden Center) Shopping Center Supermarket Home Improvement Superstore Toy / Children's Superstore Department Store Pharmacy / Drug store without Drive-Thru Window Pharmacy / Drug store with Drive-Thru Window Pharmacy / Drug store with Drive-Thru Window	944 945 947 931 932 933 934 937 815 817 820 850 864 875	1,000 SF GLA Vehicle Fueling Positions Vehicle Fueling Positions Stalls 1,000 SF GFA	3.11 14.03 13.99 5.54 7.80 9.77 28.34 32.67 43.38 4.83 6.94 3.81 9.24 2.33 5.00 1.95	40% 42% 56% 40% 44% 43% 50% 50% 70% 30% 30% 34% 42% 30% 30%	B A A B B A A A B B B B B B	8.14 6.16 3.32 4.37 5.57 14.17 16.34 13.01 3.38 4.86 2.51 5.91 1.35 3.50 1.37	1.20 1.20 1.20 5.64 5.64 5.64 5.64 5.60 5.60 5.60 5.60 5.60	50% 50% 50% 50% 50% 50% 50% 50% 50% 50%	0.60 0.60 0.60 2.82 2.82 2.82 2.82 2.82 2.80 2.80 2.80 2.80 2.80 2.80 2.80	0.60 0.60 0.60 2.82 2.82 2.82 2.82 2.80 2.80 2.80 2.80 2.80 2.80 2.80 2.80	4.88 3.70 1.99 12.32 15.71 39.96 46.08 36.69 9.46 13.61 7.03 16.55 3.78 9.80 3.84
Casoline / Service Station Casoline / Service Station w/ Convenience Market Self-Service Car Wash Dining Quality Restaurant High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Drive-Thru Window Fast Food Restaurant with Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window Other Retail Free-Standing Discount Store Nursery (Carden Center) Shopping Center Supermarket Home Improvement Superstore Toy / Children's Superstore Department Store Pharmacy / Drugstore without Drive-Thru Window SERVICES SERVICES	944 945 947 931 932 933 933 934 937 815 817 820 850 864 875 880 881	1,000 SF GLA Vehicle Fueling Positions Vehicle Fueling Positions Stalls 1,000 SF GFA 1,000 SF GFA	3.11 14.03 13.99 5.54 7.80 9.77 28.34 32.67 43.38 4.83 6.94 3.81 9.24 2.33 5.00 1.95 8.51	40% 42% 56% 40% 44% 43% 50% 50% 70% 30% 30% 34% 36% 42% 30% 30% 42% 30% 42% 30% 42% 30% 42%	B A A B A A B B C C B A A A A B A A A A	8.14 6.16 3.32 4.37 5.57 14.17 16.34 13.01 3.38 4.86 2.51 1.35 3.50 1.37 4.00 5.25	1.20 1.20 1.20 5.64 5.64 5.64 5.64 5.60 5.60 5.60 5.60 5.60 5.60 5.60 5.60	50% 50% 50% 50% 50% 50% 50% 50% 50% 50%	0.60 0.60 0.60 2.82 2.82 2.82 2.82 2.82 2.80 2.80 2.80 2.80 2.80 2.80 2.80 2.80 2.80 2.80	0.60 0.60 0.60 2.82 2.82 2.82 2.82 2.82 2.80	4.88 3.70 1.99 12.32 15.71 39.96 46.08 36.69 9.46 13.61 7.03 16.55 3.78 9.80 3.84 11.20
Gasoline / Service Station Gasoline / Service Station w/ Convenience Market Self-Service Car Wash Dining Quality Restaurant High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Drive-Thru Window Fast Food Restaurant with Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window Other Retail Free-Standing Discount Store Nursery (Garden Center) Shopping Center Supermarket Home Improvement Superstore Toy / Children's Superstore Department Store Pharmacy / Drug store without Drive-Thru Window Pharmacy / Drug store with Drive-Thru Window Pharmacy / Drug store with Drive-Thru Window	944 945 947 931 932 933 934 937 815 817 820 850 862 864 875 880	1,000 SF GLA Vehicle Fueling Positions Vehicle Fueling Positions Stalls 1,000 SF GFA	3.11 14.03 13.99 5.54 7.80 9.77 28.34 32.67 43.38 4.83 6.94 3.81 9.24 2.33 5.00 1.95 8.51	40% 42% 56% 40% 44% 43% 50% 50% 70% 30% 30% 34% 42% 30% 30% 53%	B A A B B A A A A B B B A A	8.14 6.16 3.32 4.37 5.57 14.17 16.34 13.01 3.38 4.86 2.51 5.91 1.35 3.50 1.37 4.00	1.20 1.20 1.20 5.64 5.64 5.64 5.60 5.60 5.60 5.60 5.60 5.60 5.60	50% 50% 50% 50% 50% 50% 50% 50% 50% 50%	0.60 0.60 0.60 2.82 2.82 2.82 2.82 2.82 2.80	0.60 0.60 0.60 2.82 2.82 2.82 2.82 2.82 2.82 2.80	4.88 3.70 1.99 12.32 15.71 39.96 46.08 36.69 9.46 13.61 7.03 16.55 3.78 9.80 3.84 11.20

A: ITE Trip Generation Handbook 3rd Edition (September 2017)
B: Estimated by Kimley-Horn based on ITE rates for similar categories

C: ITE rate adjusted upward by KHA based on logical relationship to other categories





Table 11 L Service Area L - Land Use / Vehicle-Mile Equivalency Table (LUVMFT)

Table 11.1. Service Area I	- Lan	d Use / Ver	ncle-	IVIII	e Eq	uiva	Iency	lab	ie (Li	UVIVI	LI)
Land Use Category	ITE Land Use Code	Development Unit	Trip Gen Rate (PM)	Pass- by Rate	Pass-by Source	Trip Rate	Trip Length (mi)	Adj. For O-D	Adj. Trip Length (mi)	Max Trip Length (mi) SA-I	Veh-Mi Per Dev- Unit SA - I
										6.00	
PORT AND TERMINAL	020	1 000 GE GEA	1.07			1.07	10.02	500/	5.01	5.01	0.27
Truck Terminal INDUSTRIAL	030	1,000 SF GFA	1.87			1.87	10.02	50%	5.01	5.01	9.37
General Light Industrial	110	1,000 SF GFA	0.63			0.63	10.02	50%	5.01	5.01	3.16
Industrial Park	130	1,000 SF GFA	0.40			0.40	10.02	50%	5.01	5.01	2.00
Warehousing	150	1,000 SF GFA	0.19			0.19	10.02	50%	5.01	5.01	0.95
Mini-Warehouse	151	1,000 SF GFA	0.17			0.17	10.02	50%	5.01	5.01	0.85
RESIDENTIAL	210										
Single-Family Detached Housing	210	Dwelling Unit	0.99			0.99	9.79	50%	4.90	4.90	4.85
Townhomes Multifamily Housing (Low-Rise)	220	Dwelling Unit Dwelling Unit	0.56			0.56	9.79 9.79	50% 50%	4.90 4.90	4.90 4.90	2.74
Multifamily Housing (Mid-Rise)	221	Dwelling Unit	0.44			0.44	9.79	50%	4.90	4.90	2.16
Multifamily Housing (High-Rise)	222	Dwelling Unit	0.36			0.36	9.79	50%	4.90	4.90	1.76
Mid-Rise Residential with 1st Floor Commercial	231	Dwelling Unit	0.36			0.36	9.79	50%	4.90	4.90	1.76
Mobile Home Park / Manufactured Housing	240	Dwelling Unit	0.46			0.46	9.79	50%	4.90	4.90	2.25
Senior Adult Housing-Detached	251	Dwelling Unit	0.30			0.30	9.79	50%	4.90	4.90	1.47
Senior Adult Housing-Attached	252	Dwelling Unit	0.26			0.26	9.79	50%	4.90	4.90	1.27
Congregate Care Facility Assisted Living	253 254	Dwelling Unit Beds	0.18			0.18	9.79 9.79	50%	4.90 4.90	4.90 4.90	0.88
LODGING	2,54	Dons	0.20			0.20	2.17	3070	7.70	7.70	1.27
Hotel	310	Rooms	0.60			0.60	6.43	50%	3.22	3.22	1.93
Motel / Other Lodging Facilities	320	Rooms	0.38			0.38	6.43	50%	3.22	3.22	1.22
RECREATIONAL											000000000000000000000000000000000000000
Golf Course	430	Holes	2.91			2.91	7.86	50%	3.93	3.93	11.44
Miniature Golf Course	431	Holes	0.33	<u> </u>		0.33	7.86	50%	3.93	3.93	1.30
Golf Driving Range	432	Driving Positions	1.25			1.25	7.86	50%	3.93	3.93	4.91
Multiplex Movie Theater Ice Skating Rink	445 465	Screens 1,000 SF GFA	13.73			13.73	15.77 7.86	50% 50%	7.89 3.93	6.00 3.93	82.38 5.23
Racquet / Tennis Club	491	Courts	3.82			3.82	7.86	50%	3.93	3.93	15.01
Recreational Community Center	495	1,000 SF GFA	2.31			2.31	7.86	50%	3.93	3.93	9.08
INSTITUTIONAL							7.00				7.00
Elementary School	520	Students	0.17			0.17	3.49	50%	1.75	1.75	0.30
Middle School / Junior High School	522	Students	0.17			0.17	3.49	50%	1.75	1.75	0.30
High School	530	Students	0.14			0.14	3.49	50%	1.75	1.75	0.25
Junior / Community College	540	Students	0.11			0.11	10.44	50%	5.22	5.22	0.57
University / College	550	Students 1,000 SF GFA	0.15			0.15	10.44 8.31	50% 50%	5.22 4.16	5.22	0.78 2.04
Church Day Care Center	560 565	1,000 SF GFA	11.12	44%	В	6.23	3.49	50%	1.75	4.16 1.75	10.90
MEDICAL	303	1,000 51 GIT	11.12	717/0		0.23	3.47	3070	1.75	1.75	10.50
Hospital	610	Beds	1.89			1.89	9.85	50%	4.93	4.93	9.32
Nursing Home	620	Beds	0.22			0.22	9.85	50%	4.93	4.93	1.08
Clinic	630	1,000 SF GFA	3.28			3.28	9.85	50%	4.93	4.93	16.17
Animal Hospital / Veterinary Clinic	640	1,000 SF GFA	3,53	30%	В	2.47	9.85	50%	4.93	4.93	12.18
OFFICE		1 000 00 00						= 0			
General Office Building	710	1,000 SF GFA	1.15			1.15	14.65	50%	7.33	6.00	6.90
Corporate Headquarters Building Single Tenant Office Building	714 715	1,000 SF GFA 1,000 SF GFA	0.60			0.60	14.65 14.65	50% 50%	7.33 7.33	6.00	3.60 10.26
Medical-Dental Office	720	1,000 SF GFA	3.46			3.46	9.85	50%	4.93	4.93	17.06
Office Park	750	1,000 SF GFA	1.07			1.07	14.65	50%	7.33	6.00	6.42
COMMERCIAL											
Automobile Related											
Automobile Sales (New)	840	1,000 SF GFA	2.43	20%	В	1.94	5.60	50%	2.80	2.80	5.43
Automobile Parts Sales	843	1,000 SF GFA	4.91	43%	A	2.80	4.45	50%	2.23	2.23	6.24
Tire Store	848	1,000 SF GFA	3.98	28%	A	2.87	4.45	0.50	2.23	2.23	6.40
Quick Lubrication Vehicle Shop Automobile Care Center	941 942	Servicing Positions 1,000 SF GLA	4.85 3.11	40% 40%	B B	2.91	4.45 4.45	50% 50%	2.23	2.23	6.49 4.17
Gasoline / Service Station	942	Vehicle Fueling Positions	14.03	42%	A	8.14	1.20	50%	0.60	0.60	4.17
Gasoline / Service Station Gasoline / Service Station w/ Convenience Market	945	Vehicle Fueling Positions	13.99	56%	A	6.16	1.20	50%	0.60	0.60	3.70
Self-Service Car Wash	947	Stalls	5.54	40%	В	3.32	1.20	50%	0.60	0.60	1.99
Dining											
Quality Restaurant	931	1,000 SF GFA	7.80	44%	A	4.37	5.64	50%	2.82	2.82	12.32
High Tumover (Sit-Down) Restaurant	932	1,000 SF GFA	9.77	43%	A	5.57	5.64	50%	2.82	2.82	15.71
Fast Food Restaurant without Drive-Thru Window Fast Food Restaurant with Drive-Thru Window	933 934	1,000 SF GFA	28.34 32.67	50% 50%	B	14.17 16.34	5.64 5.64	50% 50%	2.82	2.82	39.96 46.08
Coffee / Donut Shop with Drive-Thru Window	934	1,000 SF GFA 1,000 SF GFA	43.38	70%	A B	13.01	5.64	50%	2.82	2.82	36.69
Other Retail		-, 21 0111		. 570			2.01	2.570			22.07
Free-Standing Discount Store	815	1,000 SF GFA	4.83	30%	С	3.38	5.60	50%	2.80	2.80	9.46
Nursery (Carden Center)	817	1,000 SF GFA	6.94	30%	В	4.86	5.60	50%	2.80	2.80	13.61
Shopping Center	820	1,000 SF GLA	3.81	34%	A	2.51	5.60	50%	2.80	2.80	7.03
Supermarket	850	1,000 SF GFA	9.24	36%	A	5.91	5.60	50%	2.80	2.80	16.55
Home Improvement Superstore	862	1,000 SF GFA	2.33	42%	A	1.35	5.60	50%	2.80	2.80	3.78
Toy / Children's Superstore Department Store	864 875	1,000 SF GFA 1,000 SF GFA	5.00 1.95	30%	B B	3.50 1.37	5.60 5.60	50% 50%	2.80	2.80	9.80 3.84
Pharmacy / Drugstore without Drive-Thru Window	880	1,000 SF GFA 1,000 SF GFA	8.51	53%	A	4.00	5.60	50%	2.80	2.80	11.20
Pharmacy / Drugstore with Drive-Thru Window Pharmacy / Drugstore with Drive-Thru Window	881	1,000 SF GFA	10.29	49%	A	5.25	5.60	50%	2.80	2.80	14.70
SERVICES	1	,	i								
Walk-In Bank	911	1,000 SF GFA	12.13	40%	В	7.28	4.45	50%	2.23	2.23	16.23
Drive-In Bank	912	Drive-in Lanes	27.15	35%	A	17.65	4.45	50%	2.23	2.23	39.36
Hair Salon	918	1,000 SF GFA	1.45	30%	В	1.02	6.41	50%	3.21	3.21	3.27

B: TE Trip Generation Handbook 3rd Edition (September 2017)
B: Estimated by Kimley-Horn based on ITE rates for similar categories
C: ITE rate adjusted upward by KHA based on logical relationship to other categories





Table 11.J. Service Area J - Land Use / Vehicle-Mile Equivalency Table (LUVMET)

Land Use Category	ITE Land Use Code	Development Unit	Trip Gen Rate (PM)		Pass-by Source	Trip Rate	Trip Length (mi)	Adj. For O-D	Adj. Trip Length (mi)	Max Trip Length (mi) SA - J	Veh-Mi
PORT AND TERMINAL										6.00	
Truck Terminal	030	1,000 SF GFA	1.87			1.87	10.02	50%	5.01	5.01	9.37
INDUSTRIAL											
General Light Industrial	110	1,000 SF GFA	0.63			0.63	10.02	50%	5.01	5.01	3.16
Industrial Park	130	1,000 SF GFA	0.40			0.40	10.02	50%	5.01	5.01	2.00
Warehousing Mini-Warehouse	150 151	1,000 SF GFA 1,000 SF GFA	0.19			0.19	10.02 10.02	50%	5.01	5.01	0.95
RESIDENTIAL	131	1,000 51 G171	0.17			0.17	10.02	3070	5.01	5.01	0.05
Single-Family Detached Housing	210	Dwelling Unit	0.99			0.99	9.79	50%	4.90	4.90	4.85
Townhomes	220	Dwelling Unit	0.56			0.56	9.79	50%	4.90	4.90	2.74
Multifamily Housing (Low-Rise)	220	Dwelling Unit Dwelling Unit	0.56			0.56	9.79	50%	4.90	4.90	2.74
Multifamily Housing (Mid-Rise) Multifamily Housing (High-Rise)	221 222	Dwelling Unit	0.44			0.44	9.79 9.79	50%	4.90 4.90	4.90 4.90	2.16 1.76
Mid-Rise Residential with 1st Floor Commercial	231	Dwelling Unit	0.36			0.36	9.79	50%	4.90	4.90	1.76
Mobile Home Park / Manufactured Housing	240	Dwelling Unit	0.46			0.46	9.79	50%	4.90	4.90	2.25
Senior Adult Housing-Detached	251	Dwelling Unit	0.30			0.30	9.79	50%	4.90	4.90	1.47
Senior Adult Housing-Attached Congregate Care Facility	252 253	Dwelling Unit Dwelling Unit	0.26			0.26	9.79 9.79	50%	4.90 4.90	4.90	1.27 0.88
Assisted Living	254	Beds	0.16			0.16	9.79	50%	4.90	4.90	1.27
LODGING											
Hotel	310	Rooms	0.60			0.60	6.43	50%	3.22	3.22	1.93
Motel / Other Lodging Facilities	320	Rooms	0.38			0.38	6.43	50%	3.22	3.22	1.22
RECREATIONAL	420	YY-1	2.01			201	7.00	500/	2.02	2.02	11.44
Golf Course Miniature Golf Course	430 431	Holes Holes	2.91 0.33			2.91 0.33	7.86 7.86	50%	3.93 3.93	3.93 3.93	11.44
Golf Driving Range	432	Driving Positions	1.25		_	1.25	7.86	50%	3.93	3.93	4.91
Multiplex Movie Theater	445	Screens	13.73			13.73	15.77	50%	7.89	6.00	82.38
Ice Skating Rink	465	1,000 SF GFA	1.33			1.33	7.86	50%	3.93	3.93	5.23
Racquet / Tennis Club	491	Courts	3.82			3.82	7.86	50%	3.93	3.93	15.01
Recreational Community Center INSTITUTIONAL	495	1,000 SF GFA	2.31			2.31	7.86	50%	3.93	3.93	9.08
Elementary School	520	Students	0.17			0.17	3.49	50%	1.75	1.75	0.30
Middle School / Junior High School	522	Students	0.17			0.17	3.49	50%	1.75	1.75	0.30
High School	530	Students	0.14			0.14	3.49	50%	1.75	1.75	0.25
Junior / Community College	540	Students	0.11			0.11	10.44	50%	5.22	5.22	0.57
University / College Church	550 560	Students 1,000 SF GFA	0.15			0.15	10.44 8.31	50%	5.22 4.16	5.22 4.16	0.78 2.04
Day Care Center	565	1,000 SF GFA	11.12	44%	В	6.23	3.49	50%	1.75	1.75	10.90
MEDICAL											
Hospital	610	Beds	1.89			1.89	9.85	50%	4.93	4.93	9.32
Nursing Home	620	Beds	0.22			0.22	9.85	50%	4.93	4.93	1.08
Clinic Animal Hospital / Veterinary Clinic	630 640	1,000 SF GFA 1,000 SF GFA	3.28	30%	В	3.28 2.47	9.85 9.85	50%	4.93 4.93	4.93	16.17 12.18
OFFICE	040	1,000 51 G171	3,33	3070	ь	2.77	7.00	5070	4.73	4.73	12.10
General Office Building	710	1,000 SF GFA	1.15			1.15	14.65	50%	7.33	6.00	6.90
Corporate Headquarters Building	714	1,000 SF GFA	0.60			0.60	14.65	50%	7.33	6.00	3.60
Single Tenant Office Building	715	1,000 SF GFA	1.71			1.71	14.65	50%	7.33	6.00	10.26
Medical-Dental Office Office Park	720 750	1,000 SF GFA 1,000 SF GFA	3.46			3.46 1.07	9.85 14.65	50%	4.93 7.33	4.93 6.00	17.06 6.42
COMMERCIAL	750	1,000 51 G171	1.07			1.07	14.05	5070	7.55	0.00	0.42
Automobile Related											***************************************
Automobile Sales (New)	840	1,000 SF GFA	2.43	20%	В	1.94	5.60	50%	2.80	2.80	5.43
Automobile Parts Sales	843	1,000 SF GFA	4.91	43%	A	2.80	4.45	50%	2.23	2.23	6.24
Tire Store Quick Lubrication Vehicle Shop	941	1,000 SF GFA Servicing Positions	3.98 4.85	28% 40%	A B	2.87	4.45 4.45	0.50	2.23	2.23	6.40
Automobile Care Center	941	1,000 SF GLA	3.11	40%	В	1.87	4.45	50%	2.23	2.23	4.17
Gasoline / Service Station	944	Vehicle Fueling Positions	14.03	42%	A	8.14	1.20	50%	0.60	0.60	4.88
Gasoline / Service Station w/ Convenience Market	945	Vehicle Fueling Positions	13.99	56%	A	6.16	1.20	50%	0.60	0.60	3.70
Self-Service Car Wash	947	Stalls	5.54	40%	В	3.32	1.20	50%	0.60	0.60	1.99
Dining Quality Restaurant	931	1,000 SF GFA	7.80	44%	Α	4.37	5.64	50%	2.82	2.82	12.32
High Turnover (Sit-Down) Restaurant	931	1,000 SF GFA	9.77	43%	A	5.57	5.64	50%	2.82	2.82	15.71
Fast Food Restaurant without Drive-Thru Window	933	1,000 SF GFA	28.34	50%	В	14.17	5.64	50%	2.82	2.82	39.96
Fast Food Restaurant with Drive-Thru Window	934	1,000 SF GFA	32.67	50%	A	16.34	5.64	50%	2.82	2.82	46.08
Coffee / Donut Shop with Drive-Thru Window	937	1,000 SF GFA	43.38	70%	В	13.01	5.64	50%	2.82	2.82	36.69
Other Retail Free-Standing Discount Store	815	1,000 SF GFA	4.83	30%	С	3.38	5.60	50%	2.80	2.80	9.46
Nursery (Carden Center)	817	1,000 SF GFA	6.94	30%	В	4.86	5.60	50%	2.80	2.80	13.61
Shopping Center	820	1,000 SF GLA	3.81	34%	A	2.51	5.60	50%	2.80	2.80	7.03
Supermarket	850	1,000 SF GFA	9.24	36%	A	5.91	5.60	50%	2.80	2.80	16.55
Home Improvement Superstore	862	1,000 SF GFA	2.33	42%	A	1.35	5.60	50%	2.80	2.80	3.78
Toy / Children's Superstore Department Store	864 875	1,000 SF GFA 1,000 SF GFA	5.00 1.95	30%	B B	3.50 1.37	5.60	50%	2.80	2.80	9.80 3.84
Pharmacy / Drugstore without Drive-Thru Window	880	1,000 SF GFA 1,000 SF GFA	8.51	53%	A A	4.00	5.60	50%	2.80	2.80	11.20
Pharmacy / Drugstore with Drive-Thru Window Pharmacy / Drugstore with Drive-Thru Window	881	1,000 SF GFA	10.29	49%	A	5.25	5.60	50%	2.80	2.80	14.70
SERVICES											
Walk-In Bank	911	1,000 SF GFA	12.13	40%	В	7.28	4.45	50%	2.23	2.23	16.23
Drive-In Bank	912	Drive-in Lanes	27.15	35%	A	17.65	4.45	50%	2.23	2.23	39.36
Hair Salon	918	1,000 SF GFA	1.45	30%	В	1.02	6.41	50%	3.21	3.21	3.27

B: TE Trip Generation Handbook 3rd Edition (September 2017)
B: Estimated by Kimley-Horn based on ITE rates for similar categories
C: ITE rate adjusted upward by KHA based on logical relationship to other categories





Table 11.K. Service Area K - Land Use / Vehicle-Mile Equivalency Table (LUVMET)

Land Use Category	ITE Land Use Code	Development Unit	Trip Gen Rate (PM)	Pass- by Rate	Pass-by Source	Trip Rate	Trip Length (mi)	Adj. For O-D	Adj. Trip Length (mi)	Max Trip Length (mi) SA-K	Veh-Mi
PORT AND TERMINAL										5.30	
Truck Terminal	030	1,000 SF GFA	1.87			1.87	10.02	50%	5.01	5.01	9.37
INDUSTRIAL		1,000 01 011						4			7.01
General Light Industrial	110	1,000 SF GFA	0.63			0.63	10.02	50%	5.01	5.01	3.16
Industrial Park	130	1,000 SF GFA	0.40			0.40	10.02	50%	5.01	5.01	2.00
Warehousing	150	1,000 SF GFA	0.19			0.19	10.02	50%	5.01	5.01	0.95
Mini-Warehouse	151	1,000 SF GFA	0.17			0.17	10.02	50%	5.01	5.01	0.85
RESIDENTIAL	210	Dwelling Unit	0.00			0.00	0.70	500/	4.00	4.00	105
Single-Family Detached Housing Townhomes	210 220	Dwelling Unit	0.99			0.99	9.79	50% 50%	4.90 4.90	4.90	4.85 2.74
Multifamily Housing (Low-Rise)	220	Dwelling Unit	0.56			0.56	9.79	50%	4.90	4.90	2.74
Multifamily Housing (Mid-Rise)	221	Dwelling Unit	0.44			0.44	9.79	50%	4.90	4.90	2.16
Multifamily Housing (High-Rise)	222	Dwelling Unit	0.36			0.36	9.79	50%	4.90	4.90	1.76
Mid-Rise Residential with 1st Floor Commercial	231	Dwelling Unit	0.36			0.36	9.79	50%	4.90	4.90	1.76
Mobile Home Park / Manufactured Housing	240	Dwelling Unit	0.46			0.46	9.79	50%	4.90	4.90	2.25
Senior Adult Housing-Detached	251	Dwelling Unit	0.30			0.30	9.79	50%	4.90	4.90	1.47
Senior Adult Housing-Attached	252	Dwelling Unit	0.26	-4		0.26	9.79	50%	4.90	4.90	1.27
Congregate Care Facility	253 254	Dwelling Unit	0.18			0.18	9.79	50%	4.90	4.90 4.90	0.88
Assisted Living LODGING	234	Beds	0.26			0.26	9.79	50%	4.90	4.90	1.27
Hotel	310	Rooms	0.60			0.60	6.43	50%	3.22	3.22	1.93
Motel / Other Lodging Facilities	320	Rooms	0.38			0.38	6.43	50%	3.22	3.22	1.22
RECREATIONAL											
Golf Course	430	Holes	2.91			2.91	7.86	50%	3.93	3.93	11.44
Miniature Golf Course	431	Holes	0.33			0.33	7.86	50%	3.93	3.93	1.30
Golf Driving Range	432	Driving Positions	1.25			1.25	7.86	50%	3.93	3.93	4.91
Multiplex Movie Theater	445	Screens	13.73			13.73	15.77	50%	7.89	5.30	72.77
Ice Skating Rink	465	1,000 SF GFA	1.33			1.33	7.86	50%	3.93	3.93	5.23
Racquet / Tennis Club	491	Courts	3.82			3.82	7.86	50%	3.93	3.93	15.01
Recreational Community Center INSTITUTIONAL	495	1,000 SF GFA	2.31			2.31	7.86	50%	3.93	3.93	9.08
Elementary School	520	Students	0.17			0.17	3.49	50%	1.75	1.75	0.30
Middle School / Junior High School	522	Students	0.17			0.17	3.49	50%	1.75	1.75	0.30
High School	530	Students	0.14			0.14	3.49	50%	1.75	1.75	0.25
Junior / Community College	540	Students	0.11			0.11	10.44	50%	5.22	5.22	0.57
University / College	550	Students	0.15		7	0.15	10.44	50%	5.22	5.22	0.78
Church	560	1,000 SF GFA	0.49			0.49	8.31	50%	4.16	4.16	2.04
Day Care Center	565	1,000 SF GFA	11.12	44%	В	6.23	3.49	50%	1.75	1.75	10.90
MEDICAL	610	P 1	1.00			1.00	0.05	500/	4.02	4.02	0.22
Hospital Nursing Home	610 620	Beds	1.89 0.22			0.22	9.85 9.85	50%	4.93 4.93	4.93 4.93	9.32 1.08
Clinic	630	Beds 1,000 SF GFA	3.28			3.28	9.85	50%	4.93	4.93	16.17
Animal Hospital / Veterinary Clinic	640	1,000 SF GFA	3,53	30%	В	2.47	9.85	50%	4.93	4.93	12.18
OFFICE											
General Office Building	710	1,000 SF GFA	1.15			1.15	14.65	50%	7.33	5.30	6.10
Corporate Headquarters Building	714	1,000 SF GFA	0.60			0.60	14.65	50%	7.33	5.30	3.18
Single Tenant Office Building	715	1,000 SF GFA	1.71			1.71	14.65	50%	7.33	5.30	9.06
Medical-Dental Office	720	1,000 SF GFA	3.46			3.46	9.85	50%	4.93	4.93	17.06
Office Park	750	1,000 SF GFA	1.07			1.07	14.65	50%	7.33	5.30	5.67
COMMERCIAL Automobile Related											
Automobile Sales (New)	840	1,000 SF GFA	2.43	20%	В	1.94	5.60	50%	2.80	2.80	5.43
Automobile Parts Sales	843	1,000 SF GFA	4.91	43%	A	2.80	4.45	50%	2.23	2.23	6.24
Tire Store	848	1,000 SF GFA	3.98	28%	A	2.87	4.45	0.50	2.23	2.23	6.40
Quick Lubrication Vehicle Shop	941	Servicing Positions	4.85	40%	В	2.91	4.45	50%	2.23	2.23	6.49
Automobile Care Center	942	1,000 SF GLA	3.11	40%	В	1.87	4.45	50%	2.23	2.23	4.17
Gasoline / Service Station	944	Vehicle Fueling Positions	14.03	42%	A	8.14	1.20	50%	0.60	0.60	4.88
Gasoline / Service Station w/ Convenience Market	945	Vehicle Fueling Positions	13.99	56%	A	6.16	1.20	50%	0.60	0.60	3.70
Self-Service Car Wash	947	Stalls	5.54	40%	В	3.32	1.20	50%	0.60	0.60	1.99
Dining Ouglity Pactourant	931	1,000 SF GFA	7 00	44%		4.37	5 61	50%	2 02	202	12.32
Quality Restaurant High Tumover (Sit-Down) Restaurant	931	1,000 SF GFA 1,000 SF GFA	7.80 9.77	43%	A A	5.57	5.64 5.64	50%	2.82	2.82	15.71
Fast Food Restaurant without Drive-Thru Window	933	1,000 SF GFA	28.34	50%	B	14.17	5.64	50%	2.82	2.82	39.96
Fast Food Restaurant with Drive-Thru Window	934	1,000 SF GFA	32.67	50%	A	16.34	5.64	50%	2.82	2.82	46.08
Coffee / Donut Shop with Drive-Thru Window	937	1,000 SF GFA	43.38	70%	В	13.01	5.64	50%	2.82	2.82	36.69
Other Retail											
Free-Standing Discount Store	815	1,000 SF GFA	4.83	30%	C	3.38	5.60	50%	2.80	2.80	9.46
Nursery (Garden Center)	817	1,000 SF GFA	6.94	30%	В	4.86	5.60	50%	2.80	2.80	13.61
Shopping Center	820	1,000 SF GLA	3.81	34%	A	2.51	5.60	50%	2.80	2.80	7.03
Supermarket	850	1,000 SF GFA	9.24	36%	A	5.91	5.60	50%	2.80	2.80	16.55
Home Improvement Superstore	862	1,000 SF GFA	2.33	42%	A B	1.35	5.60	50%	2.80	2.80	3.78
Toy / Children's Superstore Department Store	864 875	1,000 SF GFA 1,000 SF GFA	5.00 1.95	30%	В	3.50 1.37	5.60 5.60	50%	2.80	2.80	9.80 3.84
Pharmacy / Drugstore without Drive-Thru Window	880	1,000 SF GFA	8.51	53%	A	4.00	5.60	50%	2.80	2.80	11.20
Pharmacy / Drugstore with Drive-Thru Window Pharmacy / Drugstore with Drive-Thru Window	881	1,000 SF GFA	10.29	49%	A	5.25	5.60	50%	2.80	2.80	14.70
		-,		.,.,,,				2370			
SERVICES Walk-In Bank	911	1,000 SF GFA	12.13	40%	В	7.28	4.45	50%	2.23	2.23	16.23
SERVICES	911 912	1,000 SF GFA Drive-in Lanes	12.13 27.15	40%	B A	7.28 17.65	4.45 4.45	50%	2.23 2.23	2.23 2.23	16.23 39.36

A: ITE Trip Generation Handbook 3rd Edition (September 2017)
B: Estimated by Kimley-Horn based on ITE rates for similar categories

C: ITE rate adjusted upward by KHA based on logical relationship to other categories





Table 11.L. Service Area L - Land Use / Vehicle-Mile Equivalency Table (LUVMET)

Land Use Category	ITE Land Use Code	Development Unit	Trip Gen Rate (PM)		Pass-by Source	Trip Rate	Trip Length (mi)	Adj. For O-D	Adj. Trip Length (mi)	Max Trip Length (mi) SA-L	Veh-Mi Per Dev- Unit SA - L
PORT AND TERMINAL										3.30	
Truck Terminal	030	1,000 SF GFA	1.87			1.87	10.02	50%	5.01	3.50	6.55
INDUSTRIAL											*******
General Light Industrial	110	1,000 SF GFA	0.63			0.63	10.02	50%	5.01	3.50	2.21
Industrial Park	130	1,000 SF GFA	0.40			0.40	10.02	50%	5.01	3.50	1.40
Warehousing	150	1,000 SF GFA	0.19			0.19	10.02	50%	5.01	3.50	0.67
Mini-Warehouse RESIDENTIAL	151	1,000 SF GFA	0.17			0.17	10.02	50%	5.01	3.50	0.60
Single-Family Detached Housing	210	Dwelling Unit	0.99			0.99	9.79	50%	4.90	3.50	3.47
Townhomes	220	Dwelling Unit	0.56			0.56	9.79	50%	4.90	3.50	1.96
Multifamily Housing (Low-Rise)	220	Dwelling Unit	0.56			0.56	9.79	50%	4.90	3.50	1.96
Multifamily Housing (Mid-Rise)	221	Dwelling Unit	0.44			0.44	9.79	50%	4.90	3.50	1.54
Multifamily Housing (High-Rise)	222	Dwelling Unit	0.36			0.36	9.79	50%	4.90	3.50	1.26
Mid-Rise Residential with 1st Floor Commercial	231	Dwelling Unit	0.36			0.36	9.79	50%	4.90	3.50	1.26
Mobile Home Park / Manufactured Housing	240	Dwelling Unit	0.46			0.46	9.79	50%	4.90	3.50	1.61
Senior Adult Housing-Detached	251 252	Dwelling Unit	0.30			0.30	9.79 9.79	50%	4.90 4.90	3.50	1.05
Senior Adult Housing-Attached Congregate Care Facility	253	Dwelling Unit Dwelling Unit	0.26			0.26	9.79	50%	4.90	3.50	0.91
Assisted Living	254	Beds	0.18			0.18	9.79	50%	4.90	3.50	0.03
LODGING			3.2V			20				-200	
Hotel	310	Rooms	0.60			0.60	6.43	50%	3.22	3.22	1.93
Motel / Other Lodging Facilities	320	Rooms	0.38			0.38	6.43	50%	3.22	3.22	1.22
RECREATIONAL											
Golf Course	430	Holes	2.91			2.91	7.86	50%	3.93	3.50	10.19
Miniature Golf Course	431	Holes	0.33			0.33	7.86	50%	3.93	3.50	1.16
Golf Driving Range	432	Driving Positions	1.25			1.25	7.86	50%	3.93	3.50	4.38
Multiplex Movie Theater Ice Skating Rink	445 465	Screens 1,000 SF GFA	13.73			13.73	15.77 7.86	50% 50%	7.89 3.93	3.50	48.06 4.66
Racquet / Tennis Club	491	Courts	3.82			3.82	7.86	50%	3.93	3.50	13.37
Recreational Community Center	495	1,000 SF GFA	2.31			2.31	7.86	50%	3.93	3.50	8.09
INSTITUTIONAL	.,,,	1,000 DI CITI	2.01			2.51	7.00	3070	5.75	5.50	0.07
Elementary School	520	Students	0.17			0.17	3.49	50%	1.75	1.75	0.30
Middle School / Junior High School	522	Students	0.17			0.17	3.49	50%	1.75	1.75	0.30
High School	530	Students	0.14			0.14	3.49	50%	1.75	1.75	0.25
Junior / Community College	540	Students	0.11			0.11	10.44	50%	5.22	3.50	0.39
University / College	550	Students	0.15			0.15	10.44	50%	5.22	3.50	0.53
Church	560	1,000 SF GFA	0.49	140/	ъ	0.49	8.31	50%	4.16	3.50	1.72
Day Care Center MEDICAL	565	1,000 SF GFA	11.12	44%	В	6.23	3.49	50%	1.75	1.75	10.90
Hospital	610	Beds	1.89			1.89	9.85	50%	4.93	3.50	6.62
Nursing Home	620	Beds	0.22			0.22	9.85	50%	4.93	3.50	0.77
Clinic	630	1,000 SF GFA	3.28			3.28	9.85	50%	4.93	3.50	11.48
Animal Hospital / Veterinary Clinic	640	1,000 SF GFA	3,53	30%	В	2.47	9.85	50%	4.93	3.50	8.65
OFFICE											
General Office Building	710	1,000 SF GFA	1.15			1.15	14.65	50%	7.33	3.50	4.03
Corporate Headquarters Building	714	1,000 SF GFA	0.60			0.60	14.65	50%	7.33	3.50	2.10
Single Tenant Office Building	715	1,000 SF GFA	1.71			1.71	14.65	50%	7.33	3.50	5.99
Medical-Dental Office	720 750	1,000 SF GFA	3.46			3.46 1.07	9.85	50%	4.93	3.50	12.11
Office Park COMMERCIAL	730	1,000 SF GFA	1.07	<u> </u>		1.07	14.65	JU70	7.33	3.50	3.75
Automobile Related											
Automobile Sales (New)	840	1,000 SF GFA	2.43	20%	В	1.94	5.60	50%	2.80	2.80	5.43
Automobile Parts Sales	843	1,000 SF GFA	4.91	43%	A	2.80	4.45	50%	2.23	2.23	6.24
Tire Store	848	1,000 SF GFA	3.98	28%	A	2.87	4.45	0.50	2.23	2.23	6.40
Quick Lubrication Vehicle Shop	941	Servicing Positions	4.85	40%	В	2.91	4.45	50%	2.23	2.23	6.49
Automobile Care Center	942	1,000 SF GLA	3.11	40%	В	1.87	4.45	50%	2.23	2.23	4.17
Gasoline / Service Station	944	Vehicle Fueling Positions	14.03	42%	A	8.14	1.20	50%	0.60	0.60	4.88
Gasoline / Service Station w/ Convenience Market	945	Vehicle Fueling Positions	13.99	56%	A	6.16	1.20	50%	0.60	0.60	3.70
Self-Service Car Wash Dining	947	Stalls	5.54	40%	В	3.32	1.20	50%	0.60	0.60	1.99
Quality Restaurant	931	1,000 SF GFA	7.80	44%	A	4.37	5.64	50%	2.82	2.82	12.32
High Tumover (Sit-Down) Restaurant	932	1,000 SF GFA	9.77	43%	A	5.57	5.64	50%	2.82	2.82	15.71
Fast Food Restaurant without Drive-Thru Window	933	1,000 SF GFA	28.34	50%	В	14.17	5.64	50%	2.82	2.82	39.96
Fast Food Restaurant with Drive-Thru Window	934	1,000 SF GFA	32.67	50%	A	16.34	5.64	50%	2.82	2.82	46.08
Coffee / Donut Shop with Drive-Thru Window	937	1,000 SF GFA	43.38	70%	В	13.01	5.64	50%	2.82	2.82	36.69
Other Retail											
Free-Standing Discount Store	815	1,000 SF GFA	4.83	30%	C	3.38	5.60	50%	2.80	2.80	9.46
Nursery (Carden Center)	817	1,000 SF GFA	6.94	30%	В	4.86	5.60	50%	2.80	2.80	13.61
Shopping Center Superperket	820 850	1,000 SF GLA	3.81	34% 36%	A A	2.51	5.60	50%	2.80	2.80	7.03
Supermarket Home Improvement Superstore	850 862	1,000 SF GFA 1,000 SF GFA	9.24 2.33	42%	A A	5.91 1.35	5.60 5.60	50%	2.80	2.80	16.55 3.78
Toy / Children's Superstore	862	1,000 SF GFA 1,000 SF GFA	5.00	30%	A B	3.50	5.60	50%	2.80	2.80	9.80
Department Store	875	1,000 SF GFA	1.95	30%	В	1.37	5.60	50%	2.80	2.80	3.84
Pharmacy / Drugstore without Drive-Thru Window	880	1,000 SF GFA	8.51	53%	A	4.00	5.60	50%	2.80	2.80	11.20
Pharmacy / Drugstore with Drive-Thru Window	881	1,000 SF GFA	10.29	49%	A	5.25	5.60	50%	2.80	2.80	14.70
SERVICES											
Walk-In Bank	911	1,000 SF GFA	12.13	40%	В	7.28	4.45	50%	2.23	2.23	16.23
Drive-In Bank	912	Drive-in Lanes	27.15	35%	A	17.65	4.45	50%	2.23	2.23	39.36
Hair Salon	918	1,000 SF GFA	1.45	30%	В	1.02	6.41	50%	3.21	3.21	3.27

B: TE Trip Generation Handbook 3rd Edition (September 2017)
B: Estimated by Kimley-Horn based on ITE rates for similar categories
C: ITE rate adjusted upward by KHA based on logical relationship to other categories





Table 11.M. Service Area M - Land Use / Vehicle-Mile Equivalency Table (LUVMET)

Table 11.W. Service Area N		iiu use / ve	Trip Gen	Pass-				/ Id Adj.	Adj. Trip	Max Trip	Veh-Mi
Land Use Category	ITE Land Use Code	Development Unit	Rate (PM)	by Rate	Pass-by Source	Trip Rate	Trip Length (mi)	For O-D	Length (mi)	Length (mi) SA-M	Unit SA - M
										1.50	
PORT AND TERMINAL	020	1 000 CE CEA	1.87			1.07	10.02	500/	5.01	1.50	2.81
Truck Terminal INDUSTRIAL	030	1,000 SF GFA	1.8/			1.87	10.02	50%	5.01	1.50	2.81
General Light Industrial	110	1,000 SF GFA	0.63			0.63	10.02	50%	5.01	1.50	0.95
Industrial Park	130	1,000 SF GFA	0.40			0.40	10.02	50%	5.01	1.50	0.60
Warehousing	150	1,000 SF GFA	0.19			0.19	10.02	50%	5.01	1.50	0.29
Mini-Warehouse	151	1,000 SF GFA	0.17			0.17	10.02	50%	5.01	1.50	0.26
RESIDENTIAL Single-Family Detached Housing	210	Dwelling Unit	0.99	***************************************		0.99	9.79	50%	4.90	1.50	1.49
Townhomes	220	Dwelling Unit	0.56			0.56	9.79	50%	4.90	1.50	0.84
Multifamily Housing (Low-Rise)	220	Dwelling Unit	0.56			0.56	9.79	50%	4.90	1.50	0.84
Multifamily Housing (Mid-Rise)	221	Dwelling Unit	0.44			0.44	9.79	50%	4.90	1.50	0.66
Multifamily Housing (High-Rise)	222	Dwelling Unit	0.36			0.36	9.79	50%	4.90	1.50	0.54
Mid-Rise Residential with 1st Floor Commercial Mobile Home Park / Manufactured Housing	231 240	Dwelling Unit Dwelling Unit	0.36			0.36	9.79 9.79	50% 50%	4.90 4.90	1.50	0.54
Senior Adult Housing-Detached	251	Dwelling Unit	0.30			0.30	9.79	50%	4.90	1.50	0.45
Senior Adult Housing-Attached	252	Dwelling Unit	0.26		***************************************	0.26	9.79	50%	4.90	1.50	0.39
Congregate Care Facility	253	Dwelling Unit	0.18			0.18	9.79	50%	4.90	1.50	0.27
Assisted Living	254	Beds	0.26			0.26	9.79	50%	4.90	1.50	0.39
LODGING	210	Po	0.00			0.60	6.42	500/	2 22	150	0.00
Hotel Motel / Other Lodging Facilities	310 320	Rooms Rooms	0.60			0.60	6.43	50% 50%	3.22	1.50	0.90
RECREATIONAL	520	ROUID	0.30			0.36	0.43	5070	J.44	1.50	0.51
Golf Course	430	Holes	2.91			2.91	7.86	50%	3.93	1.50	4.37
Miniature Golf Course	431	Holes	0.33			0.33	7.86	50%	3.93	1.50	0.50
Golf Driving Range	432	Driving Positions	1.25			1.25	7.86	50%	3.93	1.50	1.88
Multiplex Movie Theater	445	Screens	13.73			13.73	15.77	50%	7.89	1.50	20.60
Ice Skating Rink Racquet / Tennis Club	465 491	1,000 SF GFA Courts	1.33 3.82			1.33 3.82	7.86 7.86	50% 50%	3.93	1.50	2.00 5.73
Recreational Community Center	495	1,000 SF GFA	2.31			2.31	7.86	50%	3.93	1.50	3.47
INSTITUTIONAL		7,000					7100				
Elementary School	520	Students	0.17			0.17	3.49	50%	1.75	1.50	0.26
Middle School / Junior High School	522	Students	0.17			0.17	3.49	50%	1.75	1.50	0.26
High School	530	Students	0.14			0.14	3.49	50%	1.75	1.50	0.21
Junior / Community College University / College	540 550	Students Students	0.11			0.11	10.44 10.44	50% 50%	5.22	1.50	0.17
Church	560	1,000 SF GFA	0.49			0.49	8.31	50%	4.16	1.50	0.74
Day Care Center	565	1,000 SF GFA	11.12	44%	В	6.23	3.49	50%	1.75	1.50	9.35
MFDICAL											
Hospital	610	Beds	1.89			1.89	9.85	50%	4.93	1.50	2.84
Nursing Home Clinic	620	Beds 1,000 SF GFA	0.22 3.28			0.22 3.28	9.85 9.85	50% 50%	4.93	1.50	0.33 4.92
Animal Hospital / Veterinary Clinic	640	1,000 SF GFA	3.53	30%	В	2.47	9.85	50%	4.93	1.50	3.71
OFFICE		· · · · · · · · · · · · · · · · · · ·									
General Office Building	710	1,000 SF GFA	1.15			1.15	14.65	50%	7.33	1.50	1.73
Corporate Headquarters Building	714	1,000 SF GFA	0.60			0.60	14.65	50%	7.33	1.50	0.90
Single Tenant Office Building	715	1,000 SF GFA	1.71 3.46			1.71 3.46	14.65	50%	7.33 4.93	1.50	2.57
Medical-Dental Office Office Park	720 750	1,000 SF GFA 1,000 SF GFA	1.07			1.07	9.85 14.65	50% 50%	7.33	1.50	5.19 1.61
COMMERCIAL		.,				2.07		23/0		2.50	
Automobile Related											
Automobile Sales (New)	840	1,000 SF GFA	2.43	20%	В	1.94	5.60	50%	2.80	1.50	2.91
Automobile Parts Sales	843 848	1,000 SF GFA	4.91 3.98	43% 28%	A A	2.80	4.45 4.45	50% 0.50	2.23	1.50	4.20 4.31
Tire Store Quick Lubrication Vehicle Shop	941	1,000 SF GFA Servicing Positions	4.85	40%	B	2.87	4.45	50%	2.23	1.50	4.31
Automobile Care Center	941	1,000 SF GLA	3.11	40%	В	1.87	4.45	50%	2.23	1.50	2.81
Gasoline / Service Station	944	Vehicle Fueling Positions	14.03	42%	A	8.14	1.20	50%	0.60	0.60	4.88
Gasoline / Service Station w/ Convenience Market	945	Vehicle Fueling Positions	13.99	56%	A	6.16	1.20	50%	0.60	0.60	3.70
Self-Service Car Wash	947	Stalls	5.54	40%	В	3.32	1.20	50%	0.60	0.60	1.99
Dining Quality Restaurant	931	1,000 SF GFA	7.80	44%	A	4.37	5.64	50%	2.82	1.50	6.56
High Turnover (Sit-Down) Restaurant	931	1,000 SF GFA	9.77	43%	A	5.57	5.64	50%	2.82	1.50	8.36
Fast Food Restaurant without Drive-Thru Window	933	1,000 SF GFA	28.34	50%	В	14.17	5.64	50%	2.82	1.50	21.26
Fast Food Restaurant with Drive-Thru Window	934	1,000 SF GFA	32.67	50%	A	16.34	5.64	50%	2.82	1.50	24.51
Coffee / Donut Shop with Drive-Thru Window	937	1,000 SF GFA	43.38	70%	В	13.01	5.64	50%	2.82	1.50	19.52
Other Retail	017	1,000 05 054	4.00	2007		2.20	5 ^^	5001	2.00	1.50	5.05
Free-Standing Discount Store Nursery (Garden Center)	815 817	1,000 SF GFA 1,000 SF GFA	4.83 6.94	30%	C B	3.38 4.86	5.60	50% 50%	2.80	1.50	5.07 7.29
Shopping Center	820	1,000 SF GFA	3.81	34%	A	2.51	5.60	50%	2.80	1.50	3.77
Supermarket	850	1,000 SF GFA	9.24	36%	A	5.91	5.60	50%	2.80	1.50	8.87
Home Improvement Superstore	862	1,000 SF GFA	2.33	42%	A	1.35	5.60	50%	2.80	1.50	2.03
Toy / Children's Superstore	864	1,000 SF GFA	5.00	30%	В	3.50	5.60	50%	2.80	1.50	5.25
Department Store	875	1,000 SF GFA	1.95	30%	В	1.37	5.60	50%	2.80	1.50	2.06
Pharmacy / Drugstore without Drive-Thru Window Pharmacy / Drugstore with Drive-Thru Window	880 881	1,000 SF GFA 1,000 SF GFA	8.51 10.29	53% 49%	A A	4.00 5.25	5.60 5.60	50% 50%	2.80	1.50	6.00 7.88
SERVICES	001	1,000 SF UFA	10.29	→ 270	А	3.43	5.00	JU70	4.00	1.30	7.00
Walk-In Bank	911	1,000 SF GFA	12.13	40%	В	7.28	4.45	50%	2.23	1.50	10.92
Drive-In Bank	912	Drive-in Lanes	27.15	35%	Α	17.65	4.45	50%	2.23	1.50	26.48
Hair Salon	918	1,000 SF GFA	1.45	30%	В	1.02	6.41	50%	3.21	1.50	1.53

A: ITE Trip Generation Handbook 3rd Edition (September 2017)
B: Estimated by Kimley-Horn based on ITE rates for similar categories

C: ITE rate adjusted upward by KHA based on logical relationship to other categories





Table 12 - Land Use Descriptions

Land Use Category	ITE Land Use Code	Land Use Description
PORT AND TERMINAL		
Truck Terminal	030	Point of good transfer between trucks or between trucks and rail
INDUSTRIAL		
General Light Industrial	110	Emphasis on activities other than manufacturing; typically employing fewer than 500 workers
Industrial Park Warehousing	130 150	Area containing a number of industries or related facilities Devoted to storage of materials but may included office and maintenance areas
Mini-Warehouse	151	Devote to storge or interiests but may include office and interior class. Facilities with a number of units rented to others for the storage of goods.
RESIDENTIAL		
Single-Family Detached Housing	210	Single-family detached homes on individual lots
Townhomes	220	Single-family ownership units that have at least one other single-family owned unit within the same building
Multifamily Housing (Low-Rise) Multifamily Housing (Mid-Rise)	220 221	At least 3 rental dwelling units and one or two levels (floors) per building At least 3 rental dwelling units and between three and ten levels (floors) per building
Multifamily Housing (High-Rise)	222	At least 3 rental dwelling units and more than ten levels (noors) per outdung At least 3 rental dwelling units and more than ten levels (floors) per building At least 3 rental dwelling units and more than ten levels (floors) per building
Mid-Rise Residential with 1st Floor Commercial	231	Mixed-use multifamily housing buildings that have between three and 10 levels (floors) and include retail space on the first level
Mobile Home Park / Manufactured Housing	240	Consist of manufactured homes that are sited and installed on permanent foundations
Senior Adult Housing-Detached	251	Consists of detached independent living developments that include amenities such as golf courses and swimming pools
Senior Adult Housing-Attached	252 253	Consists of attached independent living developments that include limited social or recreation services
Congregate Care Facility Assisted Living	254	Independent living developments with centralized amenities such as dining, housekeeping, transportation and organized social/recreational activities Residential settings that provide either routine general protective oversight or assistance with activities.
LODGING		The state of the s
Hotel	310	Lodging facilities that typically have on-site restaurants, lounges, meeting and/or banquet rooms, or other retail shops and services
Motel / Other Lodging Facilities	320	Lodging facilities that may have small on-site restaurant or buffet area but little or no meeting space
RECREATIONAL Colf Course	420	May had a mujohad anuras and girata agustu aluka mu kan digira agustu aluka mu kan digira agustu aluka mujohad
Golf Course Miniature Golf Course	430	May include municipal courses and private country clubs; may have driving ranges, pro shops, and restaurant/banquet facilities One or more individual putting courses; category should not be used when part of a larger entertainment center (with batting cages, video game centers, etc)
Golf Driving Range	432	Facilities with driving tees for practice; may provide individual or group lessons; may have prop shop and/or refreshment facilities
Multiplex Movie Theater	445	Movie theater with audience seating, minimum of ten screens, lobby, and refreshment area.
Ice Skating Rink	465	Rinks for ice skating and related sports; may contain spectator areas and refres hment facilities
Racquet / Tennis Club	491	Indoor or outdoor facilities specifically designed for playing tennis
Recreational Community Center INSTITUTIONAL	495	Privately owned facilities that primarily focus on individual fitness or training
Elementary School	520	
Middle School / Junior High School	522	
High School	530	
Junior / Community College	540	
University / College	550	
Church Day Care Center	560 565	Churches and houses of worship Generally includes facilities for care of pre-school aged children, generally includes classrooms, offices, eating areas, and playgrounds
MEDICAL	505	contrary memory and the stripe serious agest summer; generally memory cannot content and pany grounds
Hospital	610	Medical and surgical facilities with overnight accommodations
Nursing Home	620	Rest and convalescent homes with residents who do little or no driving
Clinic Animal Hospital / Veterinary Clinic	630 640	Facilities with limited diagnostic and outpatient care Facility that specializes in the medical care and treatment of animals
OFFICE	040	Pacinity that specializes in the neutral care and deathern of annians
General Office Building	710	Office buildings which house multiple tenants
Corporate Headquarters Building	714	Office building housing corporate headquarters of a single company or organization
Single Tenant Office Building	715	Single tenant office buildings other than corporate headquarters
Medical/Dental Office Office Park	720 750	Multi-tenant building with offices for physicians and/or dentists Office buildings (typically low-rise) in a campus setting and served by a common roadway system
COMMERCIAL	130	опис ования в пуркци в в чаприз эсина ани эсичен оу а сонавли положау хумени
Automobile Related		
Automobile Sales (New)	840	New car dealerships, typically with automobile servicing and part sales
Automobile Parts Sales	843	Retail sale of auto parts but no on-site vehicle repair
Tire Store Quick Lubrication Vehicle Shop	848 941	Primary business is sales and installation of tires; usually do not have large storage or warehouse area
Automobile Care Center	941	Primary business is to perform oil changes and fluid/filter changes with other repair services not provided Automobile repair and servicing including stereo installations and upholstering
	944	Gasoline sales without convenience store or car wash; may include repair
Gasoline / Service Station		Casoline sales with convenience store where the primary business is gasoline sales
Gasoline/Service Station w/ Conv Market	945	
Gasoline/Service Station w/ Conv Market Self-Service Car Wash		Has stalls for driver to park and wash the vehicle
Casoline/Service Station w/ Conv Market Self-Service Car Wash Dining	945 947	Has stalls for driver to park and wash the vehicle
Gasoline/Service Station w/ Conv Market Self-Service Car Wash Dining Sit Down Restaurant	945 947 931	Has stalls for driver to park and wash the vehicle Restaurants with turnover rates of one hour or longer; typically require reservations
Casoline/Service Station w/ Conv Market Self-Service Car Wash Dining	945 947	Has stalls for driver to park and wash the vehicle
Gasoline/Service Station w/ Conv Market Self-Service Car Wash Dining Sit Down Restaurant High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Drive-Thru Window Fast Food Restaurant with Drive-Thru Window	945 947 931 932 933 934	Has stalls for driver to park and wash the vehicle Restaurants with turnover rates of one hour or longer; typically require reservations Restaurants with turnover rates less than one hour; typically includes moderately-priced chain restaurants High-turnover fast food restaurant for carry-out and eat-in customers, but without a drive-thru window High-turnover fast food restaurant for carry-out and eat-in customers with a drive-thru window
Gasoline/Service Station w/ Conv Market Self-Service Car Wash Dining Sit Down Restaurant High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window	945 947 931 932 933	Has stalls for driver to park and wash the vehicle Restaurants with turnover rates of one hour or longer; typically require reservations Restaurants with turnover rates less than one hour; typically includes moderately-priced chain restaurants High-turnover fast food restaurant for carry-out and eat-in customers, but without a drive-thru window
Gasoline/Service Station w/ Conv Market Self-Service Car Wash Dining Sit Down Restaurant High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Drive-Thru Window Fast Food Restaurant with Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window Other Retail	945 947 931 932 933 934 937	Has stalls for driver to park and wash the vehicle Restaurants with turnover rates of one hour or longer; typically require reservations Restaurants with turnover rates less than one hour; typically includes moderately-priced chain restaurants High-turnover fast food restaurant for carry-out and eat-in customers, but without a drive-thru window High-turnover fast food restaurant for carry-out and eat-in customers with a drive-thru window Coffee and Donut restaurants with drive-through windows, hold long store hours and have limited indoor seating
Gasoline/Service Station w/ Conv Market Self-Service Car Wash Dining Sit Down Restaurant High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window Other Retail Free-Standing Retail Store	945 947 931 932 933 934 937	Has stalls for driver to park and wash the vehicle Restaurants with turnover rates of one hour or longer; typically require reservations Restaurants with turnover rates less than one hour; typically includes moderately-priced chain restaurants High-turnover fast food restaurant for carry-out and eat-in customers, but without a drive-thru window High-turnover fast food restaurant for carry-out and eat-in customers with a drive-thru window Coffee and Donut restaurants with drive-through windows, hold long store hours and have limited indoor seating Category includes free-standing stores with off-street parking; typically offer a variety of products and services with long store hours
Gasoline/Service Station w/ Conv Market Self-Service Car Wash Dining Sit Down Restaurant High Tumover (Sit-Down) Restaurant Fast Food Restaurant with Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window Other Retail Free-Standing Retail Store Garden Center (Nursery)	945 947 931 932 933 934 937	Has stalls for driver to park and wash the vehicle Restaurants with turnover rates of one hour or longer; typically require reservations Restaurants with turnover rates less than one hour; typically includes moderately-priced chain restaurants High-turnover fast food restaurant for carry-out and eat-in customers, but without a drive-thru window High-turnover fast food restaurant for carry-out and eat-in customers with a drive-thru window Coffee and Donut restaurants with drive-through windows, hold long store hours and have limited indoor seating
Gasoline/Service Station w/ Conv Market Self-Service Car Wash Dining Sit Down Restaurant High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Drive-Thru Window Fast Food Restaurant with Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window Other Retail Free-Standing Retail Store Garden Center (Nursery) Shopping Center Supermarket	945 947 931 932 933 934 937 815 817 820 850	Has stalls for driver to park and wash the vehicle Restaurants with turnover rates of one hour or longer; typically require reservations Restaurants with turnover rates less than one hour; typically includes moderately-priced chain restaurants High-turnover fast food restaurant for carry-out and eat-in customers, but without a drive-thru window High-turnover fast food restaurant for carry-out and eat-in customers with a drive-thru window Coffee and Donut restaurants with drive-through windows, hold long store hours and have limited indoor seating Category includes free-standing stores with off-street parking; typically offer a variety of products and services with long store hours Building with a yard of planting or lands cape stock; may have office, storage, shipping or greenhouse facilities Integrated group of commercial establishments; planning, owned, and managed as a unit Primary business is sale of groceries, food, and household cleaning items; may include photo, pharmacy, video rental, and/or ATM
Gasoline/Service Station w/ Conv Market Self-Service Car Wash Dining Sit Down Restaurant High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Drive-Thru Window Fast Food Restaurant with Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window Other Retail Free-Standing Retail Store Garden Center (Nursery) Shopping Center Supermarket Home Improvement Superstore	945 947 931 932 933 934 937 815 817 820 850 862	Has stalls for driver to park and wash the vehicle Restaurants with turnover rates of one hour or longer; typically require reservations Restaurants with turnover rates less than one hour; typically includes moderately-priced chain restaurants High-turnover fast food restaurant for carry-out and eat-in customers, but without a drive-thru window High-turnover fast food restaurant for carry-out and eat-in customers with a drive-thru window Coffee and Donut restaurants with drive-through windows, hold long store hours and have limited indoor seating Category includes free-standing stores with off-street parking; typically offer a variety of products and services with long store hours Building with a yard of planting or landscape stock; may have office, storage, shipping or greenhouse facilities Integrated group of commercial establishments; planning, owned, and managed as a unit Primary business is sale of groceries, food, and household cleaning items; may include photo, pharmacy, video rental, and/or ATM Warehouse-type facilities offering a large variety of products and services including lumber, tool, paint, lighting, and fixtures, among other items.
Gasoline/Service Station w/ Conv Market Self-Service Car Wash Dining Sit Down Restaurant High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window Other Retail Free-Standing Retail Store Garden Center (Nursery) Shopping Center Supermarket Home Improvement Superstore Toy/Children's Superstore	945 947 931 932 933 934 937 815 817 820 862 864	Has stalls for driver to park and wash the vehicle Restaurants with turnover rates of one hour or longer; typically require reservations Restaurants with turnover rates less than one hour; typically includes moderately-priced chain restaurants High-turnover fast food restaurant for carry-out and eat-in customers, but without a drive-thru window High-turnover fast food restaurant for carry-out and eat-in customers with a drive-thru window Coffee and Donut restaurants with drive-through windows, hold long store hours and have limited indoor seating Category includes free-standing stores with off-street parking; typically offer a variety of products and services with long store hours Building with a yard of planting or landscape stock; may have office, storage, shipping or greenhouse facilities Integrated group of commercial establishments; planning, owned, and managed as a unit Primary business is sale of groceries, food, and household cleaning items; may include photo, pharmacy, video rental, and/or ATM Warehouse-type facilities offering a large variety of products and services including lumber, tool, paint, lighting, and fixtures, among other items. Businesses specializing in child-oriented merchandise
Gasoline/Service Station w/ Conv Market Self-Service Car Wash Dining Sit Down Restaurant High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window Other Retail Free-Standing Retail Store Garden Center (Nursery) Shopping Center Supermarket Home Improvement Superstore Toy/Children's Superstore Pharmacy / Drugstore without Drive-Thru Window	945 947 931 932 933 934 937 815 817 820 850 862 864	Has stalls for driver to park and wash the vehicle Restaurants with turnover rates of one hour or longer; typically require reservations Restaurants with turnover rates less than one hour; typically includes moderately-priced chain restaurants High-turnover fast food restaurant for carry-out and eat-in customers, but without a drive-thru window High-turnover fast food restaurant for carry-out and eat-in customers with a drive-thru window Coffee and Donut restaurants with drive-through windows, hold long store hours and have limited indoor seating Category includes free-standing stores with off-street parking; typically offer a variety of products and services with long store hours Building with a yard of planting or landscape stock; may have office, storage, shipping or greenhouse facilities Integrated group of commercial establishments; planning, owned, and managed as a unit Primary business is sale of groceries, food, and household cleaning items; may include photo, pharmacy, video rental, and/or ATM Warehouse-type facilities offering a large variety of products and services including lumber, tool, paint, lighting, and fixtures, among other items. Businesses specializing in child-oriented merchandise Facilities that primarily sell prescription and non-prescription drugs without a drive-through window
Gasoline/Service Station w/ Conv Market Self-Service Car Wash Dining Sit Down Restaurant High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Drive-Thru Window Fast Food Restaurant with Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window Other Retail Free-Standing Retail Store Garden Center (Nursery) Shopping Center Supermarket Home Improvement Superstore Toy/Children's Superstore Toyl/Children's Superstore Pharmacy / Drugstore without Drive-Thru Window Pharmacy / Drugstore with Drive-Thru Window	945 947 931 932 933 934 937 815 817 820 862 864	Has stalls for driver to park and wash the vehicle Restaurants with turnover rates of one hour or longer; typically require reservations Restaurants with turnover rates less than one hour; typically includes moderately-priced chain restaurants High-turnover fast food restaurant for carry-out and eat-in customers, but without a drive-thru window High-turnover fast food restaurant for carry-out and eat-in customers with a drive-thru window Coffee and Donut restaurants with drive-through windows, hold long store hours and have limited indoor seating Category includes free-standing stores with off-street parking; typically offer a variety of products and services with long store hours Building with a yard of planting or landscape stock; may have office, storage, shipping or greenhouse facilities Integrated group of commercial establishments; planning, owned, and managed as a unit Primary business is sale of groceries, food, and household cleaning items; may include photo, pharmacy, video rental, and/or ATM Warehouse-type facilities offering a large variety of products and services including lumber, tool, paint, lighting, and fixtures, among other items. Businesses specializing in child-oriented merchandise
Gasoline/Service Station w/ Conv Market Self-Service Car Wash Dining Sit Down Restaurant High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window Other Retail Free-Standing Retail Store Garden Center (Nursery) Shopping Center Supermarket Home Improvement Superstore Toy/Children's Superstore Pharmacy / Drugstore without Drive-Thru Window	945 947 931 932 933 934 937 815 817 820 850 862 864	Has stalls for driver to park and wash the vehicle Restaurants with tumover rates of one hour or longer; typically require reservations Restaurants with tumover rates less than one hour; typically includes moderately-priced chain restaurants High-tumover fast food restaurant for carry-out and eat-in customers, but without a drive-thru window High-tumover fast food restaurant for carry-out and eat-in customers with a drive-thru window Coffee and Donut restaurants with drive-through windows, hold long store hours and have limited indoor seating Category includes free-standing stores with off-street parking; typically offer a variety of products and services with long store hours Building with a yard of planting or landscape stock; may have office, storage, shipping or greenhouse facilities Integrated group of commercial establishments; planning, owned, and managed as a unit Primary business is sale of groceries, food, and household cleaning items; may include photo, pharmacy, video rental, and/or ATM Warehouse-type facilities offering a large variety of products and services including lumber, tool, paint, lighting, and fixtures, among other items. Businesses specializing in child-oriented merchandise Facilities that primarily sell prescription and non-prescription drugs without a drive-through window
Gasoline/Service Station w/ Conv Market Self-Service Car Wash Dining Sit Down Restaurant High Tumover (Sit-Down) Restaurant Fast Food Restaurant without Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window Coffee / Donut Shop with Drive-Thru Window Other Retail Free-Standing Retail Store Garden Center (Nursery) Shopping Center Supermarket Home Improvement Superstore Toy/Children's Superstore Pharmacy / Drugstore without Drive-Thru Window Pharmacy / Drugstore with Drive-Thru Window SERVICES	945 947 931 932 933 934 937 815 817 820 862 864 880 881	Has stalls for driver to park and wash the vehicle Restaurants with turnover rates of one hour or longer; typically require reservations Restaurants with turnover rates less than one hour; typically includes moderately-priced chain restaurants High-turnover fast food restaurant for carry-out and eat-in customers, but without a drive-thru window High-turnover fast food restaurant for carry-out and eat-in customers with a drive-thru window Coffee and Donut restaurants with drive-through windows, hold long store hours and have limited indoor seating Category includes free-standing stores with off-street parking; typically offer a variety of products and services with long store hours Building with a yard of planting or landscape stock; may have office, storage, shipping or greenhouse facilities Integrated group of commercial establishments; planning, owned, and managed as a unit Primary business is sale of groceries, food, and household cleaning items; may include photo, pharmacy, video rental, and/or ATM Warehouse-type facilities offering a large variety of products and services including lumber, tool, paint, lighting, and fixtures, among other items. Businesses specializing in child-oriented merchandise Facilities that primarily sell prescription and non-prescription drugs without a drive-through window Facilities that primarily sell prescription and non-prescription drugs with a drive-through window





VI. SAMPLE CALCULATIONS

The following section details two (2) examples of maximum assessable Roadway Impact Fee calculations.

Example 1: Development Type - One (1) Unit of Single-Family Housing in Service Area C

	Determine Development Unit and Vehicle-Miles Per Development Unit
Step	From Table 11 [Land Use – Vehicle-Mile Equivalency Table]
1 1	Development Type: 1 Dwelling Unit of Single-Family Detached Housing
	Number of Development Units: 1 Dwelling Unit
	Veh-Mi Per Development Unit: 3.96
Ston	Determine Maximum Assessable Impact Fee Per Service Unit (Vehicle-Mile)
Step 2	From Table 10, Line 19 [Maximum Assessable Fee Per Service Unit]
	Service Area C: \$2,808
	Determine Maximum Assessable Impact Fee
	Impact Fee = # of Development Units * Veh-Mi Per Dev Unit * Max. Fee Per Service
Step	Unit
3	Impact Fee = 1 * 3.96 * \$2,808
	Impast 1 66 1 6,76 42,7666
	Maximum Assessable Impact Fee = \$11,120

Example 2: Development Type – 50,000 Square Foot Shopping Center in Service Area I

	Determine Development Unit and Vehicle-Miles Per Development Unit
Step	From Table 11 [Land Use – Vehicle-Mile Equivalency Table]
1	Development Type: 50,000 square feet of Home Improvement Store
	Development Unit: 50 thousand square feet of Gross Floor Area
	Veh-Mi Per Development Unit: 7.03
Ston	Determine Maximum Assessable Impact Fee Per Service Unit (Vehicle-Mile)
Step 2	From Table 10, Line 19 [Maximum Assessable Fee Per Service Unit]
	Service Area I: \$1,265
	Determine Maximum Assessable Impact Fee
	Impact Fee = # of Development Units * Veh-Mi Per Dev Unit * Max. Fee Per Service
Step	Unit
3	Impact Foo
	Impact Fee = 50 * 7.03 * \$1,265
	Maximum Assessable Impact Fee = \$444,648





VII. ADOPTION AND ADMINISTRATION OF ROADWAY IMPACT FEES

A. Adoption Process

Chapter 395 of the Texas Local Government Code stipulates a specific process for the adoption of Roadway Impact Fees. A Capital Improvements Advisory Committee (CIAC) is required to review the Land Use Assumptions and Roadway Impact Fees RIP used in calculating the maximum fee, and to provide the Committee's findings for consideration by the City Council. This CIAC also reviews the calculation and resulting maximum fees and provides its findings to the City Council. The composition of the CIAC (Planning and Zoning Commission in McKinney) is required to have one representative of the building and development communities. The City Council then conducts a public hearing on the Land Use Assumptions, RIF RIP, and Impact Fee Ordinance. A public hearing is required for the 2018-2019 Roadway Impact Fee Update.

Following policy adoption, the CIAC is tasked with advising the City Council of the need to update the Land Use Assumptions or the Roadway Impact Fees RIP at any time within five years of adoption. Finally, the CIAC oversees the proper administration of the Impact Fee, once in place, and advises the Council as necessary.

B. Collection and Use of Transportation Impact Fees

Roadway Impact Fees are assessed when a final plat is recorded. The assessment defines the impact of each unit at the time of platting, according to land use, and may not exceed the maximum impact fee allowed by law. Roadway Impact Fees are collected when a building permit is issued. Therefore, funds are not collected until development-impacts are introduced to the transportation system. Funds collected within a service area can be used only within the same service area. Finally, fees must be utilized within 10 years of collection, or must be refunded with interest.





VIII. CONCLUSION

The City of McKinney has established a process to implement the assessment and collection of Roadway Impact Fees through the adoption of an impact fee ordinance that is consistent with Chapter 395 of the Texas Local Government Code.

This report establishes the maximum allowable Roadway Impact Fee that could be assessed by the City of McKinney within each of the thirteen (13) service areas. The maximum assessable roadway impact fees calculated in this report are presented below.

Service	2019-2020 Maximum Fee Per Service	2012–2013 Maximum Fee Per Service
Area	Unit (Per Vehicle-Mile)	Unit (Per Vehicle-Mile)
А	\$0	\$0
В	\$1,094	\$1,793
С	\$2,808	\$1,410
D	\$3,438	\$1,707
E	\$2,202	\$2,085
F	\$0	\$0
G	\$1,155	\$628
Н	\$361	\$393
I	\$1,265	\$750
J	\$347	\$854
K	\$1,197	\$1,178
	\$2,044	\$1,265
M	\$2,406	\$0

This document serves as a guide to the assessment of Roadway Impact Fees pertaining to future development, and the City's need for roadway improvements to accommodate that growth. Following the public hearing process, the City Council may establish an impact fee amount to be assesses (if any), up to the calculated maximum and establish the Roadway Impact Fee Ordinance accordingly.





In conclusion, it is our opinion that the data and methodology used in this analysis are appropriate and consistent with Chapter 395 of the Texas Local Government Code. Furthermore, the Land Use Assumptions and the proposed Roadway Impact Fee Roadway Improvements Plan are appropriately incorporated into the development of the maximum assessable Roadway Impact Fee.







IX. APPENDICES

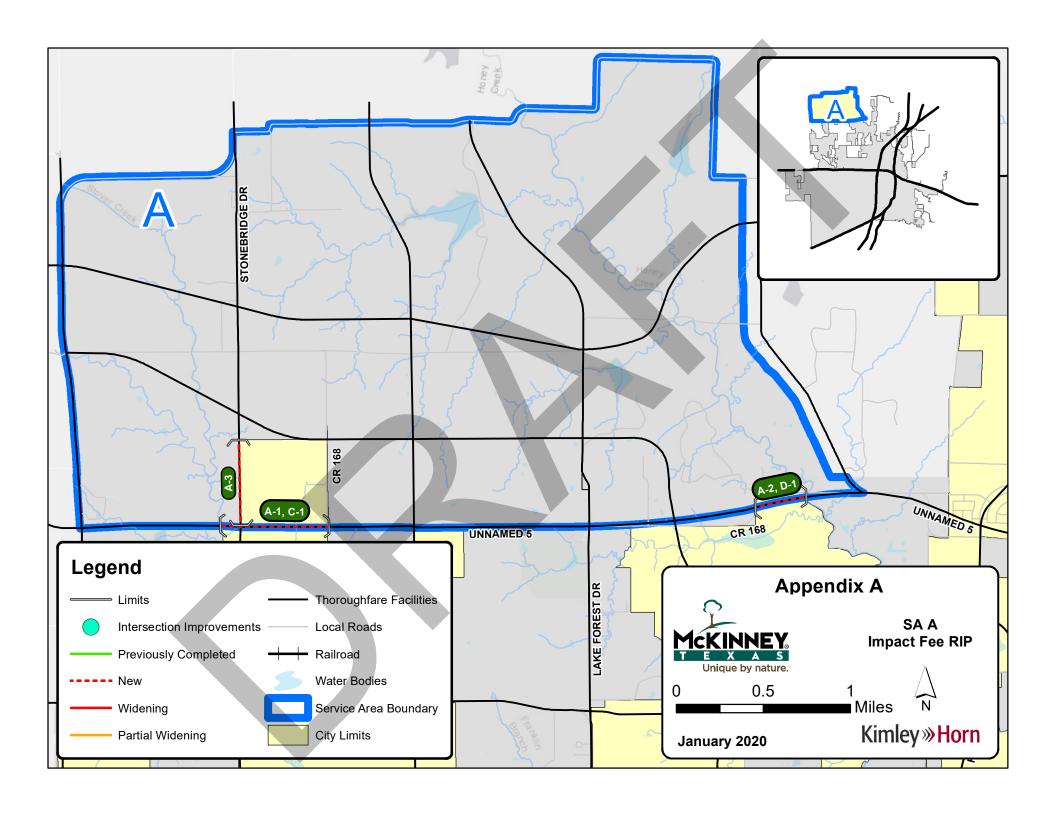
- A. Conceptual Level Project Cost Projections
 - SERVICE AREA A
 - SERVICE AREA B
 - SERVICE AREA C
 - SERVICE AREA D
 - SERVICE AREA E
 - SERVICE AREA G
 - SERVICE AREA H
 - SERVICE AREA I
 - SERVICE AREA J
 - SERVICE AREA K
 - SERVICE AREA L
 - SERVICE AREA M
- B. Roadway Impact Fee RIP Service Units of Supply
- C. Existing Roadway Facilities Inventory
- D. Plan for Awarding the Roadway Impact Fee Credit Summary FROM NEWGEN STRATEGIES & SOLUTIONS, LLC
- E. Plan for Awarding the Roadway Impact Fee Credit Supporting Exhibits

FROM NEWGEN STRATEGIES & SOLUTIONS, LLC





Appendix A – Conceptual Level Project Cost Projections



City of McKinney - 2018 - 2019 Roadway Impact Fee Update

Roadway Improvement Plan for Roadway Impact Fees Appendix A - Summary of Conceptual Level Project Cost Projections

Roadway Improvements - Service Area A

	Costing					Percent in	(Cost in
#	Class	Project	Limits	T	otal Cost	Service Area	Ser	vice Area
A-1, C-1	M6D	UNNAMED 5 (1)	635' W OF STONEBRIDGE DR TO CR 168	\$	7,715,900	50%	\$	3,857,950
A-2, D-1	M6D	UNNAMED 5 (3)	CR 168 TO 1,560' E OF CR 168	\$	7,517,500	50%	\$	3,758,750
A-3	G4D	STONEBRIDGE DR (1)	2,635' N OF UNNAMED 5 TO UNNAMED 5	\$	4,679,450	50%	\$	2,339,725
				\$	19.912.850		\$	9.956.425

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney. The planning level cost projections shall not supersede the City's design standards contained within the Subdivision Ordinance or the determination of the City Engineer for a specific project.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 12/13/2019

Project Information: Description: Project No. A-1, C-1

Name: UNNAMED 5 (1) This project consists of the

Limits: 635' W OF STONEBRIDGE DR TO CR 168 construction of a new six-lane divided

Impact Fee Class: M6D major arterial.

Thoroughfare Class: Major Arterial

Length (If): 3,315 Service Area(s): A and C

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price		Item Cost
109	Unclassified Street Excavation	36,833	су	\$ 10.00) \$	368,333
209	Lime Treated Subgrade (8") (PI<12)	28,730	sy	\$ 7.00) \$	201,110
309	9" Concrete Pavement	27,257	sy	\$ 60.0) \$	1,635,400
409	4" Topsoil	12,892	sy	\$ 2.50) \$	32,229
509	6" Curb & Gutter	13,260	lf	\$ 5.00) \$	66,300
609	Allotment for Turn Lanes and Median Openings	2,023	sy	\$ 77.00) \$	155,774
709	Moisture Conditioning	28,730	sy	\$ 8.00) \$	229,840

Paving Construction Cost Subtotal: \$ 2,688,987

Major Construction Component Allowances**:							
Item Description	Notes	Allowance		Item Cost			
√ Traffic Control	None Anticipated	1%	\$	26,890			
√ Pavement Markings/Markers		3%	\$	80,670			
$\sqrt{}$ Roadway Drainage	Standard Internal System	25%	\$	672,247			
√ Special Drainage Structures	Stream Crossing		\$	250,000			
Water	None Anticipated	0%	\$	-			
Sewer	None Anticipated	0%	\$	-			
√ Establish Turf / Erosion Control		2%	\$	53,780			
√ Illumination	Standard Ilumination System	6%	\$	161,339			
Other:							
**Allowances based on % of Paving Construction	n Cost Subtotal Allowa	nce Subtotal:	\$	1,244,925			
	Paving and Allowa		\$	3,933,912			
	Mobilization:	5%	\$	196,696			
	Site Preparation: Construction C		\$	196,696			
	\$	4,328,000					
	\$	649,200					
	Construction Cost TOTAL W/ CON	TINGENCY:	\$	4,978,000			

Impact Fee Project Cost Sumi	mary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,978,000
Engineering/Survey/Testing:		20%	\$ 995,600
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 1,742,300
·	Impact Fee Pro	ject Cost TOTAL:	\$ 7,715,900

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 12/13/2019

Project Information: Description: Project No. A-2, D-1

Name: UNNAMED 5 (3) This project consists of the

Limits: CR 168 TO 1,560' E OF CR 168 construction of a new six-lane divided

Impact Fee Class: M6D major arterial.

Thoroughfare Class: Major Arterial

Length (If): 1,560
Service Area(s): A and D

Roa	adway Construction Cost Projection								
No.	Item Description	Quantity	Unit	Unit Price		Item Cost			
109	Unclassified Street Excavation	17,333	су	\$ 10.00	\$	173,333			
209	Lime Treated Subgrade (8") (PI<12)	13,520	sy	\$ 7.00	\$	94,640			
309	9" Concrete Pavement	12,827	sy	\$ 60.00	\$	769,600			
409	4" Topsoil	6,067	sy	\$ 2.50	\$	15,167			
509	6" Curb & Gutter	6,240	lf	\$ 5.00	\$	31,200			
609	Allotment for Turn Lanes and Median Openings	952	sy	\$ 77.00	\$	73,306			
709	Moisture Conditioning	13,520	sy	\$ 8.00	\$	108,160			
	Paring Operation Cont. On the College A 005 400								

Paving Construction Cost Subtotal: \$ 1,265,406

Major Construction Component Allowances**:							
	Item Description	Notes	Allowance		Item Cost		
	Traffic Control	None Anticipated	1%	\$	12,654		
	Pavement Markings/Markers		3%	\$	37,962		
	Roadway Drainage	Standard Internal System	25%	\$	316,351		
	Special Drainage Structures	Bridge		\$	2,100,000		
	Water	None Anticipated	0%	\$	-		
	Sewer	None Anticipated	0%	\$	-		
	Establish Turf / Erosion Control		2%	\$	25,308		
	Illumination	Standard Ilumination System	6%	\$	75,924		
	Other:						
**Allo	wances based on % of Paving Construction C	ost Subtotal Allowa	nce Subtotal:	\$	2,568,200		
		Paving and Allowa	nce Subtotal:	\$	3,833,606		
		Mobilization:	5%	\$	191,680		
		Site Preparation:	5%	\$	191,680		
	\$	4,217,000					
	\$	632,550					
	C	onstruction Cost TOTAL W/ CON	TINGENCY:	\$	4,850,000		

Impact Fee Project Cost Summer Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,850,000
Engineering/Survey/Testing:		20%	\$ 970,000
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 1,697,500
	Impact Fee Pro	ject Cost TOTAL:	\$ 7,517,500

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

Kimley-Horn and Associates, Inc.

updated:

12/13/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information: A-3 Description: Project No. Name: STONEBRIDGE DR (1) This project consists of the Limits: 2,635' N OF UNNAMED 5 TO UNNAMED 5 construction of a new four-lane divided **Impact Fee Class:** G4D greenway arterial. Based on the existing Thoroughfare Class: **Greenway Arterial** City Limits, the western half of the Length (If): 2,635 roadway is not included in the Impact Service Area(s): A, Half Fee RIP.

		-					
Roa	adway Construction Cost Projec	ction					
No.	Item Description		Quantity	Unit	Unit Price		Item Cost
107	Unclassified Street Excavation		25,764	су	\$ 10.00	\$	257,644
207	Lime Treated Subgrade (8") (PI<12)		19,323	sy	\$ 7.00	\$	135,263
307	8" Concrete Pavement		18,152	sy	\$ 55.00	\$	998,372
407	4" Topsoil		12,589	sy	\$ 2.50	\$	31,474
507	6" Curb & Gutter		10,540	lf	\$ 5.00	\$	52,700
607	Allotment for Turn Lanes and Median O	penings	1,547	sy	\$ 72.00	\$	111,389
707	Moisture Conditioning		19,323	sy	\$ 8.00	\$	154,587
		P	aving Consti	ruction (Cost Subtotal:	\$	1,741,429
			-				
Majo	or Construction Component Allowance	es**:					
	Item Description	Notes			Allowance		Item Cost
	Traffic Control	None Anticipated			1%	\$	17,414
	Pavement Markings/Markers				3%	\$	52,243
	Roadway Drainage	Standard Internal Sy	rstem		25%	\$	435,357
	Special Drainage Structures	None Anticipated		~		\$	-
	Water	None Anticipated			0%	\$	-
	Sewer	None Anticipated			0%	\$	-
	Establish Turf / Erosion Control				2%	\$	34,829
	Illumination	Standard Ilumination	System		6%	\$	104,486
	Other:						
**Allo	wances based on % of Paving Construction Cost	Subtotal		Allowa	nce Subtotal:	\$	644,329
			Paving and	d Allowa	nce Subtotal:	\$	2,385,758
			Mobi	lization:	5%	\$	119,288
	Site Preparation: 5%						119,288
			Construc	ction C	ost TOTAL:	\$	2,625,000
	Construction Contingency: 15%						

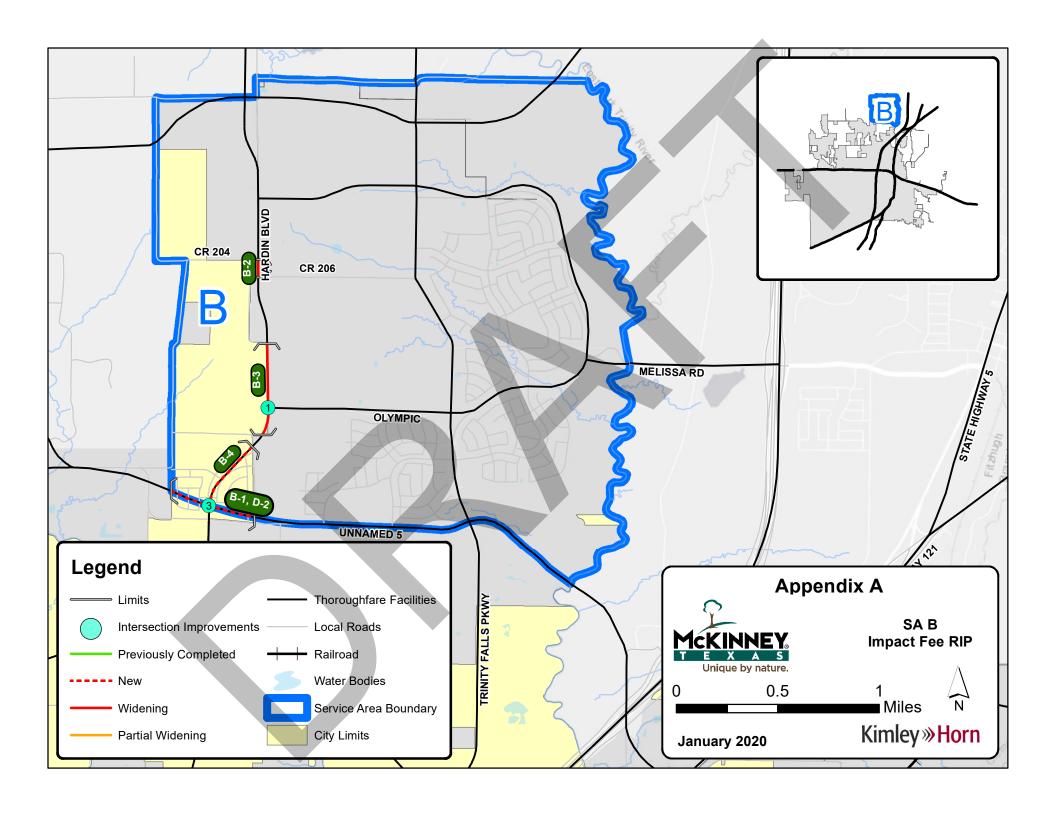
Impact Fee Project Cost Summa	ry		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,019,000
Engineering/Survey/Testing:		20%	\$ 603,800
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 1,056,650
,	Impact Fee Project C	ost TOTAL:	\$ 4,679,450

Construction Cost TOTAL W/ CONTINGENCY

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

3,019,000



City of McKinney - 2018 - 2019 Roadway Impact Fee Update

Roadway Improvement Plan for Roadway Impact Fees Appendix A - Summary of Conceptual Level Project Cost Projections

Roadway Improvements - Service Area B

	Costing					Percent in		Cost in
#	Class	Project	Limits	Т	otal Cost	Service Area	Sei	rvice Area
B-1, D-2	M6D	UNNAMED 5 (4)	1,050' W OF HARDIN BLVD TO 1,200' E OF HARDIN BLVD	\$	4,904,200	50%	\$	2,452,100
B-2	G6D	HARDIN BLVD (1)	CR 204 TO CR 206	\$	877,800	50%	\$	438,900
B-3	G6D	HARDIN BLVD (2)	1,670' N OF OLYMPIC TO 730' S OF OLYMPIC	\$	4,837,000	50%	\$	2,418,500
B-4	G6D	HARDIN BLVD (3)	1,940' N OF UNNAMED 5 TO UNNAMED 5	\$	4,090,450	100%	\$	4,090,450
1	Inter-	Signal	HARDIN BLVD & OLYMPIC	\$	300,000	50%	\$	150,000
3	section	Signal	HARDIN BLVD & UNNAMED 5	\$	300,000	50%	\$	150,000
				\$	15,309,450		\$	9,699,950

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney. The planning level cost projections shall not supersede the City's design standards contained within the Subdivision Ordinance or the determination of the City Engineer for a specific project.



2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 12/13/2019

Project Information: Description: Project No.

Name: UNNAMED 5 (4)

This project consists of the construction 1,050' W OF HARDIN BLVD TO of a new six-lane divided major arterial.

Limits: 1,200' E OF HARDIN BLVD

Impact Fee Class: M6D Thoroughfare Class: Major Arterial

Length (If): 2,250 Service Area(s): B and D

Roa	adway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
109	Unclassified Street Excavation	25,000	су	\$ 10.00	\$ 250,000
209	Lime Treated Subgrade (8") (PI<12)	19,500	sy	\$ 7.00	\$ 136,500
309	9" Concrete Pavement	18,500	sy	\$ 60.00	\$ 1,110,000
409	4" Topsoil	8,750	sy	\$ 2.50	\$ 21,875
509	6" Curb & Gutter	9,000	lf	\$ 5.00	\$ 45,000
609	Allotment for Turn Lanes and Median Openings	1,373	sy	\$ 77.00	\$ 105,729
709	Moisture Conditioning	19,500	sy	\$ 8.00	\$ 156,000

Paving Construction Cost Subtotal: \$ 1,825,104

Maj	or Construction Component Allowanc	es**:		
	Item Description	Notes	Allowance	Item Cost
	Traffic Control	None Anticipated	1%	\$ 18,251
	Pavement Markings/Markers		3%	\$ 54,753
	Roadway Drainage	Standard Internal System	25%	\$ 456,276
	Special Drainage Structures	None Anticipated		\$ -
	Water	None Anticipated	0%	\$ -
	Sewer	None Anticipated	0%	\$ -
	Establish Turf / Erosion Control		2%	\$ 36,502
	Illumination	Standard Ilumination System	6%	\$ 109,506
	Other:			
**Allo	wances based on % of Paving Construction Cost	Subtotal Allowa	nce Subtotal:	\$ 675,289
		· ·		
		Paving and Allowa	nce Subtotal:	\$ 2,500,393
		Mobilization:	5%	\$ 125,020
	\$ 125,020			
	\$ 2,751,000			
		Construction Contingency:	15%	\$ 412,650
	Co	nstruction Cost TOTAL W/ CON	FINGENCY:	\$ 3,164,000

Impact Fee Project Cost Summ	nary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,164,000
Engineering/Survey/Testing:		20%	\$ 632,800
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 1,107,400
	Impact Fee Pro	ject Cost TOTAL:	\$ 4,904,200

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

12/13/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Informatio	n:	Description:	Project No.	B-2
Name:	HARDIN BLVD (1)	This project consis	sts of the reconstruc	ction of a two-
Limits:	CR 204 TO CR 206	lane facility to a six	k-lane divided green	way arterial.
Impact Fee Class:	G6D	Based on the exist	ing City Limits, the	eastern half of
Thoroughfare Class:	Greenway Arterial	the roadway is not	included in the Imp	act Fee RIP.
Length (If):	435			
Service Area(s):	B, Half			

Roa	adway Construction Cost Projec	tion				ı	
No.	Item Description		Quantity	Unit	Unit Price		Item Cost
116	Unclassified Street Excavation		5,317	су	\$ 10.00	\$	53,167
216	Lime Treated Subgrade (8") (PI<12)		3,480	sy	\$ 7.00	\$	24,360
316	9" Concrete Pavement		3,287	sy	\$ 60.00	\$	197,200
416	4" Topsoil		2,755	sy	\$ 2.50	\$	6,888
516	6" Curb & Gutter		1,740	lf	\$ 5.00	\$	8,700
616	Allotment for Turn Lanes and Median Op	enings	301	sy	\$ 77.00	\$	23,148
716	Moisture Conditioning		3,480	sy	\$ 8.00	(5	27,840
		P	aving Consti	ruction C	Cost Subtotal:	\$	341,302
Majo	or Construction Component Allowance						
	Item Description	Notes			Allowance		Item Cost
$\sqrt{}$	Traffic Control	Construction Phase	Traffic Control		3%	\$	10,239
$\sqrt{}$	Pavement Markings/Markers				3%	\$	10,239
	Roadway Drainage	Standard Internal Sy	stem		25%	\$	85,325
	Special Drainage Structures	None Anticipated				\$	-
$\sqrt{}$	Water	Incidental Adjustmer	nts		3%	\$	10,239
	Sewer	Incidental Adjustmer	nts		3%	\$	10,239
	Establish Turf / Erosion Control				2%	\$	6,826
	Illumination	Standard Ilumination	System		6%	\$	20,478
	Other:						
**Allo	wances based on % of Paving Construction Cost S	ubtotal		Allowa	nce Subtotal:	\$	153,586
			_		nce Subtotal:	\$ \$	494,888
	Mobilization: 5%						24,744
						\$	24,744
	Construction Cost TOTAL:					\$	545,000
			uction Conti			\$	81,750
	Con	struction Cos	t TOTAL W	// CON	TINGENCY:	\$	627,000

Impact Fee Project Cost Summ	ary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 627,000
Engineering/Survey/Testing:		20%	\$ 125,400
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 125,400
,	Impact Fee Project	Cost TOTAL:	\$ 877,800

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

updated: 12/13/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information: B-3 Description: Project No. Name: HARDIN BLVD (2) This project consists of the Limits: 1,670' N OF OLYMPIC TO 730' S OF OLYMPIC reconstruction of a two-lane facility to a **Impact Fee Class:** G₆D six-lane divided greenway arterial. Thoroughfare Class: **Greenway Arterial** Based on the existing City Limits, the 2,400 Length (If): eastern half of the roadway is not B, Half Service Area(s): included in the Impact Fee RIP.

_	adway Construction Cost Projec	tion	0	1127	Harit Daire		liam Oaat
	Item Description		Quantity	Unit	Unit Price		Item Cost
116	Unclassified Street Excavation		29,333	су	\$ 10.00	\$	293,333
216	Lime Treated Subgrade (8") (PI<12)		19,200	sy	\$ 7.00	\$	134,400
316	9" Concrete Pavement		18,133	sy	\$ 60.00	\$	1,088,000
416	4" Topsoil		15,200	sy	\$ 2.50	\$	38,000
516	6" Curb & Gutter		9,600	lf	\$ 5.00	\$	48,000
616	Allotment for Turn Lanes and Median Op	enings	1,659	sy	\$ 77.00	\$	127,711
716	Moisture Conditioning		19,200	sy	\$ 8.00	\$	153,600
		P	aving Consti	uction C	Cost Subtotal:	\$	1,883,044
			J			·	
Majo	or Construction Component Allowance	s**:					
	Item Description	Notes			Allowance		Item Cost
	Traffic Control	Construction Phase	Traffic Control		3%	\$	56,491
	Pavement Markings/Markers				3%	\$	56,491
	Roadway Drainage	Standard Internal Sy	stem		25%	\$	470,761
	Special Drainage Structures	None Anticipated				\$	· -
	Water	Incidental Adjustmer	nts		3%		56,491
	Sewer	Incidental Adjustmer			3%		56,491
	Establish Turf / Erosion Control				2%		37,661
V	Illumination	Standard Ilumination	System		6%		112,983
	Other:					Ť	,,,,,,
**Allo	wances based on % of Paving Construction Cost S	ubtotal		Allowa	nce Subtotal:	\$	847,370
						ľ	,
	Paving and Allowance Subtotal:						
	Mobilization: 5%						
	Site Preparation: 5%						136,521 136,521
					ost TOTAL:		3,004,000
		Constr	uction Conti			т.	450,600

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,455,000
Engineering/Survey/Testing:		20%	\$ 691,000
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 691,000

Construction Cost TOTAL W/ CONTINGENCY:

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

3,455,000

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 12/13/2019

Project Information: Description: Project No. B-4

Name: HARDIN BLVD (3) This project consists of the

Limits: 1,940' N OF UNNAMED 5 TO UNNAMED 5 construction of a new six-lane divided

Impact Fee Class: G6D greenway arterial.

Thoroughfare Class: Greenway Arterial

Length (If): 1,940 Service Area(s): B

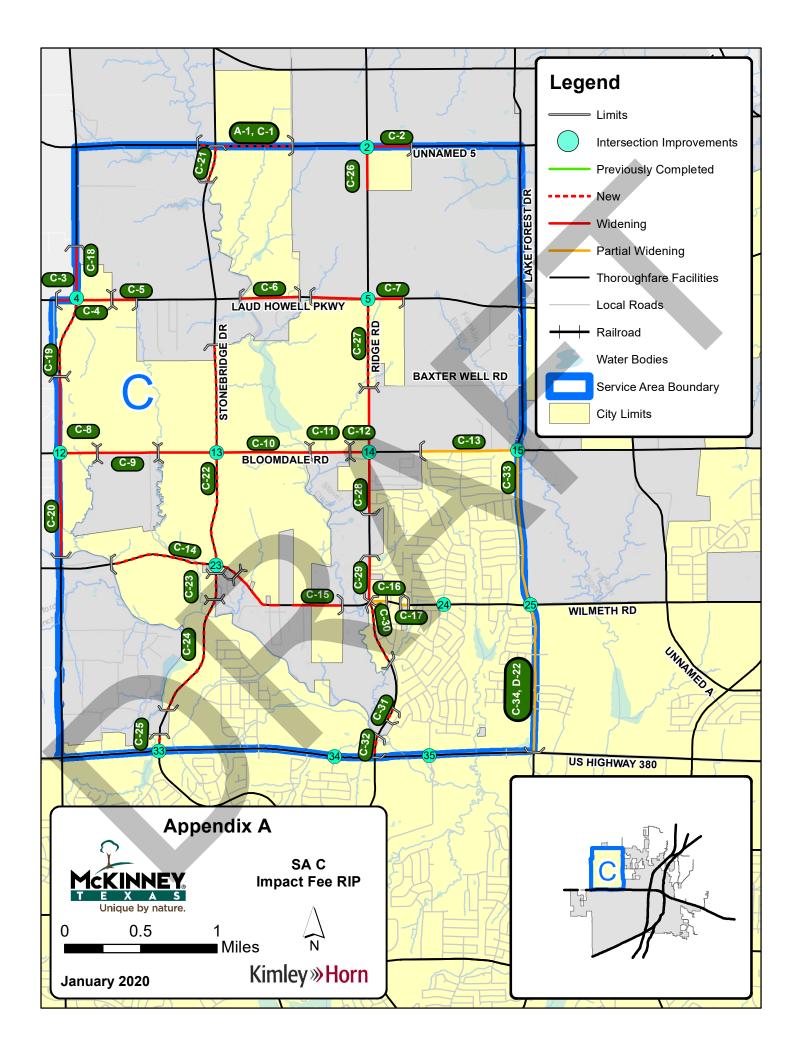
Roa	adway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Unit	Price		Item Cost
116	Unclassified Street Excavation	23,711	су	\$	10.00	\$	237,111
216	Lime Treated Subgrade (8") (PI<12)	15,520	sy	\$	7.00	(S)	108,640
316	9" Concrete Pavement	14,658	sy	\$	60.00	(S)	879,467
416	4" Topsoil	12,287	sy	\$	2.50	\$	30,717
516	6" Curb & Gutter	7,760	If	\$	5.00	(S)	38,800
616	Allotment for Turn Lanes and Median Openings	1,341	sy	\$	77.00	\$	103,233
716	Moisture Conditioning	15,520	sy	\$	8.00	\$	124,160

Paving Construction Cost Subtotal: \$ 1,522,128

Major Construction Component Allo			
Item Description	Notes	Allowance	Item Cost
√ Traffic Control	None Anticipated	1%	\$ 15,221
√ Pavement Markings/Markers		3%	\$ 45,664
$\sqrt{}$ Roadway Drainage	Standard Internal System	25%	\$ 380,532
Special Drainage Structures	None Anticipated		\$ -
Water	None Anticipated	0%	\$ -
Sewer	None Anticipated	0%	\$ -
√ Establish Turf / Erosion Control		2%	\$ 30,443
$\sqrt{}$ Illumination	Standard Ilumination System	6%	\$ 91,328
Other:			
**Allowances based on % of Paving Construction	on Cost Subtotal Allow	ance Subtotal:	\$ 563,187
	Paving and Allow	ance Subtotal:	\$ 2,085,315
	Mobilization	: 5%	\$ 104,266
	\$ 104,266		
	\$ 2,294,000		
	Construction Contingency	15%	\$ 344,100
	Construction Cost TOTAL W/ CON	ITINGENCY:	\$ 2,639,000

Impact Fee Project Cost Sumn Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,639,000
Engineering/Survey/Testing:		20%	\$ 527,800
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 923,650
	Impact Fee Project (Cost TOTAL:	\$ 4,090,450

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.



City of McKinney - 2018 - 2019 Roadway Impact Fee Update

Roadway Improvement Plan for Roadway Impact Fees Appendix A - Summary of Conceptual Level Project Cost Projections

Roadway Improvements - Service Area C

#	Costing Class	Project	Limits	Total Cost	Percent in Service Area	Cost in Service Area
A-1, C-1	M6D	UNNAMED 5 (1)	635' W OF STONEBRIDGE DR TO CR 168	\$ 7,715,900	50%	\$ 3,857,950
C-2	M6D	UNNAMED 5 (2)	RIDGE RD TO 1,505' E OF RIDGE RD	\$ 3,137,400	50%	\$ 1,568,700
C-3	G6D	LAUD HOWELL PKWY (1)	695' W OF CUSTER RD TO CUSTER RD	\$ 665,000	50%	\$ 332,50
C-4	G6D	LAUD HOWELL PKWY (2)	CUSTER RD TO 1,225' E OF CUSTER RD	\$ 1,171,800	100%	\$ 1,171,800
C-5	G6D	LAUD HOWELL PKWY (3)	1,225' E OF CUSTER RD TO 2,070' E OF CUSTER RD	\$ 808,500	50%	\$ 404,250
C-6	G6D	LAUD HOWELL PKWY (4)	840' E OF STONEBRIDGE DR TO 2,905' E OF STONEBRIDGE DR	\$ 2,859,500	50%	\$ 1,429,75
C-7	G6D	LAUD HOWELL PKWY (5)	1,985' W OF RIDGE RD TO 1,230' E OF RIDGE RD	\$ 3,073,000	50%	\$ 1,536,500
C-8	P6D	BLOOMDALE RD (1)	CUSTER RD TO 1,310' E OF CUSTER RD	\$ 3,179,400	100%	\$ 3,179,40
C-9	P6D	BLOOMDALE RD (2)	1,310' E OF CUSTER RD TO 2,030' W OF STONEBRIDGE DR	\$ 4,838,400	50%	\$ 2,419,20
C-10	P6D	BLOOMDALE RD (3)	2,030' W OF STONEBRIDGE DR TO 3,245' E OF STONEBRIDGE DR	\$ 13,314,000	100%	\$ 13,314,000
C-11	P6D	BLOOMDALE RD (4)	3,245' E OF STONEBRIDGE DR TO 695' W OF RIDGE RD	\$ 3,292,800	50%	\$ 1,646,400
C-12	P6D	BLOOMDALE RD (5)	695' W OF RIDGE RD TO RIDGE RD	\$ 1,453,200	100%	\$ 1,453,200
C-13	P6D(2/3)	BLOOMDALE RD (6)	3,400' W OF LAKE FOREST DR TO LAKE FOREST DR	\$ 4,650,800	50%	\$ 2,325,400
C-14	G4D	WILMETH RD (1)	3,725' W OF STONEBRIDGE DR TO 815' E OF STONEBRIDGE DR	\$ 8,845,850	100%	\$ 8,845,850
C-15	G4D	WILMETH RD (2)	815' E OF STONEBRIDGE DR TO 995' W OF RIDGE RD	\$ 6,200,600	50%	\$ 3,100,300
C-16	G4D(1/2)	WILMETH RD (3)	RIDGE RD TO 585' E OF RIDGE RD	\$ 1,593,000	100%	\$ 1,593,000
C-17	G4D(1/2)	WILMETH RD (4)	1,095' E OF RIDGE RD TO 1,365' E OF RIDGE RD	\$ 708,000	100%	\$ 708,000
C-18	P6D	CUSTER RD (1)	1,855' N OF LAUD HOWELL PKWY TO LAUD HOWELL PKWY	\$ 1,834,000	50%	\$ 917,000
C-19	P6D	CUSTER RD (2)	LAUD HOWELL PKWY TO 2,775 N OF BLOOMDALE RD	\$ 2,869,825	100%	\$ 2,869,825
C-20	P6D	CUSTER RD (3)	2,655 N OF BLOOMDALE RD TO 375' N OF WILMETH RD	\$ 8,071,300	50%	\$ 4,035,650
C-21	G4D	STONEBRIDGE DR (2)	UNNAMED 5 TO 1,280' S OF UNNAMED 5	\$ 2,763,650	100%	\$ 2,763,650
C-22	G4D	STONEBRIDGE DR (3)	1,570' S OF LAUD HOWELL PKWY TO 280' S OF WILMETH RD	\$ 14,194,900	100%	\$ 14,194,900
C-23	G4D	STONEBRIDGE DR (4)	280' S OF WILMETH RD TO 1,195' S OF WILMETH RD	\$ 2,117,300	50%	\$ 1,058,650
C-24	G4D	STONEBRIDGE DR (5)	1,195' S OF WILMETH RD TO 5,555' S OF WILMETH RD	\$ 8,232,050	100%	\$ 8,232,050
C-25	G4D	STONEBRIDGE DR (6)	580' N OF US HIGHWAY 380 TO US HIGHWAY 380	\$ 1,030,750	100%	\$ 1,030,750
C-26	M6D	RIDGE RD (1)	UNNAMED 5 TO 1,485' S OF UNNAMED 5	\$ 3,095,400	50%	\$ 1,547,700
C-27	M6D	RIDGE RD (2)	LAUD HOWELL PKWY TO BAXTER WELL RD	\$ 7,267,950	100%	\$ 7,267,950
C-28	M6D	RIDGE RD (3)	BAXTER WELL RD TO 2,160' S OF BLOOMDALE RD	\$ 9,144,800	50%	\$ 4,572,400
C-29	M6D	RIDGE RD (4)	1,590' N OF WILMETH RD TO WILMETH RD	\$ 3,756,200	50%	\$ 1,878,100
C-30	M6D(1/3)	RIDGE RD (5)	WILMETH RD TO 2,280' S OF WILMETH RD	\$ 7,411,200	100%	\$ 7,411,200
C-31	M6D(1/3)	RIDGE RD (6)	1,860' N OF US HIGHWAY 380 TO 1,390' N OF US HIGHWAY 380	\$ 1,455,000	50%	\$ 727,500
C-32	M6D(1/3)	RIDGE RD (7)	775' N OF US HIGHWAY 380 TO US HIGHWAY 380	\$ 2,857,200	100%	\$ 2,857,200
C-33	M6D(1/3)	LAKE FOREST DR (2)	BLOOMDALE RD TO WILMETH RD	\$ 5,008,981	50%	\$ 2,504,491
C-34, D-22	M6D(1/3)	LAKE FOREST DR (3)	WILMETH RD TO US HIGHWAY 380	\$ 2,350,800	50%	\$ 1,175,400
2		Signal	RIDGE RD & UNNAMED 5	\$ 300,000	25%	\$ 75,000
4		Signal	LAUD HOWELL PKWY & CUSTER RD	\$ 300,000	75%	\$ 225,000
5		Signal	LAUD HOWELL PKWY & RIDGE RD	\$ 300,000	50%	\$ 150,000
12		Intersection Improvement	CUSTER RD & BLOOMDALE RD	\$ 150,000	50%	\$ 75,000
13	_	Signal	BLOOMDALE RD & STONEBRIDGE DR	\$ 300,000	100%	\$ 300,000
14	fior	Signal	BLOOMDALE RD & RIDGE RD	\$ 300,000	50%	\$ 150,000
15	sec	Signal	BLOOMDALE RD & LAKE FOREST DR	\$ 300,000	25%	\$ 75,000
23	ntersection	Signal	STONEBRIDGE DR & WILMETH RD	\$ 300,000	100%	\$ 300,000
24	1 ⁼	Signal	WILMETH RD & RIDGEKNOLL AVE	\$ 300,000	100%	\$ 300,000
25	1	Roundabout	LAKE FOREST DR & WILMETH RD	\$ 1,830,000	50%	\$ 915,000
33		Signal Mod	US HIGHWAY 380 & STONEBRIDGE DR	\$ 150,000	50%	\$ 75,000
34		Signal	US HIGHWAY 380 & FOREST RIDGE LN	\$ 300,000	50%	\$ 150,000
35		Signal	US HIGHWAY 380 & AUBURN HILLS PKWY	\$ 300,000	50%	\$ 150,000
33		Oigriai	COTHOLIWAT 300 & ADDORRY HILLOT KW I	\$ 156,098,456	30 /0	\$ 116,870,616

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney. The planning level cost projections shall not supersede the City's design standards contained within the Subdivision Ordinance or the determination of the City Engineer for a specific project.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 12/13/2019

Project Information: Description: Project No. A-1, C-1

Name: UNNAMED 5 (1) This project consists of the

Limits: 635' W OF STONEBRIDGE DR TO CR 168 construction of a new six-lane divided

Impact Fee Class: M6D major arterial.

Thoroughfare Class: Major Arterial

Length (If): 3,315 Service Area(s): A and C

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit	Price	Item Cost
109	Unclassified Street Excavation	36,833	су	\$	10.00	\$ 368,333
209	Lime Treated Subgrade (8") (PI<12)	28,730	sy	\$	7.00	\$ 201,110
309	9" Concrete Pavement	27,257	sy	\$	60.00	\$ 1,635,400
409	4" Topsoil	12,892	sy	\$	2.50	\$ 32,229
509	6" Curb & Gutter	13,260	lf	\$	5.00	\$ 66,300
609	Allotment for Turn Lanes and Median Openings	2,023	sy	\$	77.00	\$ 155,774
709	Moisture Conditioning	28,730	sy	\$	8.00	\$ 229,840

Paving Construction Cost Subtotal: \$ 2,688,987

Majo							
	Item Description	Notes	Allowance		Item Cost		
	Traffic Control	None Anticipated	1%	\$	26,890		
	Pavement Markings/Markers		3%	\$	80,670		
	Roadway Drainage	Standard Internal System	25%	\$	672,247		
	Special Drainage Structures	Stream Crossing		\$	250,000		
	Water	None Anticipated	0%	\$	-		
	Sewer	None Anticipated	0%	\$	-		
	Establish Turf / Erosion Control		2%	\$	53,780		
	Illumination	Standard Ilumination System	6%	\$	161,339		
	Other:						
**Allo	wances based on % of Paving Construction Cost	Subtotal	nce Subtotal:	\$	1,244,925		
		Paving and Allowa	nce Subtotal:	\$	3,933,912		
		Mobilization:	5%	\$	196,696		
	Site Preparation: 5%						
	\$	4,328,000					
		Construction Contingency:	15%	\$	649,200		
	Co	nstruction Cost TOTAL W/ CON	TINGENCY:	\$	4,978,000		

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,978,000
Engineering/Survey/Testing:		20%	\$ 995,600
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 1,742,300
	\$ 7,715,900		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

updated:

12/13/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information: C-2 Description: Project No. Name: UNNAMED 5 (2) This project consists of the Limits: RIDGE RD TO 1,505' E OF RIDGE RD reconstruction of a two-lane asphalt **Impact Fee Class:** M6D facility to a six-lane divided major Thoroughfare Class: Major Arterial arterial. Based on the existing City Length (If): 1,505 Limits, the northern half of the roadway Service Area(s): C, Half is not included in the Impact Fee RIP.

Roa	adway Construction Cost Projec	tion					
No.	Item Description		Quantity	Unit	Unit Price		Item Cost
109	Unclassified Street Excavation		16,722	су	\$ 10.00	\$	167,222
209	Lime Treated Subgrade (8") (PI<12)		13,043	sy	\$ 7.00	\$	91,303
309	9" Concrete Pavement		12,374	sy	\$ 60.00	\$	742,467
409	4" Topsoil		5,853	sy	\$ 2.50	\$	14,632
509	6" Curb & Gutter		6,020	If	\$ 5.00	\$	30,100
609	Allotment for Turn Lanes and Median Op	penings	918	sy	\$ 77.00	\$	70,721
709	Moisture Conditioning		13,043	sy	\$ 8.00	\$	104,347
		P	aving Constr	ruction (Cost Subtotal:	\$	1,220,792
			-				
Majo	or Construction Component Allowance	s**:					
	Item Description	Notes			Allowance		Item Cost
	Traffic Control	Construction Phase	Traffic Control		3%	\$	36,624
	Pavement Markings/Markers				3%	\$	36,624
	Roadway Drainage	Standard Internal Sy	rstem		25%	\$	305,198
	Special Drainage Structures	None Anticipated		~		\$	-
	Water	Incidental Adjustmer	nts		3%	\$	36,624
	Sewer	Incidental Adjustmer	nts		3%	\$	36,624
	Establish Turf / Erosion Control				2%	\$	24,416
	Illumination	Standard Ilumination	System		6%	\$	73,248
	Other:						
**Allo	wances based on % of Paving Construction Cost S	Subtotal		Allowa	nce Subtotal:	\$	549,356
	Paving and Allowance Subtotal:						
	Mobilization: 5%						88,507
	Site Preparation: 5%						
			Construc	ction C	ost TOTAL:	\$	1,948,000
	Construction Contingency: 15%						

Impact Fee Project Cost Summ	nary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,241,000
Engineering/Survey/Testing:		20%	\$ 448,200
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 448,200
·	Impact Fee P	roject Cost TOTAL:	\$ 3,137,400

Construction Cost TOTAL W/ CONTINGENCY

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

2,241,000

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information	n:	Description:	Project No.	C-3
Name:	LAUD HOWELL PKWY (1) 695' W OF CUSTER RD TO	This project consist lane asphalt facility		
Limits: Impact Fee Class:	CUSTER RD G6D	arterial. Based on the	he existing City Lim	its, the
Thoroughfare Class:	Greenway Arterial	Impact Fee RIP.		
Length (If): Service Area(s):	695 C, Half			

Roa	adway Construction Cost Proj	ection						
No.	Item Description		Quantity	Unit	Unit	t Price		Item Cost
116	Unclassified Street Excavation		4,247	су	\$	15.00	\$	63,708
216	Lime Treated Subgrade (8") (PI<12)		5,560	sy	\$	7.00	\$	38,920
316	4" TY D HMAC Underlayment		5,251	sy	\$	5.00	\$	26,256
416	9" Concrete Pavement		5,251	sy	\$	60.00	\$	315,067
516	4" Topsoil		4,402	sy	\$	4.00	\$	17,607
616	6" Curb & Gutter		2,780	lf .	\$	5.00	\$	13,900
716	Allotment for Turn Lanes and Median	Openings	480	sy	\$	87.00	\$	41,786
		F	Paving Const	ruction (Cost S	ubtotal:	\$	517,243
Majo	or Construction Component Allowar	ices**:						
	Item Description	Notes			Allo	wance		Item Cost
	Traffic Control	Construction Phase	Traffic Control			3%	\$	15,517
	Pavement Markings/Markers					3%	\$	15,517
2/	Poodway Drainaga					250/	Ф	120 211

Item Description	Notes	Allowance	Item Cost
√ Traffic Control	Construction Phase Traffic Control	3%	\$ 15,517
√ Pavement Markings/Markers		3%	\$ 15,517
√ Roadway Drainage		25%	\$ 129,311
Special Drainage Structures	None Anticipated		\$ -
√ Water	Incidental Adjustments	3%	\$ 15,517
√ Sewer	Incidental Adjustments	3%	\$ 15,517
√ Establish Turf / Erosion Control		2%	\$ 10,345
√ Illumination	Standard Ilumination System	6%	\$ 31,035
Other:			
**Allowances based on % of Paving Construction	Cost Subtotal Allowa	nce Subtotal:	\$ 232,759
	Paving and Allowa	nce Subtotal:	\$ 750,003
	Mobilization:	5%	\$ 37,500
	Site Preparation:	5%	\$ 37,500
	\$ 826,000		
	Construction Contingency:	15%	\$ 123,900
	Construction Cost TOTAL W/ CON	TINGENCY:	\$ 950,000

Impact Fee Project Cost Summary	1		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 950,000
Engineering/Survey/Testing:		20%	\$ 190,000
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 190,000
Impact Fee	Project Cost TOTAL (50% City Co	ontribution)	\$ 665,000

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

Kimley-Horn and Associates, Inc.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

updated: 12/13/2019

Project Information: Description: Project No. C-4

Name: LAUD HOWELL PKWY (2) This project consists of the

Limits: CUSTER RD TO 1,225' E OF CUSTER RD reconstruction of a two-la

Impact Fee Class: G6D

Thoroughfare Class: Greenway Arterial

Length (If): 1,225 Service Area(s): C reconstruction of a two-lane asphalt facility to a six-lane divided greenway

arterial.

	dway Construction Cost Project	ction						
No.	Item Description		Quantity	Unit	Unit	Price		Item Cost
116	Unclassified Street Excavation 7,486 cy			\$	15.00	\$	112,292	
216	Lime Treated Subgrade (8") (PI<12)		9,800	sy	\$	7.00	\$	68,600
316	4" TY D HMAC Underlayment		9,256	sy	\$	5.00	\$	46,278
416	9" Concrete Pavement		9,256	sy	\$	60.00	\$	555,333
516	4" Topsoil		7,758	sy	\$	4.00	\$	31,033
616	6" Curb & Gutter		4,900	If	\$	5.00	\$	24,500
716	Allotment for Turn Lanes and Median O	penings	847	sy	\$	87.00	\$	73,652
		P	aving Consti	uction C	Cost Si	ubtotal:	\$	911,688
			_					
Majo	or Construction Component Allowanc	es**:						
	Item Description	Notes			Allo	wance		Item Cost
	Traffic Control	Construction Phase	Traffic Control			3%	\$	27,351
	Pavement Markings/Markers					3%	\$	27,351
	Roadway Drainage					25%	\$	227,922
	Special Drainage Structures	None Anticipated					\$	-
	Water	Incidental Adjustmer	nts			3%	\$	27,351
	Sewer	Incidental Adjustmer	nts			3%	\$	27,351
	Establish Turf / Erosion Control					2%	\$	18,234
	Illumination	Standard Ilumination	System			6%	\$	54,701
	Other:							
**Allo	wances based on % of Paving Construction Cost	Subtotal		Allowa	nce S	ubtotal:	\$	410,259
	Paving and Allowance Subtotal:						\$	1,321,947
	Mobilization: 5%						\$	66,097
	Site Preparation: 5%							66,097
			Construc	ction C	ost T	OTAL:	\$	1,455,000
	Construction Contingency: 15%							218,250

Impact Fee Project Cost Sumi	Mary Notes:	Allowance	Item Cost
Construction:		-	\$ 1,674,000
Engineering/Survey/Testing:		20%	\$ 334,800
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 334,800
Impact i	\$ 1,171,800		

Construction Cost TOTAL W/ CONTINGENCY:

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

1,674,000

Kimley-Horn and Associates, Inc.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

updated: 12/13/2019

Project Informatio	n:	Description:	Project No. C-5
Name:	LAUD HOWELL PKWY (3)		This project consists of the
	1,225' E OF CUSTER RD TO 2,070'		reconstruction of a two-lane asphalt
Limits:	E OF CUSTER RD		facility to a six-lane divided greenway
Impact Fee Class:	G6D		arterial. Based on the existing City
Thoroughfare Class:	Greenway Arterial		Limits, the northern half of the roadway
Length (If): 845			is not included in the Impact Fee RIP.
Service Area(s):	C, Half		

Roa	adway Construction Cost Projec	tion					
No.	Item Description		Quantity	Unit	Un	it Price	Item Cost
116	Unclassified Street Excavation		5,164	су	\$	15.00	\$ 77,458
216	Lime Treated Subgrade (8") (PI<12)		6,760	sy	\$	7.00	\$ 47,320
316	4" TY D HMAC Underlayment		6,384	sy	\$	5.00	\$ 31,922
416	9" Concrete Pavement		6,384	sy	\$	60.00	\$ 383,067
516	4" Topsoil		5,352	sy	\$	4.00	\$ 21,407
	6" Curb & Gutter		3,380	lf .	\$	5.00	\$ 16,900
716	Allotment for Turn Lanes and Median Op	enings	584	sy	\$	87.00	\$ 50,805
		P	aving Const	ruction (Cost S	Subtotal:	\$ 628,878
Majo	or Construction Component Allowance						
	Item Description	Notes			Allo	owance	Item Cost
	Traffic Control	Construction Phase	Traffic Control			3%	\$ 18,866
	Pavement Markings/Markers					3%	\$ 18,866
	Roadway Drainage					25%	\$ 157,220
	Special Drainage Structures	None Anticipated					\$ -
	Water	Incidental Adjustmen	nts			3%	\$ 18,866
	Sewer	Incidental Adjustmen	nts			3%	\$ 18,866
	Establish Turf / Erosion Control					2%	\$ 12,578
	Illumination	Standard Ilumination	System			6%	\$ 37,733
	Other:						
**Allo	wances based on % of Paving Construction Cost S	ubtotal		Allowa	nce S	Subtotal:	\$ 282,995
			7				
Paving and Allowance Subtotal:					\$ 911,874		
Mobilization: 5%					\$ 45,594		
	Site Preparation: 5%					\$ 45,594	
Construction Cost TOTAL:					\$ 1,004,000		
Construction Contingency: 15%					\$ 150,600		
Construction Cost TOTAL W/ CONTINGENCY:					\$ 1,155,000		

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,155,000
Engineering/Survey/Testing:		20%	\$ 231,000
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 231,000
Impact Fee	\$ 808,500		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

updated: 12/13/2019

Project Informatio	n:	Description:	Project No.	C-6
Name:	LAUD HOWELL PKWY (4)	This project consi	sts of the reconstruc	ction of a two-
	840' E OF STONEBRIDGE DR TO	lane asphalt facilit	y to a six-lane divide	ed greenway
Limits:	2,905' E OF STONEBRIDGE DR	arterial. Based on	the existing City Lin	nits, the
Impact Fee Class:	G6D		e roadway is not inc	
Thoroughfare Class:	Greenway Arterial	Impact Fee RIP.		
Length (If):	2,065			
Service Area(s):	C, Half			

No. Item Description Quantity Unit Unit Price Item Cost								
116 Unclassified Street Excavation 12,619 Cy \$ 15.00 \$ 189,292	Roa	dway Construction Cost Projec	tion					
216 Lime Treated Subgrade (8") (PI<12)				Quantity	Unit	Unit Price		Item Cost
316 4" TY D HMAC Underlayment 15,602 sy \$ 5.00 \$ 78,011	116	Unclassified Street Excavation		12,619	су	\$ 15.00	\$	189,292
416 9" Concrete Pavement 15,602 Sy \$ 60.00 \$ 936,133 516 4" Topsoil 13,078 Sy \$ 4.00 \$ 52,313 616 6" Curb & Gutter 8,260 If \$ 5.00 \$ 41,300 716 Allotment for Turn Lanes and Median Openings 1,427 Sy \$ 87.00 \$ 124,156	216	Lime Treated Subgrade (8") (PI<12)		16,520	sy			115,640
13,078 Sy \$ 4.00 \$ 52,313	316	4" TY D HMAC Underlayment		15,602	sy			78,011
616 6" Curb & Gutter 8,260 If \$ 5.00 \$ 41,300 716 Allotment for Turn Lanes and Median Openings 1,427 sy \$ 87.00 \$ 124,156	416	9" Concrete Pavement		15,602	sy			936,133
Allotment for Turn Lanes and Median Openings	516	4" Topsoil		13,078	sy		\$	52,313
Paving Construction Cost Subtotal: \$ 1,536,845				8,260	lf		\$	41,300
Major Construction Component Allowances**: Item Description Notes Allowance Item Cost √ Traffic Control 3% \$ 46,105 √ Pavement Markings/Markers 3% \$ 46,105 √ Roadway Drainage 25% \$ 384,211 √ Special Drainage Structures Bridge \$ 1,000,000 √ Water Incidental Adjustments 3% \$ 46,105 √ Sewer Incidental Adjustments 2% \$ 30,737 √ Illumination Standard Illumination System 6% 92,211 Other: **Allowances based on % of Paving Construction Cost Subtotal Allowance Subtotal: \$ 3,228,425 Mobilization: 5% \$ 161,421 Site Preparation: 5% \$ 161,421 Construction Cost TOTAL: \$ 3,552,000	716	Allotment for Turn Lanes and Median Op	enings	1,427	sy	\$ 87.00	\$	124,156
Item Description Notes Allowance Item Cost √ Traffic Control Construction Phase Traffic Control 3% 46,105 √ Pavement Markings/Markers 3% 46,105 √ Roadway Drainage 25% 384,211 √ Special Drainage Structures Bridge 1,000,000 √ Water Incidental Adjustments 3% 46,105 √ Sewer Incidental Adjustments 3% 46,105 √ Establish Turf / Erosion Control 2% 30,737 √ Illumination Standard Ilumination System 6% 92,211 **Allowances based on % of Paving Construction Cost Subtotal Allowance Subtotal: 1,691,580 Paving and Allowance Subtotal: 3,228,425 Mobilization: 5% 161,421 Site Preparation: 5% 161,421 Construction Cost TOTAL: 3,552,000			P	aving Consti	ruction (Cost Subtotal:	\$	1,536,845
Item Description Notes Allowance Item Cost √ Traffic Control Construction Phase Traffic Control 3% 46,105 √ Pavement Markings/Markers 3% 46,105 √ Roadway Drainage 25% 384,211 √ Special Drainage Structures Bridge 1,000,000 √ Water Incidental Adjustments 3% 46,105 √ Sewer Incidental Adjustments 3% 46,105 √ Establish Turf / Erosion Control 2% 30,737 √ Illumination Standard Ilumination System 6% 92,211 **Allowances based on % of Paving Construction Cost Subtotal Allowance Subtotal: 1,691,580 Paving and Allowance Subtotal: 3,228,425 161,421 Mobilization: 5% 161,421 Site Preparation: 5% 161,421 Construction Cost TOTAL: 3,552,000								
√ Traffic Control Construction Phase Traffic Control 3% \$ 46,105 √ Pavement Markings/Markers A 8,005 \$ 46,105 √ Roadway Drainage 25% \$ 384,211 √ Special Drainage Structures Bridge \$ 1,000,000 √ Water Incidental Adjustments 3% \$ 46,105 √ Sewer Incidental Adjustments 3% \$ 46,105 √ Establish Turf / Erosion Control 2% \$ 30,737 √ Illumination Standard Ilumination System 6% 92,211 **Allowances based on % of Paving Construction Cost Subtotal Allowance Subtotal: \$ 3,228,425 Mobilization: 5% 161,421 Site Preparation: 5% 161,421 Construction Cost TOTAL: \$ 3,552,000	Majo							
√ Pavement Markings/Markers 3% \$ 46,105 √ Roadway Drainage 25% \$ 384,211 √ Special Drainage Structures Bridge 1,000,000 √ Water 3% 46,105 √ Sewer Incidental Adjustments 3% 46,105 √ Establish Turf / Erosion Control 2% 30,737 ✓ Illumination Other: Standard Ilumination System 6% 92,211 **Allowances based on % of Paving Construction Cost Subtotal Allowance Subtotal: 1,691,580 Paving and Allowance Subtotal: \$ 3,228,425 Mobilization: 5% 161,421 Site Preparation: 5% 161,421 Construction Cost TOTAL: \$ 3,552,000		·	Notes			Allowance		Item Cost
√ Roadway Drainage 25% \$ 384,211 √ Special Drainage Structures Bridge \$ 1,000,000 √ Water Incidental Adjustments 3% \$ 46,105 √ Sewer Incidental Adjustments 3% \$ 46,105 √ Establish Turf / Erosion Control 2% \$ 30,737 √ Illumination Standard Illumination System 6% 92,211 **Allowances based on % of Paving Construction Cost Subtotal Allowance Subtotal: \$ 3,228,425 Mobilization: 5% \$ 161,421 Site Preparation: 5% \$ 161,421 Construction Cost TOTAL: \$ 3,552,000	$\sqrt{}$		Construction Phase	Traffic Control				•
√ Special Drainage StructuresBridge Incidental Adjustments\$ 1,000,000√ Water√ Sewer√ Incidental Adjustments3%\$ 46,105√ Establish Turf / Erosion Control2%\$ 30,737√ Illumination Other:Standard Illumination System6%\$ 92,211***Allowances based on % of Paving Construction Cost SubtotalAllowance Subtotal:\$ 1,691,580Paving and Allowance Subtotal:\$ 3,228,425Mobilization:5%\$ 161,421Site Preparation:5%\$ 161,421Construction Cost TOTAL:\$ 3,552,000	√.					3%	\$	46,105
√ Water √ Sewer √ Establish Turf / Erosion Control √ Illumination Other:Incidental Adjustments3% 3% 46,105 \$ <br< td=""><td>√.</td><td></td><td></td><td></td><td></td><td>25%</td><td>\$</td><td>•</td></br<>	√.					25%	\$	•
\(\square\$ Sewer \\ \square\$ Establish Turf / Erosion Control \\ \square\$ Illumination \\ Other: \\ **Allowances based on % of Paving Construction Cost Subtotal \\ \text{Paving and Allowance Subtotal:} \\ \text{Mobilization:} \\ \text{Site Preparation:} \\ \text{Site Preparation:} \\ \text{Site 2000} \\ \text{Site 161,421} \\ \text{Construction Cost TOTAL:} \\ \text{30,737} \	$\sqrt{}$		Bridge					
√ Establish Turf / Erosion Control √ Illumination Other:2% 6%\$ 30,737 92,211**Allowances based on % of Paving Construction Cost SubtotalAllowance Subtotal:\$ 1,691,580Paving and Allowance Subtotal: Mobilization: Site Preparation:\$ 3,228,425 5% 5% 5% 161,421Construction Cost TOTAL:\$ 3,552,000	√.	Water	Incidental Adjustmen	nts		3%	\$	•
√ Illumination Other:Standard Illumination System6%\$ 92,211**Allowances based on % of Paving Construction Cost SubtotalAllowance Subtotal:\$ 1,691,580Paving and Allowance Subtotal:\$ 3,228,425Mobilization:5%\$ 161,421Site Preparation:5%\$ 161,421Construction Cost TOTAL:\$ 3,552,000	√.	Sewer	Incidental Adjustmen	nts		3%		
Other: **Allowances based on % of Paving Construction Cost Subtotal Paving and Allowance Subtotal: Mobilization: Site Preparation: Construction Cost TOTAL: \$ 1,691,580 \$ 3,228,425 \$ 161,421 \$ 1,691,580	√.	Establish Turf / Erosion Control						30,737
**Allowances based on % of Paving Construction Cost Subtotal Paving and Allowance Subtotal: Mobilization: Site Preparation: Construction Cost TOTAL: \$ 1,691,580 \$ 3,228,425 \$ 161,421 \$ 161,421			Standard Ilumination	System		6%	\$	92,211
Paving and Allowance Subtotal: \$ 3,228,425 Mobilization: 5% 161,421 Site Preparation: 5% 161,421 Construction Cost TOTAL: \$ 3,552,000		0 11011						
Mobilization: 5% \$ 161,421 Site Preparation: 5% \$ 161,421 Construction Cost TOTAL: \$ 3,552,000	**Allo	wances based on % of Paving Construction Cost S	ubtotal		Allowa	nce Subtotal:	\$	1,691,580
Mobilization: 5% \$ 161,421 Site Preparation: 5% \$ 161,421 Construction Cost TOTAL: \$ 3,552,000				<u> </u>				
Site Preparation: 5% \$ 161,421 Construction Cost TOTAL: \$ 3,552,000								
Construction Cost TOTAL: \$ 3,552,000		<u></u>					-	•
		Site Preparation: 5%					_	
Construction Contingency: 15% \$ 532,800		Construction Cost TOTAL:						
		Construction Contingency: 15%					\$	532,800

Impact Fee Project Cost Summary	/		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,085,000
Engineering/Survey/Testing:		20%	\$ 817,000
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 817,000
Impact Fee	\$ 2,859,500		

Construction Cost TOTAL W/ CONTINGENCY:

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

4,085,000

12/13/2019 updated:

Project Information	n:	Description:	Project No. C-7
Name:	LAUD HOWELL PKWY (5)		This project consists of the
	1,985' W OF RIDGE RD TO 1,230' E	1	reconstruction of a two-lane asphalt
Limits:	OF RIDGE RD	1	facility to a six-lane divided greenway
Impact Fee Class:	G6D		arterial. Based on the existing City
Thoroughfare Class:	Greenway Arterial		Limits, the northern half of the roadway
Length (If):	3,215		is not included in the Impact Fee RIP.
Service Area(s):	C, Half		

					*		
Roa	dway Construction Cost Project	tion					
No.	Item Description		Quantity	Unit	Unit Price		Item Cost
116	Unclassified Street Excavation		19,647	су	\$ 15.00	\$	294,708
216	Lime Treated Subgrade (8") (PI<12)		25,720	sy	\$ 7.00	\$	180,040
316	4" TY D HMAC Underlayment		24,291	sy	\$ 5.00	\$	121,456
	9" Concrete Pavement		24,291	sy	\$ 60.00	\$	1,457,467
516	4" Topsoil		20,362	sy	\$ 4.00	\$	81,447
	6" Curb & Gutter		12,860	lf	\$ 5.00	\$	64,300
716	Allotment for Turn Lanes and Median Op		2,222	sy	\$ 87.00	\$	193,298
		P	aving Consti	ruction (Cost Subtotal:	\$	2,392,715
	r Construction Component Allowances						
	Item Description	Notes			Allowance		Item Cost
	Traffic Control	Construction Phase	Traffic Control		3%		71,781
	Pavement Markings/Markers				3%		71,781
	Roadway Drainage				25%	\$	598,179
	Special Drainage Structures	None Anticipated				\$	-
1.	Water	Incidental Adjustmen	nts		3%		71,781
	Sewer	Incidental Adjustmen	nts		3%		71,781
	Establish Turf / Erosion Control				2%		47,854
	Illumination	Standard Ilumination	System		6%	\$	143,563
	Other:						
**Allov	vances based on % of Paving Construction Cost Si	ubtotal		Allowa	nce Subtotal:	\$	1,076,722
			7				
Paving and Allowance Subtotal:						\$ \$	3,469,437
	Mobilization: 5%						173,472
			Site Prep				173,472
					ost TOTAL:	\$	3,817,000
			uction Conti			,	572,550
	Construction Cost TOTAL W/ CONTINGENCY:					\$	4,390,000

Impact Fee Project Cost Summar	у		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,390,000
Engineering/Survey/Testing:		20%	\$ 878,000
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 878,000
Impact Fee	\$ 3,073,000		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection Kimley-Horn and Associates, Inc.

updated: 12/13/2019

Project Information: Description: Project No. C-8

Name: BLOOMDALE RD (1) This project consists of the

Limits: CUSTER RD TO 1,310' E OF CUSTER RD reconstruction of a two-lane asphalt

Impact Fee Class: P6D facility to a six-lane divided principal

Thoroughfare Class: Principal Arterial arterial.
Length (If): arterial

Length (If): 1,31 Service Area(s): C

Roa	adway Construction Cost Project	tion					
No.	Item Description		Quantity	Unit	Unit Price		Item Cost
113	Unclassified Street Excavation		14,556	су	\$ 10.00	\$	145,556
213	Lime Treated Subgrade (8") (PI<12)		11,353	sy	\$ 7.00	\$	79,473
313	9" Concrete Pavement		10,771	sy	\$ 60.00	\$	646,267
413	4" Topsoil		5,968	sy	\$ 2.50	\$	14,919
513	6" Curb & Gutter		5,240	lf	\$ 5.00	\$	26,200
613	Allotment for Turn Lanes and Median Op	enings	799	sy	\$ 77.00	\$	61,558
713	Moisture Conditioning		11,353	sy	\$ 8.00	\$	90,827
		Pa	aving Constr	uction C	Cost Subtotal:	\$	1,064,800
Majo	or Construction Component Allowance						
	Item Description	Notes			Allowance		Item Cost
$\sqrt{}$	Traffic Control	Construction Phase	Traffic Control		3%		31,944
	Pavement Markings/Markers				3%	\$	31,944
	Roadway Drainage	Standard Internal Sy	stem		25%	\$	266,200
	Special Drainage Structures	Stream Crossing				\$	250,000
	Water	Incidental Adjustmer	nts		3%	\$	31,944
		Incidental Adjustmer	nts		3%	\$	31,944
	Establish Turf / Erosion Control				2%	\$	21,296
	Illumination	Standard Ilumination	System		6%	\$	63,888
	Other:						
**Allo	wances based on % of Paving Construction Cost S	ubtotal		Allowa	nce Subtotal:	\$	729,160
						\$	
	Paving and Allowance Subtotal:						1,793,959
	Mobilization: 5%						89,698
	Site Preparation: 5%					\$	89,698
					ost TOTAL:		1,974,000
			uction Conti				296,100
	Construction Cost TOTAL W/ CONTINGENCY:					\$	2,271,000

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,271,000
Engineering/Survey/Testing:		20%	\$ 454,200
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 454,200

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Informatio	n:	Description:	Project No.	C-9
Name:	BLOOMDALE RD (2)		s project consists of th	
	1,310' E OF CUSTER RD TO 2,030'	rec	onstruction of a two-la	ne asphalt
Limits:	W OF STONEBRIDGE DR	faci	lity to a six-lane divide	ed principal
Impact Fee Class:	P6D		erial. Based on the exis	
Thoroughfare Class:	Principal Arterial	Lim	its, the southern half o	of the roadway
Length (If):	2,105		ot included in the Impa	•
Service Area(s):	C, Half			

Roa	adway Construction Cost Projec	tion						
No.	Item Description		Quantity	Unit	Un	it Price		Item Cost
113	Unclassified Street Excavation		23,389	су	\$	10.00	\$	233,889
213	Lime Treated Subgrade (8") (PI<12)		18,243	sy	\$	7.00	\$	127,703
313	9" Concrete Pavement		17,308	sy	\$	60.00	\$	1,038,467
	4" Topsoil		9,589	sy	\$	2.50	\$	23,974
513	6" Curb & Gutter		8,420	If	\$	5.00	\$	42,100
613	Allotment for Turn Lanes and Median O	penings	1,285	sy	\$	77.00	\$	98,916
713	Moisture Conditioning		18,243	sy	\$	8.00	\$	145,947
		P	aving Const	ruction (Cost S	Subtotal:	\$	1,710,995
Majo	or Construction Component Allowance	es**:						
	Item Description	Notes			Allo	owance		Item Cost
	Traffic Control	Construction Phase	Traffic Control			3%	\$	51,330
	Pavement Markings/Markers					3%	\$	51,330
	Roadway Drainage	Standard Internal Sy	stem			25%	\$	427,749
	Special Drainage Structures	Stream Crossing					\$	250,000
	Water	Incidental Adjustmer	nts			3%	\$	51,330
	Sewer	Incidental Adjustmen	nts			3%	\$	51,330
	Establish Turf / Erosion Control					2%	\$	34,220
	Illumination	Standard Ilumination	System			6%	\$	102,660
	Other:							
**Allo	wances based on % of Paving Construction Cost S	Subtotal		Allowa	ınce S	Subtotal:	\$	1,019,948
Paving and Allowance Subtotal:							\$	2,730,942
I	Mobilization: 5%						\$	136,547
	Site Preparation: 5%						\$	136,547
		_	Construc	ction C	ost 7	ΓΟΤAL:	\$	3,005,000
			uction Conti				•	450,750
	Construction Cost TOTAL W/ CONTINGENCY:					\$	3,456,000	

Impact Fee Project Cost Summary	•			
Item Description	Notes:	Allowance		Item Cost
Construction:		-	\$	3,456,000
Engineering/Survey/Testing:		20%	\$	691,200
2008 - 2012 City contribution			\$	-
2012 - 2019 City contribution			\$	-
ROW/Easement Acquisition:	Existing Alignment	20%	\$	691,200
	Impact Fee Project Cost TOTAL:			

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

Kimley-Horn and Associates, Inc.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

updated: 12/13/2019

Project Information: Description: Project No. C-10

Name: BLOOMDALE RD (3) This project consists of the

2,030' W OF STONEBRIDGE DR TO reconstruction of a two-lane asphalt

Limits: 3,245' E OF STONEBRIDGE DR facility to a six-lane divided principal mpact Fee Class: P6D arterial.

Impact Fee Class: P6D arterial.

Thoroughfare Class: Principal Arterial

Length (If): 5,275 Service Area(s): C

Roa	adway Construction Cost Projection			*	
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	58,611	су	\$ 10.00	\$ 586,111
213	Lime Treated Subgrade (8") (PI<12)	45,717	sy	\$ 7.00	\$ 320,017
313	9" Concrete Pavement	43,372	sy	\$ 60.00	\$ 2,602,333
413	4" Topsoil	24,031	sy	\$ 2.50	\$ 60,076
513	6" Curb & Gutter	21,100	lf	\$ 5.00	\$ 105,500
613	Allotment for Turn Lanes and Median Openings	3,219	sy	\$ 77.00	\$ 247,876
713	Moisture Conditioning	45,717	Sy	\$ 8.00	\$ 365,733

Paving Construction Cost Subtotal: \$ 4,287,647

Major Construction Compo	nent Allowances**:			
Item Description	Notes	Allowance		Item Cost
√ Traffic Control	Construction Phase Traffic Control	3%	\$	128,629
√ Pavement Markings/Ma	ırkers	3%	\$	128,629
√ Roadway Drainage	Standard Internal System	25%	\$	1,071,912
√ Special Drainage Struct	tures Bridge		\$	1,300,000
√ Water	Incidental Adjustments	3%	\$	128,629
√ Sewer	Incidental Adjustments	3%	\$	128,629
√ Establish Turf / Erosion	Control	2%	\$	85,753
√ Illumination	Standard Ilumination System	6%	\$	257,259
Other:				
**Allowances based on % of Paving	Construction Cost Subtotal Allowa	nce Subtotal:	\$	3,229,441
	Paving and Allowa	nce Subtotal:	\$	7,517,088
	Mobilization:	5%	\$	375,854
	Site Preparation:	5%	\$	375,854
	Construction C	ost TOTAL:	4	8,269,000
	Construction Contingency:		_	1,240,350
	Construction Cost TOTAL W/ CON	FINGENCY:	\$	9,510,000

Impact Fee Project Cost Summa	ту		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 9,510,000
Engineering/Survey/Testing:		20%	\$ 1,902,000
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 1,902,000
	Impact Fee Project C	ost TOTAL:	\$ 13,314,000

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

updated: 12/13/2019

Project Information	n:	Description:	Project No.	C-11
Name:	BLOOMDALE RD (4)	This project consists of	the reconstruc	tion of a two-
	3,245' E OF STONEBRIDGE DR TO	lane asphalt facility to a	six-lane divide	ed principal
Limits:	695' W OF RIDGE RD	arterial. Based on the ex	xisting City Lim	nits, the
Impact Fee Class:	P6D	southern half of the roa		
Thoroughfare Class:	Principal Arterial	Impact Fee RIP.		
Length (If):	1,365			
Service Area(s):	C, Half			

Roa	adway Construction Cost Projec	ction					
No.	Item Description		Quantity	Unit	Unit Price		Item Cost
113	Unclassified Street Excavation		15,167	су	\$ 10.00	\$	151,667
213	Lime Treated Subgrade (8") (PI<12)		11,830	sy	\$ 7.00	\$	82,810
313	9" Concrete Pavement		11,223	sy	\$ 60.00	\$	673,400
413	4" Topsoil		6,218	sy	\$ 2.50	\$	15,546
513	6" Curb & Gutter		5,460	lf	\$ 5.00	\$	27,300
	Allotment for Turn Lanes and Median O	penings	833	sy	\$ 77.00	\$	64,142
713	713 Moisture Conditioning 11,830 sy				\$ 8.00	\$	94,640
	Paving Construction Cost Subtotal:						1,109,505
Majo	or Construction Component Allowance						
	Item Description	Notes			Allowance		Item Cost
	Traffic Control	Construction Phase	Traffic Control		3%		33,285
	Pavement Markings/Markers				3%		33,285
	Roadway Drainage	Standard Internal Sy	stem		25%	-	277,376
$\sqrt{}$	Special Drainage Structures	Stream Crossing				\$	250,000
√,	Water	Incidental Adjustmer			3%		33,285
√,	Sewer	Incidental Adjustmer	nts		3%		33,285
$\sqrt{}$	Establish Turf / Erosion Control				2%	-	22,190
	Illumination	Standard Ilumination	System		6%	\$	66,570
	Other:	4				_	
**Allo	wances based on % of Paving Construction Cost S	Subtotal		Allowa	nce Subtotal:	\$	749,277
						Ļ	
					nce Subtotal:		1,858,782
				lization:	5%	\$	92,939
			Site Prep			_	92,939
					ost TOTAL:		2,045,000
			uction Conti			-	306,750
	Cor	struction Cos	t TOTAL W	V/ CON	TINGENCY:	\$	2,352,000

Impact Fee Project Cost Summar	y		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,352,000
Engineering/Survey/Testing:		20%	\$ 470,400
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 470,400
	Impact Fee Project C	ost TOTAL:	\$ 3,292,800

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

12/13/2019

updated:

2018 - 2019 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Description: Project No.

Project Information: Name: **BLOOMDALE RD (5)** This project consists of the reconstruction of a two-Limits: 695' W OF RIDGE RD TO RIDGE RD lane asphalt facility to a six-lane divided principal

Impact Fee Class: P₆D arterial.

Thoroughfare Class: Principal Arterial

695 Length (If): С Service Area(s):

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit	Price	Item Cost
113	Unclassified Street Excavation	7,722	су	\$	10.00	\$ 77,222
213	Lime Treated Subgrade (8") (PI<12)	6,023	sy	\$	7.00	\$ 42,163
313	9" Concrete Pavement	5,714	sy	\$	60.00	\$ 342,867
413	4" Topsoil	3,166	sy	\$	2.50	\$ 7,915
513	6" Curb & Gutter	2,780	lf	\$	5.00	\$ 13,900
613	Allotment for Turn Lanes and Median Openings	424	sy	\$	77.00	\$ 32,659
713	Moisture Conditioning	6,023	sy	\$	8.00	\$ 48,187

Paving Construction Cost Subtotal: \$ 564,913

Major Construction Component Allo	wances**:		
Item Description	Notes	Allowance	Item Cost
√ Traffic Control	Construction Phase Traffic Control	3%	\$ 16,947
√ Pavement Markings/Markers		3%	\$ 16,947
√ Roadway Drainage	Standard Internal System	25%	\$ 141,228
Special Drainage Structures	None Anticipated		\$ -
√ Water	Incidental Adjustments	3%	\$ 16,947
√ Sewer	Incidental Adjustments	3%	\$ 16,947
√ Establish Turf / Erosion Control		2%	\$ 11,298
$\sqrt{}$ Illumination	Standard Ilumination System	6%	\$ 33,895
Other:			
**Allowances based on % of Paving Construction	\$ 254,211		
	Paving and Allowa	nce Subtotal:	\$ 819,123
	Mobilization:	5%	\$ 40,956
	Site Preparation:	5%	\$ 40,956
	Construction C		902,000
	Construction Contingency:	15%	\$ 135,300
	Construction Cost TOTAL W/ CON	TINGENCY:	\$ 1,038,000

Impact Fee Project Cost Summ		All	O t
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,038,000
Engineering/Survey/Testing:		20%	\$ 207,600
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 207,600
,	ct Cost TOTAL:	\$ 1,453,200	

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

12/13/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information	n:	Description:	Project No. C-	13
Name:	BLOOMDALE RD (6)		This project consists of the	
	3,400' W OF LAKE FOREST DR TO		construction of four additional t	through
Limits:	LAKE FOREST DR		lanes of the ultimate six-lane div	vided
Impact Fee Class:	P6D(2/3)		principal arterial. Based on the	
Thoroughfare Class:	Principal Arterial		City Limits, the northern half of	_
Length (If):	3,400		roadway is not included in the l	
Service Area(s):	C, Half		Fee RIP	

	dway Construction Cost Proj	ection					
No.	Item Description		Quantity	Unit	Unit Price		Item Cost
115	Unclassified Street Excavation		30,978	су	\$ 10.00	\$	309,778
215	Lime Treated Subgrade (8") (PI<12)		19,833	sy	\$ 7.00	\$	138,833
315	9" Concrete Pavement		18,700	sy	\$ 60.00	\$	1,122,000
415	4" Topsoil		11,522	sy	\$ 2.50	\$	28,806
515	6" Curb & Gutter		10,200	lf	\$ 5.00	\$	51,000
615	Allotment for Turn Lanes and Median	Openings	2,075	sy	\$ 77.00	\$	159,769
	Paving Construction Cost Subtotal:					\$	1,810,185
			_				
Majo	or Construction Component Allowar	ices**:					
	Item Description	Notes			Allowance		Item Cost
	Traffic Control	Construction Phase	Traffic Control		3%	\$	54,306
	Pavement Markings/Markers				3%	\$	54,306
	Roadway Drainage	Standard Internal Sy	stem		25%	\$	452,546
	Special Drainage Structures	None Anticipated				\$	-
	Water	Incidental Adjustmer	nts		3%	\$	54,306
	Sewer	Incidental Adjustmer	nts		3%	\$	54,306
	Establish Turf / Erosion Control				2%	\$	36,204
	Illumination	Standard Ilumination	System		6%	\$	108,611
	Other:						
**Allo	wances based on % of Paving Construction Co	st Subtotal		Allowa	nce Subtotal:	\$	814,583
					nce Subtotal:		2,624,769
			Mobi	lization:			131,238
			Site Prep				131,238
			Construc	ction C	ost TOTAL:		2,888,000
			uction Conti			÷	433,200
	Co	onstruction Cos	t TOTAL W	// CON	TINGENCY:	\$	3,322,000

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,322,000
Engineering/Survey/Testing:		20%	\$ 664,400
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 664,400

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 12/13/2019

Project Information: Description: Project No. C-14

Name: WILMETH RD (1)

3,725' W OF STONEBRIDGE DR TO

This project consists of the construction of a new four-lane divided greenway

3,725' W OF STONEBRIDGE DR TO of a new four-lane divided greenway
Limits: 815' E OF STONEBRIDGE DR arterial.

Impact Fee Class: G4D

Thoroughfare Class: Greenway Arterial

Length (If): 4,540
Service Area(s): C

Roa	adway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
107	Unclassified Street Excavation	44,391	су	\$ 10.00	\$ 443,911
207	Lime Treated Subgrade (8") (PI<12)	33,293	sy	\$ 7.00	\$ 233,053
307	8" Concrete Pavement	31,276	sy	\$ 55.00	\$ 1,720,156
407	4" Topsoil	21,691	sy	\$ 2.50	\$ 54,228
507	6" Curb & Gutter	18,160	lf	\$ 5.00	\$ 90,800
607	Allotment for Turn Lanes and Median Openings	2,666	sy	\$ 72.00	\$ 191,918
707	Moisture Conditioning	33,293	sy	\$ 8.00	\$ 266,347

Paving Construction Cost Subtotal: \$ 3,000,413

Maj	or Construction Component Allowand	es**:		
	Item Description	Notes	Allowance	Item Cost
	Traffic Control	None Anticipated	1%	\$ 30,004
	Pavement Markings/Markers		3%	\$ 90,012
	Roadway Drainage	Standard Internal System	25%	\$ 750,103
	Special Drainage Structures	Stream Crossing		\$ 400,000
	Water	None Anticipated	0%	\$ -
	Sewer	None Anticipated	0%	\$ -
	Establish Turf / Erosion Control		2%	\$ 60,008
	Illumination	Standard Ilumination System	6%	\$ 180,025
	Other:			
**Allo	wances based on % of Paving Construction Cost	Subtotal Allowa	nce Subtotal:	\$ 1,510,153
		Paving and Allowa	nce Subtotal:	\$ 4,510,565
		Mobilization:	5%	\$ 225,528
	\$ 225,528			
	\$ 4,962,000			
		Construction Contingency:	15%	\$ 744,300
	Co	nstruction Cost TOTAL W/ CON	TINGENCY:	\$ 5,707,000

Impact Fee Project Cost Summar	ту		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 5,707,000
Engineering/Survey/Testing:		20%	\$ 1,141,400
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 1,997,450
	\$ 8,845,850		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Informatio	n:	Description:	Project No.	C-15			
Name:	WILMETH RD (2) 815' E OF STONEBRIDGE DR TO	This project consist					
Limits:	995' W OF RIDGE RD	lane asphalt facility to a four-lane divided greenway arterial. Based on the existing City Limits, the					
Impact Fee Class:	G4D	southern half of the	roadway is not inc	cluded in the			
Thoroughfare Class:	Greenway Arterial	Impact Fee RIP for t					
Length (If):	3,340	the northern half of					
		the remaining 1,055					
Service Area(s):	C	roadway is not inclu	ided in the Impact	Fee RIP.			

Roa	adway Construction Cost Projec	tion						
No.	Item Description		Quantity	Unit	Unit Price		Item Cost	
107	Unclassified Street Excavation		32,658	су	\$ 10.00	\$	326,578	
207	Lime Treated Subgrade (8") (PI<12)		24,493	sy	\$ 7.00	\$	171,453	
307	8" Concrete Pavement		23,009	sy	\$ 55.00	\$	1,265,489	
407	4" Topsoil		15,958	sy	\$ 2.50	\$	39,894	
507	6" Curb & Gutter		13,360	lf .	\$ 5.00	\$	66,800	
607	Allotment for Turn Lanes and Median Op	enings	1,961	sy	\$ 72.00	\$	141,191	
707	Moisture Conditioning		24,493	sy	\$ 8.00	\$	195,947	
		P	aving Const	ruction (Cost Subtotal:	\$	2,207,352	
Majo	or Construction Component Allowances							
	Item Description	Notes			Allowance		Item Cost	
$\sqrt{}$	Traffic Control	Construction Phase	Traffic Control		3%	\$	66,221	
	Pavement Markings/Markers				3%	\$	66,221	
	Roadway Drainage	Standard Internal Sy	rstem		25%	\$	551,838	
	Special Drainage Structures	Stream Crossing				\$	300,000	
$\sqrt{}$	Water	Incidental Adjustmer	nts		3%	\$	66,221	
$\sqrt{}$	Sewer	Incidental Adjustmer	nts		3%	\$	66,221	
$\sqrt{}$	Establish Turf / Erosion Control				2%	\$	44,147	
	Illumination	Standard Ilumination	System		6%	\$	132,441	
	Other:							
**Allo	wances based on % of Paving Construction Cost S	ubtotal		Allowa	ince Subtotal:	\$	1,293,308	
						\$		
	Paving and Allowance Subtotal:						3,500,660	
	Mobilization: 5%					\$	175,033	
	Site Preparation: 5%						175,033	
Construction Cost TOTAL:							3,851,000	
			uction Conti			\$	577,650	
	Con	Construction Cost TOTAL W/ CONTINGENCY:						

Impact Fee Project Cost Sum Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,429,000
Engineering/Survey/Testing:		20%	\$ 885,800
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 885,800
	\$ 6,200,600		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 12/13/2019

Project Informatio	n:	Description:	Project No.	C-16
Name:	WILMETH RD (3)	This project is part of	of the Ridge Rd pr	oject from US
Limits:	RIDGE RD TO 585' E OF RIDGE RD	380 to Wilmeth Rd w	hich includes a re	oundabout at
Impact Fee Class:	G4D(1/2)	the Ridge Rd & Wilm	neth Rd intersection	on. The City
Thoroughfare Class:	Greenway Arterial	provided an overall	project cost estim	ate of
Length (If):	585	\$17,700,000. This pro		
Service Area(s):	С	construction of two		
		four-lane divided gre	eenway arterial. T	his project
		accounted for \$1,593	3,000 of eligible fu	ınds.

Impact Fee Project Cost Summary				
Item Description	Notes:		Allowance	Item Cost
2008 - 2012 City contribution				\$
2012 - 2019 City contribution				\$ 1,593,000
	Impa	act Fee Proje	ct Cost TOTAL:	\$ 1,593,000

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.



2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 12/13/2019

Project Informatio	n:	Description:	Project No.	C-17
Name:	WILMETH RD (4)	This project is part o	f the Ridge Rd pr	oject from US
	1,095' E OF RIDGE RD TO 1,365' E	380 to Wilmeth Rd w	hich includes a r	oundabout at
Limits:	OF RIDGE RD	the Ridge Rd & Wilm	eth Rd intersecti	on. The City
Impact Fee Class:	G4D(1/2)	provided an overall p	roject cost estim	ate of
Thoroughfare Class:	Greenway Arterial	\$17,700,000. This pro	•	
Length (If):	270	construction of two		
Service Area(s):	C, Half	four-lane divided gre		
		accounted for \$708,0	•	•

Impact Fee Project Cost Summary				
Item Description	Notes:		Allowance	Item Cost
2008 - 2012 City contribution				\$ -
2012 - 2019 City contribution				\$ 708,000
		Impact Fee Project C	ost TOTAL:	\$ 708,000

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information	n:	Description:	Project No. C-18			
Name:	CUSTER RD (1) 1,855' N OF LAUD HOWELL PKWY		This project consists of the reconstruction of a two-lane asphalt			
Limits: Impact Fee Class:	TO LAUD HOWELL PKWY	facility to a six-lane divided principal arterial. Based on the existing City				
Thoroughfare Class:	Principal Arterial		Limits, the western half of the roadway			
Length (If): Service Area(s):	1,855 C, Half		is not included in the Impact Fee RIP.			

Roa	adway Construction Cost Proje	ction						
No.	Item Description		Quantity	Unit	Un	it Price		Item Cost
113	Unclassified Street Excavation		10,306	су	\$	15.00	\$	154,583
213	Lime Treated Subgrade (8") (PI<12)		16,077	sy	\$	7.00	\$	112,537
313	4" TY D HMAC Underlayment		15,252	sy	\$	5.00	\$	76,261
	9" Concrete Pavement		15,252	sy	\$	60.00	\$	915,133
513	4" Topsoil		8,451	sy	\$	4.00	\$	33,802
	6" Curb & Gutter		7,420	lf	\$	5.00	\$	37,100
713	Allotment for Turn Lanes and Median (1,132	sy	\$	87.00	\$	98,488
		P	Paving Const	ruction (Cost	Subtotal:	\$	1,427,905
Majo	or Construction Component Allowand							
	Item Description	Notes		`	Alle	owance		Item Cost
	Traffic Control	Construction Phase	Traffic Control			3%		42,837
	Pavement Markings/Markers					3%	\$	42,837
	Roadway Drainage					25%	\$	356,976
	Special Drainage Structures	None Anticipated					\$	-
$\sqrt{}$	Water	Incidental Adjustmer	nts			3%	\$	42,837
	Sewer	Incidental Adjustmer	nts			3%	\$	42,837
$\sqrt{}$	Establish Turf / Erosion Control					2%	\$	28,558
	Illumination	Standard Ilumination	System			6%	\$	85,674
	Other:							
**Allo	wances based on % of Paving Construction Cost	Subtotal		Allowa	nce S	Subtotal:	\$	642,557
			<u> </u>					
Paving and Allowance Subtotal:							\$	2,070,462
Mobilization: 5%						\$	103,523	
Site Preparation: 5%							_	103,523
Construction Cost TOTAL:							\$	2,278,000
			uction Conti			15%	\$	341,700
	Co	nstruction Cos	t TOTAL W	// CON	TING	SENCY:	\$	2,620,000

Impact Fee Project Cost Summary				
Item Description	Notes:	Allowance		Item Cost
Construction:		-	\$	2,620,000
Engineering/Survey/Testing:		20%	\$	524,000
2008 - 2012 City contribution			\$	-
2012 - 2019 City contribution			\$	-
ROW/Easement Acquisition:	Existing Alignment	20%	\$	524,000
Impact Fee Project Cost TOTAL (50% City Contribution)			\$	1,834,000

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

updated: 12/13/2019

Project Informatio	n: De	escription:	Project No.	C-19
Name:	CUSTER RD (2)		This project cons	ists of the
Limits:	LAUD HOWELL PKWY TO 2,775 N OF	BLOOMDALE RD	construction of a	new
Impact Fee Class:	P6D		alignment of Cust	er Road to a
Thoroughfare Class:	Principal Arterial		six-lane divided p	rincipal
Length (If):	2,775		arterial.	•
Service Area(s):	C			

Roa	adway Construction Cost Projec	tion					
No.	Item Description		Quantity	Unit	Unit Price		Item Cost
113	Unclassified Street Excavation		15,417	су	\$ 15.00	\$	231,250
213	Lime Treated Subgrade (8") (PI<12)		24,050	sy	\$ 7.00	\$	168,350
313	4" TY D HMAC Underlayment		22,817	sy	\$ 5.00	\$	114,083
413	9" Concrete Pavement		22,817	sy	\$ 60.00	\$	1,369,000
	4" Topsoil		12,642	sy	\$ 4.00	\$	50,567
	6" Curb & Gutter		11,100	If	\$ 5.00	\$	55,500
713	Allotment for Turn Lanes and Median O	penings	1,693	sy	\$ 87.00	\$	147,334
		P	aving Constr	ruction C	Cost Subtotal:	\$	2,136,084
Majo	or Construction Component Allowance						
L	Item Description	Notes			Allowance		Item Cost
1	Traffic Control	None Anticipated			1%		21,361
√,	Pavement Markings/Markers				3%		64,083
	Roadway Drainage				25%	\$	534,021
	Special Drainage Structures	None Anticipated				\$	-
	Water	None Anticipated			0%	\$	-
١.,	Sewer	None Anticipated			0%	-	-
	Establish Turf / Erosion Control				2%		42,722
	Illumination	Standard Ilumination	System		6%	\$	128,165
	Other:						
**Allo	wances based on % of Paving Construction Cost	Subtotal		Allowa	nce Subtotal:	\$	790,351
					0.14.4.1		0.000.405
			_		nce Subtotal:		2,926,435
Mobilization: 5%					\$	146,322	
			Site Prep		5%	\$	146,322
					ost TOTAL:	\$	3,220,000
			uction Conti			,	483,000
	Cor	struction Cos	t TOTAL W	// CON	TINGENCY:	\$	3,703,000

Impact Fee Project Cost Summa	у			
Item Description	Notes:	Allowance		Item Cost
Construction:		-	\$	3,703,000
Engineering/Survey/Testing:		20%	\$	740,600
2008 - 2012 City contribution			\$	-
2012 - 2019 City contribution			\$	-
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$	1,296,050
Impact Fee Project Cost TOTAL (50% City Contribution)				2,869,825

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

12/13/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Informatio	n:	Description:	Project No.	C-20		
Name:	CUSTER RD (3) 2,655 N OF BLOOMDALE RD TO		sts of the reconstru- ty to a six-lane divid			
Limits: Impact Fee Class:	375' N OF WILMETH RD P6D	arterial. The City contributed approximately \$1,080,000 of eligible funds from '12-'19. Based				
Thoroughfare Class: Length (If): Service Area(s):	Principal Arterial 6,275 C, Half	the existing City L roadway is not inc	alf of the			

		*	_	
Quantity	Unit	Unit Price		Item Cost
34,861	су	\$ 15.00	\$	522,917
54,383	sy	\$ 7.00	\$	380,683
51,594	sy	\$ 5.00		257,972
51,594	sy	\$ 60.00	\$	3,095,667
28,586	sy	\$ 4.00	\$	114,344
25,100	lf	\$ 5.00	\$	125,500
3,829	sy	\$ 87.00	\$	333,161
Paving Const	ruction (Cost Subtotal:	\$	4,830,245
		Allowance		Item Cost
e Traffic Control		3%	\$	144,907
		3%	\$	144,907
		25%	\$	1,207,561
			\$	1,500,000
ents		3%	\$	144,907
ents		3%	\$	144,907
		2%	\$	96,605
on System		6%	\$	289,815
	Allowa	ince Subtotal:	\$	3,673,610
Y				
		nce Subtotal:	\$	8,503,855
Mobilization: 5%				425,193
Site Preparation: 5%				
			\$	9,355,000
			,	1,403,250
st TOTAL W	// CON	TINGENCY:	\$	10,759,000
	34,861 54,383 51,594 51,594 28,586 25,100 3,829 Paving Construction System Paving an Mobi Site Prep Construction Contil	34,861 cy 54,383 sy 51,594 sy 51,594 sy 28,586 sy 25,100 lf 3,829 sy Paving Construction Cents ents ents Paving and Allowa Mobilization: Site Preparation: Construction Centruction Centru	34,861 cy \$ 15.00 54,383 sy \$ 7.00 51,594 sy \$ 60.00 28,586 sy \$ 4.00 25,100 If \$ 5.00 3,829 sy \$ 87.00 Paving Construction Cost Subtotal: Allowance Traffic Control 3% 25% ents 3% ents 3% con System 6% Allowance Subtotal: Paving and Allowance Subtotal: Mobilization: 5% Site Preparation: 5% Construction Cost TOTAL: truction Contingency: 15%	34,861 cy \$ 15.00 \$ 54,383 sy \$ 7.00 \$ 51,594 sy \$ 60.00 \$ 28,586 sy \$ 4.00 \$ 25,100 If \$ 5.00 \$ 3,829 sy \$ 87.00 \$ Paving Construction Cost Subtotal: \$ Allowance e Traffic Control 3% \$ 25% \$ \$ \$ \$ \$ \$ \$ \$ \$

Impact Fee Project Cost Summary	1		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 10,759,000
Engineering/Survey/Testing:		20%	\$ 2,151,800
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ 1,080,000
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 2,151,800
Impact Fee Project Cost TOTAL (50% City Contribution)			\$ 8,071,300

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 12/13/2019

Project Information: Description: Project No. C-21

Name: STONEBRIDGE DR (2) This project consists of the

Limits: UNNAMED 5 TO 1,280' S OF UNNAMED 5 construction of a new four-lane divided

Impact Fee Class: G4D greenway arterial.

Thoroughfare Class: Greenway Arterial

Length (If): 1,280 Service Area(s): C

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit	Price	Item Cost
107	Unclassified Street Excavation	12,516	су	\$	10.00	\$ 125,156
207	Lime Treated Subgrade (8") (PI<12)	9,387	sy	\$	7.00	\$ 65,707
307	8" Concrete Pavement	8,818	sy	\$	55.00	\$ 484,978
407	4" Topsoil	6,116	sy	\$	2.50	\$ 15,289
507	6" Curb & Gutter	5,120	lf	\$	5.00	\$ 25,600
607	Allotment for Turn Lanes and Median Openings	752	sy	\$	72.00	\$ 54,109
707	Moisture Conditioning	9,387	sy	\$	8.00	\$ 75,093

Paving Construction Cost Subtotal: \$ 845,931

Major Construction Component Allowances**:							
Item Description	Notes	Allowance		Item Cost			
√ Traffic Control	None Anticipated	1%	\$	8,459			
√ Pavement Markings/Markers		3%	\$	25,378			
$\sqrt{}$ Roadway Drainage	Standard Internal System	25%	\$	211,483			
√ Special Drainage Structures	Stream Crossing		\$	250,000			
Water	None Anticipated	0%	\$	-			
Sewer	None Anticipated	0%	\$	-			
√ Establish Turf / Erosion Control		2%	\$	16,919			
$\sqrt{}$ Illumination	Standard Ilumination System	6%	\$	50,756			
Other:							
**Allowances based on % of Paving Construction	\$	562,995					
	Paving and Allowa	nce Subtotal:	\$	1,408,926			
	\$	70,446					
	\$	70,446					
	\$	1,550,000					
	Construction Contingency:			232,500			
	Construction Cost TOTAL W/ CON	TINGENCY:	\$	1,783,000			

20%	ĮΨ	1,783,000 356,600
20%	\$	356,600
	\$	-
	\$	-
35%	\$	624,050
		35% \$ pject Cost TOTAL: \$

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 12/13/2019

Project Information: Project No C-22 Description:

Name: STONEBRIDGE DR (3)

1,570' S OF LAUD HOWELL PKWY

Limits: TO 280' S OF WILMETH RD

Impact Fee Class: G4D

Thoroughfare Class: **Greenway Arterial**

Length (If): 7,995 Service Area(s): С

i rojout itu.	
This project cons	ists of the
construction of a	new four-lane
divided greenway	/ arterial.

	adway Construction Cost Pro	pjection					
No.	Item Description		Quantity	Unit	Unit Price		Item Cost
107	Unclassified Street Excavation		78,173	су	\$ 10.00	\$	781,733
207	Lime Treated Subgrade (8") (PI<12)		58,630	sy	\$ 7.00	\$	410,410
307	8" Concrete Pavement		55,077	sy	\$ 55.00	\$	3,029,217
407	4" Topsoil		38,198	sy	\$ 2.50	\$	95,496
507	6" Curb & Gutter		31,980	lf	\$ 5.00	\$	159,900
607	Allotment for Turn Lanes and Media	in Openings	4,694	sy	\$ 72.00	65	337,970
707	Moisture Conditioning		58,630	sy	\$ 8.00	65	469,040
		P	aving Consti	ruction (Cost Subtotal:	\$	5,283,766
Majo	or Construction Component Allowa	ances**:					
	Item Description	Notes			Allowance		Item Cost
	Traffic Control	None Anticipated			1%	\$	52,838
	Pavement Markings/Markers				3%	\$	158,513
	Roadway Drainage	Standard Internal Sy	stem		25%	\$	1,320,942
	Special Drainage Structures	None Anticipated				\$	-
	Water	None Anticipated			0%	\$	-
	Sewer	None Anticipated			0%	\$	-
	Establish Turf / Erosion Control				2%	\$	105,675
	Illumination	Standard Ilumination	System		6%	\$	317,026
	Other:						
**Allo	wances based on % of Paving Construction 0	Cost Subtotal		Allowa	nce Subtotal:	\$	1,954,994
			_		nce Subtotal:	\$	7,238,760
				lization:	5%	\$	361,938
	Site Preparation: 5%				\$	361,938	
			Construc	ction C	ost TOTAL:	\$	7,963,000
		Constr	uction Conti	ngency:	15%	\$	1,194,450
		Construction Cos	t TOTAL W	// CON	TINGENCY:	\$	9,158,000

Impact Fee Project Cost Summar	у		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 9,158,000
Engineering/Survey/Testing:		20%	\$ 1,831,600
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 3,205,300
Impact Fee Project Cost TOTAL:			\$ 14,194,900

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

Service Area(s):

Kimley-Horn and Associates, Inc.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

C, Half

updated: 12/13/2019

Project Informatio	n:	Description:	Project No. C-23
Name:	STONEBRIDGE DR (4)		This project consists of the construction
	280' S OF WILMETH RD TO 1,195' S		of a new four-lane divided greenway
Limits:	OF WILMETH RD		arterial. Based on the existing City
Impact Fee Class:	G4D		Limits, the eastern half of the roadway
Thoroughfare Class:	Greenway Arterial		is not included in the Impact Fee RIP.
Length (If):	915		

Roa	adway Construction Cost Pro	jection					
No.	Item Description		Quantity	Unit	Uni	t Price	Item Cost
107	Unclassified Street Excavation		8,947	су	\$	10.00	\$ 89,467
207	Lime Treated Subgrade (8") (PI<12)		6,710	sy	\$	7.00	\$ 46,970
307	8" Concrete Pavement		6,303	sy	\$	55.00	\$ 346,683
407	4" Topsoil		4,372	sy	\$	2.50	\$ 10,929
507	507 6" Curb & Gutter		3,660	If	\$	5.00	\$ 18,300
607	607 Allotment for Turn Lanes and Median Openings		537	sy	\$	72.00	\$ 38,680
707	Moisture Conditioning		6,710	sy	\$	8.00	\$ 53,680
		F	Paving Const	ruction (Cost S	ubtotal:	\$ 604,709
Majo	or Construction Component Allowa	nces**:					
	Item Description	Notes			Allo	wance	Item Cost
	Traffic Control	None Anticipated				1%	\$ 6,047
	Pavement Markings/Markers					3%	\$ 18,141
	Roadway Drainage	Standard Internal Sy	ystem			25%	\$ 151,177

Item Description	Notes	Allowance	Item Cost
√ Traffic Control	None Anticipated	1%	\$ 6,047
√ Pavement Markings/Markers		3%	\$ 18,141
√ Roadway Drainage	Standard Internal System	25%	\$ 151,177
√ Special Drainage Structures	Stream Crossing		\$ 250,000
Water	None Anticipated	0%	\$ -
Sewer	None Anticipated	0%	\$ -
√ Establish Turf / Erosion Control		2%	\$ 12,094
√ Illumination	Standard Ilumination System	6%	\$ 36,283
Other:			
**Allowances based on % of Paving Construction Cos	t Subtotal Allowa	nce Subtotal:	\$ 473,742
	Paving and Allowa	nce Subtotal:	\$ 1,078,451
	Mobilization:	5%	\$ 53,923
	Site Preparation:	5%	\$ 53,923
	\$ 1,187,000		
	Construction Contingency:		178,050
Co	nstruction Cost TOTAL W/ CON	TINGENCY:	\$ 1,366,000

Impact Fee Project Cost S	Summary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,366,000
Engineering/Survey/Testing:		20%	\$ 273,200
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 478,100
	Impact Fee Project Co	ost TOTAL:	\$ 2,117,300

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 12/13/2019

Project Information:

Name:
STONEBRIDGE DR (5)
Limits:
1,195' S OF WILMETH RD TO 5,555' S OF WILMETH RD roject consists of the construction of a new four-lane divided greenway arterial.

Thoroughfare Class: Greenway Arterial

Length (If): 4,360 Service Area(s): C

Roa	dway Construction Cost Projection						
No.	Item Description		Quantity	Unit	Unit	Price	Item Cost
107	Unclassified Street Excavation		42,631	су	\$	10.00	\$ 426,311
207	Lime Treated Subgrade (8") (PI<12)		31,973	sy	\$	7.00	\$ 223,813
307	8" Concrete Pavement		30,036	sy	\$	55.00	\$ 1,651,956
407	4" Topsoil		20,831	sy	\$	2.50	\$ 52,078
507	6" Curb & Gutter		17,440	lf	\$	5.00	\$ 87,200
607	Allotment for Turn Lanes and Median Openings	3	2,560	sy	\$	72.00	\$ 184,309
707	Moisture Conditioning		31,973	sy	\$	8.00	\$ 255,787
		P	aving Consti	ruction (Cost S	ubtotal:	\$ 2,881,454
Majo	r Construction Component Allowances**:						
	Item Description Notes				Allo	wance	Item Cost
2	Traffic Control None A	nticipated				10/	\$ 28 815

Major Construction Component Allowances**:						
	Item Description	Notes	Allowance		Item Cost	
	Traffic Control	None Anticipated	1%	\$	28,815	
\checkmark	Pavement Markings/Markers		3%	\$	86,444	
\checkmark	Roadway Drainage	Standard Internal System	25%	\$	720,363	
\checkmark	Special Drainage Structures	Stream Crossing		\$	250,000	
	Water	None Anticipated	0%	\$	-	
	Sewer	None Anticipated	0%	\$	-	
	Establish Turf / Erosion Control		2%	\$	57,629	
	Illumination	Standard Ilumination System	6%	\$	172,887	
	Other:					
**Allo	wances based on % of Paving Construction Cost S	Subtotal	nce Subtotal:	\$	1,316,138	
		Paving and Allowa	nce Subtotal:	\$	4,197,591	
		Mobilization:	5%	\$	209,880	
		Site Preparation:	5%	\$	209,880	
	Construction Cost TOTAL:					
		Construction Contingency:	15%	\$	692,700	
	Construction Cost TOTAL W/ CONTINGENCY:					

Impact Fee Project Cost Sumi	Notes:	Allowance	Item Cost
Construction:		-	\$ 5,311,000
Engineering/Survey/Testing:		20%	\$ 1,062,200
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 1,858,850
	Impact Fee Pro	ject Cost TOTAL:	\$ 8,232,050

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 12/13/2019

 Project Information:
 Description:
 Project No.
 C-25

 Name:
 STONEBRIDGE DR (6)
 This project consists of the

Limits: 580' N OF US HIGHWAY 380 TO US HIGHWAY 380

Impact Fee Class: G4D

Thoroughfare Class: Greenway Arterial

Length (If): 580 Service Area(s): C This project consists of the construction of a new four-lane divided greenway arterial.

Roa	adway Construction Cost Proj	ection					
No.	Item Description		Quantity	Unit	Unit Pric	е	Item Cost
107	Unclassified Street Excavation		5,671	су	\$ 10.0	00 \$	56,711
207	Lime Treated Subgrade (8") (PI<12)		4,253	sy	\$ 7.0	00 \$	29,773
307	8" Concrete Pavement		3,996	sy	\$ 55.0	00 \$	219,756
407	4" Topsoil		2,771	sy	\$ 2.5	50 \$	6,928
507	6" Curb & Gutter		2,320	lf	\$ 5.0	00 \$	11,600
607	Allotment for Turn Lanes and Median	Openings	341	sy	\$ 72.0	00 \$	24,518
707	Moisture Conditioning		4,253	sy	\$ 8.0	00 \$	34,027
	Paving Construction Cost Subtotal:						383,313
Majo	or Construction Component Allowar	nces**:					
	Item Description	Notes			Allowand	e	Item Cost
	Traffic Control	None Anticipated				<mark>1%</mark> \$	3,833
	Pavement Markings/Markers				;	<mark>3%</mark> \$	11,499
	Roadway Drainage	Standard Internal Sy	/stem		2	<mark>5%</mark> \$	95,828
	Special Drainage Structures	None Anticipated		-		\$	-
	Water	None Anticipated			(<mark>)%</mark> \$	-
	Sewer	None Anticipated			(<mark>)%</mark> \$	-
	Establish Turf / Erosion Control					2% \$	7.666

			-	
√ Establish Turf / Erosion Control		2%	\$	7,666
√ Illumination	Standard Ilumination System	6%	\$	22,999
Other:				
**Allowances based on % of Paving Construction	Cost Subtotal Allowa	nce Subtotal:	\$	141,826
	Paving and Allowa	nce Subtotal:	\$	525,138
	Mobilization:	5%	\$	26,257
	Site Preparation:	5%	\$	26,257
	Construction C	ost TOTAL:	\$	578,000
	Construction Contingency:	15%	\$	86,700
	Construction Cost TOTAL W/ CON	TINGENCY:	\$	665,000

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 665,000
Engineering/Survey/Testing:		20%	\$ 133,000
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 232,750

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

Project Informatio	n:	Description:	Project No.	C-26
Name:	RIDGE RD (1) UNNAMED 5 TO 1,485' S OF		sts of the reconstru y to a six-lane divid	
Limits:	UNNAMED 5	arterial. Based on	the existing City Lir	nits, the
Impact Fee Class: Thoroughfare Class:	M6D Major Arterial	western half of the Impact Fee RIP.	e roadway is not inc	luded in the
Length (If):	1,485			
Service Area(s):	C, Half			

Roa	adway Construction Cost Projec	tion						
	Item Description		Quantity	Unit	Un	it Price		Item Cost
109	Unclassified Street Excavation		16,500	су	\$	10.00	\$	165,000
209	9 Lime Treated Subgrade (8") (PI<12) 12,870 sy				\$	7.00	\$	90,090
309				\$	60.00	\$	732,600	
409	4" Topsoil		5,775	sy	\$	2.50	\$	14,438
509	6" Curb & Gutter		5,940	If	\$	5.00	\$	29,700
609	Allotment for Turn Lanes and Median Op	enings	906	sy	\$	77.00	\$	69,781
709	Moisture Conditioning		12,870	sy	\$	8.00	\$	102,960
		P	aving Const	ruction (Cost S	Subtotal:	\$	1,204,569
Majo	or Construction Component Allowance							
	Item Description	Notes			Allo	owance		Item Cost
√,	Traffic Control	Construction Phase	Traffic Control			3%	\$	36,137
√.	Pavement Markings/Markers					3%	-	36,137
	Roadway Drainage	Standard Internal Sy	stem			25%		301,142
1 .	Special Drainage Structures	None Anticipated					\$	-
$\sqrt{}$	Water	Incidental Adjustmen	nts			3%	\$	36,137
√.	Sewer	Incidental Adjustmen	nts			3%	-	36,137
	Establish Turf / Erosion Control					2%	\$	24,091
	Illumination	Standard Ilumination	System			6%	\$	72,274
	Other:							
**Allo	wances based on % of Paving Construction Cost S	ubtotal		Allowa	ince S	Subtotal:	\$	542,056
							_	
			Paving an					1,746,625
				lization:		5%	\$	87,331
			Site Prep			5%	_	87,331
			Construc					1,922,000
		Constr	uction Conti	ngency:		15%	\$	288,300

Impact Fee Project Cost Summary	1		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,211,000
Engineering/Survey/Testing:		20%	\$ 442,200
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 442,200
	Impact Fee Project C	ost TOTAL:	\$ 3,095,400

Construction Cost TOTAL W/ CONTINGENCY:

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

2,211,000

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 12/13/2019

Project Information:

Name:

RIDGE RD (2)

Limits:

LAUD HOWELL PKWY TO BAXTER WELL RD

Impact Fee Class:

M6D

Description:

Project No.

C-27

This project consists of the construction of a new six-lane divided major arterial.

Thoroughfare Class: Major Arterial

Length (If): 3,110 Service Area(s): C

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit	Price	Item Cost
109	Unclassified Street Excavation	34,556	су	\$	10.00	\$ 345,556
209	Lime Treated Subgrade (8") (PI<12)	26,953	sy	\$	7.00	\$ 188,673
309	9" Concrete Pavement	25,571	sy	\$	60.00	\$ 1,534,267
409	4" Topsoil	12,094	sy	\$	2.50	\$ 30,236
509	6" Curb & Gutter	12,440	lf	\$	5.00	\$ 62,200
609	Allotment for Turn Lanes and Median Openings	1,898	sy	\$	77.00	\$ 146,141
709	Moisture Conditioning	26,953	sy	\$	8.00	\$ 215,627

Paving Construction Cost Subtotal: \$ 2,522,700

Major Construction Component Allowances**:						
Item Description	Notes	Allowance		Item Cost		
√ Traffic Control	None Anticipated	1%	\$	25,227		
√ Pavement Markings/Markers		3%	\$	75,681		
√ Roadway Drainage	Standard Internal System	25%	\$	630,675		
√ Special Drainage Structures	Stream Crossing		\$	250,000		
Water	None Anticipated	0%	\$	-		
Sewer	None Anticipated	0%	\$	-		
√ Establish Turf / Erosion Control		2%	\$	50,454		
√ Illumination	Standard Ilumination System	6%	\$	151,362		
Other:						
**Allowances based on % of Paving Constructi	on Cost Subtotal Allows	ance Subtotal:	\$	1,183,399		
	Paving and Allowa	ance Subtotal:	\$	3,706,098		
	Mobilization:	5%	\$	185,305		
	Site Preparation:	5%	\$	185,305		
	\$	4,077,000				
	Construction Contingency:			611,550		
	Construction Cost TOTAL W/ CON	TINGENCY:	\$	4,689,000		

Impact Fee Project Cost Summ	ary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,689,000
Engineering/Survey/Testing:		20%	\$ 937,800
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 1,641,150
	Impact Fee Project C	ost TOTAL:	\$ 7,267,950

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

Project Information	n:	Description:	Project No.	C-28				
Name:	RIDGE RD (3) BAXTER WELL RD TO 2,160' S OF	This project consists of lane asphalt facility to a						
Limits: Impact Fee Class:	BLOOMDALE RD M6D	arterial. Based on the existing City Limits, the eastern half of the roadway is not included in the						
Thoroughfare Class: Length (If):	Major Arterial 4,390	Impact Fee RIP for the 3	3,540' northern	section while				
Service Area(s):	C, Half	the remaining 850' sout	•					

Roa	dway Construction Cost Project	ion					
	Item Description		Quantity	Unit	Unit Price		Item Cost
109	Unclassified Street Excavation		48,778	су	\$ 10.00) \$	487,778
209	Lime Treated Subgrade (8") (PI<12)		38,047	sy	\$ 7.00) \$	266,327
309	9" Concrete Pavement		36,096	sy	\$ 60.00) \$	2,165,733
409	4" Topsoil		17,072	sy	\$ 2.50		42,681
	6" Curb & Gutter		17,560	If	\$ 5.00		87,800
	Allotment for Turn Lanes and Median Op	enings	2,679	sy	\$ 77.00	_	206,289
709	Moisture Conditioning		38,047	sy	\$ 8.00	,	304,373
		F	Paving Const	ruction (Cost Subtota	l: \$	3,560,981
Majo	r Construction Component Allowance						
	Item Description	Notes			Allowance		Item Cost
V	Traffic Control	Construction Phase 7	Traffic Control		39		106,829
V	Pavement Markings/Markers				3		106,829
V	Roadway Drainage	Standard Internal Sys	stem		25		890,245
ļ ,	Special Drainage Structures	None Anticipated				\$	-
V	Water	Incidental Adjustmen			39		106,829
V	Sewer	Incidental Adjustmen	ts		39		106,829
V	Establish Turf / Erosion Control				29		71,220
V	Illumination	Standard Ilumination	System		69	<mark>%</mark> \$	213,659
	Other:			A.II.			1 000 111
**Allov	vances based on % of Paving Construction Cost Su	btotal		Allowa	ance Subtota	1: \$	1,602,441
			Davida a aa	-l All	OI-1-1-		F 400 400
					ance Subtota		5,163,422
	Mobilization: 5%						258,171
	Site Preparation: 5%						258,171
	Construction Cost TOTAL:						, ,
			ruction Conti			-	852,000
	Col	nstruction Cos	st TOTAL V	W CON	TINGENCY	′: \$	6,532,000

Impact Fee Project Cost Summa	ry		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 6,532,000
Engineering/Survey/Testing:		20%	\$ 1,306,400
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 1,306,400
	Impact Fee Project	Cost TOTAL:	\$ 9,144,800

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

12/13/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Informatio	n:	Description:	Project No.	C-29		
Name:	RIDGE RD (4) 1,590' N OF WILMETH RD TO		s project consists of the project consists of the project construction of a two-la			
Limits: Impact Fee Class:	WILMETH RD M6D	facility to a six-lane divided major arterial. Based on the existing City				
Thoroughfare Class: Length (If): Service Area(s):	Major Arterial 1,590 C, Half	Limi	its, the western half of ot included in the Imp	the roadway		

					_			
Roa	adway Construction Cost Projec	tion						
No.	Item Description		Quantity	Unit	Uni	it Price		Item Cost
109	Unclassified Street Excavation		17,667	су	\$	10.00	\$	176,667
209	Lime Treated Subgrade (8") (PI<12)		13,780	sy	\$	7.00	\$	96,460
309	9" Concrete Pavement		13,073	sy	\$	60.00	\$	784,400
409	4" Topsoil		6,183	sy	\$	2.50	\$	15,458
509	6" Curb & Gutter		6,360	lf	\$	5.00	\$	31,800
609	Allotment for Turn Lanes and Median Op	penings	970	sy	\$	77.00	\$	74,715
709	Moisture Conditioning		13,780	sy	\$	8.00	\$	110,240
		P	Paving Consti	ruction (Cost S	Subtotal:	\$	1,289,740
Majo	or Construction Component Allowance	s**:						
	Item Description	Notes			Allo	wance		Item Cost
	Traffic Control	Construction Phase	Traffic Control			3%	\$	38,692
	Pavement Markings/Markers					3%	\$	38,692
	Roadway Drainage	Standard Internal Sy	rstem			25%	\$	322,435
	Special Drainage Structures	Stream Crossing					\$	250,000
	Water	Incidental Adjustmer	nts			3%	\$	38,692
	Sewer	Incidental Adjustmen	nts			3%	\$	38,692
	Establish Turf / Erosion Control					2%	\$	25,795
	Illumination	Standard Ilumination	System			6%	\$	77,384
	Other:							
**Allo	wances based on % of Paving Construction Cost S	ubtotal		Allowa	nce S	Subtotal:	\$	830,383
			<u> </u>					
			Paving an		nce S	Subtotal:	\$	2,120,123
	Mobilization: 5%					\$	106,006	
	Site Preparation: 5%					_	106,006	
	Construction Cost TOTAL:					\$	2,333,000	
			ruction Conti				-	349,950
	Con	struction Cos	t TOTAL W	// CON	TING	ENCY:	\$	2,683,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,683,000
Engineering/Survey/Testing:		20%	\$ 536,600
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 536,600
	Impact Fee Project C	ost TOTAL:	\$ 3,756,200

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

Project Informatio	n:	Description:	Project No.	C-30
Name:	RIDGE RD (5) WILMETH RD TO 2,280' S OF	This project is part 380 to Wilmeth Rd		
Limits:	WILMETH RD	the Ridge Rd & Wil	meth Rd intersection	on. The City
Impact Fee Class: Thoroughfare Class:	M6D(1/3) Major Arterial	provided an overal \$17,700,000. This p	•	
Length (If):	2,280	eligible funds for fo	our of the ultimate	six lanes. This
		project consists of through lanes of th		
Service Area(s):	С	arterial.		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

Roadway Construction Cost P	rojection					
No. Item Description	•	Quantity	Unit	Unit Price		Item Cost
111 Unclassified Street Excavation		7,093	су	\$ 10.00	\$	70,933
211 Lime Treated Subgrade (8") (PI<12	2)	6,840	sy	\$ 7.00	\$	47,880
311 9" Concrete Pavement		6,333	sy	\$ 60.00	\$	380,000
411 4" Topsoil		2,027	sy	\$ 2.50	\$	5,067
511 6" Curb & Gutter		4,560	If	\$ 5.00	\$	22,800
611 Allotment for Turn Lanes and Med		1,391	sy	\$ 77.00	\$	107,139
	P	Paving Const	ruction (Cost Subtotal:	\$	633,819
Major Construction Component Allov						
Item Description	Notes			Allowance		Item Cost
√ Traffic Control	Construction Phase	Traffic Control		3%	-	19,015
√ Pavement Markings/Markers				3%		19,015
Roadway Drainage	None Anticipated			0%	\$	-
Special Drainage Structures	None Anticipated				\$	-
Water	None Anticipated			0%	\$	-
Sewer	None Anticipated			0%	\$	-
√ Establish Turf / Erosion Control				2%	\$	12,676
Illumination	None Anticipated			0%	\$	-
Other:						
**Allowances based on % of Paving Construction	Cost Subtotal		Allowa	ince Subtotal:	\$	50,706
					_	
				nce Subtotal:	\$	684,524
	Mobilization: 5%			\$	34,226	
					_	34,226
				ost TOTAL:	\$	753,000
		ruction Conti			\$	112,950
	Construction Cos	st TOTAL W	<u>// CON</u>	TINGENCY:	\$	866,000

Impact Fee Project Cost Sur	nmary				
Item Description	Notes:	Allowance		Item Cost	
Construction:		-	\$	866,000	
Engineering/Survey/Testing:		20%	\$	173,200	
2008 - 2012 City contribution			\$	-	
2012 - 2019 City contribution			\$	6,372,000	
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$	-	
*	Impact Fee Project Cost TOTAL:				

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection updated: 12/13/2019

Project Informatio	n:	Description:	Project No.	C-31
Name: Limits: Impact Fee Class: Thoroughfare Class: Length (If):	RIDGE RD (6) 1,860' N OF US HIGHWAY 380 TO 1,390' N OF US HIGHWAY 380 M6D(1/3) Major Arterial 470	This project is part of 380 to Wilmeth Rd wh the Ridge Rd & Wilme provided an overall pr \$17,700,000. This projeligible funds for four project consists of the	ich includes a ro th Rd intersection oject cost estimated ect accounted for of the ultimate s	oundabout at on. The City ate of or \$1,239,000 of six lanes. This
Service Area(s):	C, Half	through lanes of the u arterial.	Iltimate six-lane	divided major

Roa	adway Construction Cost Projec	ction						
No.	Item Description		Quantity	Unit	Uni	t Price		Item Cost
111	Unclassified Street Excavation		1,462	су	\$	10.00	\$	14,622
211	Lime Treated Subgrade (8") (PI<12)		1,410	sy	\$	7.00	\$	9,870
311	9" Concrete Pavement		1,306	sy	\$	60.00	\$	78,333
411	4" Topsoil		418	sy	\$	2.50	\$	1,044
511	6" Curb & Gutter		940	If	\$	5.00	\$	4,700
611	Allotment for Turn Lanes and Median O	penings	287	sy	\$	77.00	\$	22,086
		P	aving Const	ruction (Cost S	ubtotal:	\$	130,656
Majo	or Construction Component Allowance							
	Item Description	Notes			Allo	wance		Item Cost
$\sqrt{}$	Traffic Control	Construction Phase	Traffic Control			3%	\$	3,920
	Pavement Markings/Markers					3%	\$	3,920
	Roadway Drainage	None Anticipated				0%	\$	-
	Special Drainage Structures	None Anticipated					\$	-
	Water	None Anticipated				0%	\$	-
	Sewer	None Anticipated				0%	\$	-
	Establish Turf / Erosion Control					2%		2,613
	Illumination	None Anticipated				0%	\$	-
	Other:							
**Allo	wances based on % of Paving Construction Cost \$	Subtotal		Allowa	ince S	ubtotal:	\$	10,452
	Paving and Allowance Subtotal:							141,108
	Mobilization: 5%					7,055		
	Site Preparation: 5%					_	7,055	
	Construction Cost TOTAL:						\$	156,000
			uction Conti			15%	\$	23,400
	Cor	struction Cos	t TOTAL W	// CON	TING	ENCY:	\$	180,000

Impact Fee Project Cost Summ	nary				
Item Description	Notes:	Allowance		Item Cost	
Construction:		-	\$	180,000	
Engineering/Survey/Testing:		20%	\$	36,000	
2008 - 2012 City contribution			\$	-	
2012 - 2019 City contribution			\$	1,239,000	
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$	-	
▼ -	Impact Fee Project Cost TOTAL:				

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

updated: 12/13/2019

Project Informatio	n:	Description:	Project No.	C-32
Name:	RIDGE RD (7) 775' N OF US HIGHWAY 380 TO US	This project is part of the		
Limits:	HIGHWAY 380	Ridge Rd & Wilmeth Rd in	ntersection. The	City provided
Impact Fee Class: Thoroughfare Class:	M6D(1/3) Major Arterial	an overall project cost es project accounted for \$2,		The state of the s
Length (If):	775	four of the ultimate six lar	nes. This projec	t consists of
		the construction of two acultimate six-lane divided	•	in lanes of the
Service Area(s):	C			

Roa	adway Construction Cost Pro	jection				
No.	Item Description		Quantity	Unit	Unit Price	Item Cost
111	Unclassified Street Excavation		2,411	су	\$ 10.00	\$ 24,111
211	Lime Treated Subgrade (8") (PI<12)		2,325	sy	\$ 7.00	\$ 16,275
311	9" Concrete Pavement		2,153	sy	\$ 60.00	\$ 129,167
411	4" Topsoil		689	sy	\$ 2.50	\$ 1,722
511	6" Curb & Gutter		1,550	If	\$ 5.00	\$ 7,750
611	Allotment for Turn Lanes and Media	n Openings	473	sy	\$ 77.00	\$ 36,418
			Paving Const	ruction (Cost Subtotal:	\$ 215,443
Majo	or Construction Component Allowa	nces**:				
	Item Description	Notes			Allowance	Item Cost
	Traffic Control	Construction Phase	Traffic Control		3%	\$ 6,463
	Pavement Markings/Markers				3%	\$ 6,463
	Roadway Drainage	None Anticipated			0%	\$ -
	Special Drainage Structures	Future Bridge Widen	ing			\$ 250,000
	Water	None Anticipated			0%	\$ -
	Sewer	None Anticipated			0%	\$ -
	Establish Turf / Erosion Control				2%	 4,309
	Illumination	None Anticipated			0%	\$ -
	Other:					
**Allo	wances based on % of Paving Construction C	ost Subtotal		Allowa	ınce Subtotal:	\$ 267,235
			Paving an	d Allowa	nce Subtotal:	\$ 482,678
	Mobilization: 5%			5%	24,134	
	Site Preparation: 5%			 24,134		
	Construction Cost TOTAL:			\$ 531,000		
			struction Conti			79,650
		Construction C	ost TOTAL W	// CON	TINGENCY:	\$ 611,000

Impact Fee Project Cost Summar	у		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 611,000
Engineering/Survey/Testing:		20%	\$ 122,200
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ 2,124,000
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
*	\$ 2,857,200		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

updated:

12/13/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Informatio	n:	Description:	Project No.	C-33		
Name:	LAKE FOREST DR (2)	This project consists of	of the construct	ion of two		
Limits:	BLOOMDALE RD TO WILMETH RD	additional through lan	es within the ex	xisting median		
Impact Fee Class:	M6D(1/3)	of the ultimate six-lane divided major arterial. The				
Thoroughfare Class:	Major Arterial	City contributed appro	ximately \$2,54	1,781 of eligible		
Length (If):	5,410	funds from '12-'19. Bas	•			
		Limits, the eastern hal	f of the roadwa	y is not		
Service Area(s):	C, Half	included in the Impact	Fee RIP.			

Roa	adway Construction Cost Pro	ojection					
No.	Item Description		Quantity	Unit	Unit Price		Item Cost
111	Unclassified Street Excavation		16,831	су	\$ 10.00	\$	168,311
211	Lime Treated Subgrade (8") (PI<12		16,230	sy	\$ 7.00	\$	113,610
311	9" Concrete Pavement		15,028	sy	\$ 60.00	\$	901,667
411	4" Topsoil		4,809	sy	\$ 2.50	\$	12,022
	6" Curb & Gutter		10,820	If	\$ 5.00	\$	54,100
611	Allotment for Turn Lanes and Media	n Openings	3,302	sy	\$ 77.00	\$	254,220
		P	aving Consti	ruction (Cost Subtotal:	\$	1,503,930
Majo	or Construction Component Allow	ances**:					
	Item Description	Notes			Allowance		Item Cost
	Traffic Control	Construction Phase	Traffic Control		3%		45,118
	Pavement Markings/Markers				3%	\$	45,118
	Roadway Drainage	None Anticipated			0%	\$	-
	Special Drainage Structures	None Anticipated				\$	-
	Water	None Anticipated			0%	\$	-
	Sewer	None Anticipated			0%		-
	Establish Turf / Erosion Control				2%	\$	30,079
	Illumination	None Anticipated			0%	\$	-
	Other:						
**Allo	wances based on % of Paving Construction (Cost Subtotal	*	Allowa	nce Subtotal:	\$	120,314
			_		nce Subtotal:		1,624,244
				lization:	5%		81,212
			Site Prep				81,212
						1,787,000	
			uction Conti			_	268,050
K		Construction Cos	t TOTAL W	// CON	TINGENCY:	\$	2,056,000

Impact Fee Project Cost Summ	nary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,056,000
Engineering/Survey/Testing:		20%	\$ 411,200
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ 2,541,781
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
	\$ 5,008,981		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

updated:

12/13/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information:

Name:

LAKE FOREST DR (3)

Limits:

WILMETH RD TO US HIGHWAY 380 additional through lanes within the existing median of the ultimate six-lane divided major arterial.

The resumbless Class:

Mich Arterial

Thoroughfare Class: Major Arterial

Length (If): 5,155
Service Area(s): C and D

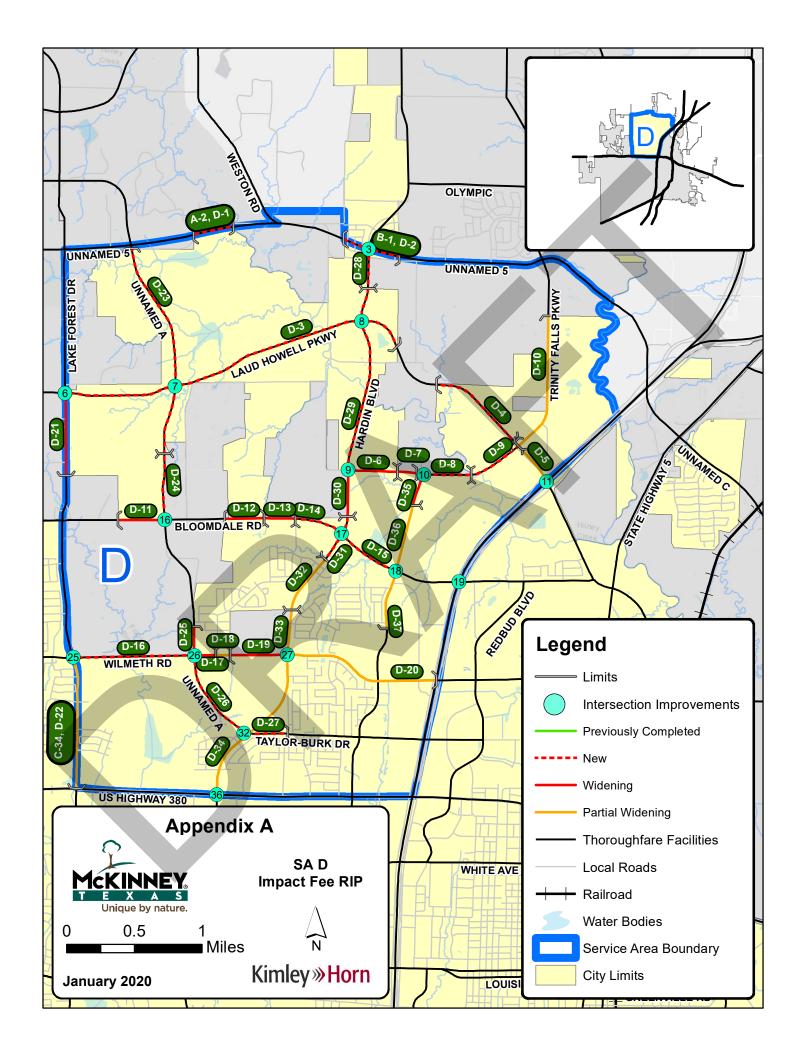
Roa	adway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
111	Unclassified Street Excavation	16,038	су	\$ 10.00	\$ 160,378
211	Lime Treated Subgrade (8") (PI<12)	15,465	sy	\$ 7.00	\$ 108,255
311	9" Concrete Pavement	14,319	sy	\$ 60.00	\$ 859,167
411	4" Topsoil	4,582	sy	\$ 2.50	\$ 11,456
511	6" Curb & Gutter	10,310	lf	\$ 5.00	\$ 51,550
611	Allotment for Turn Lanes and Median Openings	3,146	sy	\$ 77.00	\$ 242,237

Paving Construction Cost Subtotal: \$ 1,433,042

Major Construction Component Allowances**:								
	Item Description	Notes	Allowance		Item Cost			
	Traffic Control	Construction Phase Traffic Control	3%	\$	42,991			
	Pavement Markings/Markers		3%	\$	42,991			
	Roadway Drainage	None Anticipated	0%	\$	-			
	Special Drainage Structures	None Anticipated		\$	-			
	Water	None Anticipated	0%	\$	-			
	Sewer	None Anticipated	0%	\$	-			
	Establish Turf / Erosion Control		2%	\$	28,661			
	Illumination	None Anticipated	0%	\$	-			
	Other:							
**Allo	owances based on % of Paving Construction (Cost Subtotal Allo	wance Subtotal:	\$	114,643			
		Paving and Allo	wance Subtotal:	\$	1,547,686			
		Mobilization	on: 5%	\$	77,384			
	Site Preparation: 5%							
	\$	1,703,000						
		Construction Contingen	cy: 15%	\$	255,450			
		Construction Cost TOTAL W/ CO	NTINGENCY:	\$	1,959,000			

Impact Fee Project Cost Summa	ary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,959,000
Engineering/Survey/Testing:		20%	\$ 391,800
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
	Impact Fee Project	Cost TOTAL:	\$ 2,350,800

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.



City of McKinney - 2018 - 2019 Roadway Impact Fee Update

Roadway Improvement Plan for Roadway Impact Fees Appendix A - Summary of Conceptual Level Project Cost Projections

Roadway Improvements - Service Area D

## Class Project Limits	Roauwa		rements - Service Area	ט	_				
A-2_D-1		Costing			_		Percent in	_	Cost in
B-1.D.2									
D-3 GBD LAUPHOWELE PROVY (0) LAUP FOREST DR TO 1896 E OF HARDIN BLVD \$ 38,497,100 190% \$ 3,9487,100 D-4 GBD LAUP HOWELE PROVY (8) 14,70 N OF TRINITY FALLS PROVY 20 OF TRINITY FALLS PROVY 20 (7,745,56) 100% \$ 2,220,027 D-5 GBD(15) LAUP HOWELE PROVY (8) 240 N OF TRINITY FALLS PROVY 20 (9,745,66) \$ 2,220,027 D-7 GBD TRINITY FALLS PROVY (2) 1917 E OF HARDIN BLVD TO 1,916 E OF HARDIN BLVD \$ 3,348,800 100% \$ 2,228,800 D-7 GBD TRINITY FALLS PROVY (2) 1917 E OF HARDIN BLVD TO 1,916 E OF HARDIN BLVD \$ 1,300,900 50% \$ 8,603,300 D-9 GBD TRINITY FALLS PROVY (4) LAUD HOWELE PROVY \$ 7,602,000 50% \$ 8,603,300 D-10 MOYAL TRINITY FALLS PROVY (4) LAUD HOWELL PROVY TO 2,200 W OF LAUD HOWELE PROVY \$ 7,224,00 100% \$ 7,622 D-11 MOYAL TRINITY FALLS PROVY (4) LAUD HOWELL PROVY \$ 7,224,00 100% \$ 7,622 D-14 MOYAL TRINITY FALLS PROVY (4) LAUD HOWELL PROVY \$ 7,002 8 7,002 D-15 MOYAL TRINITY FALLS PROVY (4) LAUD HOWELL PROVY \$ 7,002 8 7,002								_	
D-5 GROUP LAUD HOWELL PROVY (7) 4,17Y N OF TRINITY FALLS PROVY TO 24N NOT TRINITY FALLS PROVY (7) 5 2774.590 -6 GROUP LAUD HOWELL PROVY (7) 24N NOT TRINITY FALLS PROVY (7) 5 229.0027 -7 GAO									
D-5 GSD(1/G) LAUD HOWELL PRWY (8) 240 NOF TRINITY FALLS PRWY TO US NORWAY 75 \$ 2,20,0027 100% \$ 2,23,330 D-7 G40 TRINITY FALLS PRWY (2) 1,916 EO HARDIN BLVD TO 2,90 EO HARDIN BLVD \$ 3,838,90 50% \$ 693,800 D-8 G40 TRINITY FALLS PRWY (2) 1,916 EO HARDIN BLVD TO 2,90 EO HARDIN BLVD \$ 1,900,90 50% \$ 693,800 D-9 G40 TRINITY FALLS PRWY (4) LAUD HOWELL PRWY \$ 8,418,960 100% \$ 8,418,960 D-10 MBD(13) TRINITY FALLS PRWY (4) LAUD HOWELL PRWY \$ 8,418,960 100% \$ 7,872,200 D-11 PBD BLOOMDALE RD (7) 1,220 W OF TAYLOR RUBK DR TO TAYLOR BURK DR \$ 3,799,000 50% \$ 1,899,000 D-12 PBD BLOOMDALE RD (9) 1,222 W OF CR 1007 TO TAYLOR BURK DR \$ 3,999,000 50% \$ 1,500,000 D-14 PBO(2) BLOOMDALE RD (10) CR 1007 TO TAYLOR BURK DR \$ 3,901,600 50% \$ 1,500,000 D-14 PBO(2) BLOOMDALE RD (11) ARROW CR 100 FOR TAYLOR BURK DR TO TO TAYLOR BURK DR \$ 3,901,600 5									
D-B G4D TRINITY FALLS PROVY(1) HARDIN BLYD TO 19/1E OF HARDIN BLYD \$ 3,248,300 100% \$ 3,248,300 D-B G4D TRINITY FALLS PROVY(3) 1,316 E OF HARDIN BLYD TO 220 W OF LAUD HOWELL PROVY \$ 5,976,000 50% \$ 690,300 D-B G4D TRINITY FALLS PROVY(3) COMMAINITY AVE TO 2,200 W OF LAUD HOWELL PROVY \$ 5,976,800 50% \$ 2,988,400 D-10 MBD(1,3) TRINITY FALLS PROVY(3) 4,275 N OF WESTON ROT OLAUD HOWELL PROVY \$ 7,622,400 100% \$ 1,428,400 D-11 P80 BLOOMDALE RD (8) 1,428 W OF TAYLOR BURK RD TO TAYLOR BURK RD \$ 7,822,400 100% \$ 1,269,000 \$ 1,269 W OF TO TAYLOR BURK RD \$ 3,206,000 100% \$ 1,269,000 \$ 3,206,000 100% \$ 1,269,000 \$ 1,269 W OF TO TAYLOR BURK RD \$ 3,206,000 100% \$ 1,269,000 \$ 1,269 W OF TO									
D-7 G4D TENITY FALLS PROVY (2) 1.910 FO PHARDIN BLVD TO 2.67F E O F HARDIN BLVD \$ 1,300,600 50% \$ 680,300 D-8 G4D TENITY FALLS PROVY (4) LAUD HOWELL PROVY TO 2.200 W OF LAUD HOWELL PROVY S \$ 8,418,000 100% \$ 8,418,000 D-9 MBD(1/3) TENITY FALLS PROVY (4) LAUD HOWELL PROVY TO 2.200 W OF LAUD HOWELL PROVY S \$ 8,418,000 \$ 7,622,400 D-11 PBD BLOOMDALE RD (7) 1,820 W OF TAYLOR BURK OR TO TAYLOR BURK OR \$ 3,790,600 \$ 90% \$ 1,898,800 D-13 PBD BLOOMDALE RD (10) 1,825 E OF CR 100 RT 0.125 W OF CR 1007 \$ 3,001,600 \$ 90% \$ 1,500,800 D-14 PBD(23) BLOOMDALE RD (11) CR 100 TO TO RE 1007 \$ 5,165,300 100% \$ 5,165,300 D-15 FBD(1/3) BLOOMDALE RD (11) HARDIN BLVO TO COMMUNITY AVE \$ 5,165,300 100% \$ 5,165,300 D-16 G4D WILLMETH RD (16) LURINAMED A TO 825 E OF TAYLOR-BURK DR TO 1999 1,000 \$ 5,165,300 100% \$ 1,401,400 D-18 G4D11/22 WILLMETH RD (17) 825 E OF TAYLOR-BURK DR TO 10 MANAED A 1 \$ 1,401,400 100%					_			•	, ,,
D-B G4D TENITY FALLS PRWY (3) COMMUNITY AVET 02 2007 WO F LAUD HOWELL PRWY \$ 5976,800 \$ 90% \$ 2,888,800 D-9 40.7 TENITY FALLS PRWY (6) LAUD HOWELL PRWY 0 F LAUD HOWELL PRWY \$ 762,2400 100% \$ 8,418,050 D-10 MSD(1/3) TENITY FALLS PRWY (6) 4,278 N OF WESTON RD TO LAUD HOWELL PRWY \$ 762,2400 100% \$ 7,622,400 D-12 PBD BLOOMDALE RD (7) 1,820 W OF F 100 F TO LAUD HOWELL PRWY \$ 78,940,000 \$ 99% \$ 1,899,800 D-13 PBD BLOOMDALE RD (8) 1,485 E OF CR 1006 TO 1,215 W OF CR 1007 \$ 3,000,000 100% \$ 3,206,000 D-14 PBD(23) BLOOMDALE RD (10) CK 1007 TO HARDIN BLVD \$ 5,885,310 100% \$ 5,885,310 D-15 PBD(1/3) BLOOMDALE RD (10) CK 1007 TO HARDIN BLVD \$ 5,885,310 100% \$ 5,885,310 D-16 G4D WILLMETH RD (6) LAKE FOREST DR RTO UNNAMBED A C									
D-9 GAD TENINTY FALLS PRWY (4) LAUD HOWELL PRWY TO 2,00° W OF LAUD HOWELL PRWY \$ 8,416,000 1090% \$ 7,822,400 D-10 MODI/SI TENINTY FALLS PRWY (9) 4,27° N DO VERSTON RD TO ALDH DOWELL PRWY \$ 7,762,400 100% \$ 7,822,400 D-11 PRD BLOOMDALE RD (9) 1,820 W OF TAYLOR BURK DR TO TAYLOR BURK DR \$ 3,796,600 59% \$ 1,898,900 D-13 PRD BLOOMDALE RD (10) 1,480 E OF CR 100 RT 0.125 W OF CR 1007 \$ 3,000,000 100% \$ 3,206,000 D-13 PRD BLOOMDALE RD (10) CR 1007 TO HARDIN BLVD \$ 5,886,510 100% \$ 1,500,900 D-14 PRD(13) BLOOMDALE RD (11) HARDIN BLVD TO COMMUNITY AVE \$ 5,185,300 100% \$ 5,885,510 D-16 GAD WILLETH RD (6) LAKE FORESTOR RD TO LUNNAMED A \$ 1,001,400 100% \$ 6,486,525 D-17 GAD WILLETH RD (6) LASS FOR TAYLOR-BURK DR TO ARROND BLVD \$ 1,401,400 100% \$ 1,401,400 100% \$ 1,401,400 100% \$ 1,401,400 100% \$ 1,401,400 100% \$ 1,401					_				
D-10 MBD(1/3) TRINITY FALLS PKWY (5) 4.275 N OF WESTON RD TO LAUD HOWELL PKWY \$ 7.622.400 100% \$ 7.622.400 D-12 PBD B BLOOMDALE RD (7) 1.826 W OF TAYLOR-BURK RD TO TAYLOR-BURK DR TO TAYLOR-B									
D-11 PRD BLOOMDALE RD (7) 1.820 W OF TANLOR-BURK OR TO TAYLOR-BURK DR S 3.798.600 50% \$ 1,808.600 D-13 PRD BLOOMDALE RD (8) 1.485 E OF CR 1006 T 1.215 W OF CR 1007 \$ 3.206.000 100% \$ 3.206.000 D-13 PRD BLOOMDALE RD (9) 1.825 W OF CR 1007 T OC 1007 \$ 5.300.1600 50% \$ 1,500.800 D-14 PRD BLOOMDALE RD (19) C 1.225 W OF CR 1007 T OC 1007 \$ 5.885.510 100% \$ 5.885.510									
D-12 PRD BLOOMALE RD (8) 1.485 E OF CR 1006 TO 1.215 W OF CR 1007 S 3.006.000 100% \$ 3.206.000		. ,							
D-13 PEPD BLOOMDALE RD (10) 1,225 W OF CR 1007 TO CR 1007 \$ 3,001,800 50% \$ \$ 1,500,800 D-14 PEDG203 BLOOMDALE RD (11) CR 1007 TO HARDIN BLVD \$ 5,888,810 100% \$ \$ 5,888,810 D-15 PEDD1100 BLOOMDALE RD (11) HARDIN BLVD TO COMMUNITY AVE \$ 5,169,300 100% \$ \$ 5,868,500 D-17 GaD WILLMETH BD (15) LAKE FOREST DR TO UNANMED A \$ 1,099,105 5% \$ 8,865,300 D-17 GAD WILLMETH BD (15) LANA ROBERT DR TO 1,000 TO 100 TO 100 TO 100% \$ \$ 1,001,400 \$ 1,001,400 100% \$ \$ 1,001,400 D-18 G4D(12) WILLMETH RD (17) 825 E OF TAYLOR-BURK DR TO 1,380 E OF TAYLOR BURK DR TO 1,380 E OF TAYLOR-BURK DR TO 1,380 E OF TAYLOR BURK DR TO 1,38								,	
D-14 PBD(20) BLOOMDALE RD (10) CR 1007 TO HARDIN BLVD \$ 5,888,810 100% \$ 5,888,810 D-15 PBD110 BLOOMDALE RD (11) HARDIN BLVD TO COMMUNITY AVE \$ 5,169,380 100% \$ 5,888,810 100% \$ 5,888,810 D-16 G4D WILMETH RD (5) LAKE FOREST DR TO UNNAMED A \$ 10,991,050 50% \$ 4,898,525 D-17 G4D WILMETH RD (6) UNNAMISED A TO 250° CEP UNIVAMED A \$ 14,1600 100% \$ 141,600 D-19 G4D WILMETH RD (8) 1,380° E OF TAYLOR-BURK DR TO 1,380° E OF TAYLO									
D-15 PBD(1/3) BLOOMDALE RD (11) HARDIN BLVD TO COMMAINTY AVE \$ 5,165,380 10916 \$ 5,165,380 D-16 Gd WILMETH RD (6) LAKE FOREST DR TO JUNNAMED A \$ 1,099,100 50% \$ 1,401,400 100% \$ 1,401,400 \$ 1,401,400 100% \$ 1,401,400 \$ 1,401,400 100% \$ 1,401,400 \$ 1,401,400 \$ 1,401,400 100% \$ 1,401,400 \$ 1,401,400 \$ 1,401,400 \$ 1,401,400 \$ 1,401,400 \$ 1,401,400 \$ 1,401									
D-16	-				_			•	
D-17 G4D WILMETH RD (6) UNNAMED A TO 825 E OF LINAMED A S 4,01,400 190% \$ 1,401,400 1-90								į	
D-19 G4D(1/2) WILMETH RD (7) 825 E OF TAYLOR-BURK DR TO 1,380°E OF JAYLOR-BURK DR S 411,600 100% \$ 411,600 D-20 MBD(1/3) WILMETH RD (8) 1,380°E OF TAYLOR-BURK DR TO HARDIN BLVD \$ 3,803,800 50% \$ 1,901,900 D-20 MBD(1/3) WILMETH RD (9) HARDIN BLVD TO US HIGHWAY 75 \$ 2,799,600 100% \$ 2,799,600 D-24 G6D LAKE FOREST DR (1) LAUD HOWELL PKWY TO 3,200°S OF LAUD HOWELL PKWY \$ 6,448,400 50% \$ 3,242,200 D-23 G4D UNNAMED A (1) 5,785 N OF LAUD HOWELL PKWY TO 2,710°S OF LAUD HOWELL PKWY \$ 1,435,950 100% \$ 1,1435,950 D-24 G4D UNNAMED A (2) 2,710°S OF LAUD HOWELL PKWY TO 2,710°S OF LAUD HOWELL PKWY \$ 1,498,950 100% \$ 1,1435,950 D-28 G4D UNNAMED A (3) 1,105°N OF WILMETH RD TO WILMETH RD TO SHOWELL PKWY \$ 1,898,850 50% \$ 398,000 D-26 G4D UNNAMED A (3) 1,105°N OF WILMETH RD TO WILMETH RD TO					_				
D-19 GAD WILMETH RD (8) 1,330 E OF TANLOR-BURK DR TO HARDIN BLVD \$ 3,803,800 50% \$ 1,911,900 D-21 G6D LAKE FOREST DR (1) HARDIN BLVD TO US HIGHWAY 75 \$ 2,799,800 100% \$ 2,799,800 C-34, D-22 M6D(1/3) LAKE FOREST DR (3) WILMETH RD 109 HARDIN BLVD TO US HIGHWAY 360 \$ 2,309,800 50% \$ 3,224,200 C-34, D-22 M6D(1/3) LAKE FOREST DR (3) WILMETH RD 10 US HIGHWAY 360 \$ 2,309,800 50% \$ 1775,400 D-24 G4D UNNAMED A (1) \$ 7,785 N OF LAUD HOWELL PRWY TO 2,170 S OF LAUD HOWELL PRWY TO 174,745,950 100% \$ 1774,35,950 100% \$ 1774,35,950 100% \$ 1743,5950 50% \$ 2,299,425 50.299,425 50 50% \$ 2,299,425 50 50% \$ 2,299,425 50 50% \$ 2,299,425 50 50% \$ 2,299,425 50 50% \$ 2,299,425 50 50% \$ 2,299,425 50 50% \$ 2,299,425 50 50% \$ 2,899,425 50 \$ 2,899,425 50 \$ 2,899,425 50 <td></td> <td></td> <td></td> <td></td> <td></td> <td>_</td> <td></td> <td></td> <td></td>						_			
D-20 M6D(1/3) WILMETH RD (9) HARDIN BLVD TO US HIGHWAY 75 \$ 2,799,600 100% \$ 2,799,600 D-21 G6D LAKE FOREST DR (1) LAUD HOWELL PRWY TO 3,200° S OF LAUD HOWELL PRWY \$ 6,448,400 50% \$ 3,224,200 D-23 G4D UNNAMED A (1) \$ 7,785 N OF LAUD HOWELL PRWY TO 2,710° S OF LAUD HOWELL PRWY \$ 1,745,950 100% \$ 1,175,400 D-24 G4D UNNAMED A (2) 2,270 S OF LAUD HOWELL PRWY TO BLOOMDALE RD \$ 1,876,000 \$ 17,435,950 100% \$ 1,743,950 D-25 G4D UNNAMED A (2) 2,270 S OF LAUD HOWELL PRWY TO BLOOMDALE RD \$ 1,876,000 \$ 50% \$ 2,299,425 D-25 G4D UNNAMED A (4) WILMETH RD TO TO WILMETH RD \$ 1,876,000 50% \$ 338,000 D-27 M4D TAYLOR BURK DR (1) HARDIN BLVD TO SKYLINE DR \$ 2,038,250 100% \$ 2,038,250 D-28 G6D HARDIN BLVD (4) UNNAMED S TO 1,560° SO FUNNAMED S \$ 2,249,800 100% \$ 2,238,250 D-30 G6D HARDIN BLVD (5) 1,545° SO FUNNAMED S TO 1,550° SO FUNNAMED S \$ 2		, ,							
D-21 G6D LAKE FOREST DR (1) LAUD HOWELL PRWY TO 3:00'S OF LAUD HOWELL PRWY \$ 6.48,400 50% \$ 3.224:200 C-34, D-22 M6D(1/3) LAKE FOREST DR (3) WILMETH RD TO US HIGHWAY 380 \$ 2.350,800 50% \$ 1,175,400 D-24 G4D UINNAMED A (1) 5,785 N OF LAUD HOWELL PRWY TO 9.2710'S OF LAUD HOWELL PRWY \$ 17,435,950 100% \$ 17,435,950 D-24 G4D UINNAMED A (2) 2,710'S OF LAUD HOWELL PRWY TO BLOOMDALE RD \$ 4,598,850 50% \$ 2,299,425 D-26 G4D UINNAMED A (3) 1,108'N OF WILMETH RD TO WILMETH RD \$ 1,876,800 50% \$ 393,000 D-26 M4D UINNAMED A (3) WILMETH RD TO HARDIN BLVD \$ 5,969,050 100% \$ 5,969,050 D-27 M4D UINNAMED A (1) HARDIN BLVD (6) WILMETH RD TO HARDIN BLVD \$ 5,969,050 100% \$ 2,238,250 D-29 G6D HARDIN BLVD (4) UINNAMED STO T,550'S OF UNNAMED STO T,500'S OF BLOOMDALE RD STO T,500'S									
C34, D-22 MBD(1/3)									
D-23 G4D UNNAMED A (1) 5,785° N OF LAUD HOWELL PKWY TO 2,710° S OF LAUD HOWELL PKWY \$ 17,435,950 100% \$ 17,435,950 D-24 G4D UNNAMED A (2) 2,710 S OF LAUD HOWELL PKWY TO BLOOMDALE RD \$ 1,678,000 50% \$ 2,299,425 D-25 G4D UNNAMED A (3) 1,165 NOF MULMETH RD TO WILMETH RD \$ 1,876,000 50% \$ 393,000 D-26 M4D UNNAMED A (4) WILMETH RD TO WILMETH RD \$ 1,876,000 50% \$ 5,989,050 D-27 M4D TAYLOR-BURK DR (1) HARDIN BLVD (4) WILMETH RD TO THARDIN BLVD \$ 5,989,050 100% \$ 5,989,050 D-29 G6D HARDIN BLVD (4) UNNAMED \$ 10 1,580 S OF UNMAMED \$ 5 \$ 3,287,400 50% \$ 1,633,000 D-29 G6D HARDIN BLVD (5) 1,545'S OF UNMAMED \$ 10 1,580 S OF BLOOMDALE PKWY \$ 2,129,800 100% \$ 2,298,800 D-30 G6D HARDIN BLVD (6) TISHITY FALLS PKWY TO 1,590 S OF BLOOMDALE RD \$ 4,538,400 100% \$ 2,265,000 D-31 G6D(1) HARDIN BLVD (7) 1,815'S OF SOF SINITY FALLS PKWY TO 1,590 S OF BLOOMDALE RD					_				
D-24 GAD UNNAMED A (2) 2,710° S OF LAUD HOWELL PKWY TO BLOOMDALE RD \$ 4,598,850 50% \$ 2,299,425 D-25 G4D UNNAMED A (3) 1,105° N OF WILMETH RD TO WILMETH RD TO \$ 1,876,000 50% \$ 383,000 D-27 MMD UNNAMED A (4) WILMETH RD TO HARDIN BLVD \$ 5,696,960 100% \$ 5,696,960 D-28 MGD MATURE PLAY TO (4) HARDIN BLVD (7) HARDIN BLVD (4) UNNAMED A TO *SEX UNE DE R \$ 2,038,250 100% \$ 2,038,250 D-29 G6D HARDIN BLVD (5) 1,545° S OF UNNAMED 5 TO TRINITY FALLS PKWY \$ 21,290,800 100% \$ 21,290,800 D-30 G6D HARDIN BLVD (6) TRINITY FALLS PKWY TO 1,315° S OF TRINITY FALLS PKWY \$ 4,538,400 100% \$ 2,030,000 D-31 G6D HARDIN BLVD (7) 1,815° S OF TRINITY FALLS PKWY TO 1,315° S OF BLOOMDALE RD \$ 4,534,400 100% \$ 2,1290,800 D-32 G6D(1/3) HARDIN BLVD (7) 1,815° S OF TRINITY FALLS PKWY TO 1,319° S OF BLOOMDALE RD \$ 1,070,400 100% \$ 1,170,400 D-32 G6D(1/3) HARDIN BLVD (8) 1,		- (/				11		•	
D-25 GAD UNNAMED A (3) 1,105° N OF WILMETH RD TO WILMETH RD \$ 1,876,000 50% \$ 938,000 D-26 M4D UNNAMED A (4) WILMETH RD TO HARDIN BLVD \$ 5,969,050 100% \$ 5,969,050 D-27 M4D TAYLOR-BURK DR (1) HARDIN BLVD TO SKYLINE DR \$ 2,038,250 100% \$ 2,038,250 D-28 G6D HARDIN BLVD (4) UNNAMED 5 TO 1550 S OF UNNAMED 5 \$ 3,267,400 50% \$ 1,183,700 D-29 G6D HARDIN BLVD (6) TRINITY FALLS PKWY TO 1,190° S OF UNNAMED 5 \$ 4,520,000 50% \$ 2,290,800 D-31 G6D HARDIN BLVD (6) TRINITY FALLS PKWY TO 1,190° S OF UNNAMED 5 \$ 4,520,000 50% \$ 2,209,800 D-31 G6D HARDIN BLVD (6) TRINITY FALLS PKWY TO 1,190° S OF BLOOMDALE RD \$ 4,538,400 100% \$ 2,208,800 D-31 G6D HARDIN BLVD (10) 1,815° S OF TRINITY FALLS PKWY TO 1,190° S OF BLOOMDALE RD \$ 4,538,400 100% \$ 4,538,400 D-32 G6D(1/3) HARDIN BLVD (8) 1,190° S OF BLOOMDALE RD TO 3,590° S OF BLOOMDALE RD \$ 1,170,400									
D-26					_				
D-27 M4D								•	
D-28 G6D			` '						
D-29 G6D	D-28	G6D			_		50%	_	
D-30 G6D							100%		
D-32 G6D(1/3) HARDIN BLVD (8) 1,190'S OF BLOOMDALE RD TO 3,590'S OF BLOOMDALE RD DO 3,590'S OF RINITY FALLS PKWY SOLOHOLE RD SO							50%		
D-32 G6D(1/3) HARDIN BLVD (8) 1,190' S OF BLOOMDALE RD TO 3,590' S OF BLOOMDALE RD S 1,070,400 100% \$ 1,070,400	D-31	G6D	HARDIN BLVD (7)	1,815' S OF TRINITY FALLS PKWY TO 1,190' S OF BLOOMDALE RD	\$	4,538,400	100%	\$	4,538,400
D-34 G6D(1/3)	D-32	G6D(1/3)	HARDIN BLVD (8)		\$		100%	\$	1,070,400
D-34 G6D(1/3)	D-33	G6D(2/3)	HARDIN BLVD (9)	3,590' S OF BLOOMDALE RD TO WILMETH RD	\$	2,249,800	50%	\$	1,124,900
D-36 G4D(1/2) COMMUNITY AVE (2) 1,275 S OF TRINITY FALLS PKWY TO BLOOMDALE RD 1,960,000 100% 1,960,000	D-34	G6D(1/3)	HARDIN BLVD (10)	WILMETH RD TO US HIGHWAY 380		2,904,000	100%	\$	2,904,000
D-37 M4U(1/2) COMMUNITY AVE (3) BLOOMDALE RD TO 2,305 \$ OF BLOOMDALE RD \$ 1,174,600 100% \$ 1,174,600 3	D-35	G4D	COMMUNITY AVE (1)	TRINITY FALLS PKWY TO 1,275' S OF TRINITY FALLS PKWY	\$	2,164,400	100%	\$	2,164,400
Signal	D-36	G4D(1/2)	COMMUNITY AVE (2)	1,275'S OF TRINITY FALLS PKWY TO BLOOMDALE RD	\$	1,960,000	100%	\$	1,960,000
Signal	D-37	M4U(1/2)	COMMUNITY AVE (3)	BLOOMDALE RD TO 2,305' S OF BLOOMDALE RD	\$	1,174,600	100%	\$	1,174,600
Signal	3		Signal	HARDIN BLVD & UNNAMED 5	\$	300,000	50%	\$	150,000
Signal	6		Signal	LAUD HOWELL PKWY & LAKE FOREST DR	\$	300,000	50%	\$	150,000
Signal	7		Signal	LAUD HOWELL PKWY & UNNAMED A	\$	300,000	100%	\$	300,000
Signal	8		Signal	LAUD HOWELL PKWY & HARDIN BLVD	\$	300,000	100%	\$	300,000
Roundabout TRINITY FALLS PKWY & COMMUNITY AVE \$ 200,000 50% \$ 100,000	9			HARDIN BLVD & TRINITY FALLS PKWY	\$	300,000	75%	\$	225,000
Interchange Signals							50%		
Signal BLOOMDALE RD & UNNAMED A \$ 300,000 25% \$ 75,000		Ē			_		50%		
10 10		ctio			_				
10 10		rse			_			_	
10 10		Inte			_			_	
25 Roundabout LAKE FOREST DR & WILMETH RD \$ 1,830,000 50% \$ 915,000 26 Roundabout WILMETH RD & UNNAMED A \$ 200,000 75% \$ 150,000 27 Roundabout HARDIN BLVD & WILMETH RD \$ 2,100,000 75% \$ 1,575,000 32 Roundabout HARDIN BLVD & TAYLOR-BURK DR \$ 1,200,000 100% \$ 1,200,000 36 Under Construction US HIGHWAY 380 & HARDIN BLVD \$ 780,682 50% \$ 390,341								_	
26 Roundabout WILMETH RD & UNNAMED A \$ 200,000 75% \$ 150,000 27 Roundabout HARDIN BLVD & WILMETH RD \$ 2,100,000 75% \$ 1,575,000 32 Roundabout HARDIN BLVD & TAYLOR-BURK DR \$ 1,200,000 100% \$ 1,200,000 36 Under Construction US HIGHWAY 380 & HARDIN BLVD \$ 780,682 50% \$ 390,341									
27 Roundabout HARDIN BLVD & WILMETH RD \$ 2,100,000 75% \$ 1,575,000 32 Roundabout HARDIN BLVD & TAYLOR-BURK DR \$ 1,200,000 100% \$ 1,200,000 36 Under Construction US HIGHWAY 380 & HARDIN BLVD \$ 780,682 50% \$ 390,341					_				
32 Roundabout HARDIN BLVD & TAYLOR-BURK DR \$ 1,200,000 100% \$ 1,200,000 36 Under Construction US HIGHWAY 380 & HARDIN BLVD \$ 780,682 50% \$ 390,341								_	
36 Under Construction US HIGHWAY 380 & HARDIN BLVD \$ 780,682 50% \$ 390,341								_	
					_	.,=,		-	
	36		Under Construction	US HIGHWAY 380 & HARDIN BLVD	\$	780,682 225,290,659	50%	\$ \$	390,341 189,016,118

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney. The planning level cost projections shall not supersede the City's design standards contained within the Subdivision Ordinance or the determination of the City Engineer for a specific project.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 12/13/2019

Project Information: Description: Project No. A-2, D-1

Name: UNNAMED 5 (3) This project consists of the

Limits: CR 168 TO 1,560' E OF CR 168 construction of a new six-lane divided

Impact Fee Class: M6D major arterial.

Thoroughfare Class: Major Arterial

Length (If): 1,560
Service Area(s): A and D

Roa	dway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Unit Pr	ice		Item Cost
109	Unclassified Street Excavation	17,333	су	\$ 10	0.00	\$	173,333
209	Lime Treated Subgrade (8") (PI<12)	13,520	sy	\$	7.00	\$	94,640
309	9" Concrete Pavement	12,827	sy	\$ 6	0.00	\$	769,600
409	4" Topsoil	6,067	sy	\$	2.50	\$	15,167
509	6" Curb & Gutter	6,240	lf	\$	5.00	\$	31,200
609	Allotment for Turn Lanes and Median Openings	952	sy	\$ 7	7.00	\$	73,306
709	Moisture Conditioning	13,520	sy	\$	3.00	\$	108,160
	D	oving Const	unation C	Cubt	atal.	4	1 26E 406

Paving Construction Cost Subtotal: \$ 1,265,406

Major Construction Component Allo			
Item Description	Notes	Allowance	Item Cost
√ Traffic Control	None Anticipated	1%	\$ 12,654
√ Pavement Markings/Markers		3%	\$ 37,962
√ Roadway Drainage	Standard Internal System	25%	\$ 316,351
√ Special Drainage Structures	Bridge		\$ 2,100,000
Water	None Anticipated	0%	\$ -
Sewer	None Anticipated	0%	\$ -
√ Establish Turf / Erosion Control		2%	\$ 25,308
√ Illumination	Standard Ilumination System	6%	\$ 75,924
Other:			
**Allowances based on % of Paving Construction	n Cost Subtotal Allow	ance Subtotal:	\$ 2,568,200
	Paving and Allow	ance Subtotal:	\$ 3,833,606
	Mobilization	5%	\$ 191,680
	Site Preparation	5%	\$ 191,680
	Construction C		\$ 4,217,000
	Construction Contingency	15%	\$ 632,550
	Construction Cost TOTAL W/ CON	TINGENCY:	\$ 4,850,000

Impact Fee Project Cost Summer Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,850,000
Engineering/Survey/Testing:		20%	\$ 970,000
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 1,697,500
	Impact Fee Pro	ject Cost TOTAL:	\$ 7,517,500

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 12/13/2019

Project Information: Description: Project No.

Name: UNNAMED 5 (4)

This project consists of the construction 1,050' W OF HARDIN BLVD TO of a new six-lane divided major arterial.

Limits: 1,200' E OF HARDIN BLVD

Impact Fee Class: M6D Thoroughfare Class: Major Arterial

Length (If): 2,250 Service Area(s): B and D

Roa	adway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
109	Unclassified Street Excavation	25,000	су	\$ 10.00	\$ 250,000
209	Lime Treated Subgrade (8") (PI<12)	19,500	sy	\$ 7.00	\$ 136,500
309	9" Concrete Pavement	18,500	sy	\$ 60.00	\$ 1,110,000
409	4" Topsoil	8,750	sy	\$ 2.50	\$ 21,875
509	6" Curb & Gutter	9,000	lf	\$ 5.00	\$ 45,000
609	Allotment for Turn Lanes and Median Openings	1,373	sy	\$ 77.00	\$ 105,729
709	Moisture Conditioning	19,500	sy	\$ 8.00	\$ 156,000

Paving Construction Cost Subtotal: \$ 1,825,104

Maj	or Construction Component Allowanc	es**:		
	Item Description	Notes	Allowance	Item Cost
	Traffic Control	None Anticipated	1%	\$ 18,251
	Pavement Markings/Markers		3%	\$ 54,753
	Roadway Drainage	Standard Internal System	25%	\$ 456,276
	Special Drainage Structures	None Anticipated		\$ -
	Water	None Anticipated	0%	\$ -
	Sewer	None Anticipated	0%	\$ -
	Establish Turf / Erosion Control		2%	\$ 36,502
	Illumination	Standard Ilumination System	6%	\$ 109,506
	Other:			
**Allo	wances based on % of Paving Construction Cost	Subtotal Allowa	nce Subtotal:	\$ 675,289
		· ·		
		Paving and Allowa	nce Subtotal:	\$ 2,500,393
		Mobilization:	5%	\$ 125,020
		Site Preparation:	5%	\$ 125,020
		Construction C	ost TOTAL:	\$ 2,751,000
		Construction Contingency:	15%	\$ 412,650
	Co	nstruction Cost TOTAL W/ CON	FINGENCY:	\$ 3,164,000

Impact Fee Project Cost Summ	nary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,164,000
Engineering/Survey/Testing:		20%	\$ 632,800
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 1,107,400
	Impact Fee Pro	ject Cost TOTAL:	\$ 4,904,200

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

divided greenway arterial.

updated: 12/13/2019

 Project Information:
 Description:
 Project No.
 D-3

 Name:
 LAUD HOWELL PKWY (6)
 This project consists of the construction of a new six-lane

 Limits:
 LAKE FOREST DR TO 1860' E OF HARDIN BLVD
 construction of a new six-lane

Impact Fee Class: G6D

Thoroughfare Class: Greenway Arterial

Length (If): 13,995 Service Area(s): D

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit	Price	Item Cost
116	Unclassified Street Excavation	171,050	су	\$	10.00	\$ 1,710,500
216	Lime Treated Subgrade (8") (PI<12)	111,960	sy	\$	7.00	\$ 783,720
316	9" Concrete Pavement	105,740	sy	\$	60.00	\$ 6,344,400
416	4" Topsoil	88,635	sy	\$	2.50	\$ 221,588
516	6" Curb & Gutter	55,980	lf	\$	5.00	\$ 279,900
616	Allotment for Turn Lanes and Median Openings	9,672	sy	\$	77.00	\$ 744,715
716	Moisture Conditioning	111,960	sy	\$	8.00	\$ 895,680

Paving Construction Cost Subtotal: \$ 10,980,503

Major Construction Component Alloy			
Item Description	Notes	Allowance	Item Cost
√ Traffic Control	None Anticipated	1%	\$ 109,805
√ Pavement Markings/Markers		3%	\$ 329,415
√ Roadway Drainage	Standard Internal System	25%	\$ 2,745,126
√ Special Drainage Structures	Bridge		\$ 5,100,000
Water	None Anticipated	0%	\$ -
Sewer	None Anticipated	0%	-
√ Establish Turf / Erosion Control		2%	219,610
√ Illumination	Standard Ilumination System	6%	\$ 658,830
Other:			
**Allowances based on % of Paving Construction	n Cost Subtotal Allowa	nce Subtotal:	\$ 9,162,786
	Paving and Allowa	nce Subtotal:	\$ 20,143,289
	Mobilization:	5%	\$ 1,007,164
	Site Preparation:	5%	\$ 1,007,164
	\$ 22,158,000		
	Construction Contingency:		3,323,700
	Construction Cost TOTAL W/ CON	TINGENCY:	\$ 25,482,000

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 25,482,000
Engineering/Survey/Testing:		20%	\$ 5,096,400
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 8,918,700

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 12/13/2019

Project Information: Description: Project No. D-4

Name: LAUD HOWELL PKWY (7) This project consists of the construction

4,170' N OF TRINITY FALLS PKWY of a new six-lane divided greenway Limits: TO 240' N OF TRINITY FALLS arterial.

Impact Fee Class: G6D

Thoroughfare Class: Greenway Arterial

Length (If): 3,930 Service Area(s): D

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit	Price	Item Cost
116	Unclassified Street Excavation	48,033	су	\$	10.00	\$ 480,333
216	Lime Treated Subgrade (8") (PI<12)	31,440	sy	\$	7.00	\$ 220,080
316	9" Concrete Pavement	29,693	sy	\$	60.00	\$ 1,781,600
416	4" Topsoil	24,890	sy	\$	2.50	\$ 62,225
516	6" Curb & Gutter	15,720	lf	\$	5.00	\$ 78,600
616	Allotment for Turn Lanes and Median Openings	2,716	sy	\$	77.00	\$ 209,127
716	Moisture Conditioning	31,440	sy	\$	8.00	\$ 251,520

Paving Construction Cost Subtotal: \$ 3,083,485

Maj	Major Construction Component Allowances**:								
	Item Description	Notes	Allowance		Item Cost				
	Traffic Control	None Anticipated	1%	\$	30,835				
	Pavement Markings/Markers		3%	\$	92,505				
	Roadway Drainage	Standard Internal System	25%	\$	770,871				
	Special Drainage Structures	Stream Crossing		\$	250,000				
	Water	None Anticipated	0%	\$	-				
	Sewer	None Anticipated	0%	\$	-				
	Establish Turf / Erosion Control		2%	\$	61,670				
	Illumination	Standard Ilumination System	6%	\$	185,009				
	Other:								
**Allo	wances based on % of Paving Construction Co	st Subtotal Allowa	ince Subtotal:	\$	1,390,890				
		Paving and Allowa	nce Subtotal:	\$	4,474,375				
		Mobilization:	5%	\$	223,719				
	Site Preparation: 5%								
	Construction Cost TOTAL:								
		Construction Contingency:	15%	\$	738,300				
	С	onstruction Cost TOTAL W/ CON	TINGENCY:	\$	5,661,000				

	V		
Impact Fee Project Cost Summ	ary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 5,661,000
Engineering/Survey/Testing:		20%	\$ 1,132,200
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 1,981,350
	\$ 8,774,550		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

Project Information	n:	Description:	Project No.	D-5
Name:	LAUD HOWELL PKWY (8)		This project con	sists of the
Limits:	240' N OF TRINITY FALLS PKWY	TO US HIGHWAY 75	construction of	two additional
Impact Fee Class:	G6D(1/3)		through lanes w	ithin the
Thoroughfare Class:	Greenway Arterial		existing median	of the ultimate
Length (If):	2,020		six-lane divided	
			arterial. The City	contributed
			approximately \$	1,320,027 of
Service Area(s):	D		eligible funds fr	om '12-'19.

Roa	adway Construction Cost Projec	ction					
No.	Item Description		Quantity	Unit	Unit Price		Item Cost
117	Unclassified Street Excavation		5,836	су	\$ 10.00	\$	58,356
217	Lime Treated Subgrade (8") (PI<12)		5,611	sy	\$ 7.00	\$	39,278
317	9" Concrete Pavement		5,162	sy	\$ 60.00	\$	309,733
417	4" Topsoil		5,387	sy	\$ 2.50	\$	13,467
517	6" Curb & Gutter		4,040	If	\$ 5.00	\$	20,200
617	Allotment for Turn Lanes and Median C	Openings	1,396	sy	\$ 77.00	\$	107,490
			Paving Const	ruction (Cost Subtotal:	\$	548,524
Majo	or Construction Component Allowand						
	Item Description	Notes			Allowance		Item Cost
$\sqrt{}$	Traffic Control	Construction Phase	Traffic Control		3%		16,456
	Pavement Markings/Markers				3%	\$	16,456
	Roadway Drainage	None Anticipated			0%	\$	-
	Special Drainage Structures	None Anticipated				\$	-
	Water	None Anticipated			0%	\$	-
Ι,	Sewer	None Anticipated			0%	\$	-
	Establish Turf / Erosion Control				2%	\$	10,970
	Illumination	None Anticipated			0%	\$	-
	Other:					_	
**Allo	wances based on % of Paving Construction Cost S	Subtotal		Allowa	ince Subtotal:	\$	43,882
			Davida a sa	-l All		*	500 405
I					nce Subtotal:	\$	592,405
I	Mobilization: 5%					Ф	29,620
	Site Preparation: 5%					\$	29,620
					ost TOTAL:	\$	652,000
			ruction Conti				97,800
	Construction Cost TOTAL W/ CONTINGENCY:						750,000

Impact Fee Project Cost Sun	nmary					
Item Description	Notes:	Allowance		Item Cost		
Construction:		-	\$	750,000		
Engineering/Survey/Testing:		20%	\$	150,000		
2008 - 2012 City contribution			\$	-		
2012 - 2019 City contribution			\$	1,320,027		
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$	-		
	Impact Fee Project Cost TOTAL:					

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

updated:

12/13/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information: D-6 Description: Project No.

Name: TRINITY FALLS PKWY (1) This project consists of the

Limits: HARDIN BLVD TO 1,910' E OF HARDIN BLVD **Impact Fee Class:**

Thoroughfare Class: **Greenway Arterial**

1,910 Length (If):

Service Area(s): D

reconstruction of a two-lane asphalt facility to a four-lane divided greenway

arterial.

Roa	dway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
107	Unclassified Street Excavation	18,676	су	\$ 10.00	\$ 186,756
207	Lime Treated Subgrade (8") (PI<12)	14,007	sy	\$ 7.00	\$ 98,047
307	8" Concrete Pavement	13,158	sy	\$ 55.00	\$ 723,678
407	4" Topsoil	9,126	sy	\$ 2.50	\$ 22,814
507	6" Curb & Gutter	7,640	lf	\$ 5.00	\$ 38,200
607	Allotment for Turn Lanes and Median Openings	1,121	sy	\$ 72.00	\$ 80,741
707	Moisture Conditioning	14,007	sy	\$ 8.00	\$ 112,053
	P	aving Consti	ruction (Cost Subtotal:	\$ 1,262,288
Majo	or Construction Component Allowances**:				
	Item Description Notes			Allowance	Item Cost

Maj	Major Construction Component Allowances**:								
	Item Description	Notes	Allowance		Item Cost				
	Traffic Control	Construction Phase Traffic Control	3%	\$	37,869				
	Pavement Markings/Markers		3%	\$	37,869				
	Roadway Drainage	Standard Internal System	25%	\$	315,572				
	Special Drainage Structures	None Anticipated		\$	-				
	Water	Incidental Adjustments	3%	\$	37,869				
	Sewer	Incidental Adjustments	3%	\$	37,869				
	Establish Turf / Erosion Control		2%	\$	25,246				
	Illumination	Standard Ilumination System	6%	\$	75,737				
	Other:								
**Allo	wances based on % of Paving Construction Cost	Subtotal	nce Subtotal:	\$	568,030				
		Paving and Allowa		\$	1,830,318				
		Mobilization:	5%	\$	91,516				
	\$	91,516							
	\$	2,014,000							
		Construction Contingency:	15%	\$	302,100				
	Con	struction Cost TOTAL W/ CON	TINGENCY:	\$	2,317,000				

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,317,000
Engineering/Survey/Testing:		20%	\$ 463,400
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 463,400
NOW/Lasement Acquisition.	\$ 3,243,8		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

Project Informatio	n:	Description:	Project No.	D-7
Name:	TRINITY FALLS PKWY (2) 1,910' E OF HARDIN BLVD TO		s project consists of the onstruction of a two-lan	
Limits: Impact Fee Class:	2,675' E OF HARDIN BLVD G4D	facil	lity to a four-lane divide rial. Based on the exist	d greenway
Thoroughfare Class: Length (If):	Greenway Arterial 765	Lim	its, the nothern half of to ot included in the Impa	he roadway
Service Area(s):	D, Half			

Roa	adway Construction Cost Projec	ction					
No.	Item Description		Quantity	Unit	Unit Price		Item Cost
107	Unclassified Street Excavation		7,480	су	\$ 10.00	\$	74,800
207	Lime Treated Subgrade (8") (PI<12)		5,610	sy	\$ 7.00	\$	39,270
307	8" Concrete Pavement		5,270	sy	\$ 55.00	\$	289,850
407	4" Topsoil		3,655	sy	\$ 2.50	\$	9,138
507	6" Curb & Gutter		3,060	lf	\$ 5.00	\$	15,300
607	Allotment for Turn Lanes and Median O	penings	449	sy	\$ 72.00	\$	32,339
707	Moisture Conditioning		5,610	sy	\$ 8.00	\$	44,880
		P	aving Const	ruction (Cost Subtotal:	\$	505,576
Majo	or Construction Component Allowance	es**:					
	Item Description	Notes			Allowance		Item Cost
	Traffic Control	Construction Phase	Traffic Control		3%	\$	15,167
	Pavement Markings/Markers				3%	\$	15,167
	Roadway Drainage	Standard Internal Sy	stem		25%	\$	126,394
	Special Drainage Structures	None Anticipated				\$	-
	Water	Incidental Adjustmer	nts		3%	\$	15,167
	Sewer	Incidental Adjustmer	nts		3%	\$	15,167
	Establish Turf / Erosion Control				2%	\$	10,112
	Illumination	Standard Ilumination	System		6%	\$	30,335
	Other:						
**Allo	wances based on % of Paving Construction Cost S	Subtotal		Allowa	nce Subtotal:	\$	227,509
	Paving and Allowance Subtotal:						
	Mobilization: 5%					\$	36,654
	Site Preparation: 5%					\$	36,654
			Construc	ction C	ost TOTAL:	\$	807,000
		Constr	uction Conti	ngency:	15%	\$	121,050
	Construction Cost TOTAL W/ CONTINGENCY:						929,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 929,000
Engineering/Survey/Testing:		20%	\$ 185,800
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 185,800
	\$ 1,300,600		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

Project Information: **D-8** Description: Project No. Name: TRINITY FALLS PKWY (3) This project consists of the construction COMMUNITY AVE TO 2,200' W OF of a new four-lane divided greenway Limits: LAUD HOWELL PKWY arterial. Based on the existing City **Impact Fee Class:** G4D Limits, the nothern half of the roadway Thoroughfare Class: **Greenway Arterial** is not included in the Impact Fee RIP.

Length (If): 1,820 Service Area(s): D, Half

Roa	adway Construction Cost Projec	tion					
No.	Item Description		Quantity	Unit	Unit Price		Item Cost
107	7 Unclassified Street Excavation 17,796 cy \$			\$ 10.00	\$	177,956	
207	Lime Treated Subgrade (8") (PI<12)		13,347	sy	\$ 7.00	\$	93,427
307	8" Concrete Pavement		12,538	sy	\$ 55.00	\$	689,578
407	4" Topsoil		8,696	sy	\$ 2.50	\$	21,739
507	6" Curb & Gutter		7,280	If	\$ 5.00	\$	36,400
607	Allotment for Turn Lanes and Median Op	penings	1,069	sy	\$ 72.00	\$	76,936
707	Moisture Conditioning		13,347	sy	\$ 8.00	\$	106,773
		P	aving Const	ruction (Cost Subtotal:	\$	1,202,809
Majo	or Construction Component Allowance						
	Item Description	Notes			Allowance		Item Cost
$\sqrt{}$	Traffic Control	None Anticipated			1%	\$	12,028
$\sqrt{}$	Pavement Markings/Markers				3%	\$	36,084
$\sqrt{}$	Roadway Drainage	Standard Internal Sy	stem		25%	\$	300,702
	Special Drainage Structures	Bridge				\$	1,400,000
	Water	None Anticipated			0%	\$	-
	Sewer	None Anticipated			0%		-
$\sqrt{}$	Establish Turf / Erosion Control				2%		24,056
	Illumination	Standard Ilumination	System		6%	\$	72,169
	Other:						
**Allo	wances based on % of Paving Construction Cost S	Subtotal		Allowa	ince Subtotal:	\$	1,845,039
	Paving and Allowance Subtotal:						3,047,848
	Mobilization: 5%					\$	152,392
	Site Preparation: 5%					_	152,392
					ost TOTAL:		3,353,000
		Constr	uction Conti	ngency:	15%	\$	502,950

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,856,000
Engineering/Survey/Testing:		20%	\$ 771,200
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 1,349,600
	Impact Fee Project C	ost TOTAL:	\$ 5,976,800

Construction Cost TOTAL W/ CONTINGENCY:

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

3,856,000

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 12/13/2019

Project Information: Description: Project No. D-9

Name: TRINITY FALLS PKWY (4) This project consists of the construction

LAUD HOWELL PKWY TO 2,200' W of a new four-lane divided greenway

Limits: OF LAUD HOWELL PKWY arterial.

Limits: OF LAUD HOWELL PKWY arterial.

Impact Fee Class: G4D

The remark for Class.

Thoroughfare Class: Greenway Arterial

Length (If): 2,200 Service Area(s): D

Roa	adway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
107	Unclassified Street Excavation	21,511	су	\$ 10.00	\$ 215,111
207	Lime Treated Subgrade (8") (PI<12)	16,133	sy	\$ 7.00	\$ 112,933
307	8" Concrete Pavement	15,156	sy	\$ 55.00	\$ 833,556
407	4" Topsoil	10,511	sy	\$ 2.50	\$ 26,278
507	6" Curb & Gutter	8,800	lf	\$ 5.00	\$ 44,000
607	Allotment for Turn Lanes and Median Openings	1,292	sy	\$ 72.00	\$ 93,000
707	Moisture Conditioning	16,133	sy	\$ 8.00	\$ 129,067

Paving Construction Cost Subtotal: \$ 1,453,944

Majo	Major Construction Component Allowances**:							
	Item Description	Notes	Allowance		Item Cost			
	Traffic Control	None Anticipated	1%	\$	14,539			
	Pavement Markings/Markers		3%	\$	43,618			
	Roadway Drainage	Standard Internal System	25%	\$	363,486			
	Special Drainage Structures	Bridge		\$	2,300,000			
	Water	None Anticipated	0%	\$	-			
	Sewer	None Anticipated	0%	\$	-			
	Establish Turf / Erosion Control		2%	\$	29,079			
	Illumination	Standard Ilumination System	6%	\$	87,237			
	Other:							
**Allo	wances based on % of Paving Construction Cos	t Subtotal Allowa	ince Subtotal:	\$	2,837,959			
		Paving and Allowa	nce Subtotal:	\$	4,291,904			
		Mobilization:	5%	\$	214,595			
		Site Preparation:	5%	\$	214,595			
	Construction Cost TOTAL:							
		Construction Contingency:			708,300			
	Co	onstruction Cost TOTAL W/ CON	TINGENCY:	\$	5,431,000			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 5,431,000
Engineering/Survey/Testing:		20%	\$ 1,086,200
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 1,900,850
	Impact Fee Project C	ost TOTAL:	\$ 8,418,050

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

12/13/2019

updated:

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information: D-10 Description: Project No. TRINITY FALLS PKWY (5) Name: This section is currently under 4,275' N OF WESTON RD TO LAUD construction for a four-lane divided Limits: **HOWELL PKWY** section and the City contributed **Impact Fee Class:** M6D(1/3) approximately \$5,100,000 of eligible Thoroughfare Class: Major Arterial funds from '12-'19. This project consists Length (If): 5,530 of the construction of two additional through lanes within the existing median of the ultimate six-lane divided Service Area(s): D maior arterial.

Roadway Construction Cost Projection No. Item Description Quantity Unit	U					
No. Item Description Quantity Unit	U					
		nit Price		Item Cost		
111 Unclassified Street Excavation 17,204 cy	\$	10.00	\$	172,044		
211 Lime Treated Subgrade (8") (PI<12) 16,590 sy	\$	7.00	\$	116,130		
311 9" Concrete Pavement 15,361 sy	\$	60.00	\$	921,667		
411 4" Topsoil 4,916 sy	\$	2.50	\$	12,289		
511 6" Curb & Gutter 11,060 If	\$	5.00	\$	55,300		
611 Allotment for Turn Lanes and Median Openings 3,375 sy	\$	77.00	\$	259,859		
Paving Construction	Cost	: Subtotal:	\$	1,537,289		
Major Construction Component Allowances**:						
Item Description Notes	Al	llowance		Item Cost		
√ Traffic Control Construction Phase Traffic Control		3%	\$	46,119		
√ Pavement Markings/Markers		3%		46,119		
Roadway Drainage None Anticipated		0%	\$	-		
Special Drainage Structures None Anticipated			\$	-		
Water None Anticipated		0%	\$	-		
Sewer None Anticipated		0%	\$	-		
√ Establish Turf / Erosion Control		2%		30,746		
Illumination None Anticipated		0%	\$	-		
Other:						
**Allowances based on % of Paving Construction Cost Subtotal **Allowances based on % of Paving Construction Cost Subtotal	vance	Subtotal:	\$	122,983		
Paving and Allow				1,660,272 83,014		
	Mobilization: 5%					
	Site Preparation: 5%					
Construction		1,827,000				
Construction Contingence		15%	_	274,050		
Construction Cost TOTAL W/ CO	NTIN	GENCY:	\$	2,102,000		

Impact Fee Project Cost Sun	nmary			
Item Description	Notes:	Allowance		Item Cost
Construction:		-	\$	2,102,000
Engineering/Survey/Testing:		20%	\$	420,400
2008 - 2012 City contribution			\$	-
2012 - 2019 City contribution			\$	5,100,000
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$	-
Impact Fee Project Cost TOTAL:				7,622,400

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

Project Informatio	n:	Description:	Project No. D-11	
Name:	BLOOMDALE RD (7) 1,820' W OF TAYLOR-BURK DR TO		nis project consists of the	
Limits:	TAYLOR-BURK DR		construction of a two-lane asphalt cility to a six-lane divided principal	
Impact Fee Class:	P6D		terial. Based on the existing City	
Thoroughfare Class:	Principal Arterial	Li	mits, the southern half of the roadw	ay
Length (If):	1,820	is	not included in the Impact Fee RIP.	
Service Area(s):	D, Half			

Roa	adway Construction Cost Proj	ection					
No.	Item Description		Quantity	Unit	Unit Price		Item Cost
113	Unclassified Street Excavation		20,222	су	\$ 10.00	\$	202,222
213	Lime Treated Subgrade (8") (PI<12)		15,773	sy	\$ 7.00	\$	110,413
313	9" Concrete Pavement		14,964	sy	\$ 60.00	\$	897,867
413	4" Topsoil		8,291	sy	\$ 2.50	\$	20,728
	6" Curb & Gutter		7,280	lf	\$ 5.00	\$	36,400
	Allotment for Turn Lanes and Median	Openings	1,111	sy	\$ 77.00	\$	85,523
713	Moisture Conditioning		15,773	sy	\$ 8.00	\$	126,187
		F	Paving Const	ruction (Cost Subtotal:	\$	1,479,340
Majo	or Construction Component Allowar						
	Item Description	Notes			Allowance		Item Cost
	Traffic Control	Construction Phase	Traffic Control		3%		44,380
	Pavement Markings/Markers				3%	\$	44,380
	Roadway Drainage	Standard Internal Sy	rstem		25%	\$	369,835
,	Special Drainage Structures	None Anticipated				\$	-
	Water	Incidental Adjustmer	nts		3%		44,380
	Sewer	Incidental Adjustmer	nts		3%	\$	44,380
	Establish Turf / Erosion Control				2%	\$	29,587
	Illumination	Standard Ilumination	n System		6%	\$	88,760
	Other:						
**Allo	wances based on % of Paving Construction Co	st Subtotal		Allowa	ince Subtotal:	\$	665,703
			·				
Paving and Allowance Subtotal:							2,145,043
	Mobilization: 5%						107,252
	Site Preparation: 5%					\$	107,252
	Construction Cost TOTAL:					\$	2,360,000
			ruction Conti			\$	354,000
	C	onstruction Cos	st TOTAL W	// CON	TINGENCY:	\$	2,714,000

Impact Fee Project Cost Summary	y		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,714,000
Engineering/Survey/Testing:		20%	\$ 542,800
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 542,800
	Impact Fee Project C	ost TOTAL:	\$ 3,799,600

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

updated:

12/13/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information: Description: Project No. D-12

Name: BLOOMDALE RD (8) This project consists of the

Limits: 1,485' E OF CR 1006 TO 1,215' W OF CR 1007 Impact Fee Class: P6D

Thoroughfare Class: Principal Arterial

Length (If): 1,535 Service Area(s): D reconstruction of a two-lane asphalt facility to a six-lane divided principal

arterial.

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit	Price	Item Cost
113	Unclassified Street Excavation	17,056	су	\$	10.00	\$ 170,556
213	Lime Treated Subgrade (8") (PI<12)	13,303	sy	\$	7.00	\$ 93,123
313	9" Concrete Pavement	12,621	sy	\$	60.00	\$ 757,267
413	4" Topsoil	6,993	sy	\$	2.50	\$ 17,482
513	6" Curb & Gutter	6,140	lf	\$	5.00	\$ 30,700
613	Allotment for Turn Lanes and Median Openings	937	sy	\$	77.00	\$ 72,131
713	Moisture Conditioning	13,303	sy	\$	8.00	\$ 106,427
	P	aving Consti	ruction C	Cost Si	ubtotal:	\$ 1,247,685

Major Construction Component Allowances**:						
Item Description	Notes	Allowance		Item Cost		
√ Traffic Control	Construction Phase Traffic Control	3%	\$	37,431		
√ Pavement Markings/Markers		3%	\$	37,431		
$\sqrt{}$ Roadway Drainage	Standard Internal System	25%	\$	311,921		
Special Drainage Structures	None Anticipated		\$	-		
√ Water	Incidental Adjustments	3%	\$	37,431		
√ Sewer	Incidental Adjustments	3%	\$	37,431		
√ Establish Turf / Erosion Control		2%	\$	24,954		
√ Illumination	Standard Ilumination System	6%	\$	74,861		
Other:						
**Allowances based on % of Paving Construction	on Cost Subtotal Allowa	nce Subtotal:	\$	561,458		
	Paving and Allowa	nce Subtotal:	\$	1,809,143		
	Mobilization:	5%	\$	90,457		
	\$	90,457				
	\$	1,991,000				
	Construction Contingency:	15%	\$	298,650		
	Construction Cost TOTAL W/ CON	TINGENCY:	\$	2,290,000		

Impact Fee Project Cost Summer Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,290,000
Engineering/Survey/Testing:		20%	\$ 458,000
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 458,000
Impact Fee Project Cost TOTAL:			\$ 3,206,000

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

updated:

12/13/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Informatio	n:	Description:	Project No.	D-13
Name:	BLOOMDALE RD (9)	This project consists o	f the reconstru	ction of a two-
Limits:	1,225' W OF CR 1007 TO CR 1007	lane asphalt facility to	a six-lane divid	ed principal
Impact Fee Class:	P6D	arterial. Based on the e	xisting City Lin	nits, the
Thoroughfare Class:	Principal Arterial	northern half of the roa	dway is not inc	cluded in the
Length (If):	1,225	Impact Fee RIP.		
Service Area(s):	D, Half	,		

Roa	dway Construction Cost Projec	tion				
No.	Item Description		Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation		13,611	су	\$ 10.00	\$ 136,111
213	Lime Treated Subgrade (8") (PI<12)		10,617	sy	\$ 7.00	\$ 74,317
313	9" Concrete Pavement		10,072	sy	\$ 60.00	\$ 604,333
413	4" Topsoil		5,581	sy	\$ 2.50	\$ 13,951
513	6" Curb & Gutter		4,900	lf	\$ 5.00	\$ 24,500
613	Allotment for Turn Lanes and Median Op	penings	748	sy	\$ 77.00	\$ 57,564
713	Moisture Conditioning	-	10,617	sy	\$ 8.00	\$ 84,933
	Paving Construction C			Cost Subtotal:	\$ 995,709	
Majo	or Construction Component Allowance	es**:				
	Item Description	Notes			Allowance	Item Cost
V	Traffic Control	Construction Phase	Traffic Control		3%	 29,871
	Pavement Markings/Markers				3%	29,871
	Roadway Drainage	Standard Internal Sy	stem		25%	\$ 248,927
	Special Drainage Structures	Stream Crossing				\$ 250,000
	Water	Incidental Adjustmer	nts		3%	 29,871
	Sewer	Incidental Adjustmer	nts		3%	29,871
	Establish Turf / Erosion Control				2%	\$ 19,914
	Illumination	Standard Ilumination	System		6%	\$ 59,743
	Other:					
**Allo	wances based on % of Paving Construction Cost S	Subtotal		Allowa	nce Subtotal:	\$ 698,069
					nce Subtotal:	1,693,779
				lization:	5%	84,689
			Site Prep			 84,689
					ost TOTAL:	 1,864,000
			uction Conti			279,600
	Con	struction Cos	t TOTAL W	// CON	TINGENCY:	\$ 2,144,000

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,144,000
Engineering/Survey/Testing:		20%	\$ 428,800
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 428,800

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

12/13/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Informatio	n:	Description:	Project No.	D-14
Name:	BLOOMDALE RD (10)	The City contribut	ed approximately \$2	2,962,610 of
Limits:	CR 1007 TO HARDIN BLVD	eligible funds fron	n '12-'19 for two of t	he six lanes.
Impact Fee Class:	P6D(2/3)	This project consi	sts of the construct	ion of four
Thoroughfare Class:	Principal Arterial	• •	lanes of the ultima	
Length (If):	1,965	divided principal a		
Service Area(s):	D	uu. pp		

Roa	adway Construction Cost Projec	ction							
No.	Item Description		Quantity	Unit	Unit Price		Item Cost		
115	Unclassified Street Excavation		17,903	су	\$ 10.00	\$	179,033		
215	Lime Treated Subgrade (8") (PI<12)		11,463	sy	\$ 7.00	\$	80,238		
315	9" Concrete Pavement		10,808	sy	\$ 60.00	\$	648,450		
415	4" Topsoil		6,659	sy	\$ 2.50	\$	16,648		
	6" Curb & Gutter		5,895	lf	\$ 5.00	\$	29,475		
	Allotment for Turn Lanes and Median O	penings	1,199	sy	\$ 77.00	\$	92,337		
715	715 Moisture Conditioning 11,463 sy			sy	\$ 8.00	\$	91,700		
Paving Construction Cost Subtotal:					\$	1,137,881			
Majo	or Construction Component Allowance								
	Item Description	Notes			Allowance		Item Cost		
	Traffic Control	Construction Phase	Traffic Control		3%		34,136		
	Pavement Markings/Markers			3%		34,136			
	Roadway Drainage	Standard Internal Sy	rstem		25%		284,470		
l ,	Special Drainage Structures	None Anticipated				\$	-		
	Water	Incidental Adjustmer			3%		34,136		
	Sewer	Incidental Adjustmer	nts		3%		34,136		
V	Establish Turf / Erosion Control				2%		22,758		
V	Illumination	Standard Ilumination	System		6%	\$	68,273		
	Other:	4				_			
**Allo	wances based on % of Paving Construction Cost	Subtotal	*	Allowa	nce Subtotal:	\$	512,046		
			<u> </u>		0.14.1	Ļ	4 0 40 60=		
			_		nce Subtotal:		1,649,927		
				lization:			82,496		
			Site Prep				82,496		
					ost TOTAL:		1,815,000		
			uction Conti			-	272,250		
	Cor	struction Cos	t TOTAL W	// CON	TINGENCY:	\$	2,088,000		

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,088,000
Engineering/Survey/Testing:		20%	\$ 417,600
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ 2,962,610
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 417,600

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

12/13/2019

updated:

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Informatio	n:	Description:	Project No.	D-15
Name:	BLOOMDALE RD (11)	The City contributed ap	proximately \$3,8	387,390 of
Limits:	HARDIN BLVD TO COMMUNITY AV	Eeligible funds from '12-'	19 for four of the	e six lanes.
Impact Fee Class:	P6D(1/3)	This project consists of		
Thoroughfare Class:	Principal Arterial	additional through lane		
Length (If):	2,580	ultimate six-lane divide		
Service Area(s):	D			

Roa	dway Construction Cost Pro	ojection							
No.	Item Description		Quantity	Unit	Unit Price		Item Cost		
114	Unclassified Street Excavation		8,027	су	\$ 10.00	\$	80,267		
214	Lime Treated Subgrade (8") (PI<12	2)	7,740	sy	\$ 7.00	\$	54,180		
314	9" Concrete Pavement		7,167	sy	\$ 60.00	\$	430,000		
414	4" Topsoil		2,293	sy	\$ 2.50	\$	5,733		
	6" Curb & Gutter		5,160	If	\$ 5.00	\$	25,800		
	Allotment for Turn Lanes and Media	an Openings	1,574	sy	\$ 77.00	\$	121,236		
714	714 Moisture Conditioning 7,740 sy			\$ 8.00	\$	61,920			
Paving Construction Co			Cost Subtotal:	\$	779,136				
Majo	or Construction Component Allow								
	Item Description	Notes			Allowance		Item Cost		
$\sqrt{}$	Traffic Control	Construction Phase	Traffic Control		3%		23,374		
	Pavement Markings/Markers				3%	\$	23,374		
	Roadway Drainage	None Anticipated			0%	\$	-		
	Special Drainage Structures	None Anticipated				\$	-		
	Water	None Anticipated			0%	\$	-		
,	Sewer	None Anticipated			0%	\$	-		
	Establish Turf / Erosion Control				2%	\$	15,583		
	Illumination	None Anticipated			0%	\$	-		
	Other:					_			
**Allo	wances based on % of Paving Construction	Cost Subtotal	*	Allowa	nce Subtotal:	\$	62,331		
			<u> </u>		0.14.1	_	044 10-		
			_		nce Subtotal:		841,467		
				lization:		\$	42,073		
			Site Prep			\$	42,073		
					ost TOTAL:		926,000		
			uction Conti			_	138,900		
		Construction Cos	t TOTAL W	// CON	TINGENCY:	\$	1,065,000		

Impact Fee Project Cost Summary	1		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,065,000
Engineering/Survey/Testing:		20%	\$ 213,000
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ 3,887,390
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
	Impact Fee Project C	ost TOTAL:	\$ 5,165,390

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

updated:

12/13/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Informatio	n:	Description:	Project No.	D-16
Name:	WILMETH RD (5)	This project consists of	f the construct	ion of a new
Limits:	LAKE FOREST DR TO UNNAMED A	four-lane divided green	way arterial. B	ased on the
Impact Fee Class:	G4D	existing City Limits, the		
Thoroughfare Class:	Greenway Arterial	is not included in the Ir		•
Length (If):	4,755			
Service Area(s):	D. Half			

Roa	adway Construction Cost Proje	ction					
No.	Item Description		Quantity	Unit	Unit Price		Item Cost
107	Unclassified Street Excavation		46,493	су	\$ 10.00	\$	464,933
207	207 Lime Treated Subgrade (8") (PI<12)		34,870	sy	\$ 7.00	\$	244,090
307	8" Concrete Pavement		32,757	sy	\$ 55.00	\$	1,801,617
407	4" Topsoil		22,718	sy	\$ 2.50	\$	56,796
507	6" Curb & Gutter		19,020	If	\$ 5.00	\$	95,100
607	Allotment for Turn Lanes and Median C	penings	2,792	sy	\$ 72.00	\$	201,007
707	Moisture Conditioning		34,870	sy	\$ 8.00	\$	278,960
Paving Construction Co			Cost Subtotal:	\$	3,142,503		
Majo	or Construction Component Allowand						
	Item Description	Notes			Allowance		Item Cost
V	Traffic Control	None Anticipated			1%		31,425
V	Pavement Markings/Markers				3%		94,275
	Roadway Drainage	Standard Internal Sy	stem		25%	-	785,626
	Special Drainage Structures	Bridge				\$	1,300,000
	Water	None Anticipated			0%		-
١,	Sewer	None Anticipated			0%		-
V	Establish Turf / Erosion Control				2%	-	62,850
	Illumination	Standard Ilumination	System		6%	\$	188,550
	Other:					_	
**Allo	wances based on % of Paving Construction Cost	Subtotal	*	Allowa	nce Subtotal:	\$	2,462,726
			_		nce Subtotal:		5,605,229
				lization:			280,261
			Site Prep				280,261
					ost TOTAL:		6,166,000
			uction Conti				924,900
	Coi	nstruction Cos	t TOTAL W	// CON	TINGENCY:	\$	7,091,000

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 7,091,000
Engineering/Survey/Testing:		20%	\$ 1,418,200
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 2,481,850

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

updated:

12/13/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information: D-17 Description: Project No.

Name: WILMETH RD (6) This project consists of the reconstruction of a two-lane asphalt

Limits: UNNAMED A TO 825' E OF UNNAMED A **Impact Fee Class:** G4D

facility to a four-lane divided greenway Thoroughfare Class: **Greenway Arterial** arterial.

825 Length (If): Service Area(s): D

Roa	adway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Unit	Price		Item Cost
107	Unclassified Street Excavation	8,067	су	\$	10.00	\$	80,667
207	Lime Treated Subgrade (8") (PI<12)	6,050	sy	\$	7.00	\$	42,350
307	8" Concrete Pavement	5,683	sy	\$	55.00	\$	312,583
407	4" Topsoil	3,942	sy	\$	2.50	\$	9,854
507	6" Curb & Gutter	3,300	lf	\$	5.00	\$	16,500
607	Allotment for Turn Lanes and Median Openings	484	sy	\$	72.00	\$	34,875
707	Moisture Conditioning	6,050	sy	\$	8.00	\$	48,400
						_	545.000

Paving Construction Cost Subtotal: \$ 545,229

Мајо	r Construction Component Allow	ances**:			
	Item Description	Notes	Allowance		Item Cost
	Traffic Control	Construction Phase Traffic Control	3%	\$	16,357
$\sqrt{}$	Pavement Markings/Markers		3%	\$	16,357
$\sqrt{}$	Roadway Drainage	Standard Internal System	25%	\$	136,307
	Special Drainage Structures	None Anticipated		\$	-
$\sqrt{}$	Water	Incidental Adjustments	3%	\$	16,357
$\sqrt{}$	Sewer	Incidental Adjustments	3%	\$	16,357
$\sqrt{}$	Establish Turf / Erosion Control		2%	\$	10,905
$\sqrt{}$	Illumination	Standard Ilumination System	6%	\$	32,714
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal **Allowance Subtotal:					245,353
	nce Subtotal:	\$	790,582		
Mobilization: 5%					39,529
		Site Preparation:			39,529
		Construction C		\$	870,000
		Construction Contingency:	15%	\$	130,500
		Construction Cost TOTAL W/ CON	TINGENCY:	\$	1,001,000

Impact Fee Project Cost Summ	ary			
Item Description	Notes:	Allowance		Item Cost
Construction:		-	\$	1,001,000
Engineering/Survey/Testing:		20%	\$	200,200
2008 - 2012 City contribution			\$	-
2012 - 2019 City contribution			\$	-
ROW/Easement Acquisition:	Existing Alignment	20%	\$	200,200
Impact Fee Project Cost TOTAL:				1,401,400

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection Kimley-Horn and Associates, Inc.

updated: 12/13/2019

Project Information: Description: Project No. D-18

Name: WILMETH RD (7) This project consists of the

825' E OF TAYLOR-BURK DR TO construction of two additional lanes of

Limits: 1,380' E OF TAYLOR-BURK DR the ultimate four-lane divided greenway

Impact Fee Class: G4D(1/2) arterial.

Thoroughfare Class: Greenway Arterial

Length (If): 555 Service Area(s): D

Roa	adway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
108	Unclassified Street Excavation	2,097	су	\$ 10.00	\$ 20,967
208	Lime Treated Subgrade (8") (PI<12)	2,035	sy	\$ 7.00	\$ 14,245
308	8" Concrete Pavement	1,912	sy	\$ 55.00	\$ 105,142
408	4" Topsoil	709	sy	\$ 2.50	\$ 1,773
508	6" Curb & Gutter	1,110	lf	\$ 5.00	\$ 5,550
608	Allotment for Turn Lanes and Median Openings	163	sy	\$ 72.00	\$ 11,731

Paving Construction Cost Subtotal: \$ 159,407

Major Construction Component Allo	wances**:						
Item Description	Notes	Allowance		Item Cost			
√ Traffic Control	Construction Phase Traffic Control	3%	\$	4,782			
√ Pavement Markings/Markers		3%	\$	4,782			
√ Roadway Drainage	Standard Internal System	25%	\$	39,852			
Special Drainage Structures	None Anticipated		\$	-			
√ Water	Incidental Adjustments	3%	\$	4,782			
√ Sewer	Incidental Adjustments	3%	\$	4,782			
√ Establish Turf / Erosion Control		2%	\$	3,188			
√ Illumination	Standard Ilumination System	6%	\$	9,564			
Other:							
**Allowances based on % of Paving Construction	n Cost Subtotal Allowa	nce Subtotal:	\$	71,733			
	nce Subtotal:	\$	231,140				
	Mobilization:	5%	\$	11,557			
	Site Preparation:	5%	\$	11,557			
	Construction C	ost TOTAL:	\$	255,000			
	Construction Contingency:	15%	\$	38,250			
	Construction Cost TOTAL W/ CON	TINGENCY:	\$	294,000			

Item Description	Notes:	Allowance	lt	tem Cost
Construction:		-	\$	294,000
Engineering/Survey/Testing:		20%	\$	58,800
2008 - 2012 City contribution			\$	-
2012 - 2019 City contribution			\$	-
ROW/Easement Acquisition:	Existing Alignment	20%	\$	58,800

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

Project Informatio	n:	Description:	Project No.	D-19
Name:	WILMETH RD (8)	Th	nis project consists of the	
	1,380' E OF TAYLOR-BURK DR TO	re	construction of a two-lan	e asphalt
Limits:	HARDIN BLVD	fac	cility to a four-lane divide	d greenway
Impact Fee Class:	G4D		terial. Based on the exist	•
Thoroughfare Class:	Greenway Arterial		mits, the northern half of	•
Length (If):	2,240		not included in the Impac	•
Service Area(s):	D, Half		in and impart	

Roa	adway Construction Cost Proje	ction					
No.	Item Description		Quantity	Unit	Uni	it Price	Item Cost
107	Unclassified Street Excavation		21,902	су	\$	10.00	\$ 219,022
207	Lime Treated Subgrade (8") (PI<12)		16,427	sy	\$	7.00	\$ 114,987
307	8" Concrete Pavement		15,431	sy	\$	55.00	\$ 848,711
407	4" Topsoil		10,702	sy	\$	2.50	\$ 26,756
507	6" Curb & Gutter		8,960	If	\$	5.00	\$ 44,800
	Allotment for Turn Lanes and Median C	Openings	1,315	sy	\$	72.00	\$ 94,691
707	Moisture Conditioning		16,427	sy	\$	8.00	\$ 131,413
		F	Paving Const	ruction (Cost S	Subtotal:	\$ 1,480,380
Majo	or Construction Component Allowand						
	Item Description	Notes		`	Allo	wance	Item Cost
	Traffic Control	Construction Phase	Traffic Control			3%	 44,411
	Pavement Markings/Markers					3%	44,411
	Roadway Drainage	Standard Internal Sy	rstem			25%	\$ 370,095
١,	Special Drainage Structures	None Anticipated					\$ -
	Water	Incidental Adjustmer	nts			3%	44,411
√,	Sewer	Incidental Adjustmer	nts			3%	44,411
√,	Establish Turf / Erosion Control					2%	 29,608
V	Illumination	Standard Ilumination	n System			6%	\$ 88,823
	Other:						
**Allo	wances based on % of Paving Construction Cost	Subtotal		Allowa	ince S	Subtotal:	\$ 666,171
	Paving and Allowance Subtotal:						2,146,551
	Mobilization: 5%					 107,328	
	Site Preparation: 5%					 107,328	
	Construction Cost TOTAL:						\$ 2,362,000
			ruction Conti			15%	354,300
	Construction Cost TOTAL W/ CONTINGENCY:					\$ 2,717,000	

Impact Fee Project Cost Summary				
Item Description	Notes:	Allowance		Item Cost
Construction:		-	\$	2,717,000
Engineering/Survey/Testing:		20%	\$	543,400
2008 - 2012 City contribution			\$	-
2012 - 2019 City contribution			\$	-
ROW/Easement Acquisition:	Existing Alignment	20%	\$	543,400
Impact Fee Project Cost TOTAL:				3,803,800

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

updated:

12/13/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information:

Name:

WILMETH RD (9)

HARDIN BLVD TO US HIGHWAY 75
Impact Fee Class:
Thoroughfare Class:

MéD(1/3)

Major Arterial

Description:

Project No.

D-20

This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided major arterial.

Length (If): 6,140
Service Area(s): D

Roa	adway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
111	Unclassified Street Excavation	19,102	су	\$ 10.00	\$ 191,022
211	Lime Treated Subgrade (8") (PI<12)	18,420	sy	\$ 7.00	\$ 128,940
311	9" Concrete Pavement	17,056	sy	\$ 60.00	\$ 1,023,333
411	4" Topsoil	5,458	sy	\$ 2.50	\$ 13,644
511	6" Curb & Gutter	12,280	lf	\$ 5.00	\$ 61,400
611	Allotment for Turn Lanes and Median Openings	3,747	sy	\$ 77.00	\$ 288,523

Paving Construction Cost Subtotal: \$ 1,706,863

Majo	Major Construction Component Allowances**:								
	Item Description	Notes	Allowance		Item Cost				
	Traffic Control	Construction Phase Traffic Control	3%	\$	51,206				
	Pavement Markings/Markers		3%	\$	51,206				
	Roadway Drainage	None Anticipated	0%	\$	-				
	Special Drainage Structures	None Anticipated		\$	-				
	Water	None Anticipated	0%	\$	-				
	Sewer	None Anticipated	0%	\$	-				
	Establish Turf / Erosion Control		2%	\$	34,137				
	Illumination	None Anticipated	0%	\$	-				
	Other:								
**Allo	wances based on % of Paving Construction (Cost Subtotal Allow	ance Subtotal:	\$	136,549				
		Paving and Allow	ance Subtotal:	\$	1,843,412				
		Mobilization	5%	\$	92,171				
		Site Preparation	5%	\$	92,171				
	\$	2,028,000							
		Construction Contingency	15%	\$	304,200				
		Construction Cost TOTAL W/ CON	TINGENCY:	\$	2,333,000				

Impact Fee Project Cost Summa	ary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,333,000
Engineering/Survey/Testing:		20%	\$ 466,600
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
	\$ 2,799,600		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

Project Information	n:	Description:	Project No. D-21
Name:	LAKE FOREST DR (1) LAUD HOWELL PKWY TO 3,200' S		This project consists of the reconstruction of a two-lane asphalt
Limits: Impact Fee Class:	OF LAUD HOWELL PKWY G6D		facility to a six-lane divided greenway arterial. Based on the existing City
Thoroughfare Class: Length (If): Service Area(s):	Greenway Arterial 3,200 D, Half		Limits, the western half of the roadway is not included in the Impact Fee RIP.

					~		
Roa	adway Construction Cost Project	tion					
No.	Item Description		Quantity	Unit	Unit Price		Item Cost
116	Unclassified Street Excavation		39,111	су	\$ 10.00	\$	391,111
216	Lime Treated Subgrade (8") (PI<12)		25,600	sy	\$ 7.00		179,200
316	9" Concrete Pavement		24,178	sy	\$ 60.00	-	1,450,667
416	4" Topsoil		20,267	sy	\$ 2.50		50,667
516	6" Curb & Gutter		12,800	If	\$ 5.00	\$	64,000
	Allotment for Turn Lanes and Median Op	enings	2,211	sy	\$ 77.00		170,281
716	Moisture Conditioning		25,600	sy	\$ 8.00		204,800
		P	aving Consti	ruction (Cost Subtotal	: \$	2,510,726
Majo	or Construction Component Allowances						
	Item Description	Notes			Allowance		Item Cost
		Construction Phase	Traffic Control		3%	\$	75,322
	Pavement Markings/Markers				3%	6 \$	75,322
	, ,	Standard Internal Sy	stem		25%	6 \$	627,681
	,	None Anticipated				\$	-
	Water	Incidental Adjustmen	nts		3%	6 \$	75,322
		Incidental Adjustmen	nts		3%		75,322
	Establish Turf / Erosion Control				2%	6 \$	50,215
		Standard Ilumination	System		6%	6 \$	150,644
	Other:						
**Allo	wances based on % of Paving Construction Cost Su	ubtotal		Allowa	ınce Subtotal	: \$	1,129,827
			<u> </u>				
	Paving and Allowance Subtotal:						3,640,553
	Mobilization: 5%					_	182,028
Site Preparation: 5%						182,028	
	Construction Cost TOTAL:						4,005,000
			uction Conti			-	600,750
	Cons	struction Cos	t TOTAL W	// CON	TINGENCY	: \$	4,606,000

Impact Fee Project Cost Summary				
Item Description	Notes:	Allowance		Item Cost
Construction:		-	\$	4,606,000
Engineering/Survey/Testing:		20%	\$	921,200
2008 - 2012 City contribution			\$	-
2012 - 2019 City contribution			\$	-
ROW/Easement Acquisition:	Existing Alignment	20%	\$	921,200
Impact Fee Project Cost TOTAL:				6,448,400

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

updated:

12/13/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information:

Name:

LAKE FOREST DR (3)

Limits:

WILMETH RD TO US HIGHWAY 380 additional through lanes within the existing median of the ultimate six-lane divided major arterial.

Thoroughfare Class: Major Arterial

Length (If): 5,155
Service Area(s): C and D

Roa	adway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
111	Unclassified Street Excavation	16,038	су	\$ 10.00	\$ 160,378
211	Lime Treated Subgrade (8") (PI<12)	15,465	sy	\$ 7.00	\$ 108,255
311	9" Concrete Pavement	14,319	sy	\$ 60.00	\$ 859,167
411	4" Topsoil	4,582	sy	\$ 2.50	\$ 11,456
511	6" Curb & Gutter	10,310	lf	\$ 5.00	\$ 51,550
611	Allotment for Turn Lanes and Median Openings	3,146	sy	\$ 77.00	\$ 242,237

Paving Construction Cost Subtotal: \$ 1,433,042

Мајо	Major Construction Component Allowances**:								
	Item Description	Notes	Allowance		Item Cost				
	Traffic Control	Construction Phase Traffic Control	3%	\$	42,991				
$\sqrt{}$	Pavement Markings/Markers		3%	\$	42,991				
	Roadway Drainage	None Anticipated	0%	\$	-				
	Special Drainage Structures	None Anticipated		\$	-				
	Water	None Anticipated	0%	\$	-				
	Sewer	None Anticipated	0%	\$	-				
	Establish Turf / Erosion Control		2%	\$	28,661				
	Illumination	None Anticipated	0%	\$	-				
	Other:								
**Allov	wances based on % of Paving Construction C	ost Subtotal Allowa	nce Subtotal:	\$	114,643				
		Paving and Allowa	nce Subtotal:	\$	1,547,686				
		Mobilization:	5%	\$	77,384				
		Site Preparation:	5%	\$	77,384				
	\$	1,703,000							
		Construction Contingency:	15%	\$	255,450				
	C	onstruction Cost TOTAL W/ CON	TINGENCY:	\$	1,959,000				

Impact Fee Project Cost Summa	ry		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,959,000
Engineering/Survey/Testing:		20%	\$ 391,800
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
	\$ 2,350,800		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 12/13/2019

Project Information: Description: Project No. D-23

Name: UNNAMED A (1) This project consists of the construction 5,785' N OF LAUD HOWELL PKWY of a new four-lane divided greenway

5,785' N OF LAUD HOWELL PKWY of a new four-lane divided greenway
Limits: TO 2,710' S OF LAUD HOWELL arterial.

Impact Fee Class: G4D

Thoroughfare Class: Greenway Arterial

Length (If): 8,495 Service Area(s): D

Roa	Roadway Construction Cost Projection							
No.	Item Description	Quantity	Unit	Unit	Price		Item Cost	
107	Unclassified Street Excavation	83,062	су	\$	10.00	\$	830,622	
207	Lime Treated Subgrade (8") (PI<12)	62,297	sy	\$	7.00	\$	436,077	
307	8" Concrete Pavement	58,521	sy	\$	55.00	\$	3,218,661	
407	4" Topsoil	40,587	sy	\$	2.50	\$	101,468	
507	6" Curb & Gutter	33,980	lf	\$	5.00	\$	169,900	
607	Allotment for Turn Lanes and Median Openings	4,988	sy	\$	72.00	\$	359,107	
707	Moisture Conditioning	62,297	sy	\$	8.00	\$	498,373	

Paving Construction Cost Subtotal: \$ 5,614,208

Majo	or Construction Component Allowan	ces**:					
	Item Description	Notes	Allowance		Item Cost		
	Traffic Control	None Anticipated	1%	\$	56,142		
	Pavement Markings/Markers		3%	\$	168,426		
	Roadway Drainage	Standard Internal System	25%	\$	1,403,552		
	Special Drainage Structures	Multiple Stream Crossings		\$	1,200,000		
	Water	None Anticipated	0%	\$	-		
	Sewer	None Anticipated	0%	\$	-		
	Establish Turf / Erosion Control		2%	\$	112,284		
	Illumination	Standard Ilumination System	6%	\$	336,852		
	Other:						
**Allo	wances based on % of Paving Construction Cos	st Subtotal Allowa	ince Subtotal:	\$	3,277,257		
		Paving and Allowa	nce Subtotal:	\$	8,891,465		
		Mobilization:	5%	\$	444,573		
		Site Preparation:	5%	\$	444,573		
		Construction C	ost TOTAL:	\$	9,781,000		
		Construction Contingency:	15%	\$	1,467,150		
	C	onstruction Cost TOTAL W/ CON	TINGENCY:	\$	11,249,000		

Impact Fee Project Cost Summ	AOFV		
		A.11	
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 11,249,000
Engineering/Survey/Testing:		20%	\$ 2,249,800
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 3,937,150
	Impact Fee Pro	ject Cost TOTAL:	\$ 17,435,950

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

Project Information: D-24 Description: Project No. Name: UNNAMED A (2) This project consists of the construction 2,710' S OF LAUD HOWELL PKWY of a new four-lane divided greenway Limits: TO BLOOMDALE RD arterial. Based on the existing City **Impact Fee Class:** G4D Limits, the eastern half of the roadway Thoroughfare Class: **Greenway Arterial** is not included in the Impact Fee RIP.

Length (If): 2,590 Service Area(s): D, Half

Roa	adway Construction Cost Projec	tion					
No.	Item Description		Quantity	Unit	Uni	t Price	Item Cost
107	Unclassified Street Excavation		25,324	су	\$	10.00	\$ 253,244
207	Lime Treated Subgrade (8") (PI<12)		18,993	sy	\$	7.00	\$ 132,953
307	8" Concrete Pavement		17,842	sy	\$	55.00	\$ 981,322
407	4" Topsoil		12,374	sy	\$	2.50	\$ 30,936
507	6" Curb & Gutter		10,360	lf	\$	5.00	\$ 51,800
607	Allotment for Turn Lanes and Median Op	enings	1,521	sy	\$	72.00	\$ 109,486
707	Moisture Conditioning	-	18,993	sy	\$	8.00	\$ 151,947
		_ P	aving Consti	ruction (Cost S	ubtotal:	\$ 1,711,689
Majo	or Construction Component Allowance	S**:					
	Item Description	Notes			Allo	wance	Item Cost
	Traffic Control	None Anticipated				1%	\$ 17,117
	Pavement Markings/Markers					3%	\$ 51,351
	Roadway Drainage	Standard Internal Sys	stem			25%	\$ 427,922
	Special Drainage Structures	None Anticipated					\$ -
	Water	None Anticipated				0%	\$ -
	Sewer	None Anticipated				0%	\$ -
	Establish Turf / Erosion Control					2%	\$ 34,234
	Illumination	Standard Ilumination	System			6%	\$ 102,701
	Other:						
**Allo	wances based on % of Paving Construction Cost S	ubtotal		Allowa	nce S	ubtotal:	\$ 633,325
Paving and Allowance Subtotal:						\$ 2,345,014	
Mobilization: 5%						\$ 117,251	
Site Preparation: 5%						\$ 117,251	
			Construc	ction C	ost T	OTAL:	\$ 2,580,000
		Constr	uction Conti	ngency:		15%	\$ 387,000

Impact Fee Project Cost Summar	у		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,967,000
Engineering/Survey/Testing:		20%	\$ 593,400
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 1,038,450
	Impact Fee Project C	ost TOTAL:	\$ 4,598,850

Construction Cost TOTAL W/ CONTINGENCY:

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

2,967,000

updated:

12/13/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information: D-25 Description: Project No. Name: UNNAMED A (3) This project consists of the Limits: 1,105' N OF WILMETH RD TO WILMETH RD reconstruction of a four-lane divided **Impact Fee Class:** G4D greenway arterial. Based on the existing Thoroughfare Class: **Greenway Arterial** City Limits, the western half of the Length (If): 1,105 roadway is not included in the Impact D, Half Service Area(s): Fee RIP.

Roa	adway Construction Cost Projec	tion						
No.	Item Description		Quantity	Unit	Unit	Price		Item Cost
107	Unclassified Street Excavation		10,804	су	\$	10.00	\$	108,044
207	Lime Treated Subgrade (8") (PI<12)		8,103	sy	\$	7.00	\$	56,723
307	8" Concrete Pavement		7,612	sy	\$	55.00	\$	418,672
407	4" Topsoil		5,279	sy	\$	2.50	\$	13,199
	6" Curb & Gutter		4,420	If	\$	5.00	\$	22,100
607	Allotment for Turn Lanes and Median Op	enings	649	sy	\$	72.00	\$	46,711
707	Moisture Conditioning		8,103	sy	\$	8.00	\$	64,827
		P	aving Constr	uction (Cost Su	ıbtotal:	\$	730,277
Majo	or Construction Component Allowance							
	Item Description	Notes			Allov	vance		Item Cost
$\sqrt{}$	Traffic Control	Construction Phase	Traffic Control			3%	\$	21,908
$\sqrt{}$	Pavement Markings/Markers					3%		21,908
	Roadway Drainage	Standard Internal Sy	stem			25%	\$	182,569
	Special Drainage Structures	None Anticipated					\$	-
	Water	Incidental Adjustmer	nts			3%	\$	21,908
	Sewer	Incidental Adjustmer	nts			3%	\$	21,908
	Establish Turf / Erosion Control					2%	\$	14,606
	Illumination	Standard Ilumination	System			6%	\$	43,817
	Other:							
**Allo	wances based on % of Paving Construction Cost S	ubtotal		Allowa	nce Su	ıbtotal:	\$	328,624
Paving and Allowance Subtotal:						\$	1,058,901	
	Mobilization: 5%						\$	52,945
			Site Prep	aration:		5%		52,945
			Construc	ction C	ost TO		\$	1,165,000
		Constr	uction Conti	ngency:		15%	\$	174,750

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,340,000
Engineering/Survey/Testing:		20%	\$ 268,000
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 268,000

Construction Cost TOTAL W/ CONTINGENCY:

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

1,340,000

Kimley-Horn and Associates, Inc.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

updated: 12/13/2019

Project Information: D-26 Description: Project No. Name: UNNAMED A (4) This project consists of the construction of a new

Limits: WILMETH RD TO HARDIN BLVD four-lane divided minor arterial.

Impact Fee Class: M4D

Thoroughfare Class: Minor Arterial

3,940 Length (If): D Service Area(s):

Roadway Construction Cost Projection										
No.	Item Description	Quantity	Unit	Unit Price		Unit Price			Item Cost	
105	Unclassified Street Excavation	31,520	су	\$	10.00	\$	315,200			
205	Lime Treated Subgrade (8") (PI<12)	21,889	sy	\$	7.00	\$	153,222			
305	8" Concrete Pavement	20,138	sy	\$	55.00	\$	1,107,578			
405	4" Topsoil	17,073	sy	\$	2.50	\$	42,683			
505	6" Curb & Gutter	15,760	lf	\$	5.00	\$	78,800			
605	Allotment for Turn Lanes and Median Openings	2,313	sy	\$	72.00	\$	166,555			
705	Moisture Conditioning	21,889	sy	\$	8.00	\$	175,111			

Paving Construction Cost Subtotal: \$ 2,039,149

Major Co				
Iter	m Description	Notes	Allowance	Item Cost
√ Tra	affic Control	None Anticipated	1%	\$ 20,391
√ Pa\	vement Markings/Markers		3%	\$ 61,174
√ Roa	adway Drainage	Standard Internal System	25%	\$ 509,787
√ Spe	ecial Drainage Structures	Stream Crossing		\$ 250,000
Wa	ater	None Anticipated	0%	\$ -
Sev	wer	None Anticipated	0%	\$ -
√ Est	tablish Turf / Erosion Control		2%	\$ 40,783
√ Illur	mination	Standard Ilumination System	6%	\$ 122,349
Oth	ner:			
**Allowanc	ces based on % of Paving Construction Cost	Subtotal	nce Subtotal:	\$ 1,004,485
		Paving and Allowa	nce Subtotal:	\$ 3,043,634
		Mobilization:	5%	\$ 152,182
		Site Preparation:	5%	\$ 152,182
	\$ 3,348,000			
		Construction Contingency:	15%	\$ 502,200
	Cor	nstruction Cost TOTAL W/ CON	TINGENCY:	\$ 3,851,000

Impact Fee Project Cost Sumi	mary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,851,000
Engineering/Survey/Testing:		20%	\$ 770,200
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 1,347,850
	Impact Fee Proi	ect Cost TOTAL:	\$ 5,969,050

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

updated:

12/13/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

 Project Information:
 Description:
 Project No.
 D-27

 Name:
 TAYLOR-BURK DR (1)
 This project consists of the construction of a new

Limits: HARDIN BLVD TO SKYLINE DR

Impact Fee Class: M4D

Thoroughfare Class: Minor Arterial

Length (If): 1,465 Service Area(s): D

Roa	Roadway Construction Cost Projection								
No.	Item Description	Quantity	Unit	Unit	Unit Price		Unit Price		Item Cost
105	Unclassified Street Excavation	11,720	су	\$	10.00	\$	117,200		
205	Lime Treated Subgrade (8") (PI<12)	8,139	sy	\$	7.00	\$	56,972		
305	8" Concrete Pavement	7,488	sy	\$	55.00	\$	411,828		
405	4" Topsoil	6,348	sy	\$	2.50	\$	15,871		
505	6" Curb & Gutter	5,860	If	\$	5.00	\$	29,300		
605	Allotment for Turn Lanes and Median Openings	860	sy	\$	72.00	\$	61,930		
705	Moisture Conditioning	8,139	sy	\$	8.00	\$	65,111		

Paving Construction Cost Subtotal: \$ 758,211

four-lane divided minor arterial.

Maj	or Construction Component Allow	ances**:					
	Item Description	Notes	Allowance		Item Cost		
	Traffic Control	None Anticipated	1%	\$	7,582		
	Pavement Markings/Markers		3%	\$	22,746		
	Roadway Drainage	Standard Internal System	25%	\$	189,553		
	Special Drainage Structures	None Anticipated		\$	-		
	Water	None Anticipated	0%	\$	-		
	Sewer	None Anticipated	0%	\$	-		
	Establish Turf / Erosion Control		2%	\$	15,164		
	Illumination	Standard Ilumination System	6%	\$	45,493		
	Other:						
**Allo	owances based on % of Paving Construction (Cost Subtotal Allowa	ance Subtotal:	\$	280,538		
		Paving and Allowa	ance Subtotal:	\$	1,038,750		
		Mobilization:	5%	\$	51,937		
		Site Preparation:	5%	\$	51,937		
		Construction C	ost TOTAL:	\$	1,143,000		
		Construction Contingency:	15%	\$	171,450		
		Construction Cost TOTAL W/ CON	TINGENCY:	\$	1,315,000		

Impact Fee Project Cost Sumi	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,315,000
Engineering/Survey/Testing:		20%	\$ 263,000
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 460,250
	\$ 2,038,250		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

Kimley-Horn and Associates, Inc.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

updated: 12/13/2019

Project Informatio	n:	Description:	Project No.	D-28
Name:	HARDIN BLVD (4)	TI	his project consists of th	e
Limits:	UNNAMED 5 TO 1,550'S OF UNNAM	ED 5 co	onstruction of a new six-	lane divided
Impact Fee Class:	G6D	gı	reenway arterial. Based o	on the existing
Thoroughfare Class:	Greenway Arterial	_	ity Limits, the eastern ha	
Length (If):	1,550		padway is not included in	
Service Area(s):	D, Half		ee RIP	

Roadway Construction Cost Projection							
No.	Item Description		Quantity	Unit	Unit Price		Item Cost
116	Unclassified Street Excavation		18,944	су	\$ 10.00	\$	189,444
216	Lime Treated Subgrade (8") (PI<12)		12,400	sy	\$ 7.00	\$	86,800
316	9" Concrete Pavement		11,711	sy	\$ 60.00	\$	702,667
416	4" Topsoil		9,817	sy	\$ 2.50	\$	24,542
516	6" Curb & Gutter		6,200	If	\$ 5.00	\$	31,000
	Allotment for Turn Lanes and Median Op	penings	1,071	sy	\$ 77.00	\$	82,480
716	Moisture Conditioning		12,400	sy	\$ 8.00	\$	99,200
		P	aving Constr	ruction C	Cost Subtotal:	\$	1,216,133
						_	
Majo	or Construction Component Allowance						
	Item Description	Notes			Allowance	Ļ	Item Cost
V	Traffic Control	None Anticipated			1%	_	12,161
V	Pavement Markings/Markers				3%		36,484
V	Roadway Drainage	Standard Internal Sy	stem		25%		304,033
	Special Drainage Structures	None Anticipated				\$	-
	Water	None Anticipated			0%		-
,	Sewer	None Anticipated			0%		-
V	Establish Turf / Erosion Control				2%		24,323
V	Illumination	Standard Ilumination	System		6%	\$	72,968
	Other:	\				_	
**Allo	wances based on % of Paving Construction Cost S	Subtotal	~	Allowa	ince Subtotal:	\$	449,969
			Doving on	d Allower	naa Cubtatali	•	1 666 100
Paving and Allowance Subtotal:						-	1,666,102
Mobilization: 5%						83,305	
Site Preparation: 5%						83,305	
Construction Cost TOTAL:							1,833,000
			uction Conti				274,950
	Con	struction Cos	t TOTAL W	// CON	TINGENCY:	\$	2,108,000

Impact Fee Project Cost Sumi	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,108,000
Engineering/Survey/Testing:		20%	\$ 421,600
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 737,800
* •	\$ 3,267,400		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 12/13/2019

Project Information: D-29 Description: Project No. Name: HARDIN BLVD (5) This project consists of the

Limits: 1,545' S OF UNNAMED 5 TO TRINITY FALLS PKWY

construction of a new six-lane

Impact Fee Class: G₆D divided greenway arterial.

Thoroughfare Class: **Greenway Arterial**

7,310 Length (If): Service Area(s): D

Roa	adway Construction Cost Projection									
No.	Item Description	Quantity Unit		Unit Price		Unit Price		Unit Unit Price		Item Cost
116	Unclassified Street Excavation	89,344	су	\$	10.00	\$ 893,444				
216	Lime Treated Subgrade (8") (PI<12)	58,480	sy	\$	7.00	\$ 409,360				
316	9" Concrete Pavement	55,231	sy	\$	60.00	\$ 3,313,867				
416	4" Topsoil	46,297	sy	\$	2.50	\$ 115,742				
516	6" Curb & Gutter	29,240	lf	\$	5.00	\$ 146,200				
616	Allotment for Turn Lanes and Median Openings	5,052	sy	\$	77.00	\$ 388,987				
716	Moisture Conditioning	58,480	sy	\$	8.00	\$ 467,840				

Paving Construction Cost Subtotal: \$ 5,735,440

Major Construction Component Allo			
Item Description	Notes	Allowance	Item Cost
√ Traffic Control	None Anticipated	1%	\$ 57,354
√ Pavement Markings/Markers		3%	\$ 172,063
√ Roadway Drainage	Standard Internal System	25%	\$ 1,433,860
√ Special Drainage Structures	Bridge		\$ 3,000,000
Water	None Anticipated	0%	\$ -
Sewer	None Anticipated	0%	\$ -
√ Establish Turf / Erosion Control		2%	\$ 114,709
√ Illumination	Standard Ilumination System	6%	\$ 344,126
Other:			
**Allowances based on % of Paving Construction	n Cost Subtotal Allows	ance Subtotal:	\$ 5,122,113
	Paving and Allowa		\$ 10,857,552
	Mobilization	5%	\$ 542,878
	\$ 542,878		
	\$ 11,944,000		
	\$ 1,791,600		
	Construction Cost TOTAL W/ CON	TINGENCY:	\$ 13,736,000

Impact Fee Project Cost Sumi			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 13,736,000
Engineering/Survey/Testing:		20%	\$ 2,747,200
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 4,807,600
·	\$ 21,290,800		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

Project Informatio	n:	Description:	Project No.	D-30
Name:	HARDIN BLVD (6) TRINITY FALLS PKWY TO 1,815' S		is project consists of the construction of a two-lane	
Limits: Impact Fee Class:	OF TRINITY FALLS PKWY G6D	fac	cility to a six-lane divided terial. Based on the existi	greenway
Thoroughfare Class:	Greenway Arterial	Lii	mits, the western half of t	he roadway
Length (If): Service Area(s):	1,815 D, Half	is	not included in the Impac	t Fee RIP.

Roa	adway Construction Cost Projec	tion						
No.	Item Description		Quantity	Unit	Unit	Price		Item Cost
116	Unclassified Street Excavation		22,183	су	\$	10.00	\$	221,833
216	Lime Treated Subgrade (8") (PI<12)		14,520	sy	\$	7.00	\$	101,640
316	9" Concrete Pavement		13,713	sy	\$	60.00	\$	822,800
416	4" Topsoil		11,495	sy	\$	2.50	65	28,738
516	6" Curb & Gutter		7,260	If	\$	5.00	\$	36,300
	Allotment for Turn Lanes and Median Op	penings	1,254	sy	\$	77.00	\$	96,582
716	Moisture Conditioning		14,520	sy	\$	8.00	\$	116,160
		P	aving Consti	ruction (Cost S	ubtotal:	\$	1,424,052
Majo	or Construction Component Allowance							
	Item Description	Notes			Allo	wance		Item Cost
√.	Traffic Control	Construction Phase	Traffic Control			3%	\$	42,722
√.	Pavement Markings/Markers					3%	\$	42,722
√.	Roadway Drainage	Standard Internal Sys	stem			25%		356,013
$\sqrt{}$	Special Drainage Structures	Stream Crossing					\$	250,000
$\sqrt{}$	Water	Incidental Adjustmen	nts			3%	\$	42,722
$\sqrt{}$	Sewer	Incidental Adjustmen	nts			3%		42,722
$\sqrt{}$	Establish Turf / Erosion Control					2%	\$	28,481
	Illumination	Standard Ilumination	System			6%	\$	85,443
	Other:							
**Allo	wances based on % of Paving Construction Cost S	ubtotal		Allowa	nce S	ubtotal:	\$	890,824
			<u> </u>				L.	
Paving and Allowance Subtotal:							2,314,876	
Mobilization: 5%						\$	115,744	
Site Preparation: 5%					\$	115,744		
Construction Cost TOTAL:						\$	2,547,000	
	Construction Contingency: 15%					,	382,050	
	Construction Cost TOTAL W/ CONTINGENCY:					\$	2,930,000	

Impact Fee Project Cost Summary				
Item Description	Notes:	Allowance		Item Cost
Construction:		-	\$	2,930,000
Engineering/Survey/Testing:		20%	\$	586,000
2008 - 2012 City contribution			\$	-
2012 - 2019 City contribution			\$	-
ROW/Easement Acquisition:	Existing Alignment	20%	\$	586,000
Impact Fee Project Cost TOTAL:				4,102,000

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection Kimley-Horn and Associates, Inc.

updated: 12/13/2019

Project Information: Description: Project No. D-31

Name: HARDIN BLVD (7) This project consists of the construction

1,815' S OF TRINITY FALLS PKWY of a new six-lane divided greenway
Limits: TO 1,190' S OF BLOOMDALE RD arterial.

Impact Fee Class: G6D

Thoroughfare Class: Greenway Arterial

Length (If): 1,920 Service Area(s): D

Roa	Roadway Construction Cost Projection								
No.	Item Description	Quantity	Unit	Unit Price		Item Cost			
116	Unclassified Street Excavation	23,467	су	\$ 10.00	\$	234,667			
216	Lime Treated Subgrade (8") (PI<12)	15,360	sy	\$ 7.00	\$	107,520			
316	9" Concrete Pavement	14,507	sy	\$ 60.00	\$	870,400			
416	4" Topsoil	12,160	sy	\$ 2.50	\$	30,400			
516	6" Curb & Gutter	7,680	lf	\$ 5.00	\$	38,400			
616	Allotment for Turn Lanes and Median Openings	1,327	sy	\$ 77.00	\$	102,169			
716	Moisture Conditioning	15,360	sy	\$ 8.00	\$	122,880			

Paving Construction Cost Subtotal: \$ 1,506,436

Major Construction Component Allowances**:								
	Item Description	Notes	Allowance		Item Cost			
	Traffic Control	None Anticipated	1%	\$	15,064			
	Pavement Markings/Markers		3%	\$	45,193			
	Roadway Drainage	Standard Internal System	25%	\$	376,609			
	Special Drainage Structures	Stream Crossing		\$	250,000			
	Water	None Anticipated	0%	\$	-			
	Sewer	None Anticipated	0%	\$	-			
	Establish Turf / Erosion Control		2%	\$	30,129			
	Illumination	Standard Ilumination System	6%	\$	90,386			
	Other:							
**Allo	wances based on % of Paving Construction Co	st Subtotal Allowa	ince Subtotal:	\$	807,381			
		Paving and Allowa	nce Subtotal:	\$	2,313,817			
		Mobilization:	5%	\$	115,691			
	\$	115,691						
	\$	2,546,000						
		Construction Contingency:		•	381,900			
	С	onstruction Cost TOTAL W/ CON	TINGENCY:	\$	2,928,000			

Impact Fee Project Cost Summ	nary			
Item Description	Notes:	Allowance		Item Cost
Construction:		-	\$	2,928,000
Engineering/Survey/Testing:		20%	\$	585,600
2008 - 2012 City contribution			\$	-
2012 - 2019 City contribution			\$	-
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$	1,024,800
Impact Fee Project Cost TOTAL:				4,538,400

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

Kimley-Horn and Associates, Inc.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

updated: 12/13/2019

Project Information	1: Description: Project No.	D-32

Name: HARDIN BLVD (8) This project consists of the

1,190' S OF BLOOMDALE RD TO construction of two additional through

Limits: 3,590' S OF BLOOMDALE RD lanes within the existing median of the

Impact Fee Class: G6D(1/3) ultimate six-lane divided greenway
Thoroughfare Class: Greenway Arterial

Length (If):

Greenway Arterial

2,400

arterial.

Service Area(s): D

Roadway Construction Cost ProjectionNo.Item DescriptionQuantityUnitUnit Priod117Unclassified Street Excavation6,933cy\$ 10.0		Itam Cost
117 Unclassified Street Excavation 6,933 cy \$ 10.		Itam Coot
7, 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Item Cost
	00 \$	69,333
217 Lime Treated Subgrade (8") (PI<12) 6,667 sy \$ 7.	00 \$	46,667
317 9" Concrete Pavement 6,133 sy \$ 60.	00 \$	368,000
417 4" Topsoil 6,400 sy \$ 2.		
517 6" Curb & Gutter 4,800 If \$ 5.	00 \$	24,000
617 Allotment for Turn Lanes and Median Openings 1,659 sy \$ 77.	00 \$	127,711
Paving Construction Cost Subto	al: \$	651,711
Major Construction Component Allowances**:		
Item Description Notes Allowand		Item Cost
√ Traffic Control Construction Phase Traffic Control	<mark>3%</mark> \$	•
	<mark>3%</mark> \$	
, ,	<mark>)%</mark> \$	
Special Drainage Structures None Anticipated	\$	
Water None Anticipated	<mark>)%</mark> \$	
Sewer None Anticipated	<mark>)%</mark> \$	
	<mark>2%</mark> \$	
	<mark>)%</mark> \$	-
Other:		
**Allowances based on % of Paving Construction Cost Subtotal **Allowance Subtotal	al: \$	52,137
Paving and Allowance Subto		•
	<mark>5%</mark> \$	•
	<mark>5%</mark> \$,
Construction Cost TOTA		,
	<mark>5%</mark> \$	•
Construction Cost TOTAL W/ CONTINGENC	Y: \$	892,000

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 892,000
Engineering/Survey/Testing:		20%	\$ 178,400
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

updated:

12/13/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information: D-33 Description: Project No. Name: HARDIN BLVD (9) This project consists of the 3,590' S OF BLOOMDALE RD TO construction of four additional through Limits: WILMETH RD lanes of the ultimate six-lane divided **Impact Fee Class:** G6D(2/3) greenway arterial. Based on the existing Thoroughfare Class: Greenway Arterial City Limits, the western half of the Length (If): 1,755 roadway is not included in the Impact Service Area(s): D, Half Fee RIP

Roa	adway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Unit Price		Item Cost	
118	Unclassified Street Excavation	13,455	су	\$ 10.00	\$	134,550	
218	Lime Treated Subgrade (8") (PI<12)	9,458	sy	\$ 7.00	\$	66,203	
318	9" Concrete Pavement	8,873	sy	\$ 60.00	\$	532,350	
418	4" Topsoil	9,068	sy	\$ 2.50	\$	22,669	
518	6" Curb & Gutter	5,265	lf	\$ 5.00	\$	26,325	
618	Allotment for Turn Lanes and Median Openings	1,213	sy	\$ 77.00	\$	93,389	
	Paving Construction Cost Subtotal: \$ 875,485						
Mois	or Construction Component Allowances**:						

Major Construction Component Allowances**:							
	Item Description	Notes	Allowance		Item Cost		
$\sqrt{}$	Traffic Control	Construction Phase Traffic Control	3%	\$	26,265		
$\sqrt{}$	Pavement Markings/Markers		3%	\$	26,265		
	Roadway Drainage	Standard Internal System	25%	\$	218,871		
	Special Drainage Structures	None Anticipated		\$	-		
$\sqrt{}$	Water	Incidental Adjustments	3%	\$	26,265		
$\sqrt{}$	Sewer	Incidental Adjustments	3%	\$	26,265		
$\sqrt{}$	Establish Turf / Erosion Control		2%	\$	17,510		
	Illumination	Standard Ilumination System	6%	\$	52,529		
	Other:						
**Allow	vances based on % of Paving Construction Cost	Subtotal Allowa	nce Subtotal:	\$	393,968		
		Paving and Allowa		\$	1,269,453		
		Mobilization:	5% 5%	\$	63,473		
	_	63,473					
		Construction C		\$	1,397,000		
		Construction Contingency:	15%	\$	209,550		
	Cor	nstruction Cost TOTAL W/ CON	TINGENCY:	\$	1,607,000		

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,607,000
Engineering/Survey/Testing:		20%	\$ 321,400
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 321,400

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

12/13/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information: D-34 Description: Project No. Name: HARDIN BLVD (10) This project consists of the construction of two Limits: WILMETH RD TO US HIGHWAY 380 additional through lanes within the existing median **Impact Fee Class:** G6D(1/3) of the ultimate six-lane divided greenway arterial. Thoroughfare Class: Greenway Arterial

Length (If): 6,520 Service Area(s): D

Roa	adway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Unit	Price		Item Cost
117	Unclassified Street Excavation	18,836	су	\$	10.00	\$	188,356
217	Lime Treated Subgrade (8") (PI<12)	18,111	sy	\$	7.00	\$	126,778
317	9" Concrete Pavement	16,662	sy	\$	60.00	\$	999,733
417	4" Topsoil	17,387	sy	\$	2.50	\$	43,467
517	6" Curb & Gutter	13,040	lf	\$	5.00	\$	65,200
617	Allotment for Turn Lanes and Median Openings	4,506	sy	\$	77.00	\$	346,949
	D	aving Coneti	ruction (`Act Si	ibtotal:	Ф	1 770 /82

Paving Construction Cost Subtotal: \$ 1,770,482

Major Construction Component Allowances**:							
	Item Description	Notes	Allowance		Item Cost		
	Traffic Control	Construction Phase Traffic Control	3%	\$	53,114		
	Pavement Markings/Markers		3%	\$	53,114		
	Roadway Drainage	None Anticipated	0%	\$	-		
	Special Drainage Structures	None Anticipated		\$	-		
	Water	None Anticipated	0%	\$	-		
	Sewer	None Anticipated	0%	\$	-		
	Establish Turf / Erosion Control		2%	\$	35,410		
	Illumination	None Anticipated	0%	\$	-		
	Other:						
**Allo	owances based on % of Paving Construction Cost	Subtotal	nce Subtotal:	\$	141,639		
		Paving and Allowa		\$	1,912,120		
		Mobilization:		\$	95,606		
		Site Preparation:	5%	\$	95,606		
		Construction C	ost TOTAL:	\$	2,104,000		
		Construction Contingency:	15%	\$	315,600		
	Cor	struction Cost TOTAL W/ CON	TINGENCY:	\$	2,420,000		

Impact Fee Project Cost Summar	у		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,420,000
Engineering/Survey/Testing:		20%	\$ 484,000
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
	\$ 2,904,000		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 12/13/2019

Project Information: Description: Project No. D-35

Name: COMMUNITY AVE (1) This project consists of the

TRINITY FALLS PKWY TO 1,275' S reconstruction of a two-lane asphalt

Limits: OF TRINITY FALLS PKWY facility to a four-lane divided greenw

Limits: OF TRINITY FALLS PKWY facility to a four-lane divided greenway Impact Fee Class: G4D arterial.

Impact Fee Class: G4D arterial.

Thoroughfare Class: Greenway Arterial

Length (If): 1,275 Service Area(s): D

Roa	dway Construction Cost Projection			v		
No.	Item Description	Quantity	Unit	Unit	t Price	Item Cost
107	Unclassified Street Excavation	12,467	су	\$	10.00	\$ 124,667
207	Lime Treated Subgrade (8") (PI<12)	9,350	sy	\$	7.00	\$ 65,450
307	8" Concrete Pavement	8,783	sy	\$	55.00	\$ 483,083
407	4" Topsoil	6,092	sy	\$	2.50	\$ 15,229
507	6" Curb & Gutter	5,100	lf	\$	5.00	\$ 25,500
607	Allotment for Turn Lanes and Median Openings	749	sy	\$	72.00	\$ 53,898
707	Moisture Conditioning	9,350	sy	\$	8.00	\$ 74,800
		Paving Const	ruction C	ost S	ubtotal:	\$ 842,627

Maj								
	Item Description	Notes	Allowance		Item Cost			
	Traffic Control	Construction Phase Traffic Control	3%	\$	25,279			
	Pavement Markings/Markers		3%	\$	25,279			
	Roadway Drainage	Standard Internal System	25%	\$	210,657			
	Special Drainage Structures	None Anticipated		\$	-			
	Water	Incidental Adjustments	3%	\$	25,279			
	Sewer	Incidental Adjustments	3%	\$	25,279			
	Establish Turf / Erosion Control		2%	\$	16,853			
	Illumination	Standard Ilumination System	6%	\$	50,558			
	Other:							
**Allo	wances based on % of Paving Construction Cost	Subtotal	ınce Subtotal:	\$	379,182			
		Paving and Allowa	nce Subtotal:	\$	1,221,809			
		Mobilization:	5%	\$	61,090			
	\$	61,090						
		Construction C	ost TOTAL:	\$	1,344,000			
		Construction Contingency:	15%	\$	201,600			
	Col	nstruction Cost TOTAL W/ CON	TINGENCY:	\$	1,546,000			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,546,000
Engineering/Survey/Testing:		20%	\$ 309,200
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 309,200
	\$ 2,164,400		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

Service Area(s):

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

D

Kimley-Horn and Associates, Inc.

updated: 12/13/2019

Project Information	n: Descrip	tion:	Project No.	D-36
Name:	COMMUNITY AVE (2)		This project cons	ists of the
Limits:	1,275' S OF TRINITY FALLS PKWY TO BLO	OMDALE RD	construction of tv	vo additional
Impact Fee Class:	G4D(1/2)		lanes of the ultima	ate four-lane
Thoroughfare Class:	Greenway Arterial		divided greenway	arterial.
Length (If):	2,655			

Roa	dway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
108	Unclassified Street Excavation	10,030	су	\$ 10.00	\$ 100,300
208	Lime Treated Subgrade (8") (PI<12)	9,735	sy	\$ 7.00	\$ 68,145
308	8" Concrete Pavement	9,145	sy	\$ 55.00	\$ 502,975
408	4" Topsoil	3,393	sy	\$ 2.50	\$ 8,481
508	6" Curb & Gutter	5,310	lf	\$ 5.00	\$ 26,550
608	Allotment for Turn Lanes and Median Openings	779	sy	\$ 72.00	\$ 56,117

Paving Construction Cost Subtotal: \$ 762,568

Major Construction Component Allowances**:									
Item Des	cription	Notes	Allowance		Item Cost				
√ Traffic Co	ontrol	Construction Phase Traffic Control	3%	\$	22,877				
√ Pavemen	t Markings/Markers		3%	\$	22,877				
√ Roadway	Drainage	Standard Internal System	25%	\$	190,642				
Special D	rainage Structures	None Anticipated		\$	-				
√ Water		Incidental Adjustments	3%	\$	22,877				
√ Sewer		Incidental Adjustments	3%	\$	22,877				
√ Establish	Turf / Erosion Control		2%	\$	15,251				
√ Illuminatio	on	Standard Ilumination System	6%	\$	45,754				
Other:									
**Allowances base	ed on % of Paving Construction Co		ince Subtotal:	·	343,156				
		Paving and Allowa	nce Subtotal:	\$	1,105,724				
		Mobilization:	5%	\$	55,286				
		Site Preparation:	5%	\$	55,286				
	\$	1,217,000							
		Construction Contingency:	15%	\$	182,550				
	C	onstruction Cost TOTAL W/ CON	TINGENCY:	\$	1,400,000				

Impact Fee Project Cost Summa	ry		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,400,000
Engineering/Survey/Testing:		20%	\$ 280,000
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 280,000
	\$ 1,960,000		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

Service Area(s):

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

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Kimley-Horn and Associates, Inc.

updated: 12/13/2019

Project Informatio	n: Descriptio	n: Project No.	D-37
Name:	COMMUNITY AVE (3)	This project co	nsists of the
Limits:	BLOOMDALE RD TO 2,305' S OF BLOOMDAL	E RD construction of	two additional
Impact Fee Class:	M4U(1/2)	lanes of the ulti	imate four-lane
Thoroughfare Class:	Minor Arterial	undivided mind	or arterial.
Length (If):	2.305		

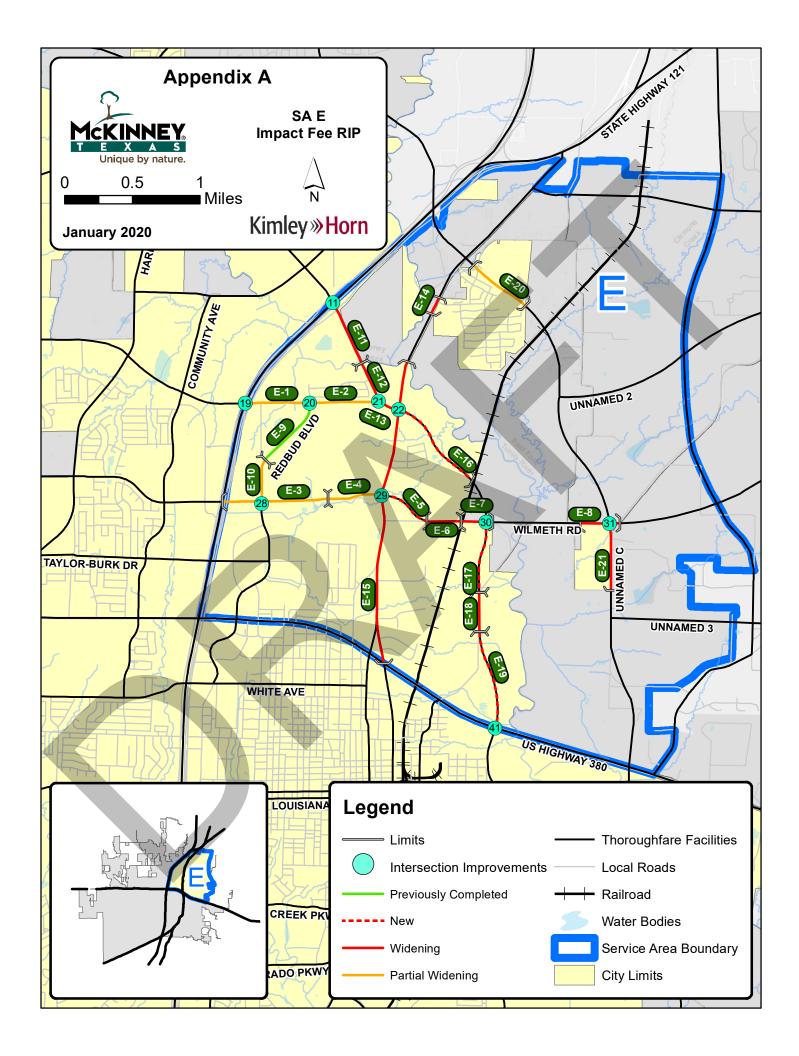
Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit	Price	Item Cost
104	Unclassified Street Excavation	6,147	су	\$	10.00	\$ 61,467
204	Lime Treated Subgrade (8") (PI<12)	6,019	sy	\$	7.00	\$ 42,130
304	8" Concrete Pavement	5,891	sy	\$	55.00	\$ 323,981
404	4" Topsoil	2,433	sy	\$	2.50	\$ 6,083
504	6" Curb & Gutter	4,610	lf	\$	5.00	\$ 23,050

Paving Construction Cost Subtotal: \$ 456,710

Major Construction Component Allowances**:										
Item Description		Item Cost								
√ Traffic Control	Construction Phase Traffic Control	3%	\$	13,701						
√ Pavement Markings/Markers		3%	\$	13,701						
√ Roadway Drainage	Standard Internal System	25%	\$	114,178						
Special Drainage Structures	None Anticipated		\$	-						
√ Water	Incidental Adjustments	3%	\$	13,701						
√ Sewer	Incidental Adjustments	3%	\$	13,701						
√ Establish Turf / Erosion Control		2%	\$	9,134						
√ Illumination	Standard Ilumination System	6%	\$	27,403						
Other:										
**Allowances based on % of Paving Construction	on Cost Subtotal Allowa	nce Subtotal:	\$	205,520						
	Paving and Allowa	nce Subtotal:	\$	662,230						
	Mobilization:	5%	\$	33,111						
	Site Preparation:	5%	\$	33,111						
	\$	729,000								
	Construction Contingency:	15%	\$	109,350						
	Construction Cost TOTAL W/ CON	TINGENCY:	\$	839,000						

Impact Fee Project Cost Summa	ary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 839,000
Engineering/Survey/Testing:		20%	\$ 167,800
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 167,800
	\$ 1,174,600		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.



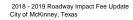
City of McKinney - 2018 - 2019 Roadway Impact Fee Update

Roadway Improvement Plan for Roadway Impact Fees Appendix A - Summary of Conceptual Level Project Cost Projections

Roadway Improvements - Service Area E

#	Costing	Project	Limits	,	otal Cost	Percent in Service Area	90	Cost in
	P6D(1/3)	BLOOMDALE RD (12)	US HIGHWAY 75 TO REDBUD BLVD	\$	955,200	100%		955,200
E-1	- (/	()		-	·	100%	\$	
E-2	P6D(2/3)	BLOOMDALE RD (13)	REDBUD BLVD TO AIRPORT DR	\$	3,361,400	100%	\$	3,361,400
E-3	M6D(1/3)	WILMETH RD (10)	US HIGHWAY 75 TO 2,570' E OF REDBUD BLVD	\$	1,935,600		\$	1,935,600
E-4	M6D(2/3)	WILMETH RD (11)	2,570' E OF REDBUD BLVD TO STATE HIGHWAY 5	\$	2,608,200	100%	\$	2,608,200
E-5	M6D	WILMETH RD (12)	STATE HIGHWAY 5 TO 2,100' E OF SH 5	\$	5,068,500	100%	\$	5,068,500
E-6	M6D	WILMETH RD (13)	2,100' E OF SH 5 TO 980' W OF AIRPORT DR	\$	2,804,200	100%	\$	2,804,200
E-7	M6D	WILMETH RD (14)	980' W OF AIRPORT DR TO 235' E OF AIRPORT DR	\$	3,417,400	50%	\$	1,708,700
E-8	M6D	WILMETH RD (15)	1,150' W OF FM 2933 TO 400' E OF FM 2933	\$	3,229,800	50%	\$	1,614,900
E-9	M4D	REDBUD BLVD (1)	BLOOMDALE RD TO 2,930' S OF BLOOMDALE RD	\$	650,000	100%	\$	650,000
E-10	M4D(1/2)	REDBUD BLVD (2)	2,930' S OF BLOOMDALE RD TO WILMETH RD	\$	852,600	100%	\$	852,600
E-11	M6D	LAUD HOWELL PKWY (9)	US HIGHWAY 75 TO 2,620' S OF US HIGHWAY 75	\$	3,909,500	50%	\$	1,954,750
E-12	M6D	LAUD HOWELL PKWY (10)	2,620' S OF US HIGHWAY 75 TO BLOOMDALE RD	\$	1,876,700	100%	\$	1,876,700
E-13	P6D	LAUD HOWELL PKWY (11)	BLOOMDALE RD TO STATE HIGHWAY 5	\$	861,000	100%	\$	861,000
E-14	M6D	STATE HIGHWAY 5 (1)	4,700' N OF AIRPORT DR TO 3,995' N OF AIRPORT DR	\$	695,100	50%	\$	347,550
E-15	M6D	STATE HIGHWAY 5 (2)	1,915' N OF AIRPORT DR TO US HIGHWAY 380	\$	13,994,400	100%	\$	13,994,400
E-16	P6D	AIRPORT DR (1)	STATE HIGHWAY 5 TO 4,070 S OF STATE HIGHWAY 5	\$	9,379,050	100%	\$	9,379,050
E-17	P6D	AIRPORT DR (2)	WILMETH RD TO WOODLAWN RD (N)	\$	6,582,850	100%	\$	6,582,850
E-18	P6D	AIRPORT DR (3)	WOODLAWN RD (N) TO WOODLAWN RD (S)	\$	3,648,400	100%	\$	3,648,400
E-19	P6D	AIRPORT DR (4)	WOODLAWN RD (S) TO US HIGHWAY 380	\$	8,952,800	100%	\$	8,952,800
E-20	P6D(1/3)	UNNAMED C (1)	410' E OF STATE HIGHWAY 5 TO 3,010' E OF STATE HIGHWAY 5	\$	986,400	100%	\$	986,400
E-21	P6D	UNNAMED C (2)	WILMETH RD TO 2,615' S OF WILMETH RD	\$	2,806,300	50%	\$	1,403,150
11		Interchange Signals	US HIGHWAY 75 & LAUD HOWELL PKWY	\$	600,000	50%	\$	300,000
19		Interchange Signals	US HIGHWAY 75 & BLOOMDALE RD	\$	600,000	50%	\$	300,000
20		Signal	BLOOMDALE RD & REDBUD BLVD	\$	300,000	100%	\$	300,000
21	u.	Signal	LAUD HOWELL PKWY & BLOOMDALE RD	\$	300,000	100%	\$	300,000
22	Intersection	Signal Mod	STATE HIGHWAY 5 & LAUD HOWELL PKWY	\$	150,000	100%	\$	150,000
28	erse	Signal	WILMETH RD & REDBUD BLVD	\$	300,000	100%	\$	300,000
29	ᆵ	Signal Mod	STATE HIGHWAY 5 & WILMETH RD	\$	150,000	100%	\$	150,000
30		Signal	AIRPORT DR & WILMETH RD	\$	300,000	50%	\$	150,000
31		Signal	UNNAMED C & WILMETH RD	\$	300,000	50%	\$	150,000
41		Signal Mod	US HIGHWAY 380 & AIRPORT DR	\$	150,000	50%	\$	75,000
				\$	81.725.400		\$	73,721,350

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney. The planning level cost projections shall not supersede the City's design standards contained within the Subdivision Ordinance or the determination of the City Engineer for a specific project.



2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection Kimley-Horn and Associates, Inc.

updated: 12/16/2019

Project Information: Description: Project No. E-1

Name: BLOOMDALE RD (12) This project consists of the

Limits: US HIGHWAY 75 TO REDBUD BLVD construction of two additional through

Impact Fee Class: P6D(1/3) Ianes within the existing median of the Ultimate six-lane divided principal

Length (If): 2,520 arterial.

Service Area(s):

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price		Item Cost
114	Unclassified Street Excavation	7,840	су	\$ 10.00	\$	78,400
214	Lime Treated Subgrade (8") (PI<12)	7,560	sy	\$ 7.00	\$	52,920
314	9" Concrete Pavement	7,000	sy	\$ 60.00	\$	420,000
414	4" Topsoil	2,240	sy	\$ 2.50	\$	5,600
514	6" Curb & Gutter	5,040	lf	\$ 5.00	\$	25,200
				V1 O1-1-1	Φ.	E00 400

Paving Construction Cost Subtotal: \$ 582,120

Major Construction Component Allowances**:										
	Item Description Notes Allowance									
	Traffic Control	Construction Phase Traffic Control		3%	\$	17,464				
	Pavement Markings/Markers			3%	\$	17,464				
	Roadway Drainage	None Anticipated		0%	\$	-				
	Special Drainage Structures	None Anticipated			\$	-				
	Water	None Anticipated		0%	\$	-				
	Sewer	None Anticipated		0%	\$	-				
	Establish Turf / Erosion Control			2%	\$	11,642				
	Illumination	None Anticipated		0%	\$	-				
	Other:									
**Allo	wances based on % of Paving Construction C	ost Subtotal	Allowa	nce Subtotal:	\$	46,570				
				nce Subtotal:	\$	628,690				
			oilization:		\$	31,434				
			paration:		\$	31,434				
	Construction Cost TOTAL:									
		Construction Con	tingency:	15%	\$	103,800				
	C	Construction Cost TOTAL	W/ CON	TINGENCY:	\$	796,000				

Impact Fee Project Cost Summa	ry		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 796,000
Engineering/Survey/Testing:		20%	\$ 159,200
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
Impact Fee Project Cost TOTAL:			\$ 955,200

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

Kimley-Horn and Associates, Inc.

updated:

12/16/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information:

Name:
BLOOMDALE RD (13)
Limits:
REDBUD BLVD TO AIRPORT DR
Impact Fee Class:
P6D(2/3)

Description:
Project No.
E-2

This project consists of the construction of four additional through lanes of the ultimate six-lane divided principal arterial.

Thoroughfare Class: Principal Arterial

Length (If): 2,695 Service Area(s): E

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit	Price	Item Cost
115	Unclassified Street Excavation	24,554	су	\$	10.00	\$ 245,544
215	Lime Treated Subgrade (8") (PI<12)	15,721	sy	\$	7.00	\$ 110,046
315	9" Concrete Pavement	14,823	sy	\$	60.00	\$ 889,350
415	4" Topsoil	9,133	sy	\$	2.50	\$ 22,833
515	6" Curb & Gutter	8,085	lf	\$	5.00	\$ 40,425

Paving Construction Cost Subtotal: \$ 1,308,198

Major Construction Component Allowances**:							
Item Description	Notes	Allowance		Item Cost			
√ Traffic Control	Construction Phase Traffic Control	3%	\$	39,246			
√ Pavement Markings/Markers		3%	\$	39,246			
√ Roadway Drainage	Standard Internal System	25%	\$	327,049			
Special Drainage Structures	None Anticipated		\$	-			
√ Water	Incidental Adjustments	3%	\$	39,246			
√ Sewer	Incidental Adjustments	3%	\$	39,246			
√ Establish Turf / Erosion Control		2%	\$	26,164			
√ Illumination	Standard Ilumination System	6%	\$	78,492			
Other:							
**Allowances based on % of Paving Constructi	on Cost Subtotal Allowa	nce Subtotal:	\$	588,689			
	Paving and Allowa	nno Subtotali	\$	1,896,887			
			I				
	Mobilization: Site Preparation:		\$	94,844			
	-	94,844					
	\$	2,087,000					
	Construction Contingency:	15%	\$	313,050			
	Construction Cost TOTAL W/ CON	TINGENCY:	\$	2,401,000			

Impact Fee Project Cost Summa	ary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,401,000
Engineering/Survey/Testing:		20%	\$ 480,200
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 480,200
Impact Fee Project Cost TOTAL:			\$ 3,361,400

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

updated:

12/16/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information: E-3 Description: Project No. Name: WILMETH RD (10) This project consists of the

Limits: US HIGHWAY 75 TO 2,570' E OF REDBUD BLVD

construction of two additional through **Impact Fee Class:** M6D(1/3) lanes within the existing median of the

Thoroughfare Class: Major Arterial ultimate six-lane divided major arterial.

Length (If): 4,105 Service Area(s): Ε

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit	Price	Item Cost
111	Unclassified Street Excavation	12,771	су	\$	10.00	\$ 127,711
211	Lime Treated Subgrade (8") (PI<12)	12,315	sy	\$	7.00	\$ 86,205
311	9" Concrete Pavement	11,403	sy	\$	60.00	\$ 684,167
411	4" Topsoil	3,649	sy	\$	2.50	\$ 9,122
511	6" Curb & Gutter	8,210	lf	\$	5.00	\$ 41,050
	Paving Construction Cost Subtotal:					\$ 948,255
Maio	or Construction Component Allowances**:	_				

Majo	Major Construction Component Allowances**:						
	Item Description	Notes		Allowance		Item Cost	
	Traffic Control	Construction Phase Traffic C	ontrol	3%	\$	28,448	
	Pavement Markings/Markers			3%	\$	28,448	
	Roadway Drainage	None Anticipated		0%	\$	-	
	Special Drainage Structures	Stream Crossing			\$	250,000	
	Water	None Anticipated		0%	\$	-	
	Sewer	None Anticipated		0%	\$	-	
	Establish Turf / Erosion Control			2%	\$	18,965	
	Illumination	None Anticipated		0%	\$	-	
	Other:						
**Allo	wances based on % of Paving Construction	Cost Subtotal	Allowa	ince Subtotal:	\$	325,860	
		Pavi	•	nce Subtotal:	\$	1,274,115	
			Mobilization:		\$	63,706	
	Site Preparation: 5%					63,706	
	Construction Cost TOTAL:					1,402,000	
		Construction				210,300	
	Construction Cost TOTAL W/ CONTINGENCY:					1,613,000	

Impact Fee Project Cost Summary	1		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,613,000
Engineering/Survey/Testing:		20%	\$ 322,600
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
Impact Fee Project Cost TOTAL:			\$ 1,935,600

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

Project Information:

Impact Fee Class:

Name:

Limits:

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

M6D(2/3)

WILMETH RD (11)

Kimley-Horn and Associates, Inc. updated: 12/16/2019

six-lane divided major arterial.

E-4 Description: Project No. This project consists of the 2,570' E OF REDBUD BLVD TO STATE HIGHWAY 5 construction of four additional through lanes of the ultimate

Thoroughfare Class: Major Arterial 2,145 Length (If): Ε Service Area(s):

Roa	adway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
112	Unclassified Street Excavation	17,160	су	\$ 10.00	\$ 171,600
212	Lime Treated Subgrade (8") (PI<12)	12,513	sy	\$ 7.00	\$ 87,588
312	9" Concrete Pavement	11,798	sy	\$ 60.00	\$ 707,850
412	4" Topsoil	6,554	sy	\$ 2.50	\$ 16,385
512	6" Curb & Gutter	6,435	If	\$ 5.00	\$ 32,175

Paving Construction Cost Subtotal: \$ 1,015,598

Major Construction Component Allowances**:								
Item Description	Notes	Allowance		Item Cost				
√ Traffic Control	Construction Phase Traffic Control	3%	\$	30,468				
√ Pavement Markings/Markers		3%	\$	30,468				
√ Roadway Drainage	Standard Internal System	25%	\$	253,899				
Special Drainage Structures	None Anticipated		\$	-				
√ Water	Incidental Adjustments	3%	\$	30,468				
√ Sewer	Incidental Adjustments	3%	\$	30,468				
√ Establish Turf / Erosion Control		2%	\$	20,312				
√ Illumination	Standard Ilumination System	6%	\$	60,936				
Other:								
**Allowances based on % of Paving Constructi	on Cost Subtotal Allowa	ince Subtotal:	\$	457,019				
	Paving and Allowa	ince Subtotal:	\$	1,472,617				
	Mobilization:	5%	\$	73,631				
	\$	73,631						
	\$	1,620,000						
	Construction Contingency:	15%	\$	243,000				
	Construction Cost TOTAL W/ CON	TINGENCY:	\$	1,863,000				

Impact Fee Project Cost Summ	ary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,863,000
Engineering/Survey/Testing:		20%	\$ 372,600
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 372,600
Impact Fee Project Cost TOTAL:			\$ 2,608,200

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 12/16/2019

Project Information: E-5 Description: Project No.

Name: WILMETH RD (12) This project consists of the Limits: STATE HIGHWAY 5 TO 2,100' E OF SH 5

Impact Fee Class:

Thoroughfare Class: Major Arterial

2,100 Length (If): Ε Service Area(s):

construction of a new six-lane M6D divided major arterial.

Cost
COSt
233,333
127,400
,036,000
20,417
42,000
98,681
145,600
1

Paving Construction Cost Subtotal: \$ 1,703,431

Maj	or Construction Component Allov	vances**:			
	Item Description	Notes	Allowance		Item Cost
	Traffic Control	None Anticipated	1%	\$	17,034
\checkmark	Pavement Markings/Markers		3%	\$	51,103
	Roadway Drainage	Standard Internal System	25%	\$	425,858
	Special Drainage Structures	Stream Crossing		\$	250,000
	Water	None Anticipated	0%	\$	-
	Sewer	None Anticipated	0%	\$	-
	Establish Turf / Erosion Control		2%	\$	34,069
\checkmark	Illumination	Standard Ilumination System	6%	\$	102,206
	Other:				
**Allo	owances based on % of Paving Construction	Cost Subtotal Allowa	ance Subtotal:	\$	880,269
		Paving and Allowa	ance Subtotal:	\$	2,583,700
		Mobilization:	5%	\$	129,185
Site Preparation: 5%					129,185
Construction Cost TOTAL:					2,843,000
		Construction Contingency:	15%	\$	426,450
		Construction Cost TOTAL W/ CON	TINGENCY:	\$	3,270,000

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,270,000
Engineering/Survey/Testing:		20%	\$ 654,000
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 1,144,500
·	\$ 5,068,500		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 12/16/2019

Project Information: Description: Project No. E-6

Name: WILMETH RD (13) This project consists of the

Limits: 2,100' E OF SH 5 TO 980' W OF AIRPORT DR reconstruction of a two-lane asphalt

Impact Fee Class: M6D facility to a six-lane divided major

Thoroughfare Class: Major Arterial arterial.

Length (If): 1,345 Service Area(s): E

	.,							
Roa	ndway Construction Cost Proje	ction						
No.	Item Description		Quantity	Unit	Unit	t Price		Item Cost
109	Unclassified Street Excavation		14,944	су	\$	10.00	\$	149,444
209	Lime Treated Subgrade (8") (PI<12)		11,657	sy	\$	7.00	\$	81,597
309	9" Concrete Pavement		11,059	sy	\$	60.00	\$	663,533
409	4" Topsoil		5,231	sy	\$	2.50	\$	13,076
509	6" Curb & Gutter		5,380	lf	\$	5.00	\$	26,900
609	609 Allotment for Turn Lanes and Median Openings		821	sy	\$	77.00	\$	63,203
709	Moisture Conditioning		11,657	sy	\$	8.00	\$	93,253
		F	Paving Const	ruction (Cost S	ubtotal:	\$	1,091,007
Majo	or Construction Component Allowan	ces**:					_	
	Item Description	Notes			Allo	wance		Item Cost
	Traffic Control	Construction Phase	Traffic Control			3%	\$	32,730
\checkmark	Pavement Markings/Markers					3%	\$	32,730
	Roadway Drainage	Standard Internal St	ystem			25%	\$	272,752

Major Construction Component Allowances**:					
Item Description	Notes	Allowance		Item Cost	
√ Traffic Control	Construction Phase Traffic Control	3%	\$	32,730	
√ Pavement Markings/Markers		3%	\$	32,730	
√ Roadway Drainage	Standard Internal System	25%	\$	272,752	
Special Drainage Structures	None Anticipated		\$	-	
√ Water	Incidental Adjustments	3%	\$	32,730	
√ Sewer	Incidental Adjustments	3%	\$	32,730	
√ Establish Turf / Erosion Control		2%	\$	21,820	
√ Illumination	Standard Ilumination System	6%	\$	65,460	
Other:					
**Allowances based on % of Paving Constructio	n Cost Subtotal Allowa	nce Subtotal:	\$	490,953	
	Paving and Allowa	nce Subtotal:	\$	1,581,960	
	Mobilization:	5%	\$	79,098	
	\$	79,098			
	\$	1,741,000			
	Construction Contingency:	15%	\$	261,150	
	Construction Cost TOTAL W/ CON	TINGENCY:	\$	2,003,000	

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,003,000
Engineering/Survey/Testing:		20%	\$ 400,600
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 400,600

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

Project Information	n:	Description:	Project No. E-7	
Name:	WILMETH RD (14) 980' W OF AIRPORT DR TO 235' E		his project consists of the	
Limits:	OF AIRPORT DR		econstruction of a two-lane asphalt acility to a six-lane divided major	
Impact Fee Class:	M6D		rterial. Based on the existing City	
Thoroughfare Class:	Major Arterial	L	imits, the northern half of the roadway	,
Length (If):	1,215	is	not included in the Impact Fee RIP.	
Service Area(s):	E, Half			

Roa	adway Construction Cost Projec	tion						
No.	Item Description		Quantity	Unit	Uni	t Price		Item Cost
109	Unclassified Street Excavation		13,500	су	\$	10.00	\$	135,000
209	Lime Treated Subgrade (8") (PI<12)		10,530	sy	\$	7.00	\$	73,710
309	9" Concrete Pavement		9,990	sy	\$	60.00	\$	599,400
409	4" Topsoil		4,725	sy	\$	2.50	\$	11,813
	6" Curb & Gutter		4,860	If	\$	5.00	\$	24,300
609	Allotment for Turn Lanes and Median O	penings	741	sy	\$	77.00	\$	57,094
709	Moisture Conditioning		10,530	sy	\$	8.00	\$	84,240
		P	aving Const	ruction (Cost S	Subtotal:	\$	985,556
Majo	or Construction Component Allowance							
	Item Description	Notes			Allo	wance		Item Cost
$\sqrt{}$	Traffic Control	Construction Phase	Traffic Control			3%	\$	29,567
√.	Pavement Markings/Markers					3%	\$	29,567
	Roadway Drainage	Standard Internal Sy	stem			25%	\$	246,389
	Special Drainage Structures	None Anticipated					\$	-
	Water	Incidental Adjustmer				3%	\$	29,567
	Sewer	Incidental Adjustmer	nts			3%	\$	29,567
	Establish Turf / Erosion Control					2%	\$	19,711
	Illumination	Standard Ilumination	System			6%	\$	59,133
	Other:	Railroad Crossing					\$	500,000
**Allo	wances based on % of Paving Construction Cost S	Subtotal		Allowa	nce S	Subtotal:	\$	943,500
Paving and Allowance Subtotal:						\$	1,929,057	
Mobilization: 5%					\$	96,453		
	Site Preparation: 5%					\$	96,453	
Construction Cost TOTAL:					\$	2,122,000		
			uction Conti				-	318,300
	Construction Cost TOTAL W/ CONTINGENCY:					\$	2,441,000	

Impact Fee Project Cost Summary				
Item Description	Notes:	Allowance		Item Cost
Construction:		-	\$	2,441,000
Engineering/Survey/Testing:		20%	\$	488,200
2008 - 2012 City contribution			\$	-
2012 - 2019 City contribution			\$	-
ROW/Easement Acquisition:	Existing Alignment	20%	\$	488,200
Impact Fee Project Cost TOTAL:				3,417,400

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

Project Informatio	n:	Description:	Project No. E-8
Name:	WILMETH RD (15)		This project consists of the
	1,150' W OF FM 2933 TO 400' E OF		reconstruction of a two-lane asphalt
Limits:	FM 2933		facility to a six-lane divided major
Impact Fee Class:	M6D		arterial. Based on the existing City
Thoroughfare Class:	Major Arterial		Limits, the northern half of the roadway
Length (If):	1,550		is not included in the Impact Fee RIP.
Service Area(s):	E, Half		

Roadway Construction Cost Projection							
No.	Item Description		Quantity	Unit	Unit Price		Item Cost
109	Unclassified Street Excavation		17,222	су	\$ 10.00	\$	172,222
209	Lime Treated Subgrade (8") (PI<12)		13,433	sy	\$ 7.00	\$	94,033
309	9" Concrete Pavement		12,744	sy	\$ 60.00	\$	764,667
409	4" Topsoil		6,028	sy	\$ 2.50	\$	15,069
509	6" Curb & Gutter		6,200	If	\$ 5.00	\$	31,000
	Allotment for Turn Lanes and Median C	penings	946	sy	\$ 77.00	\$	72,836
709	Moisture Conditioning		13,433	sy	\$ 8.00	\$	107,467
		P	Paving Consti	ruction (Cost Subtotal:	\$	1,257,294
				_		_	
Majo	or Construction Component Allowance						
	Item Description	Notes			Allowance		Item Cost
√,	Traffic Control	Construction Phase	Traffic Control		3%		37,719
√,	Pavement Markings/Markers				3%		37,719
V	Roadway Drainage	Standard Internal Sy	rstem		25%	\$	314,323
,	Special Drainage Structures	None Anticipated				\$	-
√,	Water	Incidental Adjustmer			3%		37,719
√,	Sewer	Incidental Adjustmer	nts		3%		37,719
√,	Establish Turf / Erosion Control				2%		25,146
	Illumination	Standard Ilumination	System		6%	\$	75,438
	Other:					_	
**Allo	wances based on % of Paving Construction Cost	Subtotal		Allowa	ince Subtotal:	\$	565,782
			D. I		0 14.4.1	_	4 000 070
Paving and Allowance Subtotal:							1,823,076
	Mobilization: 5%					•	91,154
			Site Prep				91,154
					ost TOTAL:		2,006,000
			uction Conti				300,900
	Coi	nstruction Cos	t TOTAL W	// CON	TINGENCY:	\$	2,307,000

Impact Fee Project Cost Summa	ary			
Item Description	Notes:	Allowance		Item Cost
Construction:		-	\$	2,307,000
Engineering/Survey/Testing:		20%	\$	461,400
2008 - 2012 City contribution			\$	-
2012 - 2019 City contribution			\$	-
ROW/Easement Acquisition:	Existing Alignment	20%	\$	461,400
	Impact Fee Project Cost TOTAL:			

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 12/16/2019

Project Informatio	n:	Description:	Project No.	E-9
Name:	REDBUD BLVD (1)		This completed pr	oject
Limits:	BLOOMDALE RD TO 2,930' S OF BLO	OOMDALE RD	consists of the cor	nstruction of
Impact Fee Class:	M4D		a four-lane divided	l minor
Thoroughfare Class:	Minor Arterial		arterial. The City c	ontributed
Length (If):	2,930		approximatley \$65	
Service Area(s):	E		eliaible funds from	•

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ 650,000
	Impact Fee Project C	ost TOTAL:	\$ 650,000

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.



Kimley-Horn and Associates, Inc.

updated:

12/16/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information: Description: Project No. E-10

Name: REDBUD BLVD (2) This project consists of the

Limits: 2,930' S OF BLOOMDALE RD TO WILMETH RD construction of two additional lanes of

Impact Fee Class: M4D(1/2) the ultimate four-lane divided minor

Thoroughfare Class: Minor Arterial arterial.

Length (If): 1,645 Service Area(s): E

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit	Price	Item Cost
106	Unclassified Street Excavation	4,752	су	\$	10.00	\$ 47,522
206	Lime Treated Subgrade (8") (PI<12)	4,569	sy	\$	7.00	\$ 31,986
306	8" Concrete Pavement	4,204	sy	\$	55.00	\$ 231,214
406	4" Topsoil	1,736	sy	\$	2.50	\$ 4,341
506	6" Curb & Gutter	3,290	lf	\$	5.00	\$ 16,450

Paving Construction Cost Subtotal: \$ 331,513

			_	
Major Construction Component Allo Item Description	Notes	Allowance		Item Cost
√ Traffic Control	Construction Phase Traffic Control	3%	\$	9,945
√ Pavement Markings/Markers		3%	\$	9,945
√ Roadway Drainage	Standard Internal System	25%	\$	82,878
Special Drainage Structures	None Anticipated		\$	-
√ Water	Incidental Adjustments	3%	\$	9,945
√ Sewer	Incidental Adjustments	3%	\$	9,945
√ Establish Turf / Erosion Control		2%	\$	6,630
√ Illumination	Standard Ilumination System	6%	\$	19,891
Other:				
**Allowances based on % of Paving Construction	on Cost Subtotal Allowa	ance Subtotal:	\$	149,181
	Paving and Allowa	ance Subtotal:	\$	480,694
	Mobilization:	5%	\$	24,035
	Site Preparation:	5%	\$	24,035
	Construction C	ost TOTAL:	\$	529,000
	Construction Contingency:	15%	\$	79,350
	Construction Cost TOTAL W/ CON	TINGENCY:	\$	609,000

Impact Fee Project Cost Sumn	nary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 609,000
Engineering/Survey/Testing:		20%	\$ 121,800
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 121,800
	Impact Fee Pr	oject Cost TOTAL:	\$ 852,600

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

Kimley-Horn and Associates, Inc. updated: 12/16/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information: E-11 Description: Project No. Name: LAUD HOWELL PKWY (9) This project consists of the US HIGHWAY 75 TO 2,620' S OF US reconstruction of a two-lane asphalt Limits: HIGHWAY 75 facility to a six-lane divided major **Impact Fee Class:** M6D arterial. Based on the existing City Thoroughfare Class: Major Arterial Limits, the eastern half of the roadway Length (If): 2,620 is not included in the Impact Fee RIP. Service Area(s): E, Half

Roa	adway Construction Cost Proje	ction								
No.	Item Description		Quantity	Unit	Unit Price		Item Cost			
109	Unclassified Street Excavation		14,556	су	\$ 15.00	\$	218,333			
209	Lime Treated Subgrade (8") (PI<12)		22,707	sy	\$ 7.00	\$	158,947			
309	4" TY D HMAC Underlayment		21,542	sy	\$ 5.00	\$	107,711			
409	9" Concrete Pavement		21,542	sy	\$ 60.00	\$	1,292,533			
509	4" Topsoil		10,189	sy	\$ 4.00	\$	40,756			
	6" Curb & Gutter		10,480	lf .	\$ 5.00	\$	52,400			
709	Allotment for Turn Lanes and Median C	Openings	1,599	sy	\$ 87.00	\$	139,105			
			Paving Const	ruction C	ost Subtotal:	\$	2,009,785			
Majo	or Construction Component Allowanc									
	Item Description	Notes			Allowance		Item Cost			
√,	Traffic Control	Construction Phase	Traffic Control		3%	\$	60,294			
√,	Pavement Markings/Markers				3%	\$	60,294			
√,	Roadway Drainage				25%	\$	502,446			
1	Special Drainage Structures	Bridge				\$	1,500,000			
1	Water	Incidental Adjustme			3%	\$	60,294			
1	Sewer	Incidental Adjustme	nts		3%	\$	60,294			
1	Establish Turf / Erosion Control				2%	\$	40,196			
1	Illumination	Standard Ilumination	System		6%	\$	120,587			
	Other:					_				
**Allo	wances based on % of Paving Construction Cost	Subtotal		Allowa	nce Subtotal:	\$	2,404,403			
			Davidson in a	-I All	naa Oodatatat	<u></u>	4 44 4 400			
			•		nce Subtotal:		4,414,188			
				lization:	5%	\$	220,709			
<u> </u>			Site Prep		5%	\$	220,709			
					ost TOTAL:		4,856,000			
			truction Conti			\$	728,400			
	C	onstruction Co	st TOTAL W	// CONT	TINGENCY:	\$	5,585,000			

Impact Fee Project Cos	st Summary		
Item Description	Notes:	Allowance	Item Cost
Construction:		1	\$ 5,585,000
Engineering/Survey/Testing	;	20%	\$ 1,117,000
2008 - 2012 City contributio	n e		\$ -
2012 - 2019 City contributio	n		\$ -
ROW/Easement Acquisition	Existing Alignment	20%	\$ 1,117,000
	Impact Fee Project Cost TOTAL (50% City Co	ntribution)	\$ 3,909,500

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

Service Area(s):

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

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Kimley-Horn and Associates, Inc.

updated: 12/16/2019

Project Informatio	n: Do	escription:	Project No.	E-12
Name:	LAUD HOWELL PKWY (10)		This project consi	sts of the
Limits:	2,620' S OF US HIGHWAY 75 TO BLOO	OMDALE RD	reconstruction of	a two-lane
Impact Fee Class:	M6D		asphalt facility to	a six-lane
Thoroughfare Class:	Major Arterial		divided major arte	rial.
Lenath (If):	1.635		•	

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit	Price	Item Cost
109	Unclassified Street Excavation	9,083	су	\$	15.00	\$ 136,250
209	Lime Treated Subgrade (8") (PI<12)	14,170	sy	\$	7.00	\$ 99,190
309	4" TY D HMAC Underlayment	13,443	sy	\$	5.00	\$ 67,217
409	9" Concrete Pavement	13,443	sy	\$	60.00	\$ 806,600
509	4" Topsoil	6,358	sy	\$	4.00	\$ 25,433
609	6" Curb & Gutter	6,540	lf	\$	5.00	\$ 32,700
709	Allotment for Turn Lanes and Median Openings	998	sy	\$	87.00	\$ 86,808

Paving Construction Cost Subtotal: \$ 1,254,198

Major Construction Component Allov	vances**:		
Item Description	Notes	Allowance	Item Cost
√ Traffic Control	Construction Phase Traffic Control	3%	\$ 37,626
√ Pavement Markings/Markers		3%	\$ 37,626
$\sqrt{}$ Roadway Drainage		25%	\$ 313,549
√ Special Drainage Structures	Stream Crossing		\$ 300,000
√ Water	Incidental Adjustments	3%	\$ 37,626
√ Sewer	Incidental Adjustments	3%	\$ 37,626
$\sqrt{}$ Establish Turf / Erosion Control		2%	\$ 25,084
$\sqrt{}$ Illumination	Standard Ilumination System	6%	\$ 75,252
Other:			
**Allowances based on % of Paving Construction	Cost Subtotal Allowa	nce Subtotal:	\$ 864,389
	Paving and Allowa	nce Subtotal:	\$ 2,118,587
	Mobilization:	5%	\$ 105,929
	Site Preparation:	5%	\$ 105,929
	Construction C	ost TOTAL:	\$ 2,331,000
	Construction Contingency:		349,650
	Construction Cost TOTAL W/ CON	FINGENCY:	\$ 2,681,000

Impact Fee Project Cost Summa	ry		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,681,000
Engineering/Survey/Testing:		20%	\$ 536,200
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 536,200
Impact Fee	Project Cost TOTAL (50% City C	ontribution)	\$ 1,876,700

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

Kimley-Horn and Associates, Inc.

updated:

12/16/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information: Description: Project No. E-13

Name: LAUD HOWELL PKWY (11) This project consists of the

Limits: BLOOMDALE RD TO STATE HIGHWAY 5 reconstruction of

Impact Fee Class: P6D

Thoroughfare Class: Principal Arterial

Length (If): 870 Service Area(s): E reconstruction of a two-lane asphalt facility to a six-lane divided principal

arterial.

						· ·	
Roa	dway Construction Cost Proj	ection					
No.	Item Description		Quantity	Unit	Uni	t Price	Item Cost
113	Unclassified Street Excavation		4,833	су	\$	15.00	\$ 72,500
213	Lime Treated Subgrade (8") (PI<12)		7,540	sy	\$	7.00	\$ 52,780
313	4" TY D HMAC Underlayment		7,153	sy	\$	5.00	\$ 35,767
413	9" Concrete Pavement		7,153	sy	\$	60.00	\$ 429,200
513	4" Topsoil		3,963	sy	\$	4.00	\$ 15,853
613	6" Curb & Gutter		3,480	lf	\$	5.00	\$ 17,400
713	Allotment for Turn Lanes and Median	Openings	531	sy	\$	87.00	\$ 46,191
		P	aving Const	ruction (Cost S	ubtotal:	\$ 669,691
Majo	or Construction Component Allowar	nces**:					
	Item Description	Notes			Allo	wance	Item Cost
	Traffic Control	Construction Phase	Traffic Control			3%	\$ 20,091
	Pavement Markings/Markers					3%	\$ 20,091

Major Construction Component Allowances**:							
Item Description	Notes	Allowance		Item Cost			
√ Traffic Control	Construction Phase Traffic Control	3%	\$	20,091			
√ Pavement Markings/Markers		3%	\$	20,091			
√ Roadway Drainage		25%	\$	167,423			
Special Drainage Structures	None Anticipated		\$	-			
√ Water	Incidental Adjustments	3%	\$	20,091			
√ Sewer	Incidental Adjustments	3%	\$	20,091			
√ Establish Turf / Erosion Control		2%	\$	13,394			
√ Illumination	Standard Ilumination System	6%	\$	40,181			
Other:							
**Allowances based on % of Paving Construction	Cost Subtotal Allows	ance Subtotal:	\$	301,361			
	Paving and Allows	ance Subtotal:	\$	971,052			
	Mobilization	5%	\$	48,553			
	Site Preparation	5%	\$	48,553			
	Construction C	ost TOTAL:	\$	1,069,000			
	Construction Contingency	15%	\$	160,350			
	Construction Cost TOTAL W/ CON	TINGENCY:	\$	1,230,000			

Impact Fee Project Cost Sum Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,230,000
Engineering/Survey/Testing:		20%	\$ 246,000
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 246,000
-	Fee Project Cost TOTAL (50%		 861,00

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

Project Informatio	n:	Description:	Project No. E-14
Name:	STATE HIGHWAY 5 (1) 4,700' N OF AIRPORT DR TO 3,995'	ı	This project consists of the reconstruction of a two-lane asphalt
Limits:	N OF AIRPORT DR		facility to a six-lane divided major
Impact Fee Class:	M6D		arterial. Based on the existing City
Thoroughfare Class:	Major Arterial		Limits, the western half of the roadway
Length (If): Service Area(s):	705 E, Half		is not included in the Impact Fee RIP.

Roa	adway Construction Cost Projec	tion					
No.	Item Description		Quantity	Unit	Unit Pri	се	Item Cost
109	Unclassified Street Excavation		3,917	су	\$ 15	00.5	\$ 58,750
209	Lime Treated Subgrade (8") (PI<12)		6,110	sy	T	.00	\$ 42,770
309	4" TY D HMAC Underlayment		5,797	sy		5.00	\$ 28,983
409	9" Concrete Pavement		5,797	sy		0.00	\$ 347,800
509	4" Topsoil		2,742	sy	т .	.00	\$ 10,967
609	6" Curb & Gutter		2,820	lf		5.00	\$ 14,100
709	Allotment for Turn Lanes and Median Op		430	sy		.00	\$ 37,431
		P	aving Consti	ruction (Cost Subto	otal:	\$ 540,801
Majo	or Construction Component Allowance						
	Item Description	Notes			Allowan		Item Cost
	Traffic Control	Construction Phase	Traffic Control			3%	\$ 16,224
	Pavement Markings/Markers					3%	\$ 16,224
	Roadway Drainage				2	25%	\$ 135,200
	Special Drainage Structures	None Anticipated					\$ -
√,	Water	Incidental Adjustmen	its			3%	\$ 16,224
	Sewer	Incidental Adjustmen	its			3%	16,224
	Establish Turf / Erosion Control					2%	\$ 10,816
	Illumination	Standard Ilumination	System			6%	\$ 32,448
	Other:						
**Allo	wances based on % of Paving Construction Cost S	ubtotal		Allowa	ince Subto	otal:	\$ 243,360
			7				
			Paving an		nce Subto		784,161
				lization:		5%	\$ 39,208
	Site Preparation: 5%			\$ 39,208			
Construction Cost TOTAL:			\$ 863,000				
	Construction Contingency: 15%			\$ 129,450			
	Con	struction Cos	t TOTAL W	// CON	TINGEN(CY:	\$ 993,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 993,000
Engineering/Survey/Testing:		20%	\$ 198,600
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 198,600
Impact Fee Project Cost TOTAL (50% City Contribution)			\$ 695,100

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

Service Area(s):

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

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Kimley-Horn and Associates, Inc.

updated: 12/16/2019

Project Informatio	n: Desc	ription:	Project No.	E-15
Name:	STATE HIGHWAY 5 (2)	7	This project consi	sts of the
Limits:	1,915' N OF AIRPORT DR TO US HIGHWA	AY 380 r	econstruction of	the existing
Impact Fee Class:	M6D	a	asphalt facility to a	a six-lane
Thoroughfare Class:	Major Arterial		divided major arte	
l enath (lf):	11 960			

Roa	dway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
109	Unclassified Street Excavation	66,444	су	\$ 15.00	\$ 996,667
209	Lime Treated Subgrade (8") (PI<12)	103,653	sy	\$ 7.00	\$ 725,573
309	4" TY D HMAC Underlayment	98,338	sy	\$ 5.00	\$ 491,689
409	9" Concrete Pavement	98,338	sy	\$ 60.00	\$ 5,900,267
509	4" Topsoil	46,511	sy	\$ 4.00	\$ 186,044
609	6" Curb & Gutter	47,840	lf	\$ 5.00	\$ 239,200
709	Allotment for Turn Lanes and Median Openings	7,299	sy	\$ 87.00	\$ 634,997

Paving Construction Cost Subtotal: \$ 9,174,437

Major Construction Component Allowances**:							
Item Description	Notes	Allowance		Item Cost			
√ Traffic Control	Construction Phase Traffic Control	3%	\$	275,233			
√ Pavement Markings/Markers		3%	\$	275,233			
√ Roadway Drainage		25%	\$	2,293,609			
√ Special Drainage Structures	Bridge		\$	2,500,000			
√ Water	Incidental Adjustments	3%	\$	275,233			
√ Sewer	Incidental Adjustments	3%	\$	275,233			
√ Establish Turf / Erosion Control		2%	\$	183,489			
√ Illumination	Standard Ilumination System	6%	\$	550,466			
Other:							
**Allowances based on % of Paving Construction Cost Subtotal Allowance Subtotal:				6,628,497			
	Paving and Allowa			15,802,934			
	Mobilization:		\$	790,147			
	Site Preparation:	5%	\$	790,147			
Construction Cost TOTAL:				17,384,000			
Construction Contingency: 15%			\$	2,607,600			
Construction Cost TOTAL W/ CONTINGENCY:				19,992,000			

Impact Fee Project Cost Summer Item Description	nary Notes:	Allowance		Item Cost
Construction:		-	\$	19,992,000
Engineering/Survey/Testing:		20%	\$	3,998,400
2008 - 2012 City contribution			\$	· · ·
2012 - 2019 City contribution			\$	-
ROW/Easement Acquisition:	Existing Alignment	20%	\$	3,998,400
Impact Fee Project Cost TOTAL (50% City Contribution)				13,994,400

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 12/16/2019

Project Information: E-16 Description: Project No. Name: AIRPORT DR (1) This project consists of the

Limits: STATE HIGHWAY 5 TO 4,070 S OF STATE HIGHWAY 5

construction of a new six-lane

Impact Fee Class: P₆D divided principal arterial.

Thoroughfare Class: Principal Arterial

4,070 Length (If): Ε Service Area(s):

Roa	dway Construction Cost Projection							
No.	Item Description	Quantity	Unit	Unit Price		Item Cost		
113	Unclassified Street Excavation	45,222	су	\$ 10.00	\$	452,222		
213	Lime Treated Subgrade (8") (PI<12)	35,273	sy	\$ 7.00	\$	246,913		
313	9" Concrete Pavement	33,464	sy	\$ 60.00	\$	2,007,867		
413	4" Topsoil	18,541	sy	\$ 2.50	\$	46,353		
513	6" Curb & Gutter	16,280	If	\$ 5.00	\$	81,400		
613	Allotment for Turn Lanes and Median Openings	2,484	sy	\$ 77.00	\$	191,252		
713	Moisture Conditioning	35,273	sy	\$ 8.00	\$	282,187		
	Paving Construction Cost Subtotal:							

Major Construction Component Allowances**:								
Item Description	Notes	Allowance		Item Cost				
√ Traffic Control	None Anticipated	1%	\$	33,082				
√ Pavement Markings/Markers		3%	\$	99,246				
√ Roadway Drainage	Standard Internal System	25%	\$	827,048				
√ Special Drainage Structures	Stream Crossing		\$	250,000				
Water	None Anticipated	0%	\$	-				
Sewer	None Anticipated	0%	\$	-				
√ Establish Turf / Erosion Control		2%	\$	66,164				
√ Illumination	Standard Ilumination System	6%	\$	198,492				
Other:								
**Allowances based on % of Paving Construction	n Cost Subtotal Allow	ance Subtotal:	\$	1,474,032				
				4 = 22 22 2				
	Paving and Allow			4,782,226				
	Mobilization	: 5%	\$	239,111				
	Site Preparation			239,111				
	Construction Cost TOTAL: S							
	Construction Contingency			789,150				
	Construction Cost TOTAL W/ CON	ITINGENCY:	\$	6,051,000				

Impact Fee Project Cost Sumn Item Description	Notes:	Allowance		Item Cost
Construction:		-	\$	6,051,000
Engineering/Survey/Testing:		20%	\$	1,210,200
2008 - 2012 City contribution			\$	-
2012 - 2019 City contribution			\$	-
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$	2,117,850
Impact Fee Project Cost TOTAL:				9,379,050

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 12/16/2019

Project Information: Description: Project No. E-17

Name: AIRPORT DR (2) This project consists of the

Limits: WILMETH RD TO WOODLAWN RD (N) construction of a new six-lane divided

Impact Fee Class: P6D principal arterial.

Thoroughfare Class: Principal Arterial

Length (If): 2,790 Service Area(s): E

Roa	adway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	31,000	су	\$ 10.00	\$ 310,000
213	Lime Treated Subgrade (8") (PI<12)	24,180	sy	\$ 7.00	\$ 169,260
313	9" Concrete Pavement	22,940	sy	\$ 60.00	\$ 1,376,400
413	4" Topsoil	12,710	sy	\$ 2.50	\$ 31,775
513	6" Curb & Gutter	11,160	lf	\$ 5.00	\$ 55,800
613	Allotment for Turn Lanes and Median Openings	1,703	sy	\$ 77.00	\$ 131,104
713	Moisture Conditioning	24,180	sy	\$ 8.00	\$ 193,440

Paving Construction Cost Subtotal: \$ 2,267,779

Major Construction Component Allo	wances**:					
Item Description	Notes	Allowance		Item Cost		
√ Traffic Control	None Anticipated	1%	\$	22,678		
√ Pavement Markings/Markers		3%	\$	68,033		
√ Roadway Drainage	Standard Internal System	25%	\$	566,945		
√ Special Drainage Structures	Stream Crossing		\$	250,000		
Water	None Anticipated	0%	\$	-		
Sewer	None Anticipated	0%	\$	-		
√ Establish Turf / Erosion Control		2%	\$	45,356		
√ Illumination	Standard Ilumination System	6%	\$	136,067		
Other:						
**Allowances based on % of Paving Construction	n Cost Subtotal Allowa	nce Subtotal:	\$	1,089,078		
	Paving and Allowa		\$	3,356,857		
	Mobilization:		\$	167,843 167,843		
	Site Preparation: 5%					
	\$	3,693,000				
	Construction Contingency:			553,950		
	Construction Cost TOTAL W/ CON	TINGENCY:	\$	4,247,000		

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,247,000
Engineering/Survey/Testing:		20%	\$ 849,400
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 1,486,450

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

updated: 12/16/2019

Project Information: Description: Project No. E-18

Name: AIRPORT DR (3) This project consists of the

Limits: WOODLAWN RD (N) TO WOODLAWN RD (S) reco

Impact Fee Class: P6D

Thoroughfare Class: Principal Arterial

Length (If): 1,535 Service Area(s): E reconstruction of a two-lane asphalt facility to a six-lane divided principal

arterial.

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Pric	е	Item Cost
113	Unclassified Street Excavation	17,056	су	\$ 10.0	00 \$	170,556
213	Lime Treated Subgrade (8") (PI<12)	13,303	sy	\$ 7.0	00 \$	93,123
313	9" Concrete Pavement	12,621	sy	\$ 60.0	00 \$	757,267
413	4" Topsoil	6,993	sy	\$ 2.5	50 \$	17,482
513	6" Curb & Gutter	6,140	lf	\$ 5.0	00 \$	30,700
613	Allotment for Turn Lanes and Median Openings	937	sy	\$ 77.0	00 \$	72,131
713	Moisture Conditioning	13,303	sy	\$ 8.0	00 \$	106,427
		avina Canati		Sant Cubtot	-I- C	4 247 COE

Paving Construction Cost Subtotal: \$ 1,247,685

Maj	Major Construction Component Allowances**:							
	Item Description	Notes	Allowance		Item Cost			
	Traffic Control	Construction Phase Traffic Control	3%	\$	37,431			
	Pavement Markings/Markers		3%	\$	37,431			
	Roadway Drainage	Standard Internal System	25%	\$	311,921			
	Special Drainage Structures	Stream Crossing		\$	250,000			
	Water	Incidental Adjustments	3%	\$	37,431			
	Sewer	Incidental Adjustments	3%	\$	37,431			
	Establish Turf / Erosion Control		2%	\$	24,954			
	Illumination	Standard Ilumination System	6%	\$	74,861			
	Other:							
**Allo	wances based on % of Paving Construction Cost S	Subtotal	nce Subtotal:	\$	811,458			
		Paving and Allowa	nce Subtotal:	\$	2,059,143			
		Mobilization:	5%	\$	102,957			
		Site Preparation:	5%	\$	102,957			
Construction Cost TOTAL:					2,266,000			
		Construction Contingency:	15%	\$	339,900			
	Con	struction Cost TOTAL W/ CON	TINGENCY:	\$	2,606,000			

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,606,000
Engineering/Survey/Testing:		20%	\$ 521,200
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 521,200
	\$ 3,648,40		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 12/16/2019

Project Information: Description: Project No. E-19

Name: AIRPORT DR (4) This project consists of the

Limits: WOODLAWN RD (S) TO US HIGHWAY 380 construction of a new six-lane divided

Impact Fee Class: P6D principal arterial.

Thoroughfare Class: Principal Arterial

Length (If): 3,875 Service Area(s): E

Roa	adway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Unit	Price		Item Cost
113	Unclassified Street Excavation	43,056	су	\$	10.00	\$	430,556
213	Lime Treated Subgrade (8") (PI<12)	33,583	sy	\$	7.00	(S)	235,083
313	9" Concrete Pavement	31,861	sy	\$	60.00	(S)	1,911,667
413	4" Topsoil	17,653	sy	\$	2.50	(S)	44,132
513	6" Curb & Gutter	15,500	If	\$	5.00	(S)	77,500
613	Allotment for Turn Lanes and Median Openings	2,365	sy	\$	77.00	(S)	182,089
713	Moisture Conditioning	33,583	sy	\$	8.00	\$	268,667

Paving Construction Cost Subtotal: \$ 3,149,693

Major Construction Component Allo	wances**:		
Item Description	Notes	Allowance	Item Cost
√ Traffic Control	None Anticipated	1%	\$ 31,497
√ Pavement Markings/Markers		3%	\$ 94,491
√ Roadway Drainage	Standard Internal System	25%	\$ 787,423
√ Special Drainage Structures	Stream Crossing		\$ 250,000
Water	None Anticipated	0%	\$ -
Sewer	None Anticipated	0%	\$ -
√ Establish Turf / Erosion Control		2%	\$ 62,994
√ Illumination	Standard Ilumination System	6%	\$ 188,982
Other:			
**Allowances based on % of Paving Construction	n Cost Subtotal Allowa	nce Subtotal:	\$ 1,415,387
	Paving and Allowa	nce Subtotal:	\$ 4,565,080
	Mobilization:	5%	\$ 228,254
	Site Preparation:	5%	\$ 228,254
	\$ 5,022,000		
	Construction Contingency:		 753,300
	Construction Cost TOTAL W/ CON	TINGENCY:	\$ 5,776,000

Impact Fee Project Cost Summer Item Description	Notes:	Allowance		Item Cost
Construction:		-	\$	5,776,000
Engineering/Survey/Testing:		20%	\$	1,155,200
2008 - 2012 City contribution			\$	-
2012 - 2019 City contribution			\$	-
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$	2,021,600
Impact Fee Project Cost TOTAL:				8,952,800

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection Kimley-Horn and Associates, Inc. updated: 12/16/2019

Project Informatio	n:	Description:	Project No.	E-20
Name:	UNNAMED C (1) 410' E OF STATE HIGHWAY 5 TO 3,	010' E OF	This project conscious of the	
Limits:	STATE HIGHWAY 5		through lanes wi	
Impact Fee Class:	P6D(1/3)		existing median	of the ultimate
Thoroughfare Class:	Principal Arterial		six-lane divided	
Length (If):	2,600		arterial. This sec	•
			currently under o	
			the four-lane divi	ded section by
Service Area(s):	E		Willowwood.	

Roady	way Construction Cost Projec	tion					
No. Ite	em Description		Quantity	Unit	Unit Price		Item Cost
114 Ur	nclassified Street Excavation		8,089	су	\$ 10.00	\$	80,889
214 Liı	me Treated Subgrade (8") (PI<12)		7,800	sy	\$ 7.00	\$	54,600
314 9"	Concrete Pavement		7,222	sy	\$ 60.00	\$	433,333
	' Topsoil		2,311	sy	\$ 2.50	\$	5,778
514 6"	' Curb & Gutter		5,200	lf	\$ 5.00	\$	26,000
		P	Paving Constr	ruction C	Cost Subtotal:	\$	600,600
Maian	O((O(-All	**				_	
	Construction Component Allowance				Allawanaa		Itam Coot
	em Description	Notes	-		Allowance	Φ.	Item Cost
1	raffic Control	Construction Phase	Traffic Control		3%	-	18,018
	avement Markings/Markers				3%		18,018
	oadway Drainage	None Anticipated			0%	\$	-
	pecial Drainage Structures	None Anticipated				\$	-
	/ater	None Anticipated			0%	\$	-
	ewer	None Anticipated			0%	\$	-
√ Es	stablish Turf / Erosion Control				2%	\$	12,012
IIIu	umination	None Anticipated			0%	\$	-
	ther:						
**Allowan	nces based on % of Paving Construction Cost S	ubtotal		Allowa	nce Subtotal:	\$	48,048
			Paving and	d Allowa	nce Subtotal:	\$	648,648
				lization:		\$	32,432
			Site Prep	aration:	5%	\$	32,432
					ost TOTAL:		714,000
			uction Conti				107,100
	Con	struction Cos	t TOTAL W	// CON	TINGENCY:	\$	822,000

Impact Fee Project Cost	Summary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 822,000
Engineering/Survey/Testing:		20%	\$ 164,400
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
	Impact Fee Project C	ost TOTAL:	\$ 986,400

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Informatio	n:	Description:	Project No.	E-21
Name:	UNNAMED C (2) WILMETH RD TO 2,615' S OF		project consists of the nstruction of a two-la	
Limits: Impact Fee Class:	WILMETH RD P6D	facili	ity to a six-lane divide	d principal
Thoroughfare Class: Length (If):	Principal Arterial 2,615	Limit	ts, the eastern half of ot included in the Impa	the roadway
Service Area(s):	E, Half			

Roadway Construction Cost Projection								
No.	No. Item Description Quantity Unit			Unit	Un	it Price		Item Cost
113	Unclassified Street Excavation		14,528	су	\$	15.00	\$	217,917
213	Lime Treated Subgrade (8") (PI<12)		22,663	sy	\$	7.00	\$	158,643
313	4" TY D HMAC Underlayment		21,501	sy	\$	5.00	\$	107,506
413	9" Concrete Pavement		21,501	sy	\$	60.00	\$	1,290,067
513	4" Topsoil		11,913	sy	\$	4.00	\$	47,651
	6" Curb & Gutter		10,460	lf	\$	5.00	\$	52,300
713	Allotment for Turn Lanes and Median Op	enings	1,596	sy	\$	87.00	\$	138,839
		P	Paving Const	ruction (Cost S	Subtotal:	\$	2,012,923
Majo	or Construction Component Allowance							
	Item Description	Notes			Allo	owance		Item Cost
	Traffic Control	Construction Phase	Traffic Control			3%	\$	60,388
	Pavement Markings/Markers					3%	\$	60,388
	Roadway Drainage					25%	\$	503,231
	Special Drainage Structures	Stream Crossing					\$	250,000
	Water	Incidental Adjustmen	nts			3%	\$	60,388
	Sewer	Incidental Adjustmer	nts			3%	\$	60,388
	Establish Turf / Erosion Control					2%	\$	40,258
	Illumination	Standard Ilumination	System			6%	\$	120,775
	Other:							
**Allo	wances based on % of Paving Construction Cost S	ubtotal		Allowa	nce S	Subtotal:	\$	1,155,815
			Paving an		nce S		\$ \$	3,168,738
	Mobilization: 5%							158,437
			Site Prep			5%		158,437
			Construc			TOTAL:	\$	3,486,000
			uction Conti			15%	\$ \$	522,900
	Construction Cost TOTAL W/ CONTINGENCY:							4,009,000

Impact Fee Project Cost Summar	y .		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,009,000
Engineering/Survey/Testing:		20%	\$ 801,800
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 801,800
Impact Fee	\$ 2,806,300		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

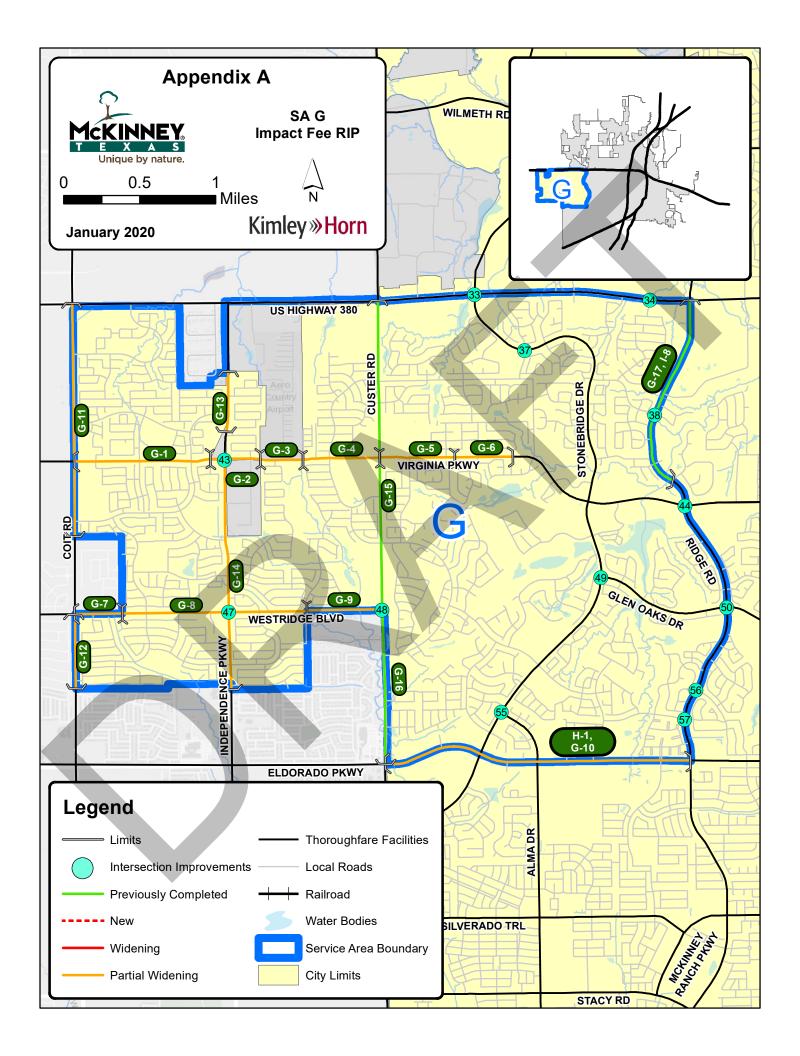
City of McKinney - 2018 - 2019 Roadway Impact Fee Update

Roadway Improvement Plan for Roadway Impact Fees Appendix A - Summary of Conceptual Level Project Cost Projections

Roadway Improvements - Service Area F

	Costing				Percent in	Cost in
#	Class	Project	Limits	Total Cost	Service Area	Service Area
		No	Thoroughfare Roadways within City Limits Currently Present within Service	Δrea F		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney. The planning level cost projections shall not supersede the City's design standards contained within the Subdivision Ordinance or the determination of the City Engineer for a specific project.



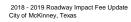
City of McKinney - 2018 - 2019 Roadway Impact Fee Update

Roadway Improvement Plan for Roadway Impact Fees Appendix A - Summary of Conceptual Level Project Cost Projections

Roadway Improvements - Service Area G

	Costing				Percent in	Cost in
#	Class	Project	Limits	Total Cost	Service Area	Service Area
G-1	M6D(1/3)	VIRGINIA PKWY (1)	COIT RD TO 500' W OF INDEPENDENCE PKWY	\$ 2,158,800	100%	\$ 2,158,80
G-2	M6D(1/3)	VIRGINIA PKWY (2)	500' W OF INDEPENDENCE PKWY TO 325' E OF FORKHORN DR	\$ 794,400	50%	\$ 397,20
G-3	M6D(1/3)	VIRGINIA PKWY (3)	325' E OF FORKHORN DR TO 935' W OF VIRGINIA HILLS DR	\$ 913,196	50%	\$ 456,59
G-4	M6D(1/3)	VIRGINIA PKWY (4)	935' W OF VIRGINIA HILLS DR TO CUSTER RD	\$ 1,661,863	100%	\$ 1,661,863
G-5	M6D(1/3)	VIRGINIA PKWY (5)	CUSTER RD TO 410' E OF DANBURY RD	\$ 1,182,000	100%	\$ 1,182,00
G-6	M6D(1/6)	VIRGINIA PKWY (6)	410' E OF DANBURY RD TO VIRGINIA PARKLANDS BLVD	\$ 392,400	100%	\$ 392,40
G-7	M6D(1/3)	WESTRIDGE BLVD (1)	COIT RD TO 1,635' E OF COIT RD	\$ 745,200	50%	\$ 372,600
G-8	M6D(1/3)	WESTRIDGE BLVD (2)	1,635' E OF COIT RD TO 2,720' E OF INDEPENDENCE PKWY	\$ 2,931,600	100%	\$ 2,931,600
G-9	M6D(1/3)	WESTRIDGE BLVD (3)	2,720' E OF INDEPENDENCE PKWY TO CUSTER RD	\$ 1,192,800	50%	\$ 596,400
H-1, G-10	G6D(1/3)	ELDORADO PKWY (1)	CUSTER RD TO RIDGE RD	\$ 5,202,000	50%	\$ 2,601,000
G-11	M6D(1/3)	COIT RD (1)	US HIGHWAY 380 TO 2,610' S OF VIRGINIA PKWY	\$ 3,681,600	50%	\$ 1,840,80
G-12	M6D(1/3)	COIT RD (2)	WESTRIDGE BLVD TO 2,595' S OF WESTRIDGE BLVD	\$ 1,184,400	50%	\$ 592,20
G-13	M6D(1/3)	INDEPENDENCE PKWY (1)	2,380' S OF US HIGHWAY 380 TO 4,465' S OF US HIGHWAY 380	\$ 951,600	100%	\$ 951,60
G-14	M6D(1/3)	INDEPENDENCE PKWY (2)	VIRGINIA PKWY TO 2,690' S OF WESTRIDGE BLVD	\$ 3,666,000	100%	\$ 3,666,00
G-15	P6D	CUSTER RD (4)	US HIGHWAY 380 TO WESTRIDGE BLVD	\$ 3,260,945	100%	\$ 3,260,94
G-16	P6D	CUSTER RD (5)	WESTRIDGE BLVD TO ELDORADO PKWY	\$ 1,476,398	100%	\$ 1,476,39
G-17, I-8	G4D	RIDGE RD (8)	US HIGHWAY 380 TO CREEKSIDE DR	\$ 550,813	50%	\$ 275,40
33		Signal Mod	US HIGHWAY 380 & STONEBRIDGE DR	\$ 150,000	50%	\$ 75,000
34		Signal	US HIGHWAY 380 & FOREST RIDGE LN	\$ 300,000	50%	\$ 150,000
37		Signal	STONEBRIDGE DR & LACIMA DR	\$ 300,000	100%	\$ 300,000
38		Signal	RIDGE RD & HABERSHAM WAY	\$ 343,000	50%	\$ 171,500
43	_	Signal	INDEPENDENCE PKWY & VIRGINIA PKWY	\$ 80,000	50%	\$ 40,000
44	tior	Under Construction	VIRGINIA PKWY & RIDGE RD	\$ 390,341	50%	\$ 195,17
47	Intersection	Signal	INDEPENDENCE PKWY & WESTRIDGE BLVD	\$ 300,000	100%	\$ 300,000
48	nteı	Under Construction	CUSTER RD & WESTRIDGE BLVD	\$ 390,341	75%	\$ 292,756
49	_	Roundabout	STONEBRIDGE DR & GLEN OAKS DR	\$ 1,950,000	100%	\$ 1,950,000
50	1	Roundabout	RIDGE RD & GLEN OAKS DR	\$ 2,640,000	50%	\$ 1,320,000
55	1	Signal	STONEBRIDGE DR & ALMA DR	\$ 300,000	100%	\$ 300,000
56		Signal	RIDGE RD & RUSH CREEK RD	\$ 300,000	50%	\$ 150,00
57		Signal	RIDGE RD & BERKSHIRE RD	\$ 300,000	50%	\$ 150,000
-		- 5		\$ 39,689,697		\$ 30,208,23

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney. The planning level cost projections shall not supersede the City's design standards contained within the Subdivision Ordinance or the determination of the City Engineer for a specific project.



updated:

12/16/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information: G-1 Description: Project No. Name: VIRGINIA PKWY (1) This project consists of the Limits: COIT RD TO 500' W OF INDEPENDENCE PKWY construction of two additional through **Impact Fee Class:** M6D(1/3) lanes within the existing median of the Thoroughfare Class: Major Arterial ultimate six-lane divided major arterial. Length (If): 4,735 Service Area(s): G

Roa	Roadway Construction Cost Projection									
No.	Item Description	Quantity	Unit	Unit	Price		Item Cost			
111	Unclassified Street Excavation	14,731	су	\$	10.00	\$	147,311			
211	Lime Treated Subgrade (8") (PI<12)	14,205	sy	\$	7.00	\$	99,435			
311	9" Concrete Pavement	13,153	sy	\$	60.00	\$	789,167			
411	4" Topsoil	4,209	sy	\$	2.50	\$	10,522			
511	6" Curb & Gutter	9,470	If	\$	5.00	\$	47,350			
611	Allotment for Turn Lanes and Median Openings	2,890	sy	\$	77.00	\$	222,501			
	P	aving Const	ruction C	ost Si	ibtotal:	\$	1 316 286			

Majo	Major Construction Component Allowances**:								
	Item Description	Notes	Allowance		Item Cost				
	Traffic Control	Construction Phase Traffic Control	3%	\$	39,489				
	Pavement Markings/Markers		3%	\$	39,489				
	Roadway Drainage	None Anticipated	0%	\$	-				
	Special Drainage Structures	None Anticipated		\$	-				
	Water	None Anticipated	0%	\$	-				
	Sewer	None Anticipated	0%	\$	-				
	Establish Turf / Erosion Control		2%	\$	26,326				
	Illumination	None Anticipated	0%	\$	-				
	Other:								
**Allo	wances based on % of Paving Construction Cost \$	Subtotal	ance Subtotal:	\$	105,303				
		Paving and Allowa			1,421,589				
		Mobilization		\$	71,079				
		Site Preparation:	5%	\$	71,079				
		Construction C	ost TOTAL:	\$	1,564,000				
		Construction Contingency:	15%	\$	234,600				
	Con	struction Cost TOTAL W/ CON	TINGENCY:	\$	1 799 000				

Impact Fee Project Cost Summa	ary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,799,000
Engineering/Survey/Testing:		20%	\$ 359,800
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
	Impact Fee Project	Cost TOTAL:	\$ 2,158,800

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information	n:	Description:	Project No. G-2
Name:	VIRGINIA PKWY (2) 500' W OF INDEPENDENCE PKWY		This project consists of the construction of two additional through lanes within
Limits:	TO 325' E OF FORKHORN DR		the existing median of the ultimate six-
Impact Fee Class:	M6D(1/3)		lane divided major arterial. Based on the
Thoroughfare Class:	Major Arterial		existing City Limits, the northern half of
Length (If):	1,740		the roadway is not included in the
			Impact Fee RIP for the 510' western
			section while the southern half of the
			roadway is not included for the
			remaining 1,230' eastern section.
Service Area(s):	G, Half		

Roa	adway Construction Cost Projec	tion					
No.	Item Description		Quantity	Unit	Unit Price		Item Cost
111	Unclassified Street Excavation		5,413	су	\$ 10.00	\$	54,133
211	Lime Treated Subgrade (8") (PI<12)		5,220	sy	\$ 7.00	\$	36,540
311	9" Concrete Pavement		4,833	sy	\$ 60.00	\$	290,000
411	4" Topsoil		1,547	sy	\$ 2.50	\$	3,867
511	6" Curb & Gutter		3,480	If	\$ 5.00	\$	17,400
611	Allotment for Turn Lanes and Median O	penings	1,062	sy	\$ 77.00	\$	81,764
		P	aving Consti	ruction (Cost Subtotal:	\$	483,704
Majo	or Construction Component Allowance						
	Item Description	Notes			Allowance		Item Cost
	Traffic Control	Construction Phase	Γraffic Control		3%	\$	14,511
	Pavement Markings/Markers				3%	\$	14,511
	Roadway Drainage	None Anticipated			0%	\$	-
	Special Drainage Structures	None Anticipated				\$	-
	Water	None Anticipated			0%		-
	Sewer	None Anticipated			0%	\$	-
	Establish Turf / Erosion Control				2%	\$	9,674
	Illumination	None Anticipated			0%	\$	-
	Other:						
**Allo	wances based on % of Paving Construction Cost S	Subtotal		Allowa	ınce Subtotal:	\$	38,696
					nce Subtotal:		522,400
				lization:	5%	,	26,120
			Site Prep			,	26,120
		·			ost TOTAL:		575,000
			uction Conti			-	86,250
	Co	nstruction Cos	st TOTAL W	N/ CON.	TINGENCY:	\$	662,000

Impact Fee Project Cost Sumn	nary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 662,000
Engineering/Survey/Testing:		20%	\$ 132,400
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
	\$ 794,400		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection updated: 12/16/2019

Project Informatio	n:	Description:	Project No.	G-3
Name:	VIRGINIA PKWY (3) 325' E OF FORKHORN DR TO 935'		This project consists of the of two additional through I	
Limits:	W OF VIRGINIA HILLS DR		the existing median of the	
Impact Fee Class: Thoroughfare Class:	M6D(1/3) Major Arterial		lane divided major arterial.	
Length (If):	1,465		existing City Limits, the no the roadway is not include	
Service Area(s):	G, Half		Impact Fee RIP.	

Roa	adway Construction Cost Pro	ojection					
No.	Item Description		Quantity	Unit	Unit Price		Item Cost
111	Unclassified Street Excavation		4,558	су	\$ 10.00	\$	45,578
211	Lime Treated Subgrade (8") (PI<12)		4,395	sy	\$ 7.00	\$	30,765
311	9" Concrete Pavement		4,069	sy	\$ 60.00	\$	244,167
411	4" Topsoil		1,302	sy	\$ 2.50	\$	3,256
511	6" Curb & Gutter		2,930	lf	\$ 5.00	\$	14,650
611	Allotment for Turn Lanes and Media		894	sy	\$ 77.00	\$	68,841
		P	Paving Consti	ruction (Cost Subtotal:	\$	407,256
Majo	or Construction Component Allowa						
	Item Description	Notes			Allowance		Item Cost
√,	Traffic Control	Construction Phase	Traffic Control		3%	\$	12,218
	Pavement Markings/Markers				3%	\$	12,218
	Roadway Drainage	None Anticipated			0%	\$	-
	Special Drainage Structures	None Anticipated				\$	-
	Water	None Anticipated			0%	\$	-
,	Sewer	None Anticipated			0%	\$	-
	Establish Turf / Erosion Control				2%	\$	8,145
	Illumination	None Anticipated			0%	\$	-
	Other:						
**Allo	wances based on % of Paving Construction C	Cost Subtotal		Allowa	nce Subtotal:	\$	32,581
			D. I.		0 14 4 4 4	_	100.007
					nce Subtotal:		439,837
						\$	21,992
						_	21,992
							484,000
			uction Conti			\$	72,600
		Construction Cos	t TOTAL W	// CON	TINGENCY:	\$	557,000

Impact Fee Project Cost Summa	ry		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 557,000
Engineering/Survey/Testing:		20%	\$ 111,400
2008 - 2012 City contribution			\$ 244,796
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
	Impact Fee Project (Cost TOTAL:	\$ 913,196

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

updated:

12/16/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Informatio	n:	Description:	Project No.	G-4		
Name: VIRGINIA PKWY (4)			This project consists of the			
	935' W OF VIRGINIA HILLS DR TO		construction of two additio	nal through		
Limits:	CUSTER RD		lanes within the existing me	edian of the		
Impact Fee Class:	M6D(1/3)		ultimate six-lane divided ma	aior arterial.		
Thoroughfare Class:	Major Arterial		The City contributed approx	•		
Length (If): 2,685			rom '08-'12.			
Service Area(s):	G		t 100,000 tr eligible fulldo il	J 55 12.		

Roa	ndway Construction Cost Pro	jection					
	Item Description	•	Quantity	Unit	Unit Price		Item Cost
111	Unclassified Street Excavation		8,353	су	\$ 10.00	\$	83,533
211	Lime Treated Subgrade (8") (PI<12)		8,055	sy	\$ 7.00	\$	56,385
311	9" Concrete Pavement		7,458	sy	\$ 60.00	\$	447,500
411	4" Topsoil		2,387	sy	\$ 2.50	\$	5,967
511	6" Curb & Gutter		5,370	lf	\$ 5.00	\$	26,850
611	Allotment for Turn Lanes and Media	n Openings	1,639	sy	\$ 77.00	\$	126,170
		Р	aving Consti	ruction (Cost Subtotal:	\$	746,405
Majo	or Construction Component Allowa	ances**:					
	Item Description	Notes			Allowance		Item Cost
	Traffic Control	Construction Phase	Traffic Control		3%	\$	22,392
	Pavement Markings/Markers				3%	\$	22,392
	Roadway Drainage	None Anticipated			0%	\$	-
	Special Drainage Structures	None Anticipated				\$	-
	Water	None Anticipated			0%		-
	Sewer	None Anticipated			0%	\$	-
	Establish Turf / Erosion Control				2%	\$	14,928
	Illumination	None Anticipated			0%	\$	-
	Other:						
**Allo	wances based on % of Paving Construction C	Cost Subtotal		Allowa	ınce Subtotal:	\$	59,712
			_		nce Subtotal:	•	806,118
				lization:	5%	4 '	40,306
			Site Prep				40,306
					ost TOTAL:	\$	887,000
		Constr	uction Conti	ngency:	15%	\$	133,050
		Construction Cos	t TOTAL W	// CON	TINGENCY:	\$	1,021,000

Impact Fee Project Cost Summa	у		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,021,000
Engineering/Survey/Testing:		20%	\$ 204,200
2008 - 2012 City contribution			\$ 436,663
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
<u> </u>	Impact Fee Project C	ost TOTAL:	\$ 1,661,863

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

updated:

12/16/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information: G-5 Description: Project No. Name:

VIRGINIA PKWY (5) This project consists of the

Limits: CUSTER RD TO 410' E OF DANBURY RD **Impact Fee Class:** M6D(1/3)

Thoroughfare Class: Major Arterial 2,590

Length (If): Service Area(s): G construction of two additional through lanes within the existing median of the ultimate six-lane divided major arterial.

Roa	adway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Unit	Price		Item Cost
111	Unclassified Street Excavation	8,058	су	\$	10.00	\$	80,578
211	Lime Treated Subgrade (8") (PI<12)	7,770	sy	\$	7.00	\$	54,390
311	9" Concrete Pavement	7,194	sy	\$	60.00	\$	431,667
411	4" Topsoil	2,302	sy	\$	2.50	\$	5,756
511	6" Curb & Gutter	5,180	If	\$	5.00	\$	25,900
611	Allotment for Turn Lanes and Median Openings	1,581	sy	\$	77.00	\$	121,706
	Paying Construction Cost Subtotal: \$						719 996

Maj	Major Construction Component Allowances**:								
	Item Description	Notes	Allowance		Item Cost				
	Traffic Control	Construction Phase Traffic Control	3%	\$	21,600				
	Pavement Markings/Markers		3%	\$	21,600				
	Roadway Drainage	None Anticipated	0%	\$	-				
	Special Drainage Structures	None Anticipated		\$	-				
	Water	None Anticipated	0%	\$	-				
	Sewer	None Anticipated	0%	\$	-				
	Establish Turf / Erosion Control		2%	\$	14,400				
	Illumination	None Anticipated	0%	\$	-				
	Other:								
**Allo	owances based on % of Paving Construction Cost	Subtotal	nce Subtotal:	\$	57,600				
		Paving and Allowa		\$	777,596				
		Mobilization:		\$	38,880				
		Site Preparation:	5%	\$	38,880				
		Construction C		\$	856,000				
		Construction Contingency:	15%	\$	128,400				
	Cor	struction Cost TOTAL W/ CON	TINGENCY:	\$	985,000				

Impact Fee Project Cost Summar	у		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 985,000
Engineering/Survey/Testing:		20%	\$ 197,000
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
	Impact Fee Project C	ost TOTAL:	\$ 1,182,000

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Roadway Construction Cost Projection

updated: 12/16/2019

Project Information:		Description:	Project No.	G -6
Name:	VIRGINIA PKWY (6)		This project cons	
Limits:	410' E OF DANBURY RD TO VI	RGINIA PARKLANDS BL	VC construction of or	ne additional
Impact Fee Class:	M6D(1/6)		through lane with	in the existing
Thoroughfare Class:	Major Arterial		median of the ulti	mate six-lane
Length (If):	2,050		divided major arte	erial.
Service Area(s):	G			

No.	Item Description		Quantity	Unit	Unit Price	Item Cost
110	Unclassified Street Excavation		3,189	су	\$ 10.00	\$ 31,889
210	Lime Treated Subgrade (8") (PI<12)		3,075	sy	\$ 7.00	\$ 21,525
310	9" Concrete Pavement		2,847	sy	\$ 60.00	\$ 170,833
410	4" Topsoil		1,822	sy	\$ 2.50	\$ 4,556
	6" Curb & Gutter		2,050	lf	\$ 5.00	\$ 10,250
610	Allotment for Turn Lanes and Median C)penings	0	sy	\$ 77.00	\$ -
		Р	aving Constr	uction C	Cost Subtotal:	\$ 239,053
Majo	or Construction Component Allowand					
	Item Description	Notes			Allowance	Item Cost
	Traffic Control	Construction Phase	Traffic Control		3%	7,172
	Pavement Markings/Markers				3%	7,172
	Roadway Drainage	None Anticipated			0%	\$ -
	Special Drainage Structures	None Anticipated				\$ -
	Water	None Anticipated			0%	\$ -
	Sewer	None Anticipated			0%	\$ -
	Establish Turf / Erosion Control				2%	\$ 4,781
	Illumination	None Anticipated			0%	\$ -
	Other:					
**Allo	wances based on % of Paving Construction Cost	Subtotal		Allowa	nce Subtotal:	\$ 19,124
			Paving and	d Allowa	nce Subtotal:	\$ 258,177
				lization:	5%	12,909
			Site Prep	aration:	5%	\$ 12,909
			Construc	ction C	ost TOTAL:	284,000
		Constr	uction Conti	ngency:	15%	\$ 42,600
	Co	nstruction Cos	t TOTAL W	// CON	TINGENCY:	\$ 327,000

Impact Fee Project Cost Summa	nry		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 327,000
Engineering/Survey/Testing:		20%	\$ 65,400
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
	Impact Fee Project (Cost TOTAL:	\$ 392,400

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

12/16/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information:		Description:	Project No.	G-7			
Name:	WESTRIDGE BLVD (1)	This project consists of	of the constructi	on of two			
Limits:	COIT RD TO 1,635' E OF COIT RD	additional through lanes within the existing median					
		of the ultimate six-lane divided major arterial. Based					
Thoroughfare Class:	Major Arterial	on the existing City Lin	mits, the northe	rn half of the			
		roadway is not included in the Impact Fee RIP.					
Service Area(s):	G, Half	,					

RO	idway Construction Cost Proje	ection				
No.	Item Description		Quantity	Unit	Unit Price	Item Cost
111	Unclassified Street Excavation		5,087	су	\$ 10.00	\$ 50,867
211	Lime Treated Subgrade (8") (PI<12) 4,905 sy			\$ 7.00	\$ 34,335	
311	9" Concrete Pavement		4,542	sy	\$ 60.00	\$ 272,500
411	4" Topsoil		1,453	sy	\$ 2.50	\$ 3,633
511	6" Curb & Gutter		3,270	lf	\$ 5.00	\$ 16,350
611	Allotment for Turn Lanes and Median	Openings	998	sy	\$ 77.00	\$ 76,830
		Р	aving Consti	ruction (Cost Subtotal:	\$ 454,515
Majo	or Construction Component Allowan	ces**:				
	Item Description	Notes			Allowance	Item Cost
	Traffic Control	Construction Phase	Traffic Control	4	3%	\$ 13,635
	Pavement Markings/Markers				3%	\$ 13,635
	Roadway Drainage	None Anticipated			0%	\$ -
	Special Drainage Structures	None Anticipated				\$ -
	Water	None Anticipated			0%	\$ -
	Sewer	None Anticipated			0%	\$ -
	Establish Turf / Erosion Control				2%	\$ 9,090
	Illumination	None Anticipated			0%	\$ -
	Other:					
**Allo	wances based on % of Paving Construction Cos	st Subtotal		Allowa	ınce Subtotal:	\$ 36,361
			_		nce Subtotal:	490,876
				lization:	5%	\$ 24,544
			Site Prep			\$ 24,544
					ost TOTAL:	\$ 540,000
		Constr	uction Conti	ngency:	15%	\$ 81,000
	Co	nstruction Cos	t TOTAL W	// CON	TINGENCY:	\$ 621,000

Impact Fee Project Cost Summa	у		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 621,000
Engineering/Survey/Testing:		20%	\$ 124,200
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
	Impact Fee Project C	ost TOTAL:	\$ 745,200

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

updated: 12/16/2019

Project Information: Description: Project No. G-8

Name: WESTRIDGE BLVD (2) This project consists of the

1,635' E OF COIT RD TO 2,720' E construction of two additional through

Limits: OF INDEPENDENCE PKWY lanes within the existing median of the

Impact Fee Class: M6D(1/3) ultimate six-lane divided major arterial.

Thoroughfare Class: Major Arterial

Length (If): 6,430 Service Area(s): G

No.	Item Description	Quantity	Unit	Unit	Price	Item Cost
111	Unclassified Street Excavation	20,004	су	\$	10.00	\$ 200,044
211	Lime Treated Subgrade (8") (PI<12)	19,290	sy	\$	7.00	\$ 135,030
311	9" Concrete Pavement	17,861	sy	\$	60.00	\$ 1,071,667
411	4" Topsoil	5,716	sy	\$	2.50	\$ 14,289
511	6" Curb & Gutter	12,860	lf	\$	5.00	\$ 64,300
611	Allotment for Turn Lanes and Median Openings	3,924	sy	\$	77.00	\$ 302,150
	_	Paving Consti	ruction C	Cost Su	ıbtotal:	\$ 1,787,480
		_				

Major Construction Component Allowances**:						
	Item Description	Notes	Allowance		Item Cost	
	Traffic Control	Construction Phase Traffic Control	3%	\$	53,624	
	Pavement Markings/Markers		3%	\$	53,624	
	Roadway Drainage	None Anticipated	0%	\$	-	
	Special Drainage Structures	None Anticipated		\$	-	
	Water	None Anticipated	0%	\$	-	
	Sewer	None Anticipated	0%	\$	-	
	Establish Turf / Erosion Control		2%	\$	35,750	
	Illumination	None Anticipated	0%	\$	-	
	Other:					
**Allc	wances based on % of Paving Construction Cost	Subtotal Allowa	nce Subtotal:	\$	142,998	
		Paving and Allowa	nce Subtotal:	\$	1,930,479	
		Mobilization:	5%	\$	96,524	
		Site Preparation:	5%	\$	96,524	
Construction Cost TOTAL:					2,124,000	
		Construction Contingency:	15%	\$	318,600	
	Cor	nstruction Cost TOTAL W/ CON	FINGENCY:	\$	2,443,000	

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,443,000
Engineering/Survey/Testing:		20%	\$ 488,600
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection updated: 12/16/2019

Project Information:		Description:	Project No. G-9				
Name:	WESTRIDGE BLVD (3)	Т	This project consists of the construction				
	2,720' E OF INDEPENDENCE	O	of one additional through lane within the				
Limits:	PKWY TO CUSTER RD	е	existing median of the ultimate six-lane				
Impact Fee Class:	M6D(1/3)	d	livided major arterial. Based on the				
Thoroughfare Class:	Major Arterial		existing City Limits, the southern half of				
Length (If):	2,615		he roadway is not included in the				
Service Area(s):	G, Half	li	mpact Fee RIP.				

Roadway Construction Cost Projection							
No.	Item Description		Quantity	Unit	Unit Price		Item Cost
111	Unclassified Street Excavation		8,136	су	\$ 10.00	\$	81,356
211	Lime Treated Subgrade (8") (PI<12)		7,845	sy	\$ 7.00	\$	54,915
311	9" Concrete Pavement		7,264	sy	\$ 60.00	\$	435,833
411	4" Topsoil		2,324	sy	\$ 2.50	\$	5,811
511	6" Curb & Gutter		5,230	lf	\$ 5.00	\$	26,150
611	Allotment for Turn Lanes and Median	Openings	1,596	sy	\$ 77.00	\$	122,881
		F	Paving Const	ruction (Cost Subtotal:	\$	726,946
Maj	or Construction Component Allowan						
	Item Description	Notes			Allowance		Item Cost
√,	Traffic Control	Construction Phase	Traffic Control		3%		21,808
√	Pavement Markings/Markers				3%		21,808
	Roadway Drainage	None Anticipated			0%		-
	Special Drainage Structures	None Anticipated				\$	-
	Water	None Anticipated			0%	_	-
	Sewer	None Anticipated			0%	\$	-
	Establish Turf / Erosion Control				2%	\$	14,539
	Illumination	None Anticipated			0%	\$	-
	Other:						
**Allo	wances based on % of Paving Construction Cos	t Subtotal		Allowa	nce Subtotal:	\$	58,156
					nce Subtotal:		785,101
				lization:	5%	\$	39,255
			Site Prep			_	39,255
					ost TOTAL:		864,000
			ruction Conti			\$	129,600
	Co	nstruction Cos	t TOTAL W	// CON	TINGENCY:	\$	994,000

Impact Fee Project Cost Summa	ry		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 994,000
Engineering/Survey/Testing:		20%	\$ 198,800
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
	Impact Fee Project C	ost TOTAL:	\$ 1,192,800

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

updated:

12/16/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information:

Name:

ELDORADO PKWY (1)

CUSTER RD TO RIDGE RD

Impact Fee Class:

Description:

Project No. H-1, G-10

This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided greenway arterial.

Thoroughfare Class: Greenway Arterial

Length (If): 10,830 Service Area(s): G and H

Roa	adway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
117	Unclassified Street Excavation	31,287	су	\$ 10.00	\$ 312,867
217	Lime Treated Subgrade (8") (PI<12)	30,083	sy	\$ 7.00	\$ 210,583
317	9" Concrete Pavement	27,677	sy	\$ 60.00	\$ 1,660,600
417	4" Topsoil	28,880	sy	\$ 2.50	\$ 72,200
517	6" Curb & Gutter	21,660	lf	\$ 5.00	\$ 108,300
617	Allotment for Turn Lanes and Median Openings	7,484	sy	\$ 77.00	\$ 576,296

Paving Construction Cost Subtotal: \$ 2,940,846

Majo	or Construction Component Allowan	ces**:					
	Item Description	Notes		Allowance		Item Cost	
	Traffic Control	Construction Phase Traffic Control		3%	\$	88,225	
	Pavement Markings/Markers			3%	\$	88,225	
	Roadway Drainage	None Anticipated		0%	\$	-	
\checkmark	Special Drainage Structures	Bridge Widening			\$	250,000	
	Water	None Anticipated		0%	\$	-	
	Sewer	None Anticipated		0%	\$	-	
	Establish Turf / Erosion Control			2%	\$	58,817	
	Illumination	None Anticipated		0%	\$	-	
	Other:						
**Allo	**Allowances based on % of Paving Construction Cost Subtotal Allowance Subtotal:						
		Paving and	Allowa	nce Subtotal:	\$	3,426,114	
		Mobili	zation:	5%	\$	171,306	
		Site Prepa	ration:	5%	\$	171,306	
		Construct	ion C	ost TOTAL:	49	3,769,000	
		Construction Contin	gency:	15%	\$	565,350	
	Co	nstruction Cost TOTAL W/	CON	TINGENCY:	49	4,335,000	

Impact Fee Project Cost Summa	у		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,335,000
Engineering/Survey/Testing:		20%	\$ 867,000
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
	Impact Fee Project C	ost TOTAL:	\$ 5,202,000

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection updated: 12/16/2019

Project Informatio	n:	Description:	Project No. G-11
Name:	COIT RD (1)		This project consists of the construction
	US HIGHWAY 380 TO 2,610' S OF		of two additional through lanes within
Limits:	VIRGINIA PKWY		the existing median of the ultimate six-
Impact Fee Class:	M6D(1/3)		lane divided major arterial. Based on the
Thoroughfare Class:	Major Arterial		existing City Limits, the western half of
Length (If):	8,075		the roadway is not included in the
Service Area(s):	G, Half		Impact Fee RIP.

Roa	adway Construction Cost Pro	jection				
No.	Item Description		Quantity	Unit	Unit Price	Item Cost
111	Unclassified Street Excavation		25,122	су	\$ 10.00	\$ 251,222
211	Lime Treated Subgrade (8") (PI<12)		24,225	sy	\$ 7.00	\$ 169,575
311	9" Concrete Pavement		22,431	sy	\$ 60.00	\$ 1,345,833
411	4" Topsoil		7,178	sy	\$ 2.50	\$ 17,944
511	6" Curb & Gutter		16,150	If	\$ 5.00	\$ 80,750
611	Allotment for Turn Lanes and Media	n Openings	4,928	sy	\$ 77.00	\$ 379,450
		_ P	Paving Const	ruction (Cost Subtotal:	\$ 2,244,775
Majo	or Construction Component Allowa	ınces**:				
	Item Description	Notes			Allowance	Item Cost
	Traffic Control	Construction Phase	Traffic Control		3%	\$ 67,343
	Pavement Markings/Markers				3%	\$ 67,343
	Roadway Drainage	None Anticipated			0%	\$ -
	Special Drainage Structures	None Anticipated				\$ -
	Water	None Anticipated			0%	\$ -
	Sewer	None Anticipated			0%	\$ -
	Establish Turf / Erosion Control				2%	44,896
	Illumination	None Anticipated			0%	\$ -
	Other:					
**Allo	wances based on % of Paving Construction C	ost Subtotal		Allowa	ance Subtotal:	\$ 179,582
			_			
			_		nce Subtotal:	\$ 2,424,357
				lization:	0,0	\$ 121,218
			Site Prep			\$ 121,218
					ost TOTAL:	\$ 2,667,000
			uction Conti			 400,050
		Construction Cos	t TOTAL W	// CON	TINGENCY:	\$ 3,068,000

Impact Fee Project Cost Summ	nary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,068,000
Engineering/Survey/Testing:		20%	\$ 613,600
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
	Impact Fee Project	Cost TOTAL:	\$ 3,681,600

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection updated: 12/16/2019

Project Informatio	n:	Description:	Project No. G-12
Name:	COIT RD (2)		This project consists of the construction
	WESTRIDGE BLVD TO 2,595' S OF		of two additional through lanes within
Limits:	WESTRIDGE BLVD		the existing median of the ultimate six-
Impact Fee Class:	M6D(1/3)		lane divided major arterial. Based on the
Thoroughfare Class:	Major Arterial		existing City Limits, the western half of
Length (If):	2,595		the roadway is not included in the
Service Area(s):	G, Half		Impact Fee RIP.

Roadway Construction C	ost Projection								
No. Item Description		Quantity	Unit	Unit Price		Item Cost			
111 Unclassified Street Excavat	tion	8,073	су	\$ 10.00	\$	80,733			
211 Lime Treated Subgrade (8") (PI<12)	7,785	sy	\$ 7.00	\$	54,495			
311 9" Concrete Pavement		7,208	sy	\$ 60.00	\$	432,500			
411 4" Topsoil		2,307	sy	\$ 2.50	\$	5,767			
511 6" Curb & Gutter		5,190	lf	\$ 5.00	\$	25,950			
611 Allotment for Turn Lanes ar	nd Median Openings	1,584	sy	\$ 77.00	\$	121,941			
	Paving Construction Cost Subtotal:								
Major Construction Componer									
Item Description	Notes			Allowance		Item Cost			
√ Traffic Control	Construction Phase	Traffic Control		3%		21,642			
√ Pavement Markings/Marker	rs			3%		21,642			
Roadway Drainage	None Anticipated			0%	\$	-			
Special Drainage Structure					\$	-			
Water	None Anticipated			0%		-			
Sewer	None Anticipated			0%	\$	-			
√ Establish Turf / Erosion Cor	ntrol			2%	\$	14,428			
Illumination	None Anticipated			0%	\$	-			
Other:									
**Allowances based on % of Paving Con	struction Cost Subtotal		Allowa	ince Subtotal:	\$	57,711			
				nce Subtotal:		779,097			
			lization:	5%	\$	38,955			
		Site Prep			_	38,955			
				ost TOTAL:		858,000			
		uction Conti				128,700			
	Construction Cos	t TOTAL W	// CON	TINGENCY:	\$	987,000			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 987,000
Engineering/Survey/Testing:		20%	\$ 197,400
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
	Impact Fee Project C	ost TOTAL:	\$ 1,184,400

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

updated: 12/16/2019

Project Informatio	11	Description:	Project No.	G-13
Due le et les ferme et le				\sim 42

Name: INDEPENDENCE PKWY (1) This project consists of the

2,380' S OF US HIGHWAY 380 TO construction of two additional through

Limits: 4,465' S OF US HIGHWAY 380 Ianes within the existing median of the Impact Fee Class: M6D(1/3) ultimate six-lane divided major arterial.

Impact Fee Class: M6D(1/3) ultimate six-lane divided major arterial.

Thoroughfare Class: Major Arterial

Length (If): 2,085 Service Area(s): G

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit	Price	Item Cost
111	Unclassified Street Excavation	6,487	су	\$	10.00	\$ 64,867
211	Lime Treated Subgrade (8") (PI<12)	6,255	sy	\$	7.00	\$ 43,785
311	9" Concrete Pavement	5,792	sy	\$	60.00	\$ 347,500
411	4" Topsoil	1,853	sy	\$	2.50	\$ 4,633
511	6" Curb & Gutter	4,170	lf	\$	5.00	\$ 20,850
611	Allotment for Turn Lanes and Median Openings	1,272	sy	\$	77.00	\$ 97,976
	P	aving Consti	ruction C	ost Su	ıbtotal:	\$ 579,611

Majo	or Construction Component Allowa	nces**:		
	Item Description	Notes	Allowance	Item Cost
	Traffic Control	Construction Phase Traffic Control	3%	\$ 17,388
	Pavement Markings/Markers		3%	\$ 17,388
	Roadway Drainage	None Anticipated	0%	\$ -
	Special Drainage Structures	None Anticipated		\$ -
	Water	None Anticipated	0%	\$ -
	Sewer	None Anticipated	0%	\$ -
	Establish Turf / Erosion Control		2%	\$ 11,592
	Illumination	None Anticipated	0%	\$ -
	Other:			
**Allo	wances based on % of Paving Construction Co	st Subtotal Allowa	nce Subtotal:	\$ 46,369
		Paving and Allowa		625,980
		Mobilization:	5%	\$ 31,299
		Site Preparation:	5%	\$ 31,299
		Construction C	ost TOTAL:	\$ 689,000
		Construction Contingency:	15%	\$ 103,350
	C	onstruction Cost TOTAL W/ CON	TINGENCY:	\$ 793,000

Item Description	Notes:	Allowance	I	tem Cost
Construction:		-	\$	793,000
Engineering/Survey/Testing:		20%	\$	158,600
2008 - 2012 City contribution			\$	-
2012 - 2019 City contribution			\$	-
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$	-

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Roadway Construction Cost Projection

Kimley-Horn and Associates, Inc. updated: 12/16/2019

Project Informatio	n: De	escription:	Project No.	G-14
Name:	INDEPENDENCE PKWY (2)		This project cons	ists of the
Limits:	VIRGINIA PKWY TO 2,690' S OF WEST	TRIDGE BLVD	construction of to	wo additional
Impact Fee Class:	M6D(1/3)		through lanes wit	thin the
Thoroughfare Class:	Major Arterial		existing median of	of the ultimate
Length (If):	8,040		six-lane divided r	
Service Area(s):	G			

No.	Item Description		Quantity	Unit	Unit Price		Item Cost
111	Unclassified Street Excavation		25,013	су	\$ 10.00	\$	250,133
211	Lime Treated Subgrade (8") (PI<12)		24,120	sy	\$ 7.00	\$	168,840
311	9" Concrete Pavement		22,333	sy	\$ 60.00	\$	1,340,000
411	4" Topsoil		7,147	sy	\$ 2.50	\$	17,867
511	6" Curb & Gutter		16,080	lf	\$ 5.00	\$	80,400
611	Allotment for Turn Lanes and Media	n Openings	4,907	sy	\$ 77.00	\$	377,806
		P	aving Constr	ruction C	Cost Subtotal	: \$	2,235,046
Maio	or Construction Component Allows	ances**·					
waje	Item Description	Notes			Allowance	П	Item Cost
	Traffic Control	Construction Phase	Traffic Control		3%	\$	67,051
	Pavement Markings/Markers				3%	\$	67,051
	Roadway Drainage	None Anticipated			0%	\$	-
	Special Drainage Structures	None Anticipated				\$	-
	Water	None Anticipated			0%	\$	-
	Sewer	None Anticipated			0%	\$	-
	Establish Turf / Erosion Control				2%	\$	44,701
	Illumination	None Anticipated			0%	\$	-
	Other:						
**Allo	wances based on % of Paving Construction (Cost Subtotal		Allowa	nce Subtotal	\$	178,804
			Paving and	d Allowa	nce Subtotal	\$	2,413,849
	Mobilization: 5%						120,692
Site Preparation: 5%							120,692
Construction Cost TOTAL:							2,656,000
			uction Conti			_	398,400
		Construction Cos	t TOTAL W	// CON	TINGENCY:	\$	3,055,000

Impact Fee Project Cost Summa	ry		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,055,000
Engineering/Survey/Testing:		20%	\$ 611,000
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
	\$ 3,666,000		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection Kimley-Horn and Associates, Inc.

updated: 12/16/2019

Project Informatio	n:	Description:	Project No.	G-15
Name:	CUSTER RD (4)		This completed project co	onsists of the
Limits:	US HIGHWAY 380 TO WESTRIDGE I	BLVD	construction of a six-lane	divided
Impact Fee Class:	P6D		principal arterial. The City	contributed
Thoroughfare Class:	Principal Arterial		approximately \$2,653,673	of eligible
Length (If):	10,720		funds from '08-'12. This p	roject was
			also part of Custer Road	project from
			Stonebridge to US 380 wl	nich had a total
			City contribution of appro	eximately
			\$1,029,274 from '12-'19. T	his projected
Service Area(s):	G		accounted for \$607,272 of	f eligible

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
2008 - 2012 City contribution			\$ 2,653,673
2012 - 2019 City contribution			\$ 607,272
	\$ 3,260,945		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.



2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection Kimley-Horn and Associates, Inc.

updated: 12/16/2019

Project Informatio	n: Do	escription:	Project No.	G-16
Name:	CUSTER RD (5)	Thi	is completed project co	nsists of the
Limits:	WESTRIDGE BLVD TO ELDORADO PI	(WY	nstruction of a six-lane	divided
Impact Fee Class:	P6D	pri	ncipal arterial. The City	contributed
Thoroughfare Class:	Principal Arterial	apı	proximately \$1,167,616	of eligible
Length (If):	5,380		nds from '08-'12. This p	•
		als	o part of Custer Road p	project from
		Sto	onebridge to US 380 wh	ich had a total
		Cit	y contribution of appro	ximately
		\$1,	029,274 from '12-'19. Th	nis projected
Service Area(s):	G	acc	counted for \$308,782 of	eligible

Impact Fee Project Cost Summary				
Item Description	Notes:		Allowance	Item Cost
2008 - 2012 City contribution				\$ 1,167,616
2012 - 2019 City contribution				\$ 308,782
		Impact Fee Project C	ost TOTAL:	\$ 1,476,398

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.



Service Area(s):

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

G and I

Kimley-Horn and Associates, Inc.

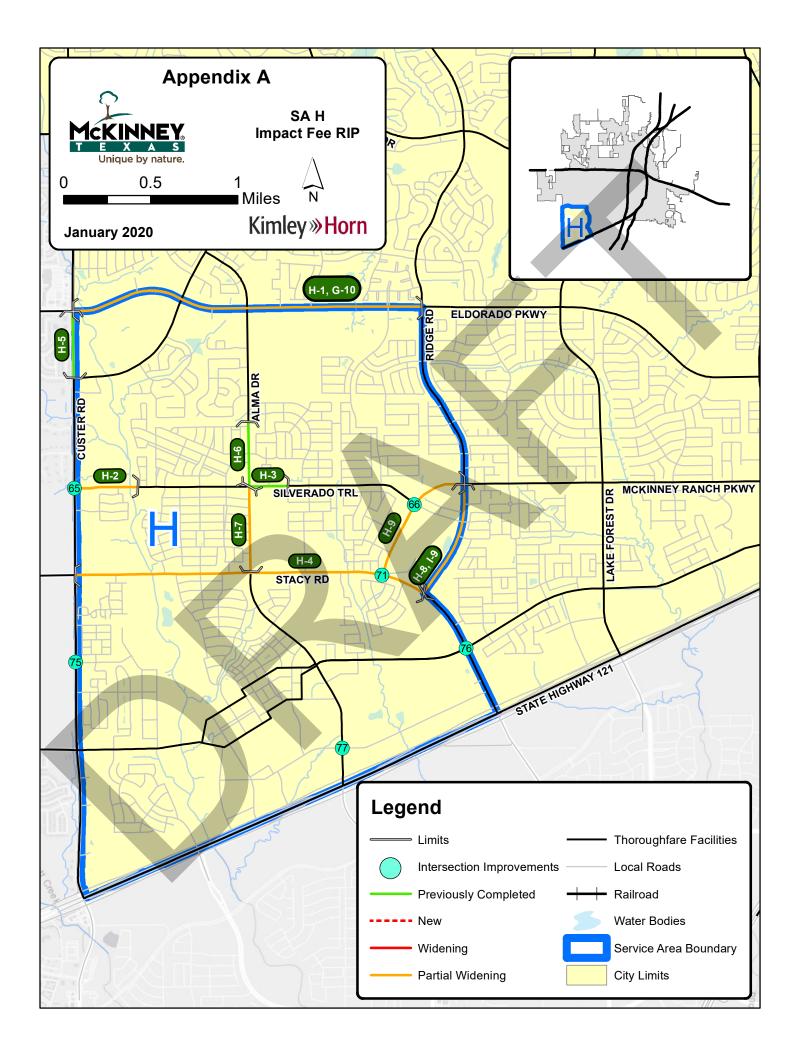
updated: 12/16/2019

Project Information	n:	Description:	Project No. G-17, I-8
Name:	RIDGE RD (8)		This completed project consists of the
Limits:	US HIGHWAY 380 TO CREEKSIDE D	R	construction of a four-lane divided
Impact Fee Class:	G4D		greenway arterial. The City contributed
Thoroughfare Class:	Greenway Arterial		approximately \$550,813 of eligible funds
Lenath (If):	6.875		from '09-'12

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
2008 - 2012 City contribution			\$ 550,813
2012 - 2019 City contribution			\$ -
	\$ 550,813		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.





City of McKinney - 2018 - 2019 Roadway Impact Fee Update

Roadway Improvement Plan for Roadway Impact Fees Appendix A - Summary of Conceptual Level Project Cost Projections

Roadway Improvements - Service Area H

	Costing					Percent in		Cost in
#	Class	Project	Limits	1	otal Cost	Service Area	Se	ervice Area
H-1, G-10	G6D(1/3)	ELDORADO PKWY (1)	CUSTER RD TO RIDGE RD	\$	5,202,000	50%	\$	2,601,000
H-2	M4D(1/2)	SILVERADO TRL (1)	CUSTER RD TO BURNETT DR	\$	2,746,293	100%	\$	2,746,293
H-3	M4D	SILVERADO TRL (2)	ALMA DR TO ALFALFA DR	\$	141,088	100%	\$	141,088
H-4	P6D(1/3)	STACY RD (1)	CUSTER RD TO RIDGE RD	\$	4,479,991	100%	\$	4,479,991
H-5	P6D	CUSTER RD (6)	ELDORADO PKWY TO STONEBRIDGE DR	\$	622,725	100%	\$	622,725
H-6	G4D	ALMA DR (1)	805' S OF BEAVER CREEK DR TO SILVERADO TRL	\$	239,850	100%	\$	239,850
H-7	M6D(1/3)	ALMA DR (2)	SILVERADO TRL TO STACY RD	\$	1,522,102	100%	\$	1,522,102
H-8, I-9	M6D(1/3)	RIDGE RD (9)	MCKINNEY RANCH PKWY TO STACY RD	\$	1,662,000	50%	\$	831,000
H-9	M6D(1/3)	MCKINNEY RANCH PKWY (1)	RIDGE RD TO STACY RD	\$	1,857,600	100%	\$	1,857,600
65		Signal	CUSTER RD & SILVERADO TRL	\$	300,000	50%	\$	150,000
66	on	Signal	MCKINNEY RANCH PKWY & SILVERADO TRL	\$	300,000	100%	\$	300,000
71	Intersection	Signal	STACY RD & MCKINNEY RANCH PKWY	\$	300,000	100%	\$	300,000
75	ers	Signal	CUSTER RD & PARADISE DR	\$	300,000	50%	\$	150,000
76	프	Signal	STACY RD & COLLIN MCKINNEY PKWY	\$	300,000	50%	\$	150,000
77		Signal	ALMA DR & HENNEMAN WAY	\$	300,000	100%	\$	300,000
				¢	20.273.649	·	\$	16.391.649

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney. The planning level cost projections shall not supersede the City's design standards contained within the Subdivision Ordinance or the determination of the City Engineer for a specific project.



updated:

12/16/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information:

Name:

ELDORADO PKWY (1)

Limits:

CUSTER RD TO RIDGE RD

Impact Fee Class:

G6D(1/3)

Description:

Project No. H-1, G-10

This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided greenway arterial.

Thoroughfare Class: Greenway Arterial

Length (If): 10,830 Service Area(s): G and H

Roa	adway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
117	Unclassified Street Excavation	31,287	су	\$ 10.00	\$ 312,867
217	Lime Treated Subgrade (8") (PI<12)	30,083	sy	\$ 7.00	\$ 210,583
317	9" Concrete Pavement	27,677	sy	\$ 60.00	\$ 1,660,600
417	4" Topsoil	28,880	sy	\$ 2.50	\$ 72,200
	6" Curb & Gutter	21,660	lf	\$ 5.00	\$ 108,300
617	Allotment for Turn Lanes and Median Openings	7,484	sy	\$ 77.00	\$ 576,296

Paving Construction Cost Subtotal: \$ 2,940,846

Мајо	Major Construction Component Allowances**:									
	Item Description	Notes	Allowance		Item Cost					
$\sqrt{}$	Traffic Control	Construction Phase Traffic Control	3%	\$	88,225					
$\sqrt{}$	Pavement Markings/Markers		3%	\$	88,225					
	Roadway Drainage	None Anticipated	0%	\$	-					
$\sqrt{}$	Special Drainage Structures	Bridge Widening		\$	250,000					
	Water	None Anticipated	0%	\$	-					
	Sewer	None Anticipated	0%	\$	-					
$\sqrt{}$	Establish Turf / Erosion Control		2%	\$	58,817					
	Illumination	None Anticipated	0%	\$	-					
	Other:									
**Allov	vances based on % of Paving Construction Co	st Subtotal Allowa	nce Subtotal:	\$	485,268					
		Paving and Allowa	nce Subtotal:	\$	3,426,114					
		Mobilization:			171,306					
	\$	171,306								
	\$	3,769,000								
		Construction Contingency:	15%	\$	565,350					
	C	onstruction Cost TOTAL W/ CON	TINGENCY:	\$	4,335,000					

Impact Fee Project Cost Summa	ary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,335,000
Engineering/Survey/Testing:		20%	\$ 867,000
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
Impact Fee Project Cost TOTAL:			\$ 5,202,000

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

updated:

12/16/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Roadway Construction Cost Projection

Project Informatio	n:	Description:	Project No.	H-2
Name:	SILVERADO TRL (1)	This project consi	sts of the constructi	on of two
Limits:	CUSTER RD TO BURNETT DR	additional lanes of	f the ultimate four-la	ne divided
Impact Fee Class:	M4D(1/2)	minor arterial. The	City contributed ap	proximately
Thoroughfare Class:	Minor Arterial	\$224.893 of eligibl	e funds from '12-'19	
Length (If):	1,930	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Service Area(s):	Н			

No.	Item Description		Quantity	Unit	Unit Price		Item Cost
106	Unclassified Street Excavation		5,576	су	\$ 10.00	\$	55,756
206	Lime Treated Subgrade (8") (PI<12)		5,361	sy	\$ 7.00	\$	37,528
306	8" Concrete Pavement		4,932	sy	\$ 55.00	\$	271,272
406	4" Topsoil		2,037	sy	\$ 2.50	\$	5,093
506	6" Curb & Gutter		3,860	lf	\$ 5.00	\$	19,300
606	Allotment for Turn Lanes and Median Op-	enings	567	sy	\$ 72.00	\$	40,793
		Pa	aving Constr	uction C	Cost Subtotal:	\$	429,742
Majo	or Construction Component Allowances	s**:					
	Item Description	Notes			Allowance		Item Cost
	Traffic Control	Construction Phase	Traffic Control		3%	\$	12,892
	Pavement Markings/Markers				3%	\$	12,892
	Roadway Drainage	Standard Internal Sys	stem		25%	\$	107,435
	Special Drainage Structures	Bridge			\$	800,000	
	Water	Incidental Adjustmen	nts		3%	\$	12,892
	Sewer	Incidental Adjustmen	its		3%	\$	12,892
	Establish Turf / Erosion Control				2%	\$	8,595
	Illumination	Standard Ilumination	System		6%	\$	25,785
	Other:						
**Allo	wances based on % of Paving Construction Cost St	ubtotal		Allowa	nce Subtotal:	\$	993,384
			<u> </u>				4 400 400
			_		nce Subtotal:		1,423,126
Mobilization: 5%							71,156
Site Preparation: 5%						_	71,156
Construction Cost TOTAL:						\$	1,566,000
			uction Conti			_	234,900
	Cons	struction Cos	t TOTAL W	// CON	TINGENCY:	\$	1,801,000

Impact Fee Project Cost Summar	у		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,801,000
Engineering/Survey/Testing:		20%	\$ 360,200
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ 224,893
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 360,200
Impact Fee Project Cost TOTAL:			\$ 2,746,293

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 12/16/2019

Project Informatio	n:	Description:	Project No.	H-3	
Name:	SILVERADO TRL (2)	This completed proj	ect consists of the	construction	
Limits:	ALMA DR TO ALFALFA DR	of a four-lane divided minor arterial. This project			
Impact Fee Class:	M4D	was part of the Alma	a Rd and Silverado	Trail project	
Thoroughfare Class:	Minor Arterial	which had a total Ci	ty contribution of	approximately	
Length (If):	1,170	\$705,400 from '08-'1	•	• •	
Service Area(s):	Н	\$141,088 of eligible			

Impact Fee Project Cost Summary					
Item Description	Notes:		Allowance	It	tem Cost
2008 - 2012 City contribution				\$	141,088
2012 - 2019 City contribution				\$	-
Impact Fee Project Cost TOTAL:					141,088

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection Kimley-Horn and Associates, Inc.

updated: 12/16/2019

Project Informatio	n:	Description:	Project No.	H-4	
Name:	STACY RD (1)	This project consi	sts of the constructi	on of two	
Limits:	CUSTER RD TO RIDGE RD	additional through lanes within the existing media			
Impact Fee Class:	P6D(1/3)		-lane divided princip	_	
Thoroughfare Class:	Principal Arterial		rently under design		
Length (If):	10,715		stimate of \$4,479,991	•	
Service Area(s):	Н	p. 2	,,,,,,,	-	

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ 4,479,991
	\$ 4,479,991		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.



2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection Kimley-Horn and Associates, Inc.

updated: 12/16/2019

Project Information	n:	Description:	Project No.	H-5
Name:	CUSTER RD (6)		This completed project co	nsists of the
Limits:	ELDORADO PKWY TO STONEBRIDO	E DR	construction of a six-lane	divided
Impact Fee Class:	P6D		principal arterial. The City	contributed
Thoroughfare Class:	Principal Arterial		approximately \$509,505 of	eligible funds
Length (If):	2,040		from '08-'12. This project v	vas also part
Service Area(s):	Н		of Custer Road project fro	m .
			Stonebridge to US 380 wh	ich had a total
			City contribution of appro	ximately
			\$1,029,274 from '12-'19. Th	is projected
			accounted for \$113,220 of	eligible

Impact Fee Project Cost Summary				
Item Description	Notes:		Allowance	Item Cost
2008 - 2012 City contribution				\$ 509,505
2012 - 2019 City contribution				\$ 113,220
Impact Fee Project Cost TOTAL:			\$ 622,725	

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.



2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection Kimley-Horn and Associates, Inc. updated: 12/16/2019

Project Information	n: Description:	Project No. H-6
Name:	ALMA DR (1)	This completed project consists of the
Limits:	805' S OF BEAVER CREEK DR TO SILVERADO TR	
Impact Fee Class:	G4D	greenway arterial. This project was part
Thoroughfare Class:	Greenway Arterial	of the Alma Rd and Silverado Trail
Length (If):	1,960	
Service Area(s):	Н	project which had a total City
		contribution of approximately \$705,400
		from '08-'12. This project accounted for
		\$239,850 of eligible funds.

Impact Fee Project Cost Summary				
Item Description	Notes:		Allowance	Item Cost
2008 - 2012 City contribution				\$ 239,850
2012 - 2019 City contribution				\$ -
Impact Fee Project Cost TOTAL:			\$ 239,850	

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

updated: 12/16/2019

Project Informatio	n:	Description:	Project No.	H-7
Name:	ALMA DR (2)	This project consists o	of the construction of t	two additional
Limits:	SILVERADO TRL TO STACY RD	through lanes within th	ne existing median of	the ultimate
Impact Fee Class:	M6D(1/3)	six-lane divided major	arterial. This project v	was part of the
Thoroughfare Class:	Major Arterial	Alma Rd and Silverado	Trail project which ha	ad a total City
Length (If):	2,625	contribution of approx	• •	•
Service Area(s):	Н	project accounted for		

Dar	almos Construction Cost Busin	at!an					
	Idway Construction Cost Proje	etion	Quantity	Unit	Unit	Price	Item Cost
111	Unclassified Street Excavation		8,167	CV	\$	10.00	\$ 81,667
211	Lime Treated Subgrade (8") (PI<12)		7,875	sy	\$	7.00	\$ 55,125
311	9" Concrete Pavement		7,292	sy	\$	60.00	\$ 437,500
411	4" Topsoil		2,333	SV	\$	2.50	\$ 5,833
511	6" Curb & Gutter		5,250	lf	\$	5.00	\$ 26,250
611	Allotment for Turn Lanes and Median	Openings	1,602	sy	\$	77.00	\$ 123,351
			Paving Consti	uction (Cost Si	ubtotal:	\$ 729,726
Majo	or Construction Component Allowand	es**:				_	
	Item Description	Notes			Allo	wance	Item Cost
	Traffic Control	Construction Phase	Traffic Control			3%	\$ 21,892
	Pavement Markings/Markers					3%	\$ 21,892
	Roadway Drainage	None Anticipated				0%	\$ -
	Special Drainage Structures	None Anticipated					\$ -
	Water	None Anticipated				0%	\$ -
	Sewer	None Anticipated				0%	\$ -
	Establish Turf / Erosion Control					2%	\$ 14,595
	Illumination	None Anticipated				0%	\$ -
	Other:						
**Allo	wances based on % of Paving Construction Cost	Subtotal		Allowa	ınce Sı	ubtotal:	\$ 58,378
Paving and Allowance Subtotal:						\$ 788,104	
Mobilization: 5%						\$ 39,405	
Site Preparation: 5%						\$ 39,405	
Construction Cost TOTAL:					\$ 867,000		
Construction Contingency: 15%					\$ 130,050		
	Construction Cost TOTAL W/ CONTINGENCY:					\$ 998,000	

Impact Fee Project Cost Summa	ary			
Item Description	Notes:	Allowance		Item Cost
Construction:		-	\$	998,000
Engineering/Survey/Testing:		20%	\$	199,600
2008 - 2012 City contribution			\$	324,502
2012 - 2019 City contribution			\$	-
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$	-
Impact Fee Project Cost TOTAL:				1,522,102

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

updated:

12/16/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information: Description: Project No. H-8, I-9

Name: RIDGE RD (9) This project consists of the

Limits: MCKINNEY RANCH PKWY TO STACY RD construction of two ac

Impact Fee Class: M6D(1/3)
Thoroughfare Class: Major Arterial

Length (If): 3,645
Service Area(s): H and I

construction of two additional through lanes within the existing median of the ultimate six-lane divided major arterial.

Roa	Roadway Construction Cost Projection							
No.	Item Description	Quantity	Unit	Unit	Price		Item Cost	
111	Unclassified Street Excavation	11,340	су	\$	10.00	\$	113,400	
211	Lime Treated Subgrade (8") (PI<12)	10,935	sy	\$	7.00	\$	76,545	
311	9" Concrete Pavement	10,125	sy	\$	60.00	\$	607,500	
411	4" Topsoil	3,240	sy	\$	2.50	\$	8,100	
511	6" Curb & Gutter	7,290	lf	\$	5.00	\$	36,450	
611	Allotment for Turn Lanes and Median Openings	2,224	sy	\$	77.00	\$	171,281	
Paying Construction Cost Subtataly &						4 042 270		

Paving Construction Cost Subtotal: \$ 1,013,276

Major Construction Component Allowances**:							
	Item Description	Notes		Allowance		Item Cost	
	Traffic Control	Construction Phase Traffic Control		3%	\$	30,398	
	Pavement Markings/Markers			3%	\$	30,398	
	Roadway Drainage	None Anticipated		0%	\$	-	
	Special Drainage Structures	None Anticipated			\$	-	
	Water	None Anticipated		0%	\$	-	
	Sewer	None Anticipated		0%	\$	-	
	Establish Turf / Erosion Control			2%	\$	20,266	
	Illumination	None Anticipated		0%	\$	-	
	Other:						
**Allo	**Allowances based on % of Paving Construction Cost Subtotal Allowance Subtotal:					81,062	
		Paving and All	lowa	nce Subtotal:	\$	1,094,338	
	Mobilization: 5%					54,717	
Site Preparation: 5%						54,717	
Construction Cost TOTAL:					\$	1,204,000	
Construction Contingency: 15%					\$	180,600	
Construction Cost TOTAL W/ CONTINGENCY:						1,385,000	

Impact Fee Project Cost Summa	ary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,385,000
Engineering/Survey/Testing:		20%	\$ 277,000
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
	\$ 1,662,000		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

12/16/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information:

Name:

MCKINNEY RANCH PKWY (1)

Limits:

RIDGE RD TO STACY RD

Impact Fee Class:

Thoroughfare Class:

Major Arterial

Description:

Project No.

H-9

This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided major arterial.

Length (If): 4,075 Service Area(s): H

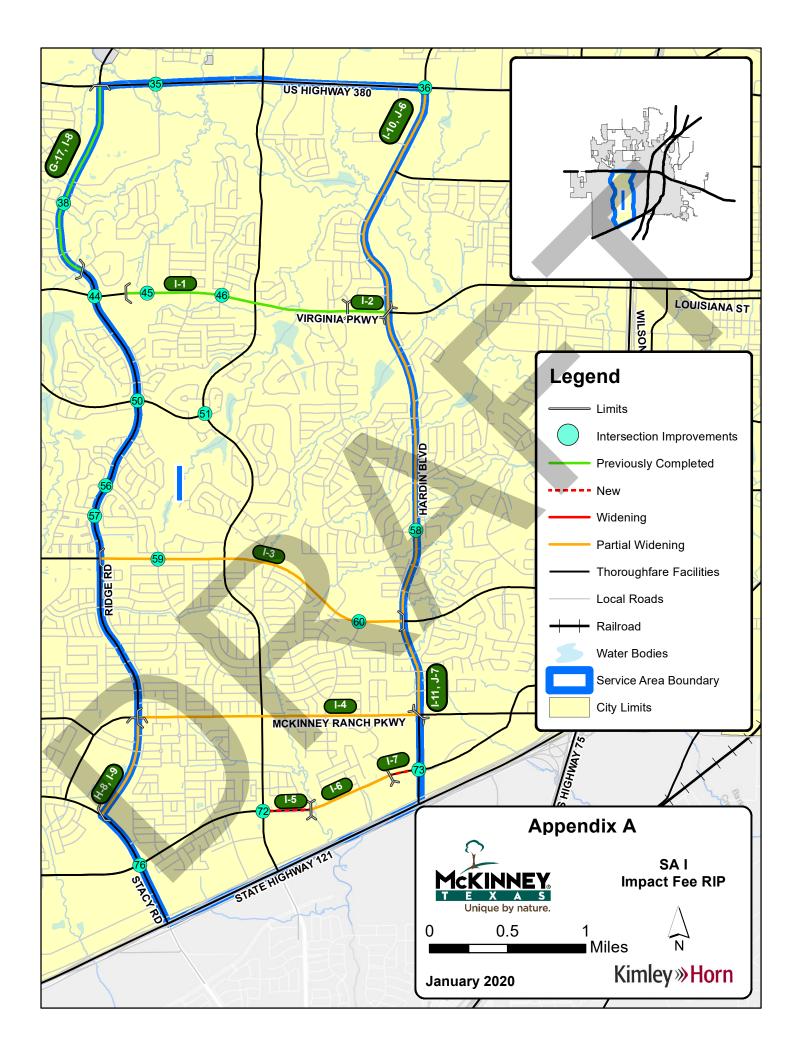
Roa	adway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
111	Unclassified Street Excavation	12,678	су	\$ 10.00	\$ 126,778
211	Lime Treated Subgrade (8") (PI<12)	12,225	sy	\$ 7.00	\$ 85,575
311	9" Concrete Pavement	11,319	sy	\$ 60.00	\$ 679,167
411	4" Topsoil	3,622	sy	\$ 2.50	\$ 9,056
511	6" Curb & Gutter	8,150	lf	\$ 5.00	\$ 40,750
611	Allotment for Turn Lanes and Median Openings	2,487	sy	\$ 77.00	\$ 191,487

Paving Construction Cost Subtotal: \$ 1,132,812

Major Construction Component Allowances**:							
	Item Description	Notes	Allowance		Item Cost		
$\sqrt{}$	Traffic Control	Construction Phase Traffic Control	3%	\$	33,984		
$\sqrt{}$	Pavement Markings/Markers		3%	\$	33,984		
	Roadway Drainage	None Anticipated	0%	\$	-		
	Special Drainage Structures	None Anticipated		\$	-		
	Water	None Anticipated	0%	\$	-		
	Sewer	None Anticipated	0%	\$	-		
	Establish Turf / Erosion Control		2%	\$	22,656		
	Illumination	None Anticipated	0%	\$	-		
	Other:						
**Allov	vances based on % of Paving Construction Co	st Subtotal Allowa	ance Subtotal:	\$	90,625		
		Paving and Allowa	ance Subtotal:	\$	1,223,437		
		Mobilization:	5%	\$	61,172		
	\$	61,172					
	\$	1,346,000					
		Construction Contingency:	15%	\$	201,900		
	Co	onstruction Cost TOTAL W/ CON	TINGENCY:	\$	1,548,000		

Impact Fee Project Cost Summa	ry		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,548,000
Engineering/Survey/Testing:		20%	\$ 309,600
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
	\$ 1,857,600		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.



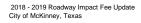
City of McKinney - 2018 - 2019 Roadway Impact Fee Update

Roadway Improvement Plan for Roadway Impact Fees Appendix A - Summary of Conceptual Level Project Cost Projections

Roadway Improvements - Service Area I

	Costing					Percent in		Cost in
#	Class	Project	Limits	Т	otal Cost	Service Area	S	ervice Area
I-1	M6D	VIRGINIA PKWY (7)	1035' E OF RIDGE RD TO 1355' W OF HARDIN BLVD	\$	2,567,378	100%	\$	2,567,378
I-2	M6D	VIRGINIA PKWY (8)	1355' W OF HARDIN BLVD TO HARDIN BLVD	\$	531,979	100%	\$	531,979
I-3	G6D(1/3)	ELDORADO PKWY (2)	RIDGE RD TO HARDIN BLVD	\$	4,857,600	100%	\$	4,857,600
I-4	M6D(1/3)	MCKINNEY RANCH PKWY (2)	RIDGE RD TO HARDIN BLVD	\$	4,338,000	100%	\$	4,338,000
I-5	G4D	COLLIN MCKINNEY PKWY (2)	LAKE FOREST DR TO COTTONWOOD CREEK	\$	1,777,105	100%	\$	1,777,105
I-6	G4D(1/2)	COLLIN MCKINNEY PKWY (3)	COTTONWOOD CREEK TO 1110' E OF TINA DR	\$	3,221,002	100%	\$	3,221,002
I-7	G4D	COLLIN MCKINNEY PKWY (4)	1110' E OF TINA TO HARDIN BLVD	\$	1,101,893	100%	\$	1,101,893
G-17, I-8	G4D	RIDGE RD (8)	US HIGHWAY 380 TO CREEKSIDE DR	\$	550,813	50%	\$	275,407
H-8, I-9	M6D(1/3)	RIDGE RD (9)	MCKINNEY RANCH PKWY TO STACY RD	\$	1,662,000	50%	\$	831,000
I-10, J-6	G6D(1/3)	HARDIN BLVD (11)	US HIGHWAY 380 TO VIRGINIA PKWY	\$	13,584,097	50%	\$	6,792,049
I-11, J-7	G6D(1/3)	HARDIN BLVD (12)	VIRGINIA PKWY TO MCKINNEY RANCH PKWY	\$	6,208,800	50%	\$	3,104,400
35		Signal	US HIGHWAY 380 & AUBURN HILLS PKWY	\$	300,000	50%	\$	150,000
36		Under Construction	US HIGHWAY 380 & HARDIN BLVD	\$	780,682	25%	\$	195,171
38		Signal	RIDGE RD & HABERSHAM WAY	\$	343,000	50%	\$	171,500
44		Under Construction	VIRGINIA PKWY & RIDGE RD	\$	390,341	50%	\$	195,171
45		Signal	VIRGINIA PKWY & JOPLIN DR	\$	300,000	100%	\$	300,000
46		Signal	VIRGINIA PKWY & VILLAGE DR	\$	300,000	100%	\$	300,000
50	on	Roundabout	RIDGE RD & GLEN OAKS DR	\$	2,640,000	50%	\$	1,320,000
51	Intersection	Roundabout	LAKE FOREST DR & GLEN OAKS DR	\$	1,900,000	100%	\$	1,900,000
56	ers	Signal	RIDGE RD & RUSH CREEK RD	\$	300,000	50%	\$	150,000
57	<u>I</u>	Signal	RIDGE RD & BERKSHIRE RD	\$	300,000	50%	\$	150,000
58		Signal	HARDIN BLVD & MAVERICK TRL	\$	300,000	50%	\$	150,000
59		Signal	ELDORADO PKWY & WOODSON DR	\$	300,000	100%	\$	300,000
60		Signal	ELDORADO PKWY & HIGHLANDS DR	\$	300,000	100%	\$	300,000
72		Signal	LAKE FOREST DR & COLLIN MCKINNEY PKWY	\$	300,000	100%	\$	300,000
73		Signal	HARDIN BLVD & COLLIN MCKINNEY PKWY	\$	300,000	50%	\$	150,000
76		Signal	STACY RD & COLLIN MCKINNEY PKWY	\$	300,000	50%	\$	150,000
		-		\$	49,754,690	•	\$	35,579,653

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney. The planning level cost projections shall not supersede the City's design standards contained within the Subdivision Ordinance or the determination of the City Engineer for a specific project.



2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 12/16/2019

Project Informatio	n: Descri	ption:	Project No.	I-1
Name:	VIRGINIA PKWY (7)		This completed p	roject
Limits:	1035' E OF RIDGE RD TO 1355' W OF HAR	RDIN BLVD	consists of the co	onstruction of
Impact Fee Class:	M6D		a six-lane divided	l major arterial.
Thoroughfare Class:	Major Arterial		The City contribu	ted
Length (If):	7,565		approximately \$2	
Service Area(s):	I		elaible funds from	

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ 2,567,378
	\$ 2,567,378		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.



2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection Kimley-Horn and Associates, Inc.

updated: 12/16/2019

Project Informatio	n:	Description:	Project No.
Name:	VIRGINIA PKWY (8)		This completed project consists of the
Limits:	1355' W OF HARDIN BLVD TO HAR	DIN BLVD	construction of a six-lane divided major
Impact Fee Class:	M6D		arterial. This project was part of the
Thoroughfare Class:	Major Arterial		Virginia Pkwy project from Bellegrove
Length (If):	1,380		to US 75 which had a total City
			contribution of approximately
			\$3,799,852 from '12-'19. This projected
			accounted for \$531,979 of eligible funds
Service Area(s):	I		and is currently under construction.

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ 531,979
	Impact Fee Project C	ost TOTAL:	\$ 531,979

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.



updated:

12/16/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information:

Name:

ELDORADO PKWY (2)

Limits:

RIDGE RD TO HARDIN BLVD

Impact Fee Class:

Thoroughfare Class:

Thoroughfare Class:

Thoroughfare Class:

Thoroughfare Class:

Thoroughfare Class:

Description:

Project No.

This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided greenway arterial.

Length (If): 10,910 Service Area(s):

Roa	dway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
117	Unclassified Street Excavation	31,518	су	\$ 10.00	\$ 315,178
217	Lime Treated Subgrade (8") (PI<12)	30,306	sy	\$ 7.00	\$ 212,139
317	9" Concrete Pavement	27,881	sy	\$ 60.00	\$ 1,672,867
417	4" Topsoil	29,093	sy	\$ 2.50	\$ 72,733
517	6" Curb & Gutter	21,820	lf	\$ 5.00	\$ 109,100
617	Allotment for Turn Lanes and Median Openings	7,540	sy	\$ 77.00	\$ 580,553

Paving Construction Cost Subtotal: \$ 2,962,570

Major	Major Construction Component Allowances**:							
I	tem Description	Notes	Allowance		Item Cost			
$\sqrt{}$	Traffic Control	Construction Phase Traffic Control	3%	\$	88,877			
√ F	Pavement Markings/Markers		3%	\$	88,877			
F	Roadway Drainage	None Anticipated	0%	\$	-			
	Special Drainage Structures	None Anticipated		\$	-			
\	Water	None Anticipated	0%	\$	-			
	Sewer	None Anticipated	0%	\$	-			
√ E	Establish Turf / Erosion Control		2%	\$	59,251			
I	Illumination	None Anticipated	0%	\$	-			
(Other:							
**Allow	ances based on % of Paving Construction Cost	Subtotal	ince Subtotal:	\$	237,006			
		Paving and Allowa	nce Subtotal:	\$	3,199,576			
		Mobilization:	5%	\$	159,979			
		Site Preparation:	5%	\$	159,979			
	\$	3,520,000						
		Construction Contingency:	15%	\$	528,000			
	Co	nstruction Cost TOTAL W/ CON	TINGENCY:	\$	4,048,000			

Impact Fee Project Cost Summa	ary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,048,000
Engineering/Survey/Testing:		20%	\$ 809,600
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
	\$ 4,857,600		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

Service Area(s):

updated:

12/16/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information: I-4 Description: Project No. Name: MCKINNEY RANCH PKWY (2) This project consists of the construction of two Limits: RIDGE RD TO HARDIN BLVD additional through lanes within the existing median **Impact Fee Class:** M6D(1/3) of the ultimate six-lane divided major arterial. Thoroughfare Class: Major Arterial Length (If): 9,515

Roa	dway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
111	Unclassified Street Excavation	29,602	су	\$ 10.00	\$ 296,022
211	Lime Treated Subgrade (8") (PI<12)	28,545	sy	\$ 7.00	\$ 199,815
311	9" Concrete Pavement	26,431	sy	\$ 60.00	\$ 1,585,833
411	4" Topsoil	8,458	sy	\$ 2.50	\$ 21,144
511	6" Curb & Gutter	19,030	lf	\$ 5.00	\$ 95,150
611	Allotment for Turn Lanes and Median Openings	5,807	sy	\$ 77.00	\$ 447,117

Paving Construction Cost Subtotal: \$ 2,645,082

Maj	or Construction Component Allowa	inces**:			
	Item Description	Notes	Allowance		Item Cost
	Traffic Control	Construction Phase Traffic Control	3%	\$	79,352
	Pavement Markings/Markers		3%	\$	79,352
	Roadway Drainage	None Anticipated	0%	\$	-
	Special Drainage Structures	None Anticipated		\$	-
	Water	None Anticipated	0%	\$	-
	Sewer	None Anticipated	0%	\$	-
	Establish Turf / Erosion Control		2%	\$	52,902
	Illumination	None Anticipated	0%	\$	-
	Other:				
**Allo	owances based on % of Paving Construction C	ost Subtotal Allov	vance Subtotal:	\$	211,607
		Paving and Allov		-	2,856,688
		Mobilizatio		- 1	142,834
	\$	142,834			
	\$	3,143,000			
		Construction Contingence Construction Cost TOTAL W/ CO		-	471,450
	\$	3,615,000			

Impact Fee Project Cost Summar	у			
Item Description	Notes:	Allowance		Item Cost
Construction:		-	\$	3,615,000
Engineering/Survey/Testing:		20%	\$	723,000
2008 - 2012 City contribution			\$	-
2012 - 2019 City contribution			\$	-
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$	-
Impact Fee Project Cost TOTAL:				4,338,000

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection Kimley-Horn and Associates, Inc.

updated: 12/16/2019

Project Informatio	n:	Description:	Project No.	I-5
Name:	COLLIN MCKINNEY PKWY (2)		This project consists of the)
Limits:	LAKE FOREST DR TO COTTONWO	OD CREEK	construction of a four-lane	divided
Impact Fee Class:	G4D		greenway arterial. This pro	ject is part of
Thoroughfare Class:	Greenway Arterial		the Collin McKinney Pkwy	project from
Length (If):	1,615		Lake Forest to Hardin which	h the City
			provided an anticipated co	nstruction
			cost of approximately \$6,10	0,000 from
			'12-'19. This projected acco	ounted for
Service Area(s):	I		\$1,777,105 of eligible funds	

Impact Fee Project Cost Summary			^	
Item Description	Notes:		Allowance	Item Cost
2008 - 2012 City contribution				\$ -
2012 - 2019 City contribution				\$ 1,777,105
		Impact Fee Project C	ost TOTAL:	\$ 1,777,105

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.



2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection Kimley-Horn and Associates, Inc.

updated: 12/16/2019

Project Information	n: Des	scription:	Project No.	I-6
Name:	COLLIN MCKINNEY PKWY (3)	This pro	oject consists of th	ie
Limits:	COTTONWOOD CREEK TO 1110' E OF	TINA DR constru	ction of two additi	ional lanes of
Impact Fee Class:	G4D(1/2)	the ultir	mate four-lane divi	ded greenway
Thoroughfare Class:	Greenway Arterial	arterial.	This project is pa	rt of the Collin
Length (If):	2,930	McKinn	ey Pkwy project fr	om Lake
		Forest t	o Hardin which th	e City
		provide	d an anticipated c	onstruction
		cost of	approximately \$6,	100,000 from
		'12-'19.	This projected acc	counted for
		\$3,221,0	002 of eligible fund	ls.
Service Area(s):	1		, and the second se	

Impact Fee Project Cost Summary					
Item Description	Notes:		Allowance		Item Cost
2008 - 2012 City contribution				\$	-
2012 - 2019 City contribution				\$	3,221,002
	Impact Fe	e Project C	ost TOTAL:	\$	3,221,002

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection Kimley-Horn and Associates, Inc.

updated: 12/16/2019

Project Informatio	n:	Description:	Project No.	I-7	
Name:	COLLIN MCKINNEY PKWY (4)		This project consists of the		
Limits:	1110' E OF TINA TO HARDIN BLVD		construction of a four-lane	divided	
Impact Fee Class:	G4D		greenway arterial. This project is pa		
Thoroughfare Class:	Greenway Arterial		the Collin McKinney Pkwy project fr		
Length (If):	1,000		Lake Forest to Hardin which	the City	
			provided an anticipated con	struction	
			cost of approximately \$6,10	0,000 from	
			'12-'19. This projected accou	unted for	
Service Area(s):	I .		\$1,101,893 of eligible funds.		

Impact Fee Project Cost Summary				
Item Description	Notes:		Allowance	Item Cost
2008 - 2012 City contribution				\$ -
2012 - 2019 City contribution				\$ 1,101,893
Impact Fee Project Cost TOTAL:			\$ 1,101,893	

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.



Service Area(s):

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

G and I

Kimley-Horn and Associates, Inc.

updated: 12/16/2019

Project Information: Description: Project No. Name: RIDGE RD (8) This completed project consists of the Limits: US HIGHWAY 380 TO CREEKSIDE DR construction of a four-lane divided **Impact Fee Class:** G4D greenway arterial. The City contributed Thoroughfare Class: Greenway Arterial approximately \$550,813 of eligible funds Length (If): 6,875 from '08-'12.

Impact Fee Project Cost Summ	ary			
Item Description	Notes:	Allowance	lte	em Cost
2008 - 2012 City contribution			\$	550,813
2012 - 2019 City contribution			\$	-
Impact Fee Project Cost TOTAL:				550,813

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.



ultimate six-lane divided major arterial.

updated: 12/16/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information: H-8, I-9 Description: Project No. Name:

RIDGE RD (9) This project consists of the

Limits: MCKINNEY RANCH PKWY TO STACY RD construction of two additional through **Impact Fee Class:** M6D(1/3) lanes within the existing median of the Thoroughfare Class: Major Arterial

Length (If): 3,645 Service Area(s): H and I

Roa	adway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
111	Unclassified Street Excavation	11,340	су	\$ 10.00	\$ 113,400
211	Lime Treated Subgrade (8") (PI<12)	10,935	sy	\$ 7.00	\$ 76,545
311	9" Concrete Pavement	10,125	sy	\$ 60.00	\$ 607,500
411	4" Topsoil	3,240	sy	\$ 2.50	\$ 8,100
511	6" Curb & Gutter	7,290	lf	\$ 5.00	\$ 36,450
611	Allotment for Turn Lanes and Median Openings	2.224	sv	\$ 77.00	\$ 171.281

Paving Construction Cost Subtotal: \$ 1,013,276

Majo	Major Construction Component Allowances**:							
	Item Description	Notes	Allowance		Item Cost			
	Traffic Control	Construction Phase Traffic Control	3%	\$	30,398			
	Pavement Markings/Markers		3%	\$	30,398			
	Roadway Drainage	None Anticipated	0%	\$	-			
	Special Drainage Structures	None Anticipated		\$	-			
	Water	None Anticipated	0%	\$	-			
	Sewer	None Anticipated	0%	\$	-			
	Establish Turf / Erosion Control		2%	\$	20,266			
	Illumination	None Anticipated	0%	\$	-			
	Other:							
**Allo	wances based on % of Paving Construction	Cost Subtotal Allow	ance Subtotal:	\$	81,062			
		Paving and Allow	ance Subtotal:	\$	1,094,338			
		Mobilization	5%	\$	54,717			
	\$	54,717						
	\$	1,204,000						
		Construction Contingency	15%	\$	180,600			
		Construction Cost TOTAL W/ CON	TINGENCY:	\$	1,385,000			

Impact Fee Project Cost Summa	ry		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,385,000
Engineering/Survey/Testing:		20%	\$ 277,000
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
Impact Fee Project Cost TOTAL:			\$ 1,662,000

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

updated:

12/16/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information: I-10, J-6 Description: Project No. Name: HARDIN BLVD (11) This project consists of the Limits: US HIGHWAY 380 TO VIRGINIA PKWY construction of two additional through **Impact Fee Class:** G6D(1/3) lanes within the existing median of the Thoroughfare Class: Greenway Arterial ultimate six-lane divided greenway Length (If): 8,340 arterial. The City contributed approximately \$8,352,097 of elgible

Service Area(s): I and J funds from '08-'12.

Roa	adway Construction Cost Pro	ojection					
	Item Description	•	Quantity	Unit	Unit Price		Item Cost
117	Unclassified Street Excavation		24,093	су	\$ 10.00	\$	240,933
217	Lime Treated Subgrade (8") (PI<12		23,167	sy	\$ 7.00	\$	162,167
317	9" Concrete Pavement		21,313	sy	\$ 60.00	\$	1,278,800
417	4" Topsoil		22,240	sy	\$ 2.50	\$	55,600
517	6" Curb & Gutter		16,680	If	\$ 5.00	\$	83,400
617	Allotment for Turn Lanes and Media	n Openings	5,764	sy	\$ 77.00	\$	443,796
		P	aving Constr	ruction C	Cost Subtotal:	\$	2,264,696
Majo	or Construction Component Allow	ances**:					
	Item Description	Notes			Allowance		Item Cost
	Traffic Control	Construction Phase	Traffic Control		3%		67,941
	Pavement Markings/Markers				3%		67,941
	Roadway Drainage	None Anticipated			0%	\$	-
	Special Drainage Structures	Bridge				\$	1,000,000
	Water	None Anticipated			0%		-
	Sewer	None Anticipated			0%	\$	-
	Establish Turf / Erosion Control				2%		45,294
	Illumination	None Anticipated			0%	\$	-
	Other:						
**Allo	wances based on % of Paving Construction (Cost Subtotal		Allowa	nce Subtotal:	\$	1,181,176
			•		nce Subtotal:		3,445,872
				lization:	5%		172,294
	Site Preparation: 5%						172,294
					ost TOTAL:		3,791,000
			uction Conti				568,650
	Construction Cost TOTAL W/ CONTINGENCY:						4,360,000

Impact Fee Project Cost Summa	nry		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,360,000
Engineering/Survey/Testing:		20%	\$ 872,000
2008 - 2012 City contribution			\$ 8,352,097
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
	\$ 13,584,097		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

lanes within the existing median of the

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

updated: 12/16/2019

Project Information: I-11, J-7 Description: Project No.

Name: HARDIN BLVD (12) This project consists of the

Limits: VIRGINIA PKWY TO MCKINNEY RANCH PKWY construction of two additional through

Impact Fee Class: G6D(1/3)

Thoroughfare Class: **Greenway Arterial**

ultimate six-lane divided greenway Length (If): 13,945 arterial.

Service Area(s): I and J

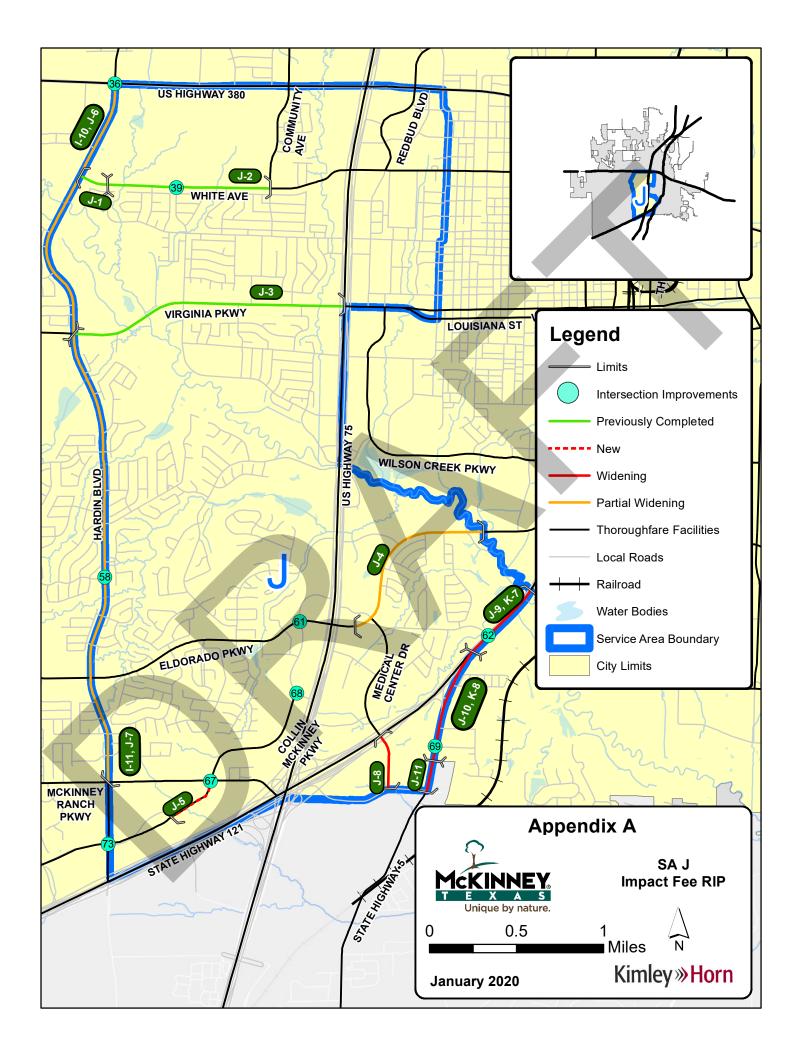
Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Uni	t Price	Item Cost
117	Unclassified Street Excavation	40,286	су	\$	10.00	\$ 402,856
217	Lime Treated Subgrade (8") (PI<12)	38,736	sy	\$	7.00	\$ 271,153
317	9" Concrete Pavement	35,637	sy	\$	60.00	\$ 2,138,233
417	4" Topsoil	37,187	sy	\$	2.50	\$ 92,967
517	6" Curb & Gutter	27,890	If	\$	5.00	\$ 139,450
617	Allotment for Turn Lanes and Median Openings	9,637	sy	\$	77.00	\$ 742,055

Paving Construction Cost Subtotal: \$ 3,786,713

Maj					
	Item Description	Notes	Allowance		Item Cost
	Traffic Control	Construction Phase Traffic Control	3%	\$	113,601
	Pavement Markings/Markers		3%	\$	113,601
	Roadway Drainage	None Anticipated	0%	\$	-
	Special Drainage Structures	None Anticipated		\$	-
	Water	None Anticipated	0%	\$	-
	Sewer	None Anticipated	0%	\$	-
	Establish Turf / Erosion Control		2%	\$	75,734
	Illumination	None Anticipated	0%	\$	-
	Other:				
**Allo	owances based on % of Paving Construction	n Cost Subtotal Allo	wance Subtotal:	\$	302,937
		Paving and Allo			4,089,650
		Mobilizatio		\$	204,483
		Site Preparation		_	204,483
		Construction	Cost TOTAL:	\$	4,499,000
		Construction Contingend	y: 15%	\$	674,850
		Construction Cost TOTAL W/ CO	NTINGENCY:	\$	5,174,000

Impact Fee Project Cost Sumr	nary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 5,174,000
Engineering/Survey/Testing:		20%	\$ 1,034,800
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
	\$ 6,208,800		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.



City of McKinney - 2018 - 2019 Roadway Impact Fee Update

Roadway Improvement Plan for Roadway Impact Fees Appendix A - Summary of Conceptual Level Project Cost Projections

Roadway Improvements - Service Area J

	Costing				-	Percent in		Cost in
#	Class	Project	Limits	Т	otal Cost	Service Area	Se	rvice Area
J-1	M4D	WHITE AVE (1)	HARDIN BLVD TO BOIS D'ARC RD	\$	981,328	100%	\$	981,328
J-2	M4D	WHITE AVE (2)	BOIS D'ARC RD TO COMMUNITY AVE	\$	213,991	100%	\$	213,991
J-3	M6D	VIRGINIA PKWY (9)	HARDIN BLVD TO US HIGHWAY 75	\$	3,267,873	100%	\$	3,267,873
J-4	G6D(1/3)	ELDORADO PKWY (3)	710' E OF US HIGHWAY 75 TO 1,180' E OF BARRANCA WAY	\$	4,047,600	100%	\$	4,047,600
J-5	M3U	COLLIN MCKINNEY PKWY (5)	2,100' E OF HARDIN BLVD TO MCKINNEY RANCH PKWY	\$	1,953,000	100%	\$	1,953,000
I-10, J-6	G6D(1/3)	HARDIN BLVD (11)	US HIGHWAY 380 TO VIRGINIA PKWY	\$	13,584,097	50%	\$	6,792,049
I-11, J-7	G6D(1/3)	HARDIN BLVD (12)	VIRGINIA PKWY TO MCKINNEY RANCH PKWY	\$	6,208,800	50%	\$	3,104,400
J-8	M4D	MEDICAL CENTER DR	STATE HIGHWAY 121 TO 1,685' S OF STATE HIGHWAY 121	\$	2,240,000	100%	\$	2,240,000
J-9, K-7	M6D	STATE HIGHWAY 5 (4)	640' S OF HARRY MCKILLOP BLVD / FM 546 TO STATE HIGHWAY 121	\$	4,647,300	50%	\$	2,323,650
J-10, K-8	M4D	STATE HIGHWAY 5 (5)	STATE HIGHWAY 121 TO 3,525' S OF STATE HIGHWAY 121	\$	2,223,200	50%	\$	1,111,600
J-11	M4D	STATE HIGHWAY 5 (6)	3,525' S OF STATE HIGHWAY 121 TO 4,520' S OF STATE HIGHWAY 121	\$	627,900	50%	\$	313,950
36		Under Construction	US HIGHWAY 380 & HARDIN BLVD	\$	780,682	25%	\$	195,171
39		Signal	WHITE AVE & JORDAN RD	\$	300,000	100%	\$	300,000
58	_	Signal	HARDIN BLVD & MAVERICK TRL	\$	300,000	50%	\$	150,000
61	Intersection	Intersection Improvements	ELDORADO PKWY & CRAIG DR	\$	150,000	100%	\$	150,000
62	rsec	Signal	STATE HIGHWAY 5 & STEWART RD	\$	300,000	50%	\$	150,000
67	ntel	Signal	MCKINNEY RANCH PKWY & COLLIN MCKINNEY PKWY	\$	300,000	100%	\$	300,000
68	_	Signal	COLLIN MCKINNEY PKWY & CRAIG DR	\$	300,000	100%	\$	300,000
69		Signal	STATE HIGHWAY 5 & ENTERPRISE DR	\$	300,000	50%	\$	150,000
73		Signal	HARDIN BLVD & COLLIN MCKINNEY PKWY	\$	300,000	50%	\$	150,000
				\$	43,025,771	•	\$	28,194,611

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney. The planning level cost projections shall not supersede the City's design standards contained within the Subdivision Ordinance or the determination of the City Engineer for a specific project.



2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection Kimley-Horn and Associates, Inc. updated: 12/16/2019

Project Information: J-1 Description: Project No. Name: WHITE AVE (1) This completed project consists of the construction Limits: HARDIN BLVD TO BOIS D'ARC RD of a four-lane divided minor arterial. The City **Impact Fee Class:** M4D contributed approximately \$981,327 of elgible funds Thoroughfare Class: Minor Arterial from '08-'12. Length (If): 905 Service Area(s): J

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
2008 - 2012 City contribution			\$ 981,328
2012 - 2019 City contribution			\$ -
	Impact Fee Project C	ost TOTAL:	\$ 981,328

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.



2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection Kimley-Horn and Associates, Inc.

updated: 12/16/2019

Project Informatio	n:	Description:	Project No. J-2
Name:	WHITE AVE (2)		This completed project consists of the
Limits:	BOIS D'ARC RD TO COMMUNITY AV	٧E	construction of a four-lane divided
Impact Fee Class:	M4D		minor arterial. The City contributed
Thoroughfare Class:	Minor Arterial		approximately \$231,991 of elgible funds
Length (If):	4,930		from '08-'12
Service Area(s):	J		

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
2008 - 2012 City contribution			\$ 213,991
2012 - 2019 City contribution			\$ -
	Impact Fee Project C	ost TOTAL:	\$ 213,991

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.



2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 12/16/2019

Project Informatio	n:	Description:	Project No.	J-3
Name:	VIRGINIA PKWY (9)	This completed project	t consists of the	construction
Limits:	HARDIN BLVD TO US HIGHWAY 75	of a six-lane divided m	ajor arterial. Thi	s project was
Impact Fee Class:	M6D	part of the Virginia Pky	wy project from	Bellegrove to
Thoroughfare Class:	Major Arterial	US 75 which had a total	al City contribut	ion of
Length (If):	8,470	approximately \$3,799,8		
		projected accounted for	or \$3,267,873 of	eligible funds
Service Area(s):	J	and is currently under	construction.	

Impact Fee Project Cost Summary				
Item Description	Notes:	Allowance	Item Co	st
2008 - 2012 City contribution			\$	-
2012 - 2019 City contribution			\$ 3,26	7,873
	Impact Fee	Project Cost TOTAL:	\$ 3,267	', 873

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 12/16/2019

Project Information: Description: Project No. J-4

Name: ELDORADO PKWY (3) This project consists of the

710' E OF US HIGHWAY 75 TO construction of two additions

Limits: 1,180' E OF BARRANCA WAY lanes

Impact Fee Class: G6D(1/3)

Thoroughfare Class: Greenway Arterial

Length (If): 5,680 Service Area(s): J construction of two additional through lanes within the existing median of the ultimate six-lane divided greenway

arterial.

Roa	dway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Unit Price		Item Cost	
117	Unclassified Street Excavation	16,409	су	\$ 10.00	\$	164,089	
217	Lime Treated Subgrade (8") (PI<12)	15,778	sy	\$ 7.00	\$	110,444	
317	9" Concrete Pavement	14,516	sy	\$ 60.00	\$	870,933	
417	4" Topsoil	15,147	sy	\$ 2.50	\$	37,867	
517	6" Curb & Gutter	11,360	lf	\$ 5.00	\$	56,800	
617	Allotment for Turn Lanes and Median Openings	3,925	sy	\$ 77.00	\$	302,250	
	Paving Construction Cost Subtotal:						

Majo	or Construction Component Allowa	nces**:				
	Item Description	Notes	Allowance		Item Cost	
	Traffic Control	Construction Phase Traffic Control	3%	\$	46,271	
	Pavement Markings/Markers		3%	\$	46,271	
	Roadway Drainage	None Anticipated	0%	\$	-	
	Special Drainage Structures	Bridge		\$	1,000,000	
	Water	None Anticipated	0%	\$	-	
	Sewer	None Anticipated	0%	\$	-	
	Establish Turf / Erosion Control		2%	\$	30,848	
	Illumination	None Anticipated	0%	\$	-	
	Other:					
**Allo	wances based on % of Paving Construction Co	st Subtotal Allowa	ince Subtotal:	\$	1,123,391	
		Paving and Allowa	r -	\$	2,665,774	
		Mobilization:		\$	133,289	
	Site Preparation: 5%					
		Construction C		\$	2,933,000	
		Construction Contingency:	15%	\$	439,950	
	C	onstruction Cost TOTAL W/ CON	TINGENCY:	\$	3,373,000	

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,373,000
Engineering/Survey/Testing:		20%	\$ 674,600
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

updated:

12/16/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information:

Name:
COLLIN MCKINNEY PKWY (5)
Limits:
2,100' E OF HARDIN BLVD TO MCKINNEY RANCH PKWY construction of a new three-Impact Fee Class:
M3U
Limits:
The request for a Class:
M3U
Limits:
M3D
Lim

Thoroughfare Class: Minor Arterial

Length (If): 1,720 Service Area(s): J

Roa	adway Construction Cost Projec	tion					
No.	Item Description		Quantity	Unit	Unit Price		Item Cost
102	Unclassified Street Excavation		3,822	су	\$ 8.00	\$	30,578
202	Lime Treated Subgrade (6") (PI<12)	7,453	sy	\$ 5.00	\$	37,267	
302	8" Concrete Pavement		7,071	sy	\$ 55.00	\$	388,911
	4" Topsoil		4,013	sy	\$ 2.50	\$	10,033
	6" Curb & Gutter		3,440	lf	\$ 5.00	\$	17,200
602			0	0	\$ -	\$	-
702	Moisture Conditioning		7,453	sy	\$ 8.00	\$	59,627
		P	aving Consti	ruction C	ost Subtotal:	\$	543,616
		dela		\rightarrow			
Majo	or Construction Component Allowance				All		lt a O a a t
	Item Description	Notes			Allowance		Item Cost
V	Traffic Control	None Anticipated			1%		5,436
V	Pavement Markings/Markers				3%		16,308
V	Roadway Drainage	Standard Internal Sy	stem		25%		135,904
	Special Drainage Structures	Stream Crossing				\$	250,000
	Water	None Anticipated			0%		-
l .	Sewer	None Anticipated			0%		-
$\sqrt{}$	Establish Turf / Erosion Control				2%		10,872
	Illumination	Standard Ilumination	System		6%	\$	32,617
	Other:						
**Allo	wances based on % of Paving Construction Cost	Subtotal		Allowa	nce Subtotal:	\$	451,138
						Ļ	
			_		nce Subtotal:		994,753
				lization:	5%		49,738
			Site Prep				49,738
					ost TOTAL:		1,095,000
			uction Conti			-	164,250
	Cor	struction Cos	t TOTAL W	// CON	TINGENCY:	\$	1,260,000

Impact Fee Project Cost Summ	nary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,260,000
Engineering/Survey/Testing:		20%	\$ 252,000
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 441,000
·	Impact Fee Proje	ect Cost TOTAL:	\$ 1,953,000

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

updated:

12/16/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information: I-10, J-6 Description: Project No. Name: HARDIN BLVD (11) This project consists of the Limits: US HIGHWAY 380 TO VIRGINIA PKWY construction of two additional through **Impact Fee Class:** G6D(1/3) lanes within the existing median of the Thoroughfare Class: Greenway Arterial ultimate six-lane divided greenway Length (If): 8,340 arterial. The City contributed approximately \$8,352,097 of elgible

Service Area(s): I and J funds from '08-'12.

Roa	adway Construction Cost Pr	ojection					
No.	Item Description		Quantity	Unit	Unit Price		Item Cost
117	Unclassified Street Excavation		24,093	су	\$ 10.00	\$	240,933
217	Lime Treated Subgrade (8") (PI<12	2)	23,167	sy	\$ 7.00	\$	162,167
317	9" Concrete Pavement		21,313	sy	\$ 60.00	\$	1,278,800
417	4" Topsoil		22,240	sy	\$ 2.50	\$	55,600
	6" Curb & Gutter		16,680	If	\$ 5.00	\$	83,400
617	Allotment for Turn Lanes and Medi	an Openings	5,764	sy	\$ 77.00	\$	443,796
		P	aving Constr	ruction C	Cost Subtotal:	\$	2,264,696
Majo	or Construction Component Allov						
	Item Description	Notes			Allowance		Item Cost
$\sqrt{}$	Traffic Control	Construction Phase	Traffic Control		3%	\$	67,941
	Pavement Markings/Markers				3%	-	67,941
	Roadway Drainage	None Anticipated			0%	\$	-
	Special Drainage Structures	Bridge				\$	1,000,000
	Water	None Anticipated			0%	\$	-
	Sewer	None Anticipated			0%	\$	-
	Establish Turf / Erosion Control				2%	\$	45,294
	Illumination	None Anticipated			0%	\$	-
	Other:						
**Allo	wances based on % of Paving Construction	Cost Subtotal	·	Allowa	nce Subtotal:	\$	1,181,176
			_		nce Subtotal:		3,445,872
				lization:	5%	\$	172,294
			Site Prep			_	172,294
4					ost TOTAL:		3,791,000
			uction Conti			•	568,650
		Construction Cos	t TOTAL W	// CON	TINGENCY:	\$	4,360,000

Impact Fee Project Cost Summa	nry		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,360,000
Engineering/Survey/Testing:		20%	\$ 872,000
2008 - 2012 City contribution			\$ 8,352,097
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
	Impact Fee Project C	ost TOTAL:	\$ 13,584,097

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

updated:

12/16/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information: Description: Project No. I-11, J-7

Name: HARDIN BLVD (12)

Limits: VIRGINIA PKWY TO MCKINNEY RANCH PKWY

Impact Fee Class: G6D(1/3)

Thoroughfare Class: Greenway Arterial

Length (If): 13,945

Service Area(s): I and J

This project consists of the

construction of two additional through lanes within the existing median of the ultimate six-lane divided greenway

arterial.

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit F	Price	Item Cost
117	Unclassified Street Excavation	40,286	су	\$	10.00	\$ 402,856
217	Lime Treated Subgrade (8") (PI<12)	38,736	sy	\$	7.00	\$ 271,153
317	9" Concrete Pavement	35,637	sy	\$	60.00	\$ 2,138,233
417	4" Topsoil	37,187	sy	\$	2.50	\$ 92,967
517	6" Curb & Gutter	27,890	lf	\$	5.00	\$ 139,450
617	Allotment for Turn Lanes and Median Openings	9,637	sy	\$	77.00	\$ 742,055

Paving Construction Cost Subtotal: \$ 3,786,713

Major				
l	tem Description	Notes	Allowance	Item Cost
$\sqrt{}$	Traffic Control	Construction Phase Traffic Control	3%	\$ 113,601
√ F	Pavement Markings/Markers		3%	\$ 113,601
F	Roadway Drainage	None Anticipated	0%	\$ -
5	Special Drainage Structures	None Anticipated		\$ -
١	Water	None Anticipated	0%	\$ -
	Sewer	None Anticipated	0%	\$ -
√ E	Establish Turf / Erosion Control		2%	\$ 75,734
I	llumination	None Anticipated	0%	\$ -
(Other:			
**Allowa	ances based on % of Paving Construction Cost	Subtotal	ince Subtotal:	\$ 302,937
		Paving and Allowa	nce Subtotal:	\$ 4,089,650
		Mobilization:	5%	\$ 204,483
		Site Preparation:	5%	\$ 204,483
		Construction C	ost TOTAL:	\$ 4,499,000
		Construction Contingency:	15%	\$ 674,850
	Col	nstruction Cost TOTAL W/ CON	TINGENCY:	\$ 5,174,000

Impact Fee Project Cost Summ	ary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 5,174,000
Engineering/Survey/Testing:		20%	\$ 1,034,800
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
	Impact Fee Project	Cost TOTAL:	\$ 6,208,800

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 12/16/2019

Project Information: Description: Project No. J-8

Name: MEDICAL CENTER DR This project consists of the

STATE HIGHWAY 121 TO 1,685' S reconstruction of a three-

Limits: OF STATE HIGHWAY 121

Impact Fee Class: M4D

Thoroughfare Class: Minor Arterial

Length (If): 1,685 Service Area(s): J reconstruction of a three-lane concrete facility to a four-lane divided minor arterial.

Roa	dway Construction Cost Project	tion				
No.	Item Description		Quantity	Unit	Unit Price	Item Cost
105	Unclassified Street Excavation		13,480	су	\$ 10.00	\$ 134,800
205	Lime Treated Subgrade (8") (PI<12)		9,361	sy	\$ 7.00	\$ 65,528
305	8" Concrete Pavement		8,612	sy	\$ 55.00	\$ 473,672
405	4" Topsoil		7,302	sy	\$ 2.50	\$ 18,254
505	6" Curb & Gutter		6,740	If	\$ 5.00	\$ 33,700
605	Allotment for Turn Lanes and Median Op	enings	989	sy	\$ 72.00	\$ 71,230
705	Moisture Conditioning		9,361	sy	\$ 8.00	\$ 74,889
		P	aving Const	ruction C	Cost Subtotal:	\$ 872,073
Majo	or Construction Component Allowances	s**:				
	Item Description	Notes			Allowance	Item Cost
	Traffic Control	Construction Phase	Traffic Control		3%	\$ 26,162
	Pavement Markings/Markers				3%	\$ 26,162
	Roadway Drainage	Standard Internal Sy	stem		25%	\$ 218,018
	Special Drainage Structures	None Anticipated				\$ -
	Water	Incidental Adjustmen	nts		3%	\$ 26,162
	Sewer	Incidental Adjustmen	nts		3%	\$ 26,162
	Establish Turf / Erosion Control				2%	\$ 17,441
	Illumination	Standard Ilumination	System		6%	\$ 52,324
	Other:					
**Allo	wances based on % of Paving Construction Cost S	ubtotal		Allowa	nce Subtotal:	\$ 392,433
			Paving an	d Allowa	nce Subtotal:	\$ 1,264,505
	Mobilization: 5%					\$ 63,225
			Site Prep	aration:	5%	\$ 63,225
	Construction Cost TOTAL:					\$ 1,391,000
		Constr	uction Conti	ngency:	15%	\$ 208,650
	Con	struction Cos	t TOTAL W	// CON	ΓINGENCY:	\$ 1,600,000

Impact Fee Project Cost Summa	ry		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,600,000
Engineering/Survey/Testing:		20%	\$ 320,000
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 320,000
	Impact Fee Project C	ost TOTAL:	\$ 2,240,000

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

updated: 12/16/2019

Project Information: Description: Project No. J-9, K-7

Name: STATE HIGHWAY 5 (4) This project consists of the

reconstruction of a four-lane asphalt section to a six-lane divided major

Limits: / FM 546 TO STATE HIGHWAY 121 arterial.

Impact Fee Class: M6D

Thoroughfare Class: Major Arterial

Length (If): 2,470 Service Area(s): J and K

Roa	dway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
109	Unclassified Street Excavation	13,722	су	\$ 15.00	\$ 205,833
209	Lime Treated Subgrade (8") (PI<12)	21,407	sy	\$ 7.00	\$ 149,847
309	4" TY D HMAC Underlayment	20,309	sy	\$ 5.00	\$ 101,544
409	9" Concrete Pavement	20,309	sy	\$ 60.00	\$ 1,218,533
509	4" Topsoil	9,606	sy	\$ 4.00	\$ 38,422
609	6" Curb & Gutter	9,880	lf .	\$ 5.00	\$ 49,400
709	Allotment for Turn Lanes and Median Openings	1,507	sy	\$ 87.00	\$ 131,141
	P	aving Const	ruction C	ost Subtotal:	\$ 1,894,721

	Ф	1,094,121		
Major Construction Component Allow				
Item Description	Notes	Allowance		Item Cost
√ Traffic Control	Construction Phase Traffic Control	3%	\$	56,842
√ Pavement Markings/Markers		3%	\$	56,842
√ Roadway Drainage		25%	\$	473,680
√ Special Drainage Structures	Bridge		\$	2,500,000
√ Water	Incidental Adjustments	3%	\$	56,842
√ Sewer	Incidental Adjustments	3%	\$	56,842
√ Establish Turf / Erosion Control		2%	\$	37,894
√ Illumination	Standard Ilumination System	6%	\$	113,683
Other:				
**Allowances based on % of Paving Construction	Cost Subtotal Allowa	ince Subtotal:	\$	3,352,624
	Paving and Allowa	nce Subtotal:	\$	5,247,345
	Mobilization:	5%	\$	262,367
	\$	262,367		
	44	5,773,000		
	Construction Contingency:		\$	865,950
	Construction Cost TOTAL W/ CON	TINGENCY:	\$	6,639,000

Impact Fee Project Cost Sumr	mary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 6,639,000
Engineering/Survey/Testing:		20%	\$ 1,327,800
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 1,327,800
Impact I	\$ 4,647,300		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection Kimley-Horn and Associates, Inc.

updated: 12/16/2019

Project Information: J-10, K-8 Description: Project No.

Name: STATE HIGHWAY 5 (5) This project consists of the

STATE HIGHWAY 121 TO 3,525' S reconstruction of a two-lane asphalt

Limits: **OF STATE HIGHWAY 121** facility to a four-lane divided minor

Impact Fee Class: M4D arterial. Thoroughfare Class: Minor Arterial

Length (If): 3,525 J and K Service Area(s):

Roa	adway Construction Cost Projection			Ţ.											
No.	Item Description	Quantity	Unit	Uni	Unit Price		Unit Price		Unit Price		Unit Price		Unit Price		Item Cost
105	Unclassified Street Excavation	14,100	су	\$	15.00	\$	211,500								
205	Lime Treated Subgrade (8") (PI<12)	19,583	sy	\$	7.00	\$	137,083								
305	4" TY D HMAC Underlayment	18,017	sy	\$	5.00	\$	90,083								
405	8" Concrete Pavement	18,017	sy	\$	55.00	\$	990,917								
505	4" Topsoil	15,275	sy	\$	4.00	\$	61,100								
605	6" Curb & Gutter	14,100	lf .	\$	5.00	\$	70,500								
705	Allotment for Turn Lanes and Median Openings	2,070	sy	\$	82.00	\$	169,707								
		Paving Const	ruction (inst S	ubtotal:	\$	1 730 891								

Major Construction Component Allowances**:								
Item Description	Notes	Allowance		Item Cost				
√ Traffic Control	Construction Phase Traffic Control	3%	\$	51,927				
√ Pavement Markings/Markers		3%	\$	51,927				
√ Roadway Drainage		25%	\$	432,723				
Special Drainage Structures	None Anticipated		\$	-				
√ Water	Incidental Adjustments	3%	\$	51,927				
√ Sewer	Incidental Adjustments	3%	\$	51,927				
√ Establish Turf / Erosion Control		2%	\$	34,618				
√ Illumination	Standard Ilumination System	6%	\$	103,853				
Other:								
**Allowances based on % of Paving Construction Cos	t Subtotal Allowa	ince Subtotal:	\$	778,901				
	Paving and Allowa		\$	2,509,792				
	Mobilization:		\$	125,490				
	Site Preparation: Construction C			125,490				
	\$	2,761,000						
	Construction Contingency:		•	414,150				
Co	onstruction Cost TOTAL W/ CON	TINGENCY:	\$	3,176,000				

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,176,000
Engineering/Survey/Testing:		20%	\$ 635,200
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 635,200
Impact Fee I	Project Cost TOTAL (50% City Co	ontribution)	\$ 2,223,200

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

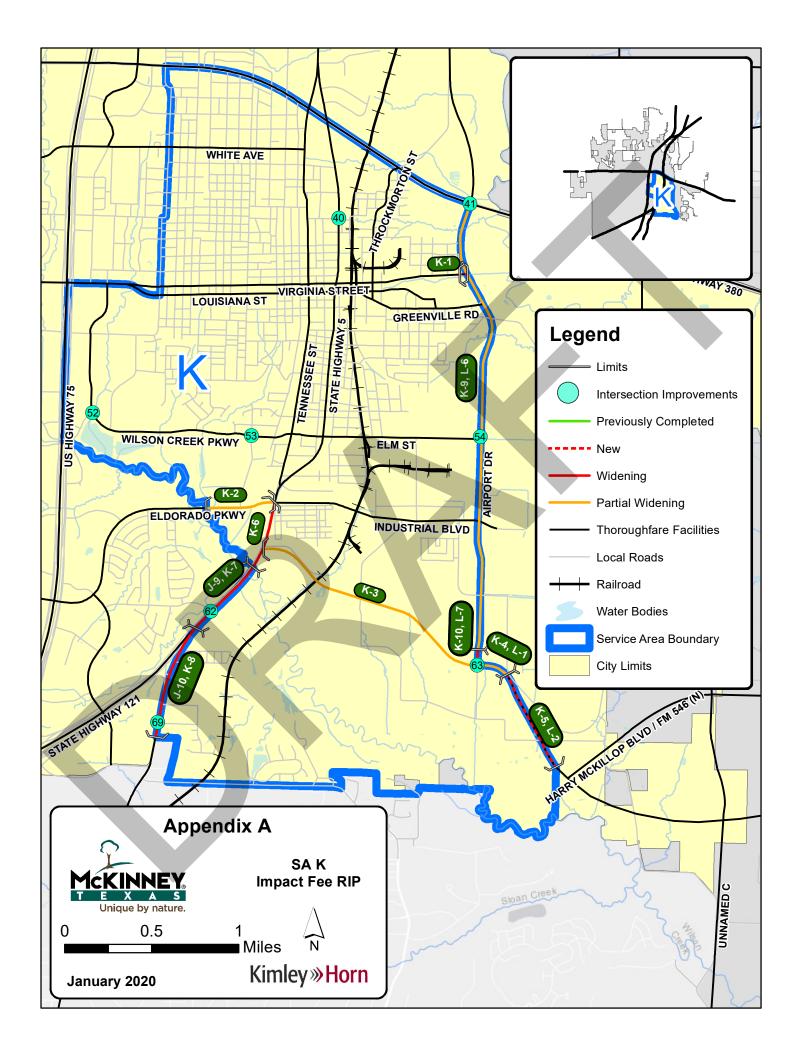
2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection updated: 12/16/2019

Project Informatio	n:	Description:	Project No. J-11
Name:	STATE HIGHWAY 5 (6)		This project consists of the
	3,525' S OF STATE HIGHWAY 121		reconstruction of a two-lane asphalt
	TO 4,520' S OF STATE HIGHWAY		facility to a four-lane divided minor
Limits:	121		arterial. Based on the existing City
Impact Fee Class:	M4D		Limits, the eastern half of the roadway
Thoroughfare Class:	Minor Arterial		is not included in the Impact Fee RIP.
Length (If):	995		
Service Area(s):	J, Half		

Roadway Construction Cost Projection							
No.	Item Description		Quantity	Unit	Unit Price		Item Cost
105	Unclassified Street Excavation		3,980	су	\$ 15.00	\$	59,700
205	Lime Treated Subgrade (8") (PI<12)		5,528	sy	\$ 7.00	\$	38,694
305	4" TY D HMAC Underlayment		5,086	sy	\$ 5.00	\$	25,428
405	8" Concrete Pavement		5,086	sy	\$ 55.00	\$	279,706
	4" Topsoil		4,312	sy	\$ 4.00	\$	17,247
605	6" Curb & Gutter		3,980	If	\$ 5.00	\$	19,900
705	Allotment for Turn Lanes and Median Op		584	sy	\$ 82.00	\$	47,903
		P	Paving Const	ruction (Cost Subtotal:	\$	488,578
N. C.		**					
Majo	or Construction Component Allowance				Allaviana		Ham Oast
	Item Description	Notes			Allowance		Item Cost
√,	Traffic Control	Construction Phase	Traffic Control		3%		14,657
V	Pavement Markings/Markers				3%	-	14,657
V	Roadway Drainage				25%	\$	122,144
,	Special Drainage Structures	None Anticipated				\$	<u>-</u>
V	Water	Incidental Adjustmen			3%		14,657
V	Sewer	Incidental Adjustmen	nts		3%	\$	14,657
V	Establish Turf / Erosion Control				2%	\$	9,772
	Illumination	Standard Ilumination	System		6%	\$	29,315
	Other:						
**Allo	wances based on % of Paving Construction Cost S	Subtotal		Allowa	ince Subtotal:	\$	219,860
			Paving an	d Allows	nco Subtotali	¢	708,438
	Paving and Allowance Subtotal: Mobilization: 5%						
	Site Preparation: 5%						35,422 35,422
	Construction Cost TOTAL:						780,000
		Constr	ruction Conti			\$	117,000
	Construction Cost TOTAL W/ CONTINGENCY:						897,000

Impact Fee Project Cost Summer Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 897,000
Engineering/Survey/Testing:		20%	\$ 179,400
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 179,400
Impact F	Contribution)	\$ 627,900	

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.



City of McKinney - 2018 - 2019 Roadway Impact Fee Update

Roadway Improvement Plan for Roadway Impact Fees Appendix A - Summary of Conceptual Level Project Cost Projections

Roadway Improvements - Service Area K

	Costing					Percent in		Cost in
#	Class	Project	Limits		Total Cost	Service Area	Se	rvice Area
K-1	2UO	VIRGINIA STREET	225' W OF AIRPORT DR TO AIRPORT DR	\$	779,650	100%	\$	779,650
K-2	G6D(1/3)	ELDORADO PKWY (4)	1,180' E OF BARRANCA WAY TO STATE HIGHWAY 5	\$	1,699,200	100%	\$	1,699,200
K-3	P6D(1/3)	HARRY MCKILLOP BLVD / FM 546 (1)	STATE HIGHWAY 121 TO AIRPORT DR	\$	1,839,600	100%	\$	1,839,600
K-4, L-1	P6D(1/3)	HARRY MCKILLOP BLVD / FM 546 (2)	AIRPORT DR TO 980' E OF AIRPORT DR	\$	234,600	50%	\$	117,300
K-5, L-2	P6D	HARRY MCKILLOP BLVD / FM 546 (3)	975' E OF AIRPORT DR TO 510' W OF HARRY MCKILLOP BLVD / FM 546 (N)	\$	3,267,400	50%	\$	1,633,700
K-6	M6D	STATE HIGHWAY 5 (3)	INDUSTRIAL BLVD TO 640' S OF HARRY MCKILLOP BLVD / FM 546	\$	2,064,300	100%	\$	2,064,300
J-9, K-7	M6D	STATE HIGHWAY 5 (4)	640' S OF HARRY MCKILLOP BLVD / FM 546 TO STATE HIGHWAY 121	\$	4,647,300	50%	\$	2,323,650
J-10, K-8	M4D	STATE HIGHWAY 5 (5)	STATE HIGHWAY 121 TO 3,525' S OF STATE HIGHWAY 121	\$	2,223,200	50%	\$	1,111,600
K-9, L-6	P6D(1/3)	AIRPORT DR (5)	US HIGHWAY 380 TO 470' N OF HARRY MCKILLOP BLVD / FM 546	\$	6,322,800	50%	\$	3,161,400
K-10, L-7	P6D	AIRPORT DR (6)	470' N OF HARRY MCKILLOP BLVD / FM 546 TO HARRY MCKILLOP BLVD / FM 546	\$	2,925,200	50%	\$	1,462,600
40		Signal	STATE HIGHWAY 5 & SMITH ST	\$	300,000	100%	\$	300,000
41		Signal Mod	US HIGHWAY 380 & AIRPORT DR	\$	150,000	50%	\$	75,000
52	u	Roundabout	WILSON CREEK PKWY & PARK VIEW AVE	\$	1,820,000	100%	\$	1,820,000
53	ection	Signal	WILSON CREEK PKWY & COLLEGE ST	\$	300,000	100%	\$	300,000
54	ers	Signal	AIRPORT DR & ELM ST	\$	300,000	50%	\$	150,000
62	Inter	Signal	STATE HIGHWAY 5 & STEWART RD	\$	300,000	50%	\$	150,000
63		Signal	HARRY MCKILLOP BLVD / FM 546 & AIRPORT DR	\$	300,000	75%	\$	225,000
69		Signal	STATE HIGHWAY 5 & ENTERPRISE DR	\$	300,000	50%	\$	150,000
		•		•	20 772 250	·	•	10 262 000

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney. The planning level cost projections shall not supersede the City's design standards contained within the Subdivision Ordinance or the determination of the City Engineer for a specific project.



updated:

12/16/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information: K-1 Description: Project No.

Name: VIRGINIA STREET This project consists of the Limits: 225' W OF AIRPORT DR TO AIRPORT DR construction of a new two-lane **Impact Fee Class: 2UO** undivided town thoroughfare.

Thoroughfare Class: Town Thoroughfare

Length (If): 225 Service Area(s): Κ

Roa	dway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	500	су	\$ 8.00	\$ 4,000
201	Lime Treated Subgrade (6") (PI<12)	975	sy	\$ 5.00	\$ 4,875
301	8" Concrete Pavement	925	sy	\$ 55.00	\$ 50,875
401	4" Topsoil	275	sy	\$ 2.50	\$ 688
501	6" Curb & Gutter	450	lf	\$ 5.00	\$ 2,250
701	Moisture Conditioning	975	sy	\$ 8.00	\$ 7,800

Paving Construction Cost Subtotal: \$ 70,488

Major Construction Component Alle			
Item Description	Notes	Allowance	Item Cost
√ Traffic Control	None Anticipated	1%	\$ 705
√ Pavement Markings/Markers		3%	\$ 2,115
√ Roadway Drainage	Standard Internal System	25%	\$ 17,622
√ Special Drainage Structures	Stream Crossing		\$ 300,000
Water	None Anticipated	0%	\$ -
Sewer	None Anticipated	0%	\$ -
√ Establish Turf / Erosion Control		2%	\$ 1,410
√ Illumination	Standard Ilumination System	6%	\$ 4,229
Other:			
**Allowances based on % of Paving Constructi	on Cost Subtotal Allowa	ance Subtotal:	\$ 326,080
	Paving and Allowa	ance Subtotal:	\$ 396,568
	Mobilization	5%	\$ 19,828
	\$ 19,828		
	\$ 437,000		
	Construction Contingency	15%	\$ 65,550
	Construction Cost TOTAL W/ CON	TINGENCY:	\$ 503,000

Impact Fee Project Cost Summa	у		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 503,000
Engineering/Survey/Testing:		20%	\$ 100,600
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 176,050
	\$ 779,650		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 12/16/2019

Project Informatio	n: Des	scription:	Project No.	K-2
Name:	ELDORADO PKWY (4)		This project cons	ists of the
Limits:	1,180' E OF BARRANCA WAY TO STAT	E HIGHWAY 5	construction of to	vo additional
Impact Fee Class:	G6D(1/3)		through lanes wit	hin the
Thoroughfare Class:	Greenway Arterial		existing median of	
Length (If):	2,110		six-lane divided g	
Service Area(s):	K		arterial	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

Roa	dway Construction Cost Project	tion					
No.	Item Description		Quantity	Unit	Unit	Price	Item Cost
117	Unclassified Street Excavation		6,096	су	\$	10.00	\$ 60,956
217	Lime Treated Subgrade (8") (PI<12)		5,861	sy	\$	7.00	\$ 41,028
317	9" Concrete Pavement		5,392	sy	\$	60.00	\$ 323,533
417	4" Topsoil		5,627	sy	\$	2.50	\$ 14,067
517	6" Curb & Gutter		4,220	lf	\$	5.00	\$ 21,100
617	Allotment for Turn Lanes and Median Op	enings	1,458	sy	\$	77.00	\$ 112,279
		Р	aving Consti	ruction (Cost Su	ubtotal:	\$ 572,963
			_				
Majo	r Construction Component Allowance	s**:					
	Item Description	Notes			Allo	wance	Item Cost
	Traffic Control	Construction Phase	Traffic Control	4		3%	\$ 17.189

Majo	or Construction Component Allowanc	es**:			
	Item Description	Notes	Allowance		Item Cost
	Traffic Control	Construction Phase Traffic Control	3%	\$	17,189
	Pavement Markings/Markers		3%	\$	17,189
	Roadway Drainage	None Anticipated	0%	\$	-
	Special Drainage Structures	Stream Crossing		\$	500,000
	Water	None Anticipated	0%	\$	-
	Sewer	None Anticipated	0%	\$	-
	Establish Turf / Erosion Control		2%	\$	11,459
	Illumination	None Anticipated	0%	\$	-
	Other:				
**Allo	wances based on % of Paving Construction Cost	Subtotal Allowa	ince Subtotal:	\$	545,837
		Paving and Allowa	nce Subtotal:	\$	1,118,800
		Mobilization:	5%	\$	55,940
		Site Preparation:	5%	\$	55,940
		Construction C	ost TOTAL:	\$	1,231,000
		Construction Contingency:		_	184,650
	Cor	struction Cost TOTAL W/ CON	TINGENCY:	\$	1,416,000

Impact Fee Project Cost Summ	nary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,416,000
Engineering/Survey/Testing:		20%	\$ 283,200
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
	Impact Fee Project	Cost TOTAL:	\$ 1,699,200

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

updated: 12/16/2019

Project Informatio	n:	Description:	Project No.	K-3
Name:	HARRY MCKILLOP BLVD / FM 546 (1)	This project consists of the	

STATE HIGHWAY 121 TO AIRPORT DR construction of two additional through Limits: **Impact Fee Class:** P6D(1/3) lanes within the existing median of the Principal Arterial Thoroughfare Class: ultimate six-lane divided principal

Length (If): 7,695 arterial.

Service Area(s): Κ

Roa	adway Construction Cost Projec	tion					
No.	Item Description		Quantity	Unit	Unit Price		Item Cost
114	Unclassified Street Excavation		11,970	су	\$ 15.00		179,550
214	Lime Treated Subgrade (8") (PI<12)		23,085	sy	\$ 7.00		161,595
314	4" TY D HMAC Underlayment		21,375	sy	\$ 5.00		106,875
	9" Concrete Pavement		21,375	sy	\$ 60.00		1,282,500
	4" Topsoil		6,840	sy	\$ 4.00		27,360
	6" Curb & Gutter		15,390	lf	\$ 5.00	_	76,950
714	Allotment for Turn Lanes and Median O		4,696	sy	\$ 87.00	_	408,554
		P	aving Consti	ruction (Cost Subtota	: \$	2,243,384
Majo	or Construction Component Allowance						
	Item Description	Notes			Allowance		Item Cost
	Traffic Control	Construction Phase	Traffic Control		39		67,302
	Pavement Markings/Markers				39		67,302
	Roadway Drainage				09		-
	Special Drainage Structures	None Anticipated				\$	-
	Water	None Anticipated			09	· ·	-
,	Sewer	None Anticipated			09		-
	Establish Turf / Erosion Control				29		44,868
	Illumination	None Anticipated			09	<mark>6</mark> \$	-
	Other:					4	
**Allo	wances based on % of Paving Construction Cost \$	Subtotal	—	Allowa	nce Subtota	: \$	179,471
					nce Subtota		2,422,855
				lization:		_	121,143
			Site Prep				121,143
					ost TOTAL		, ,
			uction Conti			_	399,900
	Con	struction Cos	t TOTAL W	// CON	TINGENCY	: \$	3,066,000

Impact Fee Project Cost Sum Item Description	Notes:	Allowance	Item Cost
Construction:			\$ 3,066,000
Engineering/Survey/Testing:		20%	\$ 613,200
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

updated:

12/16/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information: K-4, L-1 Description: Project No. Name: HARRY MCKILLOP BLVD / FM 546 (2) This project consists of the Limits: AIRPORT DR TO 980' E OF AIRPORT DR construction of two additional through **Impact Fee Class:** P6D(1/3) lanes within the existing median of the Thoroughfare Class: Principal Arterial ultimate six-lane divided principal

Length (If): 980 Service Area(s): L and K

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit	Price	Item Cost
114	Unclassified Street Excavation	1,524	су	\$	15.00	\$ 22,867
214	Lime Treated Subgrade (8") (PI<12)	2,940	sy	\$	7.00	\$ 20,580
314	4" TY D HMAC Underlayment	2,722	sy	\$	5.00	\$ 13,611
414	9" Concrete Pavement	2,722	sy	\$	60.00	\$ 163,333
514	4" Topsoil	871	sy	\$	4.00	\$ 3,484
	6" Curb & Gutter	1,960	If	\$	5.00	\$ 9,800
714	Allotment for Turn Lanes and Median Openings	598	sy	\$	87.00	\$ 52,032

Paving Construction Cost Subtotal: \$ 285,707

arterial.

Majo	or Construction Component Allow	vances**:		
	Item Description	Notes	Allowance	Item Cost
	Traffic Control	Construction Phase Traffic Control	3%	\$ 8,571
	Pavement Markings/Markers		3%	\$ 8,571
	Roadway Drainage		0%	\$ -
	Special Drainage Structures	None Anticipated		\$ -
	Water	None Anticipated	0%	\$ -
	Sewer	None Anticipated	0%	\$ -
	Establish Turf / Erosion Control		2%	\$ 5,714
	Illumination	None Anticipated	0%	\$ -
	Other:			
**Allo	wances based on % of Paving Construction	Cost Subtotal Allow	ance Subtotal:	\$ 22,857
		Paving and Allow	ance Subtotal:	\$ 308,564
		Mobilization	5%	\$ 15,428
		Site Preparation	5%	\$ 15,428
		Construction C		340,000
		Construction Contingency		51,000
		Construction Cost TOTAL W/ CON	TINGENCY:	\$ 391,000

Impact Fee Project Cost Summa	ary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 391,000
Engineering/Survey/Testing:		20%	\$ 78,200
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
Impact Fe	e Project Cost TOTAL (50% City	Contribution)	\$ 234,600

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 12/16/2019

Project Information: Description: Project No. K-5, L-2

Name: HARRY MCKILLOP BLVD / FM 546 (3)

975' E OF AIRPORT DR TO 510' W OF HARRY

Limits: MCKILLOP BLVD / FM 546 (N)

Impact Fee Class: P6D

Thoroughfare Class: Principal Arterial

Length (If): 3,160
Service Area(s): K and L

This project consists of the construction of a new six-lane divided principal arterial.

Roa	dway Construction Cost Projec	tion					
No.	Item Description		Quantity	Unit	Unit	Price	Item Cost
113	Unclassified Street Excavation		17,556	су	\$	15.00	\$ 263,333
213	Lime Treated Subgrade (8") (PI<12)		27,387	sy	\$	7.00	\$ 191,707
313	4" TY D HMAC Underlayment		25,982	sy	\$	5.00	\$ 129,911
413	9" Concrete Pavement		25,982	sy	\$	60.00	\$ 1,558,933
513	4" Topsoil		14,396	sy	\$	4.00	\$ 57,582
613	6" Curb & Gutter		12,640	lf	\$	5.00	\$ 63,200
713	Allotment for Turn Lanes and Median Op	enings	1,928	sy	\$	87.00	\$ 167,775
		<u> </u>	aving Const	ruction (Cost Su	ubtotal:	\$ 2,432,442
			_				
Majo	r Construction Component Allowance	s**:					
	Item Description	Notes			Allov	wance	Item Cost
V	Traffic Control	None Anticipated				1%	\$ 24,324
	Pavement Markings/Markers					3%	\$ 72,973
	Roadway Drainage					25%	\$ 608,110
	Special Drainage Structures	None Anticipated					\$ -
	Water	None Anticipated				0%	\$ -
	Sewer	None Anticipated				0%	\$ -
	Establish Turf / Erosion Control					2%	\$ 48,649
	Illumination	Standard Ilumination	System			6%	\$ 145,947
	Other:						
**Allo	wances based on % of Paving Construction Cost S	ubtotal		Allowa	nce Su	ubtotal:	\$ 900,004
			>				
			Paving an	d Allowa	nce Su	ubtotal:	\$ 3,332,445
			Mobi	lization:		5%	\$ 166,622

Impact Fee Project Cost Summa	ry		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,216,000
Engineering/Survey/Testing:		20%	\$ 843,200
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 1,475,600
Impact Fee	Project Cost TOTAL (50% City C	contribution)	\$ 3,267,400

Site Preparation:

Construction Contingency:

Construction Cost TOTAL W/ CONTINGENCY:

Construction Cost TOTAL:

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

\$

\$

\$

166,622

549,900

3,666,000

4,216,000

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information: Description: Project No. K-6

Name: STATE HIGHWAY 5 (3) This project consists of the

INDUSTRIAL BLVD TO 640' S OF reconstruction of a four-lane asphalt

Limits: HARRY MCKILLOP BLVD / FM 546 section to a six-lane divided major Impact Fee Class: M6D section to a six-lane divided major arterial.

Thoroughfare Class: Major Arterial

Length (If): 2,095 Service Area(s): K

Roa	adway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
109	Unclassified Street Excavation	11,639	су	\$ 15.00	\$ 174,583
209	Lime Treated Subgrade (8") (PI<12)	18,157	sy	\$ 7.00	\$ 127,097
309	4" TY D HMAC Underlayment	17,226	sy	\$ 5.00	\$ 86,128
409	9" Concrete Pavement	17,226	sy	\$ 60.00	\$ 1,033,533
509	4" Topsoil	8,147	sy	\$ 4.00	\$ 32,589
609	6" Curb & Gutter	8,380	If	\$ 5.00	\$ 41,900
709	Allotment for Turn Lanes and Median Openings	1,279	sy	\$ 87.00	\$ 111,231
	_ F	Paving Const	ruction C	Cost Subtotal:	\$ 1,607,061

Major Construction Component Allowances**:						
Item Description	Vances: Notes	Allowance		Item Cost		
			_			
√ Traffic Control	Construction Phase Traffic Control	3%		48,212		
√ Pavement Markings/Markers		3%	\$	48,212		
√ Roadway Drainage		25%	\$	401,765		
Special Drainage Structures	None Anticipated		\$	-		
√ Water	Incidental Adjustments	3%	\$	48,212		
√ Sewer	Incidental Adjustments	3%	\$	48,212		
√ Establish Turf / Erosion Control		2%	\$	32,141		
√ Illumination	Standard Ilumination System	6%	\$	96,424		
Other:						
**Allowances based on % of Paving Construction Cost Subtotal Allowance Subtotal:				723,177		
	\$	2,330,238				
	\$	116,512				
	\$	116,512				
	\$	2,564,000				
	\$	384,600				
Construction Cost TOTAL W/ CONTINGENCY:				2,949,000		

Impact Fee Project Cost Summar	y		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,949,000
Engineering/Survey/Testing:		20%	\$ 589,800
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 589,800
Impact Fee Project Cost TOTAL (50% City Contribution)			\$ 2,064,300

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

updated: 12/16/2019

Project Information: Description: Project No. J-9, K-7

Name: STATE HIGHWAY 5 (4) This project consists of the

reconstruction of a four-lane asphalt section to a six-lane divided major

Limits: / FM 546 TO STATE HIGHWAY 121 arterial.

Impact Fee Class: M6D

Thoroughfare Class: Major Arterial

Length (If): 2,470 Service Area(s): J and K

Roa	dway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
109	Unclassified Street Excavation	13,722	су	\$ 15.00	\$ 205,833
209	Lime Treated Subgrade (8") (PI<12)	21,407	sy	\$ 7.00	\$ 149,847
309	4" TY D HMAC Underlayment	20,309	sy	\$ 5.00	\$ 101,544
409	9" Concrete Pavement	20,309	sy	\$ 60.00	\$ 1,218,533
509	4" Topsoil	9,606	sy	\$ 4.00	\$ 38,422
	6" Curb & Gutter	9,880	lf	\$ 5.00	\$ 49,400
709	Allotment for Turn Lanes and Median Openings	1,507	sy	\$ 87.00	\$ 131,141

Paving Construction Cost Subtotal: \$ 1,894,721

Major Construction Component Allowances**:	
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	Item Description	Notes	Allowance	П	Item Cost	
	Traffic Control	Construction Phase Traffic Control	3%	\$	56,842	
	Pavement Markings/Markers		3%	\$	56,842	
	Roadway Drainage		25%	\$	473,680	
	Special Drainage Structures	Bridge		\$	2,500,000	
	Water	Incidental Adjustments	3%	\$	56,842	
	Sewer	Incidental Adjustments	3%	\$	56,842	
	Establish Turf / Erosion Control		2%	\$	37,894	
	Illumination	Standard Ilumination System	6%	\$	113,683	
	Other:					
**Allowances based on % of Paving Construction Cost Subtotal Allowance Subtotal:					3,352,624	
Paving and Allowance Subtotal: \$ 5,247,345						
	\$	5,247,345				
Mobilization: 5%					262,367	
Site Preparation: 5%				\$	262,367	
Construction Cost TOTAL:				\$	5,773,000	
		Construction Contingency:	15%	\$	865,950	

Impact Fee Project Cost S	Summary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 6,639,000
Engineering/Survey/Testing:		20%	\$ 1,327,800
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 1,327,800
Impact Fee Project Cost TOTAL (50% City Contribution)			\$ 4,647,300

Construction Cost TOTAL W/ CONTINGENCY:

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

6,639,000

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection Kimley-Horn and Associates, Inc.

updated: 12/16/2019

Project Information: J-10, K-8 Description: Project No.

Name: STATE HIGHWAY 5 (5) This project consists of the

STATE HIGHWAY 121 TO 3,525' S reconstruction of a two-lane asphalt

Limits: **OF STATE HIGHWAY 121** facility to a four-lane divided minor

Impact Fee Class: M4D arterial. Thoroughfare Class: Minor Arterial

Length (If): 3,525 J and K Service Area(s):

Roa	adway Construction Cost Projection			Ţ.		
No.	Item Description	Quantity	Unit	Uni	t Price	Item Cost
105	Unclassified Street Excavation	14,100	су	\$	15.00	\$ 211,500
205	Lime Treated Subgrade (8") (PI<12)	19,583	sy	\$	7.00	\$ 137,083
305	4" TY D HMAC Underlayment	18,017	sy	\$	5.00	\$ 90,083
405	8" Concrete Pavement	18,017	sy	\$	55.00	\$ 990,917
505	4" Topsoil	15,275	sy	\$	4.00	\$ 61,100
605	6" Curb & Gutter	14,100	lf .	\$	5.00	\$ 70,500
705	Allotment for Turn Lanes and Median Openings	2,070	sy	\$	82.00	\$ 169,707
		Paving Const	ruction (inst S	ubtotal:	\$ 1 730 891

Major Construction Component Allowances**:									
Item Description	Notes	Allowance		Item Cost					
√ Traffic Control	Construction Phase Traffic Control	3%	\$	51,927					
√ Pavement Markings/Markers		3%	\$	51,927					
√ Roadway Drainage		25%	\$	432,723					
Special Drainage Structures	None Anticipated		\$	-					
√ Water	Incidental Adjustments	3%	\$	51,927					
√ Sewer	Incidental Adjustments	3%	\$	51,927					
√ Establish Turf / Erosion Control		2%	\$	34,618					
√ Illumination	Standard Ilumination System	6%	\$	103,853					
Other:									
**Allowances based on % of Paving Construction Cos	t Subtotal Allowa	ince Subtotal:	\$	778,901					
	Paving and Allowa		\$	2,509,792					
	Mobilization:		\$	125,490					
	Site Preparation: Construction C			125,490					
	\$	2,761,000							
	\$	414,150							
Co	onstruction Cost TOTAL W/ CON	TINGENCY:	\$	3,176,000					

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,176,000
Engineering/Survey/Testing:		20%	\$ 635,200
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 635,200
Impact Fee I	Project Cost TOTAL (50% City Co	ontribution)	\$ 2,223,200

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

updated: 12/16/2019

Project Information	Description: Project No.	K-9, L-6

Name: AIRPORT DR (5) This project consists of the

US HIGHWAY 380 TO 470' N OF construction of two additional through

Limits: HARRY MCKILLOP BLVD / FM 546 lanes within the existing median of the

Impact Fee Class: P6D(1/3) ultimate six-lane divided principal Thoroughfare Class: Principal Arterial arterial

oroughtare Class: Principal Afterial arterial.

ngth (If): 13,870

Length (If): 13,870
Service Area(s): K and L

Roa	adway Construction Cost Projec	ction					
No.	Item Description		Quantity	Unit	Unit Price		Item Cost
114	Unclassified Street Excavation		43,151	су	\$ 10.00	\$	431,511
214	Lime Treated Subgrade (8") (PI<12)		41,610	sy	\$ 7.00	\$	291,270
314	9" Concrete Pavement		38,528	sy	\$ 60.00	\$	2,311,667
	4" Topsoil		12,329	sy	\$ 2.50	\$	30,822
	6" Curb & Gutter		27,740	lf	\$ 5.00	\$	138,700
614	Allotment for Turn Lanes and Median O		8,464	sy	\$ 77.00	\$	651,762
		P	aving Constr	ruction C	Cost Subtotal:	\$	3,855,732
Majo	or Construction Component Allowanc						
	Item Description	Notes			Allowance		Item Cost
	Traffic Control	Construction Phase	Traffic Control		3%		115,672
	Pavement Markings/Markers				3%	\$	115,672
	Roadway Drainage	None Anticipated			0%	\$	-
	Special Drainage Structures	None Anticipated				\$	-
	Water	None Anticipated			0%	\$	-
l .	Sewer	None Anticipated			0%	\$	-
	Establish Turf / Erosion Control				2%	\$	77,115
	Illumination	None Anticipated			0%	\$	-
	Other:						
**Allo	wances based on % of Paving Construction Cost	Subtotal		Allowa	nce Subtotal:	\$	308,459
			_		nce Subtotal:		4,164,190
				lization:		\$ \$	208,210
							208,210 4,581,000
	Construction Cost TOTAL:						
			uction Conti			\$	687,150
	Cor	struction Cos	t TOTAL W	// CON	TINGENCY:	\$	5,269,000

Impact Fee Project Cost Sui	mmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 5,269,000
Engineering/Survey/Testing:		20%	\$ 1,053,800
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
*	Impact Fee Project (Cost TOTAL:	\$ 6,322,800

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

12/16/2019

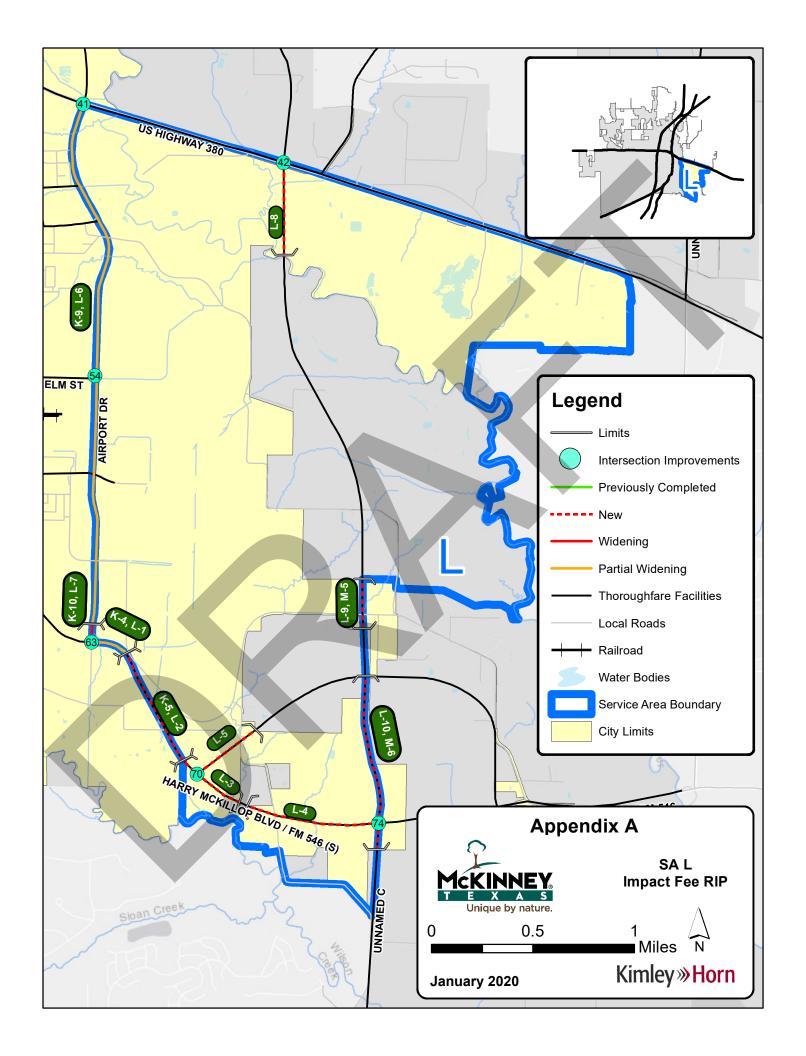
2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Informatio	n: De	scription:	Project No. K-10, L-7
Name:	AIRPORT DR (6)		This project consists of the
	470' N OF HARRY MCKILLOP BLVD / FI		reconstruction of a two-lane asphalt
Limits:	HARRY MCKILLOP BLVD / FM 546		facility to a six-lane divided principal
Impact Fee Class:	P6D		arterial. The City contributed
Thoroughfare Class:	Principal Arterial		approximately \$1,500,000 of eligible
Length (If):	470		funds from '12-'19.
Service Area(s):	K and I		

Roadway Construction Cost P	rojection					
No. Item Description	_	Quantity	Unit	Unit Price		Item Cost
113 Unclassified Street Excavation		5,222	су	\$ 10.00	\$	52,222
213 Lime Treated Subgrade (8") (PI<1	2)	4,073	sy	\$ 7.00	\$	28,513
313 9" Concrete Pavement		3,864	sy	\$ 60.00	65	231,867
413 4" Topsoil		2,141	sy	\$ 2.50	\$	5,353
513 6" Curb & Gutter		1,880	lf	\$ 5.00	\$	9,400
613 Allotment for Turn Lanes and Med	lian Openings	287	sy	\$ 77.00	\$	22,086
713 Moisture Conditioning		4,073	sy	\$ 8.00	\$	32,587
	P	aving Const	ruction (Cost Subtotal:	\$	382,027
Major Construction Component Allov						
Item Description	Notes			Allowance		Item Cost
√ Traffic Control	Construction Phase	Traffic Control		3%		11,461
√ Pavement Markings/Markers				3%		11,461
√ Roadway Drainage	Standard Internal Sy	stem		25%	\$	95,507
√ Special Drainage Structures	Stream Crossing				\$	250,000
√ Water	Incidental Adjustmer			3%		11,461
√ Sewer	Incidental Adjustmer	nts		3%	\$	11,461
√ Establish Turf / Erosion Control				2%	\$	7,641
√ Illumination	Standard Ilumination	System		6%	\$	22,922
Other:					_	101.010
**Allowances based on % of Paving Construction	Cost Subtotal		Allowa	ince Subtotal:	\$	421,912
		D		nce Subtotal:		200.040
	\$ \$	803,940				
						40,197
Site Preparation: 5% Construction Cost TOTAL:						40,197
	\$	885,000				
	Construction Cos	uction Conti			\$	132,750
	\$	1,018,000				

Impact Fee Project Cost Summ	ary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,018,000
Engineering/Survey/Testing:		20%	\$ 203,600
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ 1,500,000
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 203,600
	Impact Fee Pro	oject Cost TOTAL:	\$ 2,925,200

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.



Roadway Improvement Plan for Roadway Impact Fees Appendix A - Summary of Conceptual Level Project Cost Projections

Roadway Improvements - Service Area L

	Costing					Percent in	-	Cost in
#	Class	Project	Limits	T	otal Cost	Service Area	Ser	rvice Area
K-4, L-1	P6D(1/3)	HARRY MCKILLOP BLVD / FM 546 (2)	AIRPORT DR TO 980' E OF AIRPORT DR	\$	234,600	50%	\$	117,300
K-5, L-2	P6D	HARRY MCKILLOP BLVD / FM 546 (3)	975' E OF AIRPORT DR TO 510' W OF HARRY MCKILLOP BLVD / FM 546 (N)	\$	3,267,400	50%	\$	1,633,700
L-3	P6D	HARRY MCKILLOP BLVD / FM 546 (S) (1)	510' W OF HARRY MCKILLOP BLVD / FM 546 (N) TO 1,335' E OF HARRY MCKILLOP BLVD / FM 546 (N)	\$	2,153,725	100%	\$	2,153,725
L-4	P6D	HARRY MCKILLOP BLVD / FM 546 (S) (2)	3,480' W OF UNNAMED D TO UNNAMED D	\$	3,843,225	100%	\$	3,843,225
L-5	M6D	HARRY MCKILLOP BLVD / FM 546 (N) (1)	HARRY MCKILLOP BLVD / FM 546 (S) TO 1,865' E OF HARRY MCKILLOP BLVD / FM 546 (S)	\$	2,166,900	100%	\$	2,166,900
K-9, L-6	P6D(1/3)	AIRPORT DR (5)	US HIGHWAY 380 TO 470' N OF HARRY MCKILLOP BLVD / FM 546	\$	6,322,800	50%	\$	3,161,400
K-10, L-7	P6D	AIRPORT DR (6)	470' N OF HARRY MCKILLOP BLVD / FM 546 TO HARRY MCKILLOP BLVD / FM 546	\$	2,925,200	50%	\$	1,462,600
L-8	P6D	UNNAMED C (3)	US HIGHWAY 380 TO 2,435' S OF US HIGHWAY 380	\$	5,807,850	100%	\$	5,807,850
L-9, M-5	P6D	UNNAMED C (4)	2,525' N OF HARRY MCKILLOP BLVD / FM 546 TO 1,230' N OF HARRY MCKILLOP BLVD / FM 546	\$	2,830,300	50%	\$	1,415,150
L-10, M-6	P6D	UNNAMED C (5)	HARRY MCKILLOP BLVD / FM 546 (N) TO 705' S OF HARRY MCKILLOP BLVD / FM 546 (S)	\$	10,002,150	50%	\$	5,001,075
41		Signal Mod	US HIGHWAY 380 & AIRPORT DR	\$	150,000	50%	\$	75,000
42		Signal	US HIGHWAY 380 & UNNAMED C	\$	300,000	50%	\$	150,000
54	Inter-	Signal	AIRPORT DR & ELM ST	\$	300,000	50%	\$	150,000
63	section	Signal	HARRY MCKILLOP BLVD / FM 546 & AIRPORT DR	\$	300,000	75%	\$	225,000
70		Signal	HARRY MCKILLOP BLVD / FM 546 (S) & HARRY MCKILLOP BLVD / FM 546 (N)	\$	300,000	100%	\$	300,000
74		Signal	UNNAMED C & HARRY MCKILLOP BLVD / FM 546 (S)	\$	300,000	50%	\$	150,000
				\$	41,204,150		\$	27,812,925

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney. The planning level cost projections shall not supersede the City's design standard contained within the Subdivision Ordinance or the determination of the City Engineer for a specific project.

updated:

12/16/2019

391,000

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information: K-4, L-1 Description: Project No. Name: HARRY MCKILLOP BLVD / FM 546 (2) This project consists of the Limits: AIRPORT DR TO 980' E OF AIRPORT DR

Impact Fee Class: P6D(1/3) Thoroughfare Class: Principal Arterial

Length (If): 980

Service Area(s): L and K construction of two additional through lanes within the existing median of the ultimate six-lane divided principal

arterial.

Roa	dway Construction Cost Projec	ction						
No.	Item Description		Quantity	Unit	Uni	t Price		Item Cost
114	Unclassified Street Excavation		1,524	су	\$	15.00	\$	22,867
214	Lime Treated Subgrade (8") (PI<12)		2,940	sy	\$	7.00	\$	20,580
314	4" TY D HMAC Underlayment		2,722	sy	\$	5.00	\$	13,611
414	9" Concrete Pavement		2,722	sy	\$	60.00	\$	163,333
514	4" Topsoil		871	sy	\$	4.00	\$	3,484
614	6" Curb & Gutter		1,960	lf	\$	5.00	\$	9,800
714	Allotment for Turn Lanes and Median O	penings	598	sy	\$	87.00	\$	52,032
		P	aving Consti	ruction (Cost S	ubtotal:	\$	285,707
Majo	or Construction Component Allowanc	es**:						
	Item Description	Notes			Allo	wance		Item Cost
	Traffic Control	Construction Phase	Traffic Control			3%	\$	8,571
	Pavement Markings/Markers					3%	\$	8,571
	Roadway Drainage					0%	\$	-
	Special Drainage Structures	None Anticipated					\$	-
	Water	None Anticipated				0%	\$	-
	Sewer	None Anticipated				0%	\$	-
	Establish Turf / Erosion Control					2%	\$	5,714
	Illumination	None Anticipated				0%	\$	-
	Other:							
**Allo	wances based on % of Paving Construction Cost	Subtotal		Allowa	nce S	ubtotal:	\$	22,857
	Paving and Allowance Subtotal:							
	Mobilization: 5%							15,428
							\$	15,428
			Constru			OTAL:	\$	340,000 51,000
	Construction Contingency: 15% \$							

Impact Fee Project Cost Summa	ry		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 391,000
Engineering/Survey/Testing:		20%	\$ 78,200
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
Impact Fee	Project Cost TOTAL (50% City (Contribution)	\$ 234,600

Construction Cost TOTAL W/ CONTINGENCY:

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection updated: 12/16/2019

Project Information: K-5, L-2 Project No. Description:

HARRY MCKILLOP BLVD / FM 546 (3) Name: This project consists of the construction

975' E OF AIRPORT DR TO 510' W OF HARRY of a new six-lane divided principal Limits:

MCKILLOP BLVD / FM 546 (N) arterial.

Impact Fee Class: P6D

Thoroughfare Class: Principal Arterial

Length (If): 3,160 Service Area(s): K and L

Roa	Roadway Construction Cost Projection							
No.	Item Description	Quantity	Unit	Unit Price		Item Cost		
113	Unclassified Street Excavation	17,556	су	\$ 15.00	\$	263,333		
213	Lime Treated Subgrade (8") (PI<12)	27,387	sy	\$ 7.00	\$	191,707		
313	4" TY D HMAC Underlayment	25,982	sy	\$ 5.00	\$	129,911		
413	9" Concrete Pavement	25,982	sy	\$ 60.00	\$	1,558,933		
513	4" Topsoil	14,396	sy	\$ 4.00	\$	57,582		
613	6" Curb & Gutter	12,640	.lf	\$ 5.00	\$	63,200		
713	Allotment for Turn Lanes and Median Openings	1,928	sy	\$ 87.00	\$	167,775		

Paving Construction Cost Subtotal: \$ 2,432,442

Maj	or Construction Component Allowanc	es**:							
	Item Description	Notes	Allowance		Item Cost				
	Traffic Control	None Anticipated	1%	\$	24,324				
	Pavement Markings/Markers		3%	\$	72,973				
	Roadway Drainage		25%	\$	608,110				
	Special Drainage Structures	None Anticipated		\$	-				
	Water	None Anticipated	0%	\$	-				
	Sewer	None Anticipated	0%	\$	-				
	Establish Turf / Erosion Control		2%	\$	48,649				
	Illumination	Standard Ilumination System	6%	\$	145,947				
	Other:								
**Allo	owances based on % of Paving Construction Cost	Subtotal Allowa	ince Subtotal:	\$	900,004				
		Paving and Allowa	nce Subtotal:	\$	3,332,445				
		Mobilization:	5%	\$	166,622				
	\$	166,622							
	\$	3,666,000							
		Construction Contingency:	15%	\$	549,900				
	Co	nstruction Cost TOTAL W/ CON	TINGENCY:	\$	4,216,000				

Impact Fee Project Cost Summar	1		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,216,000
Engineering/Survey/Testing:		20%	\$ 843,200
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 1,475,600
Impact Fee	\$ 3,267,400		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

updated: 12/16/2019

Project Information: Description: Project No. L-3

Name: HARRY MCKILLOP BLVD / FM 546 (S) (1) This project consists of the construction

510' W OF HARRY MCKILLOP BLVD / FM 546 (N) of a new six-lane divided principal

TO 1,335' E OF HARRY MCKILLOP BLVD / FM arterial

Limits: 546 (N)
Impact Fee Class: P6D

Thoroughfare Class: Principal Arterial

Length (If): 1,845 Service Area(s): L

Roa	adway Construction Cost Projection								
No.	Item Description	Quantity	Unit	Unit Price		Unit Price			Item Cost
113	Unclassified Street Excavation	10,250	су	\$	15.00	\$	153,750		
213	Lime Treated Subgrade (8") (PI<12)	15,990	sy	\$	7.00	\$	111,930		
313	4" TY D HMAC Underlayment	15,170	sy	\$	5.00	\$	75,850		
413	9" Concrete Pavement	15,170	sy	\$	60.00	\$	910,200		
513	4" Topsoil	8,405	sy	\$	4.00	\$	33,620		
613	6" Curb & Gutter	7,380	If	\$	5.00	\$	36,900		
713	Allotment for Turn Lanes and Median Openings	1,126	sy	\$	87.00	\$	97,957		
						•	4 400 007		

Paving Construction Cost Subtotal: \$ 1,420,207

		anning constitution		*	.,,		
Majo							
	Item Description	Notes	Allowance		Item Cost		
	Traffic Control	None Anticipated	1%	\$	14,202		
	Pavement Markings/Markers		3%	\$	42,606		
	Roadway Drainage		25%	\$	355,052		
	Special Drainage Structures	Stream Crossing		\$	250,000		
	Water	None Anticipated	0%	\$	-		
	Sewer	None Anticipated	0%	\$	-		
$\sqrt{}$	Establish Turf / Erosion Control		2%	\$	28,404		
	Illumination	Standard Ilumination System	6%	\$	85,212		
	Other:						
**Allo	wances based on % of Paving Construction (Cost Subtotal Allowa	ance Subtotal:	\$	775,477		
		Paving and Allowa		\$	2,195,684		
		Mobilization:		\$	109,784		
		Site Preparation:		\$	109,784		
4	Construction Cost TOTAL:						
		Construction Contingency:	15%	\$	362,400		
		Construction Cost TOTAL W/ CON	TINGENCY:	\$	2,779,000		

Impact Fee Project Cost Summa	ry		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,779,000
Engineering/Survey/Testing:		20%	\$ 555,800
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 972,650
Impact Fed	\$ 2,153,725		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 12/16/2019

Project Information: Description: Project No. L-4

Name: HARRY MCKILLOP BLVD / FM 546 (S) (2) This project consists of the

Limits: 3,480' W OF UNNAMED D TO UNNAMED D construction of a new six-lane divided

Impact Fee Class: P6D principal arterial.

Thoroughfare Class: Principal Arterial

Length (If): 3,480 Service Area(s):

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price		Item Cost
113	Unclassified Street Excavation	19,333	су	\$	15.00	\$ 290,000
213	Lime Treated Subgrade (8") (PI<12)	30,160	sy	\$	7.00	\$ 211,120
313	4" TY D HMAC Underlayment	28,613	sy	\$	5.00	\$ 143,067
413	9" Concrete Pavement	28,613	sy	\$	60.00	\$ 1,716,800
513	4" Topsoil	15,853	sy	\$	4.00	\$ 63,413
	6" Curb & Gutter	13,920	If	\$	5.00	\$ 69,600
713	Allotment for Turn Lanes and Median Openings	2,124	sy	\$	87.00	\$ 184,765

Paving Construction Cost Subtotal: \$ 2,678,765

Majo							
	Item Description	Notes	Allowance		Item Cost		
	Traffic Control	None Anticipated	1%	\$	26,788		
	Pavement Markings/Markers		3%	\$	80,363		
	Roadway Drainage		25%	\$	669,691		
	Special Drainage Structures	Stream Crossing		\$	250,000		
	Water	None Anticipated	0%	\$	-		
	Sewer	None Anticipated	0%	\$	-		
	Establish Turf / Erosion Control		2%	\$	53,575		
	Illumination	Standard Ilumination System	6%	\$	160,726		
	Other:						
**Allo	wances based on % of Paving Construction Co.	st Subtotal Allowa	nce Subtotal:	\$	1,241,143		
-		Design on Alliana			0.040.000		
		Paving and Allowa		1	3,919,908		
		Mobilization:			195,995 195,995		
	Site Preparation: 5%						
4	Construction Cost TOTAL:						
		Construction Contingency:			646,800		
	Co	onstruction Cost TOTAL W/ CON	TINGENCY:	\$	4,959,000		

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,959,000
Engineering/Survey/Testing:		20%	\$ 991,800
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 1,735,650
Impact I	\$ 3,843,225		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection updated: 12/16/2019

Project Information: Description: Project No.

HARRY MCKILLOP BLVD / FM 546 (N) (1) Name: This project consists of the construction

HARRY MCKILLOP BLVD / FM 546 (S) TO 1,865' of a new six-lane divided major arterial.

Limits: E OF HARRY MCKILLOP BLVD / FM 546 (S)

Impact Fee Class:

Thoroughfare Class: Major Arterial

Length (If): 1,865 Service Area(s): L

Roa	dway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Unit	Price		Item Cost
109	Unclassified Street Excavation	10,361	су	\$	15.00	\$	155,417
209	Lime Treated Subgrade (8") (PI<12)	16,163	sy	\$	7.00	\$	113,143
309	4" TY D HMAC Underlayment	15,334	sy	\$	5.00	\$	76,672
409	9" Concrete Pavement	15,334	sy	\$	60.00	\$	920,067
509	4" Topsoil	7,253	sy	\$	4.00	\$	29,011
609	6" Curb & Gutter	7,460	lf	\$	5.00	\$	37,300
709	Allotment for Turn Lanes and Median Openings	1,138	sy	\$	87.00	\$	99,019
Paving Construction Cost Subtotal: \$ 1,430,62							

Paving Construction Cost Subtotal:	\$	1,430,629
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Maj				
	Item Description	Notes	Allowance	Item Cost
	Traffic Control	None Anticipated	1%	\$ 14,306
	Pavement Markings/Markers		3%	\$ 42,919
	Roadway Drainage		25%	\$ 357,657
	Special Drainage Structures	Stream Crossing		\$ 250,000
	Water	None Anticipated	0%	\$ -
	Sewer	None Anticipated	0%	\$ -
	Establish Turf / Erosion Control		2%	\$ 28,613
	Illumination	Standard Ilumination System	6%	\$ 85,838
	Other:			
**Allo	owances based on % of Paving Construction Cost S	ubtotal	nce Subtotal:	\$ 779,333
		Paving and Allowa	nce Subtotal:	\$ 2,209,962
		Mobilization:	5%	\$ 110,498
		Site Preparation:	5%	\$ 110,498
	\$ 2,431,000			
		Construction Contingency:		364,650
	Con	struction Cost TOTAL W/ CON	TINGENCY:	\$ 2,796,000

Impact Fee Project Cost Summar	/		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,796,000
Engineering/Survey/Testing:		20%	\$ 559,200
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 978,600
Impact Fee	\$ 2,166,900		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

updated: 12/16/2019

Project Information	Description: Project No.	K-9, L-6

Name: AIRPORT DR (5) This project consists of the

US HIGHWAY 380 TO 470' N OF construction of two additional through

Limits: HARRY MCKILLOP BLVD / FM 546 lanes within the existing median of the

Impact Fee Class: P6D(1/3) ultimate six-lane divided principal Thoroughfare Class: Principal Arterial arterial

oroughtare Class: Principal Afterial arterial.

ngth (If): 13,870

Length (If): 13,870
Service Area(s): K and L

Roa	Roadway Construction Cost Projection							
No.	Item Description		Quantity	Unit	Unit Price		Item Cost	
114	Unclassified Street Excavation		43,151	су	\$ 10.00	\$	431,511	
214	Lime Treated Subgrade (8") (PI<12)		41,610	sy	\$ 7.00	\$	291,270	
314	9" Concrete Pavement		38,528	sy	\$ 60.00	\$	2,311,667	
	4" Topsoil		12,329	sy	\$ 2.50	\$	30,822	
	6" Curb & Gutter		27,740	lf	\$ 5.00	\$	138,700	
614	Allotment for Turn Lanes and Median O		8,464	sy	\$ 77.00	\$	651,762	
		P	aving Constr	ruction C	Cost Subtotal:	\$	3,855,732	
Majo	or Construction Component Allowanc							
	Item Description	Notes			Allowance		Item Cost	
	Traffic Control	Construction Phase	Traffic Control		3%		115,672	
	Pavement Markings/Markers				3%	\$	115,672	
	Roadway Drainage	None Anticipated			0%	\$	-	
	Special Drainage Structures	None Anticipated				\$	-	
	Water	None Anticipated			0%	\$	-	
l .	Sewer	None Anticipated			0%	\$	-	
	Establish Turf / Erosion Control				2%	\$	77,115	
	Illumination	None Anticipated			0%	\$	-	
	Other:							
**Allo	wances based on % of Paving Construction Cost	Subtotal		Allowa	nce Subtotal:	\$	308,459	
						\$		
							4,164,190	
						\$ \$	208,210	
							208,210	
	Construction Cost TOTAL:						4,581,000	
			uction Conti			\$	687,150	
	Cor	struction Cos	t TOTAL W	// CON	TINGENCY:	\$	5,269,000	

Impact Fee Project Cost Sui	mmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 5,269,000
Engineering/Survey/Testing:		20%	\$ 1,053,800
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
Impact Fee Project Cost TOTAL:			\$ 6,322,800

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

12/16/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Informatio	n:	Description:	Project No. K-10, L-7
Name:	AIRPORT DR (6)		This project consists of the
	470' N OF HARRY MCKILLOP BLVD /	FM 546 TO	reconstruction of a two-lane asphalt
Limits:	HARRY MCKILLOP BLVD / FM 546		facility to a six-lane divided principal
Impact Fee Class:	P6D		arterial. The City contributed
Thoroughfare Class:	Principal Arterial		approximately \$1,500,000 of eligible
Length (If):	470		funds from '12-'19.
Service Area(s):	K and L		

Ro	adway Construction Cost Projec	ction					
No.	Item Description		Quantity	Unit	Unit Price		Item Cost
113	Unclassified Street Excavation		5,222	су	\$ 10.00	\$	52,222
213	Lime Treated Subgrade (8") (PI<12)		4,073	sy	\$ 7.00	\$	28,513
313	9" Concrete Pavement		3,864	sy	\$ 60.00	\$	231,867
413	4" Topsoil		2,141	sy	\$ 2.50	\$	5,353
513	6" Curb & Gutter		1,880	If	\$ 5.00	\$	9,400
613	Allotment for Turn Lanes and Median O	penings	287	sy	\$ 77.00	\$	22,086
713	Moisture Conditioning		4,073	sy	\$ 8.00	\$	32,587
		P	aving Const	ruction (Cost Subtotal:	\$	382,027
Majo	or Construction Component Allowance	es**:					
	Item Description	Notes			Allowance		Item Cost
	Traffic Control	Construction Phase	Traffic Control		3%		11,461
$\sqrt{}$	Pavement Markings/Markers				3%		11,461
$\sqrt{}$	Roadway Drainage	Standard Internal Sy	stem		25%		95,507
$\sqrt{}$	Special Drainage Structures	Stream Crossing				\$	250,000
$\sqrt{}$	Water	Incidental Adjustmer			3%		11,461
$\sqrt{}$	Sewer	Incidental Adjustmer	nts		3%		11,461
$\sqrt{}$	Establish Turf / Erosion Control				2%	\$	7,641
	Illumination	Standard Ilumination	System		6%	\$	22,922
	Other:						
**Allo	wances based on % of Paving Construction Cost S	Subtotal		Allowa	ince Subtotal:	\$	421,912
Paving and Allowance Subtotal:							803,940
Mobilization: 5%						\$	40,197
Site Preparation: 5%						_	40,197
Construction Cost TOTAL:						\$	885,000
			uction Conti			-	132,750
	Cor	struction Cos	t TOTAL W	// CON	TINGENCY:	\$	1,018,000

Impact Fee Project Cost Sumn Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,018,000
Engineering/Survey/Testing:		20%	\$ 203,600
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ 1,500,000
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 203,600
Impact Fee Project Cost TOTAL:			\$ 2,925,200

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 12/16/2019

Project Information: L-8 Description: Project No.

Name: UNNAMED C (3) Limits: US HIGHWAY 380 TO 2,435' S OF US HIGHWAY 380 This project consists of the construction of a new six-lane

Impact Fee Class: P₆D divided principal arterial.

Thoroughfare Class: Principal Arterial

2,435 Length (If):

Service Area(s):

Roa	adway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Unit	Price		Item Cost
113	Unclassified Street Excavation	27,056	су	\$	10.00	\$	270,556
213	Lime Treated Subgrade (8") (PI<12)	21,103	sy	\$	7.00	\$	147,723
313	9" Concrete Pavement	20,021	sy	\$	60.00	\$	1,201,267
413	4" Topsoil	11,093	sy	\$	2.50	\$	27,732
513	6" Curb & Gutter	9,740	lf	\$	5.00	\$	48,700
613	Allotment for Turn Lanes and Median Openings	1,486	sy	\$	77.00	\$	114,422
713	Moisture Conditioning	21,103	sy	\$	8.00	\$	168,827
					1441	_	4 070 007

Paving Construction Cost Subtotal: \$ 1,979,227

Major Construction Component Allowances**:							
Item Description	Notes	Allowance		Item Cost			
√ Traffic Control	None Anticipated	1%	\$	19,792			
√ Pavement Markings/Markers		3%	\$	59,377			
√ Roadway Drainage	Standard Internal System	25%	\$	494,807			
√ Special Drainage Structures	Stream Crossing		\$	250,000			
Water	None Anticipated	0%	\$	-			
Sewer	None Anticipated	0%	\$	-			
√ Establish Turf / Erosion Control		2%	\$	39,585			
√ Illumination	Standard Ilumination System	6%	\$	118,754			
Other:							
**Allowances based on % of Paving Construction	n Cost Subtotal Allow	ance Subtotal:	\$	982,314			
	Paving and Allow	ance Subtotal:	\$	2,961,540			
	Mobilization	5%	\$	148,077			
	\$	148,077					
	\$	3,258,000					
	\$	488,700					
	\$	3,747,000					

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	3,747,000				
Engineering/Survey/Testing:		20%	\$	749,400				
2008 - 2012 City contribution			\$	-				
2012 - 2019 City contribution			\$	-				
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$	1,311,450				
	\$	5,807,850						

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

updated: 12/16/2019

Project Information: Name:

UNNAMED C (4)

2,525' N OF HARRY MCKILLOP BLVD / FM 546 TO 1.230' N OF

HARRY MCKILLOP BLVD / FM 546

Impact Fee Class: P₆D

Limits:

Thoroughfare Class: Principal Arterial

Length (If): 1,295 Service Area(s): L and M Description: Project No. This project consists of the construction

of a new six-lane divided principal

arterial.

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price		Item Cost
113	Unclassified Street Excavation	14,389	су	\$ 10.00	\$	143,889
213	Lime Treated Subgrade (8") (PI<12)	11,223	sy	\$ 7.00	\$	78,563
313	9" Concrete Pavement	10,648	sy	\$ 60.00	\$	638,867
413	4" Topsoil	5,899	sy	\$ 2.50	\$	14,749
513	6" Curb & Gutter	5,180	_lf	\$ 5.00	\$	25,900
613	Allotment for Turn Lanes and Median Openings	790	sy	\$ 77.00	\$	60,853
713	Moisture Conditioning	11,223	sy	\$ 8.00	\$	89,787
	Paying Construction Cost Subtotal: \$					

	Ψ	1,032,007							
Major Co	Major Construction Component Allowances**:								
Iter	m Description	Notes	Allowance		Item Cost				
√ Tra	ffic Control	None Anticipated	1%	\$	10,526				
√ Pav	vement Markings/Markers		3%	\$	31,578				
√ Roa	adway Drainage	Standard Internal System	25%	\$	263,152				
Spe	ecial Drainage Structures	None Anticipated		\$	-				
Wa	ater	None Anticipated	0%	\$	-				
Sev	wer	None Anticipated	0%	\$	-				
√ Est	tablish Turf / Erosion Control		2%	\$	21,052				
√ IIIuı	mination	Standard Ilumination System	6%	\$	63,156				
Oth	ner:								
**Allowanc	ces based on % of Paving Construction Cost S	ubtotal Allowa	ince Subtotal:	\$	389,465				
		Paving and Allowa		\$	1,442,072 72,104				
	Mobilization: 5%								
	\$	72,104							
	\$	1,587,000							
		Construction Contingency:		\$	238,050				
	Con	struction Cost TOTAL W/ CON	TINGENCY:	\$	1,826,000				

Impact Fee Project Cost	Summary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,826,000
Engineering/Survey/Testing:		20%	\$ 365,200
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 639,100
	\$ 2,830,300		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection updated: 12/16/2019

Project Information: L-10, M-6 Description: Project No.

UNNAMED C (5) Name: This project consists of the construction

HARRY MCKILLOP BLVD / FM 546 of a new six-lane divided principal (N) TO 705' S OF HARRY arterial.

Limits: MCKILLOP BLVD / FM 546 (S)

Impact Fee Class: P6D

Thoroughfare Class: Principal Arterial

Length (If): 4,580 Service Area(s): L and M

Roa	adway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	50,889	су	\$ 10.00	\$ 508,889
213	Lime Treated Subgrade (8") (PI<12)	39,693	sy	\$ 7.00	\$ 277,853
313	9" Concrete Pavement	37,658	sy	\$ 60.00	\$ 2,259,467
413	4" Topsoil	20,864	sy	\$ 2.50	\$ 52,161
513	6" Curb & Gutter	18,320	-If	\$ 5.00	\$ 91,600
613	Allotment for Turn Lanes and Median Openings	2,795	sy	\$ 77.00	\$ 215,218
713	Moisture Conditioning	39,693	sy	\$ 8.00	\$ 317,547

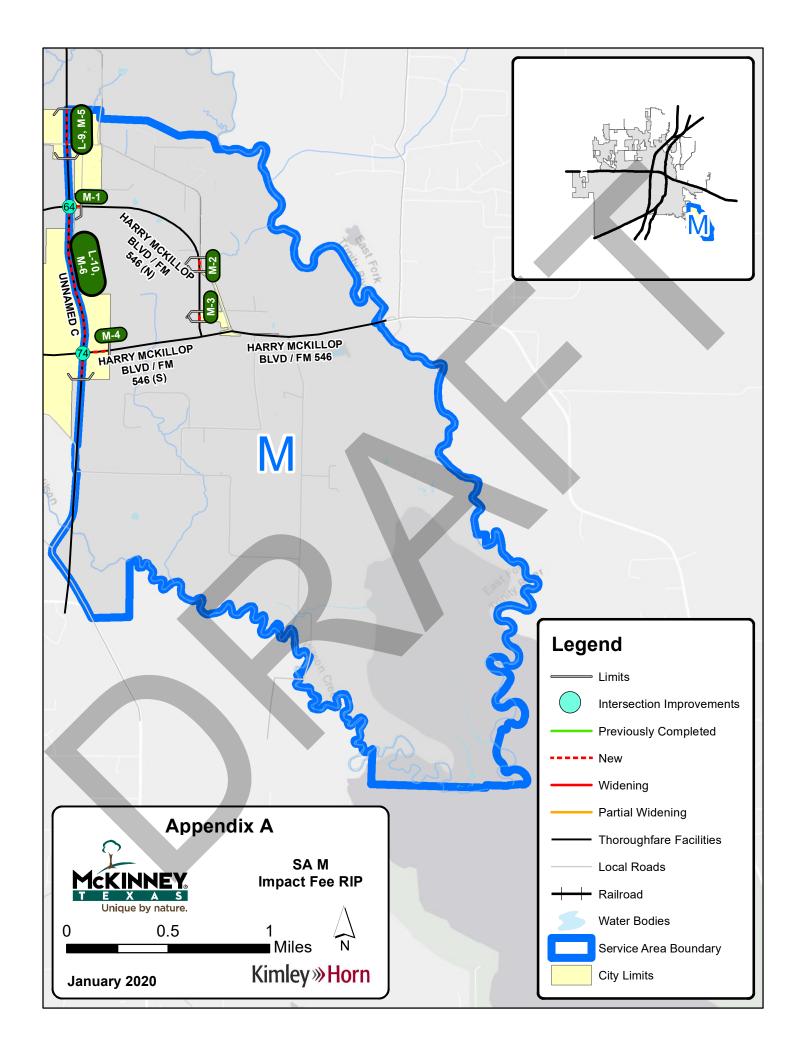
Paving Construction Cost Subtotal: \$ 3,722,734

Majo	or Construction Component Allov	vances**:
	Item Description	Note
2	Troffic Control	None

Item Description	Notes	Allowance		Item Cost
√ Traffic Control	None Anticipated	1%	\$	37,227
√ Pavement Markings/Markers		3%	\$	111,682
√ Roadway Drainage	Standard Internal System	25%	\$	930,684
Special Drainage Structures	None Anticipated		\$	-
Water	None Anticipated	0%	\$	-
Sewer	None Anticipated	0%	\$	-
√ Establish Turf / Erosion Control		2%	\$	74,455
√ Illumination	Standard Ilumination System	6%	\$	223,364
Other:				
**Allowances based on % of Paving Construction	Cost Subtotal Allowa	nce Subtotal:	\$	1,377,412
	Paving and Allowa	nce Subtotal:	\$	5,100,146
	Mobilization:	5%	\$	255,007
	Site Preparation:	5%	\$	255,007
	\$	5,611,000		
	Construction Contingency:		,	841,650
	Construction Cost TOTAL W/ CON	TINGENCY:	\$	6,453,000

Impact Fee Project Cost Summa	ary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 6,453,000
Engineering/Survey/Testing:		20%	\$ 1,290,600
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 2,258,550
· ·	\$ 10,002,150		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.



Roadway Improvement Plan for Roadway Impact Fees Appendix A - Summary of Conceptual Level Project Cost Projections

Roadway Improvements - Service Area M

	Costing					Percent in		Cost in
#	Class	Project	Limits	T	otal Cost	Service Area	Ser	vice Area
M-1	M6D	HARRY MCKILLOP BLVD / FM 546 (N) (2)	110' E OF UNNAMED C TO 300' E OF UNNAMED C	\$	196,075	50%	\$	98,038
M-2	M6D	HARRY MCKILLOP BLVD / FM 546 (N) (3)	1,700' N OF HARRY MCKILLOP BLVD / FM 546 TO 2,050' N OF HARRY MCKILLOP BLVD / FM 546	\$	361,150	50%	\$	180,575
M-3	M6D	HARRY MCKILLOP BLVD / FM 546 (N) (4)	405' N OF HARRY MCKILLOP BLVD / FM 546 TO 675' N OF HARRY MCKILLOP BLVD / FM 546	\$	279,000	50%	\$	139,500
M-4	P6D	HARRY MCKILLOP BLVD / FM 546 (S) (3)	UNNAMED C TO 695' E OF UNNAMED C	\$	719,975	100%	\$	719,975
L-9, M-5	P6D	UNNAMED C (4)	2,525' N OF HARRY MCKILLOP BLVD / FM 546 TO 1,230' N OF HARRY MCKILLOP BLVD / FM 546	\$	2,830,300	50%	\$	1,415,150
L-10, M-6	P6D	UNNAMED C (5)	HARRY MCKILLOP BLVD / FM 546 (N) TO 705' S OF HARRY MCKILLOP BLVD / FM 546 (S)	\$	10,002,150	50%	\$	5,001,075
64	Inter-	Signal	UNNAMED C & HARRY MCKILLOP BLVD / FM 546 (N)	\$	300,000	50%	\$	150,000
74	section	Signal	UNNAMED C & HARRY MCKILLOP BLVD / FM 546 (S)	\$ _	300,000	50%	\$	150,000
		·		\$	14.988.650		\$	7.854.313

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney. The planning level cost projections shall not supersede the City's design standards contained within the Subdivision Ordinance or the determination of the City Engineer for a specific project.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 12/16/2019

Project Information: Description: Project No. M-1

Name: HARRY MCKILLOP BLVD / FM 546 (N) (2) This project consist Limits: 110' E OF UNNAMED C TO 300' E OF UNNAMED C construction of a r

Impact Fee Class: M6D

Thoroughfare Class: Major Arterial

Length (If): 190 Service Area(s): M This project consists of the construction of a new six-lane

divided major arterial.

Roa	dway Construction Cost Projection						
No.	Item Description	Quantity	Unit Unit Price			Item Cost	
109	Unclassified Street Excavation	1,056	су	\$ 15.00	\$	15,833	
209	Lime Treated Subgrade (8") (PI<12)	1,647	sy	\$ 7.00	\$	11,527	
309	4" TY D HMAC Underlayment	1,562	sy	\$ 5.00	\$	7,811	
409	9" Concrete Pavement	1,562	sy	\$ 60.00	\$	93,733	
509	4" Topsoil	739	sy	\$ 4.00	\$	2,956	
609	6" Curb & Gutter	760	lf	\$ 5.00	\$	3,800	
709	Allotment for Turn Lanes and Median Openings	116	sy	\$ 87.00	\$	10,088	
	Begins Construction Cost Cultistal						

Paving Construction Cost Subtotal: \$ 145,748

Majo					
	Item Description	Notes	Allowance		Item Cost
	Traffic Control	None Anticipated	1%	\$	1,457
	Pavement Markings/Markers		3%	\$	4,372
	Roadway Drainage		25%	\$	36,437
	Special Drainage Structures	None Anticipated		\$	-
	Water	None Anticipated	0%	\$	-
	Sewer	None Anticipated	0%	\$	-
	Establish Turf / Erosion Control		2%	\$	2,915
	Illumination	Standard Ilumination System	6%	\$	8,745
	Other:				
**Allo	wances based on % of Paving Construction Co	st Subtotal Allowa	nce Subtotal:	\$	53,927
		Paving and Allowa	nce Subtotal:	\$	199,674
		Mobilization:	5%	\$	9,984
		Site Preparation:	5%	\$	9,984
	\$	220,000			
		Construction Contingency:		-	33,000
	C	onstruction Cost TOTAL W/ CON	TINGENCY:	\$	253,000

Impact Fee Project Cost Sumi	Notes:	Allowance	Item Cost
Construction:		-	\$ 253,000
Engineering/Survey/Testing:		20%	\$ 50,600
2008 - 2012 City contribution			\$ · -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 88,550
Impact I	\$ 196,075		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection Kimley-Horn and Associates, Inc.

updated: 12/16/2019

Project Information: Description: Project No. M-2
Name: HARRY MCKILLOP BLVD / FM 546 (N) (3) This project consists of the

1,700' N OF HARRY MCKILLOPconstruction of a new six-laneBLVD / FM 546 TO 2,050' N OFdivided major arterial.

Limits: HARRY MCKILLOP BLVD / FM 546

Impact Fee Class: M6D

Thoroughfare Class: Major Arterial

Length (If): 350 Service Area(s): M

Roa	adway Construction Cost Projec	tion					
No.	Item Description		Quantity	Unit	Uni	it Price	Item Cost
109	Unclassified Street Excavation		1,944	су	\$	15.00	\$ 29,167
209	Lime Treated Subgrade (8") (PI<12)		3,033	sy	\$	7.00	\$ 21,233
309	4" TY D HMAC Underlayment		2,878	sy	\$	5.00	\$ 14,389
409	9" Concrete Pavement		2,878	sy	\$	60.00	\$ 172,667
509	4" Topsoil		1,361	sy	\$	4.00	\$ 5,444
609	6" Curb & Gutter		1,400	If	\$	5.00	\$ 7,000
709	Allotment for Turn Lanes and Median Op	enings	214	sy	\$	87.00	\$ 18,583
		F	Paving Const	ruction (Cost S	Subtotal:	\$ 268,483
Majo	or Construction Component Allowance	s**:					
	Item Description	Notes			Allo	wance	Item Cost
	Traffic Control	None Anticipated				1%	\$ 2,685
,							

wajor Construction Component Allowances**:									
Item Description	Notes	Allowance		Item Cost					
√ Traffic Control	None Anticipated	1%	\$	2,685					
√ Pavement Markings/Markers		3%	\$	8,054					
√ Roadway Drainage		25%	\$	67,121					
Special Drainage Structures	None Anticipated		\$	-					
Water	None Anticipated	0%	\$	-					
Sewer	None Anticipated	0%	\$	-					
√ Establish Turf / Erosion Control		2%	\$	5,370					
√ Illumination	Standard Ilumination System	6%	\$	16,109					
Other:									
**Allowances based on % of Paving Construction	Cost Subtotal Allowa	nce Subtotal:	\$	99,339					
	Paving and Allowa	nce Subtotal:	\$	367,821					
	Mobilization:	5%	\$	18,391					
	Site Preparation:	5%	\$	18,391					
	\$	405,000							
	Construction Contingency:		-	60,750					
	Construction Cost TOTAL W/ CON	TINGENCY:	\$	466,000					

Impact Fee Project Cost Summa	ary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 466,000
Engineering/Survey/Testing:		20%	\$ 93,200
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 163,100
Impact Fe	\$ 361,150		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection Kimley-Horn and Associates, Inc.

12/16/2019 updated:

Project Informatio	n:	Description:	Project No.	M-3
Name:	HARRY MCKILLOP BLVD / FM 546	(N) (4)	This project consis	sts of the
	405' N OF HARRY MCKILLOP BLVI)	construction of a n	ew six-lane
	/ FM 546 TO 675' N OF HARRY		divided major arter	ial.
Limits:	MCKILLOP BLVD / FM 546			

Impact Fee Class: M₆D

Thoroughfare Class: Major Arterial

Length (If): 270 Service Area(s): Μ

Roa	dway Construction Cost Pro	ection					
	Item Description		Quantity	Unit	Unit Price		Item Cost
109	Unclassified Street Excavation		1,500	су	\$ 15.00	\$	22,500
209	Lime Treated Subgrade (8") (PI<12)		2,340	sy	\$ 7.00	\$	16,380
309	4" TY D HMAC Underlayment		2,220	sy	\$ 5.00	\$	11,100
409	9" Concrete Pavement		2,220	sy	\$ 60.00	\$	133,200
509	4" Topsoil		1,050	sy	\$ 4.00	\$	4,200
609	6" Curb & Gutter		1,080	If	\$ 5.00	\$	5,400
709	Allotment for Turn Lanes and Median	Openings	165	sy	\$ 87.00	\$	14,335
		F	Paving Const	ruction (Cost Subtotal:	\$	207,115
Majo	or Construction Component Allowa	nces**:					
	Item Description	Notes			Allowance		Item Cost
	Traffic Control	None Anticipated			1%	\$	2,071
	Pavement Markings/Markers				3%		6,213
	Roadway Drainage				25%	\$	51,779
	Special Drainage Structures	None Anticipated				\$	-
	Water	None Anticipated			0%	\$	-
	Sewer	None Anticipated			0%		-
	Establish Turf / Erosion Control				2%	\$	4,142
	Illumination	Standard Ilumination	System		6%	\$	12,427
	Other:						
**Allo	wances based on % of Paving Construction Co	st Subtotal		Allowa	ınce Subtotal:	\$	76,633
					nce Subtotal:	\$	283,748
			Mobi	lization:	5%	\$	14,187
			Site Prep	aration:	5%	\$	14,187
	Construction Cost TOTAL:						313,000
		Constr	ruction Conti	ngency:	15%	\$	46,950
	C	onstruction Cos	t TOTAL W	// CON	TINGENCY:	\$	360,000

Impact Fee Project Cost Summa	ary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 360,000
Engineering/Survey/Testing:		20%	\$ 72,000
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 126,000
Impact Fe	\$ 279,000		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

updated: 12/16/2019

Project Information: Description: Project No. M-4

Name: HARRY MCKILLOP BLVD / FM 546 (S) (3) This project consists of the

Limits: UNNAMED C TO 695' E OF UNNAMED C construction of a new six-lane divided

Impact Fee Class: P6D principal arterial.

Thoroughfare Class: Principal Arterial

Length (If): 695 Service Area(s): M

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit	Price	Item Cost
113	Unclassified Street Excavation	3,861	су	\$	15.00	\$ 57,917
213	Lime Treated Subgrade (8") (PI<12)	6,023	sy	\$	7.00	\$ 42,163
313	4" TY D HMAC Underlayment	5,714	sy	\$	5.00	\$ 28,572
413	9" Concrete Pavement	5,714	sy	\$	60.00	\$ 342,867
513	4" Topsoil	3,166	sy	\$	4.00	\$ 12,664
613	6" Curb & Gutter	2,780	lf	\$	5.00	\$ 13,900
713	Allotment for Turn Lanes and Median Openings	424	sy	\$	87.00	\$ 36,900

Paving Construction Cost Subtotal: \$ 534,983

Majo	Major Construction Component Allowances**:								
	Item Description	Notes	Allowance		Item Cost				
	Traffic Control	None Anticipated	1%	\$	5,350				
	Pavement Markings/Markers		3%	\$	16,049				
	Roadway Drainage		25%	\$	133,746				
	Special Drainage Structures	None Anticipated		\$	-				
	Water	None Anticipated	0%	\$	-				
	Sewer	None Anticipated	0%	\$	-				
	Establish Turf / Erosion Control		2%	\$	10,700				
	Illumination	Standard Ilumination System	6%	\$	32,099				
	Other:								
**Allo	wances based on % of Paving Construction Co	ost Subtotal Allowa	nce Subtotal:	\$	197,944				
		Paving and Allowa	nce Subtotal:	\$	732,927				
		Mobilization:	5%	\$	36,646				
		Site Preparation:	5%	\$	36,646				
	\$	807,000							
		Construction Contingency:		,	121,050				
	C	onstruction Cost TOTAL W/ CON	TINGENCY:	\$	929,000				

Impact Fee Project Cost Summa	ry		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 929,000
Engineering/Survey/Testing:		20%	\$ 185,800
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 325,150
Impact Fee	\$ 719,975		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection updated: 12/16/2019

Project Information: L-9, M-5 Description: Project No.

UNNAMED C (4) Name: This project consists of the construction

2,525' N OF HARRY MCKILLOP of a new six-lane divided principal BLVD / FM 546 TO 1.230' N OF arterial.

Limits: HARRY MCKILLOP BLVD / FM 546

Impact Fee Class: P6D

Thoroughfare Class: Principal Arterial

Length (If): 1,295 Service Area(s): M and L

Roa	dway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	14,389	су	\$ 10.00	\$ 143,889
213	Lime Treated Subgrade (8") (PI<12)	11,223	sy	\$ 7.00	\$ 78,563
313	9" Concrete Pavement	10,648	sy	\$ 60.00	\$ 638,867
413	4" Topsoil	5,899	sy	\$ 2.50	\$ 14,749
513	6" Curb & Gutter	5,180	lf	\$ 5.00	\$ 25,900
613	Allotment for Turn Lanes and Median Openings	790	sy	\$ 77.00	\$ 60,853
713	Moisture Conditioning	11,223	sy	\$ 8.00	\$ 89,787

Paving Construction Cost Subtotal: \$ 1 052 607

Paving Construction Cost Subtotal: \$ 1,052,607										
Majar Canatrus	ion Component Allowen	**:								
Major Construction Component Allowances**: Item Description Notes Allowance Item Cost										
√ Traffic Cont	·			1%	Φ.					
,		None Anticipated			Ф	10,526				
	//arkings/Markers			3%	\$	31,578				
√ Roadway D	rainage	Standard Internal System		25%	\$	263,152				
Special Dra	inage Structures	None Anticipated			\$	-				
Water		None Anticipated		0%	\$	-				
Sewer		None Anticipated		0%	\$	-				
√ Establish Tu	urf / Erosion Control			2%	\$	21,052				
√ Illumination		Standard Ilumination System		6%	\$	63,156				
Other:		Standard Hummation Cyclom		370	Ψ	00,100				
**Allowances based of	on % of Paving Construction Cos	t Subtotal	Allowa	nce Subtotal:	\$	389,465				
					·	·				
		Paving	and Allowa	nce Subtotal:	\$	1,442,072				
		Me	obilization:	5%	\$	72,104				
		Site P	reparation:	5%	\$	72,104				
	\$	1,587,000								
		Construction Co	ntingency:	15%	\$	238,050				
Construction Cost TOTAL W/ CONTINGENCY:						1,826,000				

Impact Fee Project Cost Sumn	nary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,826,000
Engineering/Survey/Testing:		20%	\$ 365,200
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 639,100
▼ -	\$ 2,830,300		

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

arterial.

12/16/2019

2018 - 2019 Roadway Impact Fee Update Conceptual Level Project Cost Projection

Project Information: L-10, M-6 Description: Project No. Name: UNNAMED C (5) This project consists of the construction of a new six-lane divided principal HARRY MCKILLOP BLVD / FM 546 (N) TO 705' S OF HARRY MCKILLOP

Limits: BLVD / FM 546 (S)

Impact Fee Class: P6D

Thoroughfare Class: **Principal Arterial**

Length (If): 4,580 Service Area(s): M and L

					Ť	
Roa	adway Construction Cost Projec	ction				
No.	Item Description		Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation		50,889	су	\$ 10.00	\$ 508,889
213	Lime Treated Subgrade (8") (PI<12)		39,693	sy	\$ 7.00	\$ 277,853
313	9" Concrete Pavement		37,658	sy	\$ 60.00	\$ 2,259,467
413	4" Topsoil		20,864	sy	\$ 2.50	\$ 52,161
513	6" Curb & Gutter		18,320	. If	\$ 5.00	\$ 91,600
613	Allotment for Turn Lanes and Median C	penings	2,795	sy	\$ 77.00	\$ 215,218
713	Moisture Conditioning		39,693	sy	\$ 8.00	\$ 317,547
		F	Paving Const	ruction (Cost Subtotal:	\$ 3,722,734
Majo	or Construction Component Allowand	es**:				
	Item Description	Notes			Allowance	Item Cost
	Traffic Control	None Anticipated			1%	\$ 37,227
	Pavement Markings/Markers				3%	\$ 111,682
	Roadway Drainage	Standard Internal Sy	stem		25%	\$ 930,684
	Special Drainage Structures	None Anticipated				\$ -
	Water	None Anticipated			0%	\$ -
	Sewer	None Anticipated			0%	\$ -
1						
√	Establish Turf / Erosion Control				2%	\$ 74,455
$\sqrt{}$	Establish Turf / Erosion Control Illumination	Standard Ilumination	System		2% 6%	74,455 223,364

**Allowances based on % of Paving Construction Cost Subtotal Allowance Subtotal:	\$ 1,377,412
Paving and Allowance Subtotal:	\$ 5,100,146
Mobilization: 5%	\$ 255,007
Site Preparation: 5%	\$ 255,007
Construction Cost TOTAL:	\$ 5,611,000
Construction Contingency: 15%	\$ 841,650
Construction Cost TOTAL W/ CONTINGENCY:	\$ 6,453,000

Impact Fee Project Cost Summar	ту			
Item Description	Notes:	Allowance		Item Cost
Construction:		-	\$	6,453,000
Engineering/Survey/Testing:		20%	\$	1,290,600
2008 - 2012 City contribution			\$	-
2012 - 2019 City contribution			\$	-
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$	2,258,550
Impact Fee Project Cost TOTAL:				10,002,150

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of McKinney.





Appendix B – Roadway Impact Fee RIP Service Units of Supply

RIP Service Units of Supply

Service Area A

Project ID #	ROADWAY	LIMITS	LENGTH (ft)	LANES	IMPACT FEE CLASSIFICATION	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-FT SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	тот	AL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
A-1, C-1	UNNAMED 5 (1)	635' W OF STONEBRIDGE DR TO CR 168	3,326	6	M6D	New	50%	700	1,323	6,985,000	0	1,323	\$	7,715,900	\$ 3,857,950
A-2, D-1	UNNAMED 5 (3)	CR 168 TO 1,560' E OF CR 168	1,584	6	M6D	New	50%	700	630	3,326,000	0	630	\$	7,517,500	\$ 3,758,750
A-3	STONEBRIDGE DR (1)	2,635' N OF UNNAMED 5 TO UNNAMED 5	2,640	4	G4D	New	50%	700	700	3,696,000	0	700	\$	4,679,450	\$ 2,339,725
SUBTOTA	L								2,653		0	2,653	\$	19,912,850	\$ 9,956,425

11,692

12/13/2019

TOTAL COST IN SERVICE AREA A \$ 9,968,117

RIP Service Units of Supply

Service Area B

Project ID #	ROADWAY	LIMITS	LENGTH (ft)			PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-FT SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
B-1, D-2	UNNAMED 5 (4)	1,050' W OF HARDIN BLVD TO 1,200' E OF HARDIN BLVD	2,270	6	M6D	New	50%	700	903	4,768,000	0	903	\$ 4,904,200	\$ 2,452,100
B-2	HARDIN BLVD (1)	CR 204 TO CR 206	422	6	G6D	100	50%	700	168	887,000	4	164	\$ 877,800	\$ 438,900
B-3	HARDIN BLVD (2)	1,670' N OF OLYMPIC TO 730' S OF OLYMPIC	2,376	6	G6D	100	50%	700	945	4,990,000	23	923	\$ 4,837,000	\$ 2,418,500
B-4	HARDIN BLVD (3)	1,940' N OF UNNAMED 5 TO UNNAMED 5	1,954	6	G6D	New	100%	700	1,554	8,205,000	0	1,554	\$ 4,090,450	\$ 4,090,450
1	Signal	HARDIN BLVD & OLYMPIC					50%			-			\$ 300,000	\$ 150,000
3	Signal	HARDIN BLVD & UNNAMED 5					50%						\$ 300,000	\$ 150,000
SUBTOTAL	-								3,570		27	3,544	\$ 15,309,450	\$ 9,699,950

11,692 9,711,642

TOTAL COST IN SERVICE AREA B \$

RIP Service Units of Supply

Service Area C

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						PEAK	% IN	VEH-MI	VEH-MI	VEH-FT	VEH-MI	EXCESS		TOTAL F	PROJECT
Project ID	ROADWAY	LIMITS	LENGTH	LANES	IMPACT FEE	HOUR	SERVICE	CAPACITY	SUPPLY	SUPPLY	TOTAL	CAPACITY			SERVICE
#	KONDWKI	LIMITO	(ft)	LANGE	CLASSIFICATION	VOLUME	AREA	PK-HR	PK-HR	PK-HR	DEMAND	PK-HR	COST		REA
								PER LN	TOTAL	TOTAL	PK-HR	VEH-MI			
A-1, C-1	UNNAMED 5 (1)	635' W OF STONEBRIDGE DR TO CR 168	3,326	6	M6D	New	50%	700	1,323	6,985,440	0	1,323	\$ 7,715,900		3,857,950
C-2	UNNAMED 5 (2)	RIDGE RD TO 1,505' E OF RIDGE RD	1,531	6	M6D	100	50%	700	609	3,215,520	15	595	\$ 3,137,400		1,568,700
C-3	LAUD HOWELL PKWY (1)	695' W OF CUSTER RD TO CUSTER RD	686	6	G6D	542	50%	700	273	1,441,440	35	238	\$ 665,000		332,500
C-4	LAUD HOWELL PKWY (2)	CUSTER RD TO 1,225' E OF CUSTER RD	1,214	6	G6D	542	100%	700	966	5,100,480	125	841	\$ 1,171,800		1,171,800
C-5	LAUD HOWELL PKWY (3)	1,225' E OF CUSTER RD TO 2,070' E OF CUSTER RD	845	6	G6D	542	50%	700	336	1,774,080	43	293	\$ 808,500		404,250
C-6	LAUD HOWELL PKWY (4)	840' E OF STONEBRIDGE DR TO 2,905' E OF STONEBRIDGE DR	2,059	6	G6D	542	50%	700	819	4,324,320	106	713	\$ 2,859,500		1,429,750
C-7	LAUD HOWELL PKWY (5)	1,985' W OF RIDGE RD TO 1,230' E OF RIDGE RD	3,221	6	G6D	542	50%	700	1,281	6,763,680	165	1,116	\$ 3,073,000		1,536,500
C-8	BLOOMDALE RD (1)	CUSTER RD TO 1,310' E OF CUSTER RD	1,320	6	P6D	316	100%	780	1,170	6,177,600	79	1,091	\$ 3,179,400		3,179,400
C-9	BLOOMDALE RD (2)	1,310' E OF CUSTER RD TO 2,030' W OF STONEBRIDGE DR	2,112	6	P6D	316	50%	780	936	4,942,080	63	873	\$ 4,838,400		2,419,200
C-10	BLOOMDALE RD (3)	2,030' W OF STONEBRIDGE DR TO 3,245' E OF STONEBRIDGE DR	5,280	6	P6D	316	100%	780	4,680	24,710,400	316	4,364	\$ 13,314,000		13,314,000
C-11	BLOOMDALE RD (4)	3,245' E OF STONEBRIDGE DR TO 695' W OF RIDGE RD	1,373	6	P6D	316	50%	780	608	3,212,352	41	567	\$ 3,292,800		1,646,400
C-12	BLOOMDALE RD (5)	695' W OF RIDGE RD TO RIDGE RD	686	6	P6D	316	100%	780	608	3,212,352	41	567	\$ 1,453,200		1,453,200
C-13	BLOOMDALE RD (6)	3,400' W OF LAKE FOREST DR TO LAKE FOREST DR	3,379	4	P6D(2/3)	New	50%	780	998	5,271,552	0	998	\$ 4,650,800		2,325,400
C-14	WILMETH RD (1)	3,725' W OF STONEBRIDGE DR TO 815' E OF STONEBRIDGE DR	4,541	4	G4D	New	100%	700	2,408	12,714,240	0	2,408	\$ 8,845,850		8,845,850
C-15	WILMETH RD (2)	815' E OF STONEBRIDGE DR TO 995' W OF RIDGE RD	3,326	4	G4D	34	50%	700	882	4,656,960	11	871	\$ 6,200,600		3,100,300
C-16	WILMETH RD (3)	RIDGE RD TO 585' E OF RIDGE RD	581	4	G4D(1/2)	131	100%	700	308	1,626,240	14	294	\$ 1,593,000	\$	1,593,000
C-17	WILMETH RD (4)	1,095' E OF RIDGE RD TO 1,365' E OF RIDGE RD	264	4	G4D(1/2)	131	100%	700	140	739,200	7	133	\$ 708,000	\$	708,000
C-18	CUSTER RD (1)	1,855' N OF LAUD HOWELL PKWY TO LAUD HOWELL PKWY	1,848	6	P6D	615	50%	780	819	4,324,320	108	711	\$ 1,834,000	\$	917,000
C-19	CUSTER RD (2)	LAUD HOWELL PKWY TO 2,775 N OF BLOOMDALE RD	2,798	6	P6D	New	100%	780	2,480	13,096,512	0	2,480	\$ 2,869,825		2,869,825
C-20	CUSTER RD (3)	2,655 N OF BLOOMDALE RD TO 375' N OF WILMETH RD	6,283	6	P6D	1,111	50%	780	2,785	14,702,688	661	2,124	\$ 8,071,300		4,035,650
C-21	STONEBRIDGE DR (2)	UNNAMED 5 TO 1,280' S OF UNNAMED 5	1,267	4	G4D	New	100%	700	672	3,548,160	0	672	\$ 2,763,650	\$ 2	2,763,650
C-22	STONEBRIDGE DR (3)	1,570' S OF LAUD HOWELL PKWY TO 280' S OF WILMETH RD	7,973	4	G4D	New	100%	700	4,228	22,323,840	0	4,228	\$ 14,194,900	\$ 14	14,194,900
C-23	STONEBRIDGE DR (4)	280' S OF WILMETH RD TO 1,195' S OF WILMETH RD	898	4	G4D	New	50%	700	238	1,256,640	0	238	\$ 2,117,300	\$	1,058,650
C-24	STONEBRIDGE DR (5)	1,195' S OF WILMETH RD TO 5,555' S OF WILMETH RD	4,382	4	G4D	New	100%	700	2,324	12,270,720	0	2,324	\$ 8,232,050	\$ 8	8,232,050
C-25	STONEBRIDGE DR (6)	580' N OF US HIGHWAY 380 TO US HIGHWAY 380	581	4	G4D	New	100%	700	308	1,626,240	0	308	\$ 1,030,750		1,030,750
C-26	RIDGE RD (1)	UNNAMED 5 TO 1,485' S OF UNNAMED 5	1,478	6	M6D	100	50%	700	588	3,104,640	14	574	\$ 3,095,400	\$	1,547,700
C-27	RIDGE RD (2)	LAUD HOWELL PKWY TO BAXTER WELL RD	3,115	6	M6D	New	100%	700	2,478	13,083,840	0	2,478	\$ 7,267,950		7,267,950
C-28	RIDGE RD (3)	BAXTER WELL RD TO 2,160' S OF BLOOMDALE RD	4,382	6	M6D	87	50%	700	1,743	9,203,040	36	1,707	\$ 9,144,800	\$ 4	4,572,400
C-29	RIDGE RD (4)	1,590' N OF WILMETH RD TO WILMETH RD	1,584	6	M6D	87	50%	700	630	3,326,400	13	617	\$ 3,756,200	\$ -	1,878,100
C-30	RIDGE RD (5)	WILMETH RD TO 2,280' S OF WILMETH RD	2,270	6	M6D	New	100%	700	1,806	9,535,680	0	1,806	\$ 7,411,200		7,411,200
C-31	RIDGE RD (6)	1,860' N OF US HIGHWAY 380 TO 1,390' N OF US HIGHWAY 380	475	6	M6D	New	50%	700	189	997,920	0	189	\$ 1,455,000		727,500
C-32	RIDGE RD (7)	775' N OF US HIGHWAY 380 TO US HIGHWAY 380	792	6	M6D	New	100%	700	630	3,326,400	0	630	\$ 2,857,200		2,857,200
C-33	LAKE FOREST DR (2)	BLOOMDALE RD TO WILMETH RD	5,386	6	M6D(1/3)	841	50%	700	2,142	11,309,760	429	1,713	\$ 5,008,981	\$ 2	2,504,491
C-34, D-22	LAKE FOREST DR (3)	WILMETH RD TO US HIGHWAY 380	5,174	2	M6D(1/3)	New	50%	700	686	3,622,080	0	686	\$ 2,350,800		1,175,400
2	Signal	RIDGE RD & UNNAMED 5					25%						\$ 300,000	\$	75,000
4	Signal	LAUD HOWELL PKWY & CUSTER RD					75%						\$ 300,000	\$	225,000
5	Signal	LAUD HOWELL PKWY & RIDGE RD					50%						\$ 300,000		150,000
12	Intersection Improvement	CUSTER RD & BLOOMDALE RD					50%						\$ 150,000		75,000
13	Signal	BLOOMDALE RD & STONEBRIDGE DR					100%						\$ 300,000		300,000
14	Signal	BLOOMDALE RD & RIDGE RD					50%						\$ 300,000		150,000
15	Signal	BLOOMDALE RD & LAKE FOREST DR					25%			l			\$ 300,000	\$	75,000
23	Signal	STONEBRIDGE DR & WILMETH RD					100%						\$ 300,000		300,000
24	Signal	WILMETH RD & RIDGEKNOLL AVE					100%			l			\$ 300,000		300,000
25	Roundabout	LAKE FOREST DR & WILMETH RD			-		50%						\$ 1,830,000		915,000
33	Signal Mod	US HIGHWAY 380 & STONEBRIDGE DR					50%		l	l			\$ 150,000	\$	75,000
34	Signal	US HIGHWAY 380 & FOREST RIDGE LN		1			50%				1		\$ 300,000		150,000
35	Signal	US HIGHWAY 380 & AUBURN HILLS PKWY					50%						\$ 300,000	-	150,000
SUBTOTAL									43,092		2,321	40,771	\$ 156,098,456	\$ 110	6,870,616

\$ 11,692

TOTAL COST IN SERVICE AREA C \$ 116,882,308

RIP Service Units of Supply

Service Area D

OCI VIOC	Area D													12/13/201
						PEAK	% IN	VEH-MI	VEH-MI	VEH-FT	VEH-MI	EXCESS		TOTAL PROJECT
Project ID	ROADWAY	LIMITS	LENGTH	LANES	IMPACT FEE	HOUR	SERVICE	CAPACITY	SUPPLY	SUPPLY	TOTAL	CAPACITY	TOTAL PROJECT	COST IN SERVICE
#	No.DW	Elimito .	(ft)		CLASSIFICATION	VOLUME		PK-HR	PK-HR	PK-HR	DEMAND	PK-HR	COST	AREA
								PER LN	TOTAL	TOTAL	PK-HR	VEH-MI		
A-2, D-1	UNNAMED 5 (3)	CR 168 TO 1,560' E OF CR 168	1,584	6	M6D	New	50%	700	630	3,326,000	0	630	\$ 7,517,500	\$ 3,758,750
B-1, D-2	UNNAMED 5 (4)	1,050' W OF HARDIN BLVD TO 1,200' E OF HARDIN BLVD	2,270	6	M6D	New	50%	700	903	4,768,000	0	903	\$ 4,904,200	\$ 2,452,100
D-3	LAUD HOWELL PKWY (6)	LAKE FOREST DR TO 1860' E OF HARDIN BLVD	13,992	6	G6D	New	100%	700	11,130	58,766,000	0	11,130	\$ 39,497,100	\$ 39,497,100
D-4	LAUD HOWELL PKWY (7)	4,170' N OF TRINITY FALLS PKWY TO 240' N OF TRINITY FALLS PKWY	3,907	6	G6D	New	100%	700	3,108	16,410,000	0	3,108	\$ 8,774,550	\$ 8,774,550
D-5	LAUD HOWELL PKWY (8)	240' N OF TRINITY FALLS PKWY TO US HIGHWAY 75	2,006	6	G6D(1/3)	802	100%	700	1,596	8,427,000	305	1,291	\$ 2,220,027	\$ 2,220,027
D-6	TRINITY FALLS PKWY (1)	HARDIN BLVD TO 1,910' E OF HARDIN BLVD	1,901	4	G4D	100	100%	700	1,008	5,322,000	36	972	\$ 3,243,800	\$ 3,243,800
D-7	TRINITY FALLS PKWY (2)	1,910' E OF HARDIN BLVD TO 2,675' E OF HARDIN BLVD	739	4	G4D	100	50%	700	196	1,035,000	7	189	\$ 1,300,600	\$ 650,300
D-8	TRINITY FALLS PKWY (3)	COMMUNITY AVE TO 2,200' W OF LAUD HOWELL PKWY	1,795	4	G4D	New	50%	700	476	2,513,000	0	476	\$ 5,976,800	\$ 2,988,400
D-9	TRINITY FALLS PKWY (4)	LAUD HOWELL PKWY TO 2,200' W OF LAUD HOWELL PKWY	2,218	4	G4D	New	100%	700	1,176	6,209,000	0	1,176	\$ 8,418,050	\$ 8,418,050
D-10	TRINITY FALLS PKWY (5)	4,275' N OF WESTON RD TO LAUD HOWELL PKWY	5,544	6	M6D(1/3)	1,229	100%	700	4,410	23,285,000	1,291	3,119	\$ 7,622,400	
D-11	BLOOMDALE RD (7)	1,820' W OF TAYLOR-BURK DR TO TAYLOR-BURK DR	1,795	6	P6D	12	50%	780	796	4,201,000	2	794	\$ 3,799,600	\$ 1,899,800
D-12	BLOOMDALE RD (8)	1,485' E OF CR 1006 TO 1,215' W OF CR 1007	1,531	6	P6D	12	100%	780	1,357	7,166,000	3	1,354	\$ 3,206,000	\$ 3,206,000
D-13	BLOOMDALE RD (9)	1,225' W OF CR 1007 TO CR 1007	1,214	6	P6D	12	50%	780	538	2,842,000	1	537	\$ 3,001,600	\$ 1,500,800
D-14	BLOOMDALE RD (10)	CR 1007 TO HARDIN BLVD	1,954	6	P6D(2/3)	New	100%	780	1,732	9,143,000	0	1,732	\$ 5,885,810	\$ 5,885,810
D-15	BLOOMDALE RD (11)	HARDIN BLVD TO COMMUNITY AVE	2,587	6	P6D(1/3)	New	100%	780	2,293	12,108,000	0	2,293	\$ 5,165,390	\$ 5,165,390
D-16	WILMETH RD (5)	LAKE FOREST DR TO UNNAMED A	4,752	4	G4D	New	50%	700	1,260	6,653,000	0	1,260	\$ 10,991,050	\$ 5,495,525
D-17	WILMETH RD (6)	UNNAMED A TO 825' E OF UNNAMED A	845	4	G4D	86	100%	700	448	2,365,000	14	434	\$ 1,401,400	\$ 1,401,400
D-18	WILMETH RD (7)	825' E OF TAYLOR-BURK DR TO 1,380' E OF TAYLOR-BURK DR	581	2	G4D(1/2)	New	100%	700	154	813,000	0	154	\$ 411,600	\$ 411,600
D-19	WILMETH RD (8)	1,380' E OF TAYLOR-BURK DR TO HARDIN BLVD	2,218	4	G4D	86	50%	700	588	3,105,000	18	570	\$ 3,803,800	\$ 1,901,900
D-20	WILMETH RD (9)	HARDIN BLVD TO US HIGHWAY 75	6,125	2	M6D(1/3)	New	100%	700	1,624	8,575,000	0	1,624	\$ 2,799,600	\$ 2,799,600
D-21	LAKE FOREST DR (1)	LAUD HOWELL PKWY TO 3,200' S OF LAUD HOWELL PKWY	3,221	6	G6D	466	50%	700	1,281	6,764,000	142	1,139	\$ 6,448,400	\$ 3,224,200
C-34, D-22	LAKE FOREST DR (3)	WILMETH RD TO US HIGHWAY 380	5,174	2	M6D(1/3)	New	50%	700	686	3,622,000	0	686	\$ 2,350,800	\$ 1,175,400
D-23	UNNAMED A (1)	5,785' N OF LAUD HOWELL PKWY TO 2,710' S OF LAUD HOWELL PKWY	8,501	4	G4D	New	100%	700	4,508	23,802,000	0	4,508	\$ 17,435,950	\$ 17,435,950
D-24	UNNAMED A (2)	2,710' S OF LAUD HOWELL PKWY TO BLOOMDALE RD	2,587	4	G4D	New	50%	700	686	3,622,000	0	686	\$ 4,598,850	\$ 2,299,425
D-25	UNNAMED A (3)	1,105' N OF WILMETH RD TO WILMETH RD	1,109	4	G4D	86	50%	700	294	1,552,000	9	285	\$ 1,876,000	\$ 938,000
D-26	UNNAMED A (4)	WILMETH RD TO HARDIN BLVD	3,960	4	M4D	New	100%	700	2,100	11,088,000	0	2,100	\$ 5,969,050	\$ 5,969,050
D-27	TAYLOR-BURK DR (1)	HARDIN BLVD TO SKYLINE DR	1,478	4	M4D	New	100%	700	784	4,140,000	0	784	\$ 2,038,250	\$ 2,038,250
D-28	HARDIN BLVD (4)	UNNAMED 5 TO 1,550' S OF UNNAMED 5	1,531	6	G6D	New	50%	700	609	3,216,000	0	609	\$ 3,267,400	\$ 1,633,700
D-29	HARDIN BLVD (5)	1,545' S OF UNNAMED 5 TO TRINITY FALLS PKWY	7,286	6	G6D	New	100%	700	5,796	30,603,000	0	5,796	\$ 21,290,800	\$ 21,290,800
D-30	HARDIN BLVD (6)	TRINITY FALLS PKWY TO 1,815' S OF TRINITY FALLS PKWY	1,795	6	G6D	12	50%	700	714	3,770,000	2	712	\$ 4,102,000	\$ 2,051,000
D-31	HARDIN BLVD (7)	1,815' S OF TRINITY FALLS PKWY TO 1,190' S OF BLOOMDALE RD	1,901	6	G6D	New	100%	700	1,512	7,983,000	0	1,512	\$ 4.538,400	\$ 4,538,400
D-32	HARDIN BLVD (8)	1,190' S OF BLOOMDALE RD TO 3,590' S OF BLOOMDALE RD	2,376	2	G6D(1/3)	New	100%	700	630	3,326,000	0	630	\$ 1,070,400	\$ 1,070,400
D-33	HARDIN BLVD (9)	3,590' S OF BLOOMDALE RD TO WILMETH RD	1,742	4	G6D(2/3)	New	50%	700	462	2,439,000	0	462	\$ 2,249,800	\$ 1,124,900
D-34	HARDIN BLVD (10)	WILMETH RD TO US HIGHWAY 380	6,494	2	G6D(1/3)	New	100%	700	1,722	9,092,000	0	1,722	\$ 2,904,000	\$ 2,904,000
D-35	COMMUNITY AVE (1)	TRINITY FALLS PKWY TO 1,275' S OF TRINITY FALLS PKWY	1,267	4	G4D	387	100%	700	672	3,548,000	93	579	\$ 2,164,400	\$ 2,164,400
D-36	COMMUNITY AVE (2)	1,275' S OF TRINITY FALLS PKWY TO BLOOMDALE RD	2,640	2	G4D(1/2)	New	100%	700	700	3,696,000	0	700	\$ 1,960,000	\$ 1,960,000
D-37	COMMUNITY AVE (3)	BLOOMDALE RD TO 2,305' S OF BLOOMDALE RD	2,323	2	M4U(1/2)	New	100%	525	462	2,439,000	0	462	\$ 1,174,600	\$ 1,174,600
3	Signal	HARDIN BLVD & UNNAMED 5					50%						\$ 300,000	\$ 150,000
6	Signal	LAUD HOWELL PKWY & LAKE FOREST DR					50%						\$ 300,000	\$ 150,000
7	Signal	LAUD HOWELL PKWY & UNNAMED A					100%						\$ 300,000	\$ 300,000
8	Signal	LAUD HOWELL PKWY & HARDIN BLVD					100%						\$ 300,000	\$ 300,000
9	Signal	HARDIN BLVD & TRINITY FALLS PKWY			_		75%						\$ 300,000	\$ 225,000
10	Roundabout	TRINITY FALLS PKWY & COMMUNITY AVE					50%						\$ 200,000	\$ 100,000
11	Interchange Signals	US HIGHWAY 75 & LAUD HOWELL PKWY			7		50%						\$ 600,000	\$ 300,000
16	Signal	BLOOMDALE RD & UNNAMED A	1			İ	25%						\$ 300,000	\$ 75,000
17	Signal	BLOOMDALE RD & HARDIN BLVD	1	1		İ	100%						\$ 300,000	\$ 300,000
18	Signal	BLOOMDALE RD & COMMUNITY AVE					100%						\$ 300,000	\$ 300,000
19	Interchange Signals	US HIGHWAY 75 & BLOOMDALE RD					50%						\$ 600,000	\$ 300,000
25	Roundabout	LAKE FOREST DR & WILMETH RD	1				50%						\$ 1,830,000	\$ 915,000
26	Roundabout	WILMETH RD & UNNAMED A	1				75%						\$ 200,000	
27	Roundabout	HARDIN BLVD & WILMETH RD	1	l l		1	75%	1				1	\$ 2,100,000	\$ 1.575.000
32	Roundabout	HARDIN BLVD & TAYLOR-BURK DR	1	l l		1	100%	1				1	\$ 1,200,000	. ,,
36	Under Construction	US HIGHWAY 380 & HARDIN BLVD	1	1		l	50%	1				1	\$ 780,682	
SUBTOTAL	Chack Condition	In the second se			1		00,0	1	59.041	 	1.923	57,118	\$ 225,290,659	
									00,071		1,020	1 57,115	¥ ££0,£30,033	ψ 100,010,1

\$ 11,692 TOTAL COST IN SERVICE AREA D \$ 189,027,810

RIP Service Units of Supply

Service Area E

PFAK %IN VEH-MI VEH-MI VEH-MI EXCESS TOTAL PROJECT														
Project ID	ROADWAY	LIMITS	LENGTH	LANES	IMPACT FEE CLASSIFICATION	PEAK HOUR	% IN SERVICE	CAPACITY PK-HR	SUPPLY PK-HR	SUPPLY PK-HR	TOTAL DEMAND		TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE
			(,			VOLUME	AREA	PER LN	TOTAL	TOTAL	PK-HR	VEH-MI		AREA
E-1	BLOOMDALE RD (12)	US HIGHWAY 75 TO REDBUD BLVD	2.534	2	P6D(1/3)	New	100%	780	749	3,954,000	0	749	\$ 955,200	\$ 955,200
E-2	BLOOMDALE RD (13)	REDBUD BLVD TO AIRPORT DR	2,693	4	P6D(2/3)	New	100%	780	1,591	8,402,000	0	1,591		\$ 3,361,400
E-3	WILMETH RD (10)	US HIGHWAY 75 TO 2,570' E OF REDBUD BLVD	4,118	2	M6D(1/3)	New	100%	700	1,092	5,766,000	0	1,092	\$ 1,935,600	\$ 1,935,600
E-4	WILMETH RD (11)	2,570' E OF REDBUD BLVD TO STATE HIGHWAY 5	2,165	4	M6D(2/3)	New	100%	700	1,148	6,061,000	0	1,148	\$ 2,608,200	\$ 2,608,200
E-5	WILMETH RD (12)	STATE HIGHWAY 5 TO 2,100' E OF SH 5	2,112	6	M6D	New	100%	700	1,680	8,870,000	0	1,680	\$ 5,068,500	\$ 5,068,500
E-6	WILMETH RD (13)	2,100' E OF SH 5 TO 980' W OF AIRPORT DR	1,320	6	M6D	102	100%	675	1,013	5,346,000	26	987	\$ 2,804,200	\$ 2,804,200
E-7	WILMETH RD (14)	980' W OF AIRPORT DR TO 235' E OF AIRPORT DR	1,214	6	M6D	102	50%	700	483	2,550,000	12	471	\$ 3,417,400	\$ 1,708,700
E-8	WILMETH RD (15)	1,150' W OF FM 2933 TO 400' E OF FM 2933	1,531	6	M6D	233	50%	700	609	3,216,000	34	575	\$ 3,229,800	\$ 1,614,900
E-9	REDBUD BLVD (1)	BLOOMDALE RD TO 2,930' S OF BLOOMDALE RD	2,904	4	M4D	162	100%	700	1,540	8,131,000	89	1,451	\$ 650,000	\$ 650,000
E-10	REDBUD BLVD (2)	2,930' S OF BLOOMDALE RD TO WILMETH RD	1,637	2	M4D(1/2)	New	100%	700	434	2,292,000	0	434	\$ 852,600	\$ 852,600
E-11	LAUD HOWELL PKWY (9)	US HIGHWAY 75 TO 2,620' S OF US HIGHWAY 75	2,640	6	M6D	200	50%	700	1,050	5,544,000	50	1,000	\$ 3,909,500	\$ 1,954,750
E-12	LAUD HOWELL PKWY (10)	2,620' S OF US HIGHWAY 75 TO BLOOMDALE RD	1,637	6	M6D	200	100%	700	1,302	6,875,000	62	1,240	\$ 1,876,700	\$ 1,876,700
E-13	LAUD HOWELL PKWY (11)	BLOOMDALE RD TO STATE HIGHWAY 5	845	6	P6D	332	100%	780	749	3,954,000	53	696	\$ 861,000	\$ 861,000
E-14	STATE HIGHWAY 5 (1)	4,700' N OF AIRPORT DR TO 3,995' N OF AIRPORT D	F 686	6	M6D	675	50%	700	273	1,441,000	44	229	\$ 695,100	\$ 347,550
E-15	STATE HIGHWAY 5 (2)	1,915' N OF AIRPORT DR TO US HIGHWAY 380	11,986	6	M6D	1,302	100%	700	9,534	50,340,000	2,956	6,578	\$ 13,994,400	\$ 13,994,400
E-16	AIRPORT DR (1)	STATE HIGHWAY 5 TO 4,070 S OF STATE HIGHWAY	4,066	6	P6D	New	100%	780	3,604	19,027,000	0	3,604	\$ 9,379,050	\$ 9,379,050
E-17	AIRPORT DR (2)	WILMETH RD TO WOODLAWN RD (N)	2,798	6	P6D	New	100%	780	2,480	13,097,000	0	2,480	\$ 6,582,850	\$ 6,582,850
E-18	AIRPORT DR (3)	WOODLAWN RD (N) TO WOODLAWN RD (S)	1,531	6	P6D	863	100%	780	1,357	7,166,000	250	1,107	\$ 3,648,400	\$ 3,648,400
E-19	AIRPORT DR (4)	WOODLAWN RD (S) TO US HIGHWAY 380	3,854	6	P6D	New	100%	780	3,416	18,039,000	0	3,416	\$ 8,952,800	\$ 8,952,800
E-20	UNNAMED C (1)	410' E OF STATE HIGHWAY 5 TO 3,010' E OF STATE H	2,587	2	P6D(1/3)	New	100%	780	764	4,036,000	0	764	\$ 986,400	\$ 986,400
E-21	UNNAMED C (2)	WILMETH RD TO 2,615' S OF WILMETH RD	2,640	6	P6D	106	50%	780	1,170	6,178,000	27	1,143	\$ 2,806,300	\$ 1,403,150
11	Interchange Signals	US HIGHWAY 75 & LAUD HOWELL PKWY					50%						\$ 600,000	\$ 300,000
19	Interchange Signals	US HIGHWAY 75 & BLOOMDALE RD					50%		_				\$ 600,000	\$ 300,000
20	Signal	BLOOMDALE RD & REDBUD BLVD		1			100%						\$ 300,000	\$ 300,000
21	Signal	LAUD HOWELL PKWY & BLOOMDALE RD					100%						\$ 300,000	\$ 300,000
22	Signal Mod	STATE HIGHWAY 5 & LAUD HOWELL PKWY					100%						\$ 150,000	\$ 150,000
28	Signal	WILMETH RD & REDBUD BLVD					100%						\$ 300,000	\$ 300,000
29	Signal Mod	STATE HIGHWAY 5 & WILMETH RD	1				100%						\$ 150,000	\$ 150,000
30	Signal	AIRPORT DR & WILMETH RD					50%							\$ 150,000
31	Signal	UNNAMED C & WILMETH RD					50%						\$ 300,000	
41	Signal Mod	US HIGHWAY 380 & AIRPORT DR					50%						\$ 150,000	\$ 75,000
SUBTOTAL	-								36,038		3,602	32,437	\$ 81,725,400	\$ 73,721,350
	·									· ·		· ·	·	\$ 11.602

TOTAL COST IN SERVICE AREA E \$ 73,733,042

11,692

RIP Service Units of Supply

Service	Area G					•								12/13/2019
Project ID #	ROADWAY	LIMITS	LENGTH (ft)	ANES	IMPACT FEE CLASSIFICATION	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-FT SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
		No Thoroughfare Road	dways within t	he Cit	y Limits Currently P	esent withi	n Service Ar	ea F						
SUBTOTAL	•								0		0	0	\$ -	\$ -

TOTAL COST IN SERVICE AREA F \$

11,692

11,692

RIP Service Units of Supply

Service Area G

OCI VICE	Aica C														
Project ID #	ROADWAY	LIMITS	LENGTH (ft)	LANES	IMPACT FEE CLASSIFICATION	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-FT SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	тот	AL PROJECT COST	AL PROJECT T IN SERVICE AREA
G-1	VIRGINIA PKWY (1)	COIT RD TO 500' W OF INDEPENDENCE PKWY	4,752	2	M6D(1/3)	New	100%	700	1,260	6,653,000	0	1,260	\$	2,158,800	\$ 2,158,800
G-2	VIRGINIA PKWY (2)	500' W OF INDEPENDENCE PKWY TO 325' E OF FORKHORN DR	1,742	2	M6D(1/3)	New	50%	700	231	1,220,000	0	231	\$	794,400	\$ 397,200
G-3	VIRGINIA PKWY (3)	325' E OF FORKHORN DR TO 935' W OF VIRGINIA HILLS DR	1,478	6	M6D(1/3)	1,755	50%	700	588	3,105,000	246	342	\$	913,196	\$ 456,598
G-4	VIRGINIA PKWY (4)	935' W OF VIRGINIA HILLS DR TO CUSTER RD	2,693	6	M6D(1/3)	1,620	100%	700	2,142	11,310,000	826	1,316	\$	1,661,863	\$ 1,661,863
G-5	VIRGINIA PKWY (5)	CUSTER RD TO 410' E OF DANBURY RD	2,587	2	M6D(1/3)	New	100%	700	686	3,622,000	0	686	\$	1,182,000	\$ 1,182,000
G-6	VIRGINIA PKWY (6)	410' E OF DANBURY RD TO VIRGINIA PARKLANDS BLVD	2,059	1	M6D(1/6)	New	100%	700	273	1,441,000	0	273	\$	392,400	\$ 392,400
G-7	WESTRIDGE BLVD (1)	COIT RD TO 1,635' E OF COIT RD	1,637	2	M6D(1/3)	New	50%	700	217	1,146,000	0	217	\$	745,200	\$ 372,600
G-8	WESTRIDGE BLVD (2)	1,635' E OF COIT RD TO 2,720' E OF INDEPENDENCE PKWY	6,442	2	M6D(1/3)	New	100%	700	1,708	9,018,000	0	1,708	\$	2,931,600	\$ 2,931,600
G-9	WESTRIDGE BLVD (3)	2,720' E OF INDEPENDENCE PKWY TO CUSTER RD	2,640	2	M6D(1/3)	New	50%	700	350	1,848,000	0	350	\$	1,192,800	\$ 596,400
H-1, G-10	ELDORADO PKWY (1)	CUSTER RD TO RIDGE RD	10,824	2	G6D(1/3)	New	50%	700	1,435	7,577,000	0	1,435	\$	5,202,000	\$ 2,601,000
G-11	COIT RD (1)	US HIGHWAY 380 TO 2,610' S OF VIRGINIA PKWY	8,078	2	M6D(1/3)	New	50%	700	1,071	5,655,000	0	1,071	\$	3,681,600	\$ 1,840,800
G-12	COIT RD (2)	WESTRIDGE BLVD TO 2,595' S OF WESTRIDGE BLVD	2,587	2	M6D(1/3)	New	50%	700	343	1,811,000	0	343	\$	1,184,400	\$ 592,200
G-13	INDEPENDENCE PKWY (1)	2,380' S OF US HIGHWAY 380 TO 4,465' S OF US HIGHWAY 380	2,059	2	M6D(1/3)	New	100%	700	546	2,883,000	0	546	\$	951,600	\$ 951,600
G-14	INDEPENDENCE PKWY (2)	VIRGINIA PKWY TO 2,690' S OF WESTRIDGE BLVD	8,026	2	M6D(1/3)	New	100%	700	2,128	11,236,000	0	2,128	\$	3,666,000	\$ 3,666,000
G-15	CUSTER RD (4)	US HIGHWAY 380 TO WESTRIDGE BLVD	10,718	6	P6D	2,821	100%	780	9,500	50,162,000	5,726	3,775	\$	3,260,945	\$ 3,260,945
G-16	CUSTER RD (5)	WESTRIDGE BLVD TO ELDORADO PKWY	5,386	6	P6D	3,292	100%	780	4,774	25,205,000	3,358	1,416	\$	1,476,398	\$ 1,476,398
G-17, I-8	RIDGE RD (8)	US HIGHWAY 380 TO CREEKSIDE DR	6,864	4	G4D	561	50%	700	1,820	9,610,000	365	1,455	\$	550,813	\$ 275,407
33	Signal Mod	US HIGHWAY 380 & STONEBRIDGE DR					50%						\$	150,000	\$ 75,000
34	Signal	US HIGHWAY 380 & FOREST RIDGE LN					50%						\$	300,000	\$ 150,000
37	Signal	STONEBRIDGE DR & LACIMA DR					100%						\$	300,000	\$ 300,000
38	Signal	RIDGE RD & HABERSHAM WAY					50%						\$	343,000	\$ 171,500
43	Signal	INDEPENDENCE PKWY & VIRGINIA PKWY					50%						\$	80,000	\$ 40,000
44	Under Construction	VIRGINIA PKWY & RIDGE RD					50%						\$	390,341	\$ 195,171
47	Signal	INDEPENDENCE PKWY & WESTRIDGE BLVD					100%	1					\$	300,000	\$ 300,000
48	Under Construction	CUSTER RD & WESTRIDGE BLVD					75%		-				\$	390,341	\$ 292,756
49	Roundabout	STONEBRIDGE DR & GLEN OAKS DR					100%						\$	1,950,000	\$ 1,950,000
50	Roundabout	RIDGE RD & GLEN OAKS DR					50%						\$	2,640,000	\$ 1,320,000
55	Signal	STONEBRIDGE DR & ALMA DR					100%						\$	300,000	\$ 300,000
56	Signal	RIDGE RD & RUSH CREEK RD					50%						\$	300,000	\$ 150,000
57	Signal	RIDGE RD & BERKSHIRE RD					50%						\$	300,000	\$ 150,000
SUBTOTAL						·	·		29.072		10,520	18,552	\$	39,689,697	\$ 30.208.237

11,692 30,219,929

TOTAL COST IN SERVICE AREA G \$ 30,21

RIP Service Units of Supply

Service Area H

	Alcum	_											,			
Project ID #	ROADWAY	LIMITS	LENGTH (ft)	LANES	IMPACT FEE CLASSIFICATION	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-FT SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI		PROJECT COST	COST IN	PROJECT N SERVICE REA
H-1, G-10	ELDORADO PKWY (1)	CUSTER RD TO RIDGE RD	10,830	2	G6D(1/3)	New	50%	700	1,436	7,581,000	0	1,436	\$	5,202,000	\$	2,601,000
H-2	SILVERADO TRL (1)	CUSTER RD TO BURNETT DR	1,930	4	M4D(1/2)	397	100%	700	1,023	5,404,000	145	879	\$	2,746,293	\$	2,746,293
H-3	SILVERADO TRL (2)	ALMA DR TO ALFALFA DR	1,170	4	M4D	424	100%	700	620	3,276,000	94	526	\$	141,088	\$	141,088
H-4	STACY RD (1)	CUSTER RD TO RIDGE RD	10,715	6	P6D(1/3)	2,065	100%	780	9,497	50,146,000	4,191	5,306	\$	4,479,991	\$	4,479,991
H-5	CUSTER RD (6)	ELDORADO PKWY TO STONEBRIDGE DR	2,040	6	P6D	3,416	100%	780	1,808	9,547,000	1,320	488	\$	622,725	\$	622,725
H-6	ALMA DR (1)	805' S OF BEAVER CREEK DR TO SILVERADO TRL	1,960	4	G4D	1,396	100%	700	1,039	5,488,000	518	521	\$	239,850	\$	239,850
H-7	ALMA DR (2)	SILVERADO TRL TO STACY RD	2,625	6	M6D(1/3)	1,642	100%	700	2,088	11,025,000	817	1,272	\$	1,522,102	\$	1,522,102
H-8, I-9	RIDGE RD (9)	MCKINNEY RANCH PKWY TO STACY RD	3,645	2	M6D(1/3)	New	50%	700	483	2,552,000	0	483	\$	1,662,000	\$	831,000
H-9	MCKINNEY RANCH PKWY (1)	RIDGE RD TO STACY RD	4,075	2	M6D(1/3)	New	100%	700	1,080	5,705,000	0	1,080	\$	1,857,600	\$	1,857,600
65	Signal	CUSTER RD & SILVERADO TRL					50%						\$	300,000	\$	150,000
66	Signal	MCKINNEY RANCH PKWY & SILVERADO TRL					100%						\$	300,000	\$	300,000
71	Signal	STACY RD & MCKINNEY RANCH PKWY					100%						\$	300,000	\$	300,000
75	Signal	CUSTER RD & PARADISE DR					50%						\$	300,000	\$	150,000
76	Signal	STACY RD & COLLIN MCKINNEY PKWY					50%						\$	300,000	\$	150,000
77	Signal	ALMA DR & HENNEMAN WAY					100%						\$	300,000	\$	300,000
SUBTOTAL									19,076		7,085	11,991	\$	20,273,649	\$ 1	16,391,649
	·	·								·		-		-	\$	11,692

TOTAL COST IN SERVICE AREA H \$ 16,

16,403,341

RIP Service Units of Supply

Service Area I

OCI VICE	AICUI													
Project ID #	ROADWAY	LIMITS	LENGTH (ft)	LANES	IMPACT FEE CLASSIFICATION	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-FT SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	TOTAL PROJECT	TOTAL PROJECT COST IN SERVICE AREA
I-1	VIRGINIA PKWY (7)	1035' E OF RIDGE RD TO 1355' W OF HARDIN BLVD	7,550	6	M6D	2,802	100%	700	6,006	31,712,000	4,006	2,000	\$ 2,567,378	\$ 2,567,37
I-2	VIRGINIA PKWY (8)	1355' W OF HARDIN BLVD TO HARDIN BLVD	1,373	6	M6D	2,740	100%	700	1,092	5,766,000	712	380	\$ 531,979	\$ 531,97
I-3	ELDORADO PKWY (2)	RIDGE RD TO HARDIN BLVD	10,930	2	G6D(1/3)	New	100%	700	2,898	15,301,000	0	2,898	\$ 4,857,600	\$ 4,857,60
I-4	MCKINNEY RANCH PKWY (2)	RIDGE RD TO HARDIN BLVD	9,504	2	M6D(1/3)	New	100%	700	2,520	13,306,000	0	2,520	\$ 4,338,000	\$ 4,338,00
I-5	COLLIN MCKINNEY PKWY (2)	LAKE FOREST DR TO COTTONWOOD CREEK	1,637	4	G4D	New	100%	700	868	4,583,000	0	868	\$ 1,777,105	\$ 1,777,10
I-6	COLLIN MCKINNEY PKWY (3)	COTTONWOOD CREEK TO 1110' E OF TINA DR	2,904	4	G4D(1/2)	200	100%	700	1,540	8,131,000	110	1,430	\$ 3,221,002	\$ 3,221,00
I-7	COLLIN MCKINNEY PKWY (4)	1110' E OF TINA TO HARDIN BLVD	1,003	4	G4D	New	100%	700	532	2,809,000	0	532	\$ 1,101,893	\$ 1,101,89
G-17, I-8	RIDGE RD (8)	US HIGHWAY 380 TO CREEKSIDE DR	6,864	4	G4D	561	50%	700	1,820	9,610,000	365	1,455	\$ 550,813	\$ 275,40
H-8, I-9	RIDGE RD (9)	MCKINNEY RANCH PKWY TO STACY RD	3,643	2	M6D(1/3)	New	50%	700	483	2,550,000	0	483	\$ 1,662,000	\$ 831,00
I-10, J-6	HARDIN BLVD (11)	US HIGHWAY 380 TO VIRGINIA PKWY	8,342	6	G6D(1/3)	1,402	50%	700	3,318	17,519,000	1,108	2,210	\$ 13,584,097	\$ 6,792,04
I-11, J-7	HARDIN BLVD (12)	VIRGINIA PKWY TO MCKINNEY RANCH PKWY	13,939	2	G6D(1/3)	New	50%	700	1,848	9,757,000	0	1,848	\$ 6,208,800	\$ 3,104,40
35	Signal	US HIGHWAY 380 & AUBURN HILLS PKWY					50%						\$ 300,000	\$ 150,00
36	Under Construction	US HIGHWAY 380 & HARDIN BLVD					25%						\$ 780,682	\$ 195,17
38	Signal	RIDGE RD & HABERSHAM WAY					50%						\$ 343,000	\$ 171,50
44	Under Construction	VIRGINIA PKWY & RIDGE RD					50%						\$ 390,341	\$ 195,17
45	Signal	VIRGINIA PKWY & JOPLIN DR					100%						\$ 300,000	\$ 300,00
46	Signal	VIRGINIA PKWY & VILLAGE DR					100%						\$ 300,000	\$ 300,00
50	Roundabout	RIDGE RD & GLEN OAKS DR					50%						\$ 2,640,000	\$ 1,320,00
51	Roundabout	LAKE FOREST DR & GLEN OAKS DR					100%						\$ 1,900,000	\$ 1,900,00
56	Signal	RIDGE RD & RUSH CREEK RD					50%	4					\$ 300,000	\$ 150,00
57	Signal	RIDGE RD & BERKSHIRE RD					50%						\$ 300,000	\$ 150,00
58	Signal	HARDIN BLVD & MAVERICK TRL					50%						\$ 300,000	\$ 150,00
59	Signal	ELDORADO PKWY & WOODSON DR		- T			100%		_				\$ 300,000	\$ 300,00
60	Signal	ELDORADO PKWY & HIGHLANDS DR					100%						\$ 300,000	\$ 300,00
72	Signal	LAKE FOREST DR & COLLIN MCKINNEY PKWY					100%						\$ 300,000	
73	Signal	HARDIN BLVD & COLLIN MCKINNEY PKWY					50%						\$ 300,000	\$ 150,00
76	Signal	STACY RD & COLLIN MCKINNEY PKWY					50%						\$ 300,000	
SUBTOTAL	-							ď	22,925		6,301	16,624	\$ 49,754,690	\$ 35,579,65

\$ 11,692

TOTAL COST IN SERVICE AREA I \$ 35,591,345

RIP Service Units of Supply

Service Area J

Project ID #	ROADWAY	LIMITS	LENGTH (ft)	LANES	IMPACT FEE CLASSIFICATION	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-FT SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
J-1	WHITE AVE (1)	HARDIN BLVD TO BOIS D'ARC RD	898	4	M4D	625	100%	700	476	2,513,000	106	370	\$ 981,328	\$ 981,328
J-2	WHITE AVE (2)	BOIS D'ARC RD TO COMMUNITY AVE	4,910	4	M4D	714	100%	700	2,604	13,749,000	664	1,940	\$ 213,991	\$ 213,991
J-3	VIRGINIA PKWY (9)	HARDIN BLVD TO US HIGHWAY 75	8,448	6	M6D	2,163	100%	700	427	2,255,000	3,461	-3,034	\$ 3,267,873	\$ 3,267,873
J-4	ELDORADO PKWY (3)	710' E OF US HIGHWAY 75 TO 1,180' E OF BARRANCA WAY	5,702	2	G6D(1/3)	New	100%	700	427	2,255,000	0	427	\$ 4,047,600	\$ 4,047,600
J-5	COLLIN MCKINNEY PKWY (5)	2,100' E OF HARDIN BLVD TO MCKINNEY RANCH PKWY	1,742	2	M3U	New	100%	550	363	1,917,000	0	363	\$ 1,953,000	\$ 1,953,000
I-10, J-6	HARDIN BLVD (11)	US HIGHWAY 380 TO VIRGINIA PKWY	8,342	6	G6D(1/3)	1,402	50%	700	3,318	17,519,000	1,108	2,210	\$ 13,584,097	\$ 6,792,049
I-11, J-7	HARDIN BLVD (12)	VIRGINIA PKWY TO MCKINNEY RANCH PKWY	13,939	2	G6D(1/3)	New	50%	700	1,848	9,757,000	0	1,848	\$ 6,208,800	\$ 3,104,400
J-8	MEDICAL CENTER DR	STATE HIGHWAY 121 TO 1,685' S OF STATE HIGHWAY 121	1,690	4	M4D	760	100%	700	896	4,731,000	243	653	\$ 2,240,000	\$ 2,240,000
J-9, K-7	STATE HIGHWAY 5 (4)	640' S OF HARRY MCKILLOP BLVD / FM 546 TO STATE HIGHWAY 121	2,482	6	M6D	4,141	50%	700	987	5,211,000	973	14	\$ 4,647,300	\$ 2,323,650
J-10, K-8	STATE HIGHWAY 5 (5)	STATE HIGHWAY 121 TO 3,525' S OF STATE HIGHWAY 121	3,538	4	M4D	1,281	50%	700	938	4,953,000	429	509	\$ 2,223,200	\$ 1,111,600
J-11	STATE HIGHWAY 5 (6)	3,525' S OF STATE HIGHWAY 121 TO 4,520' S OF STATE HIGHWAY 121	1,003	4	M4D	1,281	50%	700	266	1,404,000	122	144	\$ 627,900	\$ 313,950
36	Under Construction	US HIGHWAY 380 & HARDIN BLVD					25%						\$ 780,682	\$ 195,171
39	Signal	WHITE AVE & JORDAN RD					100%						\$ 300,000	\$ 300,000
58	Signal	HARDIN BLVD & MAVERICK TRL					50%						\$ 300,000	\$ 150,000
61	Intersection Improvements	ELDORADO PKWY & CRAIG DR					100%						\$ 150,000	\$ 150,000
62	Signal	STATE HIGHWAY 5 & STEWART RD					50%						\$ 300,000	\$ 150,000
67	Signal	MCKINNEY RANCH PKWY & COLLIN MCKINNEY PKWY					100%						\$ 300,000	\$ 300,000
68	Signal	COLLIN MCKINNEY PKWY & CRAIG DR	_				100%						\$ 300,000	\$ 300,000
69	Signal	STATE HIGHWAY 5 & ENTERPRISE DR					50%						\$ 300,000	\$ 150,000
73	Signal	HARDIN BLVD & COLLIN MCKINNEY PKWY					50%						\$ 300,000	\$ 150,000
SUBTOTAL									12,550		7,106	5,444	\$ 43,025,771	\$ 28,194,611

\$ 11,692
TOTAL COST IN SERVICE AREA J \$ 28,206,303

12/13/2019

RIP Service Units of Supply

Service Area K

OCI VICE	Area K														12/13/20
Project ID #	ROADWAY	LIMITS	LENGTH (ft)	LANES	IMPACT FEE CLASSIFICATION	PEAK HOUR VOLUME		VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-FT SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	тот	AL PROJECT COST	TOTAL PROJECT COST IN SERVIC AREA
K-1	VIRGINIA STREET	225' W OF AIRPORT DR TO AIRPORT DR	211	2	2UO	New	100%	500	40	211,000	0	40	\$	779,650	\$ 779,65
K-2	ELDORADO PKWY (4)	1,180' E OF BARRANCA WAY TO STATE HIGHWAY 5	2,112	2	G6D(1/3)	New	100%	700	560	2,957,000	0	560	\$	1,699,200	
K-3	HARRY MCKILLOP BLVD / FM 546 (1)	STATE HIGHWAY 121 TO AIRPORT DR	7,709	2	P6D(1/3)	New	100%	780	2,278	12,026,000	0	2,278	\$	1,839,600	\$ 1,839,60
K-4, L-1	HARRY MCKILLOP BLVD / FM 546 (2)	AIRPORT DR TO 980' E OF AIRPORT DR	1,003	2	P6D(1/3)	New	50%	780	148	782,000	0	148	\$	234,600	\$ 117,30
K-5, L-2	HARRY MCKILLOP BLVD / FM 546 (3)	975' E OF AIRPORT DR TO 510' W OF HARRY MCKILLOP BLVD / FM 546 (N)	3,168	6	P6D	New	50%	780	1,404	7,413,000	0	1,404	\$	3,267,400	\$ 1,633,70
K-6	STATE HIGHWAY 5 (3)	INDUSTRIAL BLVD TO 640' S OF HARRY MCKILLOP BLVD / FM 546	2,112	6	M6D	4,141	100%	700	1,680	8,870,000	1,656	24	\$	2,064,300	\$ 2,064,30
J-9, K-7	STATE HIGHWAY 5 (4)	640' S OF HARRY MCKILLOP BLVD / FM 546 TO STATE HIGHWAY 121	2,482	6	M6D	4,141	50%	700	987	5,211,000	973	14	\$	4,647,300	\$ 2,323,65
J-10, K-8	STATE HIGHWAY 5 (5)	STATE HIGHWAY 121 TO 3,525' S OF STATE HIGHWAY 121	3,538	4	M4D	1,281	50%	700	938	4,953,000	429	509	\$	2,223,200	\$ 1,111,60
K-9, L-6	AIRPORT DR (5)	US HIGHWAY 380 TO 470' N OF HARRY MCKILLOP BLVD / FM 546	13,886	2	P6D(1/3)	New	50%	780	2,051	10,831,000	0	2,051	\$	6,322,800	\$ 3,161,40
K-10, L-7	AIRPORT DR (6)	470' N OF HARRY MCKILLOP BLVD / FM 546 TO HARRY MCKILLOP BLVD / FM 546	475	6	P6D	43	50%	780	211	1,112,000	2	209	\$	2,925,200	\$ 1,462,60
40	Signal	STATE HIGHWAY 5 & SMITH ST					100%						\$	300,000	\$ 300,00
41	Signal Mod	US HIGHWAY 380 & AIRPORT DR					50%						\$	150,000	\$ 75,00
52	Roundabout	WILSON CREEK PKWY & PARK VIEW AVE					100%						\$	1,820,000	\$ 1,820,00
53	Signal	WILSON CREEK PKWY & COLLEGE ST					100%						\$	300,000	\$ 300,00
54	Signal	AIRPORT DR & ELM ST					50%						\$	300,000	\$ 150,00
62	Signal	STATE HIGHWAY 5 & STEWART RD					50%						\$	300,000	\$ 150,00
63	Signal	HARRY MCKILLOP BLVD / FM 546 & AIRPORT DR					75%	P					\$	300,000	\$ 225,00
69	Signal	STATE HIGHWAY 5 & ENTERPRISE DR					50%						\$	300,000	\$ 150,00
SUBTOTAL									10,297		3,061	7,236	\$	29,773,250	\$ 19,363,00

TOTAL COST IN SERVICE AREA K \$ 19,374,692

2018 - 2019 Roadway Impact Fee Update City of McKinney, Texas

RIP Service Units of Supply

Service Area L

Sei vice	Area L													12/13/2019
Project ID #	ROADWAY	LIMITS	LENGTH (ft)	LANE	IMPACT FEE CLASSIFICATION	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-FT SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	AL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
K-4, L-1	HARRY MCKILLOP BLVD / FM 546 (2)	AIRPORT DR TO 980' E OF AIRPORT DR	1,003	2	P6D(1/3)	New	50%	780	148	782,000	0	148	\$ 234,600	\$ 117,300
K-5, L-2	HARRY MCKILLOP BLVD / FM 546 (3)	975' E OF AIRPORT DR TO 510' W OF HARRY MCKILLOP BLVD / FM 546 (N)	3,168	6	P6D	New	50%	780	1,404	7,413,000	0	1,404	\$ 3,267,400	\$ 1,633,700
L-3	HARRY MCKILLOP BLVD / FM 546 (S) (1)	510' W OF HARRY MCKILLOP BLVD / FM 546 (N) TO 1,335' E OF HARRY MCKILLOP BLVD / FM 546 (N)	1,848	6	P6D	New	100%	780	1,638	8,649,000	0	1,638	\$ 2,153,725	\$ 2,153,725
L-4	HARRY MCKILLOP BLVD / FM 546 (S) (2)	3,480' W OF UNNAMED D TO UNNAMED D	3,485	6	P6D	New	100%	780	3,089	16,309,000	0	3,089	\$ 3,843,225	\$ 3,843,225
L-5	HARRY MCKILLOP BLVD / FM 546 (N) (1)	HARRY MCKILLOP BLVD / FM 546 (S) TO 1,865' E OF HARRY MCKILLOP BLVD / FM 546 (S)	1,848	6	M6D	New	100%	700	1,470	7,762,000	0	1,470	\$ 2,166,900	\$ 2,166,900
K-9, L-6	AIRPORT DR (5)	US HIGHWAY 380 TO 470' N OF HARRY MCKILLOP BLVD / FM 546	13,886	2	P6D(1/3)	New	50%	780	2,051	10,831,000	0	2,051	\$ 6,322,800	\$ 3,161,400
K-10, L-7	AIRPORT DR (6)	470' N OF HARRY MCKILLOP BLVD / FM 546 TO HARRY MCKILLOP BLVD / FM 546	475	6	P6D	43	50%	780	211	1,112,000	2	209	\$ 2,925,200	\$ 1,462,600
L-8	UNNAMED C (3)	US HIGHWAY 380 TO 2,435' S OF US HIGHWAY 380	2,429	6	P6D	New	100%	780	2,153	11,367,000	0	2,153	\$ 5,807,850	\$ 5,807,850
L-9, M-5	UNNAMED C (4)	2,525' N OF HARRY MCKILLOP BLVD / FM 546 TO 1,230' N OF HARRY MCKILLOP BLVD / FM 546	1,320	6	P6D	New	50%	780	585	3,089,000	0	585	\$ 2,830,300	\$ 1,415,150
L-10, M-6	UNNAMED C (5)	HARRY MCKILLOP BLVD / FM 546 (N) TO 705' S OF HARRY MCKILLOP BLVD / FM 546 (S)	4,594	6	P6D	New	50%	780	2,036	10,749,000	0	2,036	\$ 10,002,150	\$ 5,001,075
41	Signal Mod	US HIGHWAY 380 & AIRPORT DR					50%						\$ 150,000	\$ 75,000
42	Signal	US HIGHWAY 380 & UNNAMED C					50%						\$ 300,000	\$ 150,000
54	Signal	AIRPORT DR & ELM ST					50%						\$ 300,000	\$ 150,000
63	Signal	HARRY MCKILLOP BLVD / FM 546 & AIRPORT DR					75%						\$ 300,000	\$ 225,000
70	Signal	HARRY MCKILLOP BLVD / FM 546 (S) & HARRY MCKILLOP BLVD / FM 546 (N)					100%						\$ 300,000	\$ 300,000
74	Signal	UNNAMED C & HARRY MCKILLOP BLVD / FM 546 (S)					50%						\$ 300,000	\$ 150,000
SUBTOTAL									14,785		2	14,783	\$ 41,204,150	\$ 27,812,925

\$ 11,692 TOTAL COST IN SERVICE AREA L \$ 27,824,617

City of McKinney - 2018 - 2019 Roadway Impact Fee Update

RIP Service Units of Supply

Service Area M

Project ID #	ROADWAY	LIMITS	LENGTH (ft)	LANES	IMPACT FEE CLASSIFICATION	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-FT SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI		TOTAL PROJECT COST IN SERVICE AREA
M-1	HARRY MCKILLOP BLVD / FM 546 (N) (2)	110' E OF UNNAMED C TO 300' E OF UNNAMED C	211	6	M6D	New	50%	700	84	444,000	0	84	\$ 196,075	\$ 98,038
M-2	HARRY MCKILLOP BLVD / FM 546 (N) (3)	1,700' N OF HARRY MCKILLOP BLVD / FM 546 TO 2,050' N OF HARRY MCKILLOP BLVD / FM 546	370	6	M6D	New	50%	700	147	776,000	0	147	\$ 361,150	\$ 180,575
M-3	HARRY MCKILLOP BLVD / FM 546 (N) (4)	405' N OF HARRY MCKILLOP BLVD / FM 546 TO 675' N OF HARRY MCKILLOP BLVD / FM 546	264	6	M6D	New	50%	700	105	554,000	0	105	\$ 279,000	\$ 139,500
M-4	HARRY MCKILLOP BLVD / FM 546 (S) (3)	UNNAMED C TO 695' E OF UNNAMED C	686	6	P6D	New	100%	780	608	3,212,000	0	608	\$ 719,975	\$ 719,975
L-9, M-5	UNNAMED C (4)	2,525' N OF HARRY MCKILLOP BLVD / FM 546 TO 1,230' N OF HARRY MCKILLOP BLVD / FM 546	1,320	6	P6D	New	50%	780	585	3,089,000	0	585	\$ 2,830,300	\$ 1,415,150
L-10, M-6	UNNAMED C (5)	HARRY MCKILLOP BLVD / FM 546 (N) TO 705' S OF HARRY MCKILLOP BLVD / FM 546 (S)	4,594	6	P6D	New	50%	780	2,036	10,749,000	0	2,036	\$ 10,002,150	\$ 5,001,075
64	Signal	UNNAMED C & HARRY MCKILLOP BLVD / FM 546 (N)					50%						\$ 300,000	
74	Signal	UNNAMED C & HARRY MCKILLOP BLVD / FM 546 (S)					50%						\$ 300,000	\$ 150,000
SUBTOTAL	L							4	3,565		0	3,565	\$ 14,988,650	\$ 7,854,313

\$ 11,692 TOTAL COST IN SERVICE AREA B \$ 7,866,005





Appendix C – Existing Roadway Facilities Inventory

Service Area A

ROADWAY	FROM	то	LENGTH (ft)	LENGTH (mi)	EX LAN	-	TYPE	PE HC	PM EAK OUR OL	% IN SERVICE AREA	CAP/ PK	H-MI ACITY -HR R LN	SUF PK	H-MI PPLY -HR TAL	DEN PK	H-MI IAND I-HR TAL	CAPA PK	ESS ACITY -HR H-MI	DEFICI PK	STING IENCIES (-HR H-MI
					NB/EB	SB/WB		NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
UNNAMED 5	RIDGE RD	1,505' E OF RIDGE RD	1,504	0.28	1	1	2U	50	50	50%	475	475	68	68	7	7	61	61		
SUBTOTAL			1,504	0.28									68	68	7	7	61	61	0	0
	<u> </u>	<u> </u>											1:	35		[4	12	21		0

Service Area B

00. 1.00 / 1.0a B																				
								P	M	% IN	VEI	H-MI	VE	н-мі	VEI	I-MI	EXC	ESS	EXIS	TING
ROADWAY	FROM	то	LENGTH	LENGTH	EX	IST	TYPE	PE	AK	SERVICE	CAPA	ACITY	SUF	PLY	DEN	IAND	CAPA	ACITY	DEFICIE	ENCIES
			(ft)	(mi)	LAI	NES		HC	OUR	AREA	PK	-HR	PK	-HR	PK	-HR	PK-	-HR	PK-	HR
									OL		PEF	R LN	TO	TAL	TO	TAL	VEH	I-MI	VEH	I-MI
					NB/EB	SB/WB		NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
HARDIN BLVD	CR 204	CR 206	433	0.08	1	1	2U	50	50	50%	475	475	19	19	2	2	17	17		
HARDIN BLVD	1,670' N OF MELISSA RD	MELISSA RD	1,668	0.32	1	1	2U	50	50	50%	475	475	75	75	8	8	67	67		
HARDIN BLVD	MELISSA RD	730' S OF MELISSA RD	730	0.14	1	1	2U	50	50	50%	475	475	33	33	3	3	29	29		
SUBTOTAL			2,831	0.54									127	127	13	13	114	114	0	0
													2	55	2	27	22	28	0	

Service Area C

ROADWAY	FROM	то	LENGTH (ft)	LENGTH (mi)	LAI	IST NES	TYPE	PE HC V	M AK DUR OL	% IN SERVICE AREA	CAP/ PK PEI	H-MI ACITY -HR R LN	SUF PK TO	H-MI PPLY -HR TAL	DEN PK TO	H-MI MAND C-HR TAL	CAP. PK VE	CESS ACITY C-HR H-MI	DEFICI PK VEI	K-HR H-MI
						SB/WB			SB/WB						NB/EB				NB/EB	SB/W
US HIGHWAY 380	RIDGE RD	LAKE FOREST DR	5,517	1.04	3	3	6D		2,025	100%	780	780	2,445	2,445		2,116	329	329	<u> </u>	
US HIGHWAY 380	CUSTER RD	STONEBRIDGE DR	3,371	0.64	3	3	6D	1,679		100%	780	780	1,494	1,494		1,105	422	389		
US HIGHWAY 380	STONEBRIDGE DR	RIDGE RD	7,516	1.42	3	3	6D	1,913	1,913	100%	780	780	3,331	3,331	2,724	2,724	608	608		
LAKE FOREST DR	WILMETH RD	US HIGHWAY 380	5,153	0.98	2	2	4D	922	922	50%	700	700	683	683	450	450	233	233		
WILMETH RD	265' W OF SUNNYSIDE DR	LAKE FOREST DR	1,692	0.32	2	2	4D	249	249	100%	700	700	449	449	80	80	369	369		
WILMETH RD	3,230' E OF STONEBRIDGE DR	995' W OF RIDGE RD	1,701	0.32	1	1	2U	17	17	50%	475	475	77	77	3	3	74	74		
CUSTER RD	BLOOMDALE RD	375' N OF WILMETH RD	3,623	0.69	1	1	2U	549	562	50%	475	475	163	163	188	193	-25	-30	25	30
BLOOMDALE RD	1,310' E OF CUSTER RD	2,030' W OF STONEBRIDGE DR	2,104	0.40	1	1	2U	187	129	50%	475	475	95	95	37	26	57	69		
BLOOMDALE RD	STONEBRIDGE DR	3,245' E OF STONEBRIDGE DR	3,243	0.61	1	1	2U	187	129	100%	475	475	292	292	115	79	177	213		
RIDGE RD	1,590' N OF WILMETH RD	WILMETH RD	1,591	0.30	1	1	2U	39	48	50%	475	475	72	72	6	7	66	64		1
BLOOMDALE RD	3,400' W OF LAKE FOREST DR	LAKE FOREST DR	3,402	0.64	1	1	2U	58	58	50%	475	475	153	153	19	19	134	134		1
LAKE FOREST DR	BLOOMDALE RD	WILMETH RD	5,410	1.02	2	2	4D	421	421	50%	700	700	717	717	216	216	502	502		
LAUD HOWELL PKWY	700' W OF CUSTER RD	CUSTER RD	695	0.13	1	1	2U	271	271	50%	475	475	31	31	18	18	13	13	1	
LAUD HOWELL PKWY	1,985' W OF RIDGE RD	RIDGE RD	1,984	0.38	1	1	2U	271	271	50%	475	475	89	89	51	51	38	38	1	
CUSTER RD	2,655 N OF BLOOMDALE RD	BLOOMDALE RD	2,654	0.50	1	1	2U	309	306	50%	475	475	119	119	78	77	42	42	1	1
CUSTER RD	1,855' N OF LAUD HOWELL PKWY	LAUD HOWELL PKWY	1,853	0.35	1	1	2U	309	306	50%	475	475	83	83	54	54	29	30	1	
RIDGE RD	UNNAMED 5	1,485' S OF UNNAMED 5	1,486	0.28	1	1	2U	50	50	50%	475	475	67	67	7	7	60	60	1	
RIDGE RD	BAXTER WELL RD	BLOOMDALE RD	2,225	0.42	1	1	2U	5	4	50%	475	475	100	100	1	1	99	99	1	
RIDGE RD	BLOOMDALE RD	1,315' S OF BLOOMDALE RD	1,316	0.25	1	1	2U	39	48	50%	475	475	59	59	5	6	54	53	1	1
RIDGE RD	1,315' S OF BLOOMDALE RD	2,160' S OF BLOOMDALE RD	846	0.16	1	1	2U	39	48	50%	475	475	38	38	3	4	35	34	1	1
UNNAMED 5	RIDGE RD	1,505' E OF RIDGE RD	1,504	0.28	1	1	2U	50	50	50%	475	475	68	68	7	7	61	61	1	
LAUD HOWELL PKWY	CUSTER RD	1,225' E OF CUSTER RD	1,227	0.23	1	1	2U	271	271	100%	475	475	110	110	63	63	47	47	1	1
LAUD HOWELL PKWY	1,225' E OF CUSTER RD	2,070' E OF CUSTER RD	844	0.16	1	1	2U	271	271	50%	475	475	38	38	22	22	16	16	1	1
LAUD HOWELL PKWY	840' E OF STONEBRIDGE DR	2,905' E OF STONEBRIDGE DR	2,067	0.39	1	1	2U	271	271	50%	475	475	93	93	53	53	40	40	1	+
LAUD HOWELL PKWY	RIDGE RD	1,230' E OF RIDGE RD	1,230	0.23	1	1	2U	271	271	50%	475	475	55	55	32	32	24	24	1	+
BLOOMDALE RD	CUSTER RD	1,310' E OF CUSTER RD	1,308	0.25	1	1	2U	187	129	100%	475	475	118	118	46	32	71	86	1	1
BLOOMDALE RD	2,030' W OF STONEBRIDGE DR	STONEBRIDGE DR	2,030	0.38	1	1	2U	187	129	100%	475	475	183	183	72	50	111	133	1	1
BLOOMDALE RD	3,245' E OF STONEBRIDGE DR	695' W OF RIDGE RD	1,366	0.26	1	1	2U	187	129	50%	475	475	61	61	24	17	37	45	1	+
BLOOMDALE RD	695' W OF RIDGE RD	RIDGE RD	696	0.13	1	1	2U	187	129	100%	475	475	63	63	25	17	38	46	1	+
WILMETH RD	815' E OF STONEBRIDGE DR	1,450' E OF STONEBRIDGE DR	634	0.12	1	1	2U	17	17	50%	475	475	29	29	1	1	27	27	†	1
WILMETH RD	1,575' E OF STONEBRIDGE DR	2,295' E OF STONEBRIDGE DR	719	0.14	1	1	2U	17	17	50%	475	475	32	32	1	1	31	31	1	+
WILMETH RD	2.445' E OF STONEBRIDGE DR	2,730' E OF STONEBRIDGE DR	286	0.05	1	1	2U	17	17	50%	475	475	13	13	0	0	12	12	† 	+
WILMETH RD	RIDGE RD	585' E OF RIDGE RD	585	0.11	1	1	2U	66	66	100%	475	475	53	53	7	7	45	45	 	1
WILMETH RD	RIDGEWAY DR	RIDGEKNOLL AVE	1,222	0.23	2	2	4D	66	66	100%	700	700	324	324	15	15	309	309	 	1
WILMETH RD	585' E OF RIDGE RD	1.095' E OF RIDGE RD	508	0.10	2	2	4D	66	66	100%	700	700	135	135	6	6	128	128	+	+
WILMETH RD	1.095' E OF RIDGE RD	1.365' E OF RIDGE RD	268	0.10	1	1	2U	66	66	50%	475	475	12	12	2	2	10	10	+	+
WILMETH RD	RIDGEKNOLL AVE	265' W OF SUNNYSIDE DR	1,304	0.25	2	2	4D	249	249	100%	700	700	346	346	62	62	284	284	+	+
SUBTOTAL		2. 22	75,180	14.24	 -	-	<u> </u>				1	1.23	12,288			7,620		4,669	25	30
GOBTOTAL			13,100	14.24	1	Ĺ	ı	Ĺ	1	ı	ı	ĺ		,577		.299		278		55

Service Area D

ROADWAY	FROM	то	LENGTH	LENGTH		IST	TYPE	PE	M AK	% IN SERVICE	CAPA	CITY	SUF	H-MI PPLY	DEN	H-MI IAND	CAPA	ACITY	DEFICI	
			(ft)	(mi)	LA	NES			UR	AREA	PK-			-HR		-HR		-HR		-HR
					NR/FR	SB/WB			SB/WB		PER NR/FR			TAL ISB/WB	NB/EB	TAL SR/WR		H-MI SB/WB		H-MI
US HIGHWAY 380	COMMUNITY AVE	US HIGHWAY 75	2357	0.45	3	3	6D	2441	2441	100%	780	780	1,044	1,044	1,090	1,090	-45	-45	45	45
US HIGHWAY 380	HARDIN BLVD	COMMUNITY AVE	5281	1.00	3	3	6D	2169	2169	100%	780	780	2,340	2,340	2,170	2,170	171	171		
US HIGHWAY 380	LAKE FOREST DR	HARDIN BLVD	5,496	1.04	3	3	6D	2583	2583	100%	780	780	2,436	2,436		2,689	-253	-253	253	253
COMMUNITY AVE	TAYLOR-BURK DR	US HIGHWAY 380	2,389	0.45	2	2	4U	790	790	100%	525	525	475	475	358	358	117	117		
TAYLOR-BURK DR	COMMUNITY AVE	US HIGHWAY 75	2,526	0.48	1	-1	2U	329	234	100%	475	475	227	227	158	112	70	115		
TAYLOR-BURK DR	SKYLINE DR	COMMUNITY AVE	2,840	0.54	1	1	2U	150	140	100%	475	475	256	256	81	76	175	180		
HARDIN BLVD	TAYLOR-BURK DR	US HIGHWAY 380	2,879	0.55	2	2	4D	340	340	100%	700	700	763	763	185	185	578	578		
COMMUNITY AVE	WILMETH RD	TAYLOR-BURK DR	2,436	0.46	2	2	4U	293	293	100%	525	525	484	484	135	135	349	349		
WILMETH RD	COMMUNITY AVE	US HIGHWAY 75	2,275	0.43	2	2	4D	615	615	100%	700	700	603	603	265	265	338	338		
LAKE FOREST DR	WILMETH RD	US HIGHWAY 380	5,153	0.98	2	2	4D	922	922	50%	700	700	683	683	450	450	233	233		
WILMETH RD	1,380' E OF UNNAMED A	HARDIN BLVD	2,240	0.42	1	1	2U	43	43	50%	475	475	101	101	9	9	92	92		
HARDIN BLVD	WILMETH RD	TAYLOR-BURK DR	3,641	0.69	2	2	4D	340	340	100%	700	700	965	965	234	234	731	731		
WILMETH RD	HARDIN BLVD	COMMUNITY AVE	3,866	0.73	2	2	4D	470	470	100%	700	700	1,025	1,025	344	344	681	681		
COMMUNITY AVE	BLOOMDALE RD	2,305' S OF BLOOMDALE RD	2,306	0.44	1	1	2U	356	356	100%	475	475	207	207	155	155	52	52		
BLOOMDALE RD	COMMUNITY AVE	US HIGHWAY 75	2,548	0.48	3	3	6D	260	260	100%	780	780	1,129	1,129	125	125	1,004	1,004		
HARDIN BLVD	1,190' S OF BLOOMDALE RD	3,590' S OF BLOOMDALE RD	2,398	0.45	2	2	4D	35	35	100%	700	700	636	636	16	16	620	620		
COMMUNITY AVE	1,275' S OF TRINITY FALLS PKWY	BLOOMDALE RD	2,654	0.50	1	1	2U	193	193	100%	475	475	239	239	97	97	142	142		
HARDIN BLVD	TRINITY FALLS PKWY	1,815' S OF TRINITY FALLS PKWY	1,817	0.34	1	1	2UG	6	6	50%	150	150	26	26	1	1	25	25		
TRINITY FALLS PKWY	HARDIN BLVD	1,910' E OF HARDIN BLVD	1,908	0.36	1	1	2U	50	50	100%	475	475	172	172	18	18	154	154		
LAUD HOWELL PKWY	240' N OF TRINITY FALLS PKWY	US HIGHWAY 75	2,018	0.38	2	2	4D	401	401	100%	700	700	535	535	153	153	382	382		
LAKE FOREST DR	LAUD HOWELL PKWY	3,200' S OF LAUD HOWELL PKWY	3,198	0.61	1	1	2U	233	233	50%	475	475	144	144	71	71	73	73		
TRINITY FALLS PKWY	4,275' N OF WESTON RD	WESTON RD	4,273	0.81	2	2	4D	618	611	100%	700	700	1,133	1,133	500	495	633	638		
HARDIN BLVD	3,590' S OF BLOOMDALE RD	295' N OF WILMETH RD	1,460	0.28	1	1	2U	35	35	50%	475	475	66	66	5	5	61	61		
UNNAMED A	1,100' N OF WILMETH RD	WILMETH RD	1,103	0.21	1	1	2U	43	43	50%	475	475	50	50	5	5	45	45		
TRINITY FALLS PKWY	1,910' E OF HARDIN BLVD	2,670' E OF HARDIN BLVD	763	0.14	1	1	2U	50	50	100%	475	475	69	69	7	7	61	61		
COMMUNITY AVE	TRINITY FALLS PKWY	1,275' S OF TRINITY FALLS PKWY	1,274	0.24	1	1	2U	193	193	100%	475	475	115	115	47	47	68	68		
COMMUNITY AVE	2,305' S OF BLOOMDALE RD	WILMETH RD	2,151	0.41	2	2	4U	356	356	100%	525	525	428	428	145	145	283	283		
BLOOMDALE RD	1,820' W OF UNNAMED A	UNNAMED A	1,822	0.34	1	1	2U	6	6	50%	475	475	82	82	1	1	81	81		
BLOOMDALE RD	1,485' E OF CR 1006	1,215' W OF CR 1007	1,537	0.29	1	1	2UG	6	6	100%	150	150	44	44	2	2	42	42		
BLOOMDALE RD	1,215' W OF CR 1007	CR 1007	1,224	0.23	1	1	2UG	6	6	50%	150	150	17	17	1	1	17	17		
WILMETH RD	UNNAMED A	825' E OF UNNAMED A	825	0.16	1	1	2U	43	43	100%	475	475	74	74	7	7	67	67		
WILMETH RD	825' E OF UNNAMED A	1,380' E OF UNNAMED A	557	0.11	1	1	2U	43	43	100%	475	475	50	50	5	5	46	46		
UNNAMED A	1,800' N OF WILMETH RD	1,100' N OF WILMETH RD	698	0.13	1	1	2U	43	43	50%	475	475	31	31	3	3	29	29		
HARDIN BLVD	295' N OF WILMETH RD	WILMETH RD	294	0.06	2	2	4D	35	35	50%	700	700	39	39	1	1	38	38		
TRINITY FALLS PKWY	WESTON RD	LAUD HOWELL PKWY	1,257	0.24	1	1	2U	618	611	100%	475	475	113	113	147	146	-34	-32	34	32
SUBTOTAL			81,465	15.43									16,802	16,802	9,678	9,621	7,124	7,181	332	331
													33	603	19.	298	14.	305	66	63

Service Area E

Service Area E									M	% IN	VE	H-MI	VE	H-MI	VE	I-MI	EV	CESS	EXIS	TING
ROADWAY	FROM	то	LENGTH	LENGTH	FY	IST	TYPE		AK.	SERVICE		ACITY		PPLY		AND			DEFICIE	
ROADWAT	FROM	10	(ft)	(mi)		NES	ITFE		OUR	AREA	_	-HR		-HR		-HR	_	-HR	_	-HR
			(11)	(1111)	LA	NLO			OL	ANLA		R LN		TAL	TO			H-MI		H-MI
					NR/FR	SB/WB			ISB/WB										NB/EB	
JS HIGHWAY 380	THROCKMORTON ST	AIRPORT DR	2452	0.46	3	3	6D	1515	1515	100%	780	780	1.087	1.087	703	703	383	383	ND/LD	0.5,
JS HIGHWAY 380	STATE HIGHWAY 5	THROCKMORTON ST	2595	0.49	3	3	6D	1492	1492	100%	780	780	1,150	1,150	733	733	417	417		
JS HIGHWAY 380	TENNESSEE ST	STATE HIGHWAY 5	683	0.13	3	3	6D	1638	1638	100%	780	780	303	303	212	212	91	91		
REDBUD BLVD	US HIGHWAY 380	WHITE AVE	3,146	0.60	2	2	4D	208	276	100%	700	700	834	834	124	164	710	670		
US HIGHWAY 380	GRAVES ST	TENNESSEE ST	4,618	0.87	3	3	6D	2024	2024	100%	780	780	2,047	2,047	1,770	1,770	277	277		
TENNESSEE ST	STATE HIGHWAY 5	US HIGHWAY 380	1,405	0.27	2	2	4U	194	270	100%	525	525	279	279	52	72	228	208		
STATE HIGHWAY 5	TENNESSEE ST	US HIGHWAY 380	1.785	0.34	2	2	4D	651	651	100%	700	700	473	473	220	220	253	253		
US HIGHWAY 380	US HIGHWAY 75	REDBUD BLVD	1,479	0.28	3	3	6D	1935	1935	100%	780	780	655	655	542	542	114	114		
REDBUD BLVD	BRAY CENTRAL DR	US HIGHWAY 380	2,846	0.54	2	2	4D	322	370	100%	700	700	755	755	174	199	581	555		
BRAY CENTRAL DR	US HIGHWAY 75	REDBUD BLVD	2,300	0.44	2	2	4U	171	171	100%	525	525	457	457	75	75	383	383		
UNNAMED C	WILMETH RD	2,615' S OF WILMETH RD	2,613	0.49	1	1	2U	53	53	50%	475	475	118	118	13	13	104	104		
REDBUD BLVD	WILMETH RD	BRAY CENTRAL DR	2.383	0.45	2	2	4D	232	268	100%	700	700	632	632	105	121	527	511		
WILMETH RD	US HIGHWAY 75	REDBUD BLVD	1,536	0.29	2	2	4D	481	481	100%	700	700	407	407	140	140	267	267		
STATE HIGHWAY 5	WILMETH RD	TENNESSEE ST	4,843	0.92	1	1	2U	534	534	100%	475	475	436	436	490	490	-54	-54	54	54
WILMETH RD	2,570' E OF REDBUD BLVD	STATE HIGHWAY 5	2,146	0.41	1	1	2U	462	462	100%	475	475	193	193	188	188	5	5		
STATE HIGHWAY 5	AIRPORT DR	1,965' S OF AIRPORT DR	1,967	0.37	1	1	2U	497	497	100%	475	475	177	177	185	185	-8	-8	8	8
REDBUD BLVD	BLOOMDALE RD	2,930' S OF BLOOMDALE RD	2,931	0.56	2	2	4D	75	87	100%	700	700	777	777	41	48	736	729		
BLOOMDALE RD	US HIGHWAY 75	REDBUD BLVD	2,521	0.48	2	2	4D	183	183	100%	700	700	668	668	87	87	581	581		
BLOOMDALE RD	REDBUD BLVD	LAUD HOWELL PKWY	2,693	0.51	1	1	2U	66	66	100%	475	475	242	242	34	34	208	208		
LAUD HOWELL PKWY	BLOOMDALE RD	STATE HIGHWAY 5	871	0.16	1	1	2U	166	166	100%	475	475	78	78	27	27	51	51		
LAUD HOWELL PKWY	US HIGHWAY 75	2,620' S OF US HIGHWAY 75	2,622	0.50	1	1	2U	100	100	50%	475	475	118	118	25	25	93	93		
STATE HIGHWAY 5	4,700' N OF AIRPORT DR	3,995' N OF AIRPORT DR	706	0.13	1	1	2U	337	337	50%	475	475	32	32	23	23	9	9		
STATE HIGHWAY 5	1,915' N OF AIRPORT DR	AIRPORT DR	1,915	0.36	1	1	2U	337	337	100%	475	475	172	172	122	122	50	50		
STATE HIGHWAY 5	1,965' S OF AIRPORT DR	WILMETH RD	1,452	0.27	1	1	3U	497	497	100%	525	525	144	144	137	137	8	8		
LAUD HOWELL PKWY	2,620' S OF US HIGHWAY 75	BLOOMDALE RD	1,635	0.31	1	1	2U	100	100	100%	475	475	147	147	31	31	116	116		
AIRPORT DR	WOODLAWN RD (N)	WOODLAWN RD (S)	1,536	0.29	1	1	2U	431	431	100%	475	475	138	138	126	126	13	13		
WILMETH RD	UNNAMED C	400' E OF UNNAMED C	399	0.08	1	1	2U	117	117	50%	475	475	18	18	4	4	14	14		
WILMETH RD	1,150' W OF UNNAMED C	UNNAMED C	1,150	0.22	1	1	2U	117	117	50%	475	475	52	52	13	13	39	39		
WILMETH RD	AIRPORT DR	235' E OF AIRPORT DR	236	0.04	1	1	2U	51	51	50%	475	475	11	11	1	1	9	9		
WILMETH RD	980' W OF AIRPORT DR	AIRPORT DR	981	0.19	1	1	2U	51	51	50%	475	475	44	44	5	5	39	39		
WILMETH RD	2,100' E OF SH 5	980' W OF AIRPORT DR	1,346	0.25	1	1	2U	51	51	100%	475	475	121	121	13	13	108	108		
WILMETH RD	REDBUD BLVD	1,340' E OF REDBUD BLVD	1,343	0.25	2	2	4D	462	462	100%	700	700	356	356	117	117	239	239		
WILMETH RD	1,340' E OF REDBUD BLVD	2,570' E OF REDBUD BLVD	1,228	0.23	2	2	4D	462	462	100%	700	700	325	325	107	107	218	218		
REDBUD BLVD	2,930' S OF BLOOMDALE RD	WILMETH RD	1,645	0.31	1	1	2U	75	87	100%	475	475	148	148	23	27	125	121		
US HIGHWAY 380	REDBUD BLVD	GRAVES ST	854	0.16	3	3	6D	1911	1911	100%	780	780	378	378	309	309	69	69		
US HIGHWAY 380	AIRPORT DR	940' E OF AIRPORT DR	939	0.18	2	2	4D	2249	2249	100%	700	700	249	249	400	400	-151	-151	151	15
SUBTOTAL			67,800	12.84	İ	İ			İ			Ì	14,223	14,223	7,371	7,484	6,852	6,739	213	21
			,					•			•			.446	14.	855		.591		27

Service Area F

							PM	% IN	VEH-MI	VEH-MI	VEH-MI	EXCESS	EXISTING
ROADWAY	FROM	то	LENGTH	LENGTH	EXIST	TYPE	PEAK	SERVICE	CAPACITY	SUPPLY	DEMAND	CAPACITY	DEFICIENCIE
			(ft)	(mi)	LANES		HOUR	AREA	PK-HR	PK-HR	PK-HR	PK-HR	PK-HR
							VOL		PER LN	TOTAL	TOTAL	VEH-MI	VEH-MI
					NB/EB SB/WB		NB/EB SB/WB		NB/EB SB/WB	NB/EB SB/WE	NB/EB SB/WB	NB/EB SB/WE	NB/EB SB/W
		No Thoroughfare Ro	adways w	ithin City I	_imits Currentl	y Pres	sent within Ser	vice Area F	F				
SUBTOTAL			0	0.00						0 0	0 0	0 0	0 0
			•	•						0	0	0	0

Service Area G

Service Area G			1								,									3/2019
									M	% IN		I-MI		I-MI		I-MI		CESS	-	STING
ROADWAY	FROM	то	LENGTH	LENGTH		(IST	TYPE		AK	SERVICE	-	CITY		PLY		AND	-		DEFICI	
			(ft)	(mi)	LA	NES			UR	AREA	PK-		PK-			-HR		-HR		-HR
									OL			LN		TAL		TAL		H-MI		н-мі
					NB/EB	SB/WB			SB/WB		_		NB/EB				_		NB/EB	SB/W
ELDORADO PKWY	ALMA DR	RIDGE RD	5325	1.01	2	2	4D	1092	1092	100%	700	700	1,412	1,412	1,102	1,102	310	310		<u> </u>
ELDORADO PKWY	STONEBRIDGE DR	ALMA DR	2035	0.39	2	2	4D	1119	1072	100%	700	700	540	540	431	413	108	126		
ELDORADO PKWY	CUSTER RD	STONEBRIDGE DR	3,471	0.66	2	2	4D	865	813	100%	700	700	920	920	568	535	352	386		
STONEBRIDGE DR	ALMA DR	ELDORADO PKWY	1,607	0.30	2	2	4D	572	619	100%	700	700	426	426	174	189	252	238		
ALMA DR	STONEBRIDGE DR	ELDORADO PKWY	2,285	0.43	2	2	4D	277	277	100%	700	700	606	606	120	120	486	486		
COIT RD	WESTRIDGE BLVD	2,595' S OF WESTRIDGE BLVD	2,595	0.49	2	2	4D	551	576	50%	700	700	344	344	135	142	209	202		L
WESTRIDGE BLVD	1,635' E OF COIT RD	INDEPENDENCE PKWY	3,710	0.70	2	2	4D	357	293	100%	700	700	984	984	251	206	733	778		
INDEPENDENCE PKWY	WESTRIDGE BLVD	2,690' S OF WESTRIDGE BLVD	2,689	0.51	2	2	4D	537	567	100%	700	700	713	713	274	289	440	424		
WESTRIDGE BLVD	INDEPENDENCE PKWY	2,720' E OF INDEPENDENCE PKWY	2,722	0.52	2	2	4D	298	319	100%	700	700	722	722	154	165	568	557		
CUSTER RD	WESTRIDGE BLVD	ELDORADO PKWY	5,381	1.02	3	3	6D	1583	1708	50%	780	780	1,192	1,192	807	870	386	322		
RIDGE RD	GLEN OAKS DR	ELDORADO PKWY	5,719	1.08	2	2	4D	641	641	100%	700	700	1,516	1,516	695	695	822	822		
STONEBRIDGE DR	GLEN OAKS DR	ALMA DR	5,966	1.13	2	2	4D	687	709	100%	700	700	1,582	1,582	776	801	806	781		
GLEN OAKS DR	STONEBRIDGE DR	RIDGE RD	4,733	0.90	2	2	4D	366	366	100%	700	700	1,255	1,255	328	328	927	927		
RIDGE RD	VIRGINIA PKWY	GLEN OAKS DR	3,912	0.74	2	2	4D	592	592	100%	700	700	1,037	1,037	438	438	599	599		
STONEBRIDGE DR	VIRGINIA PKWY	GLEN OAKS DR	2,716	0.51	2	2	4D	749	753	100%	700	700	720	720	385	387	335	333		
VIRGINIA PKWY	STONEBRIDGE DR	RIDGE RD	3,422	0.65	3	3	6D	1402	1402	100%	780	780	1,517	1,517	909	909	608	608		
INDEPENDENCE PKWY	VIRGINIA PKWY	WESTRIDGE BLVD	5,349	1.01	2	2	4D	394	370	100%	700	700	1,418	1,418	399	375	1,019	1,044		
COIT RD	VIRGINIA PKWY	2,610' S OF VIRGINIA PKWY	2,608	0.49	2	2	4D	456	477	50%	700	700	346	346	113	118	233	228		
VIRGINIA PKWY	COIT RD	500' W OF INDEPENDENCE PKWY	4,737	0.90	2	2	4D	598	599	100%	700	700	1,256	1,256	537	537	719	719		
CUSTER RD	VIRGINIA PKWY	WESTRIDGE BLVD	5,277	1.00	3	3	6D	1396	1424	100%	780	780	2,339	2,339	1,395	1,423	943	915		
VIRGINIA PKWY	935' W OF VIRGINIA HILLS DR	CUSTER RD	2,684	0.51	2	2	4D	803	818	100%	700	700	712	712	408	416	304	296		
VIRGINIA PKWY	VIRGINIA PARKLANDS BLVD	STONEBRIDGE DR	3,226	0.61	3	3	6D	929	1011	100%	780	780	1,430	1,430	568	618	862	812		
COIT RD	US HIGHWAY 380	VIRGINIA PKWY	5,467	1.04	2	2	4D	456	477	50%	700	700	725	725	236	247	489	478		
US HIGHWAY 380	COIT RD	3,730' E OF COIT RD	3,729	0.71	3	3	6D	1819	1761	50%	780	780	826	826	642	622	184	204		
INDEPENDENCE PKWY	2,380' S OF US HIGHWAY 380	4,465' S OF US HIGHWAY 380	2,085	0.39	2	2	4D	113	117	100%	700	700	553	553	45	46	508	507		
US HIGHWAY 380	2,705' W OF CUSTER RD	CUSTER RD	2,706	0.51	3	3	6D	1832	1771	50%	780	780	600	600	469	454	130	146		
CUSTER RD	US HIGHWAY 380	VIRGINIA PKWY	5,445	1.03	3	3	6D	1243	1319	100%	780	780	2,413	2,413	1,282	1,360	1,131	1,053		
RIDGE RD	US HIGHWAY 380	CREEKSIDE DR	6,874	1.30	2	2	4D	281	281	50%	700	700	911	911	183	183	729	729		
US HIGHWAY 380	CUSTER RD	STONEBRIDGE DR	3,371	0.64	3	3	6D	1679	1731	100%	780	780	1,494	1,494	1,072	1,105	422	389		
STONEBRIDGE DR	US HIGHWAY 380	VIRGINIA PKWY	10,791	2.04	2	2	4D	296	282	100%	700	700	2,861	2,861	605	576	2,256	2,285		
US HIGHWAY 380	STONEBRIDGE DR	RIDGE RD	7,516	1.42	3	3	6D	1913	1913	100%	780	780	3,331	3,331	2,724	2,724	608	608		
RIDGE RD	CREEKSIDE DR	VIRGINIA PKWY	1,013	0.19	2	2	4D	281	281	100%	700	700	269	269	54	54	215	215		
VIRGINIA PKWY	500' W OF INDEPENDENCE PKWY		511	0.10	2	2	4D	598	599	50%	700	700	68	68	29	29	39	39		1
VIRGINIA PKWY	INDEPENDENCE PKWY	325' E OF FORKHORN DR	1,227	0.23	2	2	4D	907	848	50%	700	700	163	163	105	99	57	64		
VIRGINIA PKWY	325' E OF FORKHORN DR	935' W OF VIRGINIA HILLS DR	1,467	0.28	2	2	4D	907	848	50%	700	700	195	195	126	118	68	77		1
VIRGINIA PKWY	CUSTER RD	410' E OF DANBURY RD	2,592	0.49	2	2	4D	867	840	100%	700	700	687	687	425	412	262	275		
VIRGINIA PKWY	410' E OF DANBURY RD	VIRGINIA PARKLANDS BLVD	2,049	0.39	3	2	5D	867	840	100%	700	700	815	543	336	326	479	217		†
WESTRIDGE BLVD	COIT RD	1,635' E OF COIT RD	1,637	0.31	2	2	4D	322	289	50%	700	700	217	217	50	45	167	172		
WESTRIDGE BLVD	2,720' E OF INDEPENDENCE PKW		2,617	0.50	1	1	2U	374	385	50%	475	475	118	118	93	95	25	22		1
SUBTOTAL			143.268	27.13		i e							39.231	38.960	19,444	19.567			0	0
			. 40,200	27.10	I	1					1		78,			010		.180	<u> </u>	_ _

Service Area H

ROADWAY	FROM	то	LENGTH (ft)	LENGTH (mi)		IST NES	TYPE	PE	M AK UR	% IN SERVICE AREA		H-MI ACITY -HR	SUP	H-MI PPLY -HR	DEM	I-MI AND ·HR	CAP	ESS ACITY -HR	DEFICII	STING ENCIE S-HR
			` ′	` ′				V	OL	•	PER	RLN	TO.	TAL	TO.	ΓAL	VEI	н-мі	VEI	н-мі
					NB/EB	SB/WB		NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/W
CUSTER RD	ROLATOR RD	STATE HIGHWAY 121	4,547	0.86	3	3	6D	2150	2406	50%	780	780	1,007	1,007	926	1,036	82	-28		28
COLLIN MCKINNEY PKWY	CUSTER RD	COLLIN MCKINNEY PKWY	3,807	0.72	2	2	4D	251	251	100%	700	700	1,009	1,009	181	181	828	828		
COLLIN MCKINNEY PKWY	WEISKOPF AVE	ALMA RD	4,167	0.79	2	1	3U	221	30	100%	525	525	829	414	174	24	654	391		
ALMA DR	COLLIN MCKINNEY PKWY	STATE HIGHWAY 121	3,861	0.73	3	3	6D	766	807	100%	780	780	1,711	1,711	560	590	1,151	1,121		
COLLIN MCKINNEY PKWY	WEISKOPF AVE	ALMA RD	3,873	0.73	1	2	3U	16	114	100%	525	525	385	770	12	84	374	687		
COLLIN MCKINNEY PKWY	ALMA RD	STACY RD	4,647	0.88	2	2	4D	102	102	100%	700	700	1,232	1,232	90	90	1,142	1,142		
COLLIN MCKINNEY PKWY	ALMA RD	STACY RD	4,647	0.88	2	2	4D	134	134	100%	700	700	1,232	1,232	118	118	1,114	1,114		
STACY RD	COLLIN MCKINNEY PKWY	STATE HIGHWAY 121	2,198	0.42	3	3	6D	1110	1507	50%	780	780	487	487	231	314	256	173		
STACY RD	RIDGE RD	COLLIN MCKINNEY PKWY	2,152	0.41	3	3	6D	1124	1555	50%	780	780	477	477	229	317	248	160		
STACY RD	MCKINNEY RANCH PKWY	RIDGE RD	1,343	0.25	2	2	4D	874	884	100%	700	700	356	356	222	225	134	131		
CUSTER RD	STACY RD	ROLATOR RD	5,319	1.01	3	3	6D	1960	2036	50%	780	780	1,179	1,179	987	1,025	191	153		
CUSTER RD	STACY RD	ROLATOR RD	5,319	1.01	3	3	6D	2260	2107	50%	780	780	1,179	1,179	1,138	1,061	40	117		
ALMA DR	STACY RD	COLLIN MCKINNEY PKWY	3,608	0.68	3	3	6D	712	712	100%	780	780	1,599	1,599	487	487	1,112	1,112		
STACY RD	CUSTER RD	ALMA DR	5,334	1.01	2	2	4D	1045	1020	100%	700	700	1,414	1,414	1,056	1,031	358	384		
STACY RD	ALMA DR	MCKINNEY RANCH PKWY	4,039	0.77	2	2	4D	920	938	100%	700	700	1,071	1,071	704	717	367	354		
MCKINNEY RANCH PKWY	STACY RD	SILVERADO TRL	2,392	0.45	2	2	4D	343	311	100%	700	700	634	634	155	141	479	494		
CUSTER RD	SILVERADO TRL	STACY RD	2,635	0.50	3	3	6D	2214	2268	50%	780	780	584	584	553	566	31	18		
SILVERADO TRL	BURNETT DR	ALMA DR	3,378	0.64	2	2	4D	209	209	100%	700	700	896	896	134	134	762	762		
ALMA DR	SILVERADO TRL	STACY RD	2,623	0.50	2	2	4D	821	821	100%	700	700	696	696	408	408	288	288		
SILVERADO TRL	ALFALFA DR	145' W OF IRONSTONE LN	1,493	0.28	2	2	4D	211	213	100%	700	700	396	396	60	60	336	336		
MCKINNEY RANCH PKWY	SILVERADO TRL	RIDGE RD	1,684	0.32	2	2	4D	243	243	100%	700	700	446	446	77	77	369	369		
RIDGE RD	MCKINNEY RANCH PKWY	STACY RD	3,647	0.69	2	2	4D	704	704	100%	700	700	967	967	486	486	481	481		
CUSTER RD	STONEBRIDGE DR	SILVERADO TRL	3,351	0.63	3	3	6D	2115	2196	50%	780	780	743	743	671	697	72	46		
CUSTER RD	ELDORADO PKWY	STONEBRIDGE DR	2,042	0.39	3	3	6D	1672	1744	50%	780	780	452	452	323	337	129	115		
ALMA DR	ELDORADO PKWY	805' S OF BEAVER CREEK DR	3,465	0.66	2	2	4D	698	698	100%	700	700	919	919	458	458	461	461		
RIDGE RD	ELDORADO PKWY	MCKINNEY RANCH PKWY	5,706	1.08	2	2	4D	796	796	50%	700	700	756	756	430	430	326	326		
ELDORADO PKWY	ALMA DR	RIDGE RD	5,325	1.01	2	2	4D	1092	1092	100%	700	700	1,412	1,412	1,102	1,102	310	310		
STONEBRIDGE DR	ELDORADO PKWY	CUSTER RD	4,478	0.85	2	2	4D	548	522	100%	700	700	1,187	1,187	465	443	722	745		
ELDORADO PKWY	STONEBRIDGE DR	ALMA DR	2,035	0.39	2	2	4D	1119	1072	100%	700	700	540	540	431	413	108	126		
ELDORADO PKWY	CUSTER RD	STONEBRIDGE DR	3,471	0.66	2	2	4D	865	813	100%	700	700	920	920	568	535	352	386		
ALMA DR	805' S OF BEAVER CREEK DR	SILVERADO TRL	1,958	0.37	2	2	4D	698	698	100%	700	700	519	519	259	259	260	260		
COLLIN MCKINNEY PKWY	COLLIN MCKINNEY PKWY	WEISKOPF AVE	908	0.17	0	2	2UO	251	0	100%	475	475	0	163	43	0	-43	163	43	
COLLIN MCKINNEY PKWY	COLLIN MCKINNEY PKWY	WEISKOPF AVE	867	0.16	2	0	2UO	0	251	100%	475	475	156	0	0	41	156	-41		41
SILVERADO TRL	CUSTER RD	BURNETT DR	1,930	0.37	1	1	2U	251	146	100%	475	475	174	174	92	53	82	120		
SILVERADO TRL	145' W OF IRONSTONE LN	MCKINNEY RANCH PKWY	2,553	0.48	2	2	4D	211	213	100%	700	700	677	677	102	103	575	574		
SILVERADO TRL	ALMA DR	ALFALFA DR	1,168	0.22	2	2	4D	211	213	100%	700	700	310	310	47	47	263	263		
SUBTOTAL			115.971	21.96									28.552	28.530	13,979	14.089	14.573	14.441	43	70

Service Area I

Service Area i								,												3/2019
									M	% IN		-МІ		H-MI		I-MI		CESS	EXIS	
ROADWAY	FROM	то	LENGTH	LENGTH		IST	TYPE		AK	SERVICE	-	CITY		PPLY		AND	_	-	DEFICI	
			(ft)	(mi)	LA	NES			OUR	AREA		-HR		-HR		-HR		-HR		(-HR
									OL			LN		TAL	TO.			H-MI		H-MI
					NB/EB	SB/WB		NB/EB	SB/WB		NB/EB		_			SB/WB	_	SB/WB	NB/EB	SB/V
STACY RD	COLLIN MCKINNEY PKWY	STATE HIGHWAY 121	2,198	0.42	3	3	6D	1110	1507	50%	780	780	487	487	231	314	256	173	ļ	
STACY RD	RIDGE RD	COLLIN MCKINNEY PKWY	2,152	0.41	3	3	6D	1124	1555	50%	780	780	477	477	229	317	248	160		
COLLIN MCKINNEY PKWY	STACY RD	VILLAGE PARK	2,900	0.55	2	2	4D	136	136	100%	700	700	769	769	75	75	694	694	<u> </u>	
LAKE FOREST DR	COLLIN MCKINNEY PKWY	STATE HIGHWAY 121	2,145	0.41	3	3	6D	1460	1460	100%	780	780	950	950	593	593	357	357	Ì	
COLLIN MCKINNEY PKWY	COTTONWOOD CREEK	1110' E OF TINA DR	2,929	0.55	1	1	2U	100	100	100%	475	475	264	264	55	55	208	208		
HARDIN BLVD	COLLIN MCKINNEY PKWY	STATE HIGHWAY 121	1,162	0.22	3	3	6D	961	961	100%	780	780	515	515	212	212	304	304	Ì	
RIDGE RD	MCKINNEY RANCH PKWY	STACY RD	3,647	0.69	2	2	4D	704	704	100%	700	700	967	967	486	486	481	481		
MCKINNEY RANCH PKWY	RIDGE RD	LAKE FOREST DR	4,204	0.80	2	2	4D	452	452	100%	700	700	1,115	1,115	360	360	755	755		
LAKE FOREST DR	MCKINNEY RANCH PKWY	COLLIN MCKINNEY PKWY	3,220	0.61	3	3	6D	1318	1318	100%	780	780	1,427	1,427	804	804	623	623		
MCKINNEY RANCH PKWY	LAKE FOREST DR	HARDIN BLVD	5,310	1.01	2	2	4D	335	335	100%	700	700	1,408	1,408	337	337	1,071	1,071		
HARDIN BLVD	MCKINNEY RANCH PKWY	COLLIN MCKINNEY PKWY	1,863	0.35	3	3	6D	961	961	100%	780	780	826	826	339	339	487	487		
HARDIN BLVD	ELDORADO PKWY	MCKINNEY RANCH PKWY	3,255	0.62	2	2	4D	948	948	100%	700	700	863	863	584	584	279	279		
LAKE FOREST DR	ELDORADO PKWY	MCKINNEY RANCH PKWY	5,751	1.09	2	2	4D	1040	1040	100%	700	700	1,525	1,525	1,133	1,133	392	392		
ELDORADO PKWY	LAKE FOREST DR	HARDIN BLVD	6,709	1.27	2	2	4D	1400	1400	100%	700	700	1,779	1,779	1,779	1,779	0	0	0	0
RIDGE RD	ELDORADO PKWY	MCKINNEY RANCH PKWY	5,706	1.08	2	2	4D	796	796	50%	700	700	756	756	430	430	326	326		
ELDORADO PKWY	850' E OF RIDGE RD	LAKE FOREST DR	3,350	0.63	2	2	4D	1273	1273	100%	700	700	888	888	808	808	80	80		
LAKE FOREST DR	GLEN OAKS DR	ELDORADO PKWY	5,760	1.09	2	2	4D	1010	1010	100%	700	700	1,527	1,527	1,102	1,102	425	425		
RIDGE RD	GLEN OAKS DR	ELDORADO PKWY	5,719	1.08	2	2	4D	641	641	100%	700	700	1,516	1,516	695	695	822	822		
GLEN OAKS DR	RIDGE RD	LAKE FOREST DR	2,445	0.46	2	2	4D	390	390	100%	700	700	648	648	181	181	467	467		
HARDIN BLVD	VIRGINIA PKWY	ELDORADO PKWY	10,688	2.02	2	2	4D	997	997	100%	700	700	2,834	2,834	2,017	2,017	817	817		
LAKE FOREST DR	VIRGINIA PKWY	GLEN OAKS DR	4,475	0.85	2	2	4D	930	930	100%	700	700	1,187	1,187	788	788	399	399		
VIRGINIA PKWY	LAKE FOREST DR	1355' W OF HARDIN BLVD	3,138	0.59	3	3	6D	1316	1316	100%	780	780	1,391	1,391	782	782	608	608		
RIDGE RD	VIRGINIA PKWY	GLEN OAKS DR	3,912	0.74	2	2	4D	592	592	100%	700	700	1,037	1,037	438	438	599	599		
VIRGINIA PKWY	1035' E OF RIDGE RD	LAKE FOREST DR	4,427	0.84	3	3	6D	1401	1401	100%	780	780	1,962	1,962	1,175	1,175	787	787		
VIRGINIA PKWY	1035' E OF RIDGE RD	LAKE FOREST DR	4,427	0.84	3	3	6D	1248	1248	100%	780	780	1,962	1,962	1,046	1,046	916	916		
HARDIN BLVD	WHITE AVE	VIRGINIA PKWY	5,297	1.00	2	2	4D	701	701	50%	700	700	702	702	352	352	351	351		
HARDIN BLVD	US HIGHWAY 380	WHITE AVE	3,041	0.58	2	2	4D	536	536	50%	700	700	403	403	154	154	249	249		
RIDGE RD	US HIGHWAY 380	CREEKSIDE DR	6,874	1.30	2	2	4D	281	281	50%	700	700	911	911	183	183	729	729		
LAKE FOREST DR	US HIGHWAY 380	VIRGINIA PKWY	7,574	1.43	2	2	4D	799	799	100%	700	700	2,008	2,008	1,146	1,146	862	862		
US HIGHWAY 380	LAKE FOREST DR	HARDIN BLVD	5,496	1.04	3	3	6D	2583	2583	100%	780	780	2,436	2,436	2,689	2,689	-253	-253	253	25
US HIGHWAY 380	RIDGE RD	LAKE FOREST DR	5,517	1.04	3	3	6D	2025	2025	100%	780	780	2,445	2,445	2,116	2,116	329	329		
RIDGE RD	CREEKSIDE DR	VIRGINIA PKWY	1,013	0.19	2	2	4D	281	281	100%	700	700	269	269	54	54	215	215		1
COLLIN MCKINNEY PKWY	VILLAGE PARK	LAKE FOREST DR	1,729	0.33	2	2	4D	156	156	100%	700	700	459	459	51	51	407	407		1
ELDORADO PKWY	RIDGE RD	850' E OF RIDGE RD	849	0.16	2	2	4D	1163	1163	100%	700	700	225	225	187	187	38	38		t
VIRGINIA PKWY	RIDGE RD	1035' E OF RIDGE RD	1,042	0.20	3	3	6D	1248	1248	100%	780	780	462	462	246	246	215	215		t
VIRGINIA PKWY	1355' W OF HARDIN BLVD	HARDIN BLVD	1,378	0.26	3	3	6D	1370	1370	100%	780	780	611	611	357	357	253	253		t
SUBTOTAL			141.304	26.76									40,011	40,011	24,215	24,386	15,796	15,625	254	25
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Service Area J

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ROADWAY	FROM	то	LENGTH	LENGTH	EX	IST	TYPE	PE	AK_	SERVICE	CAP	ACITY	SUF	PLY	DEN	IAND	CAP	ACITY	DEFICI	ENC
			(ft)	(mi)	LA	NES		но	UR	AREA	PK	-HR	PK	-HR	PK	-HR	PK	-HR	PK	-HR
			` ,	` ′				V	OL	ľ	PEF	R LN	TO	TAL	TO	TAL	VE	н-мі	VEI	н-м
					NB/EB	SB/WB		NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WE	NB/EB	SB/WB	NB/EB	SB/
IARDIN BLVD	COLLIN MCKINNEY PKWY	STATE HIGHWAY 121	1,162	0.22	3	3	6D	961	961	100%	780	780	515	515	212	212	304	304		
COLLIN MCKINNEY PKWY	HARDIN BLVD	985' E OF HARDIN BLVD	983	0.19	2	2	4D	100	100	100%	700	700	261	261	19	19	242	242		
HARDIN BLVD	MCKINNEY RANCH PKWY	COLLIN MCKINNEY PKWY	1,863	0.35	3	3	6D	961	961	100%	780	780	826	826	339	339	487	487		
MCKINNEY RANCH PKWY	515' E OF HARDIN BLVD	COLLIN MCKINNEY PKWY	2,595	0.49	2	2	4D	275	226	100%	700	700	688	688	135	111	553	577		
MCKINNEY RANCH PKWY	COLLIN MCKINNEY PKWY	STATE HIGHWAY 121	2,197	0.42	2	2	4D	60	124	100%	700	700	583	583	25	51	558	531		
MEDICAL CENTER DR	STATE HIGHWAY 121	1,685' S OF STATE HIGHWAY 121	1,684	0.32	1	1	3U	380	380	100%	525	525	167	167	121	121	46	46		
COLLIN MCKINNEY PKWY	720' W OF TEST DR	CRAIG DR	2,252	0.43	2	2	4U	174	174	100%	525	525	448	448	74	74	374	374		
HARDIN BLVD	ELDORADO PKWY	MCKINNEY RANCH PKWY	3,255	0.62	2	2	4D	948	948	100%	700	700	863	863	584	584	279	279		
STATE HIGHWAY 5	STATE HIGHWAY 121	4,520' S OF STATE HIGHWAY 121	4,519	0.86	1	1	2U	640	640	100%	475	475	407	407	548	548	-142	-142	142	14
ELDORADO PKWY	HARDIN BLVD	495' W OF US HIGHWAY 75	7,277	1.38	2	2	4D	1194	1194	100%	700	700	1,930	1,930	1,646	1,646	283	283		
ELDORADO PKWY	US HIGHWAY 75	710' E OF US HIGHWAY 75	711	0.13	3	3	6D	976	976	100%	780	780	315	315	131	131	184	184		
MEDICAL CENTER DR	ELDORADO PKWY	STATE HIGHWAY 121	4,022	0.76	2	2	4D	361	361	100%	700	700	1,066	1,066	275	275	792	792		
STATE HIGHWAY 5	HARRY MCKILLOP BLVD / FM 546	STATE HIGHWAY 121	3,109	0.59	2	2	4D	2071	2071	100%	700	700	824	824	1,219	1,219	-395	-395	395	39
ELDORADO PKWY	MEDICAL CENTER DR	370' E OF BARRANCA WAY	4.308	0.82	2	2	4D	826	826	100%	700	700	1,142	1.142	674	674	469	469		
HARDIN BLVD	VIRGINIA PKWY	ELDORADO PKWY	10.688	2.02	2	2	4D	997	997	100%	700	700	2,834	2,834	2.017	2,017	817	817		
LOUISIANA ST	WILSON CREEK PKWY	VIRGINIA STREET	557	0.11	2	2	4D	0	802	100%	700	700	148	148	0	85	148	63		
LOUISIANA ST	US HIGHWAY 75	WILSON CREEK PKWY	1,228	0.23	2	3	5D	977	1018	100%	700	700	326	488	227	237	98	252		1
VIRGINIA PKWY	HARDIN BLVD	US HIGHWAY 75	8,472	1.60	3	3	6D	1082	1082	100%	780	780	3,755	3,755	1,735	1,735		2,019		t
HARDIN BLVD	WHITE AVE	VIRGINIA PKWY	5,297	1.00	2	2	4D	701	701	50%	700	700	702	702	352	352	351	351		1
WHITE AVE	BOIS D'ARC RD	COMMUNITY AVE	4.929	0.93	2	2	4D	357	357	100%	700	700	1.307	1.307	333	333	974	974		1
WHITE AVE	COMMUNITY AVE	US HIGHWAY 75	2,562	0.49	2	2	4D	398	398	100%	700	700	679	679	193	193	486	486		
WHITE AVE	US HIGHWAY 75	REDBUD BLVD	1,061	0.20	1	1	2U	279	316	100%	475	475	95	95	56	63	39	32		
COMMUNITY AVE	US HIGHWAY 380	2,055' S OF US HIGHWAY 380	2,055	0.39	2	2	4U	344	344	100%	525	525	409	409	134	134	275	275		1
US HIGHWAY 380	COMMUNITY AVE	US HIGHWAY 75	2,357	0.45	3	3	6D	2441	2441	100%	780	780	1,044	1,044	1,090	1,090	-45	-45	45	45
HARDIN BLVD	US HIGHWAY 380	WHITE AVE	3,041	0.58	2	2	4D	536	536	50%	700	700	403	403	154	154	249	249		
US HIGHWAY 380	HARDIN BLVD	COMMUNITY AVE	5,281	1.00	3	3	6D	2169	2169	100%	780	780	2,340	2,340	2,170	2,170	171	171		
COMMUNITY AVE	2,055' S OF US HIGHWAY 380	WHITE AVE	1,165	0.22	2	2	4U	453	453	100%	525	525	232	232	100	100	132	132		
US HIGHWAY 380	REDBUD BLVD	GRAVES ST	854	0.16	3	3	6D	1911	1911	100%	780	780	378	378	309	309	69	69		
WHITE AVE	HARDIN BLVD	BOIS D'ARC RD	904	0.17	2	2	4D	312	312	100%	700	700	240	240	53	53	186	186		
WHITE AVE	REDBUD BLVD	GRAVES ST	1,865	0.35	1	1	2U	263	258	100%	475	475	168	168	93	91	75	77		
VIRGINIA STREET	LOUISIANA ST	GRAVES ST	989	0.19	0	2	2UO	0	802	100%	475	475	0	178	0	150	0	28		
LOUISIANA ST	VIRGINIA STREET	GRAVES ST	1,050	0.20	2	0	2UO	631	0	100%	475	475	189	0	126	0	63	0		
ELDORADO PKWY	710' E OF US HIGHWAY 75	MEDICAL CENTER DR	559	0.11	2	2	4D	976	976	100%	700	700	148	148	103	103	45	45		
ELDORADO PKWY	495' W OF US HIGHWAY 75	US HIGHWAY 75	494	0.09	3	3	6D	979	979	100%	780	780	219	219	92	92	127	127		
ELDORADO PKWY	370' E OF BARRANCA WAY	1,180' E OF BARRANCA WAY	812	0.15	2	2	4D	656	656	100%	700	700	215	215	101	101	114	114		
MCKINNEY RANCH PKWY	HARDIN BLVD	515' E OF HARDIN BLVD	512	0.10	2	2	4D	275	226	100%	700	700	136	136	27	22	109	114		
COLLIN MCKINNEY PKWY		2.100' E OF HARDIN BLVD	1,118	0.21	1	1	3U	100	100	100%	525	525	111	111	21	21	90	90		t –
COLLIN MCKINNEY PKWY	MCKINNEY RANCH PKWY	720' W OF TEST DR	1,943	0.37	2	2	4U	86	86	100%	525	525	386	386	32	32	355	355		t
SUBTOTAL			99.731	18.89	Ì	Ì			Ì				26.500	26.652	15.520	15.643	10.979	11.009	582	58
					•	•	•		•		•		- /	151		163		.988	1.1	

Service Area K

ROADWAY	FROM	то	LENGTH	LENGTH	-	KIST	TYPE		PM EAK	% IN SERVICE		H-MI ACITY	VEH		VEH			CESS ACITY	EXIS	STING
ROADWAT	PROM	10	(ft)	(mi)		NES	ITPE	н	OUR	AREA	PK	-HR	PK-	-HR	PK-	HR	PK	(-HR	PK	K-HR
					NB/EE	SB/WE	3		OL SB/WB			R LN SB/WB	NB/EB	SB/WB	TO'	SB/WB		H-MI SB/WB		H-MI SB/W
AIRPORT DR	470' N OF HARRY MCKILLOP BLVD / FM 546	HARRY MCKILLOP BLVD / FM 546	468	0.09	1	1	2U	22	22	50%	475	475	21	21	1	1	20	20	,	1
STATE HIGHWAY 5	STATE HIGHWAY 121	4,520' S OF STATE HIGHWAY 121	4,519	0.86	1	1	2U	640	640	100%	475	475	407	407	548	548	-142	-142	142	142
STATE HIGHWAY 5	HARRY MCKILLOP BLVD / FM 546	STATE HIGHWAY 121	3,109	0.59	2	2	4D	2,071	2,071	100%	700	700	824	824	1,219	1,219	-395	-395	395	395
HARRY MCKILLOP BLVD / FM	STATE HIGHWAY 121	AIRPORT DR	7,696	1.46	2	2	4D	195	195	100%	700	700	2,041	2,041	285	285	1,756	1,756		
AIRPORT DR	INDUSTRIAL BLVD	FM 546	2,266	0.43	2	2	4D	191	191	50%	700	700	300	300	41	41	260	260		
STATE HIGHWAY 5	INDUSTRIAL BLVD	HARRY MCKILLOP BLVD / FM 546	1,456	0.28	2	2	4D	2,070		100%	700	700	386	386	571	571	-185	-185	185	185
INDUSTRIAL BLVD	STATE HIGHWAY 5	AIRPORT DR	6,296	1.19	2	2	4D	912	912	100%	700	700	1,669	1,669	1,088	1,088	581	581		
STATE HIGHWAY 5	TENNESSEE ST	INDUSTRIAL BLVD	537	0.10	2	2	4D	1,505	1,505	100%	700	700	142	142	153	153	-11	-11	11	11
AIRPORT DR	WILSON CREEK PKWY	385' N OF INDUSTRIAL BLVD	2,105	0.40	2	2	4D	843	843	50%	700	700	279	279	168	168	111	111		
STATE HIGHWAY 5	WILSON CREEK PKWY	TENNESSEE ST	2,055	0.39	2	2	5U	1,253		100%	625	625	487	487	488	488	-1	-1	1	1
ELM ST	ROCKWALL ST	AIRPORT DR	3,314	0.63	0 <	0	4U	227	269	100%	525	525	0	0	143	169	-143	-169	143	169
TENNESSEE ST	WILSON CREEK PKWY	STATE HIGHWAY 5	1,635	0.31	1	1	2U	152	165	100%	475	475	147	147	47	51	100	96		
ELM ST	TENNESSEE ST	525' TENNESSEE ST	527	0.10	2	2	4U	145	185	100%	525	525	105	105	14	18	90	86		
GREENVILLE RD	LOUISIANA ST	AIRPORT DR	1,451	0.27	1	1	2U	165	155	100%	475	475	131	131	45	43	85	88		
AIRPORT DR	LOUISIANA ST	WILSON CREEK PKWY	4,197	0.79	2	2	4D	923	923	50%	700	700	556	556	367	367	189	189		
GREENVILLE RD	THROCKMORTON ST	LOUISIANA ST	1,996	0.38	1	1	2U	165	155	100%	475	475	180	180	62	59	117	121		
GREENVILLE RD	LOUISIANA ST	THROCKMORTON ST	373	0.07	1	1	2U	165	155	100%	475	475	34	34	12	11	22	23		
TENNESSEE ST	DAVIS ST	WILSON CREEK PKWY	3,874	0.73	1	1	2U	172	125	100%	475	475	349	349	126	91	223	257		
LOUISIANA ST	TENNESSEE ST	STATE HIGHWAY 5	791	0.15	2	0	200	279	0	100%	475	475	142	0	42	0	101	0		
STATE HIGHWAY 5	LOUISIANA ST	WILSON CREEK PKWY	4,415	0.84	2	2	5U	1,317	1,317	100%	625	625	1,045	1,045	1,102	1,102	-56	-56	56	56
LOUISIANA ST	STATE HIGHWAY 5	GREENVILLE RD	830	0.16	1	1	2U	165	155	100%	475	475	75	75	26	24	49	50		
LOUISIANA ST	GREENVILLE RD	THROCKMORTON ST	389	0.07	1	1	2U	100	100	100%	475	475	35	35	7	7	28	28		_
THROCKMORTON ST	LOUISIANA ST	GREENVILLE RD	249	0.05	1	1	2U	118	118	100%	475	475	22	22	6	6	17	17		
LOUISIANA ST	THROCKMORTON ST	GREENVILLE RD	2,259	0.43	1	1	2U	100	100	100%	475	475	203	203	43	43	160	160		
LOUISIANA ST	GRAVES ST	TENNESSEE ST	4,525	0.86	2	0	200	479	0	100%	475	475	814	0	410	0	404	0		
TENNESSEE ST	VIRGINIA STREET	LOUISIANA ST	249	0.05	2	0	200	283	0	100%	475	475	45	0	13	0	31	0		
VIRGINIA STREET	GRAVES ST	TENNESSEE ST	4,512	0.85	0	2	2UO	0	599	100%	475	475	0	812	0	512	0	300		
WILSON CREEK PKWY	1,445' S OF LOUISIANA ST	TENNESSEE ST	9,000	1.70	2	2	4D	273	344	100%	700	700	2,386	2,386	465	587	1,921	1,799		
LOUISIANA ST	WILSON CREEK PKWY	VIRGINIA STREET	557	0.11	2	2	4D	0	802	100%	700	700	148	148	0	85	148	63		
VIRGINIA STREET	TENNESSEE ST	STATE HIGHWAY 5	841	0.16	0	2	2UO	0	250	100%	475	475	0	151	0	40	0	111		
STATE HIGHWAY 5	VIRGINIA STREET	LOUISIANA ST	260	0.05	2	2	5U	1,337	1,337	100%	625	625	61	61	66	66	-4	-4	4	4
LOUISIANA ST	US HIGHWAY 75	WILSON CREEK PKWY	1,228	0.23	2	3	5D	977	1,018	100%	700	700	326	488	227	237	98	252		
VIRGINIA STREET	STATE HIGHWAY 5	THROCKMORTON ST	1,108	0.21	1	1	2U	79	112	100%	475	475	100	100	17	24	83	76		
THROCKMORTON ST	VIRGINIA STREET	LOUISIANA ST	267	0.05	1	1	2U	118	118	100%	475	475	24	24	6	6	18	18		
VIRGINIA STREET	THROCKMORTON ST	225' W OF AIRPORT DR	2,661	0.50	1	1	2U	79	112	100%	475	475	239	239	40	57	199	183		
AIRPORT DR	VIRGINIA STREET	GREENVILLE RD	1,042	0.20	2	2	4D	920	920	100%	700	700	276	276	182	182	95	95		
AIRPORT DR	355' S OF US HIGHWAY 380	VIRGINIA STREET	1,863	0.35	2	2	4D	920	920	50%	700	700	247	247	162	162	85	85		
THROCKMORTON ST	US HIGHWAY 380	VIRGINIA STREET	3,783	0.72	1	1	2U	118	118	100%	475	475	340	340	84	84	256	256		
US HIGHWAY 380	THROCKMORTON ST	AIRPORT DR	2,452	0.46	3	3	6D	1,515		100%	780	780	1,087	1,087	703	703	383	383		
TENNESSEE ST	WHITE AVE	LAMAR ST	3,154	0.60	1	1	2U	122	115	100%	475	475	284	284	73	69	211	215		
WHITE AVE	GRAVES ST	TENNESSEE ST	4,118	0.78	1	1	2U	136	102	100%	475	475	370	370	106	79	264	291		
STATE HIGHWAY 5	US HIGHWAY 380	VIRGINIA STREET	4,974	0.94	2	2	5U	1,289		100%	625	625	1,177	1,177	1,214	1,214	-36	-36	36	36
US HIGHWAY 380	STATE HIGHWAY 5	THROCKMORTON ST	2,595	0.49	3	3	6D	1,492		100%	780	780	1,150	1,150	733	733	417	417		
TENNESSEE ST	US HIGHWAY 380	WHITE AVE	1,267	0.24	1	1	2U	225	198	100%	475	475	114	114	54	48	60	66		
US HIGHWAY 380	TENNESSEE ST	STATE HIGHWAY 5	683	0.13	3	3	6D	1,638		100%	780	780	303	303	212	212	91	91		
US HIGHWAY 380	GRAVES ST	TENNESSEE ST	4,618	0.87	3	3	6D	2,024		100%	780	780	2,047	2,047	1,770	1,770	277	277		
US HIGHWAY 380	US HIGHWAY 75	REDBUD BLVD	1,479	0.28	3	3	6D	1,935		100%	780	780	655	655	542	542	114	114		
TENNESSEE ST	LAMAR ST	VIRGINIA STREET	953	0.18	2	0	200	161	0	100%	475	475	171	0	29	0	142	0		
TENNESSEE ST	LAMAR ST	VIRGINIA STREET	953	0.18	2	0	200	141	0	100%	475	475	171	0	25	0	146	0		\perp
TENNESSEE ST	LOUISIANA ST	DAVIS ST	468	0.09	2	0	200	162	0	100%	475	475	84	0	14	0	70	0		4
AIRPORT DR	US HIGHWAY 380	355' S OF US HIGHWAY 380	354	0.07	2	2	4D	920	920	100%	700	700	94	94	62	62	32	32		4
AIRPORT DR	385' N OF INDUSTRIAL BLVD	INDUSTRIAL BLVD	387	0.07	2	2	4D	843	843	100%	700	700	103	103	62	62	41	41		+-
AIRPORT DR	FM 546	470' N OF HARRY MCKILLOP BLVD /	1,656	0.31	2	2	4D	22	22	50%	700	700	220	220	3	3	216	216		4
LOUISIANA ST	VIRGINIA STREET	GRAVES ST	1,050	0.20	2	0	200	631	0	100%	475	475	189	0	126	0	63	0		1
WILSON CREEK PKWY	LOUISIANA ST	1,445' S OF LOUISIANA ST	1,444	0.27	2	2	4U	218	330	100%	525	525	287	287	60	90	228	197		\perp
ELM ST	525' TENNESSEE ST	STATE HIGHWAY 5	436	0.08	1	1	2U	145	185	100%	475	475	39	39	12	15	27	24		
ELM ST	STATE HIGHWAY 5	ROCKWALL ST	1,507	0.29	1	1	2U	227	269	100%	475	475	136	136	65	77	71	59		
ELDORADO PKWY	1,600' E OF BARRANCA WAY	STATE HIGHWAY 5	1,690	0.32	2	2	4D	625	625	100%	700	700	448	448	200	200	248	248		
ELDORADO PKWY	1,180' E OF BARRANCA WAY	1,600' E OF BARRANCA WAY	419	0.08	2	2	4D	656	656	100%	700	700	111	111	52	52	59	59		
HARRY MCKILLOP BLVD / FM	SAIRPORT DR	975' E OF AIRPORT DR	978	0.19	2	2	4D	195	195	100%	700	700	259	259	36	36	223	223		
SUBTOTAL			126,338	23.93									24,086		14,430	14,560	9,657	9,035	973	999

Service Area L

ROADWAY	FROM	то	LENGTH	LENGTH	EX	IST	TYPE	P PE	M AK	% IN SERVICE		H-MI ACITY		H-MI PPLY		H-MI IAND	EXC CAP	ESS	_	TING ENCIES
	1		(ft)	(mi)		NES			UR	AREA	-	-HR		-HR		-HR	_	-HR	_	-HR
				` '				V	OL		PEF	RLN	ТО	TAL	то	TAL	VE	I-MI	VEI	н-мі
					NB/EB	SB/WB		NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
AIRPORT DR	470' N OF HARRY MCKILLOP BLVI	HARRY MCKILLOP BLVD / FM 546	468	0.09	1	1	2U	22	22	50%	475	475	21	21	1	1	20	20		
AIRPORT DR	INDUSTRIAL BLVD	FM 546	2,266	0.43	2	2	4D	191	191	50%	700	700	300	300	41	41	260	260		
INDUSTRIAL BLVD	AIRPORT DR	585' E OF AIRPORT DR	587	0.11	2	2	4D	33	33	100%	700	700	156	156	4	4	152	152		
AIRPORT DR	WILSON CREEK PKWY	385' N OF INDUSTRIAL BLVD	2,105	0.40	2	2	4D	843	843	50%	700	700	279	279	168	168	111	111		
AIRPORT DR	LOUISIANA ST	WILSON CREEK PKWY	4,197	0.79	2	2	4D	923	923	50%	700	700	556	556	367	367	189	189		
AIRPORT DR	VIRGINIA STREET	GREENVILLE RD	1,042	0.20	2	2	4D	920	920	100%	700	700	276	276	182	182	95	95		
AIRPORT DR	355' S OF US HIGHWAY 380	VIRGINIA STREET	1,863	0.35	2	2	4D	920	920	50%	700	700	247	247	162	162	85	85		
AIRPORT DR	US HIGHWAY 380	355' S OF US HIGHWAY 380	354	0.07	2	2	4D	920	920	100%	700	700	94	94	62	62	32	32		
AIRPORT DR	385' N OF INDUSTRIAL BLVD	INDUSTRIAL BLVD	387	0.07	2	2	4D	843	843	100%	700	700	103	103	62	62	41	41		
AIRPORT DR	FM 546	470' N OF HARRY MCKILLOP BLVD	1,656	0.31	2	2	4D	22	22	50%	700	700	220	220	3	3	216	216		
US HIGHWAY 380	AIRPORT DR	940' E OF AIRPORT DR	939	0.18	2	2	4D	2249	2249	100%	700	700	249	249	400	400	-151	-151	151	151
HARRY MCKILLOP BLVD / FM	AIRPORT DR	975' E OF AIRPORT DR	978	0.19	2	2	4D	195	195	100%	700	700	259	259	36	36	223	223		
SUBTOTAL			16,843	3.19									2,760	2,760	1,488	1,488	1,273	1,273	151	151
													5,	521	2,9	975	2,5	45	30	02

Service Area M			12/13/2019

							PM	% IN	VEH-MI	VEH-MI	VEH	-MI	EXCESS	EXISTIN	G
ROADWAY	FROM	то	LENGTH	LENGTH	EXIST	TYPE	PEAK	SERVICE	CAPACITY	SUPPLY	DEM	AND	CAPACITY	DEFICIENC	CIES
			(ft)	(mi)	LANES		HOUR	AREA	PK-HR	PK-HR	PK-	HR	PK-HR	PK-HR	
							VOL		PER LN	TOTAL	тот	AL	VEH-MI	VEH-M	1
					NB/EB SB/WB		NB/EB SB/WB		NB/EB SB/WB	NB/EB SB/W	/B NB/EB	SB/WB	NB/EB SB/WE	NB/EB SB	/WB
		No Thoroughfare Roa	adways w	ithin City L	imits Currentl	y Pres	ent within Ser	vice Area N	М						
SUBTOTAL			0	0.00						0 0	0	0	0 0	0	0
-				•						0	0		0	0	





Appendix D – Plan for Awarding the Roadway Impact Fee Credit Summary

AS PREPARED BY NEWGEN STRATEGIES & SOLUTIONS, LLC



Service Area B

Recoverable Impact Fee CIP Costs	\$ 9,638,193	Line 16, Maximum Fee Calculation Table
Financing Costs	2,272,855	See Detail Below
Existing Fund Balance	-	Page 1 of Appendix E - Service Area B
Interest Earnings	(1,349,526)	Page 5 of Appendix E - Service Area B
Pre Credit Recoverable Cost for Impact Fee	\$ 10,561,522	Sum of Above
Credit for Ad Valorem Revenues	(82,337)	Page 8 of Appendix E - Service Area B
Maximum Recoverable Cost for Impact Fee	\$ 10,479,185	

Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through impact fees. Reference is Service Area B column, line 16 on the Max Fee Calculation Table.

Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs. Interests costs are derived from existing debt issues and forecasted debt issues.

New Annual Debt Service	\$ 7,091,951	(Page 3 of Appendix E - Service Area B)
Existing Annual Debt Service	-	(Page 3 of Appendix E - Service Area B)
Principal Component	(4,819,097)	(Page 4 of Appendix E - Service Area B)
Financing Costs	\$ 2,272,855	

Existing Fund Balance:

Represents impact fee revenue collected but not yet expended. Some projects that are included in the 2020 Impact Fee Update were also included in prior Impact Fee Updates. To avoid charging twice for the same project, the impact fee revenues collected but yet to be expended (i.e. fund balance) are credited against the recoverable costs. Reference is page 1 of Appendix E - Service Area B.

Interest Earnings:

Represents the interest earned on cash flows and assumes a 2.00% annual interest rate. The Impact Fee Statute states that interest earnings are funds of the impact fee account and are held to the same restrictions as impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs. Reference is the sum of recoverable costs. Reference is page 1 of Appendix E - Service Area B.

Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Interest Earnings.

Credit for Ad Valorem Revenues:

In 2001, the Impact Fee Statute was amended to include a credit for ad valorem and/or utility revenues generated by new service units during the ten-year timeframe that are used to fund impact fee eligible projects for which the new service units were charged an impact fee. The intent of this amendment is to avoid double-charging the new service units for impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 6 of Appendix E - Service Area B.

Maximum Recoverable Cost for Impact Fee:

Service Area C

Recoverable Impact Fee CIP Costs	\$ 42,187,190	Line 16, Maximum Fee Calculation Table
Financing Costs	9,640,068	See Detail Below
Existing Fund Balance	(1,784,813)	Page 1 of Appendix E - Service Area C
Interest Earnings	(5,688,458)	Page 5 of Appendix E - Service Area C
Pre Credit Recoverable Cost for Impact Fee	\$ 44,353,987	Sum of Above
Credit for Ad Valorem Revenues	(601,239)	Page 8 of Appendix E - Service Area C
Maximum Recoverable Cost for Impact Fee	\$ 43,752,749	

Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through impact fees. Reference is Service Area C column, line 16 on the Max Fee Calculation Table.

Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs. Interests costs are derived from existing debt issues and forecasted debt issues.

New Annual Debt Service	\$ 27,286,745 (Page 3 of Appendix I	Ē - Service Area C)
Existing Annual Debt Service	5,836,214 (Page 3 of Appendix	E - Service Area C)
Principal Component	(23,482,891) (Page 4 of Appendix	E - Service Area C)
Financing Costs	\$ 9,640,068	

Existing Fund Balance:

Represents impact fee revenue collected but not yet expended. Some projects that are included in the 2020 Impact Fee Update were also included in prior Impact Fee Updates. To avoid charging twice for the same project, the impact fee revenues collected but yet to be expended (i.e. fund balance) are credited against the recoverable costs. Reference is page 1 of Appendix E - Service Area C.

Interest Earnings:

Represents the interest earned on cash flows and assumes a 2.00% annual interest rate. The Impact Fee Statute states that interest earnings are funds of the impact fee account and are held to the same restrictions as impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs. Reference is the sum of recoverable costs. Reference is page 1 of Appendix E - Service Area C.

Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Interest Earnings.

Credit for Ad Valorem Revenues:

In 2001, the Impact Fee Statute was amended to include a credit for ad valorem and/or utility revenues generated by new service units during the ten-year timeframe that are used to fund impact fee eligible projects for which the new service units were charged an impact fee. The intent of this amendment is to avoid double-charging the new service units for impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 6 of Appendix E - Service Area C.

Maximum Recoverable Cost for Impact Fee:

Service Area D

Recoverable Impact Fee CIP Costs	\$ 132,127,064	Line 16, Maximum Fee Calculation Table
Financing Costs	32,193,283	See Detail Below
Existing Fund Balance	(131,981)	Page 1 of Appendix E - Service Area D
Interest Earnings	(17,212,335)	Page 5 of Appendix E - Service Area D
Pre Credit Recoverable Cost for Impact Fee	\$ 146,976,031	Sum of Above
Credit for Ad Valorem Revenues	(5,004,090)	Page 8 of Appendix E - Service Area D
Maximum Recoverable Cost for Impact Fee	\$ 141,971,941	

Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through impact fees. Reference is Service Area D column, line 16 on the Max Fee Calculation Table.

Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs. Interests costs are derived from existing debt issues and forecasted debt issues.

New Annual Debt Service	\$ 88,915,117 (Page 3 of Appendix E - Service Area D)
Existing Annual Debt Service	13,336,896 (Page 3 of Appendix E - Service Area D)
Principal Component	(70,058,730) (Page 4 of Appendix E - Service Area D)
Financing Costs	\$ 32,193,283

Existing Fund Balance:

Represents impact fee revenue collected but not yet expended. Some projects that are included in the 2020 Impact Fee Update were also included in prior Impact Fee Updates. To avoid charging twice for the same project, the impact fee revenues collected but yet to be expended (i.e. fund balance) are credited against the recoverable costs. Reference is page 1 of Appendix E - Service Area D.

Interest Earnings:

Represents the interest earned on cash flows and assumes a 2.00% annual interest rate. The Impact Fee Statute states that interest earnings are funds of the impact fee account and are held to the same restrictions as impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs. Reference is the sum of recoverable costs. Reference is page 1 of Appendix E - Service Area D.

Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Interest Earnings.

Credit for Ad Valorem Revenues:

In 2001, the Impact Fee Statute was amended to include a credit for ad valorem and/or utility revenues generated by new service units during the ten-year timeframe that are used to fund impact fee eligible projects for which the new service units were charged an impact fee. The intent of this amendment is to avoid double-charging the new service units for impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 6 of Appendix E - Service Area D.

Maximum Recoverable Cost for Impact Fee:

Service Area E

Recoverable Impact Fee CIP Costs	\$ 36,477,811	Line 16, Maximum Fee Calculation Table
Financing Costs	8,560,746	See Detail Below
Existing Fund Balance	(129,689)	Page 1 of Appendix E - Service Area E
Interest Earnings	(5,036,323)	Page 5 of Appendix E - Service Area E
Pre Credit Recoverable Cost for Impact Fee	\$ 39,872,546	Sum of Above
Credit for Ad Valorem Revenues	(578,212)	Page 8 of Appendix E - Service Area E
Maximum Recoverable Cost for Impact Fee	\$ 39,294,334	

Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through impact fees. Reference is Service Area E column, line 16 on the Max Fee Calculation Table.

Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs. Interests costs are derived from existing debt issues and forecasted debt issues.

New Annual Debt Service	\$ 26,604,431 (Page 3 of Appendix E - Service Area E
Existing Annual Debt Service	157,395 (Page 3 of Appendix E - Service Area E
Principal Component	(18,201,079) (Page 4 of Appendix E - Service Area E
Financing Costs	\$ 8,560,746

Existing Fund Balance:

Represents impact fee revenue collected but not yet expended. Some projects that are included in the 2020 Impact Fee Update were also included in prior Impact Fee Updates. To avoid charging twice for the same project, the impact fee revenues collected but yet to be expended (i.e. fund balance) are credited against the recoverable costs. Reference is page 1 of Appendix E - Service Area E.

Interest Earnings:

Represents the interest earned on cash flows and assumes a 2.00% annual interest rate. The Impact Fee Statute states that interest earnings are funds of the impact fee account and are held to the same restrictions as impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs. Reference is the sum of recoverable costs. Reference is page 1 of Appendix E - Service Area E.

Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Interest Earnings.

Credit for Ad Valorem Revenues:

In 2001, the Impact Fee Statute was amended to include a credit for ad valorem and/or utility revenues generated by new service units during the ten-year timeframe that are used to fund impact fee eligible projects for which the new service units were charged an impact fee. The intent of this amendment is to avoid double-charging the new service units for impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 6 of Appendix E - Service Area E.

Maximum Recoverable Cost for Impact Fee:

Service Area G

Recoverable Impact Fee CIP Costs	\$ 8,041,653	Line 16, Maximum Fee Calculation Table
Financing Costs	2,552,974	See Detail Below
Existing Fund Balance	(448,086)	Page 1 of Appendix E - Service Area G
Interest Earnings	(1,137,019)	Page 5 of Appendix E - Service Area G
Pre Credit Recoverable Cost for Impact Fee	\$ 9,009,522	Sum of Above
Credit for Ad Valorem Revenues	(67,194)	Page 8 of Appendix E - Service Area G
Maximum Recoverable Cost for Impact Fee	\$ 8,942,328	

Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through impact fees. Reference is Service Area G column, line 16 on the Max Fee Calculation Table.

Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs. Interests costs are derived from existing debt issues and forecasted debt issues.

New Annual Debt Service	\$ 4,050,969 (Page 3 of Appendix E - Service Area G)
Existing Annual Debt Service	3,628,688 (Page 3 of Appendix E - Service Area G)
Principal Component	(5,126,683) (Page 4 of Appendix E - Service Area G)
Financing Costs	\$ 2,552,974

Existing Fund Balance:

Represents impact fee revenue collected but not yet expended. Some projects that are included in the 2020 Impact Fee Update were also included in prior Impact Fee Updates. To avoid charging twice for the same project, the impact fee revenues collected but yet to be expended (i.e. fund balance) are credited against the recoverable costs. Reference is page 1 of Appendix E - Service Area G.

Interest Earnings:

Represents the interest earned on cash flows and assumes a 2.00% annual interest rate. The Impact Fee Statute states that interest earnings are funds of the impact fee account and are held to the same restrictions as impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs. Reference is the sum of recoverable costs. Reference is page 1 of Appendix E - Service Area G.

Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Interest Earnings.

Credit for Ad Valorem Revenues:

In 2001, the Impact Fee Statute was amended to include a credit for ad valorem and/or utility revenues generated by new service units during the ten-year timeframe that are used to fund impact fee eligible projects for which the new service units were charged an impact fee. The intent of this amendment is to avoid double-charging the new service units for impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 6 of Appendix E - Service Area G.

Maximum Recoverable Cost for Impact Fee:

Service Area H

Recoverable Impact Fee CIP Costs	\$ 10,213,823	Line 16, Maximum Fee Calculation Table
Financing Costs	2,942,747	See Detail Below
Existing Fund Balance	(293,933)	Page 1 of Appendix E - Service Area H
Interest Earnings	(1,231,934)	Page 5 of Appendix E - Service Area H
Pre Credit Recoverable Cost for Impact Fee	\$ 11,630,704	Sum of Above
Credit for Ad Valorem Revenues	(333,123)	Page 8 of Appendix E - Service Area H
Maximum Recoverable Cost for Impact Fee	\$ 11,297,580	

Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through impact fees. Reference is Service Area H column, line 16 on the Max Fee Calculation Table.

Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs. Interests costs are derived from existing debt issues and forecasted debt issues.

New Annual Debt Service	\$ 4,752,546 (Page 3 of Appendix E - Service Area H)
Existing Annual Debt Service	5,016,542 (Page 3 of Appendix E - Service Area H)
Principal Component	(6,826,340) (Page 4 of Appendix E - Service Area H)
Financing Costs	\$ 2,942,747

Existing Fund Balance:

Represents impact fee revenue collected but not yet expended. Some projects that are included in the 2020 Impact Fee Update were also included in prior Impact Fee Updates. To avoid charging twice for the same project, the impact fee revenues collected but yet to be expended (i.e. fund balance) are credited against the recoverable costs. Reference is page 1 of Appendix E - Service Area H.

Interest Earnings:

Represents the interest earned on cash flows and assumes a 2.00% annual interest rate. The Impact Fee Statute states that interest earnings are funds of the impact fee account and are held to the same restrictions as impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs. Reference is the sum of recoverable costs. Reference is page 1 of Appendix E - Service Area H.

Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Interest Earnings.

Credit for Ad Valorem Revenues:

In 2001, the Impact Fee Statute was amended to include a credit for ad valorem and/or utility revenues generated by new service units during the ten-year timeframe that are used to fund impact fee eligible projects for which the new service units were charged an impact fee. The intent of this amendment is to avoid double-charging the new service units for impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 6 of Appendix E - Service Area H.

Maximum Recoverable Cost for Impact Fee:

Service Area I

Recoverable Impact Fee CIP Costs	\$ 25,021,841	Line 16, Maximum Fee Calculation Table
Financing Costs	7,106,451	See Detail Below
Existing Fund Balance	(5,189,258)	Page 1 of Appendix E - Service Area I
Interest Earnings	(3,301,274)	Page 5 of Appendix E - Service Area I
Pre Credit Recoverable Cost for Impact Fee	\$ 23,637,760	Sum of Above
Credit for Ad Valorem Revenues	(449,003)	Page 8 of Appendix E - Service Area I
Maximum Recoverable Cost for Impact Fee	\$ 23,188,757	

Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through impact fees. Reference is Service Area I column, line 16 on the Max Fee Calculation Table.

Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs. Interests costs are derived from existing debt issues and forecasted debt issues.

New Annual Debt Service	\$ 9,394,797	(Page 3 of Appendix E - Service Area I)
Existing Annual Debt Service	12,937,528	(Page 3 of Appendix E - Service Area I)
Principal Component	(15,225,874)	(Page 4 of Appendix E - Service Area I)
Financing Costs	\$ 7,106,451	

Existing Fund Balance:

Represents impact fee revenue collected but not yet expended. Some projects that are included in the 2020 Impact Fee Update were also included in prior Impact Fee Updates. To avoid charging twice for the same project, the impact fee revenues collected but yet to be expended (i.e. fund balance) are credited against the recoverable costs. Reference is page 1 of Appendix E - Service Area I.

Interest Earnings:

Represents the interest earned on cash flows and assumes a 2.00% annual interest rate. The Impact Fee Statute states that interest earnings are funds of the impact fee account and are held to the same restrictions as impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs. Reference is the sum of recoverable costs. Reference is page 1 of Appendix E - Service Area I.

Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Interest Earnings.

Credit for Ad Valorem Revenues:

In 2001, the Impact Fee Statute was amended to include a credit for ad valorem and/or utility revenues generated by new service units during the ten-year timeframe that are used to fund impact fee eligible projects for which the new service units were charged an impact fee. The intent of this amendment is to avoid double-charging the new service units for impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 6 of Appendix E - Service Area I.

Maximum Recoverable Cost for Impact Fee:

Service Area J

Recoverable Impact Fee CIP Costs	\$ 9,621,608	Line 16, Maximum Fee Calculation Table
Financing Costs	2,915,731	See Detail Below
Existing Fund Balance	(2,179,356)	Page 1 of Appendix E - Service Area J
Interest Earnings	(1,467,153)	Page 5 of Appendix E - Service Area J
Pre Credit Recoverable Cost for Impact Fee	\$ 8,890,830	Sum of Above
Credit for Ad Valorem Revenues	(257,003)	Page 8 of Appendix E - Service Area J
Maximum Recoverable Cost for Impact Fee	\$ 8,633,827	

Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through impact fees. Reference is Service Area J column, line 16 on the Max Fee Calculation Table.

Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs. Interests costs are derived from existing debt issues and forecasted debt issues.

New Annual Debt Service	\$ 4,864,097	(Page 3 of Appendix E - Service Area J)
Existing Annual Debt Service	4,346,705	(Page 3 of Appendix E - Service Area J)
Principal Component	(6,295,072)	(Page 4 of Appendix E - Service Area J)
Financing Costs	\$ 2,915,731	

Existing Fund Balance:

Represents impact fee revenue collected but not yet expended. Some projects that are included in the 2020 Impact Fee Update were also included in prior Impact Fee Updates. To avoid charging twice for the same project, the impact fee revenues collected but yet to be expended (i.e. fund balance) are credited against the recoverable costs. Reference is page 1 of Appendix E - Service Area J.

Interest Earnings:

Represents the interest earned on cash flows and assumes a 2.00% annual interest rate. The Impact Fee Statute states that interest earnings are funds of the impact fee account and are held to the same restrictions as impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs. Reference is the sum of recoverable costs. Reference is page 1 of Appendix E - Service Area J.

Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Interest Earnings.

Credit for Ad Valorem Revenues:

In 2001, the Impact Fee Statute was amended to include a credit for ad valorem and/or utility revenues generated by new service units during the ten-year timeframe that are used to fund impact fee eligible projects for which the new service units were charged an impact fee. The intent of this amendment is to avoid double-charging the new service units for impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 6 of Appendix E - Service Area J.

Maximum Recoverable Cost for Impact Fee:

Service Area K

Recoverable Impact Fee CIP Costs	\$ 9,904,669	Line 16, Maximum Fee Calculation Table
Financing Costs	2,590,329	See Detail Below
Existing Fund Balance	(779,111)	Page 1 of Appendix E - Service Area K
Interest Earnings	(1,427,017)	Page 5 of Appendix E - Service Area K
Pre Credit Recoverable Cost for Impact Fee	\$ 10,288,870	Sum of Above
Credit for Ad Valorem Revenues	(80,502)	Page 8 of Appendix E - Service Area K
Maximum Recoverable Cost for Impact Fee	\$ 10,208,369	

Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through impact fees. Reference is Service Area K column, line 16 on the Max Fee Calculation Table.

Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs. Interests costs are derived from existing debt issues and forecasted debt issues.

New Annual Debt Service	\$ 6,321,850 (Page 3 of Appendix E - Service Area K)
Existing Annual Debt Service	1,724,071 (Page 3 of Appendix E - Service Area K)
Principal Component	(5,455,592) (Page 4 of Appendix E - Service Area K)
Financing Costs	\$ 2,590,329

Existing Fund Balance:

Represents impact fee revenue collected but not yet expended. Some projects that are included in the 2020 Impact Fee Update were also included in prior Impact Fee Updates. To avoid charging twice for the same project, the impact fee revenues collected but yet to be expended (i.e. fund balance) are credited against the recoverable costs. Reference is page 1 of Appendix E - Service Area K.

Interest Earnings:

Represents the interest earned on cash flows and assumes a 2.00% annual interest rate. The Impact Fee Statute states that interest earnings are funds of the impact fee account and are held to the same restrictions as impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs. Reference is the sum of recoverable costs. Reference is page 1 of Appendix E - Service Area K.

Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Interest Earnings.

Credit for Ad Valorem Revenues:

In 2001, the Impact Fee Statute was amended to include a credit for ad valorem and/or utility revenues generated by new service units during the ten-year timeframe that are used to fund impact fee eligible projects for which the new service units were charged an impact fee. The intent of this amendment is to avoid double-charging the new service units for impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 6 of Appendix E - Service Area K.

Maximum Recoverable Cost for Impact Fee:

Service Area L

Recoverable Impact Fee CIP Costs	\$ 3,542,826	Line 16, Maximum Fee Calculation Table
Financing Costs	829,021	See Detail Below
Existing Fund Balance	(5,532)	Page 1 of Appendix E - Service Area L
Interest Earnings	(491,577)	Page 5 of Appendix E - Service Area L
Pre Credit Recoverable Cost for Impact Fee	\$ 3,874,737	Sum of Above
Credit for Ad Valorem Revenues	(5,956)	Page 8 of Appendix E - Service Area L
Maximum Recoverable Cost for Impact Fee	\$ 3,868,782	

Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through impact fees. Reference is Service Area L column, line 16 on the Max Fee Calculation Table.

Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs. Interests costs are derived from existing debt issues and forecasted debt issues.

New Annual Debt Service	\$ 2,536,809 (Page 3 of Appendix E - Service Area L)
Existing Annual Debt Service	73,147 (Page 3 of Appendix E - Service Area L)
Principal Component	(1,780,935) (Page 4 of Appendix E - Service Area L)
Financing Costs	\$ 829,021

Existing Fund Balance:

Represents impact fee revenue collected but not yet expended. Some projects that are included in the 2020 Impact Fee Update were also included in prior Impact Fee Updates. To avoid charging twice for the same project, the impact fee revenues collected but yet to be expended (i.e. fund balance) are credited against the recoverable costs. Reference is page 1 of Appendix E - Service Area L.

Interest Earnings:

Represents the interest earned on cash flows and assumes a 2.00% annual interest rate. The Impact Fee Statute states that interest earnings are funds of the impact fee account and are held to the same restrictions as impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs. Reference is the sum of recoverable costs. Reference is page 1 of Appendix E - Service Area L.

Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Interest Earnings.

Credit for Ad Valorem Revenues:

In 2001, the Impact Fee Statute was amended to include a credit for ad valorem and/or utility revenues generated by new service units during the ten-year timeframe that are used to fund impact fee eligible projects for which the new service units were charged an impact fee. The intent of this amendment is to avoid double-charging the new service units for impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 6 of Appendix E - Service Area L.

Maximum Recoverable Cost for Impact Fee:

Service Area M

Recoverable Impact Fee CIP Costs	\$ 668,610	Line 16, Maximum Fee Calculation Table
Financing Costs	157,670	See Detail Below
Existing Fund Balance	-	Page 1 of Appendix E - Service Area M
Interest Earnings	(94,613)	Page 5 of Appendix E - Service Area M
Pre Credit Recoverable Cost for Impact Fee	\$ 731,667	Sum of Above
Credit for Ad Valorem Revenues	(181)	Page 8 of Appendix E - Service Area M
Maximum Recoverable Cost for Impact Fee	\$ 731,486	

Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through impact fees. Reference is Service Area M column, line 16 on the Max Fee Calculation Table.

Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs. Interests costs are derived from existing debt issues and forecasted debt issues.

New Annual Debt Service	\$ 491,975	(Page 3 of Appendix E - Service Area M)
Existing Annual Debt Service	-	(Page 3 of Appendix E - Service Area M)
Principal Component	(334,305)	(Page 4 of Appendix E - Service Area M)
Financing Costs	\$ 157,670	

Existing Fund Balance:

Represents impact fee revenue collected but not yet expended. Some projects that are included in the 2020 Impact Fee Update were also included in prior Impact Fee Updates. To avoid charging twice for the same project, the impact fee revenues collected but yet to be expended (i.e. fund balance) are credited against the recoverable costs. Reference is page 1 of Appendix E - Service Area M.

Interest Earnings:

Represents the interest earned on cash flows and assumes a 2.00% annual interest rate. The Impact Fee Statute states that interest earnings are funds of the impact fee account and are held to the same restrictions as impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs. Reference is the sum of recoverable costs. Reference is page 1 of Appendix E - Service Area M.

Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Interest Earnings.

Credit for Ad Valorem Revenues:

In 2001, the Impact Fee Statute was amended to include a credit for ad valorem and/or utility revenues generated by new service units during the ten-year timeframe that are used to fund impact fee eligible projects for which the new service units were charged an impact fee. The intent of this amendment is to avoid double-charging the new service units for impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 6 of Appendix E - Service Area M.

Maximum Recoverable Cost for Impact Fee:





Appendix E – Plan for Awarding the Roadway Impact Fee Credit Summary Supporting Exhibits

AS PREPARED BY NEWGEN STRATEGIES & SOLUTIONS, LLC



Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area B

I. General Assumptions

Annual Interest Rate on Deposits (1)
Annual Vehicle Mile Growth (2)
Existing Fund Balance (3)

2.00% 958 \$ -

Portion of Projects Funded by Existing Debt ⁽⁴⁾
Non-debt Funded Project Cost ⁽⁵⁾
New Project Cost Funded Through New Debt ⁽⁶⁾

\$ 4,819,097 4,819,097 \$ 9,638,193

Total Recoverable Project Cost (7)

II. New Debt Issues Assumptions

<u>Year</u>	Principal ⁽⁸⁾	Interest ⁽⁹⁾	<u>Term</u>
1	\$ 481,910	4.00%	20
2	481,910	4.00%	20
3	481,910	4.00%	20
4	481,910	4.00%	20
5	481,910	4.00%	20
6	481,910	4.00%	20
7	481,910	4.00%	20
8	481,910	4.00%	20
9	481,910	4.00%	20
10	481,910	4.00%	20

III. Capital Expenditure Assumptions

4,819,097

	d	nnual apital				
<u>Year</u>	Exper	nditures ⁽¹⁰⁾				
11	\$	481,910				
2		642,546				
3		803,183				
4		963,819				
5		963,819				
6	963,8					
7		963,819				
8		963,819				
9		963,819				
10		963,819				
11		481,910				
12		321,273				
13		160,637				
Total	\$	9,638,193				

- (1) Per discussions with City Staff and City files
- (2) Derived from Kimley-Horn Impact Fee Study
- (3) Per discussions with City Staff and City files
- (4) Per discussions with City Staff and City files
- $(5) \quad \text{This assumes 50\% of new project costs funded through sources other than debt, unless specified otherwise}$
- (6) This assumes 50% of new project costs funded through new debt issues, unless specified otherwise
- (7) Per Kimley-Horn Impact Fee Study
- (8) Assumes new debt issued in equal annual amounts
- (9) Per discussions with City Staff and City files
- (10) Assumes new debt proceeds expended over a 3-year timeframe.

Non-debt funded capital expenditures allocated per discussions with City Staff

Total

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area B

I. New Debt Service Detail

<u>Year</u>	Series <u>1</u>		:	Series <u>2</u>	s	eries <u>3</u>	s	Series <u>4</u>		Series <u>5</u>	Series		Series	:	Series <u>8</u>	8	Series <u>9</u>		eries 10	N	Annual lew Debt <u>Service</u>
1		460	\$	-	\$	-	\$	-	\$	- \$	-	\$	-	\$	-	\$	4	\$	-	\$	35,460
2		460		35,460		-		-		-	-		-		-		-		-		70,920
3		460		35,460		35,460		-		-	-		-		-	4			-		106,379
4		460		35,460		35,460		35,460		-	-		-						-		141,839
5		460		35,460		35,460		35,460		35,460	-		-		-		-		-		177,299
6		460		35,460		35,460		35,460		35,460	35,460		-		-		-				212,759
7		460		35,460		35,460		35,460		35,460	35,460		35,460				-		-		248,218
8		460		35,460		35,460		35,460		35,460	35,460		35,460		35,460				-		283,678
9		460		35,460		35,460		35,460		35,460	35,460		35,460		35,460		35,460				319,138
10		460		35,460		35,460		35,460		35,460	35,460		35,460		35,460		35,460		35,460		354,598
11		460		35,460		35,460		35,460		35,460	35,460		35,460		35,460		35,460		35,460		354,598
12		460		35,460		35,460		35,460		35,460	35,460		35,460		35,460		35,460		35,460		354,598
13		460		35,460		35,460		35,460		35,460	35,460		35,460		35,460		35,460		35,460		354,598
14		460		35,460		35,460		35,460		35,460	35,460	4	35,460		35,460		35,460		35,460		354,598
15		460		35,460		35,460		35,460		35,460	35,460		35,460		35,460		35,460		35,460		354,598
16		460		35,460		35,460		35,460		35,460	35,460		35,460		35,460		35,460		35,460		354,598
17		460		35,460		35,460		35,460		35,460	35,460		35,460		35,460		35,460		35,460		354,598
18		460		35,460		35,460		35,460		35,460	35,460		35,460		35,460		35,460		35,460		354,598
19		460		35,460		35,460		35,460		35,460	35,460		35,460		35,460		35,460		35,460		354,598
20	35	460		35,460		35,460		35,460		35,460	35,460		35,460		35,460		35,460		35,460		354,598
21		-		35,460		35,460		35,460		35,460	35,460		35,460		35,460		35,460		35,460		319,138
22		-		-		35,460		35,460		35,460	35,460		35,460		35,460		35,460		35,460		283,678
23		-		-		-		35,460		35,460	35,460		35,460	$\overline{}$	35,460		35,460		35,460		248,218
24		-		-		-		-		35,460	35,460		35,460		35,460		35,460		35,460		212,759
25		-		-		-		-			35,460		35,460		35,460		35,460		35,460		177,299
26		-		-		-		-					35,460		35,460		35,460		35,460		141,839
27		-		-		-		-			-		-		35,460		35,460		35,460		106,379
28		-		-		-		-		-	•				-		35,460		35,460		70,920
29	¢ 700	-	•	709.195	Φ.	709.195	•	709.195	•	709,195 \$	700 405	•	700 405	•	709,195	<u>*</u>	700 405	•	35,460	Φ.	35,460
	\$ 709	195	\$	709,195	\$	709,195	\$	709,195	\$	709,195 \$	709,195	\$	709,195	\$	709,195	\$	709,195	\$	709,195	\$	7,091,951

II. Summary of Annual Expenses

		New			М		Existing		
		Annual		Annual	- 1	Annual	Annual		
		Debt		Capital		Bond	Debt	Annual	Total
Year	5	Service ⁽¹⁾	Exp	enditures ⁽²⁾	E	Proceeds ⁽²⁾	Service ⁽³⁾	Credit ⁽⁴⁾	Expense
1	\$	35,460	\$	481,910	\$	(481,910)	\$ -	\$ (56)	\$ 35,404
2		70,920		642,546		(481,910)	-	(218)	231,338
3		106,379		803,183		(481,910)	-	(476)	427,176
4		141,839		963,819		(481,910)	-	(824)	622,924
5		177,299		963,819		(481,910)	-	(1,254)	657,954
6		212,759		963,819		(481,910)	-	(1,760)	692,908
7		248,218		963,819		(481,910)	-	(2,336)	727,792
8		283,678		963,819		(481,910)	-	(2,977)	762,611
9		319,138		963,819		(481,910)	-	(3,678)	797,369
10		354,598		963,819		(481,910)	-	(4,436)	832,071
11		354,598		481,910		-	-	(4,436)	832,071
12		354,598		321,273		-	-	(4,436)	671,435
13		354,598		160,637		-	-	(4,436)	510,798
14		354,598		-		-	-	(4,436)	350,162
15		354,598		-		-	-	(4,436)	350,162
16		354,598		-		-	-	(4,436)	350,162
17		354,598		-		-	-	(4,436)	350,162
18		354,598		-		-	-	(4,436)	350,162
19		354,598		-		-	-	(4,436)	350,162
20		354,598		-		-	-	(4,436)	350,162
21		319,138		-		-	-	(3,992)	315,145
22		283,678		-		-	-	(3,549)	280,129
23		248,218		-		-	-	(3,105)	245,113
24		212,759		-		-	-	(2,662)	210,097
25		177,299		-		-	-	(2,218)	175,081
26		141,839		-		-	-	(1,774)	140,065
27		106,379		-		-	-	(1,331)	105,048
28		70,920		-		-	-	(887)	70,032
29		35,460		-		-	-	(444)	35,016
	\$	7,091,951	\$	9,638,193	\$	(4,819,097)	\$ -	\$ (82,337)	\$ 11,828,711

⁽¹⁾ Appendix E - Service Area B, Page 2 Section I
(2) Appendix E - Service Area B, Page 1
(3) Eligible debt funded projects as a percent of total principal times original annual debt service
(4) Appendix E - Service Area B, Page 6

Capital Improvement Plan for Impact Fees
Appendix E - Impact Fee Calculation Assumptions
Service Area B

<u>Year</u>	Impact <u>Fee</u>	Vehicle <u>Miles</u>	Impact Fee <u>Revenue</u>	Annual <u>Expenses</u>	<u>Sub-Total</u>	Accumulated <u>Interest</u>	Estimated Fund <u>Balance</u>
Initial							\$ -
1	\$ 1,094	958	\$ 1,047,918	\$ 35,404	\$ 1,012,515	\$ 10,125	1,022,640
2	1,094	958	1,047,918	231,338	816,580	28,619	1,867,839
3	1,094	958	1,047,918	427,176	620,743	43,564	2,532,146
4	1,094	958	1,047,918	622,924	424,994	54,893	3,012,032
5	1,094	958	1,047,918	657,954	389,964	64,140	3,466,137
6	1,094	958	1,047,918	692,908	355,010	72,873	3,894,020
7	1,094	958	1,047,918	727,792	320,126	81,082	4,295,228
8	1,094	958	1,047,918	762,611	285,308	88,758	4,669,294
9	1,094	958	1,047,918	797,369	250,549	95,891	5,015,734
10	1,094	958	1,047,918	832,071	215,847	102,473	5,334,055
11	-	-	-	832,071	(832,071)	98,360	4,600,344
12	-	-	-	671,435	(671,435)	85,293	4,014,202
13	-	-	-	510,798	(510,798)	75,176	3,578,579
14	-	-	-	350,162	(350,162)	68,070	3,296,488
15	-	-	-	350,162	(350,162)	62,428	3,008,754
16	-	-		350,162	(350,162)	56,673	2,715,266
17	-	-	-	350,162	(350,162)	50,804	2,415,908
18	-	-	-	350,162	(350,162)	44,817	2,110,563
19	-	-	-	350,162	(350,162)	38,710	1,799,111
20	-	-		350,162	(350,162)	32,481	1,481,430
21	-	-	-	315,145	(315,145)	26,477	1,192,762
22	-	-	-	280,129	(280,129)	21,054	933,687
23	-	-	-	245,113	(245,113)	16,223	704,796
24	-	-	-	210,097	(210,097)	11,995	506,694
25	-	-	-	175,081	(175,081)	8,383	339,996
26	-	-	-	140,065	(140,065)	5,399	205,331
27	-	-	-	105,048	(105,048)	3,056	103,339
28	-	-	-	70,032	(70,032)	1,366	34,673
29	-	-		35,016	(35,016)	343	-
			\$ 10,479,185	\$ 11,828,711	•	\$ 1,349,526	

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area B

	Number of	Interest	Recovery			4			
	Years to	Rate	Fee	Annual Ve	hicle Miles		Annual I	Ξχρε	ense
<u>Year</u>	End of Period	Factor	<u>Factor</u>	<u>Actual</u>	Escalated		Actual		Escalated
		·		· 					
1	29	1.7584	1.0000	958	1,684	\$	35,404	\$	62,255
2	28	1.7240	1.0000	958	1,651		231,338		398,817
3	27	1.6902	1.0000	958	1,619		427,176		721,992
4	26	1.6570	1.0000	958	1,587		622,924		1,032,193
5	25	1.6245	1.0000	958	1,556		657,954		1,068,861
6	24	1.5927	1.0000	958	1,525		692,908		1,103,573
7	23	1.5614	1.0000	958	1,496		727,792		1,136,403
8	22	1.5308	1.0000	958	1,466		762,611		1,167,422
9	21	1.5008	1.0000	958	1,437		797,369		1,196,697
10	20	1.4714	1.0000	958	1,409		832,071		1,224,292
11	19	1.4425	1.0000	-	-		832,071		1,200,287
12	18	1.4142	1.0000	-	-		671,435		949,572
13	17	1.3865	1.0000	•	-		510,798		708,229
14	16	1.3593	1.0000	-	-		350,162		475,984
15	15	1.3327	1.0000	-			350,162		466,651
16	14	1.3065	1.0000	-	-		350,162		457,501
17	13	1.2809	1.0000		-		350,162		448,530
18	12	1.2558	1.0000	-	-		350,162		439,736
19	11	1.2312	1.0000	-	-		350,162		431,113
20	10	1.2070	1.0000	-	-		350,162		422,660
21	9	1.1834	1.0000	-	-		315,145		372,936
22	8	1.1602	1.0000	-	-		280,129		324,998
23	7	1.1374	1.0000	-	-		245,113		278,798
24	6	1.1151	1.0000	-	-		210,097		234,284
25	5	1.0933	1.0000	-	-		175,081		191,408
26	4	1.0718	1.0000	-	-		140,065		150,124
27 28	3	1.0508 1.0302	1.0000 1.0000	-	-		105,048 70,032		110,385 72,147
29	2	1.0100	1.0000	-	-		35,016		35,366
29		1.0100	1.0000	· -	15,431		33,010	\$	16,883,217
					10,401			Ψ	10,000,217
		Annual Interest Ra	te:				2.00%		
			··· · · · -	5		•			
		Present Value of Ir	iitiai impact Fee	Fund Balance		\$	-		
		Total Escalated Ex Less Future Value	•			\$	16,883,217		
		Sub-Total	mile. mpdot		-	\$	16,883,217		
		Total Escalated Ve	hicle Miles		-		15,431		
		Impact Fee For Se	ervice Area B			\$	1,094		

Capital Improvement Plan for Impact Fees
Appendix E - Impact Fee Calculation Assumptions
Service Area B

Impact Fee Project Name ⁽¹⁾	Impact Fee Project No. ⁽¹⁾	Ser	Cost In vice Area ⁽¹⁾	<u>F</u>	Impact Fee Recoverable Cost ⁽²⁾	Del Existing			ed ⁽³⁾ Proposed		Non-Debt Funded ⁽³⁾	<u>F</u>	Impact Fee Recoverable Cost
UNNAMED 5 (4)	B-1, D-2	\$	2,452,100	\$	2,433,532	\$	-	\$	1,216,766	\$	1,216,766	\$	2,433,532
HARDIN BLVD (1)	B-2		438,900		435,577		-		217,788		217,788		435,577
HARDIN BLVD (2)	B-3		2,418,500		2,400,187		-		1,200,093		1,200,093		2,400,187
HARDIN BLVD (3)	B-4		4,090,450		4,059,477		-		2,029,738		2,029,738		4,059,477
Signal	1		150,000		148,864		-	4	74,432		74,432		148,864
Signal	3		150,000		148,864		-1		74,432	\neg	74,432		148,864
Impact Fee Study			11,692		11,692		₹		5,846		5,846		11,692
Total		\$	9,711,642	\$	9,638,193	\$	- 7	\$	4,819,097	\$	4,819,097	\$	9,638,193

⁽¹⁾ Per Kimley-Horn Impact Fee Study



⁽²⁾ Line 11 of the Max Fee Table Report

⁽³⁾ Per discussions with City staff. For existing debt funding that does not have a specific bond identified, a 4.5% rate is used to coincide with the water and wastewater calculations.

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area B

<u>Year</u>	igible Debt Service ⁽¹⁾	Annual Vehicle <u>Miles</u>		Eligible Debt Service per Vehicle Mile	Annual Growth in Vehicle Miles (Cumulative)	edit for Annual Ad Valorem <u>Revenues</u>
1	\$ 35,460	606,072	\$	0.06	958	\$ 56
2	70,920	623,802		0.11	1,916	218
3	106,379	641,531		0.17	2,873	476
4	141,839	659,260		0.22	3,831	824
5	177,299	676,990		0.26	4,789	1,254
6	212,759	694,719		0.31	5,747	1,760
7	248,218	712,448		0.35	6,705	2,336
8	283,678	730,177		0.39	7,662	2,977
9	319,138	747,907		0.43	8,620	3,678
10	354,598	765,636		0.46	9,578	4,436
11	354,598	765,636		0.46	9,578	4,436
12	354,598	765,636		0.46	9,578	4,436
13	354,598	765,636		0.46	9,578	4,436
14	354,598	765,636		0.46	9,578	4,436
15	354,598	765,636		0.46	9,578	4,436
16	354,598	765,636		0.46	9,578	4,436
17	354,598	765,636		0.46	9,578	4,436
18	354,598	765,636	Т	0.46	9,578	4,436
19	354,598	765,636		0.46	9,578	4,436
20	354,598	765,636	1	0.46	9,578	4,436
21	319,138	765,636		0.42	9,578	3,992
22	283,678	765,636		0.37	9,578	3,549
23	248,218	765,636		0.32	9,578	3,105
24	212,759	765,636		0.28	9,578	2,662
25	177,299	765,636		0.23	9,578	2,218
26	141,839	765,636		0.19	9,578	1,774
27	106,379	765,636		0.14	9,578	1,331
28	70,920	765,636		0.09	9,578	887
29	35,460	765,636		0.05	9,578	 444
Total	\$ 7,091,951					\$ 82,337

2019 Vehicle Miles (2)

Ten Year Growth in Vehicle Miles in Service Area (3)

Annual Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles In Other Service Areas (3)

Annual Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

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Ten Year Growth in Vehicle Miles

Ten Yea

⁽¹⁾ Appendix E - Service Area B, Page 2 Section II

⁽²⁾ Per Kimley-Horn Impact Fee Study

⁽³⁾ Line 8 of the Max Fee Table Report

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area C

I. General Assumptions

Annual Interest Rate on Deposits (1)
Annual Vehicle Mile Growth (2)
Existing Fund Balance (3)

2.00%
1,558
\$ 1,784,813

Portion of Projects Funded by Existing Debt⁽⁴⁾
Non-debt Funded Project Cost⁽⁵⁾
New Project Cost Funded Through New Debt⁽⁶⁾
Total Recoverable Project Cost⁽⁷⁾

\$ 4,941,103
18,704,299
18,541,789

\$ 42,187,190

II. New Debt Issues Assumptions

<u>Year</u>	Principal ⁽⁸⁾	Interest ⁽⁹⁾	<u>Term</u>
1	\$ 1,854,179	4.00%	20
2	1,854,179	4.00%	20
3	1,854,179	4.00%	20
4	1,854,179	4.00%	20
5	1,854,179	4.00%	20
6	1,854,179	4.00%	20
7	1,854,179	4.00%	20
8	1,854,179	4.00%	20
9	1,854,179	4.00%	20
10	1,854,179	4.00%	20
Total	\$ 18,541,789		

III. Capital Expenditure Assumptions

	Annual Capital							
<u>Year</u>	Expenditures ⁽¹⁰⁾							
1	\$ 1,870,430							
2	2,488,489							
3	3,106,549							
4	3,724,609							
5	3,724,609							
6	3,724,609							
7	3,724,609							
8	3,724,609							
9	3,724,609							
10	3,724,609							
11	1,854,179							
12	1,236,119							
13	618,060							
Total	\$ 37,246,087							

- (1) Per discussions with City Staff and City files
- (2) Derived from Kimley-Horn Impact Fee Study
- (3) Per discussions with City Staff and City files
- (4) Per discussions with City Staff and City files
- $(5) \quad \text{This assumes 50\% of new project costs funded through sources other than debt, unless specified otherwise}$
- (6) This assumes 50% of new project costs funded through new debt issues, unless specified otherwise
- (7) Per Kimley-Horn Impact Fee Study
- (8) Assumes new debt issued in equal annual amounts
- (9) Per discussions with City Staff and City files
- (10) Assumes new debt proceeds expended over a 3-year timeframe.

Non-debt funded capital expenditures allocated per discussions with City Staff

Total

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area C

I. New Debt Service Detail

Voor	8	Series	Series	Series	Series		Series	Series	Series		Series	Series	4	Series	N	Annual lew Debt
Year		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>		<u>5</u>	<u>6</u>	<u>7</u>		<u>8</u>	9		<u>10</u>		Service
1	\$	136,434	\$ -	\$ -	\$ -	\$	- \$	-	\$ -	\$	- \$	-	\$	-	\$	136,434
2		136,434	136,434	-	-		-	-	-		-	-		-		272,867
3		136,434	136,434	136,434	-		-	-	-		-			-		409,301
4		136,434	136,434	136,434	136,434		-	-	-		-			-		545,735
5		136,434	136,434	136,434	136,434		136,434	-	-			-		-		682,169
6		136,434	136,434	136,434	136,434		136,434	136,434	-		-	-		-		818,602
7		136,434	136,434	136,434	136,434		136,434	136,434	136,434			-		-		955,036
8		136,434	136,434	136,434	136,434		136,434	136,434	136,434		136,434	-		-		1,091,470
9		136,434	136,434	136,434	136,434		136,434	136,434	136,434	4	136,434	136,434		-		1,227,904
10		136,434	136,434	136,434	136,434		136,434	136,434	136,434		136,434	136,434		136,434		1,364,337
11		136,434	136,434	136,434	136,434		136,434	136,434	136,434		136,434	136,434		136,434		1,364,337
12		136,434	136,434	136,434	136,434		136,434	136,434	136,434		136,434	136,434		136,434		1,364,337
13		136,434	136,434	136,434	136,434		136,434	136,434	136,434		136,434	136,434		136,434		1,364,337
14		136,434	136,434	136,434	136,434		136,434	136,434	136,434		136,434	136,434		136,434		1,364,337
15		136,434	136,434	136,434	136,434		136,434	136,434	136,434		136,434	136,434		136,434		1,364,337
16		136,434	136,434	136,434	136,434		136,434	136,434	136,434		136,434	136,434		136,434		1,364,337
17		136,434	136,434	136,434	136,434		136,434	136,434	136,434		136,434	136,434		136,434		1,364,337
18		136,434	136,434	136,434	136,434		136,434	136,434	136,434		136,434	136,434		136,434		1,364,337
19		136,434	136,434	136,434	136,434		136,434	136,434	136,434		136,434	136,434		136,434		1,364,337
20		136,434	136,434	136,434	136,434		136,434	136,434	136,434	M	136,434	136,434		136,434		1,364,337
21		-	136,434	136,434	136,434		136,434	136,434	136,434		136,434	136,434		136,434		1,227,904
22		-	-	136,434	136,434		136,434	136,434	136,434		136,434	136,434		136,434		1,091,470
23		-	-	-	136,434		136,434	136,434	136,434		136,434	136,434		136,434		955,036
24		-	-	-	-		136,434	136,434	136,434		136,434	136,434		136,434		818,602
25		-	-	-	-	1		136,434	136,434		136,434	136,434		136,434		682,169
26		-	-	-	-		-		136,434		136,434	136,434		136,434		545,735
27		-	-	-	-			-	-		136,434	136,434		136,434		409,301
28		-	-	-	-		-				-	136,434		136,434		272,867
29		-	-	-	-		-	-	-		-	-		136,434		136,434
-	\$ 2	2,728,675	\$ 2,728,675	\$ 2,728,675	\$ 2,728,675	\$	2,728,675 \$	2,728,675	\$ 2,728,675	\$	2,728,675 \$	2,728,675	\$	2,728,675	\$:	27,286,745

II. Summary of Annual Expenses

	New			Existing		
	Annual	Annual	Annual	Annual		
	Debt	Capital	Bond	Debt	Annual	Total
Year	Service ⁽¹⁾	Expenditures (2)	Proceeds ⁽²⁾	Service ⁽³⁾	Credit ⁽⁴⁾	Expense
1	\$ 136,434	\$ 1,870,430	\$ (1,854,179) \$	573,496	\$ (1,825)	\$ 724,355
2	272,867	2,488,489	(1,854,179)	441,988	(3,571)	1,345,595
3	409,301	3,106,549	(1,854,179)	333,872	(5,415)	1,990,129
4	545,735	3,724,609	(1,854,179)	327,296	(8,254)	2,735,206
5	682,169	3,724,609	(1,854,179)	320,670	(11,541)	2,861,727
6	818,602	3,724,609	(1,854,179)	314,098	(15,243)	2,987,887
7	955,036	3,724,609	(1,854,179)	307,472	(19,329)	3,113,609
8	1,091,470	3,724,609	(1,854,179)	300,895	(23,770)	3,239,024
9	1,227,904	3,724,609	(1,854,179)	294,259	(28,542)	3,364,051
10	1,364,337	3,724,609	(1,854,179)	287,667	(33,621)	3,488,813
11	1,364,337	1,854,179	-	281,062	(33,487)	3,466,091
12	1,364,337	1,236,119	-	277,083	(33,406)	2,844,134
13	1,364,337	618,060	-	273,138	(33,325)	2,222,209
14	1,364,337	-	-	269,170	(33,245)	1,600,262
15	1,364,337	-	-	263,906	(33,138)	1,595,106
16	1,364,337	-	-	259,602	(33,050)	1,590,890
17	1,364,337	-	-	217,620	(32,196)	1,549,762
18	1,364,337	-	-	212,590	(32,093)	1,544,834
19	1,364,337	-	-	208,151	(32,003)	1,540,485
20	1,364,337	-	-	72,179	(29,236)	1,407,281
21	1,227,904	-	-	-	(24,990)	1,202,914
22	1,091,470	-	-	-	(22,213)	1,069,257
23	955,036	-	-	-	(19,437)	935,599
24	818,602	-	-	-	(16,660)	801,942
25	682,169	-	-	-	(13,883)	668,285
26	545,735	-	-	-	(11,107)	534,628
27	409,301	-	-	-	(8,330)	400,971
28	272,867	-	-	-	(5,553)	267,314
29	136,434	-	-	-	(2,777)	133,657
	\$ 27,286,745	\$ 37,246,087	\$ (18,541,789) \$	5,836,214	\$ (601,239)	\$ 51,226,020

⁽¹⁾ Appendix E - Service Area C, Page 2 Section I
(2) Appendix E - Service Area C, Page 1
(3) Eligible debt funded projects as a percent of total principal times original annual debt service
(4) Appendix E - Service Area C, Page 6

<u>Year</u>	ı	mpact <u>Fee</u>	Vehicle <u>Miles</u>		Impact Fee <u>Revenue</u>	<u>!</u>	Annual Expenses	<u> </u>	Sub-Total		umulated nterest	Estimated Fund <u>Balance</u>
Initial										47		\$ 1,784,813
1	\$	2,808	1,558	\$	4,375,275	\$	724,355	\$	3,650,920	\$	72,205	5,507,938
2		2,808	1,558		4,375,275		1,345,595		3,029,680		140,456	8,678,073
3		2,808	1,558		4,375,275		1,990,129		2,385,146		197,413	11,260,632
4		2,808	1,558		4,375,275		2,735,206		1,640,068		241,613	13,142,314
5		2,808	1,558		4,375,275		2,861,727		1,513,548		277,982	14,933,844
6		2,808	1,558		4,375,275		2,987,887	4	1,387,388		312,551	16,633,782
7		2,808	1,558		4,375,275		3,113,609		1,261,665		345,292	18,240,740
8		2,808	1,558		4,375,275		3,239,024		1,136,250		376,177	19,753,168
9		2,808	1,558		4,375,275		3,364,051		1,011,224		405,176	21,169,567
10		2,808	1,558		4,375,275		3,488,813		886,462		432,256	22,488,285
11		-	-		-		3,466,091		(3,466,091)		415,105	19,437,299
12		-	-		-		2,844,134		(2,844,134)		360,305	16,953,470
13		-	-		-		2,222,209		(2,222,209)		316,847	15,048,107
14		-	-		-		1,600,262		(1,600,262)		284,960	13,732,805
15		-	-		-		1,595,106		(1,595,106)		258,705	12,396,404
16		-	-		-		1,590,890		(1,590,890)		232,019	11,037,533
17		-	-		-		1,549,762		(1,549,762)		205,253	9,693,024
18		-	-		-		1,544,834		(1,544,834)		178,412	8,326,602
19		-	-		-		1,540,485		(1,540,485)		151,127	6,937,245
20		-	-		-	Т	1,407,281		(1,407,281)		124,672	5,654,636
21		-	-		-		1,202,914		(1,202,914)		101,064	4,552,786
22		-	-		-		1,069,257		(1,069,257)		80,363	3,563,892
23		-	-		-		935,599		(935,599)		61,922	2,690,215
24		-	-		-		801,942		(801,942)		45,785	1,934,057
25			-		-		668,285		(668,285)		31,998	1,297,770
26		-	-	4	-		534,628		(534,628)		20,609	783,751
27		-			-		400,971		(400,971)		11,665	394,445
28		-			-		267,314		(267,314)		5,216	132,347
29		-	-		-		133,657		(133,657)		1,310	-
				\$	43,752,749	\$	51,226,020			\$	5,688,458	

	Number of	Interest	Recovery				
	Years to	Rate	Fee	Annual Ve	hicle Miles	Annual I	Expense
<u>Year</u>	End of Period	Factor	<u>Factor</u>	<u>Actual</u>	Escalated	Actual	Escalated
		·					
1	29	1.7584	1.0000	1,558	2,740 \$	724,355	\$ 1,273,731
2	28	1.7240	1.0000	1,558	2,686	1,345,595	2,319,746
3	27	1.6902	1.0000	1,558	2,634	1,990,129	3,363,620
4	26	1.6570	1.0000	1,558	2,582	2,735,206	4,532,270
5	25	1.6245	1.0000	1,558	2,531	2,861,727	4,648,938
6	24	1.5927	1.0000	1,558	2,482	2,987,887	4,758,713
7	23	1.5614	1.0000	1,558	2,433	3,113,609	4,861,713
8	22	1.5308	1.0000	1,558	2,385	3,239,024	4,958,373
9	21	1.5008	1.0000	1,558	2,339	3,364,051	5,048,791
10	20	1.4714	1.0000	1,558	2,293	3,488,813	5,133,367
11	19	1.4425	1.0000	-	-	3,466,091	4,999,936
12	18	1.4142	1.0000	-	-	2,844,134	4,022,299
13	17	1.3865	1.0000		-	2,222,209	3,081,124
14	16	1.3593	1.0000		-	1,600,262	2,175,280
15	15	1.3327	1.0000	_		1,595,106	2,125,755
16	14	1.3065	1.0000	-	-	1,590,890	2,078,565
17	13	1.2809	1.0000		-	1,549,762	1,985,128
18	12	1.2558	1.0000	-	-	1,544,834	1,940,015
19	11	1.2312	1.0000	-	-	1,540,485	1,896,621
20	10	1.2070	1.0000	-	-	1,407,281	1,698,649
21	9	1.1834	1.0000	-	-	1,202,914	1,423,499
22	8	1.1602	1.0000	-	-	1,069,257	1,240,522
23	7	1.1374	1.0000	-	-	935,599	1,064,173
24	6	1.1151	1.0000	-	-	801,942	894,263
25	5	1.0933	1.0000	-	-	668,285	730,607
26	4	1.0718	1.0000	-	-	534,628	573,025
27	3	1.0508	1.0000	-	-	400,971	421,342
28	2	1.0302	1.0000	-	-	267,314	275,387
29	1	1.0100	1.0000		- 05.404	133,657	134,994
					25,104		\$ 73,660,447
		Annual Interest Do	to:			2.00%	
		Annual Interest Ra	ie.			2.00%	
		Present Value of Ir	nitial Impact Fee	Fund Balance	\$	1,784,813	
		Total Escalated Ex	•		\$	73,660,447	
		Less Future Value	of Initial Impact	Fee Fund Balance		3,169,551	
		Sub-Total			\$	70,490,896	
		Total Escalated Ve	hicle Miles			25,104	
		Impact Fee For Se	ervice Area C		\$	2,808	

Impact Fee Project Name ⁽¹⁾	Total Project Cost ⁽¹⁾	Cost In Service Area ⁽¹⁾	Impact Fee Recoverable Cost ⁽²⁾	Debt Fu Existing	unded ⁽³⁾ <u>Proposed</u>	Non-Debt Funded ⁽³⁾	Impact Fee Recoverable Cost
UNNAMED 5 (1) \$	7,715,900	\$ 3,857,950	\$ 1,392,232	¢ -	\$ 696,116	\$ 696,116	\$ 1,392,232
UNNAMED 5 (1)	3,137,400	1,568,700	566,102	Ψ -	283,051	283,051	566,102
LAUD HOWELL PKWY (1)	665.000	332,500	119,990	_	59,995	59,995	119.990
LAUD HOWELL PKWY (2)	1,171,800	1,171,800	422,871		211,436	211,436	422,871
LAUD HOWELL PKWY (3)	808,500	404,250	145,883		72,942	72,942	145,883
LAUD HOWELL PKWY (4)	2,859,500	1,429,750	515,959		257,979	257,979	515,959
LAUD HOWELL PKWY (5)	3,073,000	1,536,500	554,482		277,241	277,241	554,482
BLOOMDALE RD (1)	3,179,400	3,179,400	1,147,361		573,680	573,680	1,147,361
BLOOMDALE RD (2)	4,838,400	2,419,200	873,025		436.512	436,512	873.025
BLOOMDALE RD (3)	13,314,000	13,314,000	4,804,669		2,402,334	2,402,334	4,804,669
BLOOMDALE RD (4)	3,292,800	1,646,400	594,142		297,071	297,071	594,142
BLOOMDALE RD (5)	1,453,200	1,453,200	524,421		262,211	262,211	524,421
BLOOMDALE RD (6)	4,650,800	2,325,400	839,175		419,588	419,588	839,175
WILMETH RD (1)	8,845,850	8,845,850	3,192,232		1,596,116	1,596,116	3,192,232
WILMETH RD (2)	6,200,600	3,100,300	1,118,816		559,408	559,408	1,118,816
WILMETH RD (3)	1,593,000	1,593,000	574,871	558,447	(0)		574,871
WILMETH RD (4)	708,000	708,000	255,498	248,198	(0)	7,300	255,498
CUSTER RD (1)	1,834,000	917,000	330,921	2.0,.00	165,460	165,460	330.921
CUSTER RD (2)	2,869,825	2,869,825	1,035,644		517,822	517,822	1,035,644
CUSTER RD (3)	8,071,300	4,035,650	1,456,359	150,074	630,744	675,542	1,456,359
STONEBRIDGE DR (2)	2,763,650	2,763,650	997,328	100,01	498,664	498,664	997,328
STONEBRIDGE DR (3)	14,194,900	14,194,900	5,122,562	_	2,561,281	2,561,281	5,122,562
STONEBRIDGE DR (4)	2,117,300	1,058,650	382,039		191,019	191,019	382,039
STONEBRIDGE DR (5)	8,232,050	8,232,050	2,970,728		1,485,364	1,485,364	2,970,728
STONEBRIDGE DR (6)	1,030,750	1,030,750	371,970		185,985	185,985	371,970
RIDGE RD (1)	3,095,400	1,547,700	558,524		279,262	279,262	558,524
RIDGE RD (2)	7,267,950	7,267,950	2,622,810		1,311,405	1,311,405	2,622,810
RIDGE RD (3)	9,144,800	4,572,400	1,650,058	_	825,029	825,029	1,650,058
RIDGE RD (4)	3,756,200	1,878,100	677,756		338,878	338,878	677,756
RIDGE RD (5)	7,411,200	7,411,200	2,674,505	2,233,786	187,510	253,209	2,674,505
RIDGE RD (6)	1,455,000	727,500	262,535	217,174		25,875	262,535
RIDGE RD (7)	2,857,200	2.857.200	1,031,088	744,595	132,296	154,196	1.031.088
LAKE FOREST DR (2)	5,008,981	2,504,491	903,804	458,631	222,587	222,587	903,804
LAKE FOREST DR (3)	2,350,800	1,175,400	424,171	-	212,085	212,085	424,171
Signal	300,000	75,000	27,066	_	13,533	13,533	27,066
Signal	300,000	225,000	81,197	_	40,598	40,598	81,197
Signal	300,000	150,000	54,131	_	27,066	27,066	54,131
Intersection Improvement	150,000	75,000	27,066	_	13,533	13,533	27,066
Signal	300,000	300,000	108,262	_	54,131	54,131	108,262
Signal	300,000	150,000	54,131	_	27,066	27,066	54,131
Signal	300,000	75,000	27,066	_	13,533	13,533	27,066
Signal	300,000	300,000	108,262	_	54,131	54,131	108,262
Signal	300,000	300,000	108,262	_	54,131	54,131	108,262
Roundabout	1,830,000	915,000	330,199	330,199	,	,	330,199
Signal Mod	150,000	75,000	27,066	-	13,533	13,533	27,066
Signal	300,000	150,000	54,131	_	27,066	27,066	54,131
Signal	300,000	150,000	54,131	_	27,066	27,066	54,131
Impact Fee Study	11,692	11,692	11,692	_	5,846	5,846	11,692
Total \$	156,110,148			\$ 4,941,103	\$ 18,541,789		

⁽¹⁾ Per Kimley-Horn Impact Fee Study

⁽²⁾ Line 11 of the Max Fee Table Report

⁽³⁾ Per discussions with City staff. For existing debt funding that does not have a specific bond identified, a 4.5% rate is used to coincide with the water and wastewater calculations.

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area C

<u>Year</u>	igible Debt Service ⁽¹⁾	Annual Vehicle <u>Miles</u>		Eligible Debt Service per <u>Vehicle Mile</u>	Annual Growth in Vehicle Miles (Cumulative)		edit for Annual Ad Valorem <u>Revenues</u>
1	\$ 709,930	606,072	\$	1.17	1,558	\$	1,825
2	714,856	623,802		1.15	3,116		3,571
3	743,174	641,531		1.16	4,675		5,415
4	873,030	659,260		1.32	6,233		8,254
5	1,002,838	676,990		1.48	7,791		11,541
6	1,132,700	694,719		1.63	9,349		15,243
7	1,262,508	712,448		1.77	10,907		19,329
8	1,392,365	730,177		1.91	12,466		23,770
9	1,522,163	747,907		2.04	14,024		28,542
10	1,652,004	765,636		2.16	15,582		33,621
11	1,645,399	765,636		2.15	15,582		33,487
12	1,641,420	765,636		2.14	15,582		33,406
13	1,637,475	765,636		2.14	15,582		33,325
14	1,633,507	765,636		2.13	15,582		33,245
15	1,628,243	765,636		2.13	15,582		33,138
16	1,623,940	765,636		2.12	15,582	,	33,050
17	1,581,957	765,636		2.07	15,582		32,196
18	1,576,927	765,636		2.06	15,582		32,093
19	1,572,488	765,636		2.05	15,582		32,003
20	1,436,517	765,636	,	1.88	15,582		29,236
21	1,227,904	765,636		1.60	15,582		24,990
22	1,091,470	765,636		1.43	15,582		22,213
23	955,036	765,636		1.25	15,582		19,437
24	818,602	765,636		1.07	15,582		16,660
25	682,169	765,636		0.89	15,582		13,883
26	545,735	765,636		0.71	15,582		11,107
27	409,301	765,636		0.53	15,582		8,330
28	272,867	765,636		0.36	15,582		5,553
29	136,434	765,636		0.18	15,582		2,777
Total	\$ 33,122,960					\$	601,239

2019 Vehicle Miles (2)

Ten Year Growth in Vehicle Miles in Service Area (3)

Annual Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles In Other Service Areas (3)

Annual Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

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⁽¹⁾ Appendix E - Service Area C, Page 2 Section II

⁽²⁾ Per Kimley-Horn Impact Fee Study

⁽³⁾ Line 8 of the Max Fee Table Report

Capital Improvement Plan for Impact Fees
Appendix E - Impact Fee Calculation Assumptions
Service Area D

I. General Assumptions

Annual Interest Rate on Deposits (1)
Annual Vehicle Mile Growth (2)
Existing Fund Balance (3)

2.00%
4,130
\$ 131,981

Portion of Projects Funded by Existing Debt⁽⁴⁾ Non-debt Funded Project Cost⁽⁵⁾ New Project Cost Funded Through New Debt⁽⁶⁾ Total Recoverable Project Cost⁽⁷⁾

\$ 9,639,457
62,068,334
60,419,273

\$ 132,127,064

II. New Debt Issues Assumptions

<u>Year</u>	Principal ⁽⁸⁾	Interest ⁽⁹⁾	<u>Term</u>
1	\$ 6,041,927	4.00%	20
2	6,041,927	4.00%	20
3	6,041,927	4.00%	20
4	6,041,927	4.00%	20
5	6,041,927	4.00%	20
6	6,041,927	4.00%	20
7	6,041,927	4.00%	20
8	6,041,927	4.00%	20
9	6,041,927	4.00%	20
10	6,041,927	4.00%	20

Total \$ 60,419,273

III. Capital Expenditure Assumptions

	Annual
	Capital
<u>Year</u>	Expenditures (10)
1	\$ 6,206,833
2	8,220,809
3	10,234,785
4	12,248,761
5	12,248,761
6	12,248,761
7	12,248,761
8	12,248,761
9	12,248,761
10	12,248,761
11	6,041,927
12	4,027,952
13	2,013,976
Total	\$ 122,487,607

- (1) Per discussions with City Staff and City files
- (2) Derived from Kimley-Horn Impact Fee Study
- (3) Per discussions with City Staff and City files
- (4) Per discussions with City Staff and City files
- $(5) \quad \text{This assumes 50\% of new project costs funded through sources other than debt, unless specified otherwise}$
- (6) This assumes 50% of new project costs funded through new debt issues, unless specified otherwise
- (7) Per Kimley-Horn Impact Fee Study
- (8) Assumes new debt issued in equal annual amounts
- (9) Per discussions with City Staff and City files
- (10) Assumes new debt proceeds expended over a 3-year timeframe.

Non-debt funded capital expenditures allocated per discussions with City Staff

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area D

I. New Debt Service Detail

<u>Year</u>	Series	Series	Series	Series		Series <u>5</u>	Series	Series		Series		Series <u>9</u>	Series		Total Annual lew Debt Service	
1	\$ 444,576	\$ -	\$ -	\$ -	\$	-	\$ -	\$ -	\$	-	\$		\$ -	\$	444,576	
2	444,576	444,576	-	-		-	-	-		-		-	-		889,151	
3	444,576	444,576	444,576	-		-	-	-		-		-	-		1,333,727	
4	444,576	444,576	444,576	444,576		-	-	-		-	4		-		1,778,302	
5	444,576	444,576	444,576	444,576		444,576	-	-		-		-	-		2,222,878	
6	444,576	444,576	444,576	444,576		444,576	444,576	-		-		-	-		2,667,454	
7	444,576	444,576	444,576	444,576		444,576	444,576	444,576				-	-		3,112,029	
8	444,576	444,576	444,576	444,576		444,576	444,576	444,576		444,576		-	-		3,556,605	
9	444,576	444,576	444,576	444,576		444,576	444,576	444,576		444,576		444,576	-		4,001,180	
10	444,576	444,576	444,576	444,576		444,576	444,576	444,576	4	444,576		444,576	444,576		4,445,756	
11	444,576	444,576	444,576	444,576		444,576	444,576	444,576		444,576		444,576	444,576	$\overline{}$	4,445,756	
12	444,576	444,576	444,576	444,576		444,576	444,576	444,576		444,576		444,576	444,576		4,445,756	
13	444,576	444,576	444,576	444,576		444,576	444,576	444,576		444,576		444,576	444,576		4,445,756	
14	444,576	444,576	444,576	444,576		444,576	444,576	444,576		444,576		444,576	444,576		4,445,756	
15	444,576	444,576	444,576	444,576		444,576	444,576	444,576		444,576		444,576	444,576		4,445,756	,
16	444,576	444,576	444,576	444,576		444,576	444,576	444,576		444,576	4	444,576	444,576		4,445,756	
17	444,576	444,576	444,576	444,576		444,576	444,576	444,576		444,576		444,576	444,576		4,445,756	
18	444,576	444,576	444,576	444,576		444,576	444,576	444,576		444,576		444,576	444,576		4,445,756	
19	444,576	444,576	444,576	444,576		444,576	444,576	444,576		444,576		444,576	444,576		4,445,756	
20	444,576	444,576	444,576	444,576		444,576	444,576	444,576		444,576		444,576	444,576		4,445,756	
21	-	444,576	444,576	444,576		444,576	444,576	444,576		444,576		444,576	444,576		4,001,180	
22	-	-	444,576	444,576		444,576	444,576	444,576		444,576		444,576	444,576		3,556,605	
23	-	-	-	444,576		444,576	444,576	444,576		444,576		444,576	444,576		3,112,029	
24	-	-	-	-		444,576	444,576	444,576		444,576		444,576	444,576		2,667,454	
25	-	-	-	-		-	444,576	444,576		444,576		444,576	444,576		2,222,878	
26	-	-	-	-		-	-	444,576		444,576		444,576	444,576		1,778,302	
27	-	-	-	-	1			-		444,576		444,576	444,576		1,333,727	
28	-	-	-	-			-	-		-		444,576	444,576		889,151	
29	-	-	-	-		-				-		-	444,576		444,576	
	\$ 8,891,512	\$ 8,891,512	\$ 8,891,512	\$ 8,891,512	\$	8,891,512	\$ 8,891,512	\$ 8,891,512	\$	8,891,512	\$	8,891,512	\$ 8,891,512	\$ 8	38,915,117	

II. Summary of Annual Expenses

	New			Existing		
	Annual	Annual	Annual	Annual		
	Debt	Capital	Bond	Debt	Annual	Total
Year	Service ⁽¹⁾	Expenditures(2)	Proceeds(2)	Service ⁽³⁾	Credit ⁽⁴⁾	Expense
1	\$ 444,576	\$ 6,206,833	\$ (6,041,927)	\$ 770,423	\$ (8,279)	\$ 1,371,625
2	889,151	8,220,809	(6,041,927)	761,935	(21,862)	3,808,106
3	1,333,727	10,234,785	(6,041,927)	754,379	(40,327)	6,240,637
4	1,778,302	12,248,761	(6,041,927)	754,261	(63,460)	8,675,936
5	2,222,878	12,248,761	(6,041,927)	753,586	(90,788)	9,092,510
6	2,667,454	12,248,761	(6,041,927)	753,526	(122,020)	9,505,793
7	3,112,029	12,248,761	(6,041,927)	752,852	(156,827)	9,914,888
8	3,556,605	12,248,761	(6,041,927)	752,733	(194,990)	10,321,182
9	4,001,180	12,248,761	(6,041,927)	751,942	(236,218)	10,723,737
10	4,445,756	12,248,761	(6,041,927)	751,648	(280,352)	11,123,885
11	4,445,756	6,041,927	-	751,208	(280,328)	10,958,563
12	4,445,756	4,027,952	-	750,768	(280,305)	8,944,171
13	4,445,756	2,013,976	-	750,708	(280,301)	6,930,139
14	4,445,756	-	-	750,386	(280,284)	4,915,858
15	4,445,756	-	-	750,267	(280,278)	4,915,746
16	4,445,756	-	-	749,864	(280,256)	4,915,364
17	4,445,756	-	-	321,768	(257,164)	4,510,359
18	4,445,756	-	-	321,432	(257,146)	4,510,042
19	4,445,756	-	-	321,136	(257,130)	4,509,762
20	4,445,756	-	-	312,072	(256,641)	4,501,187
21	4,001,180	-	-	-	(215,827)	3,785,354
22	3,556,605	-	-	-	(191,846)	3,364,759
23	3,112,029	-	-	-	(167,865)	
24	2,667,454	-	-	-	(143,885)	2,523,569
25	2,222,878	-	-	-	(119,904)	2,102,974
26	1,778,302	-	-	-	(95,923)	1,682,379
27	1,333,727	-	-	-	(71,942)	1,261,785
28	889,151	-	-	-	(47,962)	841,190
29	444,576	-	-	-	(23,981)	420,595
	\$ 88,915,117	\$122,487,607	\$ (60,419,273)	\$ 13,336,896	\$ (5,004,090)	\$159,316,257

⁽¹⁾ Appendix E - Service Area D, Page 2 Section I
(2) Appendix E - Service Area D, Page 1
(3) Eligible debt funded projects as a percent of total principal times original annual debt service

⁽⁴⁾ Appendix E - Service Area D, Page 6

<u>Year</u>	lr	mpact <u>Fee</u>	Vehicle <u>Miles</u>		Impact Fee <u>Revenue</u>		Annual Expenses		Sub-Total		cumulated nterest	Estimated Fund <u>Balance</u>
Initial										47		\$ 131,981
1	\$	3,438	4,130	\$	14,197,194	\$	1,371,625	\$	12,825,569	\$	130,895	13,088,445
2		3,438	4,130		14,197,194		3,808,106		10,389,088		365,660	23,843,193
3		3,438	4,130		14,197,194		6,240,637		7,956,557		556,429	32,356,180
4		3,438	4,130		14,197,194		8,675,936		5,521,258		702,336	38,579,774
5		3,438	4,130		14,197,194		9,092,510		5,104,684		822,642	44,507,101
6		3,438	4,130		14,197,194		9,505,793	4	4,691,401		937,056	50,135,558
7		3,438	4,130		14,197,194		9,914,888		4,282,307		1,045,534	55,463,399
8		3,438	4,130		14,197,194		10,321,182		3,876,013		1,148,028	60,487,440
9		3,438	4,130		14,197,194		10,723,737		3,473,457		1,244,483	65,205,380
10		3,438	4,130		14,197,194		11,123,885		3,073,309		1,334,841	69,613,529
11		-	-		-		10,958,563		(10,958,563)		1,282,685	59,937,652
12		-	-		-		8,944,171		(8,944,171)		1,109,311	52,102,792
13		-	-		-		6,930,139		(6,930,139)		972,754	46,145,408
14		-	-		-		4,915,858		(4,915,858)		873,750	42,103,300
15		-	-		-		4,915,746		(4,915,746)		792,909	37,980,462
16		-	-		T		4,915,364		(4,915,364)		710,456	33,775,554
17		-	-		-		4,510,359		(4,510,359)		630,407	29,895,602
18		-	-		-		4,510,042		(4,510,042)		552,812	25,938,371
19		-	-		-		4,509,762		(4,509,762)		473,670	21,902,279
20		-	-		-		4,501,187		(4,501,187)		393,034	17,794,125
21		-	-		-		3,785,354		(3,785,354)		318,029	14,326,801
22		-	-		-	1	3,364,759		(3,364,759)		252,888	11,214,930
23		-	-		-		2,944,164		(2,944,164)		194,857	8,465,623
24		-	-		-		2,523,569		(2,523,569)		144,077	6,086,131
25		- 4	-		-		2,102,974		(2,102,974)		100,693	4,083,850
26		-	-	4	-		1,682,379		(1,682,379)		64,853	2,466,324
27		-	- /		-		1,261,785		(1,261,785)		36,709	1,241,248
28		-			-		841,190		(841,190)		16,413	416,471
29		-	-		-		420,595	_	(420,595)		4,123	-
				\$	141,971,941	\$ ^	159,316,257			\$	17,212,335	

	Number of	Interest	Recovery				
	Years to	Rate	Fee	Annual Vel	hicle Miles	Annual I	Expense
<u>Year</u>	End of Period	Factor	<u>Factor</u>	<u>Actual</u>	Escalated	Actual	Escalated
		<u> </u>					·
1	29	1.7584	1.0000	4,130	7,262 \$	1,371,625	\$ 2,411,913
2	28	1.7240	1.0000	4,130	7,120	3,808,106	6,565,005
3	27	1.6902	1.0000	4,130	6,980	6,240,637	10,547,627
4	26	1.6570	1.0000	4,130	6,843	8,675,936	14,376,130
5	25	1.6245	1.0000	4,130	6,709	9,092,510	14,770,979
6	24	1.5927	1.0000	4,130	6,578	9,505,793	15,139,574
7	23	1.5614	1.0000	4,130	6,449	9,914,888	15,481,497
8	22	1.5308	1.0000	4,130	6,322	10,321,182	15,799,902
9	21	1.5008	1.0000	4,130	6,198	10,723,737	16,094,259
10	20	1.4714	1.0000	4,130	6,077	11,123,885	16,367,454
11	19	1.4425	1.0000	-	-	10,958,563	15,808,041
12	18	1.4142	1.0000	-	-	8,944,171	12,649,239
13	17	1.3865	1.0000	•	-	6,930,139	9,608,731
14	16	1.3593	1.0000	•		4,915,858	6,682,258
15	15	1.3327	1.0000			4,915,746	6,551,084
16	14	1.3065	1.0000	-	-	4,915,364	6,422,133
17	13	1.2809	1.0000		-	4,510,359	5,777,429
18	12	1.2558	1.0000	-	-	4,510,042	5,663,747
19	11	1.2312	1.0000	-	-	4,509,762	5,552,349
20	10	1.2070	1.0000	-	-	4,501,187	5,433,129
21	9	1.1834	1.0000	-	-	3,785,354	4,479,496
22	8 7	1.1602	1.0000	-	-	3,364,759	3,903,701
23 24		1.1374 1.1151	1.0000 1.0000	-	-	2,944,164	3,348,763
24 25	6 5	1.0933	1.0000	-	-	2,523,569	2,814,086
25 26	4	1.0718	1.0000	_	-	2,102,974 1,682,379	2,299,090 1,803,208
27	3	1.0508	1.0000	-	-	1,261,785	1,325,888
28	2	1.0302	1.0000	_	_	841,190	866,594
29	1	1.0100	1.0000	_	_ _	420,595	424,801
20		1.0100	1.0000		66,538	120,000	\$ 228,968,108
					33,333		+ ==0,000,000
		Annual Interest Ra	te:			2.00%	
		Present Value of Ir	nitial Impact Fee	Fund Balance	\$	131,981	
		Total Escalated Ex	•		\$	228,968,108	
		Less Future Value	of Initial Impact	Fee Fund Balance		234,378	
		Sub-Total			\$	228,733,730	
		Total Escalated Ve	hicle Miles			66,538	
		Impact Fee For Se	ervice Area D		\$	3,438	

Impact Fee Project Name ⁽¹⁾	Impact Fee Project No. ⁽¹⁾	Cost In Service Area ⁽¹⁾	Impact Fee Recoverable Cost ⁽²⁾	Debt Fu <u>Existing</u>	ınded ⁽³⁾ <u>Proposed</u>	Non-Debt Funded ⁽³⁾	Impact Fee Recoverable Cost
UNNAMED 5 (3)	A-2, D-1	\$ 3,758,750	\$ 2,627,229	s -	\$ 1.313.615	\$ 1,313,615	\$ 2,627,229
UNNAMED 5 (4)	B-1, D-2	2,452,100	1,713,928	-	856,964	856,964	1,713,928
LAUD HOWELL PKWY (6)	D-3	39,497,100	27,607,032	_	13,803,516	13,803,516	27,607,032
LAUD HOWELL PKWY (7)	D-4	8,774,550	6,133,090	-	3,066,545	3,066,545	6,133,090
LAUD HOWELL PKWY (8)	D-5	2,220,027	1,551,718	438,978	314,534	798,207	1,551,718
TRINITY FALLS PKWY (1)	D-6	3,243,800	2,267,298		1,133,649	1,133,649	2,267,298
TRINITY FALLS PKWY (2)	D-7	650,300	454,536	-	227,268	227,268	454,536
TRINITY FALLS PKWY (3)	D-8	2,988,400	2,088,783	- `	1,044,391	1,044,391	2,088,783
TRINITY FALLS PKWY (4)	D-9	8,418,050	5,883,910	-	2,941,955	2,941,955	5,883,910
TRINITY FALLS PKWY (5)	D-10	7,622,400	5,327,780	3,497,455	881,533	948,792	5,327,780
BLOOMDALE RD (7)	D-11	1,899,800	1,327,891	-	663,945	663,945	1,327,891
BLOOMDALE RD (8)	D-12	3,206,000	2,240,877	-	1,120,439	1,120,439	2,240,877
BLOOMDALE RD (9)	D-13	1,500,800	1,049,004	-	524,502	524,502	1,049,004
BLOOMDALE RD (10)	D-14	5,885,810	4,113,966	1,939,066	1,021,605	1,153,295	4,113,966
BLOOMDALE RD (11)	D-15	5,165,390	3,610,419	2,544,347	446,637	619,435	3,610,419
WILMETH RD (5)	D-16	5,495,525	3,841,172	-	1,920,586	1,920,586	3,841,172
WILMETH RD (6)	D-17	1,401,400	979,527		489,764	489,764	979,527
WILMETH RD (7)	D-18	411,600	287,693		143,847	143,847	287,693
WILMETH RD (8)	D-19	1,901,900	1,329,359	-	664,679	664,679	1,329,359
WILMETH RD (9)	D-20	2,799,600	1,956,818		978,409	978,409	1,956,818
LAKE FOREST DR (1)	D-21	3,224,200	2,253,598		1,126,799	1,126,799	2,253,598
LAKE FOREST DR (3)	C-34, D-22	1,175,400	821,562	-	410,781	410,781	821,562
UNNAMED A (1)	D-23	17,435,950	12,187,093	-	6,093,547	6,093,547	12,187,093
UNNAMED A (2)	D-24	2,299,425 938,000	1,607,214	_	803,607 327,814	803,607 327,814	1,607,214 655,628
UNNAMED A (4)	D-25 D-26	5,969,050	655,628 4,172,148		2,086,074	2,086,074	4,172,148
UNNAMED A (4) TAYLOR-BURK DR (1)	D-26 D-27	2,038,250	1,424,662		712,331	712,331	1,424,662
HARDIN BLVD (4)	D-27 D-28	1,633,700	1,141,897		570,948	570,948	1,141,897
HARDIN BLVD (5)	D-28 D-29	21,290,800	14,881,493		7,440,746	7,440,746	14,881,493
HARDIN BLVD (6)	D-30	2,051,000	1,433,574	_	716,787	716,787	1,433,574
HARDIN BLVD (7)	D-31	4,538,400	3,172,176	_	1,586,088	1,586,088	3,172,176
HARDIN BLVD (8)	D-32	1,070,400	748,171	_	374,085	374,085	748,171
HARDIN BLVD (9)	D-33	1,124,900	786,264	_	393,132	393,132	786,264
HARDIN BLVD (10)	D-34	2,904,000	2,029,790	-	1,014,895	1,014,895	2,029,790
COMMUNITY AVE (1)	D-35	2,164,400	1,512,837	-	756,418	756,418	1,512,837
COMMUNITY AVE (2)	D-36	1,960,000	1,369,969	-	684,984	684,984	1,369,969
COMMUNITY AVE (3)	D-37	1,174,600	821,003	-	410,501	410,501	821,003
Signal	3	150,000	104,845	-	52,422	52,422	104,845
Signal	6	150,000	104,845	-	52,422	52,422	104,845
Signal	7	300,000	209,689	-	104,845	104,845	209,689
Signal	8	300,000	209,689	-	104,845	104,845	209,689
Signal	9	225,000	157,267	-	78,633	78,633	157,267
Roundabout	10	100,000	69,896	-	34,948	34,948	69,896
Interchange Signals	11	300,000	209,689	-	104,845	104,845	209,689
Signal	16	75,000	52,422	-	26,211	26,211	52,422
Signal	17	300,000	209,689	-	104,845	104,845	209,689
Signal	18	300,000	209,689	-	104,845	104,845	209,689
Interchange Signals	19	300,000	209,689	-	104,845	104,845	209,689
Roundabout	25	915,000	639,552	-		639,552	639,552
Roundabout	26	150,000	104,845	-	52,422	52,422	104,845
Roundabout	27	1,575,000	1,100,868	1,034,148	-	66,719	1,100,868
Roundabout	32	1,200,000	838,756	-	419,378	419,378	838,756
Under Construction	36	390,341	272,834	185,464	- E 040	87,370	272,834
Impact Fee Study		11,692	11,692	e 0.000.457	5,846	5,846	11,692
Total		\$ 189,027,810	\$ 132,127,064	\$ 9,639,457	\$ 60,419,273	\$ 62,068,334	\$ 132,127,064

⁽¹⁾ Per Kimley-Horn Impact Fee Study

⁽²⁾ Line 11 of the Max Fee Table Report
(3) Per discussions with City staff. For existing debt funding that does not have a specific bond identified, a 4.5% rate is used to coincide with the water and wastewater calculations.

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area D

<u>Year</u>	Eligible Debt A Service ⁽¹⁾		Annual Vehicle <u>Miles</u>		Eligible Debt Service per Vehicle Mile	Annual Growth in Vehicle Miles (Cumulative)		dit for Annual Ad Valorem Revenues
1	\$	1,214,998	606,072	\$	2.00	4,130	\$	8,279
2		1,651,086	623,802		2.65	8,260		21,862
3		2,088,106	641,531		3.25	12,390		40,327
4		2,532,563	659,260		3.84	16,520		63,460
5		2,976,464	676,990		4.40	20,650		90,788
6		3,420,980	694,719		4.92	24,779		122,020
7		3,864,881	712,448		5.42	28,909		156,827
8		4,309,338	730,177		5.90	33,039		194,990
9		4,753,122	747,907		6.36	37,169		236,218
10		5,197,404	765,636		6.79	41,299		280,352
11		5,196,964	765,636		6.79	41,299		280,328
12		5,196,524	765,636		6.79	41,299		280,305
13		5,196,464	765,636		6.79	41,299		280,301
14		5,196,142	765,636		6.79	41,299		280,284
15		5,196,023	765,636		6.79	41,299		280,278
16		5,195,620	765,636		6.79	41,299		280,256
17		4,767,523	765,636		6.23	41,299		257,164
18		4,767,188	765,636		6.23	41,299		257,146
19		4,766,892	765,636	М	6.23	41,299		257,130
20		4,757,828	765,636		6.21	41,299		256,641
21		4,001,180	765,636		5.23	41,299		215,827
22		3,556,605	765,636		4.65	41,299		191,846
23		3,112,029	765,636		4.06	41,299		167,865
24		2,667,454	765,636		3.48	41,299		143,885
25		2,222,878	765,636		2.90	41,299		119,904
26		1,778,302	765,636		2.32	41,299		95,923
27		1,333,727	765,636		1.74	41,299		71,942
28		889,151	765,636		1.16	41,299		47,962
29	_	444,576	765,636		0.58	41,299	Φ.	23,981
Total	\$	102,252,013					\$	5,004,090

2019 Vehicle Miles (2)

Ten Year Growth in Vehicle Miles in Service Area (3)

Annual Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles In Other Service Areas (3)

Annual Growth in Vehicle Miles

135,994

10 years

13,599

Credit Amount \$ 5,004,090

⁽¹⁾ Appendix E - Service Area D, Page 2 Section II

⁽²⁾ Per Kimley-Horn Impact Fee Study

⁽³⁾ Line 8 of the Max Fee Table Report

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area E

I. General Assumptions

Annual Interest Rate on Deposits (1)
Annual Vehicle Mile Growth (2)
Existing Fund Balance (3)

2.00%
1,785
\$ 129,689

Portion of Projects Funded by Existing Debt⁽⁴⁾
Non-debt Funded Project Cost⁽⁵⁾
New Project Cost Funded Through New Debt⁽⁶⁾
Total Recoverable Project Cost⁽⁷⁾

\$ 122,934
18,276,732
18,078,145
\$ 36,477,811

II. New Debt Issues Assumptions

<u>Year</u>	Principal ⁽⁸⁾	Interest ⁽⁹⁾	<u>Term</u>
1	\$ 1,807,814	4.00%	20
2	1,807,814	4.00%	20
3	1,807,814	4.00%	20
4	1,807,814	4.00%	20
5	1,807,814	4.00%	20
6	1,807,814	4.00%	20
7	1,807,814	4.00%	20
8	1,807,814	4.00%	20
9	1,807,814	4.00%	20
10	1,807,814	4.00%	20
Total	\$ 18,078,145		

III. Capital Expenditure Assumptions

	Annual Capital
<u>Year</u>	Expenditures (10)
1	\$ 1,827,673
2	2,430,278
3	3,032,883
4	3,635,488
5	3,635,488
6	3,635,488
7	3,635,488
8	3,635,488
9	3,635,488
10	3,635,488
11	1,807,814
12	1,205,210
13	602,605
Total	\$ 36,354,877

- (1) Per discussions with City Staff and City files
- (2) Derived from Kimley-Horn Impact Fee Study
- (3) Per discussions with City Staff and City files
- (4) Per discussions with City Staff and City files
- $(5) \quad \text{This assumes 50\% of new project costs funded through sources other than debt, unless specified otherwise}$
- (6) This assumes 50% of new project costs funded through new debt issues, unless specified otherwise
- (7) Per Kimley-Horn Impact Fee Study
- (8) Assumes new debt issued in equal annual amounts
- (9) Per discussions with City Staff and City files
- (10) Assumes new debt proceeds expended over a 3-year timeframe.

Non-debt funded capital expenditures allocated per discussions with City Staff

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area E

I. New Debt Service Detail

<u>Year</u>	Series <u>1</u>	Series	Series <u>3</u>	Series	Series <u>5</u>	Series	Series <u>7</u>	Series	Series	Series	Total Annual New Debt <u>Service</u>
1	\$ 133,022	\$ -	\$ - \$	- \$	- \$	- \$	- \$	- \$		\$ -	\$ 133,022
2	133,022	133,022	-	-	-	-	-	-	-	-	266,044
3	133,022	133,022	133,022	-	-	-	-	-	-	-	399,066
4	133,022	133,022	133,022	133,022	-	-	-	-	_	-	532,089
5	133,022	133,022	133,022	133,022	133,022	-	-	-	-	-	665,111
6	133,022	133,022	133,022	133,022	133,022	133,022	-	-	-	-	798,133
7	133,022	133,022	133,022	133,022	133,022	133,022	133,022	-	-	-	931,155
8	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	-	-	1,064,177
9	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	-	1,197,199
10	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	1,330,222
11	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	1,330,222
12	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	1,330,222
13	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	1,330,222
14	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	1,330,222
15	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	1,330,222
16	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	1,330,222
17	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	1,330,222
18	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	1,330,222
19	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	1,330,222
20	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	1,330,222
21	-	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	1,197,199
22	-	-	133,022	133,022	133,022	133,022	133,022	133,022	133,022	133,022	1,064,177
23	-	-	-	133,022	133,022	133,022	133,022	133,022	133,022	133,022	931,155
24	-	-	-	-	133,022	133,022	133,022	133,022	133,022	133,022	798,133
25	-	-	-	-	-	133,022	133,022	133,022	133,022	133,022	665,111
26	-	-	-	-			133,022	133,022	133,022	133,022	532,089
27	-	-	-	-			-	133,022	133,022	133,022	399,066
28	-	-	-	-			-	-	133,022	133,022	266,044
29	<u> </u>	<u> </u>	<u> </u>	-		-		-		133,022	133,022
	\$ 2,660,443	\$ 2,660,443	\$ 2,660,443 \$	2,660,443 \$	2,660,443 \$	2,660,443 \$	2,660,443 \$	2,660,443 \$	2,660,443	\$ 2,660,443	\$ 26,604,431

II. Summary of Annual Expenses

			New					Existing		
			Annual		Annual		Annual	Annual		
4			Debt		Capital	Т	Bond	Debt	Annual	Total
	Year		Service ⁽¹⁾	Ex	penditures(2)	E	Proceeds ⁽²⁾	Service ⁽³⁾	Credit ⁽⁴⁾	Expense
	_					,				
	1	\$	133,022	\$	1,827,673	\$	(1,807,814)	\$ 9,832	\$ (421)	\$ 162,292
	2		266,044		2,430,278		(1,807,814)	9,838	(1,578)	896,768
	3		399,066		3,032,883		(1,807,814)	9,830	(3,412)	1,630,553
	4		532,089		3,635,488		(1,807,814)	9,838	(5,868)	2,363,732
	5		665,111		3,635,488		(1,807,814)	9,832	(8,896)	2,493,721
	6		798,133		3,635,488		(1,807,814)	9,841	(12,452)	2,623,195
	7		931,155		3,635,488		(1,807,814)	9,836	(16,499)	2,752,165
	8		1,064,177		3,635,488		(1,807,814)	9,843	(20,999)	2,880,695
	9		1,197,199		3,635,488		(1,807,814)	9,835	(25,920)	3,008,788
	10		1,330,222		3,635,488		(1,807,814)	9,838	(31,233)	3,136,500
	11		1,330,222		1,807,814		-	9,838	(31,233)	3,116,641
	12		1,330,222		1,205,210		-	9,834	(31,233)	2,514,032
	13	_	1,330,222		602,605		-	9,839	(31,233)	1,911,432
	14	- 7	1,330,222		-		-	9,838	(31,233)	1,308,826
k.	15		1,330,222		-		-	9,843	(31,233)	1,308,831
N.	16		1,330,222		-		-	9,840	(31,233)	1,308,828
	17		1,330,222		-		-	-	(31,004)	1,299,218
	18		1,330,222		-		-	-	(31,004)	1,299,218
	19		1,330,222		-		-	-	(31,004)	1,299,218
	20		1,330,222		-		-	-	(31,004)	1,299,218
	21		1,197,199		-		-	-	(27,904)	1,169,296
	22		1,064,177		-		-	-	(24,803)	1,039,374
7	23		931,155		-		-	-	(21,703)	909,452
	24		798,133		-		-	-	(18,602)	779,531
	25		665,111		-		-	-	(15,502)	649,609
	26		532,089		-		-	-	(12,402)	519,687
	27		399,066		-		-	-	(9,301)	389,765
	28		266,044		-		-	-	(6,201)	259,844
	29		133,022		-		-	-	(3,100)	129,922
		\$	26,604,431	\$	36,354,877	\$	(18,078,145)	\$ 157,395	\$ (578,212)	\$ 44,460,346

⁽¹⁾ Appendix E - Service Area E, Page 2 Section I
(2) Appendix E - Service Area E, Page 1
(3) Eligible debt funded projects as a percent of total principal times original annual debt service

⁽⁴⁾ Appendix E - Service Area E, Page 6

<u>Year</u>	Impact Vehicle <u>Fee Miles</u>			Impact Fee <u>Revenue</u>	<u> </u>	Annual Expenses		Sub-Total		Accumulated <u>Interest</u>		Estimated Fund Balance	
Initial										47		\$	129,689
1	\$	2,202	1,785	\$	3,929,433	\$	162,292	\$	3,767,141	\$	40,265		3,937,096
2		2,202	1,785		3,929,433		896,768		3,032,666		109,069		7,078,830
3		2,202	1,785		3,929,433		1,630,553		2,298,881		164,565		9,542,276
4		2,202	1,785		3,929,433		2,363,732		1,565,702		206,503		11,314,480
5		2,202	1,785		3,929,433		2,493,721		1,435,713		240,647		12,990,840
6		2,202	1,785		3,929,433		2,623,195	4	1,306,239		272,879		14,569,958
7		2,202	1,785		3,929,433		2,752,165		1,177,268		303,172		16,050,398
8		2,202	1,785		3,929,433		2,880,695		1,048,739		331,495		17,430,632
9		2,202	1,785		3,929,433		3,008,788		920,646		357,819		18,709,097
10		2,202	1,785		3,929,433		3,136,500		792,934		382,111		19,884,142
11		-	-		-		3,116,641		(3,116,641)		366,516		17,134,017
12		-	-		-		2,514,032		(2,514,032)		317,540		14,937,525
13		-	-		-		1,911,432		(1,911,432)		279,636		13,305,729
14		-	-		-		1,308,826		(1,308,826)		253,026		12,249,930
15		-	-		-		1,308,831		(1,308,831)		231,910		11,173,009
16		-	-		-		1,308,828		(1,308,828)		210,372		10,074,552
17		-	-		-		1,299,218		(1,299,218)		188,499		8,963,834
18		-	-		-		1,299,218		(1,299,218)		166,285		7,830,901
19		-	-		-		1,299,218		(1,299,218)		143,626		6,675,309
20		-	-		-		1,299,218		(1,299,218)		120,514		5,496,606
21		-	-		-		1,169,296		(1,169,296)		98,239		4,425,549
22		-	-		-		1,039,374		(1,039,374)		78,117		3,464,292
23		-	-		-		909,452		(909,452)		60,191		2,615,031
24		-	-		-		779,531		(779,531)		44,505		1,880,006
25			-		-		649,609		(649,609)		31,104		1,261,501
26		-	-	4	-		519,687		(519,687)		20,033		761,847
27		-	-		-		389,765		(389,765)		11,339		383,422
28		-			-		259,844		(259,844)		5,070		128,648
29		-	-		-		129,922	i	(129,922)		1,274		-
				\$	39,294,334	\$	44,460,346			\$	5,036,323		

	Number of	Interest	Recovery	A	In Miles		
<u>Year</u>	Years to End of Period	Rate <u>Factor</u>	Fee <u>Factor</u>	Annual Vehic <u>Actual</u>	Escalated	Annual I Actual	expense <u>Escalated</u>
<u>r car</u>	<u>Ena or r crioa</u>	<u>r actor</u>	<u>r detor</u>	Actual	<u> Lacalatea</u>	Actual	Localatea
1	29	1.7584	1.0000	1,785	3,138 \$	162,292	\$ 285,380
2	28	1.7240	1.0000	1,785	3,076	896,768	1,545,987
3	27	1.6902	1.0000	1,785	3,016	1,630,553	2,755,883
4	26	1.6570	1.0000	1,785	2,957	2,363,732	3,916,732
5	25	1.6245	1.0000	1,785	2,899	2,493,721	4,051,103
6	24	1.5927	1.0000	1,785	2,842	2,623,195	4,177,879
7	23	1.5614	1.0000	1,785	2,786	2,752,165	4,297,339
8	22	1.5308	1.0000	1,785	2,732	2,880,695	4,409,834
9	21	1.5008	1.0000	1,785	2,678	3,008,788	4,515,609
10	20	1.4714	1.0000	1,785	2,626	3,136,500	4,614,981
11	19	1.4425	1.0000	-	-	3,116,641	4,495,844
12	18	1.4142	1.0000	-	-	2,514,032	3,555,455
13	17	1.3865	1.0000		-	1,911,432	2,650,226
14	16	1.3593	1.0000	•	-	1,308,826	1,779,122
15	15	1.3327	1.0000	-		1,308,831	1,744,245
16	14	1.3065	1.0000	-	-	1,308,828	1,710,040
17	13	1.2809	1.0000		-	1,299,218	1,664,199
18	12	1.2558	1.0000	-	-	1,299,218	1,631,568
19	11	1.2312	1.0000	-	-	1,299,218	1,599,576
20	10	1.2070	1.0000	-	-	1,299,218	1,568,212
21	9	1.1834	1.0000	-	-	1,169,296	1,383,717
22	8	1.1602	1.0000	-	-	1,039,374	1,205,853
23	7	1.1374	1.0000	-	-	909,452	1,034,433
24	6 5	1.1151	1.0000	-	-	779,531	869,271
25 26		1.0933 1.0718	1.0000 1.0000	-	-	649,609	710,189
26 27	4 3	1.0508	1.0000	-	-	519,687 389,765	557,011 409,567
28	2	1.0308	1.0000	-	-	259,844	267,691
29	1	1.0100	1.0000	_	<u>-</u>	129,922	131,221
23		1.0100	1.0000		28,750	120,022	\$ 63,538,166
					20,700		ψ 00,000,100
		Annual Interest Rat	e:			2.00%	
		Present Value of In	itial Impact Fee	Fund Balance	\$	129,689	
		Total Faculated Eve	anno for Entiro	Dariad	\$	63,538,166	
		Total Escalated Exp			Ф	230,308	
		Less Future Value of Sub-Total	or iriiliai irripact f	ee Fully Dalatice	\$	63,307,859	
		Sup-Tolal			Þ	03,307,839	
		Total Escalated Vel	nicle Miles			28,750	
		Impact Fee For Se	rvice Area E		\$	2,202	

Impact Fee Project Name ⁽¹⁾	Impact Fee Project No. ⁽¹⁾	<u>Se</u>	Cost In ervice Area ⁽¹⁾	pact Fee erable Cost ⁽²⁾	Debt Funded ⁽³⁾ <u>Existing</u> <u>Proposed</u>		Non-Deb Funded ⁽³		pact Fee verable Cost	
BLOOMDALE RD (12)	E-1	\$	955,200	\$ 472,488	\$ _	\$	236,244	\$ 236,2	44	\$ 472,488
BLOOMDALE RD (13)	E-2		3,361,400	1,662,710	_		831,355	831,3		1,662,710
WILMETH RD (10)	E-3		1,935,600	957,441	_		478,720	478,7		957,441
WILMETH RD (11)	E-4		2,608,200	1,290,141	-		645,070	645,0	70	1,290,141
WILMETH RD (12)	E-5		5,068,500	2,507,123	-	1	1,253,562	1,253,5	62	2,507,123
WILMETH RD (13)	E-6		2,804,200	1,387,092	-		693,546	693,5	46	1,387,092
WILMETH RD (14)	E-7		1,708,700	845,205	_		422,603	422,6	03	845,205
WILMETH RD (15)	E-8		1,614,900	798,807	-	_	399,404	399,4	04	798,807
REDBUD BLVD (1)	E-9		650,000	321,521	122,934		-	198,5	87	321,521
REDBUD BLVD (2)	E-10		852,600	421,737	-		210,868	210,8	68	421,737
LAUD HOWELL PKWY (9)	E-11		1,954,750	966,913	-		483,457	483,4	57	966,913
LAUD HOWELL PKWY (10)	E-12		1,876,700	928,306	-		464,153	464,1	53	928,306
LAUD HOWELL PKWY (11)	E-13		861,000	425,892	-		212,946	212,9	46	425,892
STATE HIGHWAY 5 (1)	E-14		347,550	171,915	-		85,957	85,9	57	171,915
STATE HIGHWAY 5 (2)	E-15		13,994,400	6,922,302	-	3	3,461,151	3,461,1	51	6,922,302
AIRPORT DR (1)	E-16		9,379,050	4,639,328		2	2,319,664	2,319,6	64	4,639,328
AIRPORT DR (2)	E-17		6,582,850	3,256,194	-	1	1,628,097	1,628,0	97	3,256,194
AIRPORT DR (3)	E-18		3,648,400	1,804,674	-		902,337	902,3	37	1,804,674
AIRPORT DR (4)	E-19		8,952,800	4,428,485	-	2	2,214,242	2,214,2	42	4,428,485
UNNAMED C (1)	E-20		986,400	487,921	-		243,960	243,9	60	487,921
UNNAMED C (2)	E-21		1,403,150	694,065	-		347,033	347,0	33	694,065
Interchange Signals	11		300,000	148,394	-		74,197	74,1	97	148,394
Interchange Signals	19		300,000	148,394	-		74,197	74,1	97	148,394
Signal	20		300,000	148,394	-		74,197	74,1	97	148,394
Signal	21		300,000	148,394	- '		74,197	74,1	97	148,394
Signal Mod	22		150,000	74,197	-		37,099	37,0	99	74,197
Signal	28		300,000	148,394			74,197	74,1	97	148,394
Signal Mod	29		150,000	74,197	-		37,099	37,0	99	74,197
Signal	30		150,000	74,197	-		37,099	37,0	99	74,197
Signal	31		150,000	74,197	-		37,099	37,0	99	74,197
Signal Mod	41		75,000	37,099	-		18,549	18,5	49	37,099
Impact Fee Study			11,692	11,692			5,846	5,8	46	11,692
Total		\$	73,733,042	\$ 36,477,811	\$ 122,934	\$ 18	3,078,145	\$ 18,276,7	32	\$ 36,477,811

⁽¹⁾ Per Kimley-Horn Impact Fee Study

⁽²⁾ Line 11 of the Max Fee Table Report

⁽³⁾ Per discussions with City staff. For existing debt funding that does not have a specific bond identified, a 4.5% rate is used to coincide with the water and wastewater calculations.

<u>Year</u>	igible Debt Service ⁽¹⁾	Annual Vehicle <u>Miles</u>		Eligible Debt Service per <u>Vehicle Mile</u>	Annual Growth in Vehicle Miles (Cumulative)	A	dit for Annual d Valorem Revenues
1	\$ 142,854	606,072	\$	0.24	1,785	\$	421
2	275,883	623,802		0.44	3,569		1,578
3	408,897	641,531		0.64	5,354		3,412
4	541,926	659,260		0.82	7,138		5,868
5	674,943	676,990		1.00	8,923		8,896
6	807,974	694,719		1.16	10,707		12,452
7	940,991	712,448		1.32	12,492		16,499
8	1,074,020	730,177		1.47	14,276	>	20,999
9	1,207,034	747,907		1.61	16,061		25,920
10	1,340,060	765,636		1.75	17,845		31,233
11	1,340,060	765,636		1.75	17,845		31,233
12	1,340,056	765,636		1.75	17,845		31,233
13	1,340,060	765,636		1.75	17,845		31,233
14	1,340,059	765,636		1.75	17,845		31,233
15	1,340,065	765,636		1.75	17,845		31,233
16	1,340,062	765,636		1.75	17,845	•	31,233
17	1,330,222	765,636		1.74	17,845		31,004
18	1,330,222	765,636		1.74	17,845		31,004
19	1,330,222	765,636	А	1.74	17,845		31,004
20	1,330,222	765,636		1.74	17,845		31,004
21	1,197,199	765,636		1.56	17,845		27,904
22	1,064,177	765,636		1.39	17,845		24,803
23	931,155	765,636		1.22	17,845		21,703
24	798,133	765,636		1.04	17,845		18,602
25	665,111	765,636		0.87	17,845		15,502
26	532,089	765,636		0.69	17,845		12,402
27	399,066	765,636		0.52	17,845		9,301
28	266,044	765,636		0.35	17,845		6,201
29	133,022	765,636		0.17	17,845		3,100
Total	\$ 26,761,826					\$	578,212

2019 Vehicle Miles ⁽²⁾	588,343	
Ten Year Growth in Vehicle Miles in Service Area ⁽³⁾	17,845	
	10	years
Annual Growth in Vehicle Miles	1,785	•
Ten Year Growth in Vehicle Miles In Other Service Areas (3)	159,448	
	10	years
Annual Growth in Vehicle Miles	15,945	•
Credit Amount	\$ 578,212	

⁽¹⁾ Appendix E - Service Area E, Page 2 Section II

⁽²⁾ Per Kimley-Horn Impact Fee Study

⁽³⁾ Line 8 of the Max Fee Table Report

Capital Improvement Plan for Impact Fees
Appendix E - Impact Fee Calculation Assumptions
Service Area G

I. General Assumptions

Annual Interest Rate on Deposits ⁽¹⁾	
Annual Vehicle Mile Growth ⁽²⁾	
Existing Fund Balance ⁽³⁾	\$

Portion of Projects Funded by Existing Debt⁴⁾
Non-debt Funded Project Cost⁵⁾
New Project Cost Funded Through New Debt⁶⁾
Total Recoverable Project Cost⁷⁾

\$	2,373,984
	2,914,970
	2,752,700
Φ.	0.044.050

2.00% 774 448,086

II. New Debt Issues Assumptions

<u>Year</u>	Principal ⁽⁸⁾	Interest ⁽⁹⁾	<u>Term</u>
1	\$ 275,270	4.00%	20
2	275,270	4.00%	20
3	275,270	4.00%	20
4	275,270	4.00%	20
5	275,270	4.00%	20
6	275,270	4.00%	20
7	275,270	4.00%	20
8	275,270	4.00%	20
9	275,270	4.00%	20
10	275,270	4.00%	20
Total	\$ 2,752,700		

III. Capital Expenditure Assumptions

		Annual Capital
<u>Year</u>	Exp	enditures ⁽¹⁰⁾
1	\$	291,497
2		383,254
3		475,010
4		566,767
5		566,767
6		566,767
7		566,767
8		566,767
9		566,767
10		566,767
11		275,270
12		183,513
13		91,757
Total	\$	5,667,669

- (1) Per discussions with City Staff and City files
- (2) Derived from Kimley-Horn Impact Fee Study
- (3) Per discussions with City Staff and City files
- (4) Per discussions with City Staff and City files
- (5) This assumes 50% of new project costs funded through sources other than debt, unless specified otherwise
- (6) This assumes 50% of new project costs funded through new debt issues, unless specified otherwise
- (7) Per Kimley-Horn Impact Fee Study
- (8) Assumes new debt issued in equal annual amounts
- (9) Per discussions with City Staff and City files
- (10) Assumes new debt proceeds expended over a 3-year timeframe.

Non-debt funded capital expenditures allocated per discussions with City Staff

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area G

I. New Debt Service Detail

Year	Series	Dec	Series	Series	Series <u>4</u>		Series <u>5</u>	Series		Series <u>7</u>		Series <u>8</u>	\$	Series <u>9</u>	Series	N	Total Annual lew Debt <u>Service</u>
1	\$ 20,255	\$	-	\$ -	\$ -	\$	-	\$ -	\$	-	\$	-	\$	- 4	\$ -	\$	20,255
2	20,255		20,255	-	-		-	-		-		-		-	-		40,510
3	20,255		20,255	20,255	-		-	-		-		-		-	-		60,765
4	20,255		20,255	20,255	20,255		-	-		-		-	4	-	-		81,019
5	20,255		20,255	20,255	20,255		20,255	-		-					-		101,274
6	20,255		20,255	20,255	20,255		20,255	20,255		-				-	-		121,529
7	20,255		20,255	20,255	20,255		20,255	20,255		20,255				-	-		141,784
8	20,255		20,255	20,255	20,255		20,255	20,255		20,255		20,255		-	-		162,039
9	20,255		20,255	20,255	20,255		20,255	20,255		20,255		20,255		20,255	-		182,294
10	20,255		20,255	20,255	20,255		20,255	20,255		20,255	4	20,255		20,255	20,255		202,548
11	20,255		20,255	20,255	20,255		20,255	20,255		20,255		20,255		20,255	20,255	\neg	202,548
12	20,255		20,255	20,255	20,255		20,255	20,255		20,255		20,255		20,255	20,255		202,548
13	20,255		20,255	20,255	20,255		20,255	20,255		20,255		20,255		20,255	20,255		202,548
14	20,255		20,255	20,255	20,255		20,255	20,255		20,255		20,255		20,255	20,255		202,548
15	20,255		20,255	20,255	20,255		20,255	20,255	4	20,255		20,255		20,255	20,255		202,548
16	20,255		20,255	20,255	20,255		20,255	20,255		20,255		20,255		20,255	20,255		202,548
17	20,255		20,255	20,255	20,255		20,255	20,255		20,255		20,255		20,255	20,255		202,548
18	20,255		20,255	20,255	20,255		20,255	20,255		20,255		20,255		20,255	20,255		202,548
19	20,255		20,255	20,255	20,255		20,255	20,255		20,255		20,255		20,255	20,255		202,548
20	20,255		20,255	20,255	20,255		20,255	20,255		20,255		20,255		20,255	20,255		202,548
21	-		20,255	20,255	20,255		20,255	20,255		20,255	М	20,255		20,255	20,255		182,294
22	-		-	20,255	20,255		20,255	20,255		20,255		20,255		20,255	20,255		162,039
23	-		-	-	20,255		20,255	20,255		20,255		20,255		20,255	20,255		141,784
24	-		-	-	-		20,255	20,255		20,255		20,255		20,255	20,255		121,529
25	-		-	-	-			20,255		20,255		20,255		20,255	20,255		101,274
26	-		-	-	-	-	-	-		20,255		20,255		20,255	20,255		81,019
27	-		-	-	-	1				-		20,255		20,255	20,255		60,765
28	-		-	-	-		-					-		20,255	20,255		40,510
29	 						-					<u>-</u>		_	20,255		20,255
	\$ 405,097	\$	405,097	\$ 405,097	\$ 405,097	\$	405,097	\$ 405,097	\$	405,097	\$	405,097	\$	405,097	\$ 405,097	\$	4,050,969

II. Summary of Annual Expenses

2 40,510 383,254 (275,270) 182,765 (554) 330,703 3 60,765 475,010 (275,270) 182,759 (882) 442,239 4 81,019 566,767 (275,270) 182,760 (1,624) 573,90 5 101,274 566,767 (275,270) 182,766 (2,035) 593,75 6 121,529 566,767 (275,270) 182,766 (2,035) 593,75 7 141,784 566,767 (275,270) 182,763 (2,469) 613,57 8 162,039 566,767 (275,270) 182,768 (2,925) 633,37 9 182,294 566,767 (275,270) 182,765 (3,896) 672,91 10 202,548 566,767 (275,270) 182,765 (3,896) 672,91 11 202,548 275,270 - 182,765 (3,896) 672,91 12 202,548 91,757 - 182,765 (3,896) 473,17		4		New					Existing			
Year Service ⁽¹⁾ Expenditures ⁽²⁾ Proceeds ⁽²⁾ Service ⁽³⁾ Credit ⁽⁴⁾ Expense 1 \$ 20,255 \$ 291,497 \$ (275,270) \$ 182,760 \$ (259) \$ 218,98 2 40,510 383,254 (275,270) 182,765 (554) 330,70 3 60,765 475,010 (275,270) 182,759 (882) 442,38 4 81,019 566,767 (275,270) 182,766 (1,624) 573,90 5 101,274 566,767 (275,270) 182,766 (1,624) 573,90 6 121,529 566,767 (275,270) 182,766 (2,035) 593,75 7 141,784 566,767 (275,270) 182,766 (2,035) 593,75 8 162,039 566,767 (275,270) 182,768 (2,925) 633,37 9 182,294 566,767 (275,270) 182,765 (3,896) 656,89 12 202,548 275,270 182,765 (3,8	4			Annual		Annual		Annual	Annual			
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14 202,548 - - 182,764 (3,896) 381,41 15 202,548 - - 182,768 (3,896) 381,42 16 202,548 - - 182,766 (3,896) 381,41 17 202,548 - - 176,117 (3,829) 374,83 18 202,548 - - 176,117 (3,829) 374,83 20 202,548 - - 176,117 (3,829) 374,83 21 182,294 - - - (1,843) 180,46 22 162,039 - - - (1,639) 160,40 23 141,784 - - - (1,434) 140,32 24 121,529 - - (1,229) 120,30 25 101,274 - - (1,024) 100,25 26 81,019 - - (819) 80,20 27								-				564,927
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16 202,548 - - 182,766 (3,896) 381,41 17 202,548 - - 176,117 (3,829) 374,83 18 202,548 - - 176,117 (3,829) 374,83 19 202,548 - - 176,117 (3,829) 374,83 20 202,548 - - 176,117 (3,829) 374,83 21 182,294 - - - (1,639) 160,40 23 141,784 - - - (1,639) 160,40 23 141,784 - - - (1,239) 120,33 24 121,529 - - - (1,229) 120,33 25 101,274 - - - (1,024) 100,25 26 81,019 - - - (614) 60,15 27 60,765 - - - (614) 60,						-		-	182,764	(3,896)		381,416
17 202,548 - - 176,117 (3,829) 374,83 18 202,548 - - 176,117 (3,829) 374,83 19 202,548 - - 176,117 (3,829) 374,83 20 202,548 - - 176,117 (3,829) 374,83 21 182,294 - - - (1,843) 180,45 22 162,039 - - - (1,639) 160,40 23 141,784 - - - (1,434) 140,35 24 121,529 - - - (1,229) 120,30 25 101,274 - - - (1,024) 100,25 26 81,019 - - - (819) 80,20 27 60,765 - - - (614) 60,15 28 40,510 - - - (205) 20,05 29 20,255 - - - - - -		15	`	202,548		-		-	182,768	(3,896)		381,420
18 202,548 - - 176,117 (3,829) 374,83 19 202,548 - - 176,117 (3,829) 374,83 20 202,548 - - 176,117 (3,829) 374,83 21 182,294 - - (1,843) 180,45 22 162,039 - - (1,639) 160,40 23 141,784 - - - (1,434) 140,35 24 121,529 - - - (1,229) 120,30 25 101,274 - - - (1,024) 100,25 26 81,019 - - - (819) 80,20 27 60,765 - - - (614) 60,15 28 40,510 - - - (410) 40,10 29 20,255 - - - (205) 20,05		16		202,548		-		-		(3,896)		381,418
19 202,548 - - 176,117 (3,829) 374,83 20 202,548 - - 176,117 (3,829) 374,83 21 182,294 - - - (1,843) 180,45 22 162,039 - - - (1,639) 160,40 23 141,784 - - - (1,434) 140,35 24 121,529 - - - (1,229) 120,30 25 101,274 - - - (1,024) 100,25 26 81,019 - - - (819) 80,20 27 60,765 - - - (614) 60,15 28 40,510 - - - (410) 40,10 29 20,255 - - - (205) 20,05		17		202,548		-		-	176,117	(3,829)		374,836
20 202,548 - - 176,117 (3,829) 374,83 21 182,294 - - - - (1,843) 180,45 22 162,039 - - - (1,639) 160,40 23 141,784 - - - (1,434) 140,35 24 121,529 - - - (1,229) 120,30 25 101,274 - - - (1,024) 100,25 26 81,019 - - - (819) 80,20 27 60,765 - - - (614) 60,15 28 40,510 - - - (410) 40,10 29 20,255 - - - (205) 20,05		18		202,548		-		-	176,117	(3,829)		374,836
21 182,294 - - - (1,643) 180,45 22 162,039 - - - (1,639) 160,40 23 141,784 - - - (1,434) 140,35 24 121,529 - - - (1,229) 120,30 25 101,274 - - - (1,024) 100,25 26 81,019 - - - (819) 80,20 27 60,765 - - - (614) 60,15 28 40,510 - - - (410) 40,10 29 20,255 - - - (205) 20,05		19		202,548		-		-	176,117	(3,829)		374,836
22 162,039 - - - (1,639) 160,40 23 141,784 - - - (1,434) 140,35 24 121,529 - - - (1,229) 120,30 25 101,274 - - - (1,024) 100,25 26 81,019 - - - (819) 80,20 27 60,765 - - - (614) 60,15 28 40,510 - - - (410) 40,10 29 20,255 - - - (205) 20,05		20		202,548		-		-	176,117	(3,829)		374,836
23 141,784 - - - (1,434) 140,35 24 121,529 - - - (1,229) 120,30 25 101,274 - - - (1,024) 100,25 26 81,019 - - - (819) 80,20 27 60,765 - - - (614) 60,15 28 40,510 - - - (410) 40,10 29 20,255 - - - (205) 20,05				182,294		-		-	-	(1,843)		180,450
24 121,529 - - - (1,229) 120,30 25 101,274 - - - (1,024) 100,25 26 81,019 - - - (819) 80,20 27 60,765 - - - (614) 60,15 28 40,510 - - - (410) 40,10 29 20,255 - - - (205) 20,05	7	22		162,039		-		-	-	(1,639)		160,400
25 101,274 - - - (1,024) 100,25 26 81,019 - - - (819) 80,20 27 60,765 - - - (614) 60,15 28 40,510 - - - (410) 40,10 29 20,255 - - - (205) 20,05				141,784		-		-	-	(1,434)		140,350
26 81,019 - - - (819) 80,20 27 60,765 - - - (614) 60,15 28 40,510 - - - (410) 40,10 29 20,255 - - - (205) 20,05		24		121,529		-		-	-	(1,229)		120,300
27 60,765 - - - (614) 60,15 28 40,510 - - - (410) 40,10 29 20,255 - - - (205) 20,05						-		-	-			100,250
28 40,510 (410) 40,10 29 20,255 (205) 20,05				81,019		-		-	-			80,200
29 <u>20,255</u> (205) 20,05				60,765		-		-	-	(614)		60,150
				40,510		-		-	-			40,100
\$ 4,050,969 \$ 5,667,669 \$ (2,752,700) \$ 3,628,688 \$ (67,194) \$ 10,527,43		29				-		-	-			20,050
			\$	4,050,969	\$	5,667,669	\$	(2,752,700)	\$ 3,628,688	\$ (67,194)	\$	10,527,433

⁽¹⁾ Appendix E - Service Area G, Page 2 Section I
(2) Appendix E - Service Area G, Page 1
(3) Eligible debt funded projects as a percent of total principal times original annual debt service

⁽⁴⁾ Appendix E - Service Area G, Page 6

<u>Year</u>	Impact <u>Fee</u>	Vehicle <u>Miles</u>	Imp Fe <u>Reve</u>	е		nnual penses	<u> </u>	Sub-Total	Accumi Inter		stimated Fund <u>Balance</u>
Initial											\$ 448,086
1	\$ 1,155	774	\$ 8	94,233	\$	218,983	\$	675,250	\$	15,714	1,139,050
2	1,155	774	8	94,233		330,704		563,529		28,416	1,730,996
3	1,155	774	8	94,233		442,382		451,850		39,138	2,221,985
4	1,155	774	8	94,233		554,041		340,191		47,842	2,610,018
5	1,155	774	8	94,233		573,908	4	320,325		55,404	2,985,746
6	1,155	774	8	94,233		593,758		300,475		62,720	3,348,941
7	1,155	774	8	94,233		613,575		280,658		69,785	3,699,384
8	1,155	774	8	94,233		633,379		260,854		76,596	4,036,835
9	1,155	774	8	94,233		653,152		241,081		83,148	4,361,063
10	1,155	774	8	94,233		672,914		221,319		89,434	4,671,817
11	-	-		-		656,687		(656,687)		86,869	4,101,999
12	-	-		-		564,927		(564,927)		76,391	3,613,463
13	-	-		-		473,174		(473,174)		67,538	3,207,826
14	-	-		-		381,416		(381,416)		60,342	2,886,752
15	-	-		-		381,420		(381,420)		53,921	2,559,253
16	-	-		-		381,418		(381,418)	•	47,371	2,225,206
17	-	-		-		374,836		(374,836)		40,756	1,891,126
18	-	-		- '		374,836		(374,836)		34,074	1,550,364
19	-	-		-		374,836		(374,836)		27,259	1,202,786
20	-	-		-		374,836		(374,836)		20,307	848,258
21	-	-		-		180,450		(180,450)		15,161	682,968
22	-	-		-		160,400		(160,400)		12,055	534,623
23	-	-		-		140,350		(140,350)		9,289	403,562
24		-		-		120,300		(120,300)		6,868	290,130
25	-	-		-		100,250		(100,250)		4,800	194,680
26	-	-		-		80,200		(80,200)		3,092	117,571
27	-	-	7	-		60,150		(60,150)		1,750	59,171
28		7		-		40,100		(40,100)		782	19,853
29	-	- "				20,050	_	(20,050)		197	-
			\$ 8,9	42,328	\$ 10),527,433	_	•	\$ 1,	137,019	

	Number of	Interest	Recovery				
	Years to	Rate	Fee	Annual Veh	nicle Miles	Annual E	Expense
<u>Year</u>	End of Period	<u>Factor</u>	<u>Factor</u>	<u>Actual</u>	Escalated	Actual	Escalated
1	29	1.7584	1.0000	774	1,361 \$	218,983	\$ 385,067
2	28	1.7240	1.0000	774	1,335	330,704	570,118
3	27	1.6902	1.0000	774	1,309	442,382	747,693
4	26	1.6570	1.0000	774	1,283	554,041	918,053
5	25	1.6245	1.0000	774	1,258	573,908	932,325
6	24	1.5927	1.0000	774	1,233	593,758	945,659
7	23	1.5614	1.0000	774	1,209	613,575	958,060
8	22	1.5308	1.0000	774	1,185	633,379	969,591
9	21	1.5008	1.0000	774	1,162	653,152	980,255
10	20	1.4714	1.0000	774	1,139	672,914	990,111
11	19	1.4425	1.0000	-	-	656,687	947,289
12	18	1.4142	1.0000	-	-	564,927	798,945
13	17	1.3865	1.0000		-	473,174	656,062
14	16	1.3593	1.0000	•	-	381,416	518,470
15	15	1.3327	1.0000	_		381,420	508,308
16	14	1.3065	1.0000	-	-	381,418	498,339
17	13	1.2809	1.0000		-	374,836	480,137
18	12	1.2558	1.0000	-	-	374,836	470,722
19	11	1.2312	1.0000	-	-	374,836	461,492
20	10	1.2070	1.0000	-	-	374,836	452,444
21	9	1.1834	1.0000	-	-	180,450	213,541
22	8	1.1602	1.0000	-	-	160,400	186,092
23	7	1.1374	1.0000	-	-	140,350	159,638
24	6	1.1151	1.0000	-	-	120,300	134,149
25	5	1.0933	1.0000	-	-	100,250	109,599
26	4	1.0718	1.0000	-	-	80,200	85,960
27	3	1.0508	1.0000	-	-	60,150	63,206
28	2	1.0302	1.0000	-	-	40,100	41,311
29	1	1.0100	1.0000		-	20,050	20,251
					12,473		\$ 15,202,888
	· ·						
						0.000/	
		Annual Interest Ra	ie:			2.00%	
		Present Value of In	itial Impact Fee	Fund Ralance	\$	448,086	
		rieselli value oi li	iliai iiripact i ee	T UTIL DAIATICE	Ψ	440,000	
		Total Escalated Ex	pense for Entire	Period	\$	15,202,888	
		Less Future Value	•			795,731	
		Sub-Total	·		\$	14,407,157	
		Total Escalated Ve	hicle Miles			12,473	
		Impact Fee For Se	ervice Area G		\$	1,155	

Impact Fee Project Name ⁽¹⁾	Impact Fee Project No. ⁽¹⁾	Cost In Service Area ⁽¹⁾	Impact Fee Recoverable Cost ⁽²⁾	Debt Fu Existing	nded ⁽³⁾ <u>Proposed</u>	Non-Debt Funded ⁽³⁾	Impact Fee Recoverable Cost
				·			
VIRGINIA PKWY (1)	G-1	\$ 2,158,800		\$ -	\$ 286,926		
VIRGINIA PKWY (2)	G-2	397,200	105,584	-	52,792	52,792	105,584
VIRGINIA PKWY (3)	G-3	456,598	121,373	32,536	44,419	44,419	121,373
VIRGINIA PKWY (4)	G-4	1,661,863	441,757	116,074	162,841	162,841	441,757
VIRGINIA PKWY (5)	G-5	1,182,000	314,200	-	157,100	157,100	314,200
VIRGINIA PKWY (6)	G-6	392,400	104,308		52,154	52,154	104,308
WESTRIDGE BLVD (1)	G-7	372,600	99,045	-	49,522	49,522	99,045
WESTRIDGE BLVD (2)	G-8	2,931,600	779,279	-	389,639	389,639	779,279
WESTRIDGE BLVD (3)	G-9	596,400	158,535	-	79,268	79,268	158,535
ELDORADO PKWY (1)	H-1, G-10	2,601,000	691,398	-	345,699	345,699	691,398
COIT RD (1)	G-11	1,840,800	489,322	-	244,661	244,661	489,322
COIT RD (2)	G-12	592,200	157,419	-	78,709	78,709	157,419
INDEPENDENCE PKWY (1)	G-13	951,600	252,955	-	126,477	126,477	252,955
INDEPENDENCE PKWY (2)	G-14	3,666,000	974,497	-	487,248	487,248	974,497
CUSTER RD (4)	G-15	3,260,945	866,825	826,396	-	40,430	866,825
CUSTER RD (5)	G-16	1,476,398	392,456	374,152	-	18,305	392,456
RIDGE RD (8)	G-17, I-8	275,407	73,209	11,207	-	62,002	73,209
Signal Mod	33	75,000	19,937	-	9,968	9,968	19,937
Signal	34	150,000	39,873	-	19,937	19,937	39,873
Signal	37	300,000	79,746	-	39,873	39,873	79,746
Signal	38	171,500	45,588	45,588	-	-	45,588
Signal	43	40,000	10,633	10,633	-	-	10,633
Under Construction	44	195,171	51,880	35,267	-	16,614	51,880
Signal	47	300,000	79,746	-	39,873	39,873	79,746
Under Construction	48	292,756	77,820	52,900	-	24,921	77,820
Roundabout	49	1,950,000	518,349	518,349	-	-	518,349
Roundabout	50	1,320,000	350,883	350,883	-	-	350,883
Signal	55	300,000	79,746		39,873	39,873	79,746
Signal	56	150,000	39,873	-	19,937	19,937	39,873
Signal	57	150,000	39,873	-	19,937	19,937	39,873
Impact Fee Study		11,692	11,692	-	5,846	5,846	11,692
Total		\$ 30,219,929	\$ 8,041,653	\$ 2,373,984	\$ 2,752,700	\$ 2,914,970	\$ 8,041,653

⁽¹⁾ Per Kimley-Horn Impact Fee Study

⁽²⁾ Line 11 of the Max Fee Table Report

⁽³⁾ Per discussions with City staff. For existing debt funding that does not have a specific bond identified, a 4.5% rate is used to coincide with the water and wastewater calculations.

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area G

<u>Year</u>	igible Debt Service ⁽¹⁾	Annual Vehicle <u>Miles</u>		Eligible Debt Service per <u>Vehicle Mile</u>	Annual Growth in Vehicle Miles (Cumulative)	A	dit for Annual d Valorem Revenues
1	\$ 203,015	606,072	\$	0.33	774	\$	259
2	223,274	623,802		0.36	1,548		554
3	243,524	641,531		0.38	2,323		882
4	263,783	659,260		0.40	3,097		1,239
5	284,035	676,990		0.42	3,871		1,624
6	304,295	694,719		0.44	4,645		2,035
7	324,547	712,448		0.46	5,419		2,469
8	344,807	730,177		0.47	6,194		2,925
9	365,056	747,907		0.49	6,968		3,401
10	385,313	765,636		0.50	7,742		3,896
11	385,313	765,636		0.50	7,742		3,896
12	385,310	765,636		0.50	7,742		3,896
13	385,313	765,636		0.50	7,742		3,896
14	385,313	765,636		0.50	7,742		3,896
15	385,316	765,636		0.50	7,742		3,896
16	385,314	765,636		0.50	7,742		3,896
17	378,665	765,636		0.49	7,742		3,829
18	378,665	765,636	Т	0.49	7,742		3,829
19	378,665	765,636		0.49	7,742		3,829
20	378,665	765,636	1	0.49	7,742		3,829
21	182,294	765,636		0.24	7,742		1,843
22	162,039	765,636		0.21	7,742		1,639
23	141,784	765,636		0.19	7,742		1,434
24	121,529	765,636		0.16	7,742		1,229
25	101,274	765,636		0.13	7,742		1,024
26	81,019	765,636		0.11	7,742		819
27	60,765	765,636		0.08	7,742		614
28	40,510	765,636		0.05	7,742		410
29	20,255	765,636		0.03	7,742		205
Total	\$ 7,679,657					\$	67,194

2019 Vehicle Miles (2)

Ten Year Growth in Vehicle Miles in Service Area (3)

Annual Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles In Other Service Areas (3)

Annual Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

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Ten Year Growth in Vehicle Miles

Ten Yea

- (1) Appendix E Service Area G, Page 2 Section II
- (2) Per Kimley-Horn Impact Fee Study
- (3) Line 8 of the Max Fee Table Report

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area H

I. General Assumptions

Annual Interest Rate on Deposits (1)
Annual Vehicle Mile Growth (2)
Existing Fund Balance (3)

2.00%
3,132
\$ 293,933

Portion of Projects Funded by Existing Debt⁽⁴⁾ Non-debt Funded Project Cost⁽⁵⁾ New Project Cost Funded Through New Debt⁽⁶⁾ Total Recoverable Project Cost⁽⁷⁾

3,596,908
3,387,483
3,229,433

10,213,823

II. New Debt Issues Assumptions

<u>Year</u>	Principal ⁽⁸⁾	rincipal ⁽⁸⁾ Interest ⁽⁹⁾				
1	\$ 322,943	4.00%	20			
2	322,943	4.00%	20			
3	322,943	4.00%	20			
4	322,943	4.00%	20			
5	322,943	4.00%	20			
6	322,943	4.00%	20			
7	322,943	4.00%	20			
8	322,943	4.00%	20			
9	322,943	4.00%	20			
10	322,943	4.00%	20			

Total \$ 3,229,433

III. Capital Expenditure Assumptions

	\	Annual Capital							
<u>Year</u>	Exp	Expenditures (10)							
1	\$	338,748							
2		446,396							
3		554,044							
4		661,692							
5		661,692							
6		661,692							
7		661,692							
8		661,692							
9		661,692							
10		661,692							
11		322,943							
12		215,296							
13		107,648							
Total	\$	6,616,916							

- (1) Per discussions with City Staff and City files
- (2) Derived from Kimley-Horn Impact Fee Study
- (3) Per discussions with City Staff and City files
- (4) Per discussions with City Staff and City files
- $(5) \quad \text{This assumes 50\% of new project costs funded through sources other than debt, unless specified otherwise}$
- (6) This assumes 50% of new project costs funded through new debt issues, unless specified otherwise
- (7) Per Kimley-Horn Impact Fee Study
- (8) Assumes new debt issued in equal annual amounts
- (9) Per discussions with City Staff and City files
- (10) Assumes new debt proceeds expended over a 3-year timeframe.

Non-debt funded capital expenditures allocated per discussions with City Staff

Total

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area H

I. New Debt Service Detail

Yea	<u>r</u>	Series	Serie	es	eries <u>3</u>	Series <u>4</u>	Series <u>5</u>	Series		Series <u>7</u>		Series <u>8</u>	\$	Series <u>9</u>	4	Series	N	Annual ew Debt Service
1	\$	23,763		-	\$ -	\$ -	\$ -	\$ -	\$	-	\$	-	\$	-	\$	-	\$	23,763
2		23,763		3,763	-	-	-	-		-		-		-		-		47,525
3		23,763		3,763	23,763	-	-	-		-		-	4			-		71,288
4		23,763		3,763	23,763	23,763	-	-		-						-		95,051
5		23,763		3,763	23,763	23,763	23,763	-		-				-		-		118,814
6		23,763		3,763	23,763	23,763	23,763	23,763		-		-		-		-		142,576
7		23,763		3,763	23,763	23,763	23,763	23,763		23,763		. 7		-		•		166,339
8		23,763		3,763	23,763	23,763	23,763	23,763		23,763		23,763		-		-		190,102
9		23,763		3,763	23,763	23,763	23,763	23,763		23,763	4	23,763		23,763		-		213,865
10		23,763		3,763	23,763	23,763	23,763	23,763		23,763		23,763		23,763		23,763		237,627
11		23,763	2	3,763	23,763	23,763	23,763	23,763		23,763		23,763		23,763		23,763		237,627
12		23,763		3,763	23,763	23,763	23,763	23,763		23,763		23,763		23,763		23,763		237,627
13		23,763	2	3,763	23,763	23,763	23,763	23,763		23,763		23,763		23,763		23,763		237,627
14		23,763	2	3,763	23,763	23,763	23,763	23,763	4	23,763		23,763		23,763		23,763		237,627
15		23,763	2	3,763	23,763	23,763	23,763	23,763		23,763		23,763		23,763		23,763		237,627
16		23,763	2	3,763	23,763	23,763	23,763	23,763		23,763		23,763		23,763		23,763		237,627
17		23,763	2	3,763	23,763	23,763	23,763	23,763		23,763		23,763		23,763		23,763		237,627
18		23,763		3,763	23,763	23,763	23,763	23,763		23,763		23,763		23,763		23,763		237,627
19		23,763	2	3,763	23,763	23,763	23,763	23,763		23,763		23,763		23,763		23,763		237,627
20		23,763	2	3,763	23,763	23,763	23,763	23,763		23,763	M	23,763		23,763		23,763		237,627
21		-	2	3,763	23,763	23,763	23,763	23,763		23,763		23,763		23,763		23,763		213,865
22		-		-	23,763	23,763	23,763	23,763		23,763		23,763		23,763		23,763		190,102
23		-		-	-	23,763	23,763	23,763		23,763		23,763		23,763		23,763		166,339
24		-		-	-	-	23,763	23,763		23,763		23,763		23,763		23,763		142,576
25		-		-	-	-		23,763		23,763	`	23,763		23,763		23,763		118,814
26		-		-	-	-	-			23,763		23,763		23,763		23,763		95,051
27		-		-	-	-		-		-		23,763		23,763		23,763		71,288
28		-		-	-	-	-					-		23,763		23,763		47,525
29		-		-	-	-	-			-				-		23,763		23,763
	\$	475,255	\$ 47	5,255	\$ 475,255	\$ 475,255	\$ 475,255	\$ 475,255	\$	475,255	\$	475,255	\$	475,255	\$	475,255	\$	4,752,546

II. Summary of Annual Expenses

	New			Existing		
	Annual	Annual	Annual	Annual		
	Debt	Capital	Bond	Debt	Annual	Total
Year	Service ⁽¹⁾	Expenditures (2)	Proceeds ⁽²⁾	Service ⁽³⁾	Credit ⁽⁴⁾	Expense
1	\$ 23,763	\$ 338,748	\$ (322,943)	\$ 484,617	\$ (2,627)	\$ 521,557
2	47,525	446,396	(322,943)	256,422	(3,053)	424,347
3	71,288	554,044	(322,943)	255,033	(4,780)	552,642
4	95,051	661,692	(322,943)	252,784	(6,611)	679,973
5	118,814	661,692	(322,943)	302,645	(9,750)	750,457
6	142,576	661,692	(322,943)	221,614	(9,853)	693,086
7	166,339	661,692	(322,943)	290,705	(14,066)	781,726
8	190,102	661,692	(322,943)	384,185	(19,709)	893,326
9	213,865	661,692	(322,943)	360,904	(21,665)	891,852
10	237,627	661,692	(322,943)	301,468	(22,056)	855,788
11	237,627	322,943	-	197,442	(17,800)	740,213
12	237,627	215,296	-	197,373	(17,797)	632,499
13	237,627	107,648	-	197,511	(17,803)	524,983
14	237,627	-	-	197,489	(17,802)	417,314
15	237,627	-	-	197,558	(17,804)	417,381
16	237,627	-	-	197,523	(17,803)	417,348
17	237,627	-	-	180,255	(17,097)	400,785
18	237,627	-	-	180,342	(17,100)	400,869
19	237,627	-	-	180,361	(17,101)	400,887
20	237,627	-	-	180,311	(17,099)	400,839
21	213,865	-	-	-	(8,750)	
22	190,102	-	-	-	(7,778)	
23	166,339	-	-	-	(6,805)	
24	142,576	-	-	-	(5,833)	
25	118,814	-	-	-	(4,861)	113,953
26	95,051	-	-	-	(3,889)	
27	71,288	-	-	-	(2,917)	
28	47,525	-	-	-	(1,944)	
29	23,763		-	-	(972)	22,791
	\$ 4,752,546	\$ 6,616,916	\$ (3,229,433)	\$ 5,016,542	\$ (333,123)	\$ 12,823,447

⁽¹⁾ Appendix E - Service Area H, Page 2 Section I
(2) Appendix E - Service Area H, Page 1
(3) Eligible debt funded projects as a percent of total principal times original annual debt service
(4) Appendix E - Service Area H, Page 6

<u>Year</u>	Impact <u>Fee</u>	Vehicle <u>Miles</u>	Impact Fee <u>Revenue</u>	Annual Expenses	<u>Sub-Total</u>	Accumulated <u>Interest</u>	Estimated Fund Balance
Initial							\$ 293,933
1	\$ 36	1 3,132	\$ 1,129,758	\$ 521,557	\$ 608,201	\$ 11,961	914,095
2	36	1 3,132	1,129,758	424,347	705,411	25,336	1,644,841
3	36	1 3,132	1,129,758	552,642	577,116	38,668	2,260,626
4	36	1 3,132	1,129,758	679,973	449,785	49,710	2,760,121
5	36	1 3,132	1,129,758	750,457	379,301	58,995	3,198,418
6	36	1 3,132	1,129,758	693,086	436,672	68,335	3,703,426
7	36	1 3,132	1,129,758	781,726	348,032	77,549	4,129,007
8	36	1 3,132	1,129,758	893,326	236,432	84,944	4,450,383
9	36	1 3,132	1,129,758	891,852	237,906	91,387	4,779,676
10	36	1 3,132	1,129,758	855,788	273,970	98,333	5,151,979
11	-	-	-	740,213	(740,213)	95,637	4,507,403
12	-	-	-	632,499	(632,499)	83,823	3,958,727
13	-	-	-	524,983	(524,983)	73,925	3,507,669
14	-	-	-	417,314	(417,314)	65,980	3,156,335
15	-	-	-	417,381	(417,381)	58,953	2,797,907
16	-	-	-	417,348	(417,348)	51,785	2,432,344
17	-	-	-	400,785	(400,785)	44,639	2,076,197
18	-	-	-	400,869	(400,869)	37,515	1,712,843
19	-	-	-	400,887	(400,887)	30,248	1,342,204
20	-	-		400,839	(400,839)	22,836	964,200
21	-	-	-	205,115	(205,115)	17,233	776,318
22	-	-	-	182,324	(182,324)	13,703	607,697
23	-	-	-	159,534	(159,534)	10,559	458,722
24	-	-	-	136,743	(136,743)	7,807	329,786
25	-	-	-	113,953	(113,953)	5,456	221,289
26	-	-	-	91,162	(91,162)	3,514	133,641
27	-	- 4		68,372	(68,372)	1,989	67,259
28	-	-	-	45,581	(45,581)	889	22,567
29	-	-		22,791	(22,791)	223	-
			\$ 11,297,581	\$ 12,823,447	_	\$ 1,231,934	

	Number of Years to	Interest Rate	Recovery Fee	Annual Vehic	le Miles	Annual I	Expense
<u>Year</u>	End of Period	<u>Factor</u>	<u>Factor</u>	<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	Escalated
1	29	1.7584	1.0000	3,132	5,508 \$	521,557	\$ 917,124
2	28	1.7240	1.0000	3,132	5,400	424,347	731,556
3	27	1.6902	1.0000	3,132	5,294	552,642	934,049
4	26	1.6570	1.0000	3,132	5,190	679,973	1,126,723
5	25	1.6245	1.0000	3,132	5,089	750,457	1,219,133
6	24	1.5927	1.0000	3,132	4,989	693,086	1,103,856
7	23	1.5614	1.0000	3,132	4,891	781,726	1,220,618
8	22	1.5308	1.0000	3,132	4,795	893,326	1,367,524
9	21	1.5008	1.0000	3,132	4,701	891,852	1,338,497
10	20	1.4714	1.0000	3,132	4,609	855,788	1,259,189
11	19	1.4425	1.0000	-	-	740,213	1,067,779
12	18	1.4142	1.0000	-	-	632,499	894,507
13	17	1.3865	1.0000		-	524,983	727,897
14	16	1.3593	1.0000	-	-	417,314	567,267
15	15	1.3327	1.0000	_		417,381	556,232
16	14	1.3065	1.0000	1	-	417,348	545,282
17	13	1.2809	1.0000		-	400,785	513,376
18	12	1.2558	1.0000	-	-	400,869	503,415
19 20	11 10	1.2312 1.2070	1.0000 1.0000	-	-	400,887 400,839	493,566 483,831
21	9	1.1834	1.0000	-	-	205,115	242,728
22	8	1.1602	1.0000		-	182,324	211,528
23	7	1.1374	1.0000		_	159,534	181,458
24	6	1.1151	1.0000	_	_	136,743	152,485
25	5	1.0933	1.0000	_	_	113,953	124,580
26	4	1.0718	1.0000	_	_	91,162	97,709
27	3	1.0508	1.0000	-	-	68,372	71,845
28	2	1.0302	1.0000	-	-	45,581	46,958
29	1	1.0100	1.0000	-	-	22,791	23,018
				·	50,467		\$ 18,723,729
		Annual Interest Rat	e:			2.00%	
		Present Value of In	itial Impact Fee	Fund Balance	\$	293,933	
		Total Escalated Ex	pense for Entire	Period	\$	18,723,729	
		Less Future Value				521,979	
		Sub-Total	·		\$	18,201,750	
		Total Escalated Ve	hicle Miles			50,467	
		Impact Fee For Se	ervice Area H		\$	361	

Impact Fee Project Name ⁽¹⁾	Impact Fee Project No. ⁽¹⁾	Cost In vice Area ⁽¹⁾	npact Fee verable Cost ⁽²⁾		Debt Fu Existing		ed ⁽³⁾ Proposed	Non-Debt Funded ⁽³⁾	R	Impact Fee ecoverable Cost
ELDORADO PKWY (1)	H-1, G-10	\$ 2,601,000	\$ 1,618,857	\$	-	\$	809,429	\$ 809,429	\$	1,618,857
SILVERADO TRL (1)	H-2	2,746,293	1,709,287		-		784,657	924,630		1,709,287
SILVERADO TRL (2)	H-3	141,088	87,813		87,813		-	-		87,813
STACY RD (1)	H-4	4,479,991	2,788,338		2,788,338		(0)	(0)		2,788,338
CUSTER RD (6)	H-5	622,725	387,583		369,505	4	-	18,078		387,583
ALMA DR (1)	H-6	239,850	149,282		149,282		-	-		149,282
ALMA DR (2)	H-7	1,522,102	947,353		201,969		372,692	372,692		947,353
RIDGE RD (9)	H-8, I-9	831,000	517,213		-		258,606	258,606		517,213
MCKINNEY RANCH PKWY (1)	H-9	1,857,600	1,156,167		_		578,083	578,083		1,156,167
Signal	65	150,000	93,360	4	-		46,680	46,680		93,360
Signal	66	300,000	186,719		-		93,360	93,360		186,719
Signal	71	300,000	186,719		-		93,360	93,360		186,719
Signal	75	150,000	93,360		-		46,680	46,680		93,360
Signal	76	150,000	93,360		-		46,680	46,680		93,360
Signal	77	300,000	186,719		-		93,360	93,360		186,719
Impact Fee Study		11,692	11,692		- 4		5,846	5,846		11,692
Total		\$ 16,403,341	\$ 10,213,823	\$	3,596,908	\$	3,229,433	\$ 3,387,483	\$	10,213,823

⁽¹⁾ Per Kimley-Horn Impact Fee Study

⁽³⁾ Per discussions with City staff. For existing debt funding that does not have a specific bond identified, a 4.5% rate is used to coincide with the water and wastewater calculations.



⁽²⁾ Line 11 of the Max Fee Table Report

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area H

<u>Year</u>	ligible Debt Service ⁽¹⁾	Annual Vehicle <u>Miles</u>		Eligible Debt Service per <u>Vehicle Mile</u>	Annual Growth in Vehicle Miles (Cumulative)		edit for Annual Ad Valorem <u>Revenues</u>
1	\$ 508,379	606,072	\$	0.84	3,132	\$	2,627
2	303,947	623,802		0.49	6,265		3,053
3	326,321	641,531		0.51	9,397		4,780
4	347,835	659,260		0.53	12,530		6,611
5	421,459	676,990		0.62	15,662		9,750
6	364,190	694,719		0.52	18,794		9,853
7	457,044	712,448		0.64	21,927		14,066
8	574,287	730,177		0.79	25,059		19,709
9	574,769	747,907		0.77	28,192		21,665
10	539,096	765,636		0.70	31,324		22,056
11	435,070	765,636		0.57	31,324		17,800
12	435,000	765,636		0.57	31,324		17,797
13	435,138	765,636		0.57	31,324		17,803
14	435,116	765,636		0.57	31,324		17,802
15	435,185	765,636		0.57	31,324		17,804
16	435,151	765,636		0.57	31,324	,	17,803
17	417,882	765,636		0.55	31,324		17,097
18	417,969	765,636	Т	0.55	31,324		17,100
19	417,988	765,636		0.55	31,324		17,101
20	417,938	765,636	1	0.55	31,324		17,099
21	213,865	765,636		0.28	31,324		8,750
22	190,102	765,636		0.25	31,324		7,778
23	166,339	765,636		0.22	31,324		6,805
24	142,576	765,636		0.19	31,324		5,833
25	118,814	765,636		0.16	31,324		4,861
26	95,051	765,636		0.12	31,324		3,889
27	71,288	765,636		0.09	31,324		2,917
28	47,525	765,636		0.06	31,324		1,944
29	23,763	765,636		0.03	31,324		972
Total	\$ 9,769,088					\$	333,123

2019 Vehicle Miles (2)

Ten Year Growth in Vehicle Miles in Service Area (3)

Annual Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles In Other Service Areas (3)

Annual Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

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⁽¹⁾ Appendix E - Service Area H, Page 2 Section II

⁽²⁾ Per Kimley-Horn Impact Fee Study

⁽³⁾ Line 8 of the Max Fee Table Report

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area I

I. General Assumptions

Annual Interest Rate on Deposits (1)
Annual Vehicle Mile Growth (2)
Existing Fund Balance (3)

2.00%
1,833
\$ 5,189,258

Portion of Projects Funded by Existing Debt⁽⁴⁾ Non-debt Funded Project Cost⁽⁵⁾ New Project Cost Funded Through New Debt⁽⁶⁾ Total Recoverable Project Cost⁽⁷⁾

\$ 8,841,956
9,795,967
6,383,918

25,021,841

II. New Debt Issues Assumptions

<u>Year</u>	Principal ⁽⁸⁾	Principal ⁽⁸⁾ Interest ⁽⁹⁾				
1	\$ 638,392	4.00%	20			
2	638,392	4.00%	20			
3	638,392	4.00%	20			
4	638,392	4.00%	20			
5	638,392	4.00%	20			
6	638,392	4.00%	20			
7	638,392	4.00%	20			
8	638,392	4.00%	20			
9	638,392	4.00%	20			
10	638,392	4.00%	20			

Total \$ 6,383,918

III. Capital Expenditure Assumptions

	Annual Capital	
<u>Year</u>	Expenditures	s ⁽¹⁰⁾
	070	-0-
11	\$ 979,5	597
2	1,192,3	394
3	1,405,1	191
4	1,617,9	988
5	1,617,9	988
6	1,617,9	988
7	1,617,9	988
8	1,617,9	988
9	1,617,9	988
10	1,617,9	988
11	638,3	392
12	425,	595
13	212,7	797
Total	\$ 16,179,8	385

- (1) Per discussions with City Staff and City files
- (2) Derived from Kimley-Horn Impact Fee Study
- (3) Per discussions with City Staff and City files
- (4) Per discussions with City Staff and City files
- $(5) \quad \text{This assumes 50\% of new project costs funded through sources other than debt, unless specified otherwise}$
- (6) This assumes 50% of new project costs funded through new debt issues, unless specified otherwise
- (7) Per Kimley-Horn Impact Fee Study
- (8) Assumes new debt issued in equal annual amounts
- (9) Per discussions with City Staff and City files
- (10) Assumes new debt proceeds expended over a 3-year timeframe.

Non-debt funded capital expenditures allocated per discussions with City Staff

Total

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area I

I. New Debt Service Detail

Year	s	Series <u>1</u>	Series	Series	Series <u>4</u>	:	Series <u>5</u>	Series	:	Series <u>7</u>	;	Series <u>8</u>	:	Series <u>9</u>	Series 10	N	Annual lew Debt Service
1	\$	46,974	•	\$ -	\$ -	\$	- \$	- 9	\$	-	\$	-	\$	-	\$ -	\$	46,974
2		46,974	46,974	-	-		-	-		-		-			-		93,948
3		46,974	46,974	46,974	-		-	-		-		-	4		-		140,922
4		46,974	46,974	46,974	46,974		-	-		-					-		187,896
5		46,974	46,974	46,974	46,974		46,974	-		-		7		-			234,870
6		46,974	46,974	46,974	46,974		46,974	46,974		-				-			281,844
7		46,974	46,974	46,974	46,974		46,974	46,974		46,974				-			328,818
8		46,974	46,974	46,974	46,974		46,974	46,974		46,974		46,974		-	-		375,792
9		46,974	46,974	46,974	46,974		46,974	46,974		46,974		46,974		46,974	40.074		422,766
10		46,974	46,974	46,974	46,974		46,974	46,974		46,974		46,974		46,974	46,974		469,740
11		46,974	46,974	46,974	46,974		46,974	46,974		46,974		46,974		46,974	46,974		469,740
12		46,974	46,974	46,974	46,974		46,974	46,974		46,974		46,974		46,974	46,974		469,740
13		46,974	46,974	46,974	46,974		46,974	46,974		46,974		46,974		46,974	46,974		469,740
14		46,974	46,974	46,974	46,974		46,974	46,974	4	46,974		46,974		46,974	46,974		469,740
15		46,974	46,974	46,974	46,974		46,974	46,974		46,974		46,974		46,974	46,974		469,740
16		46,974	46,974	46,974	46,974		46,974	46,974		46,974		46,974		46,974	46,974		469,740
17		46,974	46,974	46,974	46,974		46,974	46,974		46,974		46,974		46,974	46,974		469,740
18 19		46,974	46,974 46,974	46,974 46,974	46,974 46,974		46,974 46,974	46,974 46,974		46,974 46,974		46,974 46,974		46,974	46,974 46,974		469,740 469,740
		46,974												46,974			
20		46,974	46,974	46,974	46,974		46,974	46,974		46,974		46,974		46,974	46,974		469,740
21		-	46,974	46,974	46,974		46,974	46,974		46,974		46,974		46,974 46,974	46,974		422,766
22 23		-	-	46,974	46,974 46,974		46,974 46,974	46,974 46,974		46,974 46,974		46,974 46,974		46,974	46,974 46,974		375,792 328.818
23 24		-	-	-	40,974		46,974	46,974		46,974	$\overline{}$	46,974		46,974	46,974		281,844
25		-	-	-	-		40,974	46,974		46,974		46,974		46,974	46,974		234,870
		-	-	-	-	- 1		40,974									
26		-	-	-	-	1	-			46,974		46,974		46,974	46,974		187,896
27		-	-	-	-							46,974		46,974	46,974		140,922
28 29		-	-	-	-		-					-		46,974	46,974 46,974		93,948
	\$	939,480	\$ 939,480	\$ 939,480	\$ 939.480	\$	939,480 \$	939,480	\$	939,480	\$	939,480	\$	939,480	\$ 939,480	\$	46,974 9,394,797

II. Summary of Annual Expenses

	New							Existing				
		Annual		Annual	- 1	Annual		Annual				
		Debt		Capital		Bond		Debt	Annual		Total	
Year		Service ⁽¹⁾	Ex	penditures ⁽²⁾	E	Proceeds ⁽²⁾		Service ⁽³⁾	Credit ⁽⁴⁾		Expense	
1	\$	46,974	\$	979,597	\$	(638,392)	\$	848,125	\$ (2,707)	\$	1,233,596	
2		93,948		1,192,394		(638,392)		666,815	(4,471)		1,310,293	
3		140,922		1,405,191		(638,392)		665,648	(6,914)		1,566,455	
4		187,896		1,617,988	-	(638,392)		663,919	(9,475)		1,821,937	
5		234,870		1,617,988		(638,392)		703,504	(12,705)		1,905,265	
6		281,844		1,617,988		(638,392)		639,172	(14,582)		1,886,030	
7		328,818		1,617,988		(638,392)		694,041	(18,423)		1,984,032	
8		375,792		1,617,988		(638,392)		768,394	(22,981)		2,100,801	
9		422,766		1,617,988		(638,392)		749,827	(25,867)		2,126,322	
10		469,740		1,617,988		(638,392)		702,616	(28,070)		2,123,883	
11		469,740		638,392		-		619,940	(26,091)		1,701,981	
12		469,740		425,595		-		619,853	(26,089)		1,489,099	
13		469,740		212,797		-		620,000	(26,092)		1,276,445	
14		469,740		-		-		619,972	(26,091)		1,063,620	
15		469,740		-		-		620,069	(26,094)		1,063,715	
16		469,740		-		-		620,020	(26,093)		1,063,668	
17		469,740		-		-		528,854	(23,910)		974,684	
18		469,740		-		-		528,924	(23,911)		974,752	
19		469,740		-		-		528,939	(23,912)		974,767	
20		469,740		-		-		528,899	(23,911)		974,728	
21		422,766		-		-		-	(10,122)		412,643	
22		375,792		-		-		-	(8,998)		366,794	
23		328,818		-		-		-	(7,873)		320,945	
24		281,844		-		-		-	(6,748)		275,096	
25		234,870		-		-		-	(5,624)		229,246	
26		187,896		-		-		-	(4,499)		183,397	
27		140,922		-		-		-	(3,374)		137,548	
28		93,948		-		-		-	(2,249)		91,699	
29		46,974		-		-		-	(1,125)		45,849	
	\$	9,394,797	\$	16,179,885	\$	(6,383,918)	\$	12,937,528	\$ (449,003)	\$	31,679,290	

⁽¹⁾ Appendix E - Service Area I, Page 2 Section I
(2) Appendix E - Service Area I, Page 1
(3) Eligible debt funded projects as a percent of total principal times original annual debt service
(4) Appendix E - Service Area I, Page 6

<u>Year</u>	npact <u>Fee</u>	Vehicle <u>Miles</u>	Impact Fee <u>Revenue</u>		Annual Expenses		Sub-Total	Accumulated <u>Interest</u>			stimated Fund Balance
Initial								47		\$	5,189,258
1	\$ 1,265	1,833	\$ 2,318,876	\$	1,233,596	\$	1,085,279	\$	114,638		6,389,175
2	1,265	1,833	2,318,876		1,310,293		1,008,582		137,869		7,535,627
3	1,265	1,833	2,318,876		1,566,455		752,421		158,237		8,446,285
4	1,265	1,833	2,318,876		1,821,937		496,939		173,895	\neg	9,117,119
5	1,265	1,833	2,318,876		1,905,265		413,610		186,478		9,717,208
6	1,265	1,833	2,318,876		1,886,030	4	432,846		198,673		10,348,726
7	1,265	1,833	2,318,876		1,984,032		334,844		210,323		10,893,893
8	1,265	1,833	2,318,876		2,100,801		218,074		220,059		11,332,026
9	1,265	1,833	2,318,876		2,126,322		192,553		228,566		11,753,145
10	1,265	1,833	2,318,876		2,123,883		194,993		237,013		12,185,151
11	-	-	-		1,701,981		(1,701,981)		226,683		10,709,853
12	-	-	-		1,489,099		(1,489,099)		199,306		9,420,061
13	-	-	-		1,276,445		(1,276,445)		175,637		8,319,253
14	-	-	-		1,063,620		(1,063,620)		155,749		7,411,381
15	-	-	-		1,063,715		(1,063,715)		137,590		6,485,257
16	-	-	-		1,063,668		(1,063,668)		119,068		5,540,658
17	-	-	-		974,684		(974,684)		101,066		4,667,040
18	-	-	-		974,752		(974,752)		83,593		3,775,881
19	-	-	-		974,767		(974,767)		65,770		2,866,884
20	-	-	-		974,728		(974,728)		47,590		1,939,747
21	-	-	-		412,643		(412,643)		34,669		1,561,772
22	-	-	-		366,794		(366,794)		27,568		1,222,545
23	-	-	-		320,945		(320,945)		21,241		922,842
24	-	-	-		275,096		(275,096)		15,706		663,452
25		-	-		229,246		(229,246)		10,977		445,183
26	-	-	-		183,397		(183,397)		7,070		268,855
27	-	-	-		137,548		(137,548)		4,002		135,309
28	-	- 4	-		91,699		(91,699)		1,789		45,400
29	-	-	 -		45,849		(45,849)		450		-
			\$ 23,188,757	\$	31,679,290			\$	3,301,274		

	Number of	Interest	Recovery				_
Vaar	Years to	Rate	Fee	Annual Veh		Annual I	
<u>Year</u>	End of Period	<u>Factor</u>	<u>Factor</u>	<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
1	29	1.7584	1.0000	1,833	3,224 \$	1,233,596	\$ 2,169,199
2	28	1.7240	1.0000	1,833	3,160	1,310,293	2,258,887
3	27	1.6902	1.0000	1,833	3,098	1,566,455	2,647,547
4	26	1.6570	1.0000	1,833	3,038	1,821,937	3,018,971
5	25	1.6245	1.0000	1,833	2,978	1,905,265	3,095,145
6	24	1.5927	1.0000	1,833	2,920	1,886,030	3,003,820
7	23	1.5614	1.0000	1,833	2,862	1,984,032	3,097,946
8	22	1.5308	1.0000	1,833	2,806	2,100,801	3,215,955
9	21	1.5008	1.0000	1,833	2,751	2,126,322	3,191,199
10	20	1.4714	1.0000	1,833	2,697	2,123,883	3,125,037
11	19	1.4425	1.0000	-	-	1,701,981	2,455,156
12	18	1.4142	1.0000	-	-	1,489,099	2,105,949
13	17	1.3865	1.0000		-	1,276,445	1,769,808
14	16	1.3593	1.0000	•	-	1,063,620	1,445,807
15	15	1.3327	1.0000	-		1,063,715	1,417,585
16	14	1.3065	1.0000	-	-	1,063,668	1,389,727
17	13	1.2809	1.0000	-	-	974,684	1,248,497
18	12	1.2558	1.0000	-	-	974,752	1,224,102
19	11	1.2312	1.0000	-	-	974,767	1,200,117
20	10	1.2070	1.0000	-	-	974,728	1,176,539
21	9	1.1834	1.0000	-	-	412,643	488,312
22	8	1.1602	1.0000	-	-	366,794	425,544
23	7	1.1374	1.0000	-	-	320,945	365,050
24	6	1.1151	1.0000	-	-	275,096	306,765
25	5	1.0933	1.0000	-	-	229,246	250,625
26	4	1.0718	1.0000	-	-	183,397	196,569
27 28	3	1.0508 1.0302	1.0000	-	-	137,548	144,536
29	2	1.0100	1.0000 1.0000	-	-	91,699 45,849	94,468 46,308
29		1.0100	1.0000	- <u>-</u>	29,535	45,649	\$ 46,575,170
					29,555		φ 40,373,170
		Annual Interest Rat	e:			2.00%	
		Present Value of In	itial Impact Fee	Fund Balance	\$	5,189,258	
		4.72			_		
		Total Escalated Exp			\$	46,575,170	
		Less Future Value	of Initial Impact l	-ee Fund Balance	_	9,215,316	
		Sub-Total			\$	37,359,854	
		Total Escalated Vel	hicle Miles			29,535	
		Impact Fee For Se	rvice Area I		\$	1,265	

Impact Fee Project Name ⁽¹⁾	Impact Fee Project No. ⁽¹⁾	Cost In Service Area ⁽¹⁾	Impact Fee Recoverable Cost ⁽²⁾	Debt Fun Existing	ded ⁽³⁾ Proposed	Non-Debt Funded ⁽³⁾	Impact Fee Recoverable Cost
VIRGINIA PKWY (7)	I-1	\$ 2,567,378	\$ 1,804,697	\$ 886,767 \$	-	\$ 917,931	\$ 1,804,697
VIRGINIA PKWY (8)	I-2	531,979	373,946	373,946	-	-	373,946
ELDORADO PKWY (2)	I-3	4,857,600	3,414,572	-	1,707,286	1,707,286	3,414,572
MCKINNEY RANCH PKWY (2)	I-4	4,338,000	3,049,328	-	1,524,664	1,524,664	3,049,328
COLLIN MCKINNEY PKWY (2)	I-5	1,777,105	1,249,188	595,943	-	653,245	1,249,188
COLLIN MCKINNEY PKWY (3)	I-6	3,221,002	2,264,152	1,080,146	-	1,184,006	2,264,152
COLLIN MCKINNEY PKWY (4)	I-7	1,101,893	774,558	369,514	-	405,044	774,558
RIDGE RD (8)	G-17, I-8	275,407	193,593	29,636	-	163,957	193,593
RIDGE RD (9)	H-8, I-9	831,000	584,138	-	292,069	292,069	584,138
HARDIN BLVD (11)	I-10, J-6	6,792,049	4,774,362	2,935,487	919,438	919,438	4,774,362
HARDIN BLVD (12)	I-11, J-7	3,104,400	2,182,188	-	1,091,094	1,091,094	2,182,188
Signal	35	150,000	105,440	-	52,720	52,720	105,440
Under Construction	36	195,171	137,192	93,259	-	43,933	137,192
Signal	38	171,500	120,553	120,553	-	-	120,553
Under Construction	44	195,171	137,192	93,259	-	43,933	137,192
Signal	45	300,000	210,880	-	105,440	105,440	210,880
Signal	46	300,000	210,880	-	105,440	105,440	210,880
Roundabout	50	1,320,000	927,873	927,873	-	-	927,873
Roundabout	51	1,900,000	1,335,575	1,335,575	-	-	1,335,575
Signal	56	150,000	105,440	-	52,720	52,720	105,440
Signal	57	150,000	105,440	-	52,720	52,720	105,440
Signal	58	150,000	105,440	-	52,720	52,720	105,440
Signal	59	300,000	210,880	-	105,440	105,440	210,880
Signal	60	300,000	210,880	-	105,440	105,440	210,880
Signal	72	300,000	210,880	-	105,440	105,440	210,880
Signal	73	150,000	105,440	- '	52,720	52,720	105,440
Signal	76	150,000	105,440		52,720	52,720	105,440
Impact Fee Study		11,692			5,846	5,846	11,692
Total		\$ 35,591,345	\$ 25,021,841	\$ 8,841,956 \$	6,383,918	\$ 9,795,967	\$ 25,021,841

⁽¹⁾ Per Kimley-Horn Impact Fee Study

⁽²⁾ Line 11 of the Max Fee Table Report

⁽³⁾ Per discussions with City staff. For existing debt funding that does not have a specific bond identified, a 4.5% rate is used to coincide with the water and wastewater calculations.

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area I

<u>Year</u>	Service ⁽¹⁾ Mile		Annual Vehicle <u>Miles</u>	Eligible Debt Service per <u>Vehicle Mile</u>	Annual Growth in Vehicle Miles (Cumulative)		edit for Annual Ad Valorem <u>Revenues</u>
1	\$	895,099	606,072	\$ 1.48	1,833	\$	2,707
2		760,763	623,802	1.22	3,666		4,471
3		806,570	641,531	1.26	5,500		6,914
4		851,815	659,260	1.29	7,333		9,475
5		938,374	676,990	1.39	9,166		12,705
6		921,016	694,719	1.33	10,999		14,582
7		1,022,859	712,448	1.44	12,832		18,423
8		1,144,185	730,177	1.57	14,666		22,981
9		1,172,593	747,907	1.57	16,499		25,867
10		1,172,356	765,636	1.53	18,332		28,070
11		1,089,680	765,636	1.42	18,332		26,091
12		1,089,593	765,636	1.42	18,332		26,089
13		1,089,740	765,636	1.42	18,332		26,092
14		1,089,711	765,636	1.42	18,332		26,091
15		1,089,809	765,636	1.42	18,332		26,094
16		1,089,760	765,636	1.42	18,332		26,093
17		998,594	765,636	1.30	18,332		23,910
18		998,664	765,636	1.30	18,332		23,911
19		998,678	765,636	1.30	18,332		23,912
20		998,639	765,636	1.30	18,332		23,911
21		422,766	765,636	0.55	18,332		10,122
22		375,792	765,636	0.49	18,332		8,998
23		328,818	765,636	0.43	18,332		7,873
24		281,844	765,636	0.37	18,332		6,748
25		234,870	765,636	0.31	18,332		5,624
26		187,896	765,636	0.25	18,332		4,499
27		140,922	765,636	0.18	18,332		3,374
28		93,948	765,636	0.12	18,332		2,249
29	_	46,974	765,636	0.06	18,332	_	1,125
Total	\$	22,332,326				\$	449,003

2019 Vehicle Miles (2)

Ten Year Growth in Vehicle Miles in Service Area (3)

Annual Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles In Other Service Areas (3)

Annual Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

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Ten Year Growth in Vehicle Miles

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⁽¹⁾ Appendix E - Service Area I, Page 2 Section II

⁽²⁾ Per Kimley-Horn Impact Fee Study

⁽³⁾ Line 8 of the Max Fee Table Report

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area J

I. General Assumptions

Annual Interest Rate on Deposits (1)
Annual Vehicle Mile Growth (2)
Existing Fund Balance (3)

2.00%
2,486
\$ 2,179,356

Portion of Projects Funded by Existing Debt⁽⁴⁾
Non-debt Funded Project Cost⁽⁵⁾
New Project Cost Funded Through New Debt⁽⁶⁾
Total Recoverable Project Cost⁽⁷⁾

\$ 2,989,838
3,326,536
3,305,234
\$ 9,621,608

II. New Debt Issues Assumptions

<u>Year</u>	Principal ⁽⁸⁾	Interest ⁽⁹⁾	<u>Term</u>
1	\$ 330,523	4.00%	20
2	330,523	4.00%	20
3	330,523	4.00%	20
4	330,523	4.00%	20
5	330,523	4.00%	20
6	330,523	4.00%	20
7	330,523	4.00%	20
8	330,523	4.00%	20
9	330,523	4.00%	20
10	330,523	4.00%	20

3,305,234

III. Capital Expenditure Assumptions

		nual oital
<u>Year</u>		itures ⁽¹⁰⁾
1	\$	332,654
2		442,828
3		553,003
4		663,177
5		663,177
6		663,177
7		663,177
8		663,177
9		663,177
10		663,177
11		330,523
12		220,349
13		110,174
Total	\$ 6.	631,770

- (1) Per discussions with City Staff and City files
- (2) Derived from Kimley-Horn Impact Fee Study
- (3) Per discussions with City Staff and City files
- (4) Per discussions with City Staff and City files
- $(5) \quad \text{This assumes 50\% of new project costs funded through sources other than debt, unless specified otherwise}$
- (6) This assumes 50% of new project costs funded through new debt issues, unless specified otherwise
- (7) Per Kimley-Horn Impact Fee Study
- (8) Assumes new debt issued in equal annual amounts
- (9) Per discussions with City Staff and City files
- (10) Assumes new debt proceeds expended over a 3-year timeframe.

Non-debt funded capital expenditures allocated per discussions with City Staff

Total

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area J

I. New Debt Service Detail

<u>Year</u>	Series	Series	Series	Series	Series	Series	Series 7	Series <u>8</u>	Series 9	Series	Annual New Debt <u>Service</u>
1 :			- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$,
2	24,320	24,320	-	-	-	-	-	-	-	-	48,641
3	24,320	24,320	24,320	-	-	-	-	-		-	72,961
4	24,320	24,320	24,320	24,320		-	-	-		-	97,282
5	24,320	24,320	24,320	24,320	24,320	-	-	7	-		121,602
6	24,320	24,320	24,320	24,320	24,320	24,320	-	-	-		145,923
7	24,320	24,320	24,320	24,320	24,320	24,320	24,320	A	-		170,243
8	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	-	-	194,564
9	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	-	218,884
10	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	243,205
11	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	243,205
12	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	243,205
13	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	243,205
14	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	243,205
15	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	243,205
16 17	24,320 24,320	24,320 24,320	24,320 24,320	24,320 24,320	24,320 24,320	24,320 24,320	24,320 24,320	24,320 24,320	24,320 24,320	24,320 24,320	243,205 243,205
17	24,320 24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	243,205
19	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	243,205
20	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	243,205
21	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	243,203
22	-	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	194,564
23	-	-	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	170,243
24				24,520	24,320	24,320	24,320	24,320	24,320	24,320	145,923
25					24,320	24,320	24,320	24,320	24,320	24,320	121,602
26	=	=	=	=		24,320	24,320	24,320	24,320	24,320	97,282
27	-	-	-	-			24,320	24,320	24,320	24,320	72,961
28	-	-	-	-				24,320	24,320	24,320	48,641
29	-	-	-	-					24,520	24,320	24,320
	486,410	486,410	\$ 486,410 \$	486,410 \$	486,410 \$	486,410 \$	486,410 \$	486,410 \$	486,410 \$	486,410 \$	

II. Summary of Annual Expenses

		New			×		Existing		
		Annual		Annual	- 1	Annual	Annual		
		Debt	(Capital		Bond	Debt	Annual	Total
Year	5	Service ⁽¹⁾	Expe	enditures ⁽²⁾	E	Proceeds ⁽²⁾	Service ⁽³⁾	Credit ⁽⁴⁾	Expense
	-								
1	\$	24,320	\$	332,654	\$	(330,523)	\$ 232,863	\$ (1,055)	\$ 258,259
2		48,641		442,828		(330,523)	232,914	(2,244)	391,615
3		72,961		553,003		(330,523)	232,850	(3,556)	524,735
4		97,282		663,177		(330,523)	232,909	(4,981)	657,863
5		121,602		663,177		(330,523)	232,866	(6,509)	680,613
6		145,923		663,177		(330,523)	232,935	(8,136)	703,376
7		170,243		663,177		(330,523)	232,893	(9,848)	725,941
8		194,564		663,177		(330,523)	232,951	(11,646)	748,523
9		218,884		663,177		(330,523)	232,888	(13,517)	770,908
10		243,205		663,177		(330,523)	232,914	(15,462)	793,311
11	- 7	243,205		330,523		-	232,914	(15,462)	791,180
12		243,205		220,349		-	232,882	(15,461)	680,975
13		243,205		110,174		-	232,919	(15,462)	570,837
14		243,205		-		-	232,909	(15,462)	460,652
15		243,205		-		-	232,951	(15,463)	460,693
16		243,205		-		-	232,930	(15,462)	460,672
17		243,205		-		-	155,054	(12,933)	385,325
18		243,205		-		-	155,054	(12,933)	385,325
19		243,205		-		-	155,054	(12,933)	385,325
20		243,205		-		-	155,054	(12,933)	385,325
21		218,884		-		-	-	(7,108)	211,776
22		194,564		-		-	-	(6,318)	188,245
23		170,243		-		-	-	(5,529)	164,715
24		145,923		-		-	-	(4,739)	141,184
25		121,602		-		-	-	(3,949)	117,653
26		97,282		-		-	-	(3,159)	94,123
27		72,961		-		-	-	(2,369)	70,592
28		48,641		-		-	-	(1,580)	47,061
29		24,320		-		-	-	(790)	23,531
	\$	4,864,097	\$	6,631,770	\$	(3,305,234)	\$ 4,346,705	\$ (257,003)	\$ 12,280,336

⁽¹⁾ Appendix E - Service Area J, Page 2 Section I

(2) Appendix E - Service Area J, Page 1

(3) Eligible outstanding debt funded projects as a percent of outstanding principal times outstanding annual debt service

(4) Appendix E - Service Area J, Page 6

Capital Improvement Plan for Impact Fees
Appendix E - Impact Fee Calculation Assumptions
Service Area J

<u>Year</u>	Impact <u>Fee</u>	Vehicle <u>Miles</u>	Impact Fee <u>Revenue</u>	Annual Expenses	<u>Sub-Total</u>	Accumulated <u>Interest</u>	Estimated Fund <u>Balance</u>
Initial							\$ 2,179,356
1	\$ 347	7 2,486	\$ 863,383	\$ 258,259	\$ 605,124	\$ 49,638	2,834,118
2	347	•	863,383	391,615	471,767	61,400	3,367,286
3	347	7 2,486	863,383	524,735	338,648	70,732	3,776,666
4	347		863,383	657,863	205,520	77,589	4,059,774
5	347		863,383	680,613	182,770	83,023	4,325,567
6	347	7 2,486	863,383	703,376	160,006	88,111	4,573,685
7	347	7 2,486	863,383	725,941	137,441	92,848	4,803,974
8	347		863,383	748,523	114,860	97,228	5,016,062
9	347	7 2,486	863,383	770,908	92,474	101,246	5,209,782
10	347	7 2,486	863,383	793,311	70,072	104,896	5,384,751
11	-	-	-	791,180	(791,180)	99,783	4,693,354
12	-	-	-	680,975	(680,975)	87,057	4,099,436
13	-	-	-	570,837	(570,837)	76,280	3,604,880
14	-	-	-	460,652	(460,652)	67,491	3,211,719
15	-	-	-	460,693	(460,693)	59,627	2,810,653
16	-	-	-	460,672	(460,672)	51,606	2,401,587
17	-	-	-	385,325	(385,325)	44,178	2,060,440
18	-	-	-	385,325	(385,325)	37,356	1,712,470
19	-	-	-	385,325	(385,325)	30,396	1,357,541
20	-	-	-	385,325	(385,325)	23,298	995,514
21	-	-	-	211,776	(211,776)	17,793	801,530
22	-	-	-	188,245	(188,245)	14,148	627,433
23	-	-	-	164,715	(164,715)	10,902	473,619
24	-	-	-	141,184	(141,184)	8,061	340,496
25	-	-	-	117,653	(117,653)	5,633	228,476
26	-	-	-	94,123	(94,123)	3,628	137,981
27	-	- 4	•	70,592	(70,592)	2,054	69,443
28	-	-	-	47,061	(47,061)	918	23,300
29	-	-		23,531	(23,531)	231	
			\$ 8,633,827	\$ 12,280,336		\$ 1,467,153	

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area J

	Number of Years to	Interest Rate	Recovery Fee	Annual Vehi	cle Miles	Annual F	Expense	
<u>Year</u>	End of Period	Factor	Factor		<u>Escalated</u>	Actual	Escalated	
1	29	1.7584	1.0000	2,486	4,372 \$	258,259	\$ 454,131	
2	28	1.7240	1.0000	2,486	4,286	391,615	675,127	
3	27	1.6902	1.0000	2,486	4,202	524,735	886,882	
4 5	26 25	1.6570 1.6245	1.0000 1.0000	2,486 2,486	4,120 4,039	657,863 680,613	1,090,087 1,105,670	
6	24	1.5927	1.0000	2,486	3,960	703,376	1,120,245	
7	23	1.5614	1.0000	2,486	3,882	705,570	1,133,514	
8	22	1.5308	1.0000	2,486	3,806	748,523	1,145,856	
9	21	1.5008	1.0000	2,486	3,732	770,908	1,156,985	
10	20	1.4714	1.0000	2,486	3,658	793,311	1,167,261	
11	19	1.4425	1.0000	-	-	791,180	1,141,300	
12	18	1.4142	1.0000		-	680,975	963,065	
13	17	1.3865	1.0000		-	570,837	791,473	
14	16	1.3593	1.0000		-	460,652	626,177	
15	15	1.3327	1.0000	-	-	460,693	613,953	
16	14	1.3065	1.0000	-	-	460,672	601,888	
17	13	1.2809	1.0000		-	385,325	493,572	
18	12	1.2558	1.0000	-	-	385,325	483,895	
19	11	1.2312	1.0000	-	-	385,325	474,406	
20	10	1.2070	1.0000	-	-	385,325	465,104	
21	9	1.1834	1.0000	-	-	211,776	250,611	
22	8	1.1602	1.0000	-	-	188,245	218,397	
23	7	1.1374	1.0000	-	-	164,715	187,351	
24 25	6 5	1.1151 1.0933	1.0000 1.0000	-	-	141,184	157,437	
26	4	1.0718	1.0000	_	-	117,653 94,123	128,625 100,883	
27	3	1.0508	1.0000	_	_	70,592	74,178	
28		1.0302	1.0000	_ _	- -	47,061	48,483	
29	2	1.0100	1.0000	_	_	23,531	23,766	
					40,059		\$ 17,780,324	
					·			
		Annual Interest Rat	e:			2.00%		
		Present Value of In	itial Impact Fee	Fund Balance	\$	2,179,356		
		Total Escalated Ex	pense for Entire	Period	\$	17,780,324		
		Less Future Value	of Initial Impact I	Fee Fund Balance		3,870,198		
		Sub-Total			\$	13,910,126		
		Total Escalated Ve	hicle Miles			40,059		
		Impact Fee For Se	ervice Area J		\$	347		

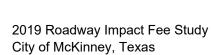
Capital Improvement Plan for Impact Fees

Appendix E - Impact Fee Calculation Assumptions

Service Area J

	Impact Fee Cost In			Impact Fee		Debt Fu	und	ed ⁽³⁾	١	Non-Debt		Impact Fee	
Impact Fee Project Name ⁽¹⁾	Project No. (1)	Se	rvice Area (1)	F	Recoverable Cost ⁽²⁾		Existing	Ī	Proposed	E	Funded ⁽³⁾	R	ecoverable Cost
NAULUTE AND (4)	J-1	\$	981,328	¢	334.478	\$	334,478	¢		\$		\$	334,478
WHITE AVE (1)		φ	213,991	φ	72,937	Φ	•	φ		Ф	-	Φ	72,937
WHITE AVE (2)	J-2						72,937				-		•
VIRGINIA PKWY (9)	J-3		3,267,873		1,113,829		1,113,829						1,113,829
ELDORADO PKWY (3)	J-4		4,047,600		1,379,593		-		689,797		689,797		1,379,593
COLLIN MCKINNEY PKWY (5)	J-5		1,953,000		665,665		-	4	332,832		332,832		665,665
HARDIN BLVD (11)	I-10, J-6		6,792,049		2,315,017		1,423,374		445,822		445,822		2,315,017
HARDIN BLVD (12)	I-11, J-7		3,104,400		1,058,111				529,055		529,055		1,058,111
MEDICAL CENTER DR	J-8		2,240,000		763,487		-		381,743		381,743		763,487
STATE HIGHWAY 5 (4)	J-9, K-7		2,323,650		791,998		-		395,999		395,999		791,998
STATE HIGHWAY 5 (5)	J-10, K-8		1,111,600		378,880	4	-		189,440		189,440		378,880
STATE HIGHWAY 5 (6)	J-11		313,950		107,007		-		53,504		53,504	\neg	107,007
Under Construction	36		195,171		66,522		45,220		-		21,303		66,522
Signal	39		300,000		102,253		-		51,126		51,126		102,253
Signal	58		150,000		51,126		-		25,563		25,563		51,126
Intersection Improvements	61		150,000		51,126		-	4	25,563		25,563		51,126
Signal	62		150,000		51,126		- 4		25,563		25,563		51,126
Signal	67		300,000		102,253		-		51,126		51,126		102,253
Signal	68		300,000		102,253		-		51,126		51,126		102,253
Signal	69		150,000		51,126		-		25,563		25,563		51,126
Signal	73		150,000		51,126		-		25,563		25,563		51,126
Impact Fee Study			11,692		11,692		-		5,846		5,846		11,692
Total		\$	28,206,303	\$	9,621,608	\$	2,989,838	\$	3,305,234	\$	3,326,536	\$	9,621,608

⁽¹⁾ Per Kimley-Horn Impact Fee Study



⁽²⁾ Line 11 of the Max Fee Table Report

⁽³⁾ Per discussions with City staff. For existing debt funding that does not have a specific bond identified, a 4.5% rate is used to coincide with the water and wastewater calculations.

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area J

<u>Year</u>	igible Debt Service ⁽¹⁾	Annual Vehicle <u>Miles</u>		Eligible Debt Service per Vehicle Mile	Annual Growth in Vehicle Miles (Cumulative)	- 4	edit for Annual Ad Valorem <u>Revenues</u>
1	\$ 257,184	606,072	\$	0.42	2,486	\$	1,055
2	281,555	623,802		0.45	4,973		2,244
3	305,812	641,531		0.48	7,459		3,556
4	330,191	659,260		0.50	9,946		4,981
5	354,469	676,990		0.52	12,432		6,509
6	378,858	694,719		0.55	14,918		8,136
7	403,136	712,448		0.57	17,405		9,848
8	427,515	730,177		0.59	19,891		11,646
9	451,772	747,907		0.60	22,378		13,517
10	476,119	765,636		0.62	24,864		15,462
11	476,119	765,636		0.62	24,864		15,462
12	476,087	765,636		0.62	24,864		15,461
13	476,124	765,636		0.62	24,864		15,462
14	476,114	765,636		0.62	24,864		15,462
15	476,156	765,636		0.62	24,864		15,463
16	476,135	765,636		0.62	24,864	•	15,462
17	398,259	765,636		0.52	24,864		12,933
18	398,259	765,636	Т	0.52	24,864		12,933
19	398,259	765,636		0.52	24,864		12,933
20	398,259	765,636	1	0.52	24,864		12,933
21	218,884	765,636		0.29	24,864		7,108
22	194,564	765,636		0.25	24,864		6,318
23	170,243	765,636		0.22	24,864		5,529
24	145,923	765,636		0.19	24,864		4,739
25	121,602	765,636		0.16	24,864		3,949
26	97,282	765,636		0.13	24,864		3,159
27	72,961	765,636		0.10	24,864		2,369
28	48,641	765,636		0.06	24,864		1,580
29	24,320	765,636		0.03	24,864		790
Total	\$ 9,210,803					\$	257,003

2019 Vehicle Miles (2)

Ten Year Growth in Vehicle Miles in Service Area (3)

Annual Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles In Other Service Areas (3)

Annual Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

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Ten Year Growth in Vehicle Miles

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- (1) Appendix E Service Area J, Page 2 Section II
- (2) Per Kimley-Horn Impact Fee Study
- (3) Line 8 of the Max Fee Table Report

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area K

I. General Assumptions

Annual Interest Rate on Deposits (1)
Annual Vehicle Mile Growth (2)
Existing Fund Balance (3)

2.00%
853
\$ 779,111

Portion of Projects Funded by Existing Debt⁽⁴⁾
Non-debt Funded Project Cost⁽⁵⁾
New Project Cost Funded Through New Debt⁽⁶⁾
Total Recoverable Project Cost⁽⁷⁾

\$ 1,159,792
4,449,077
4,295,800
\$ 9,904,669

II. New Debt Issues Assumptions

<u>Year</u>	Principal ⁽⁸⁾	Interest ⁽⁹⁾	<u>Term</u>
1	\$ 429,580	4.00%	20
2	429,580	4.00%	20
3	429,580	4.00%	20
4	429,580	4.00%	20
5	429,580	4.00%	20
6	429,580	4.00%	20
7	429,580	4.00%	20
8	429,580	4.00%	20
9	429,580	4.00%	20
10	429,580	4.00%	20
Total	\$ 4,295,800		

III. Capital Expenditure Assumptions

	Annual Capital
<u>Year</u>	Expenditures ⁽¹⁰⁾
_ 1	\$ 444,908
2	588,101
3	731,294
4	874,488
5	874,488
6	874,488
7	874,488
8	874,488
9	874,488
10	874,488
11	429,580
12	286,387
13	143,193
Total	\$ 8,744,877

- (1) Per discussions with City Staff and City files
- (2) Derived from Kimley-Horn Impact Fee Study
- (3) Per discussions with City Staff and City files
- (4) Per discussions with City Staff and City files
- $(5) \quad \text{This assumes 50\% of new project costs funded through sources other than debt, unless specified otherwise}$
- (6) This assumes 50% of new project costs funded through new debt issues, unless specified otherwise
- (7) Per Kimley-Horn Impact Fee Study
- (8) Assumes new debt issued in equal annual amounts
- (9) Per discussions with City Staff and City files
- (10) Assumes new debt proceeds expended over a 3-year timeframe.

Non-debt funded capital expenditures allocated per discussions with City Staff

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area K

I. New Debt Service Detail

Year	Series	Series 2	Serie <u>3</u>	es	S	Series <u>4</u>		Series		Se <u>6</u>	ries <u>S</u>		Series <u>7</u>	:	Series <u>8</u>	s	eries <u>9</u>		ries	N	Total Annual lew Debt Service
1	\$	\$ -	\$	-	\$	-	\$		- \$	5	-	\$	-	\$	-	\$	- 4	\$	-	\$	31,609
2	31,609	31,609		-		-			-		-		-		-		-	K	-		63,218
3	31,609	31,609		1,609		-			-		-		-		-		-		-		94,828
4	31,609	31,609		1,609		31,609			-		-		-		-		-		-		126,437
5	31,609	31,609		1,609		31,609		31,			-		-		-		-		-		158,046
6	31,609	31,609		1,609		31,609		31,			31,609		-				-				189,655
7	31,609	31,609		1,609		31,609		31,			31,609		31,609		- 1		-		-		221,265
8	31,609	31,609		1,609		31,609		31,			31,609		31,609		31,609		-		-		252,874
9	31,609	31,609		1,609		31,609		31,			31,609		31,609		31,609		31,609		-		284,483
10	31,609	31,609		1,609		31,609		31,			31,609		31,609		31,609		31,609		31,609		316,092
11	31,609	31,609		1,609		31,609		31,			31,609		31,609		31,609		31,609		31,609		316,092
12	31,609	31,609		1,609		31,609		31,			31,609		31,609		31,609		31,609		31,609		316,092
13	31,609	31,609		1,609		31,609		31,			31,609		31,609		31,609		31,609		31,609		316,092
14	31,609	31,609		1,609		31,609		31,			31,609		31,609		31,609		31,609		31,609		316,092
15	31,609	31,609		1,609		31,609		31,			31,609	4	31,609		31,609		31,609		31,609		316,092
16	31,609	31,609		1,609		31,609		31,			31,609		31,609		31,609	4	31,609		31,609		316,092
17	31,609	31,609		1,609		31,609		31,			31,609		31,609		31,609		31,609		31,609		316,092
18	31,609	31,609		1,609		31,609		31,			31,609		31,609		31,609		31,609		31,609		316,092
19	31,609	31,609		1,609		31,609		31,			31,609		31,609		31,609		31,609		31,609		316,092
20	31,609	31,609		1,609		31,609		31,			31,609		31,609		31,609		31,609		31,609		316,092
21	-	31,609		1,609		31,609		31,			31,609		31,609		31,609		31,609		31,609		284,483
22	-	-	3	1,609		31,609		31,			31,609		31,609		31,609		31,609		31,609		252,874
23	-	-		-		31,609		31,	609		31,609		31,609		31,609		31,609		31,609		221,265
24	-	-		-		-		31,	609		31,609		31,609		31,609		31,609		31,609		189,655
25	-	-		-		-		4	-		31,609		31,609		31,609		31,609		31,609		158,046
26	-	-		-		-			-		-		31,609		31,609		31,609		31,609		126,437
27	-	-		-		-	1		•				-		31,609		31,609		31,609		94,828
28	-	-		-		-			-		-		-		-		31,609		31,609		63,218
29		-		-		-			-	_	<u> </u>		·				-		31,609		31,609
	\$ 632,185	\$ 632,185	\$ 63	2,185	\$	632,185	\$	632,	185 \$	6	32,185	\$	632,185	\$	632,185	\$	632,185	\$ 6	32,185	\$	6,321,850

II. Summary of Annual Expenses

			New					Existing			
4			Annual		Annual	v	Annual	Annual			
			Debt		Capital	Л	Bond	Debt		Annual	Total
- 2	<u>Year</u>	5	Service ⁽¹⁾	Ex	oenditures ⁽²⁾	Ė	roceeds (2)	Service ⁽³⁾		Credit ⁽⁴⁾	Expense
	1	\$	31,609	\$	444,908	\$	(429,580)	\$ 89,873	\$	(171) \$	
	2		63,218		588,101		(429,580)	89,885		(419)	311,206
	3		94,828		731,294		(429,580)	89,870		(737)	485,675
	4		126,437		874,488		(429,580)	89,884		(1,120)	660,109
	5		158,046		874,488		(429,580)	89,874		(1,562)	691,266
	6		189,655		874,488		(429,580)	89,890		(2,059)	722,394
	7		221,265		874,488		(429,580)	89,880		(2,608)	753,445
	8		252,874		874,488		(429,580)	89,894		(3,203)	784,472
	9		284,483		874,488		(429,580)	89,879		(3,843)	815,427
	10		316,092		874,488		(429,580)	89,885		(4,523)	846,362
	11		316,092		429,580		-	89,885		(4,523)	831,035
	12		316,092		286,387		-	89,878		(4,523)	687,834
	13		316,092		143,193		-	89,886		(4,523)	544,649
	14		316,092		-		-	89,884		(4,523)	401,453
	15		316,092		-		-	89,894		(4,523)	401,463
	16		316,092		-		-	89,889		(4,523)	401,458
	17		316,092		-		-	71,485		(4,318)	383,260
	18		316,092		-		-	71,485		(4,318)	383,260
	19		316,092		-		-	71,485		(4,318)	383,260
	20		316,092		-		-	71,485		(4,318)	383,260
	21		284,483		-		-	-		(3,169)	281,314
	22		252,874		-		-	-		(2,817)	250,057
	23		221,265		-		-	-		(2,465)	218,800
	24		189,655		-		-	-		(2,113)	187,543
	25		158,046		-		-	-		(1,761)	156,285
	26		126,437		-		-	-		(1,409)	125,028
	27		94,828		-		-	-		(1,056)	93,771
	28		63,218		-		-	-		(704)	62,514
	29		31,609		-		-	-		(352)	31,257
		\$	6,321,850	\$	8,744,877	\$	(4,295,800)	\$ 1,724,071	\$	(80,502) \$	12,414,496

⁽¹⁾ Appendix E - Service Area K, Page 2 Section I
(2) Appendix E - Service Area K, Page 1
(3) Eligible debt funded projects as a percent of total principal times original annual debt service

⁽⁴⁾ Appendix E - Service Area K, Page 6

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area K

<u>Year</u>	Impact <u>Fee</u>	Vehicle <u>Miles</u>	Impact Fee <u>Revenue</u>		Annual xpenses	Sub-T		Accumulated <u>Interest</u>		stimated Fund Balance
Initial									\$	779,111
1	\$ 1,197	853	\$ 1,020,8	337 \$	136,639		84,198 \$	24,424		1,687,733
2	1,197	853	1,020,8	337	311,206	70	09,631	40,851		2,438,215
3	1,197	853	1,020,8	337	485,675	53	35,162	54,116		3,027,492
4	1,197	853	1,020,8	337	660,109	36	60,728	64,157		3,452,377
5	1,197	853	1,020,8	337	691,266	32	29,571	72,343		3,854,292
6	1,197	853	1,020,8	337	722,394	29	98,443	80,070		4,232,805
7	1,197	853	1,020,8	337	753,445	26	67,392	87,330		4,587,527
8	1,197	853	1,020,8	337	784,472	23	36,365	94,114		4,918,006
9	1,197	853	1,020,8	337	815,427	20	05,410	100,414		5,223,830
10	1,197	853	1,020,8	337	846,362	17	74,475	106,221		5,504,526
11	-	-		-	831,035	(83	31,035)	101,780		4,775,272
12	-	-			687,834	(68	87,834)	88,627		4,176,065
13	-	-		-	544,649	(54	44,649)	78,075		3,709,490
14	-	-			401,453	(40	01,453)	70,175		3,378,212
15	-	-		-	401,463	(40	01,463)	63,550		3,040,299
16	-	-		-	401,458	(40	01,458)	56,791		2,695,632
17	-	-		-	383,260	(38	33,260)	50,080		2,362,452
18	-	-		-	383,260	(38	33,260)	43,416		2,022,609
19	-	-		-	383,260	(38	33,260)	36,620		1,675,968
20	-	-		-	383,260	(38	33,260)	29,687		1,322,395
21	-	-		-	281,314	(28	31,314)	23,635		1,064,716
22	-	-		-	250,057	(25	50,057)	18,794		833,453
23	-	-		-	218,800	(2	18,800)	14,481		629,135
24	-	-			187,543	(18	37,543)	10,707		452,299
25	-	-		-	156,285	(1	56,285)	7,483		303,497
26	-	-			125,028	(12	25,028)	4,820		183,288
27	-	-		-	93,771	(9	93,771)	2,728		92,245
28		-		-	62,514	(6	62,514)	1,220		30,951
29	-	- "			31,257	(3	31,257)	306	i	-
			\$ 10,208,3	369 \$ 1	2,414,496		\$	1,427,017		

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area K

	Number of Years to	Interest Rate	Recovery Fee	Annual Vehic	le Miles	Annual I	Expense
<u>Year</u>	End of Period	<u>Factor</u>	<u>Factor</u>		<u>scalated</u>	<u>Actual</u>	<u>Escalated</u>
1	29	1.7584	1.0000	853	1,500 \$	136,639	\$ 240,271
2	28	1.7240	1.0000	853	1,471	311,206	536,505
3	27	1.6902	1.0000	853	1,442	485,675	820,865
4	26	1.6570	1.0000	853	1,413	660,109	1,093,809
5	25	1.6245	1.0000	853	1,386	691,266	1,122,976
6	24	1.5927	1.0000	853	1,359	722,394	1,150,534
7	23	1.5614	1.0000	853	1,332	753,445	1,176,458
8	22	1.5308	1.0000	853	1,306	784,472	1,200,888
9	21	1.5008	1.0000	853	1,280	815,427	1,223,799
10	20	1.4714	1.0000	853	1,255	846,362	1,245,320
11	19	1.4425	1.0000	-	-	831,035	1,198,791
12	18	1.4142	1.0000		-	687,834	972,765
13	17	1.3865	1.0000		-	544,649	755,163
14	16	1.3593	1.0000		-	401,453	545,706
15	15	1.3327	1.0000		-	401,463	535,020
16	14	1.3065	1.0000	-	-	401,458	524,522
17	13	1.2809	1.0000		-	383,260	490,927
18	12	1.2558	1.0000	-	-	383,260	481,301
19	11	1.2312	1.0000	-	-	383,260	471,864
20	10	1.2070	1.0000	-	-	383,260	462,611
21	9	1.1834	1.0000	-	-	281,314	332,900
22	8	1.1602	1.0000	-	-	250,057	290,109
23	7	1.1374	1.0000	-	-	218,800	248,868
24	6	1.1151	1.0000	-	-	187,543	209,133
25	5	1.0933	1.0000	-	-	156,285	170,860
26	4	1.0718	1.0000	-	-	125,028	134,008
27	3	1.0508	1.0000	-	-	93,771	98,535
28	2	1.0302	1.0000	-	-	62,514	64,402
29	1	1.0100	1.0000	- <u>-</u>	-	31,257	31,570
					13,743		\$ 17,830,480
		Annual Interest Rat	e:			2.00%	
		Present Value of In	itial Impact Fee	Fund Balance	\$	779,111	
		Total Escalated Exp			\$	17,830,480	
		Less Future Value Sub-Total	of Initial Impact f	ee Fund Balance	\$	1,383,580 16,446,899	
		Total Escalated Ve	hicle Miles			13,743	
		Impact Fee For Se	rvice Area K		\$	1,197	

Capital Improvement Plan for Impact Fees
Appendix E - Impact Fee Calculation Assumptions
Service Area K

Impact Fee Project Name ⁽¹⁾	Impact Fee Project No. ⁽¹⁾	Ser	Cost In vice Area ⁽¹⁾	Re	Impact Fee ecoverable Cost ⁽²⁾		Debt Fur		l ⁽³⁾ oposed		Non-Debt Funded ⁽³⁾	<u>R</u>	Impact Fee ecoverable Cost
VIRGINIA STREET	K-1	\$	779,650	\$	398,340	\$	_	\$	199,170	\$	199,170	\$	398,340
ELDORADO PKWY (4)	K-2		1,699,200		868,158		-		434,079		434,079		868,158
HARRY MCKILLOP BLVD / FM 546 (1)	K-3		1,839,600		939,892		-		469,946		469,946		939,892
HARRY MCKILLOP BLVD / FM 546 (2)	K-4, L-1		117,300		59,931		_		29,966		29,966		59,931
HARRY MCKILLOP BLVD / FM 546 (3)	K-5, L-2		1,633,700		834,693		-		417,346	\neg	417,346		834,693
STATE HIGHWAY 5 (3)	K-6		2,064,300		1,054,696				527,348		527,348		1,054,696
STATE HIGHWAY 5 (4)	J-9, K-7		2,323,650		1,187,203				593,602		593,602		1,187,203
STATE HIGHWAY 5 (5)	J-10, K-8		1,111,600		567,941				283,970		283,970		567,941
AIRPORT DR (5)	K-9, L-6		3,161,400		1,615,228		-		807,614		807,614		1,615,228
AIRPORT DR (6)	K-10, L-7		1,462,600		747,274	4	229,915		182,041		335,318	◂	747,274
Signal	40		300,000		153,277		-		76,638		76,638		153,277
Signal Mod	41		75,000		38,319	7	-		19,160		19,160		38,319
Roundabout	52		1,820,000		929,877		929,877		-		-		929,877
Signal	53		300,000		153,277		-	4	76,638		76,638		153,277
Signal	54		150,000		76,638		-		38,319		38,319		76,638
Signal	62		150,000		76,638		-		38,319		38,319		76,638
Signal	63		225,000		114,957		-		57,479		57,479		114,957
Signal	69		150,000		76,638		-		38,319		38,319		76,638
Impact Fee Study			11,692		11,692		-		5,846		5,846		11,692
Total		\$	19,374,692	\$	9,904,669	\$	1,159,792	\$ 4	4,295,800	\$	4,449,077	\$	9,904,669

⁽¹⁾ Per Kimley-Horn Impact Fee Study



⁽²⁾ Line 11 of the Max Fee Table Report

⁽³⁾ Per discussions with City staff. For existing debt funding that does not have a specific bond identified, a 4.5% rate is used to coincide with the water and wastewater calculations.

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area K

<u>Year</u>	E	ligible Debt <u>Service⁽¹⁾</u>	Annual Vehicle <u>Miles</u>	Eligible Debt Service per <u>Vehicle Mile</u>	Annual Growth in Vehicle Miles (Cumulative)	- 4	edit for Annual Ad Valorem <u>Revenues</u>
1	\$	121,482	606,072	\$ 0.20	853	\$	171
2		153,104	623,802	0.25	1,706		419
3		184,698	641,531	0.29	2,559		737
4		216,321	659,260	0.33	3,412		1,120
5		247,920	676,990	0.37	4,265		1,562
6		279,546	694,719	0.40	5,118		2,059
7		311,145	712,448	0.44	5,971		2,608
8		342,768	730,177	0.47	6,824		3,203
9		374,362	747,907	0.50	7,677		3,843
10		405,978	765,636	0.53	8,530		4,523
11		405,978	765,636	0.53	8,530		4,523
12		405,970	765,636	0.53	8,530		4,523
13		405,979	765,636	0.53	8,530		4,523
14		405,976	765,636	0.53	8,530		4,523
15		405,986	765,636	0.53	8,530		4,523
16		405,981	765,636	0.53	8,530	•	4,523
17		387,578	765,636	0.51	8,530		4,318
18		387,578	765,636	0.51	8,530		4,318
19		387,578	765,636	0.51	8,530		4,318
20		387,578	765,636	 0.51	8,530		4,318
21		284,483	765,636	0.37	8,530		3,169
22		252,874	765,636	0.33	8,530		2,817
23		221,265	765,636	0.29	8,530		2,465
24		189,655	765,636	0.25	8,530		2,113
25		158,046	765,636	0.21	8,530		1,761
26		126,437	765,636	0.17	8,530		1,409
27		94,828	765,636	0.12	8,530		1,056
28		63,218	765,636	0.08	8,530		704
29		31,609	765,636	0.04	8,530		352
Total	\$	8,045,921				\$	80,502

2019 Vehicle Miles (2)

Ten Year Growth in Vehicle Miles in Service Area (3)

Annual Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles In Other Service Areas (3)

Annual Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

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Ten Year Growth in Vehicle Miles

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⁽¹⁾ Appendix E - Service Area K, Page 2 Section II

⁽²⁾ Per Kimley-Horn Impact Fee Study

⁽³⁾ Line 8 of the Max Fee Table Report

Capital Improvement Plan for Impact Fees
Appendix E - Impact Fee Calculation Assumptions
Service Area L

I. General Assumptions

Annual Interest Rate on Deposits⁽¹⁾

Annual Vehicle Mile Growth⁽²⁾

Existing Fund Balance⁽³⁾

\$

2.00% 189 \$ 5,532

Portion of Projects Funded by Existing Debt⁽⁴⁾
Non-debt Funded Project Cost⁽⁵⁾
New Project Cost Funded Through New Debt⁽⁶⁾
Total Recoverable Project Cost⁽⁷⁾

\$ 57,132 1,761,891 1,723,803 \$ 3,542,826

II. New Debt Issues Assumptions

<u>Year</u>	Principal ⁽⁸⁾	Interest ⁽⁹⁾	<u>Term</u>				
1	\$ 172,380	4.00%	20				
2	172,380	4.00%	20				
3	172,380	4.00%	20				
4	172,380	4.00%	20				
5	172,380	4.00%	20				
6	172,380	4.00%	20				
7	172,380	4.00%	20				
8	172,380	4.00%	20				
9	172,380	4.00%	20				
10	172,380	4.00%	20				
Total	\$ 1,723,803						

III. Capital Expenditure Assumptions

	Annual Capital									
<u>Year</u>	Expenditures (10)									
_1	\$	176,189								
2		233,649								
3		291,109								
4		348,569								
5		348,569								
6		348,569								
7		348,569								
8		348,569								
9		348,569								
10		348,569								
11		172,380								
12		114,920								
13		57,460								
Total	\$	3,485,694								

- (1) Per discussions with City Staff and City files
- (2) Derived from Kimley-Horn Impact Fee Study
- (3) Per discussions with City Staff and City files
- (4) Per discussions with City Staff and City files
- (5) This assumes 50% of new project costs funded through sources other than debt, unless specified otherwise
- (6) This assumes 50% of new project costs funded through new debt issues, unless specified otherwise
- (7) Per Kimley-Horn Impact Fee Study
- (8) Assumes new debt issued in equal annual amounts
- (9) Per discussions with City Staff and City files
- (10) Assumes new debt proceeds expended over a 3-year timeframe.

Non-debt funded capital expenditures allocated per discussions with City Staff

Total

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area L

I. New Debt Service Detail

		Series	Series	Series	Series		Series	Series		Series	Series	Series		Series	1	Annual New Debt
Year		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>		<u>5</u>	<u>6</u>		<u>7</u>	<u>8</u>	<u>9</u>	4	<u>10</u>		Service
	\$	12,684	\$ -	\$ -	\$ -	\$	- \$		\$		\$ -			\$ -	•	40.604
1 2	Ф	12,684	ە - 12,684	5 -	Ъ -	Ф	- \$	-	Ф	-	\$ -	\$		5 -	\$	12,684 25,368
3		12,684	12,684	12,684	-		-	-			-					38,052
4		12,684	12,684	12,684	12,684		_	_								50,736
5		12,684	12,684		12,684		12,684	_		_						63,420
6		12,684	12,684	12,684	12,684		12,684	12,684		_			. "			76,104
7		12,684	12,684		12,684		12,684	12,684		12,684			_			88,788
8		12,684	12,684		12,684		12,684	12,684		12,684	12,684		_			101,472
9		12,684	12,684		12,684		12,684	12,684		12,684	12,684	12,	684			114,156
10		12,684	12,684	12,684	12,684		12,684	12,684		12,684	12,684	12,	684	12,684		126,840
11		12,684	12,684		12,684		12,684	12,684		12,684	12,684	12,	684	12,684		126,840
12		12,684	12,684	12,684	12,684		12,684	12,684		12,684	12,684	12,	,684	12,684		126,840
13		12,684	12,684	12,684	12,684		12,684	12,684		12,684	12,684	12,	,684	12,684		126,840
14		12,684	12,684	12,684	12,684		12,684	12,684	4	12,684	12,684	12,	,684	12,684		126,840
15		12,684	12,684	12,684	12,684		12,684	12,684		12,684	12,684	12,	,684	12,684		126,840
16		12,684	12,684	12,684	12,684		12,684	12,684		12,684	12,684	12,	,684	12,684		126,840
17		12,684	12,684	12,684	12,684		12,684	12,684		12,684	12,684	12,	,684	12,684		126,840
18		12,684	12,684		12,684		12,684	12,684		12,684	12,684		,684	12,684		126,840
19		12,684	12,684		12,684		12,684	12,684		12,684	12,684		,684	12,684		126,840
20		12,684	12,684		12,684		12,684	12,684		12,684	12,684		,684	12,684		126,840
21		-	12,684	12,684	12,684		12,684	12,684		12,684	12,684		,684	12,684		114,156
22		-	-	12,684	12,684		12,684	12,684		12,684	12,684		,684	12,684		101,472
23		-	-	-	12,684		12,684	12,684		12,684	12,684		,684	12,684		88,788
24		-	-	-	-		12,684	12,684		12,684	12,684		,684	12,684		76,104
25		-	-	-	-	1		12,684		12,684	12,684		,684	12,684		63,420
26		-	-	-	-			-		12,684	12,684		684	12,684		50,736
27		-	-	-	-		-	-			12,684		,684	12,684		38,052
28		-	-	-	-		-	-	4		-	12,	,684	12,684		25,368
29		-	-	-			-	-	4	-	-		-	12,684	_	12,684
	\$	253,681	\$ 253,681	\$ 253,681	\$ 253,681	\$	253,681 \$	253,681	\$	253,681	\$ 253,681	\$ 253,	681,	\$ 253,681	\$	2,536,809

II. Summary of Annual Expenses

	New			Existing		
	Annual	Annual	Annual	Annual		
	Debt	Capital	Bond	Debt	Annual	Total
Year	Service ⁽¹⁾	Expenditures(2)	Proceeds ⁽²⁾	Service ⁽³⁾	Credit ⁽⁴⁾	Expense
1	\$ 12,684	\$ 176,189	\$ (172,380)	\$ 4,569	\$ (5)	\$ 21,057
2	25,368	233,649	(172,380)	4,572	(18)	91,191
3	38,052	291,109	(172,380)	4,568	(38)	161,312
4	50,736	348,569	(172,380)	4,572	(64)	231,434
5	63,420	348,569	(172,380)	4,569	(95)	244,084
6	76,104	348,569	(172,380)	4,573	(132)	256,735
7	88,788	348,569	(172,380)	4,571	(174)	269,375
8	101,472	348,569	(172,380)	4,574	(220)	282,016
9	114,156	348,569	(172,380)	4,571	(270)	294,646
10	126,840	348,569	(172,380)	4,572	(325)	307,277
11	126,840	172,380	-	4,572	(325)	303,468
12	126,840	114,920	-	4,570	(325)	246,006
13	126,840	57,460	-	4,573	(325)	188,548
14	126,840	-	-	4,572	(325)	131,087
15	126,840	-	-	4,574	(325)	131,090
16	126,840	-	-	4,573	(325)	131,089
17	126,840	-	-	-	(314)	126,527
18	126,840	-	-	-	(314)	126,527
19	126,840	-	-	-	(314)	126,527
20	126,840	-	-	-	(314)	126,527
21	114,156	-	-	-	(282)	113,874
22	101,472	-	-	-	(251)	101,221
23	88,788	-	-	-	(220)	88,569
24	76,104	-	-	-	(188)	75,916
25	63,420	-	-	-	(157)	63,263
26	50,736	-	-	-	(125)	50,611
27	38,052	-	-	-	(94)	37,958
28	25,368	-	-	-	(63)	25,305
29	12,684	-	-	-	(31)	12,653
	\$ 2,536,809	\$ 3,485,694	\$ (1,723,803)	\$ 73,147	\$ (5,956)	\$ 4,365,891

⁽¹⁾ Appendix E - Service Area L, Page 2 Section I

⁽¹⁾ Appendix E - Service Area L, Page 1
(2) Appendix E - Service Area L, Page 1
(3) Eligible debt funded projects as a percent of total principal times original annual debt service

Capital Improvement Plan for Impact Fees
Appendix E - Impact Fee Calculation Assumptions
Service Area L

<u>Year</u>	I	mpact <u>Fee</u>	Vehicle <u>Miles</u>	Impact Fee <u>Revenue</u>			ee Annual		<u>Sub-Total</u>	mulated <u>erest</u>	Estimated Fund <u>Balance</u>		
Initial											\$	5,532	
1	\$	2,044	189	\$	386,878	\$	21,057	\$	365,822	\$ 3,769		375,122	
2		2,044	189		386,878		91,191		295,687	10,459		681,269	
3		2,044	189		386,878		161,312		225,566	15,881		922,716	
4		2,044	189		386,878		231,434		155,445	20,009		1,098,169	
5		2,044	189		386,878		244,084		142,795	23,391		1,264,355	
6		2,044	189		386,878		256,735	4	130,143	26,589		1,421,087	
7		2,044	189		386,878		269,375		117,503	29,597		1,568,187	
8		2,044	189		386,878		282,016		104,862	32,412		1,705,462	
9		2,044	189		386,878		294,646		92,232	35,032		1,832,726	
10		2,044	189		386,878		307,277		79,601	37,451		1,949,778	
11		-	-		-		303,468		(303,468)	35,961		1,682,271	
12		-	-		-		246,006		(246,006)	31,185		1,467,450	
13		-	-		-		188,548		(188,548)	27,464		1,306,365	
14		-	-		-		131,087		(131,087)	24,816		1,200,094	
15		-	-		-		131,090		(131,090)	22,691		1,091,696	
16		-	-		-		131,089		(131,089)	20,523		981,130	
17		-	-		-		126,527		(126,527)	18,357		872,960	
18		-	-		-		126,527		(126,527)	16,194		762,628	
19		-	-		-		126,527		(126,527)	13,987		650,088	
20		-	-		-		126,527		(126,527)	11,736		535,298	
21		-	-		-		113,874		(113,874)	9,567		430,991	
22		-	-		-		101,221		(101,221)	7,608		337,377	
23		-	-		-		88,569		(88,569)	5,862		254,670	
24		-	-		-		75,916		(75,916)	4,334		183,088	
25		-	-		-		63,263		(63,263)	3,029		122,854	
26		-	-		-		50,611		(50,611)	1,951		74,194	
27		-			-		37,958		(37,958)	1,104		37,340	
28		-			-		25,305		(25,305)	494		12,529	
29		-	-				12,653		(12,653)_	 124		-	
				\$	3,868,782	\$	4,365,891		-	\$ 491,577			

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area L

	Number of	Interest	Recovery				
	Years to	Rate	Fee	Annual Va	hicle Miles	Annual	Expense
Year	End of Period	Factor	<u>Factor</u>	Actual Actual	Escalated	Actual	Escalated
<u>i cai</u>	Liid oi i eiiod	<u>i actor</u>	<u>r actor</u>	Actual	Liscalated	Actual	LSCalated
1	29	1.7584	1.0000	189	333	21,057	\$ 37,027
2	28	1.7240	1.0000	189	326	91,191	157,209
3	27		1.0000	189	320	161,312	272,642
4	26		1.0000	189	314	231,434	383,488
5	25		1.0000	189	308	244,084	396,519
6	24		1.0000	189	301	256,735	408,894
7	23		1.0000	189	296	269,375	420,612
8	22		1.0000	189	290	282,016	431,716
9	21	1.5008	1.0000	189	284	294,646	442,206
10	20		1.0000	189	279	307,277	452,121
11	19		1.0000	-		303,468	437,761
12	18		1.0000		_	246,006	347,913
13	17		1.0000			188,548	261,425
14	16		1.0000			131,087	178,191
15	15		1.0000			131,090	174,700
16	14	1.3065	1.0000			131,089	171,273
17	13		1.0000		_	126,527	162,071
18	12		1.0000	_	_	126,527	158,893
19	11	1.2312	1.0000	_	_	126,527	155,778
20	10		1.0000	_	_	126,527	152,723
21	9		1.0000	_	_	113,874	134,756
22	.8		1.0000	_	_	101,221	117,434
23	7		1.0000	_	_	88,569	100,740
24	6		1.0000	_	_	75,916	84,656
25	5	1.0933	1.0000	_	_	63,263	69,163
26	4		1.0000	_	_	50,611	54,246
27	3	1.0508	1.0000	_	_	37,958	39,886
28	2	1.0302	1.0000	_	_	25,305	26,070
29	1		1.0000	_	_	12,653	12,779
				_	3,050	,	\$ 6,242,892
					0,000		v 0,2 .2,002
		Annual Interest Ra	te:			2.00%	
		Present Value of Ir	nitial Impact Fee	Fund Balance	9	5,532	
			'		·	, -,	
		Total Escalated Ex	pense for Entire	Period	9	6,242,892	
			•	Fee Fund Balance	·	9,824	
		Sub-Total	•		-		
		Total Escalated Ve	hicle Miles			3,050	
							1
		Impact Fee For Se	ervice Area L		•	2,044	

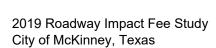
Capital Improvement Plan for Impact Fees

Appendix E - Impact Fee Calculation Assumptions

Service Area L

Impact Fee Project Name ⁽¹⁾	Impact Fee Project No. ⁽¹⁾	Se	Cost In rvice Area ⁽¹⁾	<u>R</u>	Impact Fee ecoverable Cost ⁽²⁾		Debt Fu Existing		ed ⁽³⁾ Proposed		Non-Debt Funded ⁽³⁾	<u>R</u>	Impact Fee ecoverable Cost
HARRY MCKILLOP BLVD / FM 546 (2)	K-4, L-1	\$	117,300	\$	14,892	\$	-	\$	7,446	\$	7,446	\$	14,892
HARRY MCKILLOP BLVD / FM 546 (3)	K-5, L-2		1,633,700		207,415		-		103,707		103,707		207,415
HARRY MCKILLOP BLVD / FM 546 (S) (1)	L-3		2,153,725		273,437		-		136,719		136,719		273,437
HARRY MCKILLOP BLVD / FM 546 (S) (2)	L-4		3,843,225		487,937		-		243,968		243,968		487,937
HARRY MCKILLOP BLVD / FM 546 (N) (1)	L-5		2,166,900		275,110		-		137,555	•	137,555		275,110
AIRPORT DR (5)	K-9, L-6		3,161,400		401,372		-		200,686		200,686		401,372
AIRPORT DR (6)	K-10, L-7		1,462,600		185,692		57,132		45,236		83,324		185,692
UNNAMED C (3)	L-8		5,807,850		737,366		-		368,683		368,683		737,366
UNNAMED C (4)	L-9, M-5		1,415,150		179,668		-		89,834		89,834		179,668
UNNAMED C (5)	L-10, M-6		5,001,075		634,937	4	-		317,469		317,469		634,937
Signal Mod	41		75,000		9,522		-		4,761		4,761		9,522
Signal	42		150,000		19,044		-		9,522		9,522		19,044
Signal	54		150,000		19,044		-		9,522		9,522		19,044
Signal	63		225,000		28,566		- ,	4	14,283		14,283		28,566
Signal	70		300,000		38,088		-		19,044		19,044		38,088
Signal	74		150,000		19,044		-		9,522		9,522		19,044
Impact Fee Study			11,692		11,692				5,846		5,846		11,692
Total		\$	27,824,617	\$	3,542,826	\$	57,132	\$	1,723,803	\$	1,761,891	\$	3,542,826

⁽¹⁾ Per Kimley-Horn Impact Fee Study



⁽²⁾ Line 11 of the Max Fee Table Report

⁽³⁾ Per discussions with City staff. For existing debt funding that does not have a specific bond identified, a 4.5% rate is used to coincide with the water and wastewater calculations.

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area L

<u>Year</u>	igible Debt <u>Service⁽¹⁾</u>	Annual Vehicle <u>Miles</u>		Eligible Debt Service per Vehicle Mile	Annual Growth in Vehicle Miles (Cumulative)	dit for Annual Ad Valorem <u>Revenues</u>
1	\$ 17,253	606,072	\$	0.03	189	\$ 5
2	29,940	623,802		0.05	379	18
3	42,621	641,531		0.07	568	38
4	55,308	659,260		80.0	757	64
5	67,990	676,990		0.10	947	95
6	80,678	694,719		0.12	1,136	132
7	93,359	712,448		0.13	1,325	174
8	106,047	730,177		0.15	1,514	220
9	118,727	747,907		0.16	1,704	270
10	131,413	765,636		0.17	1,893	325
11	131,413	765,636		0.17	1,893	325
12	131,411	765,636		0.17	1,893	325
13	131,413	765,636		0.17	1,893	325
14	131,412	765,636		0.17	1,893	325
15	131,415	765,636		0.17	1,893	325
16	131,414	765,636		0.17	1,893	325
17	126,840	765,636		0.17	1,893	314
18	126,840	765,636	Т	0.17	1,893	314
19	126,840	765,636		0.17	1,893	314
20	126,840	765,636	1	0.17	1,893	314
21	114,156	765,636		0.15	1,893	282
22	101,472	765,636		0.13	1,893	251
23	88,788	765,636		0.12	1,893	220
24	76,104	765,636		0.10	1,893	188
25	63,420	765,636		0.08	1,893	157
26	50,736	765,636		0.07	1,893	125
27	38,052	765,636		0.05	1,893	94
28	25,368	765,636		0.03	1,893	63
29	12,684	765,636		0.02	1,893	 31
Total	\$ 2,609,956					\$ 5,956

2019 Vehicle Miles (2)

Ten Year Growth in Vehicle Miles in Service Area (3)

Annual Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles In Other Service Areas (3)

Annual Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

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⁽¹⁾ Appendix E - Service Area L, Page 2 Section II

⁽²⁾ Per Kimley-Horn Impact Fee Study

⁽³⁾ Line 8 of the Max Fee Table Report

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area M

I. General Assumptions

Annual Interest Rate on Deposits (1)
Annual Vehicle Mile Growth (2)
Existing Fund Balance (3)

2.00% 30 \$ -

Portion of Projects Funded by Existing Debt⁽⁴⁾ Non-debt Funded Project Cost⁽⁵⁾ New Project Cost Funded Through New Debt⁽⁶⁾ \$ 334,305 334,305 \$ 668,610

Total Recoverable Project Cost (7)

II. New Debt Issues Assumptions

<u>Year</u>	Principal ⁽⁸⁾	Interest ⁽⁹⁾	<u>Term</u>
1	\$ 33,430	4.00%	20
2	33,430	4.00%	20
3	33,430	4.00%	20
4	33,430	4.00%	20
5	33,430	4.00%	20
6	33,430	4.00%	20
7	33,430	4.00%	20
8	33,430	4.00%	20
9	33,430	4.00%	20
10	33,430	4.00%	20
Total	\$ 334,305		

III. Capital Expenditure Assumptions

		Annual Capital								
<u>Year</u>	Expe	Expenditures (10)								
1	\$	33,430								
2		44,574								
3		55,717								
4		66,861								
5		66,861								
6		66,861								
7		66,861								
8		66,861								
9		66,861								
10		66,861								
11		33,430								
12		22,287								
13		11,143								
Total	\$	668,610								

- (1) Per discussions with City Staff and City files
- (2) Derived from Kimley-Horn Impact Fee Study
- (3) Per discussions with City Staff and City files
- (4) Per discussions with City Staff and City files
- $(5) \quad \text{This assumes 50\% of new project costs funded through sources other than debt, unless specified otherwise}$
- (6) This assumes 50% of new project costs funded through new debt issues, unless specified otherwise
- (7) Per Kimley-Horn Impact Fee Study
- (8) Assumes new debt issued in equal annual amounts
- (9) Per discussions with City Staff and City files
- (10) Assumes new debt proceeds expended over a 3-year timeframe.

Non-debt funded capital expenditures allocated per discussions with City Staff

Total

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area M

I. New Debt Service Detail

Year	Series	Series	Series <u>3</u>	Series	Series <u>5</u>	Series	Series <u>7</u>	Series	Series 9	Series	Annual New Debt <u>Service</u>
	\$ 2,460	•	\$ - \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	
2	2,460	2,460	-	-	-	-	-	-	-	-	4,920
3	2,460	2,460	2,460	-	-	-	-	-		-	7,380
4	2,460	2,460	2,460	2,460	-	-	-	-	-	-	9,839
5	2,460	2,460	2,460	2,460	2,460		-	-	-	-	12,299
6	2,460	2,460	2,460	2,460	2,460	2,460	-	-	-		14,759
7	2,460	2,460	2,460	2,460	2,460	2,460	2,460		-		17,219
8	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	-	-	19,679
9	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460		22,139
10	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	24,599
11	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	24,599
12	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	24,599
13	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	24,599
14	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	24,599
15	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	24,599
16	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	24,599
17	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	24,599
18	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	24,599
19	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	24,599
20	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	24,599
21	-	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	22,139
22	-	-	2,460	2,460	2,460	2,460	2,460	2,460	2,460	2,460	19,679
23	-	-	-	2,460	2,460	2,460	2,460	2,460	2,460	2,460	17,219
24	-	-	-	-	2,460	2,460	2,460	2,460	2,460	2,460	14,759
25	-	-	-	-		2,460	2,460	2,460	2,460	2,460	12,299
26	-	-	-	-			2,460	2,460	2,460	2,460	9,839
27	-	-	-	-		•		2,460	2,460	2,460	7,380
28	-	-	-	-		•		-	2,460	2,460	4,920
29	- 40.46=	- 40.46=	- 10.10= 1	- 40.407. ^	-	-	40.407.	- 40.407. *	-	2,460	2,460
	\$ 49,197	\$ 49,197	\$ 49,197 \$	49,197 \$	49,197 \$	49,197 \$	49,197 \$	49,197 \$	49,197 \$	49,197	491,975

II. Summary of Annual Expenses

	New			Existing		
	Annual	Annual	Annual	Annual		
	Debt	Capital	Bond	Debt	Annual	Total
Year	Service ⁽¹⁾	Expenditures (2)	Proceeds ⁽²⁾	Service ⁽³⁾	Credit ⁽⁴⁾	Expense
· · · · · · · · · · · · · · · · · · ·						<u> </u>
1	\$ 2,460	\$ 33,430	\$ (33,430)	\$ -	\$ (0)	\$ 2,460
2	4,920	44,574	(33,430)	-	(0)	16,063
3	7,380	55,717	(33,430)	-	(1)	29,666
4	9,839	66,861	(33,430)	-	(2)	43,268
5	12,299	66,861	(33,430)	-	(3)	45,727
6	14,759	66,861	(33,430)	-	(4)	48,186
7	17,219	66,861	(33,430)	-	(5)	50,644
8	19,679	66,861	(33,430)	-	(7)	53,103
9	22,139	66,861	(33,430)	-	(8)	55,561
10	24,599		(33,430)	-	(10)	58,019
11	24,599		-	-	(10)	58,019
12	24,599	22,287	-	-	(10)	46,876
13	24,599	11,143	-	-	(10)	35,732
14	24,599		-	-	(10)	24,589
15	24,599		-	-	(10)	24,589
16	24,599		-	-	(10)	24,589
17	24,599		-	-	(10)	24,589
18	24,599		-	-	(10)	24,589
19	24,599		-	-	(10)	
20	24,599		-	-	(10)	24,589
21	22,139		-	-	(9)	22,130
22	19,679		-	-	(8)	19,671
23	17,219		-	-	(7)	17,212
24	14,759		-	-	(6)	14,753
25	12,299		-	-	(5)	12,294
26	9,839		-	-	(4)	9,836
27	7,380		-	-	(3)	7,377
28	4,920		-	-	(2)	4,918
29	2,460		-	-	(1)	2,459
	\$ 491,975	\$ 668,610	\$ (334,305)	\$ -	\$ (181)	\$ 826,099

⁽¹⁾ Appendix E - Service Area M, Page 2 Section I
(2) Appendix E - Service Area M, Page 1
(3) Eligible debt funded projects as a percent of total principal times original annual debt service
(4) Appendix E - Service Area M, Page 6

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area M

<u>Year</u>	Impact Vehicle <u>Fee</u> <u>Miles</u>					Annual Expenses		<u>Sub-Total</u>	Accumulated <u>Interest</u>		Estimated Fund <u>Balance</u>	
Initial											\$	-
1	\$ 2	,406	30	\$	73,149	\$	2,460	\$	70,689 \$	70	7	71,396
2	2	,406	30		73,149		16,063		57,086	1,99	9	130,480
3	2	,406	30		73,149		29,666		43,483	3,04	4	177,008
4	2	,406	30		73,149		43,268		29,880	3,839	9	210,727
5	2	,406	30		73,149		45,727	4	27,421	4,489	9	242,637
6	2	,406	30		73,149		48,186	7	24,963	5,10	2	272,703
7	2	,406	30		73,149		50,644		22,504	5,679	9	300,886
8	2	,406	30		73,149		53,103		20,046	6,218	3	327,150
9	2	,406	30		73,149		55,561		17,587	6,719	9	351,456
10	2	,406	30		73,149		58,019		15,129	7,180)	373,765
11		-	-		-		58,019		(58,019)	6,89	5	322,641
12		-	-		_		46,876		(46,876)	5,98	4	281,749
13		-	-		-		35,732		(35,732)	5,278	3	251,294
14		-	-		-		24,589		(24,589)	4,780)	231,485
15		-	-		-		24,589		(24,589)	4,384	4	211,280
16		-	-		-		24,589		(24,589)	3,980)	190,671
17		-	-		-		24,589		(24,589)	3,568	3	169,649
18		-	-		-		24,589		(24,589)	3,14	7	148,208
19		-	-		-		24,589		(24,589)	2,718	3	126,337
20		-	-		-		24,589		(24,589)	2,28	1	104,029
21		-	-		-	1	22,130		(22,130)	1,859	9	83,758
22		-	-		-		19,671		(19,671)	1,478	3	65,565
23		-	-		-		17,212		(17,212)	1,139	9	49,492
24		4	-		-		14,753		(14,753)	842	2	35,581
25		-	-	4	-		12,294		(12,294)	589	9	23,875
26		-	-		-		9,836		(9,836)	379	9	14,419
27		-	-		-		7,377		(7,377)	21		7,257
28		-	-		-		4,918		(4,918)	90		2,435
29		-	- "		-		2,459	_	(2,459)	24		-
				\$	731,486	\$	826,099		\$	94,61	3	

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area M

	Number of	Interest	Recovery			4					
	Years to	Years to Rate Fee		Annual Ve	ehicle Miles	Annual Expense					
<u>Year</u>	End of Period	<u>Factor</u>	<u>Factor</u>	<u>Actual</u>	Escalated		<u>Actual</u>	Escala	ated		
1	29	1.7584	1.0000	30	53	\$	2,460	\$	4,325		
2	28	1.7240	1.0000	30	52		16,063		27,691		
3	27	1.6902	1.0000	30	51		29,666		50,139		
4	26	1.6570	1.0000	30	50		43,268		71,696		
5	25	1.6245	1.0000	30	49		45,727		74,285		
6	24	1.5927	1.0000	30	48		48,186		76,744		
7	23	1.5614	1.0000	30	47		50,644		79,078		
8	22	1.5308	1.0000	30	47		53,103		31,291		
9	21	1.5008	1.0000	30	46		55,561		33,387		
10	20	1.4714	1.0000	30	45		58,019		35,369		
11	19	1.4425	1.0000	-	-		58,019		33,695		
12	18	1.4142	1.0000	-	-		46,876		36,294		
13	17	1.3865	1.0000	•	-		35,732		49,544		
14	16	1.3593	1.0000	•	•		24,589		33,424		
15	15	1.3327	1.0000	_			24,589		32,769		
16	14	1.3065	1.0000	-	-		24,589		32,127		
17	13	1.2809	1.0000		-		24,589		31,497		
18	12	1.2558	1.0000	-	-		24,589		30,879		
19	11	1.2312	1.0000	-	-		24,589		30,274		
20	10	1.2070	1.0000	-	-		24,589		29,680		
21	9	1.1834	1.0000	-	-		22,130		26,188		
22	8	1.1602	1.0000	-	-		19,671		22,822		
23	7	1.1374	1.0000	-	-		17,212		19,578		
24	6	1.1151	1.0000	-	-		14,753		16,452		
25	5	1.0933	1.0000	-	-		12,294		13,441		
26	4	1.0718	1.0000	-	-		9,836		10,542		
27	3	1.0508	1.0000	-	-		7,377		7,751		
28	2	1.0302	1.0000	-	-		4,918		5,066		
29	1	1.0100	1.0000	- <u>-</u>	490		2,459	\$ 1.1°	2,483		
					490			Þ 1,1	78,511		
		Annual Interest Ra	te:				2.00%				
, white more trade.							2.0070				
	\$	-									
	\$	1,178,511									
		-	\$	1,178,511							
		Total Escalated Ve	hicle Miles				490				
	\$	2,406									

Capital Improvement Plan for Impact Fees
Appendix E - Impact Fee Calculation Assumptions
Service Area M

Impact Fee Project Name ⁽¹⁾	Impact Fee Project No. ⁽¹⁾	<u>Se</u>	Cost In rvice Area ⁽¹⁾	R	Impact Fee ecoverable Cost ⁽²⁾	De Existin		unde <u>P</u>	d ⁽³⁾ roposed	 on-Debt unded ⁽³⁾	<u>R</u>	Impad ecovera	ct Fee able Cost
HARRY MCKILLOP BLVD / FM 546 (N) (2)	M-1	\$	98,038	\$	8,200	\$	-	\$	4,100	\$ 4,100	\$		8,200
HARRY MCKILLOP BLVD / FM 546 (N) (3)	M-2		180,575		15,103		-		7,551	7,551			15,103
HARRY MCKILLOP BLVD / FM 546 (N) (4)	M-3		139,500		11,667		-		5,834	5,834			11,667
HARRY MCKILLOP BLVD / FM 546 (S) (3)	M-4		719,975		60,217		-		30,109	30,109			60,217
UNNAMED C (4)	L-9, M-5		1,415,150		118,360		-		59,180	59,180			118,360
UNNAMED C (5)	L-10, M-6		5,001,075		418,279				209,140	209,140			418,279
Signal	64		150,000		12,546				6,273	6,273			12,546
Signal	74		150,000		12,546		-	•	6,273	6,273			12,546
Impact Fee Study			11,692		11,692) -		5,846	5,846			11,692
Total		\$	7,866,005	\$	668,610	\$	-	\$	334,305	\$ 334,305	\$		668,610

⁽¹⁾ Per Kimley-Horn Impact Fee Study



⁽²⁾ Line 11 of the Max Fee Table Report

⁽³⁾ Per discussions with City staff. For existing debt funding that does not have a specific bond identified, a 4.5% rate is used to coincide with the water and wastewater calculations.

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area M

<u>Year</u>	Eligible Debt <u>Service⁽¹⁾</u>				Eligible Debt Service per Vehicle Mile	Annual Growth in Vehicle Miles (Cumulative)	- 4	edit for Annual Ad Valorem <u>Revenues</u>
1	\$	2,460	606,072	\$	0.00	30	\$	0
2		4,920	623,802		0.01	61		0
3		7,380	641,531		0.01	91		1
4		9,839	659,260		0.01	122		2
5		12,299	676,990		0.02	152		3
6		14,759	694,719		0.02	182		4
7		17,219	712,448		0.02	213		5
8		19,679	730,177		0.03	243		7
9		22,139	747,907		0.03	274		8
10		24,599	765,636		0.03	304		10
11		24,599	765,636		0.03	304		10
12		24,599	765,636		0.03	304		10
13		24,599	765,636		0.03	304		10
14		24,599	765,636		0.03	304		10
15		24,599	765,636		0.03	304		10
16		24,599	765,636		0.03	304		10
17		24,599	765,636		0.03	304		10
18		24,599	765,636		0.03	304		10
19		24,599	765,636		0.03	304		10
20		24,599	765,636	1	0.03	304		10
21		22,139	765,636		0.03	304		9
22		19,679	765,636		0.03	304		8
23		17,219	765,636		0.02	304		7
24		14,759	765,636		0.02	304		6
25		12,299	765,636		0.02	304		5
26		9,839	765,636		0.01	304		4
27		7,380	765,636		0.01	304		3
28		4,920	765,636		0.01	304		2
29		2,460	765,636		0.00	304		1
Total	\$	491,975					\$	181

2019 Vehicle Miles (2)

Ten Year Growth in Vehicle Miles in Service Area (3)

Annual Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles

Ten Year Growth in Vehicle Miles In Other Service Areas (3)

176,989

10 years

Annual Growth in Vehicle Miles

17,699

Credit Amount

\$ 181

⁽¹⁾ Appendix E - Service Area M, Page 2 Section II

⁽²⁾ Per Kimley-Horn Impact Fee Study

⁽³⁾ Line 8 of the Max Fee Table Report