



CITY OF MCKINNEY, TEXAS

Agenda

Planning & Zoning Commission

Tuesday, February 11, 2020

5:30 PM

Council Chambers
222 N. Tennessee Street
McKinney, TX 75069

**UNDER IT'S AUTHORITY AS THE CITY OF MCKINNEY CAPITAL IMPROVEMENTS
ADVISORY COMMITTEE PER RESOLUTION NO. 95 02 11 (R) AS AMENDED BY
RESOLUTION NO. 2019 06 074 (R)**

**PURSUANT TO TEXAS GOVERNMENT CODE SECTION 551.002, A QUORUM
OF THE CITY COUNCIL MAY BE PRESENT. NO CITY COUNCIL ACTION WILL
BE TAKEN.**

CALL TO ORDER

PUBLIC COMMENTS ON AGENDA ITEMS (For Non-Public Hearing Agenda Items)

If you wish to address the Planning and Zoning Commission on a posted item on this agenda, please fill out a "Request to Speak" card and present it to the City Staff prior to the meeting. Pursuant to Section 551.007 of the Texas Government Code, any person wishing to address the Planning and Zoning Commission for items listed as public hearings will be recognized when the public hearing is opened. Speakers wishing to address the Planning and Zoning Commission regarding any non-public hearing item on this agenda shall have a time limit of three (3) minutes per speaker, per agenda item. The Planning and Zoning Commission Chairman may reduce the speaker time limit uniformly to accommodate the number of speakers or improve meeting efficiency.

CONSENT ITEMS

This portion of the agenda consists of non-controversial or "housekeeping" items required by law. Items may be considered individually by any Commission member making such request prior to a motion and vote on the Consent items.

MINUTES

20-0136 [Minutes of the McKinney Capital Improvements Advisory
Committee Meeting of December 10, 2019](#)

Attachments: [Minutes](#)

END OF CONSENT AGENDA

REGULAR AGENDA ITEMS AND PUBLIC HEARINGS**19-0010M2** [Status Update on the Progress of the 2019 Impact Fee Update](#)

Attachments: [Presentation](#)
 [2018-2019 Land Use Assumptions Report](#)
 [DRAFT Roadway Impact Fee Report](#)
 [DRAFT Utility Impact Fee Report](#)
 [Impact Fees - Local City Comparisons](#)

COMMISSION AND STAFF COMMENTS

Comments relating to items of public interest such as staff recognition, development trends, the status of special Planning Department projects, and other relevant information.

ADJOURN

Posted in accordance with the Texas Government Code, Chapter 551, on the 6th day of February, 2020 at or before 5:00 p.m.

*Empress Drane, City Secretary
Lisa Sewell, Deputy City Secretary*

In accordance with the Americans with Disabilities Act, it is the policy of the City of McKinney to offer its public programs, services, and meetings in a manner that is readily accessible to everyone, including individuals with disabilities. If you are a person with a disability and require information or materials in an appropriate alternative format; or if you require any other accommodation, please contact the ADA Coordinator at least 48 hours in advance of the event. Phone 972-547-2694 or email contact-adacompliance@mckinneytexas.org. Advance notification within this guideline will enable the City to make reasonable arrangements to ensure accessibility. ADA grievances may also be directed to the ADA Coordinator or filed online at <http://www.mckinneytexas.org/ada>.



20-0136

Code Sections:

<p>Title: Minutes of the McKinney Capital Improvements Advisory Committee Meeting of December 10, 2019</p>

Text of Legislative File 20-0136

Minutes of the McKinney Capital Improvements Advisory Committee Meeting of
December 10, 2019

SUPPORTING MATERIALS:

Minutes

CAPITAL IMPROVEMENTS ADVISORY COMMITTEE

DECEMBER 10, 2019

The Planning and Zoning Commission, along with Dr. Randall Hickman, met under its authority as the City of McKinney Capital Improvements Advisory Committee per resolution No. 95-02-11 (R) as amended by Resolution No. 2019-06-074 (R) in the Council Chambers, 222 N. Tennessee Street, McKinney, Texas, on Tuesday, December 10, 2019 at 5:30 p.m.

City Council Present: Rick Franklin

Commission Members Present: Chairman Bill Cox, Vice-Chairman Brian Mantzey, Hamilton Doak, Christopher Haeckler, Dr. Randall Hickman, Cam McCall, Bry Taylor, and Scott Woodruff – Alternate. Charles S. Wattley – Alternate was in attendance; however, did not participate in the meeting.

Commission Members absent: Deanna Kuykendall

Staff Present: Director of Planning Jennifer Arnold; Assistant Director of Planning Mark Doty; Planning Manager Aaron Bloxham; Planners David Soto, and Mitchell Corona; and Administrative Assistant Terri Ramey

There were eight guests present.

Chairman Cox called the meeting to order at 5:30 p.m. after determining a quorum was present.

REGULAR AGENDA ITEMS AND PUBLIC HEARINGS

19-0013M Conduct a Public Hearing to Consider/Discuss/Act on the Semiannual Report with Respect to the Progress of the Capital Improvements Plan for Roadway and Utility Impact Fees. Mr. Mitchell Corona, Planner for the City of McKinney, explained the 2018-2019 end-of-year Semiannual Report with respect to the progress of the Capital Improvements Plan for Roadway and Utility Impact Fees as required by Chapter 395 of the Texas Local Government Code and the revisions to the document. He stated that Staff was recommending filing of the Semiannual Report with Respect to the Progress of the Capital Improvements Plan for Roadway and Utility Impact Fees. He offered to answer questions. Committee Member Haeckler asked about the decrease in roadway impact fees

received this year. Mr. Corona stated that it could correlate to several factors. He gave examples of Development Agreements and development occurring in McKinney's extraterritorial jurisdiction (ETJ) just outside of the city limits. He stated that the City only collects roadway impact fees for development within McKinney's city limits. Chairman Cox opened the public hearing and called for comments. There being none, on a motion by Vice-Chairman Mantzey, seconded by Committee Member Haeckler, the Committee unanimously voted to close the public hearing and recommend filing of the Semiannual Report with respect to the progress of the Capital Improvements Plan for Roadway and Utility Impact Fees, with a vote of 8-0-0. Chairman Cox stated that the recommendation of the Capital Improvements Advisory Committee would be forwarded to the January 7, 2020 City Council meeting.

END OF THE REGULAR AGENDA ITEM AND PUBLIC HEARING

The Committee unanimously approved the motion by Committee Member Doak, seconded by Committee Member Haeckler, to adjourn the meeting, with a vote of 8-0-0. There being no further business, Chairman Cox declared the meeting adjourned at 5:35 p.m.

BILL COX
Chairman



Code Sections:

Title: Status Update on the Progress of the 2019 Impact Fee Update

Text of Legislative File 19-0010M2

Status Update on the Progress of the 2019 Impact Fee Update

COUNCIL GOAL: Operational Excellence
(2B: Balance Available Resources to Accommodate the Growth and Maintenance Needs of the City)

MEETING DATE: February 11, 2020

DEPARTMENT: Planning Department

CONTACT: Aaron Bloxham, Planning Manager
Mitchell Corona, Planner I

STAFF RECOMMENDATION: Receive an update on the project progress of potential amendments to impact fees as part of the 2019 Impact Fee Update process.

ITEM SUMMARY:

- Staff and the consultant team are presenting information on the status of the 2019 Impact Fee Update. The presentation will include brief summaries of the draft capital improvements plans, the draft calculations for maximum assessable impact fees, neighboring city fee comparisons, and the anticipated remaining schedule for the update process.

Status of the Roadway Impact Fees:

- Kimley-Horn and Associates, serving as consulting transportation engineers on this project, has completed a preliminary draft of the Capital Improvements Plan for Roadway Impact Fees (more commonly referred to as the Roadway Improvements Plan or RIP). The draft RIP identifies the transportation infrastructure needed to accommodate projected growth over the next ten years and the probable costs associated with each infrastructure project. Only projects listed in the RIP are eligible for the assessment of impact fees.
- Kimley-Horn has also completed a draft Roadway Impact Fee Update Report, which includes the draft RIP as well as considerable technical analyses, a detailed discussion of the computation of the maximum calculated impact fees, and a presentation of the data that establishes the maximum assessable roadway fee.

Once finalized, this report will become a supporting document for the updated Roadway Impact Fee Ordinance.

- The maximum assessable fees included in the Roadway Impact Fee Update Report establish the maximum roadway impact fees per service unit and service area allowed by state law. This serves as a useful tool when City Council begins to consider the actual fee amounts to charge and who should bear the burden of paying for necessary roadway infrastructure.
- In anticipation of upcoming fee-setting discussions, Staff has included a comparison of roadway impact fees for neighboring cities as well as some overall fee-setting considerations.

Status of the Utility (Water and Wastewater) Impact Fees:

- On a parallel track, the consulting utility engineers (Birkhoff, Hendricks & Carter, LLP) have completed preliminary drafts of the Capital Improvements Plans for Water and Wastewater (more commonly referred to as the Water Improvements Plan and Wastewater Improvements Plan). The draft Plans identify the utility infrastructure needed to accommodate projected growth for the next ten years, the probable costs associated with each infrastructure project, and the existing oversized facilities for which excess capacity is available.
- The utility consultant team has also completed a draft Water and Wastewater Impact Fee Update Report, which includes the draft Utility Improvements Plans as well as considerable technical analyses, a detailed discussion of the computation of the maximum calculated impact fees, and a presentation of the data that establishes the maximum assessable water and wastewater fees. Once finalized, this report will become a supporting document for the updated Utility Impact Fee Ordinance.
- The maximum assessable fees included in the Utility Impact Fee Report establish the maximum utility impacts fees allowed by state law. This serves as a useful tool when City Council begins to consider the actual fee amounts to charge and who should bear the burden of paying for necessary utility infrastructure.
- In anticipation of upcoming fee-setting discussions, Staff has included a comparison of utility impact fees for neighboring cities as well as some overall fee-setting considerations.

Next Steps:

- At the February 25, 2020 CIAC meeting, the committee will discuss fee setting for the 2019 Impact Fee Update.
- At a Council Work Session in March, Staff will provide City Council with recommendations regarding changes to the impact fee ordinance and look to council for direction on city policies and setting the collection rates for impact fees.
- In April and May, Staff will be scheduling a couple of public hearings to consider and discuss the Amendments to the Capital Improvement Plans and the proposed amendments to the Impact Fee ordinance as part of the 2019 Impact Fee Update.

BACKGROUND INFORMATION:

- Chapter 395 of the Texas Local Government Code mandates that impact fees be reviewed and updated at least every 5 years. The City of McKinney last updated impact fees in 2013. Accordingly, Staff initiated the 2019 Impact Fee Update in Winter 2018.

- Updating Impact Fees involves 3 parts (as required by state law):

- Land Use Assumptions

The Land Use Assumptions contain growth projections on which an Impact Fee Ordinance is based. Projections for residential units and square footage of non-residential uses determine the infrastructure needed over the next ten years.

The updated Land Use Assumptions were considered by Capital Improvements Advisory Committee on August 27, 2019 and were approved by the City Council at the September 17, 2019 meeting.

- Capital Improvements Planning

Capital Improvement Plans for Impact Fees identify the infrastructure that will need to be constructed or expanded to accommodate the additional demand generated by development over the next ten years.

Staff has posted the draft Capital Improvements Plans on the City of McKinney's website.

- Fee Setting / Adopting the Amended Ordinance

The final phase of the process includes the majority of policy discussion as the City Council considers the actual fee amounts to charge, the phase-in of any fee increases, improvements to the administration of the Ordinances, and how credits should be calculated.

SUPPORTING MATERIALS:

Presentation

2018-2019 Land Use Assumptions Report

DRAFT Roadway Impact Fee Report

DRAFT Utility Impact Fee Report

Impact Fees - Local City Comparisons

2019 Impact Fee Update

19-0010M2

February 11, 2020

Introduction & Overview

- The project team
- The purpose of today's presentation
- General outline of the presentation
 - The Fundamentals
 - Roadway Improvements Plan
 - Roadway Maximum Assessable Fee
 - Utility Improvements Plans
 - Utility Maximum Assessable Fee



Impact Fees 101

The Fundamentals

What are Impact Fees?

- One-time fee for new development
- Mechanism to recover infrastructure costs required to serve new growth
- 'Rough Proportionality with mathematical exactitude'
 - Legal way to collect a flexible fee for infrastructure
- Governed by Chapter 395 of the Texas Local Government Code; Established in Texas in 1987

The 5-Year Update Process

- State law requires that impact fees must be updated at least one every five years and involve 3 components
 1. Land Use Assumptions (Completed on Sept. 17, 2019)
 2. Capital Improvements Planning (Draft)
 3. Fee Setting/Adopting the Ordinance

Impact Fees 101

The Fundamentals

Impact Fees in McKinney

- In McKinney, impact fees are used for:
 - Water
 - Wastewater
 - Roadway
- Capital Improvements Advisory Committee
 - Designated as Planning and Zoning Commission, plus one representative from the ETJ.

Terminology

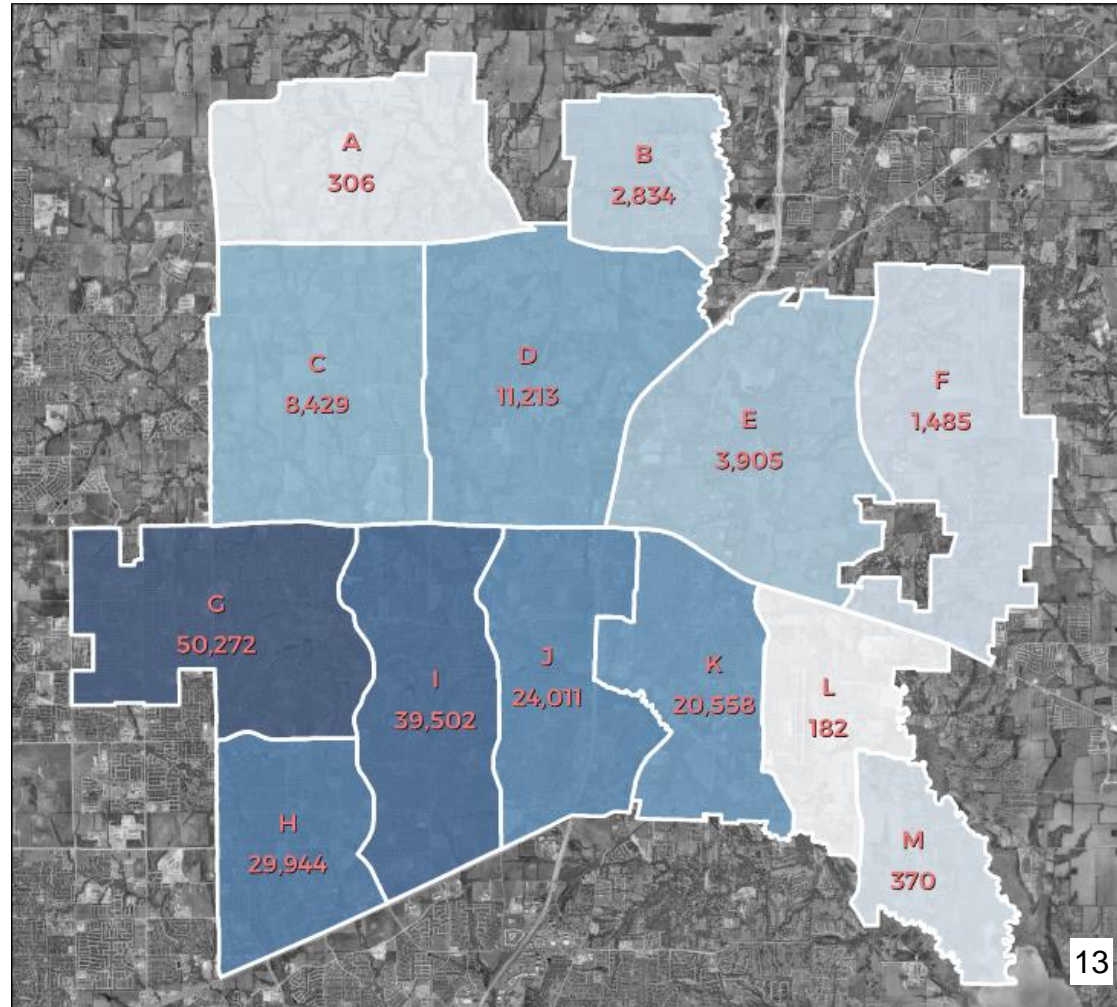
- Service Areas
- Land Use Assumptions
- Service Units
- Capital Improvements Plans
- Maximum Assessable Fee
- Collection Rate

Impact Fee Update Process

The Fundamentals

Land Use Assumptions

- Projects growth over 10-year period to calculate the demand for new infrastructure



2029 Population Growth Projections

Capital Improvements Planning

The Fundamentals

Review and Update Impact Fee CIP

- Identify infrastructure needed to accommodate growth
- Determine excess capacity of existing facilities
- Estimate costs associated with each infrastructure project

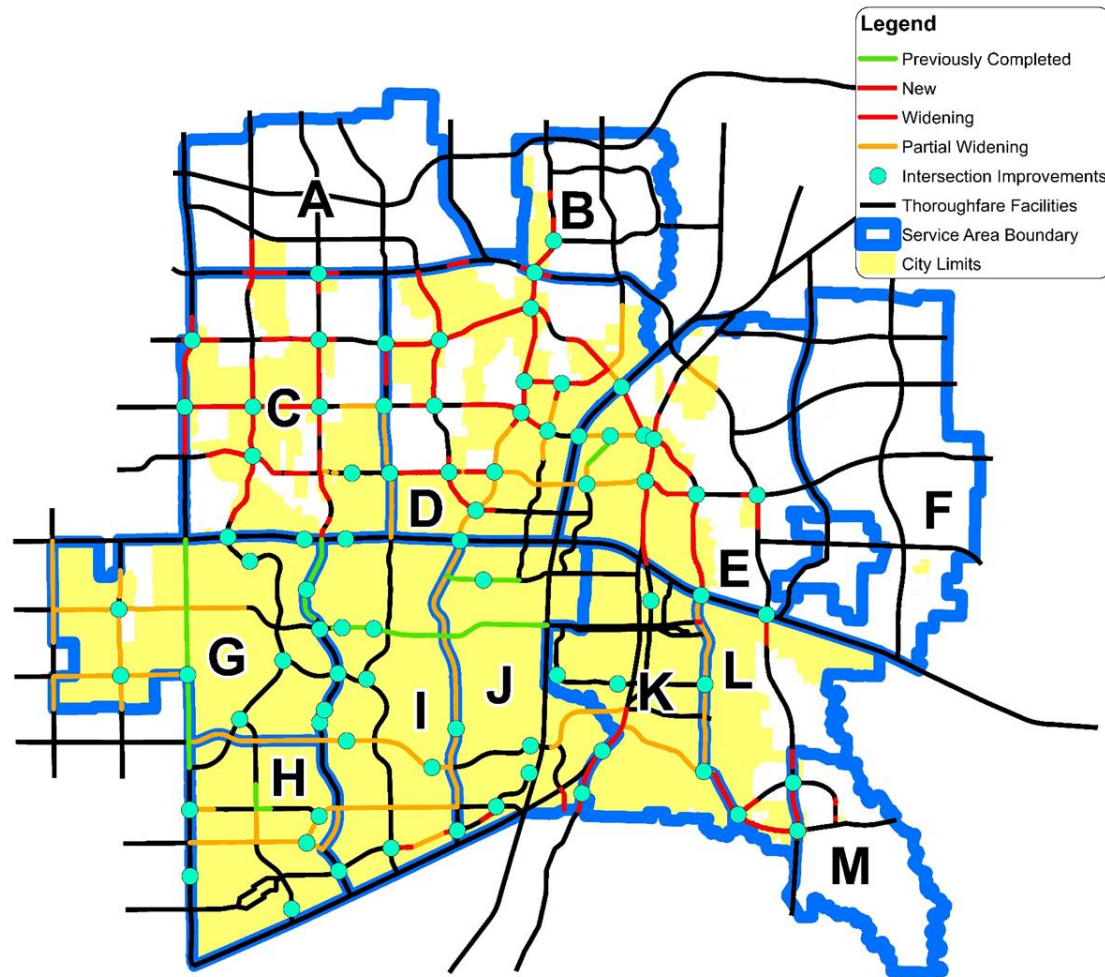
Calculate Max. Assessable Fee

Noteworthy Items

- Water and Wastewater
 - Using a credit calculation
- Wastewater
 - Including North Texas Municipal Water District

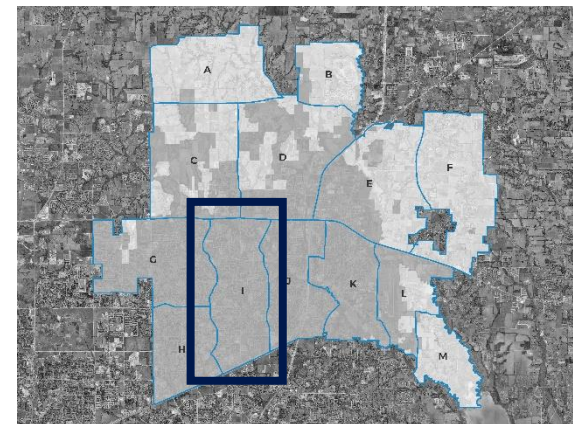
Roadway Impact Fee Update

2019-2029 Roadway Improvement Plan (Draft)



New Service Units

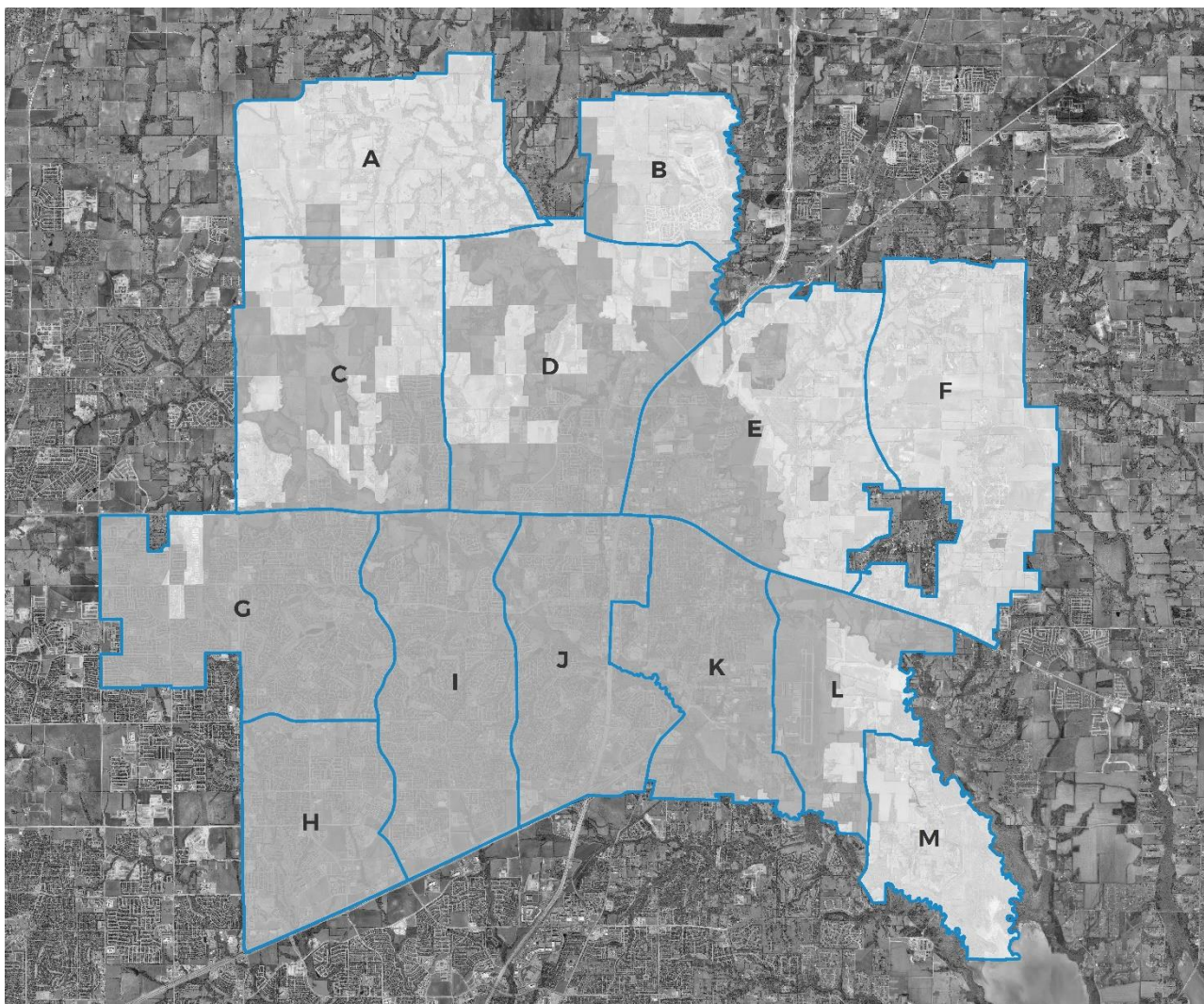
(PROJECTED GROWTH – Service Area I)



Land Use Type	Development Unit	Number of Development Units	Vehicle Miles per Development Unit (Trip Demand Factor)	Total Vehicle-Mile
Residential	Dwelling Unit	1,608	4.85	7,800
Basic (Industrial)	1,000 square feet	112.104	3.16	354
Service (Office)	1,000 square feet	252.841	6.90	1,744
Retail (Commercial)	1,000 square feet	1,199.668	7.03	8,434
			Total	18,332

- Service Area I has 18,332 vehicle-miles of projected demand.

Projected Growth (Vehicle-Miles)

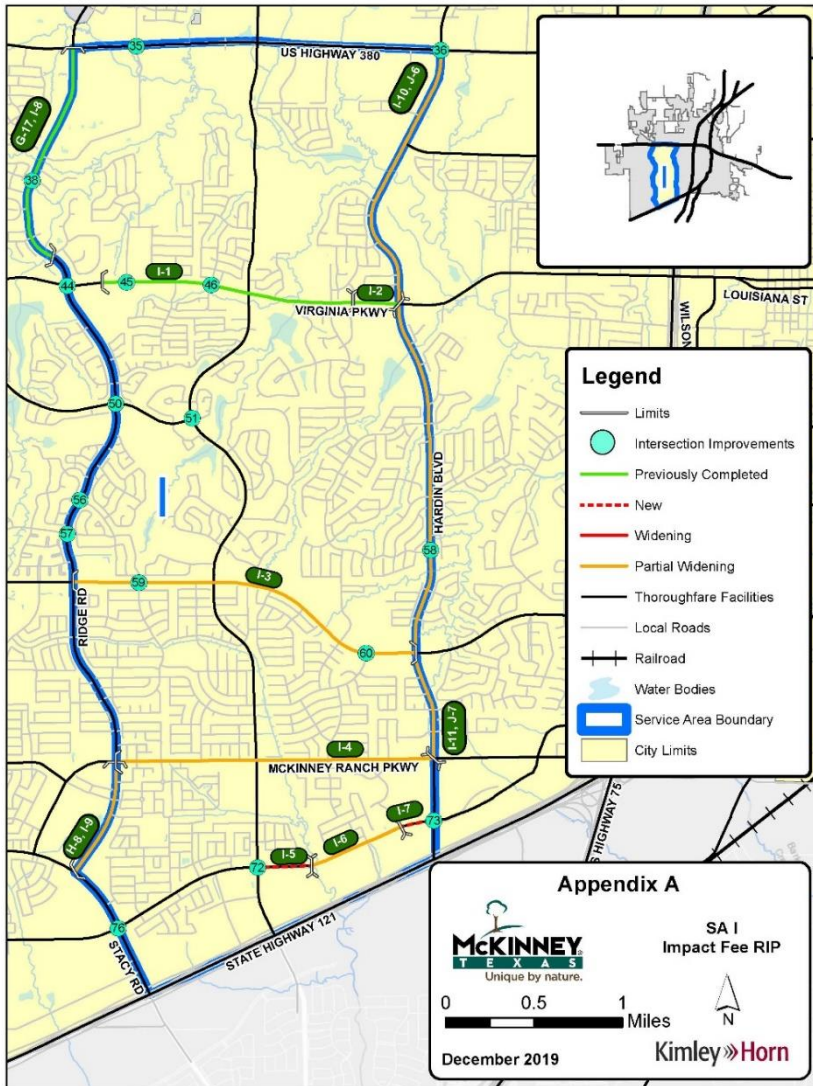


Service Area	Vehicle-Miles
A	0
B	9,578
C	15,582
D	41,299
E	17,845
F	0
G	7,742
H	31,324
I	18,332
J	24,864
K	8,530
L	1,893
M	304

Recoverable Cost

(Service Area I)

- Total Cost of RIP = \$35.6M
- Cost to meet existing demands - \$10.6M
- Cost of existing financing - \$1.4M
- Max. Calculated Fee = \$23.6M
- Credit Calculation - \$449K
- **10-Year Cost = \$23.2M**



Calculating the Maximum Impact Fee

Roadway Impact Fees

$$\text{Max. Impact Fee Per Service Unit} = \frac{\text{Recoverable Cost of the CIP (\$)}}{\text{New Service Units (vehicle - miles)}}$$

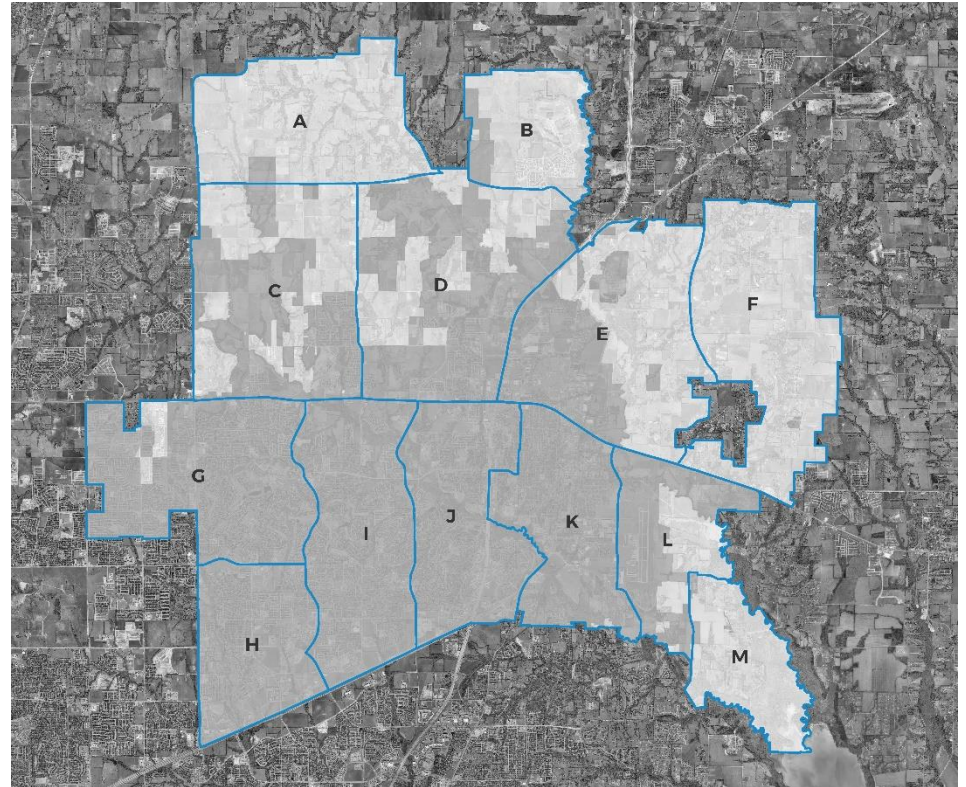
- Determine the amount of project growth in each Service Area for a 10-year period.
- Determine the additional capacity needed based on growth projections
- Determine recoverable cost of needed capital constructions to accommodate growth
- Determine cost per service unit

- Service Area I:

$$\frac{\$23.2\text{M recoverable cost}}{18,332 \text{ vehicle-miles}} = \$1,265 / \text{vehicle-mile}$$

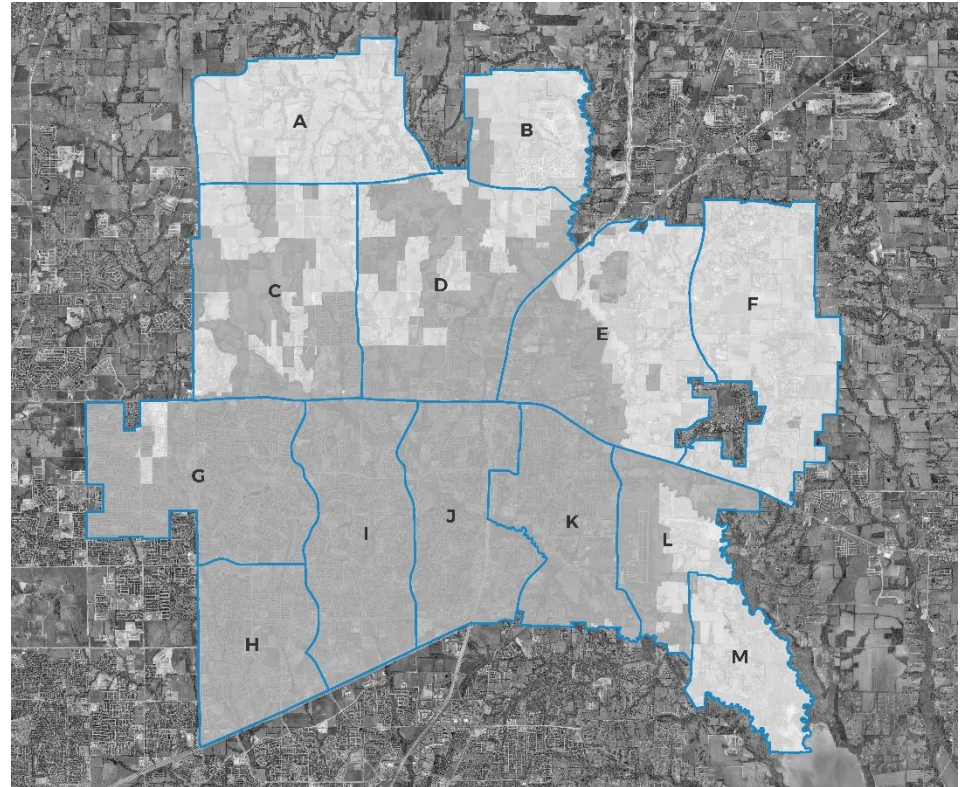
2018-2019 Maximum Assessable Fee

Service Area	Maximum Assessable Fee per Vehicle-Mile
A	\$0
B	\$1,094
C	\$2,808
D	\$3,438
E	\$2,202
F	\$0
G	\$1,155
H	\$361
I	\$1,265
J	\$347
K	\$1,197
L	\$2,044
M	\$2,406



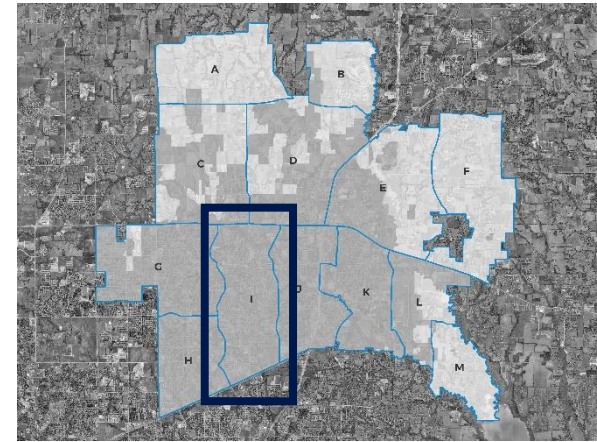
2018-2019 Maximum Assessable Fee

Service Area	2018-2019 Max.		2012-2013 Max.
A	\$0		\$0
B	\$1,094	↑	\$861
C	\$2,808	↑	\$1,500
D	\$3,438	↑	\$1,211
E	\$2,202	↑	\$2,082
F	\$0		\$0
G	\$1,155	↑	\$635
H	\$361	↓	\$393
I	\$1,265	↑	\$755
J	\$347	↓	\$824
K	\$1,197	↑	\$1,182
L	\$2,044	↑	\$1,370
M	\$2,406	↑	\$0



Maximum Assessable Fee

(SAMPLE CALCULATION– Service Area I)



Land Use Type	Development Unit	Number of Development Units	2019 Update					Current Impact Fee Charged	
			Trip Demand Factor		Max Fee/SU		Max Fee/DU		
Single Family	Dwelling Unit	1	X	4.85	X	\$1,265	=	\$6,135	\$3,800
Shopping Center	1,000 Square Feet	1		7.03		\$1,265		\$8,893	\$3,176
Office	1,000 Square Feet	1		6.90		\$1,265		\$8,729	\$1,951
Light Industrial	1,000 Square Feet	1		3.16		\$1,265		\$3,997	\$989

Maximum Assessable Fee

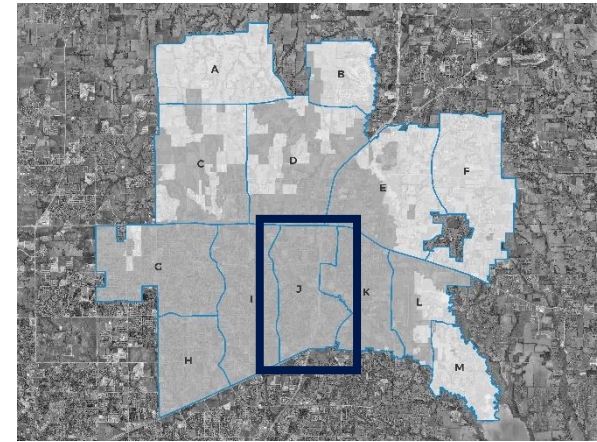
(SAMPLE CALCULATION– Service Area C)



Land Use Type	Development Unit	Number of Development Units	2019 Update				Current Impact Fee Charged
			Trip Demand Factor		Max Fee/SU	Max Fee/DU	
Single Family	Dwelling Unit	1	X	3.96	X \$2,707	= \$11,120	\$3,800
Shopping Center	1,000 Square Feet	1		7.03	\$2,707	\$19,030	\$4,255
Office	1,000 Square Feet	1		4.60	\$2,707	\$12,452	\$2,415
Light Industrial	1,000 Square Feet	1		2.52	\$2,707	\$6,822	\$1,120

Maximum Assessable Fee

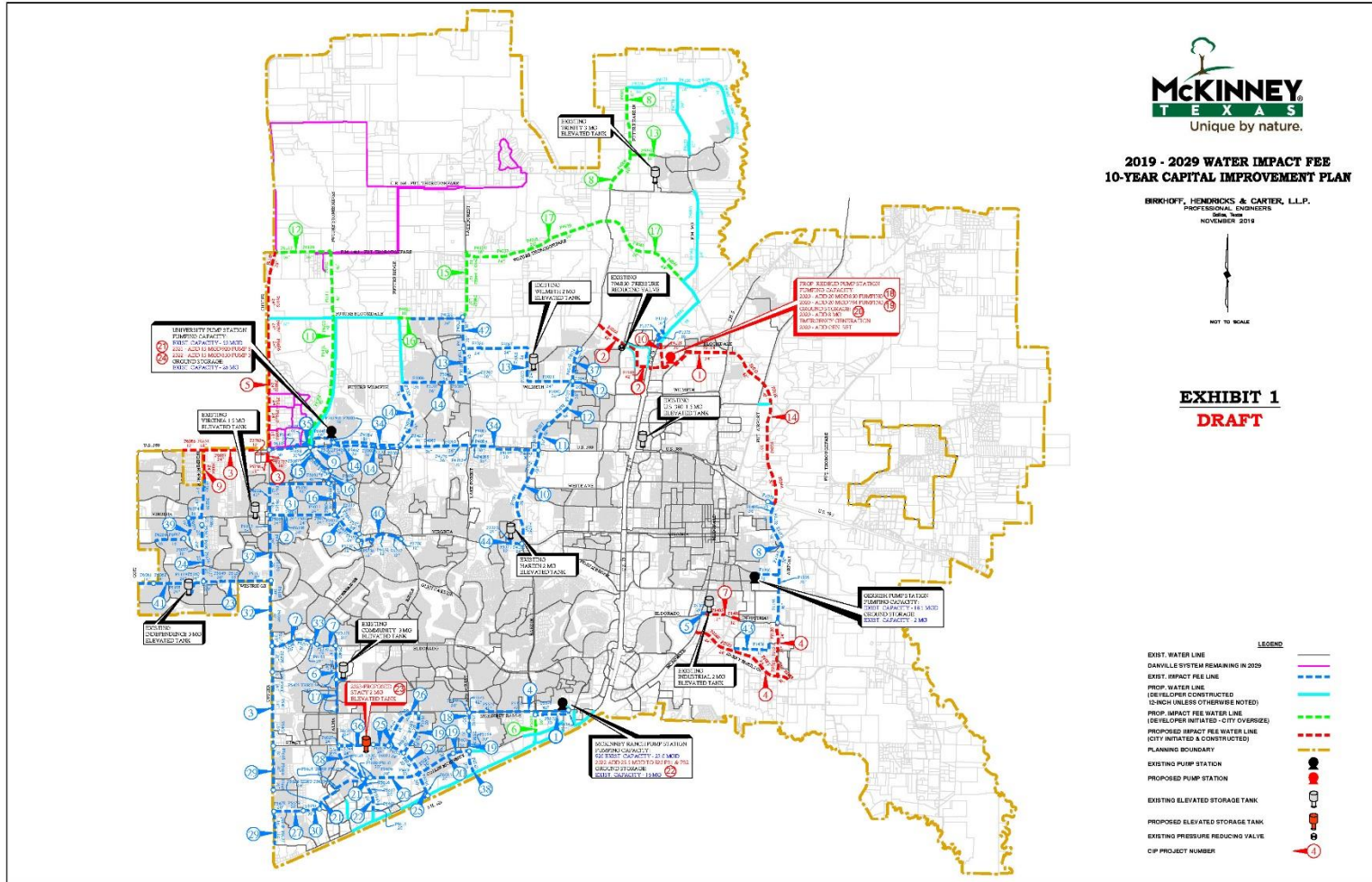
(SAMPLE CALCULATION– Service Area J)



Land Use Type	Development Unit	Number of Development Units	2019 Update						Current Impact Fee Charged
			Trip Demand Factor		Max Fee/SU		Max Fee/DU		
Single Family	Dwelling Unit	1	x	4.85	x	\$387	=	\$1,683	\$3,800
Shopping Center	1,000 Square Feet	1		7.03		\$387		\$2,721	\$3,597
Office	1,000 Square Feet	1		6.90		\$387		\$2,670	\$2,206
Light Industrial	1,000 Square Feet	1		3.16		\$387		\$1,223	\$1,114

Water/Wastewater Impact Fee Update

2019-2029 Water Capital Improvement Plan (Draft)



PROPOSED WATER LINES

Proj. No.	Year	1=City Participation in Cost Oversize 2=City Initiated and Funded		Size	Opinion of Construction Cost (A)
		Project			
1	2020	2	REDBUD 794 PUMP STATION 54" DISCHARGE LINE	54"	\$ 4,496,262
2	2019	2	REDBUD 850 PUMP STATION 42" DISCHARGE LINE	42"	\$ 8,137,350
3	2020	2	US 380 / INDEPENDENCE LOOP	12", 16", 24"	\$ 2,203,102
4	2021	2	HARRY McKILLOP BLVD. 24" WATER LINE	12", 24"	\$ 8,350,000
5	2021	2	CUSTER 24" NORTH WATER LINE	18", 24"	\$ 11,888,125
6	2021	1	HARDIN SOUTH 16" WATER LINE	16"	\$ 108,900
7	2022	2	INDUSTRIAL BLVD. 12" WATER LINE (PIPE BURST 8" to 12")	12"	\$ 569,109
8	2022	1	HARDIN 24" & 16" (TRINITY FALLS WEST FEED NORTH)	16", 24"	\$ 691,392
9	2022	2	INDEPENDENCE CONNECTION TO US 380	24"	\$ 561,120
10	2023	2	REDBUD PUMP STATION 850 DISCHARGE LINE (T-FALLS EAST FEED)	42"	\$ 737,100
11	2024	1	STONEBRIDGE 42" WATER LINE	42"	\$ 5,342,040
12	2025	1	F.M. 1461 (FUTURE E/W THOROUGHFARE)	16"	\$ 289,560
13	2025	1	COUNTY ROAD 228 16" WATER LINE	16"	\$ 125,100
14	2026	2	AIRPORT WATER LINE NORTH LOOP	30", 36"	\$ 4,821,900
15	2027	1	LAKE FOREST 16" WATER LINE	16"	\$ 337,138
16	2027	1	BLOOMDALE 16" WATER LINE	16"	\$ 200,220
17	2029	1	FUT. 850 EAST / WEST THOROUGHFARE WATER LINE	12", 20", 24"	\$ 2,245,020
Subtotal: Proposed Water Lines					\$ 51,103,438

(A)

Opinion of Cost includes:

- a) Engineer's Opinion of Construction Cost
- b) Professional Services Fees (Survey, Engineering, Testing, Legal)
- c) Cost of Easement or Land Acquisitions

Debt Service based on 20-year simple interest bonds at 4.5%

PUMPING AND STORAGE FACILITIES

Proj. No.	Year	Project	Capacity	Opinion of Construction Cost (A)
18	2020	Redbud Pump Station - Phase I Improvements (850)	20 MGD	\$ 12,600,000
19	2020	Redbud Pump Station - Phase I Improvements (794)	20 MGD	\$ 12,600,000
20	2020	Redbud Pump Station 8-MG Ground Storage Reservoir No. 1	8 MG	\$ 3,828,000
21	2021	University Pump Station Phase III Improvements - Add Pump 920 PS2 Pump 8	15-MGD	\$ 2,482,830
22	2022	McK. Ranch P.S. - Phase I - Replace PS 1 PMPs 6-8, Add 9, PS 2 Pumps 1 & 2	25.5 MGD	\$ 10,574,487
23	2023	Stacy 2-MG Elevated Storage Tank	2 MG	\$ 5,500,000
24	2029	University Pump Station Phase III Improvements - Add Pump 920 PS2 Pump 8	15-MGD	\$ 2,420,000
Subtotal: Pumping and Storage Facilities				\$ 50,005,317
GRAND TOTAL: Water Distribution System CIP				\$ 101,108,755

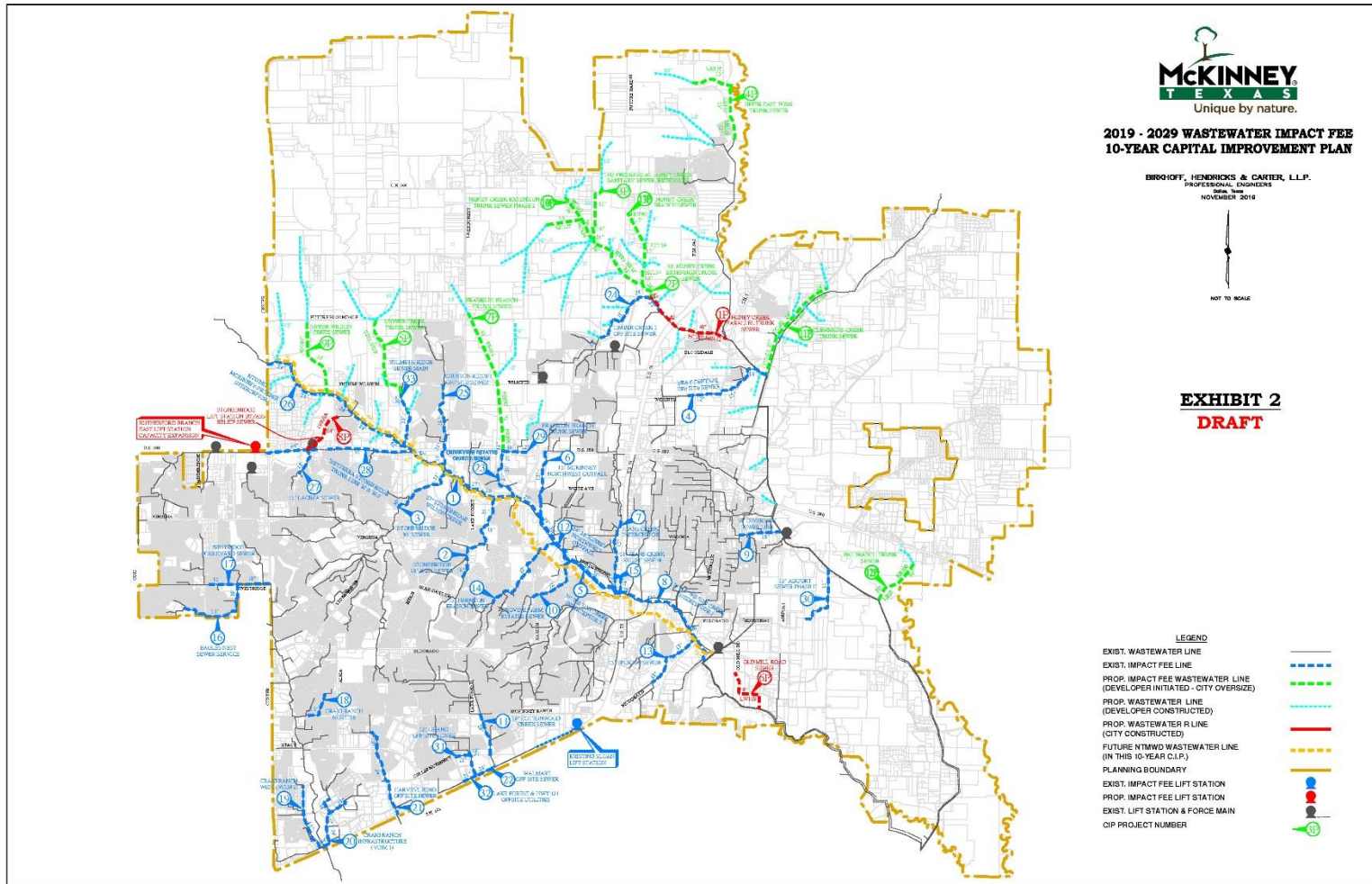
- (A) Opinion of Cost includes:
- a) Engineer's Opinion of Construction Cost
 - b) Professional Services Fees (Survey, Engineering, Testing, Legal)
 - c) Cost of Easement or Land Acquisitions
- Debt Service based on 20-year simple interest bonds at 4.5%

PLANNING EXPENSES

	Year	Project	Opinion of Cost (1)
	2019	Water & Wastewater System Master Plan & Impact Fee Analysis	\$ 204,417
Subtotal: Planning Expenses			\$ 204,417
GRAND TOTAL: Water Distribution System CIP			\$ 101,313,172

- (1) Opinion of Cost includes:
- a) Engineer's Opinion of Construction Cost
 - b) Professional Services Fees (Survey, Engineering, Testing, Legal)
 - c) Cost of Easement or Land Acquisitions

2019-2029 Wastewater Capital Improvement Plan (Draft)



WASTEWATER COLLECTION C.I.P.

Project LD.	Year	(1) = City Participation in Cost Oversize (2) = City Initiated and Funded	Project	Size	Total Capital Cost (A)
PROPOSED WASTEWATER COLLECTION LINES					
1P	2022	(2)	Honey Creek Parallel Trunk Sewer	42" - 48"	\$ 11,000,000
2P	2020	(1)	36" Honey Creek Extension Trunk Sewer	36"	\$ 1,018,593
3P	2020	(1)	The Preserve at Honey Creek	15" - 21"	\$ 307,836
4P	2021	(1)	Upper East Fork Trunk Sewer	15" - 18"	\$ 324,625
5P	2020	(1)	Stover Creek Trunk Sewer Phase 2	27"	\$ 1,240,000
6P	2020	(2)	Old Mill Road Sewer (WW 1858)	8"	\$ 2,000,000
7P	2022	(1)	Franklin Branch Trunk Sewer	15" - 21"	\$ 696,949
8P	2024	(2)	Stonebridge Lift Station No. 1 Bypass Sewer	24"	\$ 4,000,000
9P	2022	(1)	Upper Wilson Creek Sewer	15"	\$ 224,864
10P	2027	(1)	Honey Creek Extension Trunk Sewer Phase 2	36"	\$ 1,331,872
11P	2025	(1)	Clemons Creek Trunk Sewer	24" - 27"	\$ 1,183,662
12P	2026	(1)	Big Branch Trunk Sewer	30"	\$ 894,445
13P	2026	(1)	Honey Creek Branch Sewer	15" - 18"	\$ 343,825
PROPOSED WASTEWATER COLLECTION LINES SUBTOTAL:					\$ 24,566,671
PROPOSED WASTEWATER LIFT STATIONS					
PWWF-1	2023	(2)	Rutherford Branch East Pumping Capacity Expansion	5.9-MGD	\$ 440,000
PROPOSED WASTEWATER LIFT STATIONS SUBTOTAL:					\$ 440,000
CAPITAL IMPROVEMENTS PLAN TOTAL:					\$ 25,006,671

(A) Opinion of Cost includes:

- a) Engineer's Opinion of Construction Cost
- b) Professional Services Fees (Survey, Engineering, Testing, Legal)
- c) Cost of Easement or Land Acquisitions

10- Year Growth Assumptions

Population Growth Assumption:

	2019	2029	Buildout
Population Assumption (# People)	193,011	262,084	433,874
Percent of Buildout Population (%)	44.5%	60.4%	100.0%
2019 to 2029 Population Growth:		135.8%	

Non-Residential Growth Assumption:

	2019	2029	Buildout
Non-Residential Development (S.F.)	45,987,322	62,513,971	153,580,976
Percent of Buildout Development (%)	29.9%	40.7%	100.0%
2019 to 2029 Population Growth:		135.9%	

2019 - 2029 Water System Living Unit Equivalents (LUE) by Meter Size

Meter Size	2019			2029			New Living Units During Impact Fee Period
	Meter Count	Living Units per Meter	Total Living Units	Meter Count	Living Units per Meter	Total Living Units	
¾"	43,303	1.00	43,303	58,800	1.00	58,799	15,496
1"	14,015	1.67	23,405	19,031	1.67	31,781	8,376
1½"	468	3.33	1,558	636	3.33	2,118	560
2"	2,533	8.33	21,099	3,443	8.33	28,682	7,583
3"	225	16.67	3,750	306	16.67	5,098	1,348
4"	68	33.33	2,266	92	33.33	3,080	814
6"	22	53.33	1,173	30	53.33	1,594	421
8"	9	93.33	839	12	93.33	1,141	302
12"	2	183.33	366	3	183.33	498	132
Totals:	60,645		97,759	82,353		132,791	35,032

2019 - 2029 Waste water System Living Unit Equivalents (LUE) by Meter Size

Meter Size	2019			2029			New Living Units During Impact Fee Period
	Meter Count	Living Units per Meter	Total Living Units	Meter Count	Living Units per Meter	Total Living Units	
¾"	43,084	1.00	43,084	58,503	1.00	58,502	15,418
1"	13,171	1.67	21,995	17,885	1.67	29,867	7,872
1½"	287	3.33	955	390	3.33	1,299	344
2"	1,246	8.33	10,379	1,694	8.33	14,109	3,730
3"	215	16.67	3,584	292	16.67	4,872	1,288
4"	65	33.33	2,166	88	33.33	2,945	779
6"	20	53.33	1,066	27	53.33	1,449	383
8"	9	93.33	839	12	93.33	1,141	302
12"	2	183.33	366	3	183.33	498	132
Totals:	58,099		84,434	78,894		114,682	30,248

Maximum Assessable Utility Impact Fees

$$\text{Max. Impact Fee} = \frac{\text{Eligible Existing Facility Cost} + \text{Eligible Proposed Facility Cost} - \text{Credit Analysis Difference}^{**}}{\text{\# of New Living Unit Equivalents over the next 10 Years}}$$

Living Unit Equivalent = $\frac{3}{4}$ " meter

Water Impact Fee ($\frac{3}{4}$ " Meter)

$$\frac{\$42,273,973 + \$58,645,089 - \$39,472,321}{35,032 \text{ LUE's}} = \frac{\$61,446,741}{35,032 \text{ LUE's}} = \$1,754.00/\text{LUE}$$

Wastewater Impact Fee ($\frac{3}{4}$ " Meter)

$$\frac{\$1,989,039 + \$135,498,481 - \$49,807,925}{35,032 \text{ LUE's}} = \frac{\$87,679,595}{30,248 \text{ LUE's}} = \$2,899.00/\text{LUE}$$

Wastewater Impact Fee increase is due in part to costs associated with NTMWD facility costs

*Allowable Maximum impact fee is reduced by Ad-Valorem Tax and Revenue Credit per Chapter 395.014(7)(A) LGC

**Credit Analysis Difference amount was the overall calculated difference from the Financial Credit Analysis Report

Utility Impact Fees (Comparison)

2019 Utility Impact Fee Comparison

	2019		2013
Water Impact Fee (3/4" Meter)	\$1,754.00/LUE	↑	\$1.294.70/LUE
Wastewater Impact Fee (3/4" Meter)	\$2,899.00/LUE*	↑	\$162.14/LUE

**2019 Wastewater Fee includes the NTWMD facility expansion costs.*

Wastewater Impact Fee Breakdown (\$2,899.00)

<i>NTMWD CIP Costs</i>	\$2,511	<i>McKinney CIP Costs</i>	\$388
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Looking Ahead...

February

- At the February 25, 2020 CIAC meeting, the committee will discuss fee setting.

March

- At the March 17, 2020 City Council Work Session, council will discuss fee setting for the 2019 Impact Fee Update.

April/May

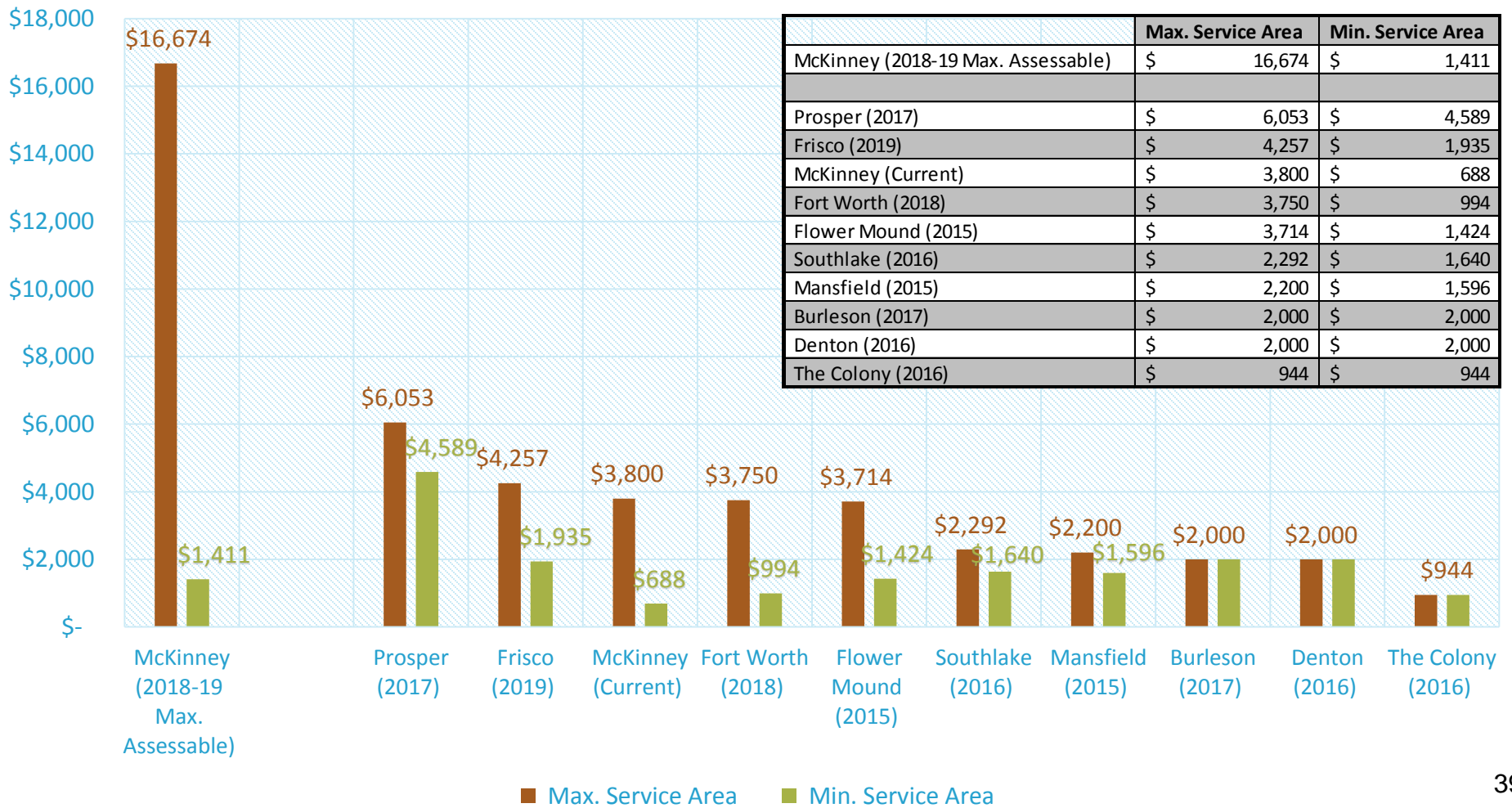
- In April, Public Hearing to discuss amending the Capital Improvements Plan (Roadway and Utility).
- In May, City Council meeting for a Public Hearing to consider Impact Fee Ordinance Amendments.

(This includes any fee amendments and administrative improvements to the Ordinance).

Local City Comparisons

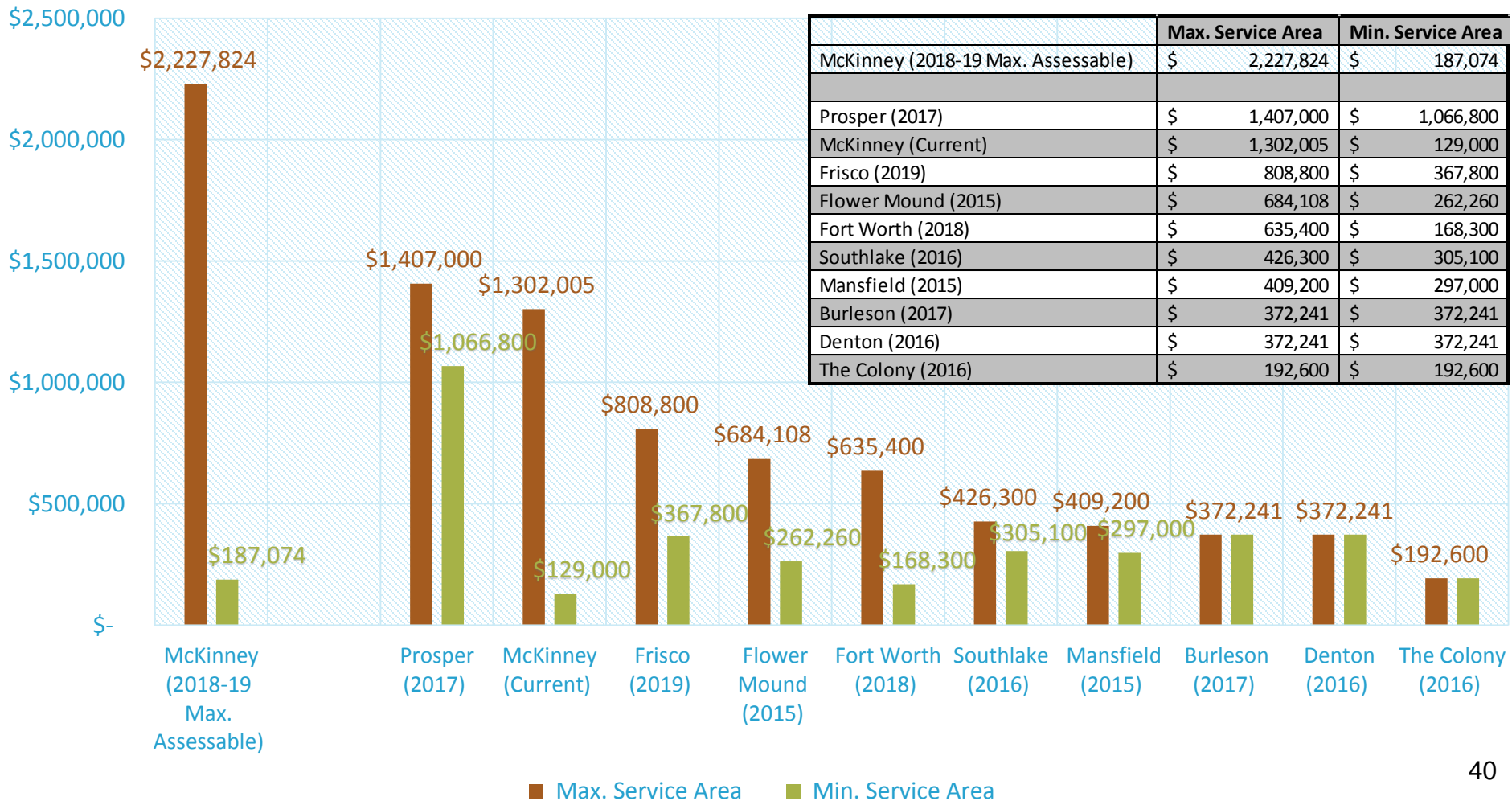
Roadway Impact Fee City Comparison

Actual Fee: One (1) Single Family Dwelling Unit



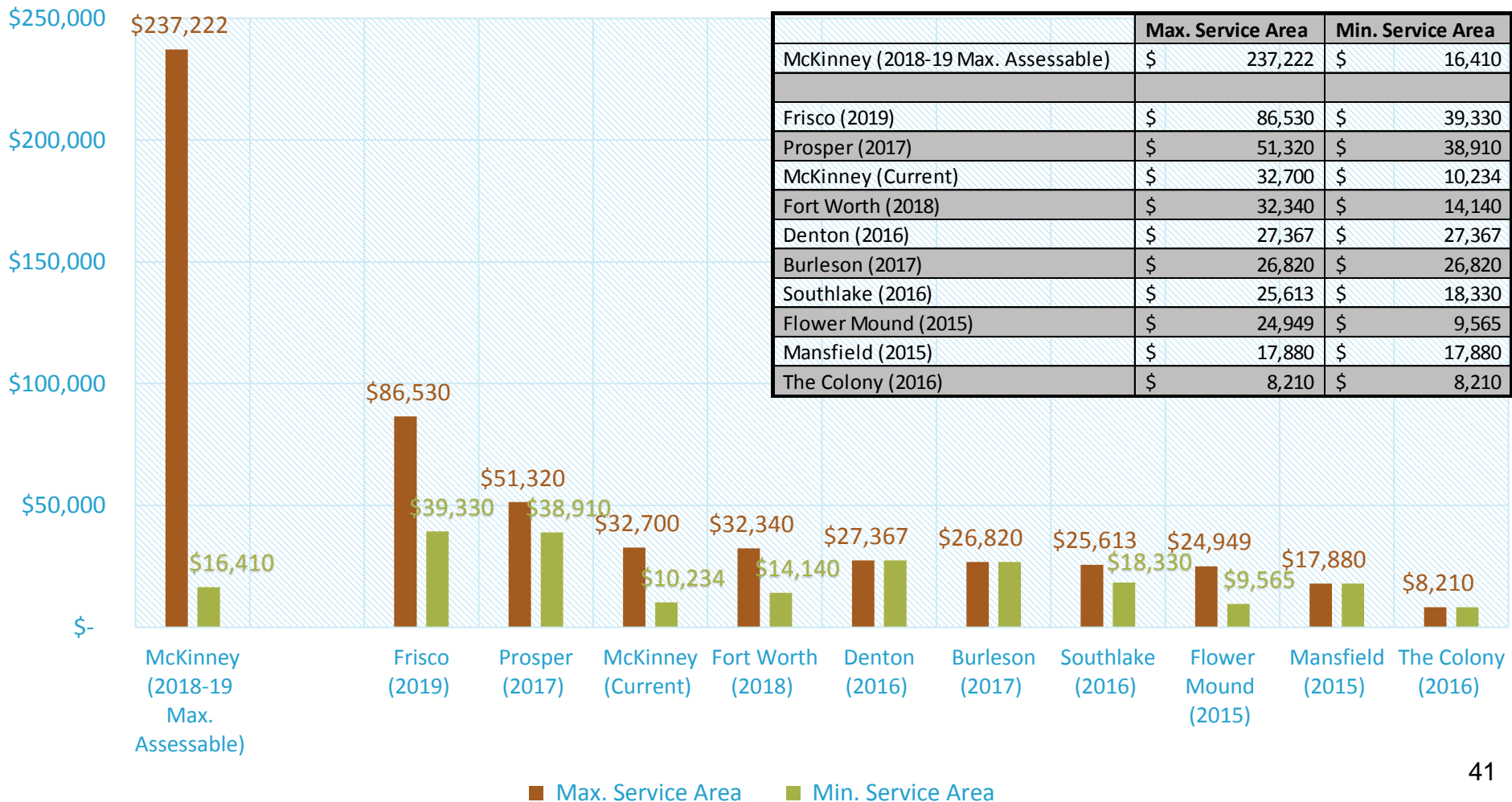
Roadway Impact Fee City Comparison

Actual Fee: 300 Multi-Family Dwelling Units



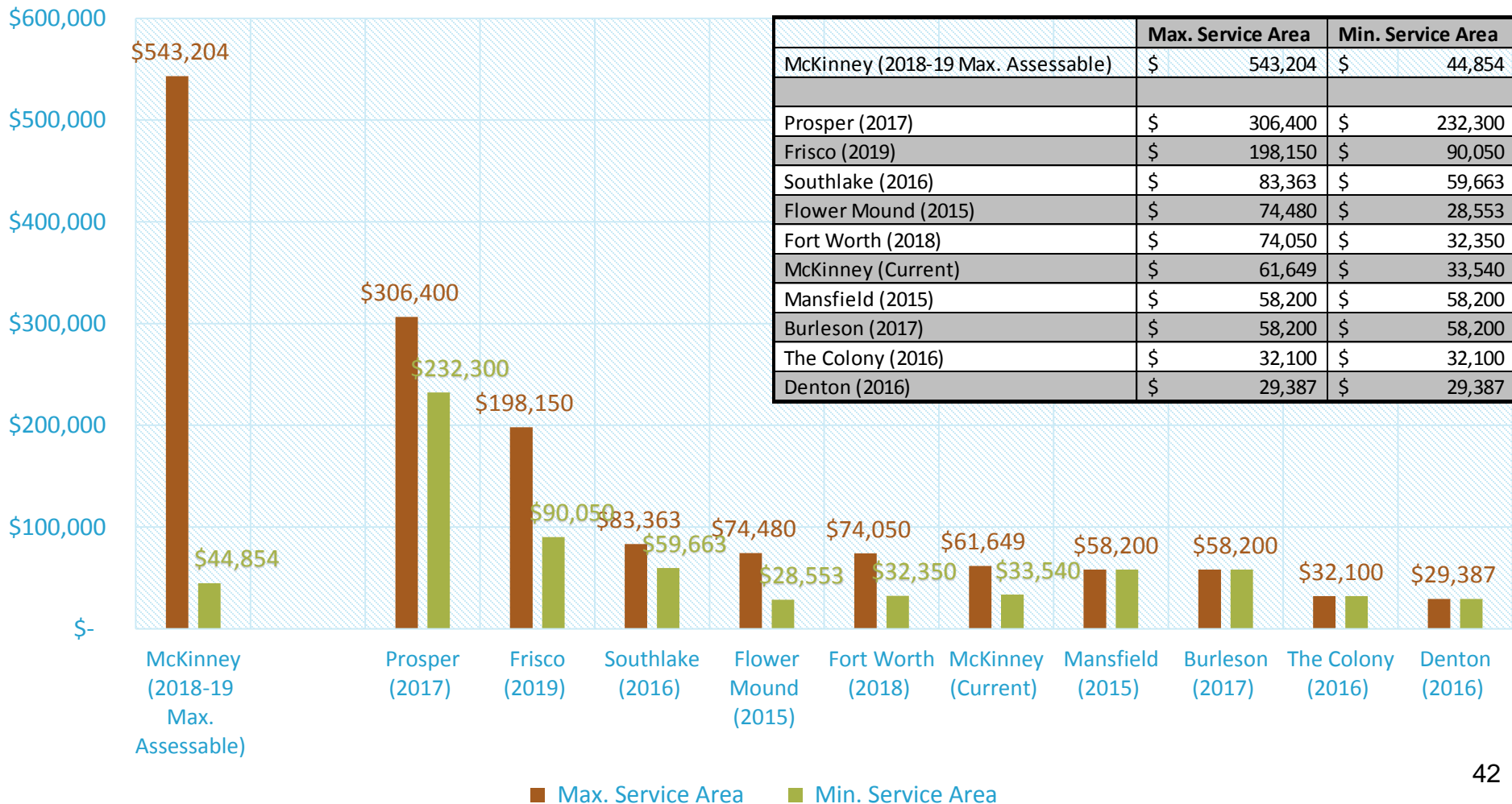
Roadway Impact Fee City Comparison

Actual Fee: 10,000 Square Foot Office Development



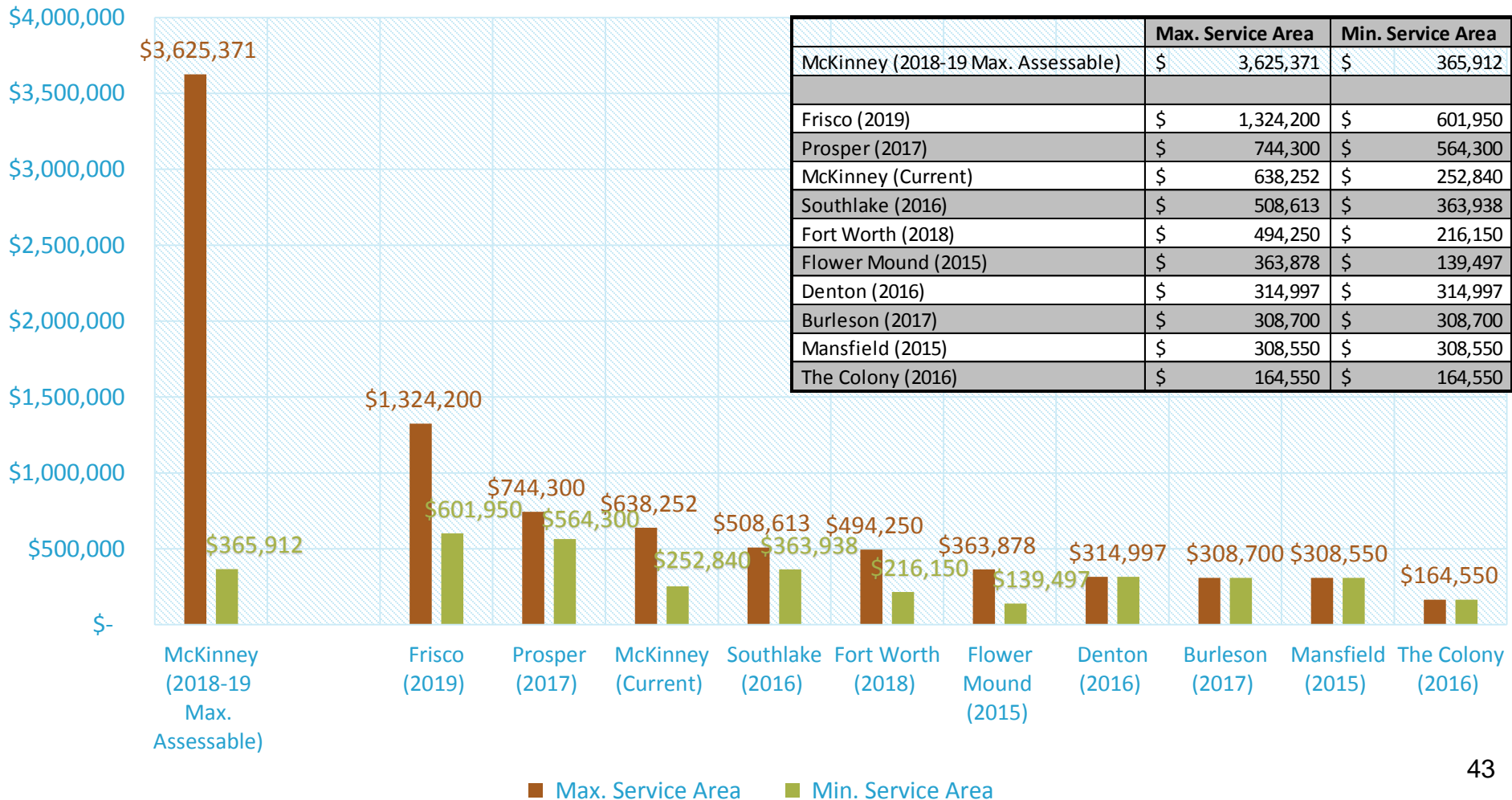
Roadway Impact Fee City Comparison

Actual Fee: 50,000 Square Foot Light Industrial Development

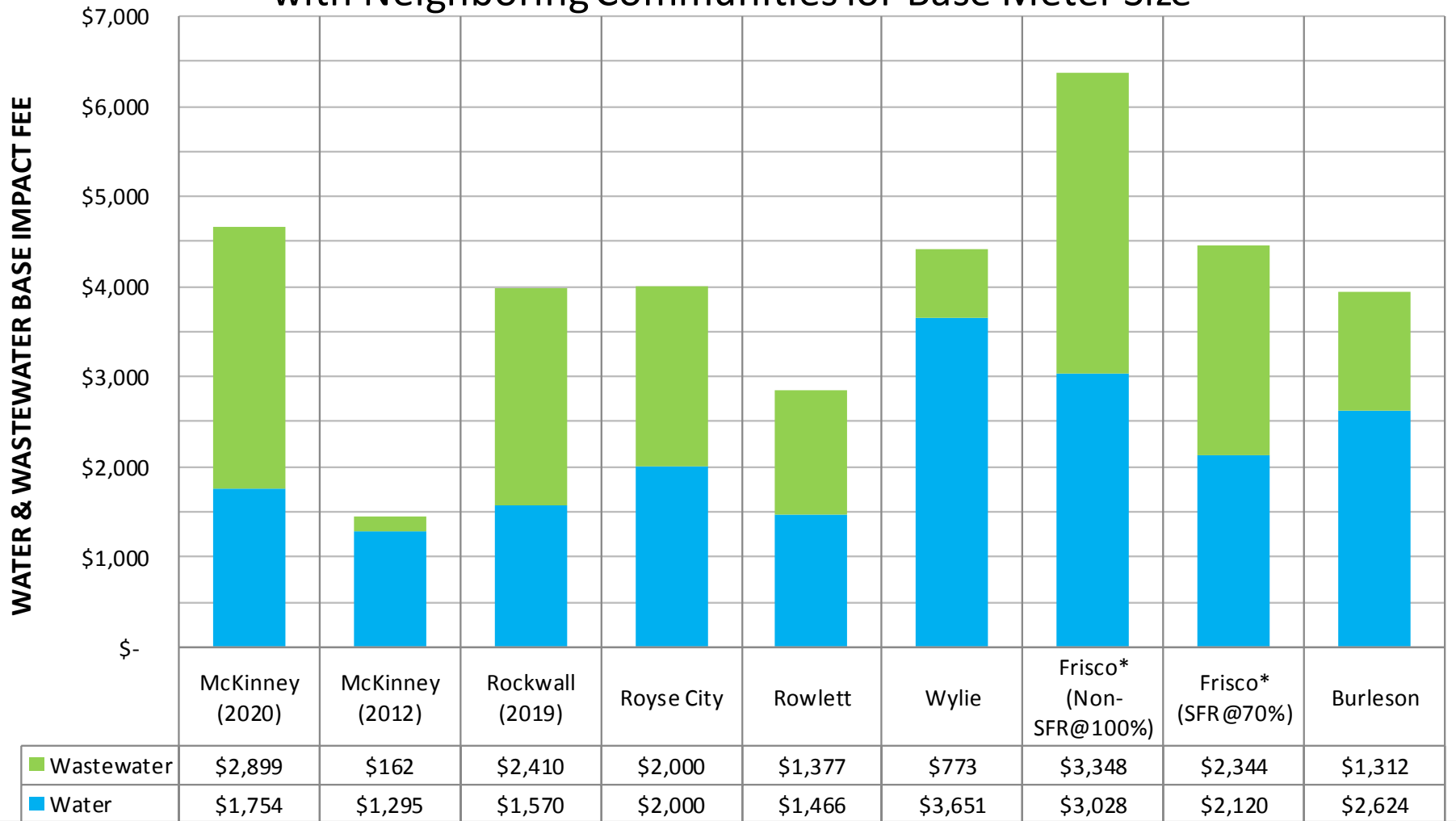


Roadway Impact Fee City Comparison

Actual Fee: 150,000 Square Foot Shopping Center Development



Calculated Impact Fee Comparison with Neighboring Communities for Base Meter Size



* Frisco's Fee Schedule allows 70% of maximum fee for Single Family Land Use for both Water & Wastewater fees shown 44



LAND USE ASSUMPTIONS 2018-2019



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PURPOSE AND OVERVIEW

To accurately determine the costs associated with providing infrastructure services to new and existing development, a study must be conducted to determine the type, amount, and location of existing development and expected growth. This study is called the Land Use Assumptions (LUA), and is the first step in the impact fee update process. Impact fees are levied against new development to pay for the off-site construction or expansion of infrastructure that is necessitated by the additional impact caused by the new development.

As defined by Chapter 395 of the Texas Local Government Code, impact fees are “a charge or assessment imposed by a political subdivision against new development in order to generate revenue for funding or recouping the costs of capital improvements or facility expansions necessitated by and attributable to the new development”, and that “a political subdivision imposing an impact fee shall update the land use assumptions and capital improvements plan at least every five years”.



STUDY PROCESS

This report documents the practical approach that was taken to determine Land Use Assumptions. The residential and non-residential growth projections formulated in this report were performed using reasonable and generally accepted forecasting and planning principles. The following data and procedures were used in developing this report:

Study Data

- Existing land uses and non-residential square footages (source: Collin Central Appraisal District).
- Existing zoning map and development regulations (source: City of McKinney).
- ONE McKinney 2040 Comprehensive Plan - Future Land Use Plan (source: City of McKinney).
- Historical population information (source: City of McKinney, U.S. Census Bureau).
- Texas Population Projections 2010 to 2050 (source: Texas Demographic Center)
- Proposals for residential and non-residential developments that have been approved by the City but not yet constructed (source: City of McKinney).

Primary Steps

1. Update service area boundaries in accordance with State Law requirements.
2. Determine baseline conditions for 2019 population and non-residential square footage
3. Project the ultimate buildout population and non-residential square footage.
4. Project population and non-residential square footage growth for the next ten years.

SERVICE AREA MAPS

What is a Service Area?

As defined by Local Government Code Chapter 395, a “service area” may include all or part of the land within the political subdivision or its ETJ to be served by the capital improvements or facilities expansions specified in the Capital Improvements Plan, except roadway facilities and storm water, drainage, and flood control facilities.

For roadway facilities, a service area is limited to an area within the corporate boundaries of the political subdivision and shall not exceed 6 miles. Roadway service area boundaries generally follow existing and future major thoroughfares. Also, roadway service areas represent areas of similar traffic generation characteristics and help to maintain efficiencies in accounting and administration of roadway impact fees.

Exhibit “A” shows the 2019 Roadway Service Area Map. The 2019 Roadway Service Area Map includes the same 13 Service Areas that the City

of McKinney recognized during the 2012-2013 Impact Fee Update. Slight changes have been made to align service area boundaries with newly constructed roadways and the Master Thoroughfare Plan that was adopted in 2018 as part of the ONE McKinney 2040 Comprehensive Plan.

Exhibit “B” shows the 2019 Utility Service Area Map. Minor changes have been made to reflect changes in the ETJ boundary that have taken effect since the last impact fee update that was completed in 2012-2013.

For the purpose of further analysis and geographic specificity, sub-service areas were created to assist with the classification of existing population and non-residential square footages, and distribution of future projections. The sub-service areas are smaller boundary entities that nest within their larger service area counterparts.

“Roadway service areas represent areas of similar traffic generation characteristics”



EXHIBIT A: ROADWAY SERVICE AREAS

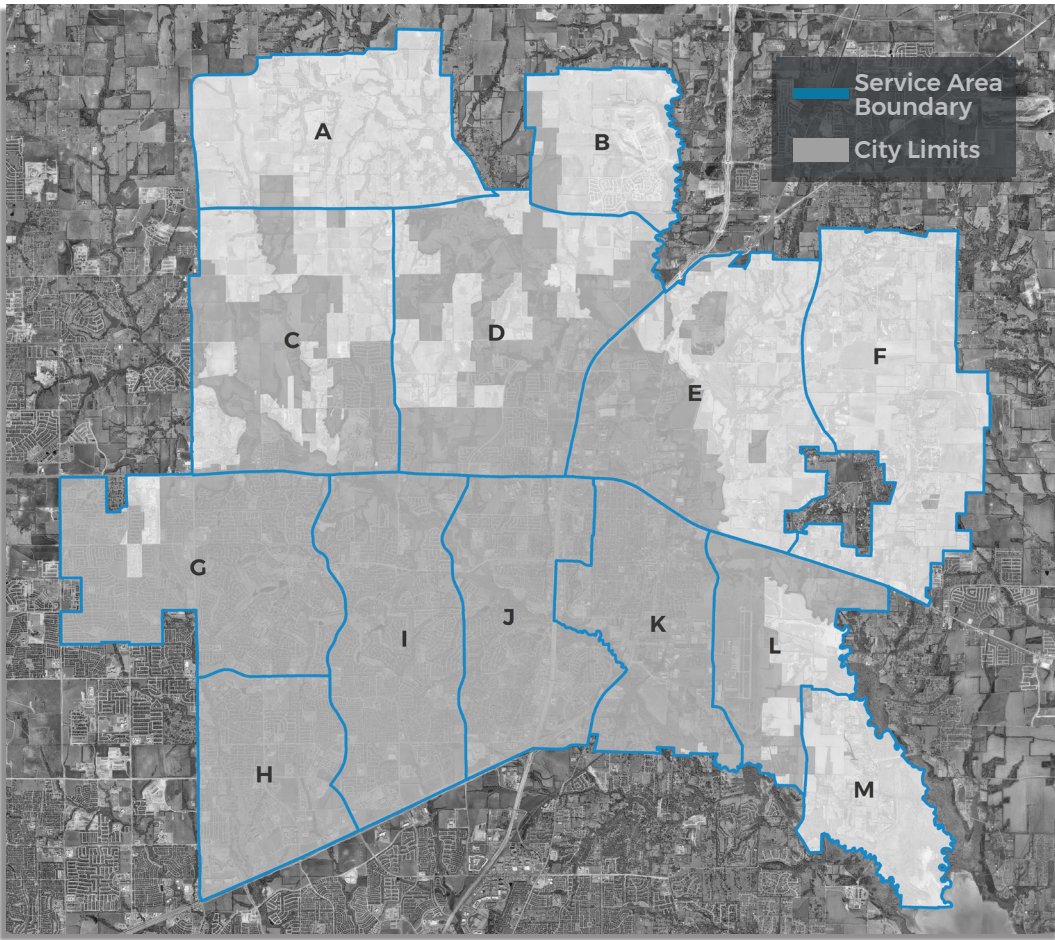
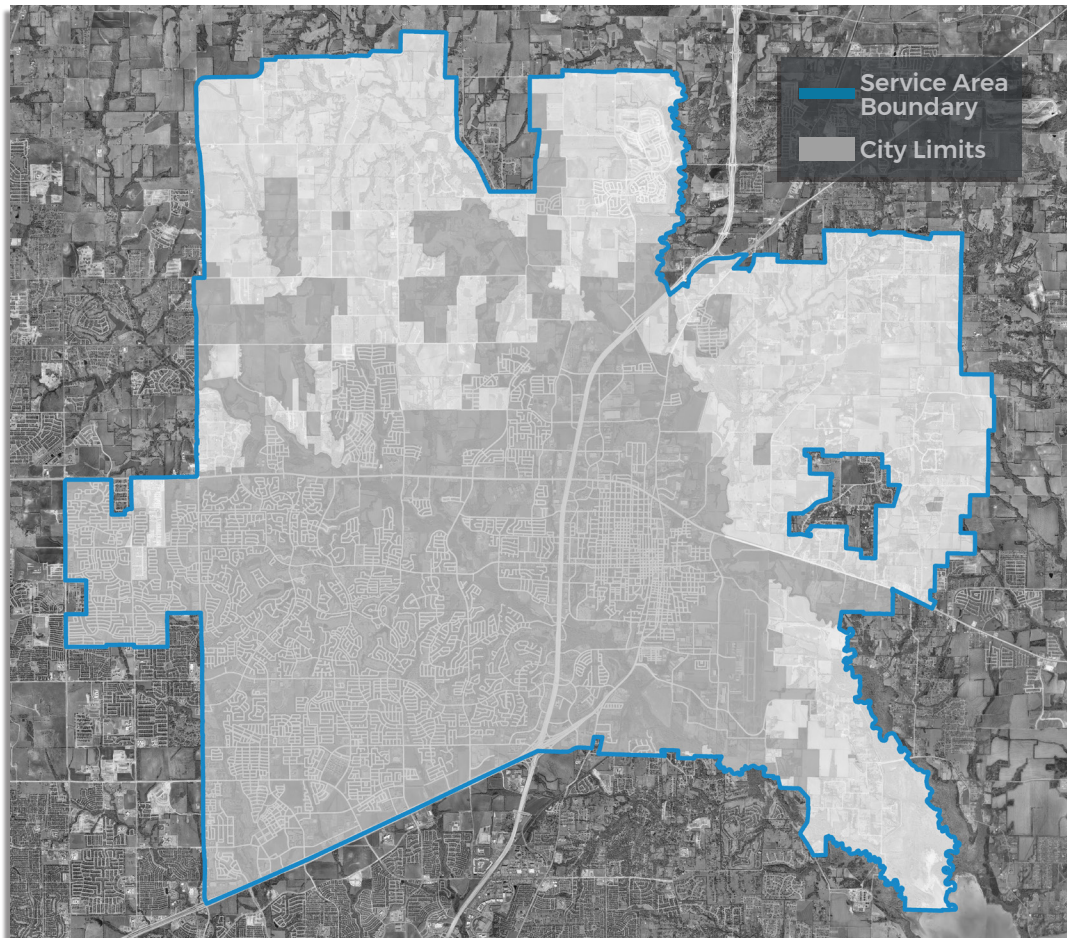


EXHIBIT B: UTILITY SERVICE AREA



BASELINE DATA



Population

The baseline population in McKinney (including ETJ) as of January 1, 2019 has been estimated at 193,012.

Table 1 shows the population history for McKinney and its ETJ from the 2010 U.S. Census through the estimate for January 1, 2019. Using the official 2010 U.S. Census population as starting point, City Planning Staff estimated a population figure each year based on an analysis of building permit data for the previous years as well as on commonly accepted assumptions for occupancy rates and household sizes.

Table 1 illustrates that McKinney has been experiencing continual residential growth over the last nine years. This general trend of population growth is expected to continue throughout the ten year forecast of this study.

McKinney's population estimate was spatially distributed among the thirteen roadway service areas. To do this, City building permit data was used in conjunction with data from the 2010 Census to determine the location of McKinney's population. This permit data was subsequently converted into population using a "persons per dwelling unit figure" for single-family and multi-family housing types that is annually updated. For single-family, the average household size used is 3.08*. For multi-family, the average household size used is 2.17*.

YEAR	POPULATION	% GROWTH
2010	135,038	-
2011	137,406	1.8%
2012	141,330	2.9%
2013	145,511	3.0%
2014	153,807	5.7%
2015	159,100	3.4%
2016	166,569	4.7%
2017	174,141	4.5%
2018	184,420	5.9%
2019	193,012	4.7%

TABLE 1: POPULATION HISTORY

"McKinney has been experiencing continual residential growth over the last nine years"

Non-Residential Square Footages

It is also necessary to establish a baseline figure for the square footage of non-residential uses currently in McKinney. For roadway impact fees, building square footage is the most common independent variable for the estimation of non-residential vehicle trips generated in the Institute of Transportation Engineers (ITE) Trip Generation Manual. Building square footage is closely tied to trip generation and is known at the time of assessment for an impact fee for a proposed development.

The building square footages were categorized into three commonly used land use classifications. Each classification has unique trip making characteristics.

Basic: Higher impact land uses that generate goods and services that are typically used and sold outside of McKinney, such as manufacturing, construction, transportation, warehousing, and other industrial uses.

Service: Land uses that provide personal and professional services, such as government facilities, schools, medical offices, and other professional offices.

Retail: Land uses where the retail sale of goods primarily serves households, and whose location choice is oriented towards a local market. Examples include restaurants, grocery, and clothing stores.

Baseline square footage of Basic, Service, and Retail uses are determined using data from Collin County Appraisal District (CAD). Collin CAD provides land use and square footage data for all existing non-residential uses within McKinney and its ETJ. Using this data, a summary table of all non-residential use categories within each service area was created. These figures act as the baseline conditions for non-residential square footages.

SERVICE AREA	RESIDENTIAL		NON-RESIDENTIAL SQUARE FEET		
	Population	Dwelling Units	Basic	Service	Retail
A	306	115	23,500	0	81,515
B	2,834	973	0	0	16,699
C	8,429	2,959	227,746	632,125	278,982
D	11,213	3,343	0	3,104,234	1,255,451
E	3,905	1,204	3,624,114	478,284	1,754,956
F	1,485	556	212,216	27,295	263,232
G	50,272	17,987	899,720	1,889,230	2,428,620
H	29,944	12,197	581,141	1,933,505	2,627,061
I	39,502	13,959	352,879	2,397,595	1,433,682
J	24,011	10,072	1,649,518	2,754,401	3,513,500
K	20,558	7,651	5,125,000	2,871,086	2,325,009
L	182	75	561,885	499,422	82,826
M	370	164	66,320	14,572	0
TOTAL	193,012	71,255	13,324,039	16,601,750	16,061,533

TABLE 2: BASELINE CONDITIONS 53

ULTIMATE BUILDOUT PROJECTIONS



Overview

An ultimate buildout projection is needed to determine the potential for additional growth that is available in the undeveloped areas of the city and ETJ. The ultimate buildout projection is broken into the same sub-categories as the baseline data (population, dwelling units, basic, service, and retail). The baseline data was used as the developed areas, and the undeveloped areas were broken into the two following categories:

Zoning Applications

Staff analyzed the zoning districts for all parcels within city limits that were considered undeveloped*. Base zoning districts were given an associated land use category (single-family, multi-family, basic, service, or retail). The Planned Development (PD) districts were reviewed and assigned one or more land use categories. In instances where multiple land uses existed in one zoning, the anticipated acreage of the different uses were applied. The land use acreages for each of these zonings were then multiplied by standard metrics from nearby existing conditions to determine the extent of additional growth that is possible. The standard metrics includes an average persons per acre for single-family and multi-family developments, as well as a typical floor-area-ratio (FAR) for non-residential uses. The districts from the ONE McKinney 2040 Comprehensive Plan's Preferred Scenario were utilized to derive a geographic and market specific approach in determining the existing condition metrics.

Future Land Use Plan Applications

Undeveloped areas located within the ETJ but outside the city limits are not subject to the City's zoning regulations. The Future Land Use Plan (FLUP) will be used to consider an appropriate land use at the time of development in the future. The ultimate buildout projection for the area within the ETJ but outside of the current city limits is calculated based on an analysis of the FLUP. Additionally, areas within city limits that are zoned "AG - Agricultural District" are anticipated to rezone and develop in the future and therefore will also adhere to FLUP designated land uses. The areas where the FLUP is applied were categorized by the Placetypes outlined in the ONE McKinney 2040 Comprehensive Plan. The Placetype acreages were multiplied using a calculator that determines anticipated population and square footages for non-residential uses. Since Placetypes are not land-use-specific, the calculator applies anticipated percentages to determine the associated acreage of a Placetype that will fall into one of the land use categories (residential, basic, service, retail).

SERVICE AREA	RESIDENTIAL		NON-RESIDENTIAL SQUARE FEET		
	<i>Population</i>	<i>Dwelling Units</i>	<i>Basic</i>	<i>Service</i>	<i>Retail</i>
A	46,188	17,743	9,419,802	12,772,114	4,609,915
B	25,032	8,233	51,707	245,645	369,503
C	57,987	19,538	227,746	2,158,784	4,397,073
D	66,423	23,628	917,483	8,690,336	8,077,829
E	32,533	11,449	11,542,472	3,242,892	6,352,282
F	13,811	4,668	998,038	908,095	1,841,789
G	52,046	18,687	1,157,424	2,184,560	4,653,668
H	39,582	16,242	641,152	7,115,049	4,131,473
I	46,593	16,581	808,120	3,663,775	4,102,982
J	28,292	11,771	2,180,080	6,881,683	5,658,617
K	24,126	9,048	7,823,668	4,434,426	2,966,485
L	300	114	9,239,373	3,235,736	420,080
M	957	362	4,152,840	1,076,720	229,602
TOTAL	433,869	158,064	49,159,907	56,609,815	47,811,298

TABLE 3: BUILDOUT CONDITIONS

$$\left[\begin{array}{c} \text{Existing} \\ \text{Population} \end{array} \right] + \left[\begin{array}{c} \text{Zoning} \\ \text{Applications} \end{array} \right] + \left[\begin{array}{c} \text{FLUP} \\ \text{Applications} \end{array} \right] = \left[\begin{array}{c} \text{Ultimate} \\ \text{Buildout} \end{array} \right]$$

“An ultimate buildout projection is needed to determine the potential for additional growth”

10-YEAR GROWTH ASSUMPTIONS

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 on January 1, 2019.

Population Projections

The following methods were used in projecting the population of McKinney in 2029. An explanation of why these methods were chosen follows their description.

Gompertz Method

The Gompertz growth curve is an extrapolation method that generally fits the growth pattern of McKinney over the last few years. It assumes that, during the total growth period of a geographic area, the growth is slow in the beginning, then increases exponentially for a period of time, and then tapers off as the population approaches an upper growth limit. Using the ultimate population (433,869) from the ultimate buildout projections as the upper growth limit, a Gompertz curve has been plotted and used in part to project the population in 2029.

Ratio Method

Projections for larger geographic areas (i.e. counties or regions) are more reliable than projections for smaller areas (i.e. cities) since a larger population base is less likely to exhibit short term variations. For this reason, the ratio

method has also been utilized. This method operates under the assumptions that if a relationship between a city's population and its larger geographic area has a generally fixed ratio, the population of the city can be related and projected based on the population projection of the larger area. Eight variations of the ratio method were tested for their ability to project McKinney's population over the next ten years. From these methods, the two best performing were chosen, McKinney's share of Collin County's growth, and Collin County's population rate of change.

The Texas Demographic Center's Population Projections Program produces projections for the state, and all counties in the state by age, sex and race/ethnicity. These projections contain the anticipated population for Collin County for every year from 2010 to 2050. Using the ratio methods described above, and for the purposes of the Land Use Assumptions, McKinney's population was projected out to 2029.

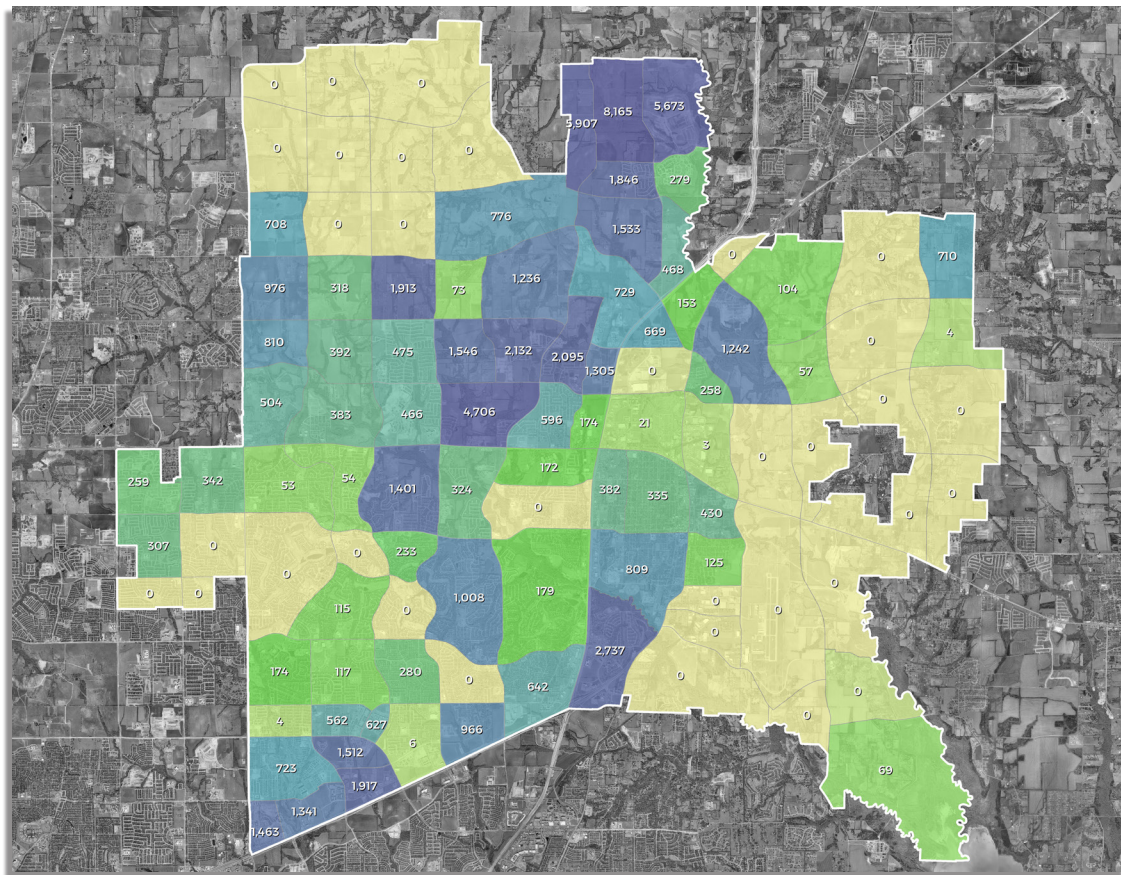


EXHIBIT C: PROJECTED POPULATION GROWTH

Similar to previous iterations of Land Use Assumptions, in projecting the population for McKinney it is assumed that using a combination of the Ratio and Gompertz method will perform best. The Ratio projection methods are a simplified extension of existing or predicted population trends. Gompertz is a logarithmic curve that recalculates new projections as new data points (updated yearly populations) are added. The combination of these methods help to provide a balanced approach for population projections.

In deriving the 2029 population, a weighted average was used between the three population projections (Collin County's Growth Share, Collin County's Population Rate of Change, and Gompertz) for the two methods. The average divides the weight of the projections by method, allotting 50% of the weight to the Ratio Method, and 50% to Gompertz. From this average, a population of 262,084 was calculated for McKinney in 2029; a growth of 69,073 from the 2019 population of 193,012.*

Once the population was projected for the ten year window, distribution was completed using the spatial data generated during the buildout potential calculation. The existing level of developed area in a sub-service area was calculated as well as the sub-service area's remaining growth potential. Then, using common Planning practices the sub-service area's buildout percent was structured to reflect conditions that area likely to exist in 2029. These incremental percentage increases generate additional population, and are influenced by the sub-service areas buildout potential and location.



10-YEAR GROWTH ASSUMPTIONS

Non-Residential Projections

To forecast the amount of growth in Basic, Service, and Retail land use categories over the ten year period of the study, a combination of methods were utilized. The previous ten years of non-residential square footages were analyzed on a service area basis to identify existing trends. The most consistent and noticeable trend were the land use categories relationship's with population. By analyzing the amount of Basic, Service, and Retail square feet per person for the last ten years, the following trends were identified:

Basic: It is assumed that as McKinney's population increases, the amount of Basic square footage per person will decrease. While total square feet of Basic has increased, the general trend for the past ten years showed a decrease in square feet per person. An average of the ten year median, and a ten year trend were used to determine a square foot per person growth over the next ten years. An additional 4,230,559 square feet of Basic is expected by 2029.

Service: It is assumed that as McKinney's population increases, the amount of Service square footage per person will remain the same. The general trend for the past five years showed a slight decrease in square feet per person. A five year median was used to determine a square

foot per person growth over the next ten years. An additional 6,160,065 square feet of Service is expected by 2029.

Retail: It is assumed that as McKinney's population increases, the amount of Retail square footage per person will slightly increase. The general trend for the past ten years showed a general increase in square feet per person. An average of the ten year median, and a ten year trend were used to determine a square foot per person growth over the next ten years. An additional 6,136,024 square feet of Retail is expected by 2029.

Once the square footages were projected for the ten year window, distribution was completed using the spatial data generated during the buildout determination process. The existing level of developed area in a sub-service area was calculated as well as the sub-service area's remaining non-residential growth potential. Then, using common Planning practices the sub-service area's buildout percent was structured to reflect conditions that area likely to exist in 2029. These changes in percent generate additional square footages for the three land uses, and are influenced by the sub-service areas buildout potential.



SERVICE AREA	RESIDENTIAL		NON-RESIDENTIAL SQUARE FEET		
	<i>Population</i>	<i>Dwelling Units</i>	<i>Basic</i>	<i>Service</i>	<i>Retail</i>
A	0	0	0	0	0
B	21,871	6,959	10,071	207,903	86,236
C	6,945	2,312	0	726,068	438,993
D	17,370	6,277	59,635	700,061	830,401
E	2,506	873	2,482,408	199,736	725,194
F	713	118	19,891	71,783	212,738
G	1,130	435	30,630	69,408	719,260
H	8,439	3,495	14,932	1,806,746	787,669
I	4,218	1,608	112,104	252,841	1,199,668
J	4,112	1,390	227,006	1,733,118	774,630
K	1,700	639	504,952	247,260	331,012
L	0	0	597,354	113,513	16,437
M	69	23	171,577	31,628	13,786
TOTAL	69,073	24,128	4,230,559	6,160,065	6,136,024

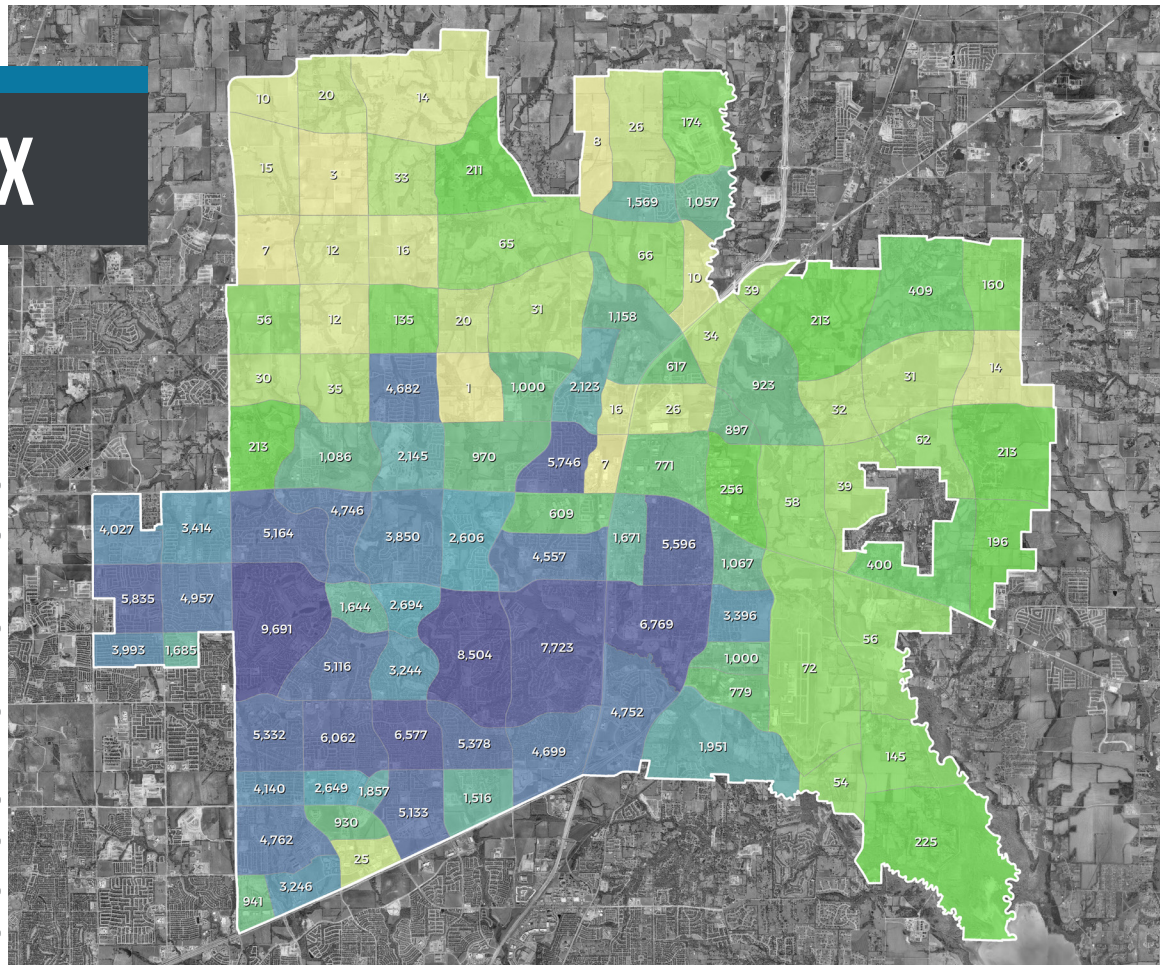
TABLE 4: PROJECTED GROWTH

SERVICE AREA	RESIDENTIAL		NON-RESIDENTIAL SQUARE FEET		
	<i>Population</i>	<i>Dwelling Units</i>	<i>Basic</i>	<i>Service</i>	<i>Retail</i>
A	306	115	23,500	0	81,515
B	24,705	7,932	10,071	207,903	102,935
C	15,374	5,271	227,746	1,358,193	717,975
D	28,583	9,620	59,635	3,804,295	2,085,852
E	6,411	2,077	6,106,522	678,020	2,480,149
F	2,198	674	232,107	99,078	475,970
G	51,402	18,422	930,350	1,958,638	3,147,880
H	38,383	15,692	596,073	3,740,251	3,414,730
I	43,720	15,567	464,983	2,650,436	2,633,350
J	28,123	11,462	1,876,524	4,487,519	4,288,131
K	22,258	8,290	5,629,951	3,118,347	2,656,021
L	182	75	1,159,239	612,935	99,263
M	439	187	237,897	46,200	13,786
TOTAL	262,084	95,383	17,554,598	22,761,815	22,197,558

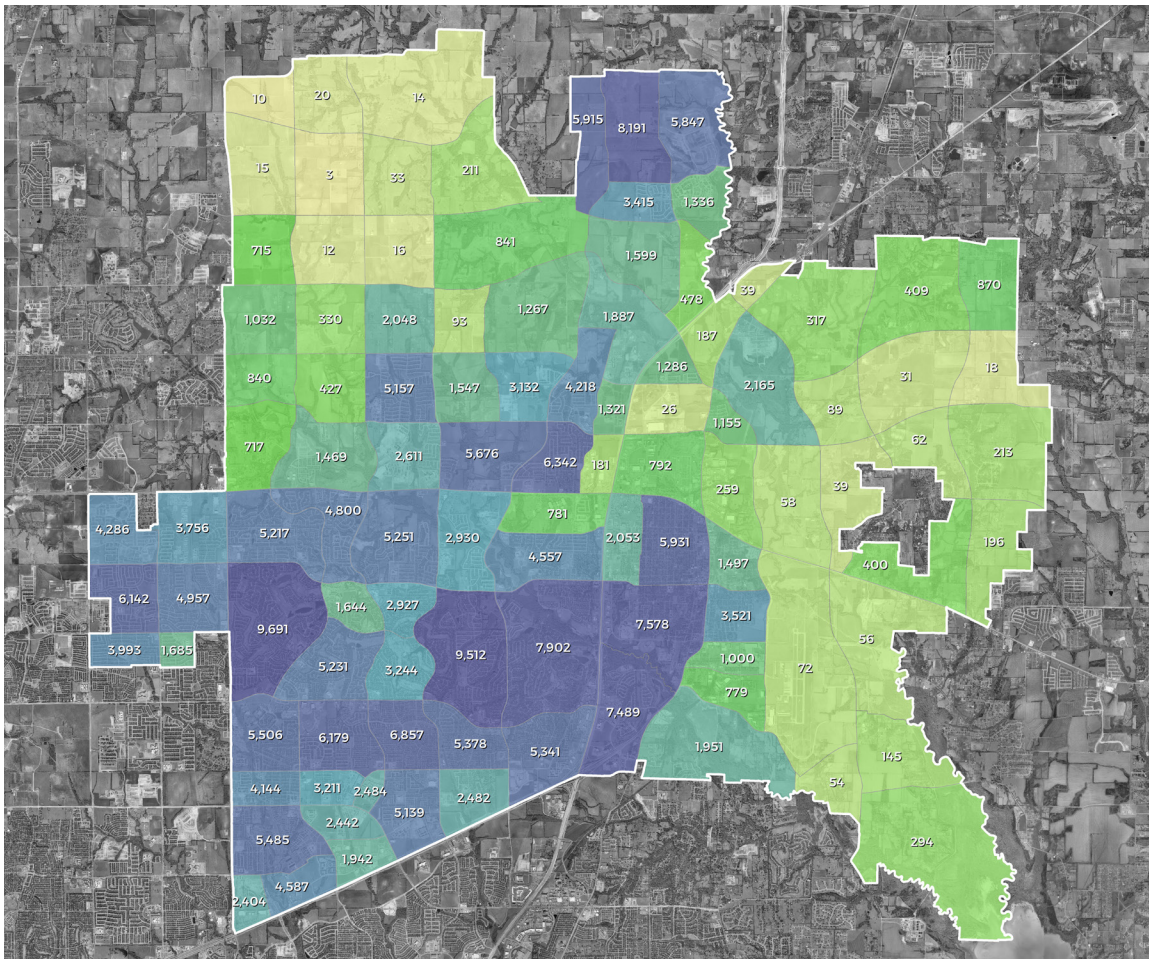
TABLE 5: 2029 BASELINE CONDITIONS

APPENDIX

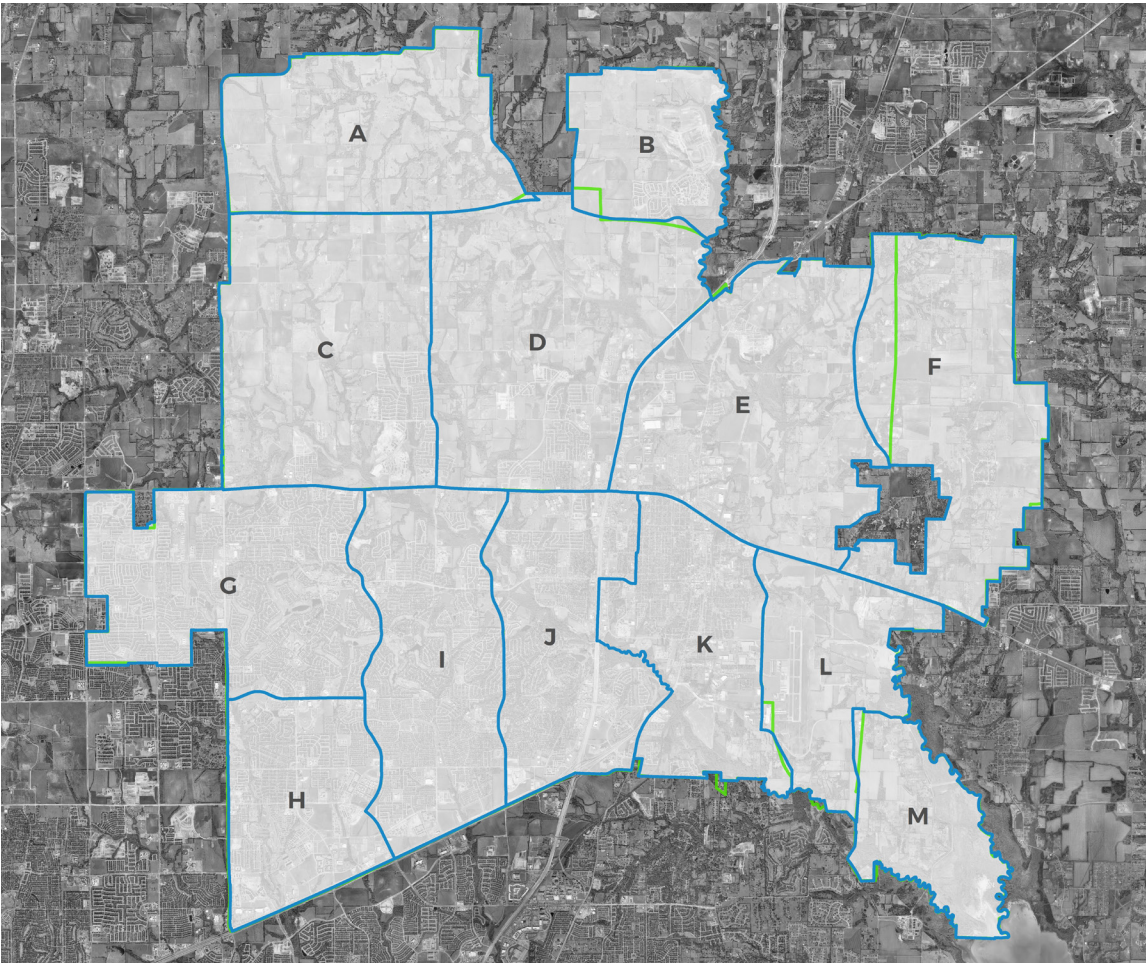
2019 POPULATION DISTRIBUTION



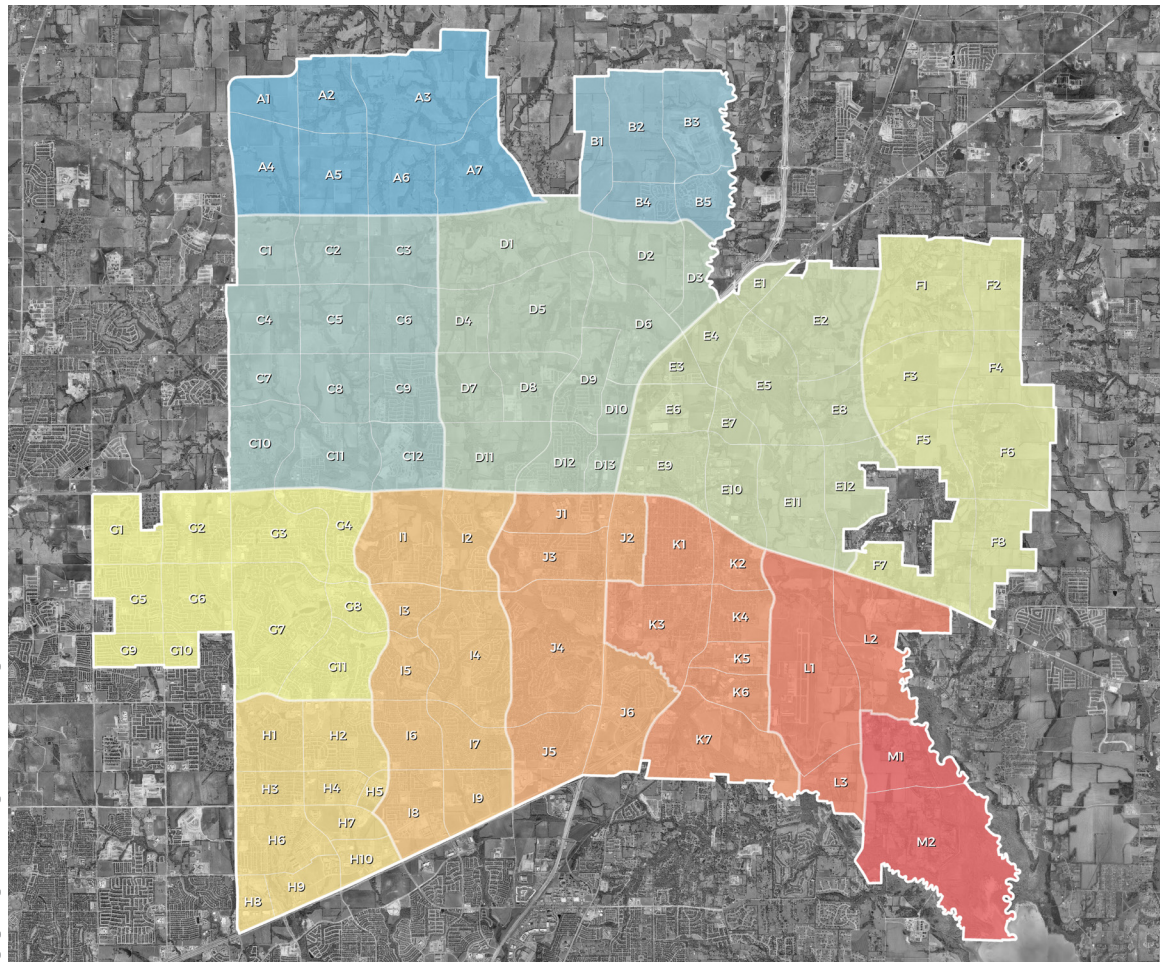
2029 POPULATION DISTRIBUTION

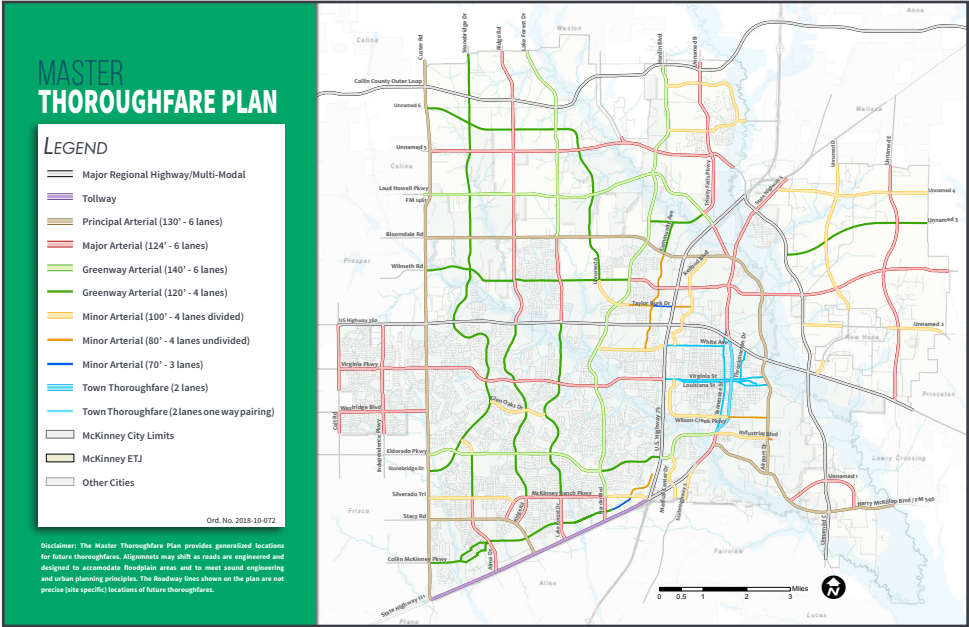
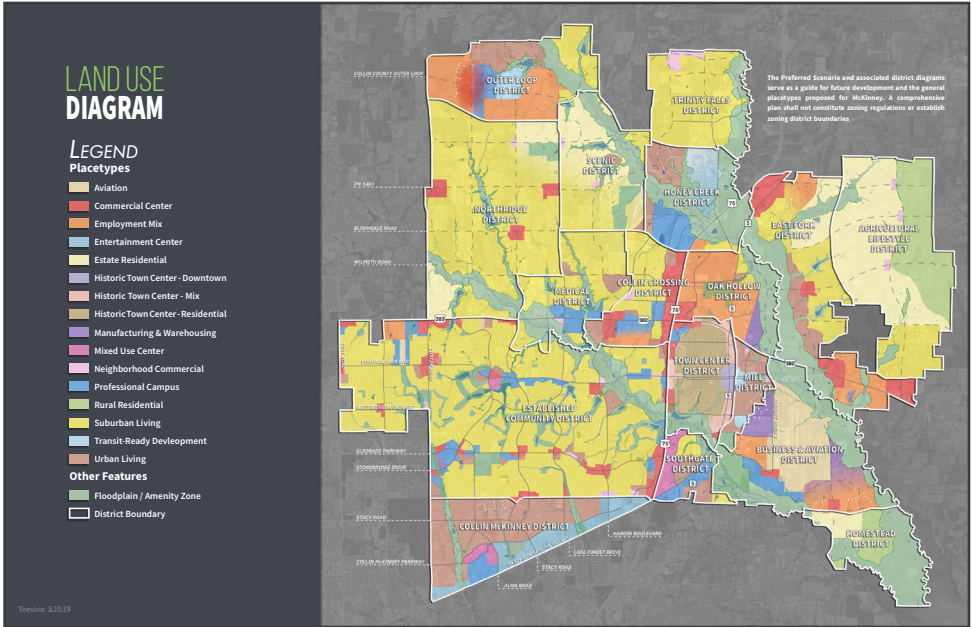
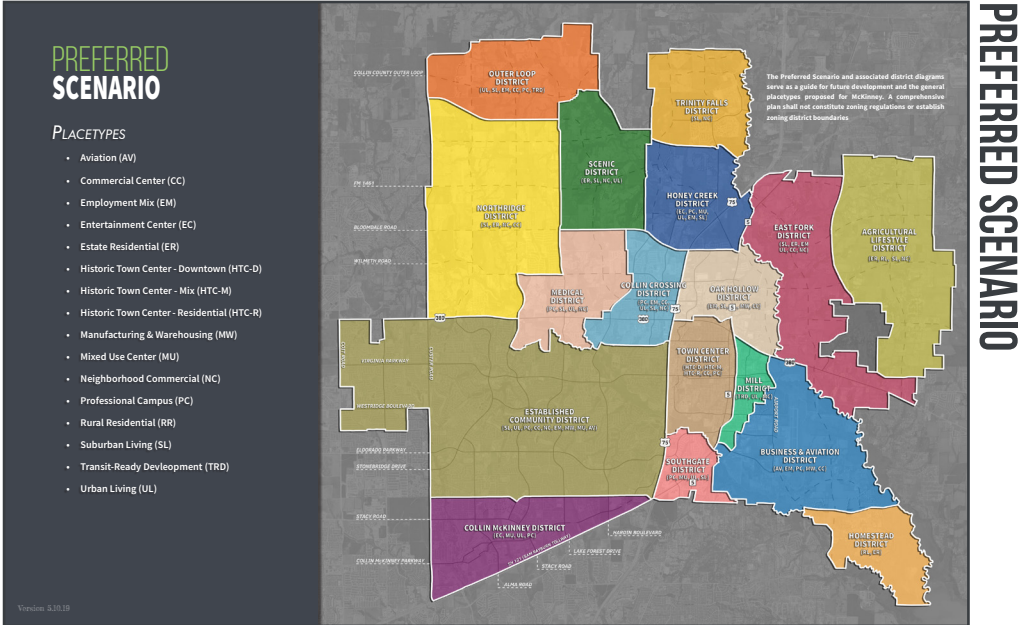


SERVICE AREA CHANGES



SUBSERVICE AREAS





2018-2019 ROADWAY IMPACT FEE UPDATE



January
2020

Prepared for the City of McKinney

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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
A	\$0
B	\$10,479,185
C	\$43,752,749
D	\$141,971,941
E	\$39,294,334
F	\$0
G	\$8,942,328
H	\$11,297,580
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 Area	Total Vehicle-Miles of Demand over Ten Years
A	0
B	9,578
C	15,582
D	41,299
E	17,845
F	0
G	7,742
H	31,324
I	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 Area	2018–2019 Maximum Fee Per Service Unit (Per Vehicle-Mile)	2012–2013 Maximum Fee Per Service Unit (Per Vehicle-Mile)
A	\$0	\$0
B	\$1,094	\$1,793
C	\$2,808	\$1,410
D	\$3,438	\$1,707
E	\$2,202	\$2,085
F	\$0	\$0
G	\$1,155	\$628
H	\$361	\$393
I	\$1,265	\$750
J	\$347	\$854
K	\$1,197	\$1,178
L	\$2,044	\$1,265
M	\$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 Roadway 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.

Retail: 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.

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

Basic: 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.

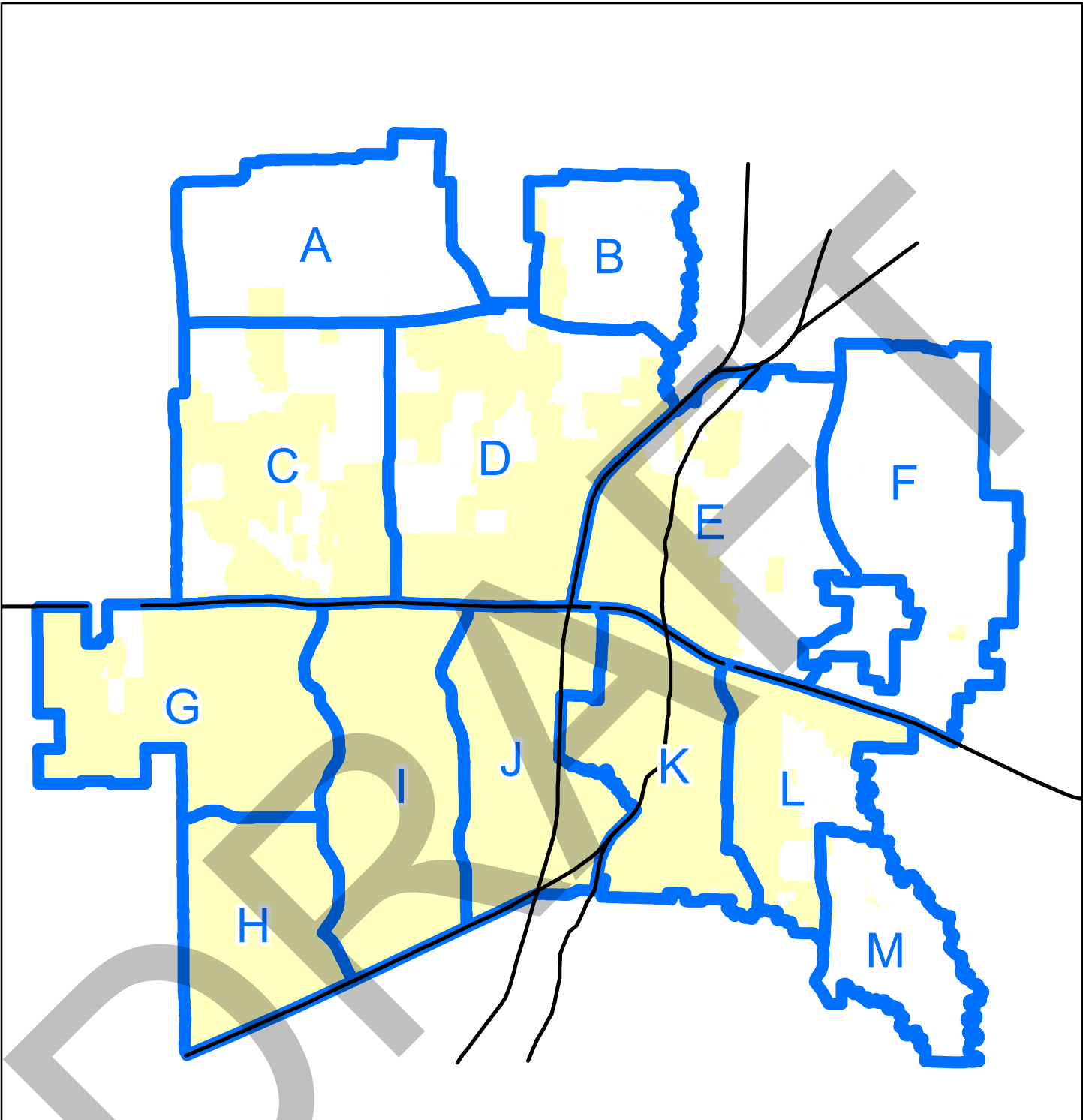


Exhibit 1





**2019-2020 Impact Fee
Update Service Areas**



January 2020

Kimley»Horn

Legend

-  Service Area Boundary
-  City Limits

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 Area	Year	Residential		Non-Residential Square Feet		
		Population	Dwelling Units	Basic	Service	Retail
A	2019	306	115	23,500	0	81,515
	2029	306	115	23,500	0	81,515
B	2019	2,834	973	0	0	16,699
	2029	24,705	7,932	10,071	207,903	102,935
C	2019	8,429	2,959	227,746	632,125	278,982
	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
	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
	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
H	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
I	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
J	2019	24,011	10,072	1,649,518	2,754,401	3,513,500
	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
	2029	22,258	8,290	5,629,951	3,118,347	2,656,021
L	2019	182	75	561,885	499,422	82,826
	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 (2019 – 2029)		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	A-1, C-1	M6D	UNNAMED 5 (1)	635' W OF STONEBRIDGE DR TO CR 168	0.63	50%
	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	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%
	B-3	G6D	HARDIN BLVD (2)	1,670' N OF OLYMPIC TO 730' S OF OLYMPIC	0.45	50%
	B-4	G6D	HARDIN BLVD (3)	1,940' N OF UNNAMED 5 TO UNNAMED 5	0.37	100%
	1	Inter-section	Signal	HARDIN BLVD & OLYMPIC		50%
	3		Signal	HARDIN BLVD & UNNAMED 5		50%

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

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
C	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-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	Intersection	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		Signal	BLOOMDALE RD & STONEBRIDGE DR		100%
	14		Signal	BLOOMDALE RD & RIDGE RD		50%
	15		Signal	BLOOMDALE RD & LAKE FOREST DR		25%
	23		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%

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

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
D	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	M6D(1/3)	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-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	G6D(1/3)	HARDIN BLVD (10)	WILMETH RD TO US HIGHWAY 380	1.23	100%
	D-35	G4D	COMMUNITY AVE (1)	TRINITY FALLS PKWY TO 1,275' S OF TRINITY FALLS PKWY	0.24	100%
	D-36	G4D(1/2)	COMMUNITY AVE (2)	1,275' S OF TRINITY FALLS PKWY TO BLOOMDALE RD	0.50	100%
	D-37	M4U(1/2)	COMMUNITY AVE (3)	BLOOMDALE RD TO 2,305' S OF BLOOMDALE RD	0.44	100%
	3	Intersection	Signal	HARDIN BLVD & UNNAMED 5		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		Interchange Signals	US HIGHWAY 75 & LAUD HOWELL PKWY		50%
	16		Signal	BLOOMDALE RD & UNNAMED A		25%
	17		Signal	BLOOMDALE RD & HARDIN BLVD		100%
	18		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%

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

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	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-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%
Intersection	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		Signal	LAUD HOWELL PKWY & BLOOMDALE RD		100%
	22		Signal Mod	STATE HIGHWAY 5 & LAUD HOWELL PKWY		100%
	28		Signal	WILMETH RD & REDBUD BLVD		100%
	29		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%

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

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	Length (mi)	% In Service Area
G	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 DR	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-15	P6D	CUSTER RD (4)	US HIGHWAY 380 TO WESTRIDGE BLVD	2.03	100%
	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	Intersection	Signal Mod	US HIGHWAY 380 & STONEBRIDGE DR		50%
	34		Signal	US HIGHWAY 380 & FOREST RIDGE LN		50%
	37		Signal	STONEBRIDGE DR & LACIMA DR		100%
	38		Signal	RIDGE RD & HABERSHAM WAY		50%
	43		Signal	INDEPENDENCE PKWY & VIRGINIA PKWY		50%
	44		Under Construction	VIRGINIA PKWY & RIDGE RD		50%
	47		Signal	INDEPENDENCE PKWY & WESTRIDGE BLVD		100%
	48		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%

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

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	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-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	Intersection	Signal	CUSTER RD & SILVERADO TRL		50%
	66		Signal	MCKINNEY RANCH PKWY & SILVERADO TRL		100%
	71		Signal	STACY RD & MCKINNEY RANCH PKWY		100%
	75		Signal	CUSTER RD & PARADISE DR		50%
	76		Signal	STACY RD & COLLIN MCKINNEY PKWY		50%
	77		Signal	ALMA DR & HENNEMAN WAY		100%

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

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	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	Intersection	Signal	US HIGHWAY 380 & AUBURN HILLS PKWY		50%
	36		Under Construction	US HIGHWAY 380 & HARDIN BLVD		25%
	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		Roundabout	RIDGE RD & GLEN OAKS DR		50%
	51		Roundabout	LAKE FOREST DR & GLEN OAKS DR		100%
	56		Signal	RIDGE RD & RUSH CREEK RD		50%
	57		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%

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

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

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area
J	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-10, K-8	M4D	STATE HIGHWAY 5 (5)	STATE HIGHWAY 121 TO 3,525' S OF STATE HIGHWAY 121	0.67	50%
	J-11	M4D	STATE HIGHWAY 5 (6)	3,525' S OF STATE HIGHWAY 121 TO 4,520' S OF STATE	0.19	50%
	36	Intersection	Under Construction	US HIGHWAY 380 & HARDIN BLVD		25%
	39		Signal	WHITE AVE & JORDAN RD		100%
	58		Signal	HARDIN BLVD & MAVERICK TRL		50%
	61		Intersection Improvements	ELDORADO PKWY & CRAIG DR		100%
	62		Signal	STATE HIGHWAY 5 & STEWART RD		50%
	67		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%

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

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

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area
K	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)	640' S OF HARRY MCKILLOP BLVD / FM 546 TO STATE	0.47	50%
	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	Intersection	Signal	STATE HIGHWAY 5 & SMITH ST		100%
	41		Signal Mod	US HIGHWAY 380 & AIRPORT DR		50%
	52		Roundabout	WILSON CREEK PKWY & PARK VIEW AVE		100%
	53		Signal	WILSON CREEK PKWY & COLLEGE ST		100%
	54		Signal	AIRPORT DR & ELM ST		50%
	62		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%

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

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

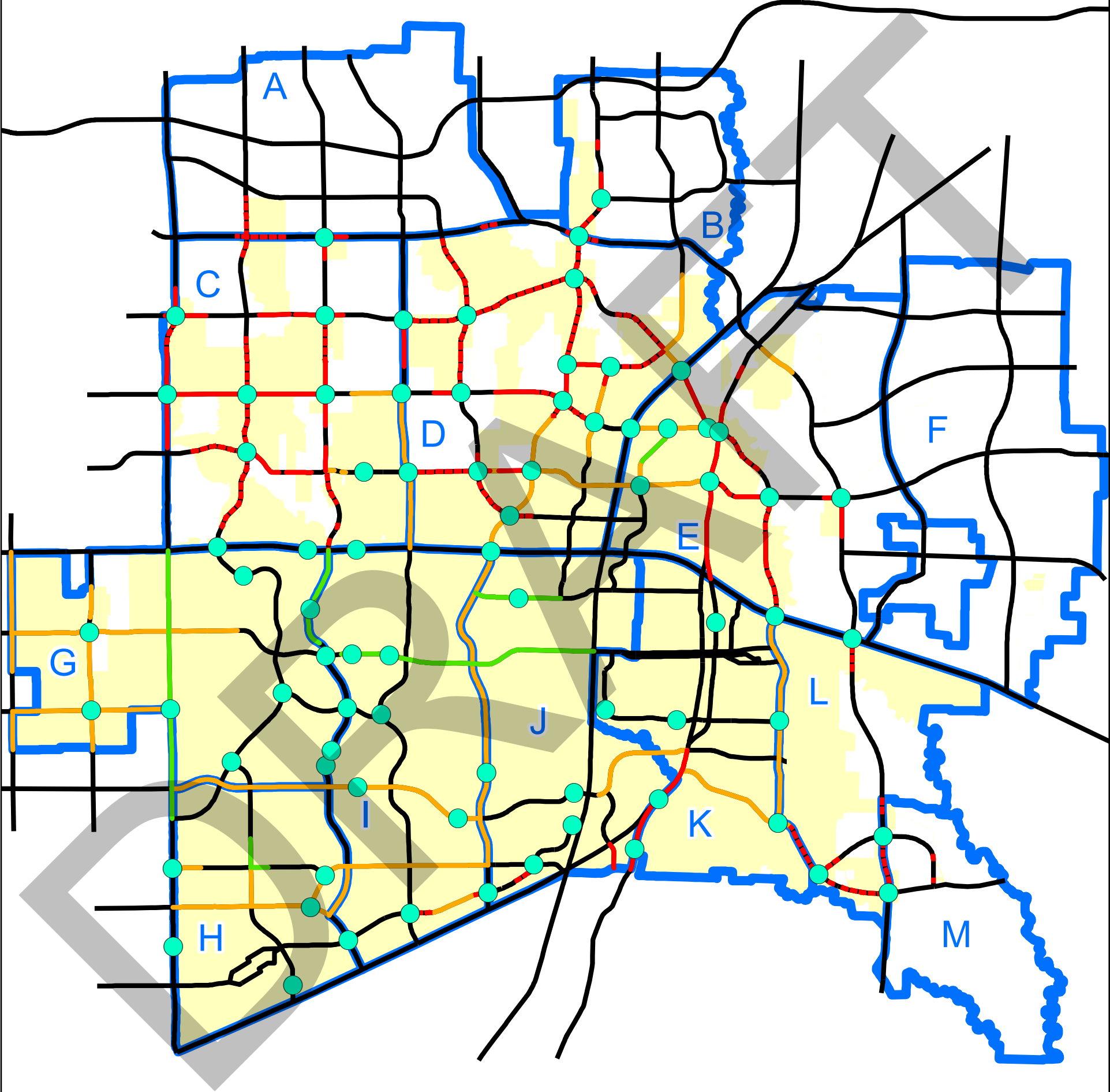
Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area
L	K-4, L-1	P6D(1/3)	HARRY MCKILLOP BLVD / FM 546 (2)	AIRPORT DR TO 980' E OF AIRPORT DR	0.19	50%
	K-5, L-2	P6D	HARRY MCKILLOP BLVD / FM 546 (3)	975' E OF AIRPORT DR TO 510' W OF HARRY MCKILLOP BLVD / FM 546 (N)	0.60	50%
	L-3	P6D	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%
	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	Intersection	Signal Mod	US HIGHWAY 380 & AIRPORT DR		50%
	42		Signal	US HIGHWAY 380 & UNNAMED C		50%
	54		Signal	AIRPORT DR & ELM ST		50%
	63		Signal	HARRY MCKILLOP BLVD / FM 546 & AIRPORT DR		75%
	70		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%


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

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

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area
M	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	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%
	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%
	M-4	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	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-section	Signal	UNNAMED C & HARRY MCKILLOP BLVD / FM 546 (N)		50%
	74		Signal	UNNAMED C & HARRY MCKILLOP BLVD / FM 546 (S)		50%

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






McKINNEY
TEXAS
Unique by nature.

Exhibit 2

2019-2020 Impact Fee
Update RIF RIP

0 1 2
Miles



N

January 2020

Kimley»Horn

Legend

- Intersection Improvements
- Previously Completed
- New
- Widening
- Partial Widening
- Thoroughfare Facilities
- ▭ Service Area Boundary
- ▭ City Limits

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.

Vehicle-Mile: 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.

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

Total Vehicle-Miles of Demand: 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.

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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 Type	Description	Hourly Vehicle-Mile Capacity per Lane-Mile of Roadway Facility
2UG	Rural Two-lane Undivided Cross-Section (i.e., gravel, dirt, etc.)	150
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 seen below.

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-7
Name:	WILMETH RD (14) 980' W OF AIRPORT DR TO 235' E OF AIRPORT DR			This project consists of the reconstruction of a two-lane asphalt facility to a six-lane divided major arterial. Based on the existing City Limits, the northern half of the roadway is not included in the Impact Fee RIP.
Limits:	M6D			
Impact Fee Class:	Major Arterial			
Thoroughfare Class:	1,215			
Length (lf):	E, Half			
Service Area(s):				

Project Information

Roadway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Item Cost
109	Unclassified Street Excavation	13,500	cy	\$ 10.00 \$ 135,000
209	Lime Treated Subgrade (8") (Pl<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
509	6" Curb & Gutter	4,860	lf	\$ 5.00 \$ 24,300
609	Allotment for Turn Lanes and Median Openings	741	sy	\$ 77.00 \$ 57,094
709	Moisture Conditioning	10,530	sy	\$ 8.00 \$ 84,240
Paving Construction Cost Subtotal:				\$ 985,556

Construction Pay Items

Major Construction Component Allowances**:			
Item Description	Notes	Allowance	Item Cost
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 29,567
✓ Pavement Markings/Markers		3%	\$ 29,567
✓ Roadway Drainage	Standard Internal System	25%	\$ 246,389
✓ Special Drainage Structures	None Anticipated		\$ -
✓ Water	Incidental Adjustments	3%	\$ 29,567
✓ Sewer	Incidental Adjustments	3%	\$ 29,567
✓ Establish Turf / Erosion Control		2%	\$ 19,711
✓ Illumination	Standard Illumination System	6%	\$ 59,133
Other:	Railroad Crossing		\$ 500,000
Allowance Subtotal:			\$ 943,500

Construction Component Allowances

**Allowances based on % of Paving Construction Cost Subtotal	
Paving and Allowance Subtotal:	\$ 1,929,057
Mobilization:	5% \$ 96,453
Site Preparation:	5% \$ 96,453
Construction Cost TOTAL:	\$ 2,122,000
Construction Contingency:	15% \$ 318,300
Construction Cost TOTAL W/ CONTINGENCY:	\$ 2,441,000

Summary of Costs and Allowances

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.
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. Project Information

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

- Project Number – 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:
 - "(1/6)" for future six-lane facilities where one additional lane is needed;
 - "(1/3)" for future six-lane facilities where two additional lanes are needed;
 - "(1/2)" for facilities where half the facility still needs to be constructed;
 - "(2/3)" for future six-lane facilities where four additional lanes are needed.
- Thoroughfare Class – The ultimate classification according to the Master Thoroughfare Plan.
- Description – Describes the type of project identified. Includes; New, Widening, Partial Widening, and Previously Completed. Other specialized situations are noted such as previous City contributions.
- Length (ft) – The distance measured in feet that is used to cost out the project.
- Service Area(s) – 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
<ul style="list-style-type: none"> • Unclassified Street Excavation • Lime Treated Subgrade • Concrete Pavement • Top Soil • Curb and Gutter • Turn Lanes and Median Openings • Moisture Conditioning 	<ul style="list-style-type: none"> • Unclassified Street Excavation • Lime Treated Subgrade • HMAC Underlayment • Concrete Pavement • Top Soil • Curb and Gutter • 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	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-3	G4D	STONEBRIDGE DR (1)	2,635' N OF UNNAMED 5 TO UNNAMED 5	0.50	50%	\$ 4,679,450	\$ 2,339,725
	Service Area Project Cost Subtotal							\$ 9,956,425
	Roadway Impact Fee Update Cost (Per Service Area)							\$ 11,692
Total Cost in SERVICE AREA A								\$ 9,968,117

- 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.
- 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	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	
	B-4	G6D	HARDIN BLVD (3)	1,940' N OF UNNAMED 5 TO UNNAMED 5	0.37	100%	\$ 4,090,450	\$ 4,090,450	
	1	Inter-section	Signal	HARDIN BLVD & OLYMPIC		50%	\$ 300,000	\$ 150,000	
	3		Signal	HARDIN BLVD & UNNAMED 5		50%	\$ 300,000	\$ 150,000	
	Service Area Project Cost Subtotal							\$ 9,699,950	
	Roadway Impact Fee Update Cost (Per Service Area)							\$ 11,692	
Total Cost in SERVICE AREA B							\$ 9,711,642		

- 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.
- 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 Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area	
C	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-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	
	C-27	M6D	RIDGE RD (2)	LAUD HOWELL PKWY TO BAXTER WELL RD	0.59	100%	\$ 7,267,950	\$ 7,267,950	
	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	Intersection	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%	\$ 300,000	\$ 75,000	
	23	Signal		STONEBRIDGE DR & WILMETH RD		100%	\$ 300,000	\$ 300,000	
	24	Signal		WILMETH RD & RIDGEKNOLL AVE		100%	\$ 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%	\$ 150,000	\$ 75,000	
	34	Signal		US HIGHWAY 380 & FOREST RIDGE LN		50%	\$ 300,000	\$ 150,000	
	35	Signal		US HIGHWAY 380 & AUBURN HILLS PKWY		50%	\$ 300,000	\$ 150,000	
Service Area Project Cost Subtotal								\$ 116,870,616	
Roadway Impact Fee Update Cost (Per Service Area)								\$ 11,692	
Total Cost in SERVICE AREA C								\$ 116,882,308	

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

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area	
D	A-2, D-1	M6D	UNNAMED 5 (3)	CR 168 TO 1560' E OF CR 168	0.30	50%	\$ 7,517,500	\$ 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%	\$ 4,904,200	\$ 2,452,100	
	D-3	G6D	LAUD HOWELL PKWY (6)	LAKE FOREST DR TO 1860' E OF HARDIN BLVD	2.65	100%	\$ 39,497,100	\$ 39,497,100	
	D-4	G6D	LAUD HOWELL PKWY (7)	4,170' N OF TRINITY FALLS PKWY TO 240' N OF TRINITY FALLS	0.74	100%	\$ 8,774,550	\$ 8,774,550	
	D-5	G6D(1/3)	LAUD HOWELL PKWY (8)	240' N OF TRINITY FALLS PKWY TO US HIGHWAY 75	0.38	100%	\$ 2,220,027	\$ 2,220,027	
	D-6	G4D	TRINITY FALLS PKWY (1)	HARDIN BLVD TO 1910' E OF HARDIN BLVD	0.36	100%	\$ 3,243,800	\$ 3,243,800	
	D-7	G4D	TRINITY FALLS PKWY (2)	1,910' E OF HARDIN BLVD TO 2675' E OF HARDIN BLVD	0.14	50%	\$ 1,300,600	\$ 650,300	
	D-8	G4D	TRINITY FALLS PKWY (3)	COMMUNITY AVE TO 2,200' W OF LAUD HOWELL PKWY	0.34	50%	\$ 5,976,800	\$ 2,988,400	
	D-9	G4D	TRINITY FALLS PKWY (4)	LAUD HOWELL PKWY TO 2,200' W OF LAUD HOWELL PKWY	0.42	100%	\$ 8,418,050	\$ 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%	\$ 7,622,400	\$ 7,622,400	
	D-11	P6D	BLOOMDALE RD (7)	1,820' W OF TAYLOR-BURK DR TO TAYLOR-BURK DR	0.34	50%	\$ 3,799,600	\$ 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%	\$ 3,206,000	\$ 3,206,000	
	D-13	P6D	BLOOMDALE RD (9)	1,225' W OF CR 1007 TO CR 1007	0.23	50%	\$ 3,001,600	\$ 1,500,800	
	D-14	P6D(2/3)	BLOOMDALE RD (10)	CR 1007 TO HARDIN BLVD	0.37	100%	\$ 5,885,810	\$ 5,885,810	
	D-15	P6D(1/3)	BLOOMDALE RD (11)	HARDIN BLVD TO COMMUNITY AVE	0.49	100%	\$ 5,165,390	\$ 5,165,390	
	D-16	G4D	WILMETH RD (5)	LAKE FOREST DR TO UNNAMED A	0.90	50%	\$ 10,991,050	\$ 5,495,525	
	D-17	G4D	WILMETH RD (6)	UNNAMED A TO 825' E OF UNNAMED A	0.16	100%	\$ 1,401,400	\$ 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%	\$ 411,600	\$ 411,600	
	D-19	G4D	WILMETH RD (8)	1,380' E OF TAYLOR-BURK DR TO HARDIN BLVD	0.42	50%	\$ 3,803,800	\$ 1,901,900	
	D-20	M6D(1/3)	WILMETH RD (9)	HARDIN BLVD TO US HIGHWAY 75	1.16	100%	\$ 2,799,600	\$ 2,799,600	
	D-21	G6D	LAKE FOREST DR (1)	LAUD HOWELL PKWY TO 3,200' S OF LAUD HOWELL PKWY	0.61	50%	\$ 6,448,400	\$ 3,224,200	
	C-34, D-22	M6D(1/3)	LAKE FOREST DR (3)	WILMETH RD TO US HIGHWAY 380	0.98	50%	\$ 2,350,800	\$ 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%	\$ 17,435,950	\$ 17,435,950	
	D-24	G4D	UNNAMED A (2)	2,710' S OF LAUD HOWELL PKWY TO BLOOMDALE RD	0.49	50%	\$ 4,598,850	\$ 2,299,425	
	D-25	G4D	UNNAMED A (3)	1,105' N OF WILMETH RD TO WILMETH RD	0.21	50%	\$ 1,876,000	\$ 938,000	
	D-26	M4D	UNNAMED A (4)	WILMETH RD TO HARDIN BLVD	0.75	100%	\$ 5,969,050	\$ 5,969,050	
	D-27	M4D	TAYLOR-BURK DR (1)	HARDIN BLVD TO SKYLINE DR	0.28	100%	\$ 2,038,250	\$ 2,038,250	
	D-28	G6D	HARDIN BLVD (4)	UNNAMED 5 TO 1,550' S OF UNNAMED 5	0.29	50%	\$ 3,267,400	\$ 1,633,700	
	D-29	G6D	HARDIN BLVD (5)	1,545' S OF UNNAMED 5 TO TRINITY FALLS PKWY	1.38	100%	\$ 21,290,800	\$ 21,290,800	
	D-30	G6D	HARDIN BLVD (6)	TRINITY FALLS PKWY TO 1,815' S OF TRINITY FALLS PKWY	0.34	50%	\$ 4,102,000	\$ 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%	\$ 4,538,400	\$ 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%	\$ 1,070,400	\$ 1,070,400	
	D-33	G6D(2/3)	HARDIN BLVD (9)	3,590' S OF BLOOMDALE RD TO WILMETH RD	0.33	50%	\$ 2,249,800	\$ 1,124,900	
	D-34	G6D(1/3)	HARDIN BLVD (10)	WILMETH RD TO US HIGHWAY 380	1.23	100%	\$ 2,904,000	\$ 2,904,000	
	D-35	G4D	COMMUNITY AVE (1)	TRINITY FALLS PKWY TO 1,275' S OF TRINITY FALLS PKWY	0.24	100%	\$ 2,164,400	\$ 2,164,400	
	D-36	G4D(1/2)	COMMUNITY AVE (2)	1,275' S OF TRINITY FALLS PKWY TO BLOOMDALE RD	0.50	100%	\$ 1,960,000	\$ 1,960,000	
	D-37	M4U(1/2)	COMMUNITY AVE (3)	BLOOMDALE RD TO 2,305' S OF BLOOMDALE RD	0.44	100%	\$ 1,174,600	\$ 1,174,600	
	3	Intersection	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			50%	\$ 600,000	\$ 300,000
	16		Signal	BLOOMDALE RD & UNNAMED A			25%	\$ 300,000	\$ 75,000
	17		Signal	BLOOMDALE RD & HARDIN BLVD			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			50%	\$ 1,830,000	\$ 915,000
	26		Roundabout	WILMETH RD & UNNAMED A			75%	\$ 200,000	\$ 150,000
	27		Roundabout	HARDIN BLVD & WILMETH RD			75%	\$ 2,100,000	\$ 1,575,000
	32		Roundabout	HARDIN BLVD & TAYLOR-BURK DR			100%	\$ 1,200,000	\$ 1,200,000
	36		Under Construction	US HIGHWAY 380 & HARDIN BLVD			50%	\$ 780,682	\$ 390,341
	Service Area Project Cost Subtotal							\$ 189,016,118	
	Roadway Impact Fee Update Cost (Per Service Area)							\$ 11,692	
	Total Cost in SERVICE AREA D							\$ 189,027,810	

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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	Total Project Cost	Cost in Service Area	
E	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-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	Intersection	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		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			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
	Service Area Project Cost Subtotal							\$ 73,721,350	
	Roadway Impact Fee Update Cost (Per Service Area)							\$ 11,692	
	Total Cost in SERVICE AREA E							\$ 73,733,042	

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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
F								
			No Impact Fee Eligible Roadway Projects					
Service Area Project Cost Subtotal							\$ -	
Roadway Impact Fee Update Cost (Per Service Area)							\$ 11,692	
Total Cost in SERVICE AREA F							\$ 11,692	

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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	Total Project Cost	Cost in Service Area
G	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%	\$ 913,196	\$ 456,598
	G-4	M6D(1/3)	VIRGINIA PKWY (4)	935' W OF VIRGINIA HILLS DR TO CUSTER RD	0.51	100%	\$ 1,661,863	\$ 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%	\$ 2,931,600	\$ 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-16	P6D	CUSTER RD (5)	WESTRIDGE BLVD TO ELDORADO PKWY	1.02	100%	\$ 1,476,398	\$ 1,476,398
	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%	\$ 2,640,000	\$ 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
	Service Area Project Cost Subtotal							\$ 30,208,237
	Roadway Impact Fee Update Cost (Per Service Area)							\$ 11,692
	Total Cost in SERVICE AREA G							\$ 30,219,929

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

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
H	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
	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
	H-8, I-9	M6D(1/3)	RIDGE RD (9)	MCKINNEY RANCH PKWY TO STACY RD	0.69	50%	\$ 1,662,000	\$ 831,000
	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		Signal	STACY RD & MCKINNEY RANCH PKWY		100%	\$ 300,000	\$ 300,000
	75	Intersection	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
	Service Area Project Cost Subtotal							\$ 16,391,649
	Roadway Impact Fee Update Cost (Per Service Area)							\$ 11,692
	Total Cost in SERVICE AREA H							\$ 16,403,341

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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	Total Project Cost	Cost in Service Area
I	I-1	M6D	VIRGINIA PKWY (7)	1035' E OF RIDGE RD TO 1355' W OF HARDIN BLVD	1.43	100%	\$ 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%	\$ 4,857,600	\$ 4,857,600
	I-4	M6D(1/3)	MCKINNEY RANCH PKWY (2)	RIDGE RD TO HARDIN BLVD	1.80	100%	\$ 4,338,000	\$ 4,338,000
	I-5	G4D	COLLIN MCKINNEY PKWY (2)	LAKE FOREST DR TO COTTONWOOD CREEK	0.31	100%	\$ 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%	\$ 3,221,002	\$ 3,221,002
	I-7	G4D	COLLIN MCKINNEY PKWY (4)	1110' E OF TINA TO HARDIN BLVD	0.19	100%	\$ 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%	\$ 13,584,097	\$ 6,792,049
	I-11, J-7	G6D(1/3)	HARDIN BLVD (12)	VIRGINIA PKWY TO MCKINNEY RANCH PKWY	2.64	50%	\$ 6,208,800	\$ 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
	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%	\$ 2,640,000	\$ 1,320,000
	51		Roundabout	LAKE FOREST DR & GLEN OAKS DR		100%	\$ 1,900,000	\$ 1,900,000
	56		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
							Service Area Project Cost Subtotal	\$ 35,579,653
							Roadway Impact Fee Update Cost (Per Service Area)	\$ 11,692
							Total Cost in SERVICE AREA I	\$ 35,591,345

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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	Total Project Cost	Cost in Service Area
J	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	\$ 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%	\$ 13,584,097	\$ 6,792,049
	I-11, J-7	G6D(1/3)	HARDIN BLVD (12)	VIRGINIA PKWY TO MCKINNEY RANCH PKWY	2.64	50%	\$ 6,208,800	\$ 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
	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
	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		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
							Service Area Project Cost Subtotal	\$ 28,194,611
							Roadway Impact Fee Update Cost (Per Service Area)	\$ 11,692
							Total Cost in SERVICE AREA J	\$ 28,206,303

- 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.
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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	Total Project Cost	Cost in Service Area
K	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-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	Intersection	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		Signal	WILSON CREEK PKWY & COLLEGE ST		100%	\$ 300,000	\$ 300,000
	54		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
	Service Area Project Cost Subtotal							\$ 19,363,000
	Roadway Impact Fee Update Cost (Per Service Area)							\$ 11,692
	Total Cost in SERVICE AREA K							\$ 19,374,692

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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	Total Project Cost	Cost in Service Area	
L	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	
	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-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%	\$ 10,002,150	\$ 5,001,075	
	41	Intersection	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	
	Service Area Project Cost Subtotal								\$ 27,812,925
	Roadway Impact Fee Update Cost (Per Service Area)								\$ 11,692
	Total Cost in SERVICE AREA L								\$ 27,824,617

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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	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	
	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-section	Signal	UNNAMED C & HARRY MCKILLOP BLVD / FM 546 (N)		50%	\$ 300,000	\$ 150,000	
	74		Signal	UNNAMED C & HARRY MCKILLOP BLVD / FM 546 (S)		50%	\$ 300,000	\$ 150,000	
		Service Area Project Cost Subtotal						\$ 7,854,313	
		Roadway Impact Fee Update Cost (Per Service Area)						\$ 11,692	
	Total Cost in SERVICE AREA M						\$ 7,866,005		

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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:

$$TDF = T * (1 - P_b) * L_{Max}$$

$$\text{Where... } L_{Max} = \min (L * OD \text{ or } SA_L)$$

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)
A	0.50	H	4.65
B	1.30	I	6.00
C	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
P _b	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
T	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 AREA	RESIDENTIAL VEHICLE-MILES				SQUARE FEET ⁴			TRANS. DEMAND FACTOR ⁵			NON-RESIDENTIAL VEHICLE-MILES ⁹				TOTAL VEHICLE MILES ¹⁰
	POPULATION ¹	DWELLING UNITS ¹	TDF ²	VEHICLE MILES ³	BASIC	SERVICE	RETAIL	BASIC ⁶	SERVICE ⁷	RETAIL ⁸	BASIC	SERVICE	RETAIL	TOTAL	
A	306	115	0.50	58	23,500	0	81,515	0.32	0.58	1.26	8	0	103	111	169
B	2,834	973	1.29	1,255	0	0	16,699	0.82	1.50	3.26	0	0	54	54	1,309
C	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
H	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
M	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 AREA	RESIDENTIAL VEHICLE-MILES				SQUARE FEET ⁴			TRANS. DEMAND FACTOR ⁵			NON-RESIDENTIAL VEHICLE-MILES ⁹				TOTAL VEHICLE MILES ¹⁰
	POPULATION ¹	DWELLING UNITS ¹	TDF ²	VEHICLE MILES ³	BASIC	SERVICE	RETAIL	BASIC ⁶	SERVICE ⁷	RETAIL ⁸	BASIC	SERVICE	RETAIL	TOTAL	
A	306	115	0.50	58	23,500	0	81,515	0.32	0.58	1.26	8	0	103	111	169
B	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
C	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
H	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
M	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

SERVICE AREA	VEH-MILES
A	0
B	9,578
C	15,582
D	41,299
E	17,845
F	0
G	7,742
H	31,324
I	18,332
J	24,864
K	8,530
L	1,893
M	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
- ⁶ 'Basic' corresponds to General Light Industrial land use and *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
- ¹⁰ Residential plus non-residential vehicle-mile totals for each Service Area
- ¹¹ 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
1	<i>Total Vehicle-Miles of Capacity Added by the RIF RIP</i>	The total number of vehicle-miles added to the service area based on the capacity, length, and number of lanes in each project (from 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	<i>Total Vehicle-Miles of Existing Demand</i>	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)
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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	<i>Total Vehicle-Miles of Existing Deficiencies</i>	Number of vehicle-miles of travel that are not accommodated by the existing roadway system (from Appendix C – Existing Facilities Inventory)
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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	<i>Net Amount of Vehicle-Miles of Capacity Added</i>	A measurement of the amount of vehicle-miles added by the RIP that will not be utilized by existing demand (Line 1 – Line 2 – Line 3)
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This calculation identifies the portion of the Impact Fee RIP (in vehicle-miles) that may be recoverable through the collection of impact fees.

5	<i>Total Cost of the RIP within the Service Area</i>	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	<i>Cost of Net Capacity Supplied</i>	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	<i>Cost to Meet Existing Needs and Usage</i>	The difference between the Total Cost of the RIP (Line 5) and the Cost of the Net Capacity supplied (Line 6). (Line 5 – Line 6)
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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.

8	<i>Total Vehicle-Miles of New Demand over Ten Years</i>	Based upon the growth projection provided in the Land Use Assumptions, an estimate of the number of new vehicle-miles within the service area over the next ten years. (from Table 8)
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This line presents the amount of growth (in vehicle-miles) projected to occur within each service area over the next ten years.

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

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.

11	<i>Cost of Capacity Added Attributable to New Growth</i>	The result of multiplying the Cost of Net Capacity Added (Line 6) by the Percent of Capacity Added Attributable to New Growth, limited to 100% (Line 9).
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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	<i>Financing Costs</i>	(from Appendix D – Plan for Awarding the Roadway Impact Fee Credit)
13	<i>Existing Fund Balance</i>	(from Appendix D – Plan for Awarding the Roadway Impact Fee Credit)
14	<i>Interest Earnings</i>	(from Appendix D – Plan for Awarding the Roadway Impact Fee Credit)
15	<i>Cost of the RIP and Financing Attributable to New Growth</i>	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	<i>Pre-Credit Maximum Fee Per Service Unit</i>	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	<i>Credit for Ad Valorem Taxes</i>	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	<i>Recoverable Cost of RIP and Financing</i>	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	<i>Maximum Assessable Fee Per Service Unit</i>	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	B	C	D	E	F	G	H	I	J	K	L	M
1	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
2	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
3	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
4	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
5	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	\$ 7,866,005
6	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	\$ 7,866,005
7	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	\$ -
8	TOTAL VEH-MI OF NEW DEMAND OVER TEN YEARS (FROM TABLE 8 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
9	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%
10	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%
11	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	\$ 668,610
12	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	\$ 157,670
13	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)	\$ -
14	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)
15	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	\$ 731,667
16	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	\$ 2,407
17	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)	\$ (181)
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	\$ 731,486
19	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

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											
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	220	Dwelling Unit	0.56			0.56	9.79	50%	4.90	0.50	0.28
Multifamily Housing (Low-Rise)	220	Dwelling Unit	0.56			0.56	9.79	50%	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			0.26	9.79	50%	4.90	0.50	0.13
LODGING											
Hotel	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	432	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%	B	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	0.11
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%	B	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			1.07	14.65	50%	7.33	0.50	0.54
COMMERCIAL											
Automobile Related											
Automobile Sales (New)	840	1,000 SF GFA	2.43	20%	B	1.94	5.60	50%	2.80	0.50	0.97
Automobile Parts Sales	843	1,000 SF GFA	4.91	43%	A	2.80	4.45	50%	2.23	0.50	1.40
Tire Store	848	1,000 SF GFA	3.98	28%	A	2.87	4.45	50%	2.23	0.50	1.44
Quick Lubrication Vehicle Shop	941	Servicing Positions	4.85	40%	B	2.91	4.45	50%	2.23	0.50	1.46
Automobile Care Center	942	1,000 SF GLA	3.11	40%	B	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%	B	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 Turnover (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%	B	14.17	5.64	50%	2.82	0.50	7.09
Fast Food Restaurant with Drive-Thru Window	934	1,000 SF GFA	32.67	50%	A	16.34	5.64	50%	2.82	0.50	8.17
Coffee / Donut Shop with Drive-Thru Window	937	1,000 SF GFA	43.38	70%	B	13.01	5.64	50%	2.82	0.50	6.51
Other Retail											
Free-Standing Discount Store	815	1,000 SF GFA	4.83	30%	C	3.38	5.60	50%	2.80	0.50	1.69
Nursery (Garden Center)	817	1,000 SF GFA	6.94	30%	B	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%	B	3.50	5.60	50%	2.80	0.50	1.75
Department Store	875	1,000 SF GFA	1.95	30%	B	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											
Walk-In Bank	911	1,000 SF GFA	12.13	40%	B	7.28	4.45	50%	2.23	0.50	3.64
Drive-In Bank	912	Drive-in Lanes	27.15	35%	A	17.65	4.45	50%	2.23	0.50	8.83
Hair Salon	918	1,000 SF GFA	1.45	30%	B	1.02	6.41	50%	3.21	0.50	0.51

Key to Sources of Pass-by Rates:

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 Per Dev Unit SA - B
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											
Single-Family Detached Housing	210	Dwelling Unit	0.99			0.99	9.79	50%	4.90	1.30	1.29
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	0.57
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			0.26	9.79	50%	4.90	1.30	0.34
Congregate Care Facility	253	Dwelling Unit	0.18			0.18	9.79	50%	4.90	1.30	0.23
Assisted Living	254	Beds	0.26			0.26	9.79	50%	4.90	1.30	0.34
LODGING											
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	495	1,000 SF GFA	2.31			2.31	7.86	50%	3.93	1.30	3.00
INSTITUTIONAL											
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			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%	B	6.23	3.49	50%	1.75	1.30	8.10
MEDICAL											
Hospital	610	Beds	1.89			1.89	9.85	50%	4.93	1.30	2.46
Nursing Home	620	Beds	0.22			0.22	9.85	50%	4.93	1.30	0.29
Clinic	630	1,000 SF GFA	3.28			3.28	9.85	50%	4.93	1.30	4.26
Animal Hospital / Veterinary Clinic	640	1,000 SF GFA	3.53	30%	B	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%	B	1.94	5.60	50%	2.80	1.30	2.52
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%	B	2.91	4.45	50%	2.23	1.30	3.78
Automobile Care Center	942	1,000 SF GLA	3.11	40%	B	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%	B	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	1.30	5.68
High Turnover (Sit-Down) Restaurant	932	1,000 SF GFA	9.77	43%	A	5.57	5.64	50%	2.82	1.30	7.24
Fast Food Restaurant without Drive-Thru Window	933	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%	B	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%	C	3.38	5.60	50%	2.80	1.30	4.39
Nursery (Garden Center)	817	1,000 SF GFA	6.94	30%	B	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	862	1,000 SF GFA	2.33	42%	A	1.35	5.60	50%	2.80	1.30	1.76
Toy / Children's Superstore	864	1,000 SF GFA	5.00	30%	B	3.50	5.60	50%	2.80	1.30	4.55
Department Store	875	1,000 SF GFA	1.95	30%	B	1.37	5.60	50%	2.80	1.30	1.78
Pharmacy / Drugstore without Drive-Thru Window	880	1,000 SF GFA	8.51	53%	A	4.00	5.60	50%	2.80	1.30	5.20
Pharmacy / Drugstore with Drive-Thru Window	881	1,000 SF GFA	10.29	49%	A	5.25	5.60	50%	2.80	1.30	6.83
SERVICES											
Walk-In Bank	911	1,000 SF GFA	12.13	40%	B	7.28	4.45	50%	2.23	1.30	9.46
Drive-In Bank	912	Drive-in Lanes	27.15	35%	A	17.65	4.45	50%	2.23	1.30	22.95
Hair Salon	918	1,000 SF GFA	1.45	30%	B	1.02	6.41	50%	3.21	1.30	1.33

Key to Sources of Pass-by Rates:

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)

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
PORT AND TERMINAL										4.00	
Truck Terminal	030	1,000 SF GFA	1.87			1.87	10.02	50%	5.01	4.00	7.48
INDUSTRIAL											
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	150	1,000 SF GFA	0.19			0.19	10.02	50%	5.01	4.00	0.76
Mini-Warehouse	151	1,000 SF GFA	0.17			0.17	10.02	50%	5.01	4.00	0.68
RESIDENTIAL											
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	0.56			0.56	9.79	50%	4.90	4.00	2.24
Multifamily Housing (Mid-Rise)	221	Dwelling Unit	0.44			0.44	9.79	50%	4.90	4.00	1.76
Multifamily Housing (High-Rise)	222	Dwelling Unit	0.36			0.36	9.79	50%	4.90	4.00	1.44
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			0.26	9.79	50%	4.90	4.00	1.04
Congregate Care Facility	253	Dwelling Unit	0.18			0.18	9.79	50%	4.90	4.00	0.72
Assisted Living	254	Beds	0.26			0.26	9.79	50%	4.90	4.00	1.04
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											
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	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	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	4.00	0.44
University / College	550	Students	0.15			0.15	10.44	50%	5.22	4.00	0.60
Church	560	1,000 SF GFA	0.49			0.49	8.31	50%	4.16	4.00	1.96
Day Care Center	565	1,000 SF GFA	11.12	44%	B	6.23	3.49	50%	1.75	1.75	10.90
MEDICAL											
Hospital	610	Beds	1.89			1.89	9.85	50%	4.93	4.00	7.56
Nursing Home	620	Beds	0.22			0.22	9.85	50%	4.93	4.00	0.88
Clinic	630	1,000 SF GFA	3.28			3.28	9.85	50%	4.93	4.00	13.12
Animal Hospital / Veterinary Clinic	640	1,000 SF GFA	3.53	30%	B	2.47	9.85	50%	4.93	4.00	9.88
OFFICE											
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	720	1,000 SF GFA	3.46			3.46	9.85	50%	4.93	4.00	13.84
Office Park	750	1,000 SF GFA	1.07			1.07	14.65	50%	7.33	4.00	4.28
COMMERCIAL											
Automobile Related											
Automobile Sales (New)	840	1,000 SF GFA	2.43	20%	B	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%	B	2.91	4.45	50%	2.23	2.23	6.49
Automobile Care Center	942	1,000 SF GLA	3.11	40%	B	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%	B	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 Turnover (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%	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%	B	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%	B	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	864	1,000 SF GFA	5.00	30%	B	3.50	5.60	50%	2.80	2.80	9.80
Department Store	875	1,000 SF GFA	1.95	30%	B	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%	B	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%	B	1.02	6.41	50%	3.21	3.21	3.27

Key to Sources of Pass-by Rates:

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.D. Service Area D - 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 - 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	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											
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	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			0.26	9.79	50%	4.90	4.90	1.27
Congregate Care Facility	253	Dwelling Unit	0.18			0.18	9.79	50%	4.90	4.90	0.88
Assisted Living	254	Beds	0.26			0.26	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											
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	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			0.49	8.31	50%	4.16	4.16	2.04
Day Care Center	565	1,000 SF GFA	11.12	44%	B	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	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%	B	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%	B	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%	B	2.91	4.45	50%	2.23	2.23	6.49
Automobile Care Center	942	1,000 SF GLA	3.11	40%	B	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%	B	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 Turnover (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%	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%	B	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%	B	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	864	1,000 SF GFA	5.00	30%	B	3.50	5.60	50%	2.80	2.80	9.80
Department Store	875	1,000 SF GFA	1.95	30%	B	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%	B	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%	B	1.02	6.41	50%	3.21	3.21	3.27

Key to Sources of Pass-by Rates:

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.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											
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)	220	Dwelling Unit	0.56			0.56	9.79	50%	4.90	4.80	2.69
Multifamily Housing (Mid-Rise)	221	Dwelling Unit	0.44			0.44	9.79	50%	4.90	4.80	2.11
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											
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	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	Students	0.11			0.11	10.44	50%	5.22	4.80	0.53
University / College	550	Students	0.15			0.15	10.44	50%	5.22	4.80	0.72
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%	B	6.23	3.49	50%	1.75	1.75	10.90
MEDICAL											
Hospital	610	Beds	1.89			1.89	9.85	50%	4.93	4.80	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%	B	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	720	1,000 SF GFA	3.46			3.46	9.85	50%	4.93	4.80	16.61
Office Park	750	1,000 SF GFA	1.07			1.07	14.65	50%	7.33	4.80	5.14
COMMERCIAL											
Automobile Related											
Automobile Sales (New)	840	1,000 SF GFA	2.43	20%	B	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%	B	2.91	4.45	50%	2.23	2.23	6.49
Automobile Care Center	942	1,000 SF GLA	3.11	40%	B	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%	B	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 Turnover (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%	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%	B	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%	B	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	864	1,000 SF GFA	5.00	30%	B	3.50	5.60	50%	2.80	2.80	9.80
Department Store	875	1,000 SF GFA	1.95	30%	B	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%	B	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%	B	1.02	6.41	50%	3.21	3.21	3.27

Key to Sources of Pass-by Rates:

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
RESIDENTIAL											
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			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			0.26	9.79	50%	4.90	0.00	0.00
Congregate Care Facility	253	Dwelling Unit	0.18			0.18	9.79	50%	4.90	0.00	0.00
Assisted Living	254	Beds	0.26			0.26	9.79	50%	4.90	0.00	0.00
LODGING											
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											
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	Screens	13.73			13.73	15.77	50%	7.89	0.00	0.00
Ice Skating Rink	465	1,000 SF GFA	1.33			1.33	7.86	50%	3.93	0.00	0.00
Racquet / Tennis Club	491	Courts	3.82			3.82	7.86	50%	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											
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			0.49	8.31	50%	4.16	0.00	0.00
Day Care Center	565	1,000 SF GFA	11.12	44%	B	6.23	3.49	50%	1.75	0.00	0.00
MEDICAL											
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%	B	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	720	1,000 SF GFA	3.46			3.46	9.85	50%	4.93	0.00	0.00
Office Park	750	1,000 SF GFA	1.07			1.07	14.65	50%	7.33	0.00	0.00
COMMERCIAL											
Automobile Related											
Automobile Sales (New)	840	1,000 SF GFA	2.43	20%	B	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	50%	2.23	0.00	0.00
Quick Lubrication Vehicle Shop	941	Servicing Positions	4.85	40%	B	2.91	4.45	50%	2.23	0.00	0.00
Automobile Care Center	942	1,000 SF GLA	3.11	40%	B	1.87	4.45	50%	2.23	0.00	0.00
Gasoline / Service Station	944	Vehicle Fueling Positions	14.03	42%	A	8.14	1.20	50%	0.60	0.00	0.00
Gasoline / Service Station w/ Convenience Market	945	Vehicle Fueling Positions	13.99	56%	A	6.16	1.20	50%	0.60	0.00	0.00
Self-Service Car Wash	947	Stalls	5.54	40%	B	3.32	1.20	50%	0.60	0.00	0.00
Dining											
Quality Restaurant	931	1,000 SF GFA	7.80	44%	A	4.37	5.64	50%	2.82	0.00	0.00
High Turnover (Sit-Down) Restaurant	932	1,000 SF GFA	9.77	43%	A	5.57	5.64	50%	2.82	0.00	0.00
Fast Food Restaurant without Drive-Thru Window	933	1,000 SF GFA	28.34	50%	B	14.17	5.64	50%	2.82	0.00	0.00
Fast Food Restaurant with Drive-Thru Window	934	1,000 SF GFA	32.67	50%	A	16.34	5.64	50%	2.82	0.00	0.00
Coffee / Donut Shop with Drive-Thru Window	937	1,000 SF GFA	43.38	70%	B	13.01	5.64	50%	2.82	0.00	0.00
Other Retail											
Free-Standing Discount Store	815	1,000 SF GFA	4.83	30%	C	3.38	5.60	50%	2.80	0.00	0.00
Nursery (Garden Center)	817	1,000 SF GFA	6.94	30%	B	4.86	5.60	50%	2.80	0.00	0.00
Shopping Center	820	1,000 SF GLA	3.81	34%	A	2.51	5.60	50%	2.80	0.00	0.00
Supermarket	850	1,000 SF GFA	9.24	36%	A	5.91	5.60	50%	2.80	0.00	0.00
Home Improvement Superstore	862	1,000 SF GFA	2.33	42%	A	1.35	5.60	50%	2.80	0.00	0.00
Toy / Children's Superstore	864	1,000 SF GFA	5.00	30%	B	3.50	5.60	50%	2.80	0.00	0.00
Department Store	875	1,000 SF GFA	1.95	30%	B	1.37	5.60	50%	2.80	0.00	0.00
Pharmacy / Drugstore without Drive-Thru Window	880	1,000 SF GFA	8.51	53%	A	4.00	5.60	50%	2.80	0.00	0.00
Pharmacy / Drugstore with Drive-Thru Window	881	1,000 SF GFA	10.29	49%	A	5.25	5.60	50%	2.80	0.00	0.00
SERVICES											
Walk-In Bank	911	1,000 SF GFA	12.13	40%	B	7.28	4.45	50%	2.23	0.00	0.00
Drive-In Bank	912	Drive-in Lanes	27.15	35%	A	17.65	4.45	50%	2.23	0.00	0.00
Hair Salon	918	1,000 SF GFA	1.45	30%	B	1.02	6.41	50%	3.21	0.00	0.00

Key to Sources of Pass-by Rates:

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	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											
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	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			0.26	9.79	50%	4.90	4.90	1.27
Congregate Care Facility	253	Dwelling Unit	0.18			0.18	9.79	50%	4.90	4.90	0.88
Assisted Living	254	Beds	0.26			0.26	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											
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	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			0.49	8.31	50%	4.16	4.16	2.04
Day Care Center	565	1,000 SF GFA	11.12	44%	B	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	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%	B	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%	B	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%	B	2.91	4.45	50%	2.23	2.23	6.49
Automobile Care Center	942	1,000 SF GLA	3.11	40%	B	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%	B	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 Turnover (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%	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%	B	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%	B	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	864	1,000 SF GFA	5.00	30%	B	3.50	5.60	50%	2.80	2.80	9.80
Department Store	875	1,000 SF GFA	1.95	30%	B	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%	B	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%	B	1.02	6.41	50%	3.21	3.21	3.27

Key to Sources of Pass-by Rates:

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.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	Veh-Mi Per Dev Unit SA - H
PORT AND TERMINAL										4.65	
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
RESIDENTIAL											
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			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			0.26	9.79	50%	4.90	4.65	1.21
Congregate Care Facility	253	Dwelling Unit	0.18			0.18	9.79	50%	4.90	4.65	0.84
Assisted Living	254	Beds	0.26			0.26	9.79	50%	4.90	4.65	1.21
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											
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	4.65	63.84
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	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			0.49	8.31	50%	4.16	4.16	2.04
Day Care Center	565	1,000 SF GFA	11.12	44%	B	6.23	3.49	50%	1.75	1.75	10.90
MEDICAL											
Hospital	610	Beds	1.89			1.89	9.85	50%	4.93	4.65	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%	B	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	715	1,000 SF GFA	1.71			1.71	14.65	50%	7.33	4.65	7.95
Medical-Dental Office	720	1,000 SF GFA	3.46			3.46	9.85	50%	4.93	4.65	16.09
Office Park	750	1,000 SF GFA	1.07			1.07	14.65	50%	7.33	4.65	4.98
COMMERCIAL											
Automobile Related											
Automobile Sales (New)	840	1,000 SF GFA	2.43	20%	B	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%	B	2.91	4.45	50%	2.23	2.23	6.49
Automobile Care Center	942	1,000 SF GLA	3.11	40%	B	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%	B	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 Turnover (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%	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%	B	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%	B	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	864	1,000 SF GFA	5.00	30%	B	3.50	5.60	50%	2.80	2.80	9.80
Department Store	875	1,000 SF GFA	1.95	30%	B	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%	B	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%	B	1.02	6.41	50%	3.21	3.21	3.27

Key to Sources of Pass-by Rates:

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.I. Service Area I - 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 - I	Veh-Mi Per Dev Unit SA - I
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	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											
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	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			0.26	9.79	50%	4.90	4.90	1.27
Congregate Care Facility	253	Dwelling Unit	0.18			0.18	9.79	50%	4.90	4.90	0.88
Assisted Living	254	Beds	0.26			0.26	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											
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	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			0.49	8.31	50%	4.16	4.16	2.04
Day Care Center	565	1,000 SF GFA	11.12	44%	B	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	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%	B	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%	B	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%	B	2.91	4.45	50%	2.23	2.23	6.49
Automobile Care Center	942	1,000 SF GLA	3.11	40%	B	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%	B	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 Turnover (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%	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%	B	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%	B	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	864	1,000 SF GFA	5.00	30%	B	3.50	5.60	50%	2.80	2.80	9.80
Department Store	875	1,000 SF GFA	1.95	30%	B	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%	B	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%	B	1.02	6.41	50%	3.21	3.21	3.27

Key to Sources of Pass-by Rates:

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.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 Rate	Pass-by Source	Trip Rate	Trip Length (mi)	Adj. For O-D	Adj. Trip Length (mi)	Max Trip Length (mi) SA - J	Veh-Mi Per Dev Unit SA - J
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	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											
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	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			0.26	9.79	50%	4.90	4.90	1.27
Congregate Care Facility	253	Dwelling Unit	0.18			0.18	9.79	50%	4.90	4.90	0.88
Assisted Living	254	Beds	0.26			0.26	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											
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	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			0.49	8.31	50%	4.16	4.16	2.04
Day Care Center	565	1,000 SF GFA	11.12	44%	B	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	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%	B	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%	B	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%	B	2.91	4.45	50%	2.23	2.23	6.49
Automobile Care Center	942	1,000 SF GLA	3.11	40%	B	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%	B	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 Turnover (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%	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%	B	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%	B	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	864	1,000 SF GFA	5.00	30%	B	3.50	5.60	50%	2.80	2.80	9.80
Department Store	875	1,000 SF GFA	1.95	30%	B	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%	B	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%	B	1.02	6.41	50%	3.21	3.21	3.27

Key to Sources of Pass-by Rates:

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.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 Per Dev Unit SA - K
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											
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											
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	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			0.26	9.79	50%	4.90	4.90	1.27
Congregate Care Facility	253	Dwelling Unit	0.18			0.18	9.79	50%	4.90	4.90	0.88
Assisted Living	254	Bed	0.26			0.26	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											
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	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			0.49	8.31	50%	4.16	4.16	2.04
Day Care Center	565	1,000 SF GFA	11.12	44%	B	6.23	3.49	50%	1.75	1.75	10.90
MEDICAL											
Hospital	610	Bed	1.89			1.89	9.85	50%	4.93	4.93	9.32
Nursing Home	620	Bed	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%	B	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%	B	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%	B	2.91	4.45	50%	2.23	2.23	6.49
Automobile Care Center	942	1,000 SF GLA	3.11	40%	B	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%	B	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 Turnover (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%	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%	B	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%	B	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	864	1,000 SF GFA	5.00	30%	B	3.50	5.60	50%	2.80	2.80	9.80
Department Store	875	1,000 SF GFA	1.95	30%	B	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%	B	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%	B	1.02	6.41	50%	3.21	3.21	3.27

Key to Sources of Pass-by Rates:

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 Rate	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										3.50	
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	151	1,000 SF GFA	0.17			0.17	10.02	50%	5.01	3.50	0.60
RESIDENTIAL											
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	Dwelling Unit	0.30			0.30	9.79	50%	4.90	3.50	1.05
Senior Adult Housing-Attached	252	Dwelling Unit	0.26			0.26	9.79	50%	4.90	3.50	0.91
Congregate Care Facility	253	Dwelling Unit	0.18			0.18	9.79	50%	4.90	3.50	0.63
Assisted Living	254	Bed	0.26			0.26	9.79	50%	4.90	3.50	0.91
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											
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	445	Screens	13.73			13.73	15.77	50%	7.89	3.50	48.06
Ice Skating Rink	465	1,000 SF GFA	1.33			1.33	7.86	50%	3.93	3.50	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											
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			0.49	8.31	50%	4.16	3.50	1.72
Day Care Center	565	1,000 SF GFA	11.12	44%	B	6.23	3.49	50%	1.75	1.75	10.90
MEDICAL											
Hospital	610	Bed	1.89			1.89	9.85	50%	4.93	3.50	6.62
Nursing Home	620	Bed	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%	B	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	1,000 SF GFA	3.46			3.46	9.85	50%	4.93	3.50	12.11
Office Park	750	1,000 SF GFA	1.07			1.07	14.65	50%	7.33	3.50	3.75
COMMERCIAL											
Automobile Related											
Automobile Sales (New)	840	1,000 SF GFA	2.43	20%	B	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%	B	2.91	4.45	50%	2.23	2.23	6.49
Automobile Care Center	942	1,000 SF GLA	3.11	40%	B	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%	B	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 Turnover (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%	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%	B	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%	B	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	864	1,000 SF GFA	5.00	30%	B	3.50	5.60	50%	2.80	2.80	9.80
Department Store	875	1,000 SF GFA	1.95	30%	B	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%	B	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%	B	1.02	6.41	50%	3.21	3.21	3.27

Key to Sources of Pass-by Rates:

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.M. Service Area M - 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 - M	Veh-Mi Per Dev Unit SA - M
PORT AND TERMINAL										1.50	
Truck Terminal	030	1,000 SF GFA	1.87			1.87	10.02	50%	5.01	1.50	2.81
INDUSTRIAL											
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	231	Dwelling Unit	0.36			0.36	9.79	50%	4.90	1.50	0.54
Mobile Home Park / Manufactured Housing	240	Dwelling Unit	0.46			0.46	9.79	50%	4.90	1.50	0.69
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	Bed	0.26			0.26	9.79	50%	4.90	1.50	0.39
LODGING											
Hotel	310	Rooms	0.60			0.60	6.43	50%	3.22	1.50	0.90
Motel / Other Lodging Facilities	320	Rooms	0.38			0.38	6.43	50%	3.22	1.50	0.57
RECREATIONAL											
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	465	1,000 SF GFA	1.33			1.33	7.86	50%	3.93	1.50	2.00
Racquet / Tennis Club	491	Courts	3.82			3.82	7.86	50%	3.93	1.50	5.73
Recreational Community Center	495	1,000 SF GFA	2.31			2.31	7.86	50%	3.93	1.50	3.47
INSTITUTIONAL											
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	540	Students	0.11			0.11	10.44	50%	5.22	1.50	0.17
University / College	550	Students	0.15			0.15	10.44	50%	5.22	1.50	0.23
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%	B	6.23	3.49	50%	1.75	1.50	9.35
MEDICAL											
Hospital	610	Bed	1.89			1.89	9.85	50%	4.93	1.50	2.84
Nursing Home	620	Bed	0.22			0.22	9.85	50%	4.93	1.50	0.33
Clinic	630	1,000 SF GFA	3.28			3.28	9.85	50%	4.93	1.50	4.92
Animal Hospital / Veterinary Clinic	640	1,000 SF GFA	3.53	30%	B	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			1.71	14.65	50%	7.33	1.50	2.57
Medical-Dental Office	720	1,000 SF GFA	3.46			3.46	9.85	50%	4.93	1.50	5.19
Office Park	750	1,000 SF GFA	1.07			1.07	14.65	50%	7.33	1.50	1.61
COMMERCIAL											
Automobile Related											
Automobile Sales (New)	840	1,000 SF GFA	2.43	20%	B	1.94	5.60	50%	2.80	1.50	2.91
Automobile Parts Sales	843	1,000 SF GFA	4.91	43%	A	2.80	4.45	50%	2.23	1.50	4.20
Tire Store	848	1,000 SF GFA	3.98	28%	A	2.87	4.45	50%	2.23	1.50	4.31
Quick Lubrication Vehicle Shop	941	Servicing Positions	4.85	40%	B	2.91	4.45	50%	2.23	1.50	4.37
Automobile Care Center	942	1,000 SF GLA	3.11	40%	B	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%	B	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	932	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%	B	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%	B	13.01	5.64	50%	2.82	1.50	19.52
Other Retail											
Free-Standing Discount Store	815	1,000 SF GFA	4.83	30%	C	3.38	5.60	50%	2.80	1.50	5.07
Nursery (Garden Center)	817	1,000 SF GFA	6.94	30%	B	4.86	5.60	50%	2.80	1.50	7.29
Shopping Center	820	1,000 SF GLA	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%	B	3.50	5.60	50%	2.80	1.50	5.25
Department Store	875	1,000 SF GFA	1.95	30%	B	1.37	5.60	50%	2.80	1.50	2.06
Pharmacy / Drugstore without Drive-Thru Window	880	1,000 SF GFA	8.51	53%	A	4.00	5.60	50%	2.80	1.50	6.00
Pharmacy / Drugstore with Drive-Thru Window	881	1,000 SF GFA	10.29	49%	A	5.25	5.60	50%	2.80	1.50	7.88
SERVICES											
Walk-In Bank	911	1,000 SF GFA	12.13	40%	B	7.28	4.45	50%	2.23	1.50	10.92
Drive-In Bank	912	Drive-in Lanes	27.15	35%	A	17.65	4.45	50%	2.23	1.50	26.48
Hair Salon	918	1,000 SF GFA	1.45	30%	B	1.02	6.41	50%	3.21	1.50	1.53

Key to Sources of Pass-by Rates:

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	130	Area containing a number of industries or related facilities
Warehousing	150	Devoted to storage of materials but may include office and maintenance areas
Mini-Warehouse	151	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)	220	At least 3 rental dwelling units and one or two levels (floors) per building
Multifamily Housing (Mid-Rise)	221	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 (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	Consists of attached independent living developments that include limited social or recreation services
Congregate Care Facility	253	Independent living developments with centralized amenities such as dining, housekeeping, transportation and organized social/recreational activities
Assisted Living	254	Residential settings that provide either routine general protective oversight or assistance with activities.
LODGING		
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		
Golf Course	430	May include municipal courses and private country clubs; may have driving ranges, pro shops, and restaurant/banquet facilities
Miniature Golf Course	431	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 refreshment facilities
Racquet / Tennis Club	491	Indoor or outdoor facilities specifically designed for playing tennis
Recreational Community Center	495	Privately owned facilities that primarily focus on individual fitness or training
INSTITUTIONAL		
Elementary School	520	
Middle School / Junior High School	522	
High School	530	
Junior / Community College	540	
University / College	550	
Church	560	Churches and houses of worship
Day Care Center	565	Generally includes facilities for care of pre-school aged children, generally includes classrooms, offices, eating areas, and playgrounds
MEDICAL		
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	630	Facilities with limited diagnostic and outpatient care
Animal Hospital / Veterinary Clinic	640	Facility that specializes in the medical care and treatment of animals
OFFICE		
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	720	Multi-tenant building with offices for physicians and/or dentists
Office Park	750	Office buildings (typically low-rise) in a campus setting and served by a common roadway system
COMMERCIAL		
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	848	Primary business is sales and installation of tires; usually do not have large storage or warehouse area
Quick Lubrication Vehicle Shop	941	Primary business is to perform oil changes and fluid/filter changes with other repair services not provided
Automobile Care Center	942	Automobile repair and servicing including stereo installations and upholstery
Gasoline / Service Station	944	Gasoline sales without convenience store or car wash; may include repair
Gasoline/Service Station w/ Conv Market	945	Gasoline sales with convenience store where the primary business is gasoline sales
Self-Service Car Wash	947	Has stalls for driver to park and wash the vehicle
Dining		
Sit Down Restaurant	931	Restaurants with turnover rates of one hour or longer; typically require reservations
High Turnover (Sit-Down) Restaurant	932	Restaurants with turnover rates less than one hour; typically includes moderately-priced chain restaurants
Fast Food Restaurant without Drive-Thru Window	933	High-turnover fast food restaurant for carry-out and eat-in customers, but without a drive-thru window
Fast Food Restaurant with Drive-Thru Window	934	High-turnover fast food restaurant for carry-out and eat-in customers with a drive-thru window
Coffee / Donut Shop with Drive-Thru Window	937	Coffee and Donut restaurants with drive-through windows, hold long store hours and have limited indoor seating
Other Retail		
Free-Standing Retail Store	815	Category includes free-standing stores with off-street parking; typically offer a variety of products and services with long store hours
Garden Center (Nursery)	817	Building with a yard of planting or landscape stock; may have office, storage, shipping or greenhouse facilities
Shopping Center	820	Integrated group of commercial establishments; planning, owned, and managed as a unit
Supermarket	850	Primary business is sale of groceries, food, and household cleaning items; may include photo, pharmacy, video rental, and/or ATM
Home Improvement Superstore	862	Warehouse-type facilities offering a large variety of products and services including lumber, tool, paint, lighting, and fixtures, among other items.
Toy/Children's Superstore	864	Businesses specializing in child-oriented merchandise
Pharmacy / Drugstore without Drive-Thru Window	880	Facilities that primarily sell prescription and non-prescription drugs without a drive-through window
Pharmacy / Drugstore with Drive-Thru Window	881	Facilities that primarily sell prescription and non-prescription drugs with a drive-through window
SERVICES		
Bank (Walk-In)	911	Bank without drive-thru lanes
Bank (Drive In)	912	Bank with drive-thru lanes
Hair Salon	918	Facilities that specialize in cosmetic and beauty services including hair cutting and styling

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

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

Example 2:

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

Step 1	Determine Development Unit and Vehicle-Miles Per Development Unit
	From Table 11 [Land Use – Vehicle-Mile Equivalency Table] 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
Step 2	Determine Maximum Assessable Impact Fee Per Service Unit (Vehicle-Mile)
	From Table 10, Line 19 [Maximum Assessable Fee Per Service Unit] Service Area I: \$1,265
Step 3	Determine Maximum Assessable Impact Fee
	Impact Fee = # of Development Units * Veh-Mi Per Dev Unit * Max. Fee Per Service Unit 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 Area	2019–2020 Maximum Fee Per Service Unit (Per Vehicle-Mile)	2012–2013 Maximum Fee Per Service Unit (Per Vehicle-Mile)
A	\$0	\$0
B	\$1,094	\$1,793
C	\$2,808	\$1,410
D	\$3,438	\$1,707
E	\$2,202	\$2,085
F	\$0	\$0
G	\$1,155	\$628
H	\$361	\$393
I	\$1,265	\$750
J	\$347	\$854
K	\$1,197	\$1,178
L	\$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 assessed (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.

DRAFT

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

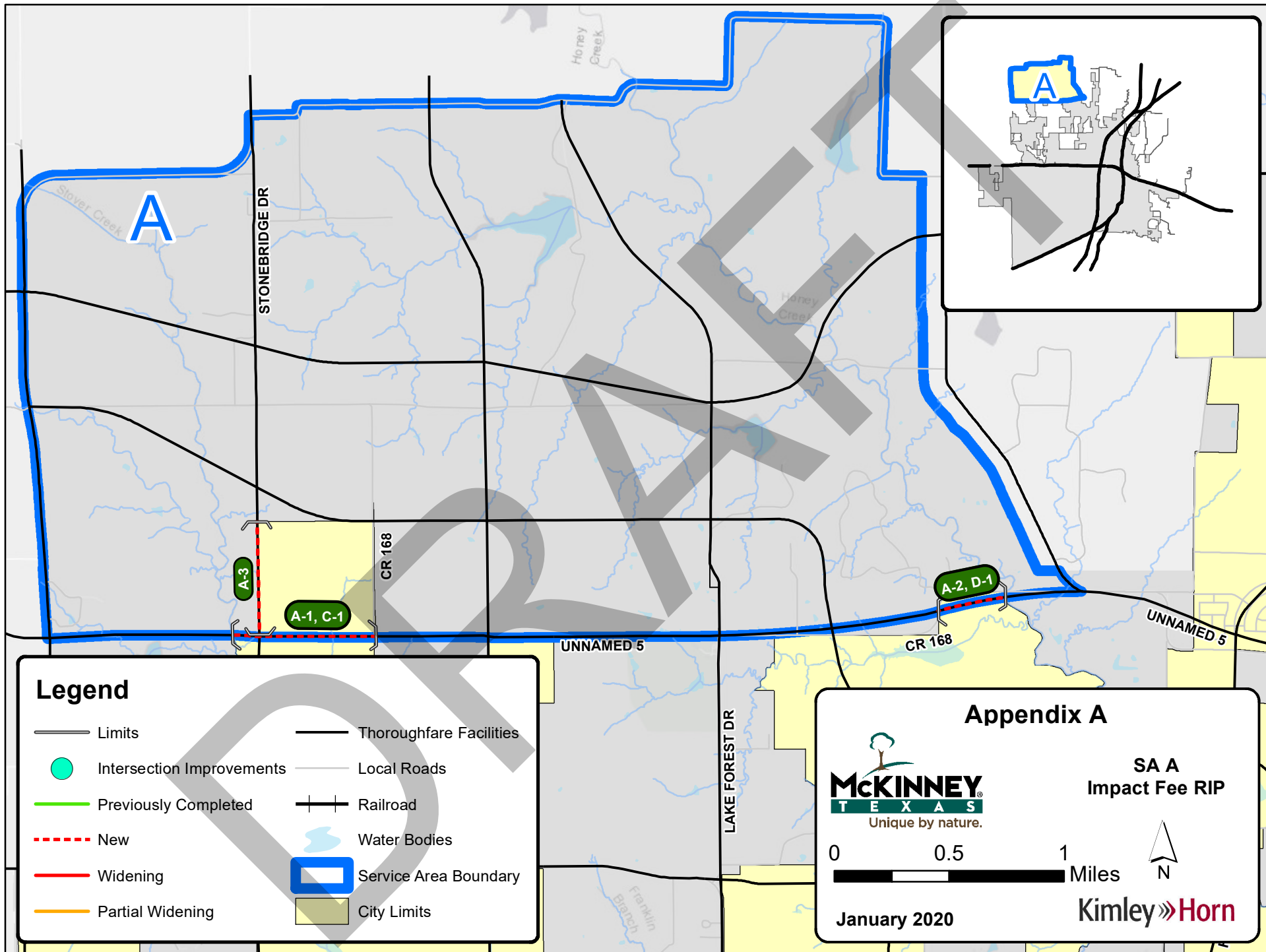
FROM NEWGEN STRATEGIES & SOLUTIONS, LLC

E. Plan for Awarding the Roadway Impact Fee Credit Supporting Exhibits

FROM NEWGEN STRATEGIES & SOLUTIONS, LLC

Appendix A – Conceptual Level Project Cost Projections

DRAFT



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 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
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.

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-1, C-1
Name:	UNNAMED 5 (1)	This project consists of the construction of a new six-lane divided major arterial.	
Limits:	635' W OF STONEBRIDGE DR TO CR 168		
Impact Fee Class:	M6D		
Thoroughfare Class:	Major Arterial		
Length (lf):	3,315		
Service Area(s):	A and C		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
109	Unclassified Street Excavation	36,833	cy	\$ 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
Major Construction Component Allowances**:					
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 Illumination System		6%	\$ 161,339
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 1,244,925
Paving and Allowance Subtotal:					\$ 3,933,912
Mobilization:				5%	\$ 196,696
Site Preparation:				5%	\$ 196,696
Construction Cost TOTAL:					\$ 4,328,000
Construction Contingency:				15%	\$ 649,200
Construction Cost TOTAL W/ CONTINGENCY:					\$ 4,978,000

Impact Fee Project Cost Summary			
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 Project 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.
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.

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 construction of a new six-lane divided major arterial.	
Limits:	CR 168 TO 1,560' E OF CR 168		
Impact Fee Class:	M6D		
Thoroughfare Class:	Major Arterial		
Length (lf):	1,560		
Service Area(s):	A and D		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
109	Unclassified Street Excavation	17,333	cy	\$ 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
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 Illumination System		6%	\$ 75,924
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 2,568,200
Paving and Allowance Subtotal:					\$ 3,833,606
Mobilization:				5%	\$ 191,680
Site Preparation:				5%	\$ 191,680
Construction Cost TOTAL:					\$ 4,217,000
Construction Contingency:				15%	\$ 632,550
Construction Cost TOTAL W/ CONTINGENCY:					\$ 4,850,000

Impact Fee Project Cost Summary			
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 Project 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.
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.

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

Kimley-Horn and Associates, Inc.

updated: 12/13/2019

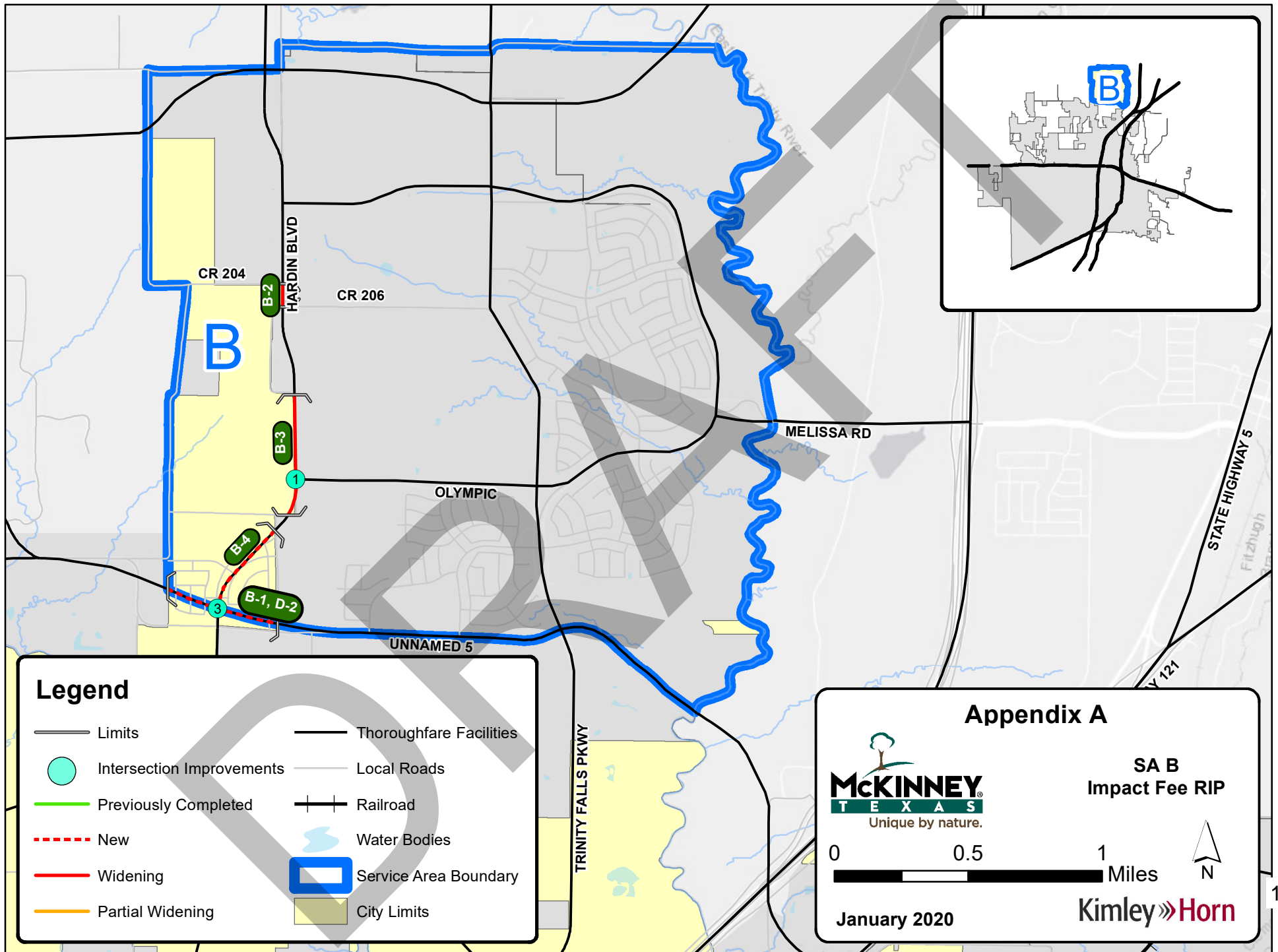
Project Information:		Description:	Project No.	A-3
Name:	STONEBRIDGE DR (1)			
Limits:	2,635' N OF UNNAMED 5 TO UNNAMED 5			
Impact Fee Class:	G4D			
Thoroughfare Class:	Greenway Arterial			
Length (lf):	2,635			
Service Area(s):	A, Half			
		This project consists of the construction of a new four-lane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

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
107	Unclassified Street Excavation	25,764	cy	\$ 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 Openings	1,547	sy	\$ 72.00	\$ 111,389
707	Moisture Conditioning	19,323	sy	\$ 8.00	\$ 154,587
Paving Construction Cost Subtotal: \$					1,741,429
Major Construction Component Allowances**:					
Item Description		Notes		Allowance	Item Cost
✓	Traffic Control	None Anticipated		1%	\$ 17,414
✓	Pavement Markings/Markers			3%	\$ 52,243
✓	Roadway Drainage	Standard Internal System		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 Illumination System		6%	\$ 104,486
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal: \$	644,329
				Paving and Allowance Subtotal: \$	2,385,758
				Mobilization: 5%	\$ 119,288
				Site Preparation: 5%	\$ 119,288
				Construction Cost TOTAL: \$	2,625,000
				Construction Contingency: 15%	\$ 393,750
				Construction Cost TOTAL W/ CONTINGENCY: \$	3,019,000

Impact Fee Project Cost Summary			
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 Cost TOTAL:			\$ 4,679,450

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.

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.



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 Class	Project	Limits	Total Cost	Percent in Service Area	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	\$ 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-section	Signal	HARDIN BLVD & OLYMPIC	\$ 300,000	50%	\$ 150,000
3		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.

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.	B-1, D-2
Name:	UNNAMED 5 (4)	This project consists of the construction of a new six-lane divided major arterial.		
Limits:	1,050' W OF HARDIN BLVD TO 1,200' E OF HARDIN BLVD			
Impact Fee Class:	M6D			
Thoroughfare Class:	Major Arterial			
Length (If):	2,250			
Service Area(s):	B and D			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
109	Unclassified Street Excavation	25,000	cy	\$ 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
Major Construction Component Allowances**:					
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 Illumination System		6%	\$ 109,506
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 675,289
				Paving and Allowance Subtotal:	\$ 2,500,393
				Mobilization:	5% \$ 125,020
				Site Preparation:	5% \$ 125,020
				Construction Cost TOTAL:	\$ 2,751,000
				Construction Contingency:	15% \$ 412,650
				Construction Cost TOTAL W/ CONTINGENCY:	\$ 3,164,000

Impact Fee Project Cost Summary			
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 Project Cost TOTAL:			\$ 4,904,200

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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.	B-2
Name:	HARDIN BLVD (1)	This project consists of the reconstruction of a two-lane facility to a six-lane divided greenway arterial. Based on the existing City Limits, the eastern half of the roadway is not included in the Impact Fee RIP.		
Limits:	CR 204 TO CR 206			
Impact Fee Class:	G6D			
Thoroughfare Class:	Greenway Arterial			
Length (lf):	435			
Service Area(s):	B, Half			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
116	Unclassified Street Excavation	5,317	cy	\$ 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 Openings	301	sy	\$ 77.00	\$ 23,148
716	Moisture Conditioning	3,480	sy	\$ 8.00	\$ 27,840
Paving Construction Cost Subtotal:					\$ 341,302
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	10,239
✓	Pavement Markings/Markers		3%	\$	10,239
✓	Roadway Drainage	Standard Internal System	25%	\$	85,325
	Special Drainage Structures	None Anticipated		\$	-
✓	Water	Incidental Adjustments	3%	\$	10,239
✓	Sewer	Incidental Adjustments	3%	\$	10,239
✓	Establish Turf / Erosion Control		2%	\$	6,826
✓	Illumination	Standard Illumination System	6%	\$	20,478
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	153,586
Paving and Allowance Subtotal:				\$	494,888
Mobilization:				5%	\$ 24,744
Site Preparation:				5%	\$ 24,744
Construction Cost TOTAL:				\$	545,000
Construction Contingency:				15%	\$ 81,750
Construction Cost TOTAL W/ CONTINGENCY:				\$	627,000

Impact Fee Project Cost Summary			
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

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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.	B-3
Name:	HARDIN BLVD (2)	This project consists of the reconstruction of a two-lane facility to a six-lane divided greenway arterial. Based on the existing City Limits, the eastern half of the roadway is not included in the Impact Fee RIP.		
Limits:	1,670' N OF OLYMPIC TO 730' S OF OLYMPIC			
Impact Fee Class:	G6D			
Thoroughfare Class:	Greenway Arterial			
Length (lf):	2,400			
Service Area(s):	B, Half			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
116	Unclassified Street Excavation	29,333	cy	\$ 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 Openings	1,659	sy	\$ 77.00	\$ 127,711
716	Moisture Conditioning	19,200	sy	\$ 8.00	\$ 153,600
Paving Construction Cost Subtotal:					\$ 1,883,044
Major Construction Component Allowances**:					
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 System	25%	\$	470,761
	Special Drainage Structures	None Anticipated		\$	-
✓	Water	Incidental Adjustments	3%	\$	56,491
✓	Sewer	Incidental Adjustments	3%	\$	56,491
✓	Establish Turf / Erosion Control		2%	\$	37,661
✓	Illumination	Standard Illumination System	6%	\$	112,983
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	847,370
Paving and Allowance Subtotal:				\$	2,730,414
Mobilization:				5%	\$ 136,521
Site Preparation:				5%	\$ 136,521
Construction Cost TOTAL:				\$	3,004,000
Construction Contingency:				15%	\$ 450,600
Construction Cost TOTAL W/ CONTINGENCY:				\$	3,455,000

Impact Fee Project Cost Summary			
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
Impact Fee Project Cost TOTAL:			\$ 4,837,000

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

Kimley-Horn and Associates, Inc.

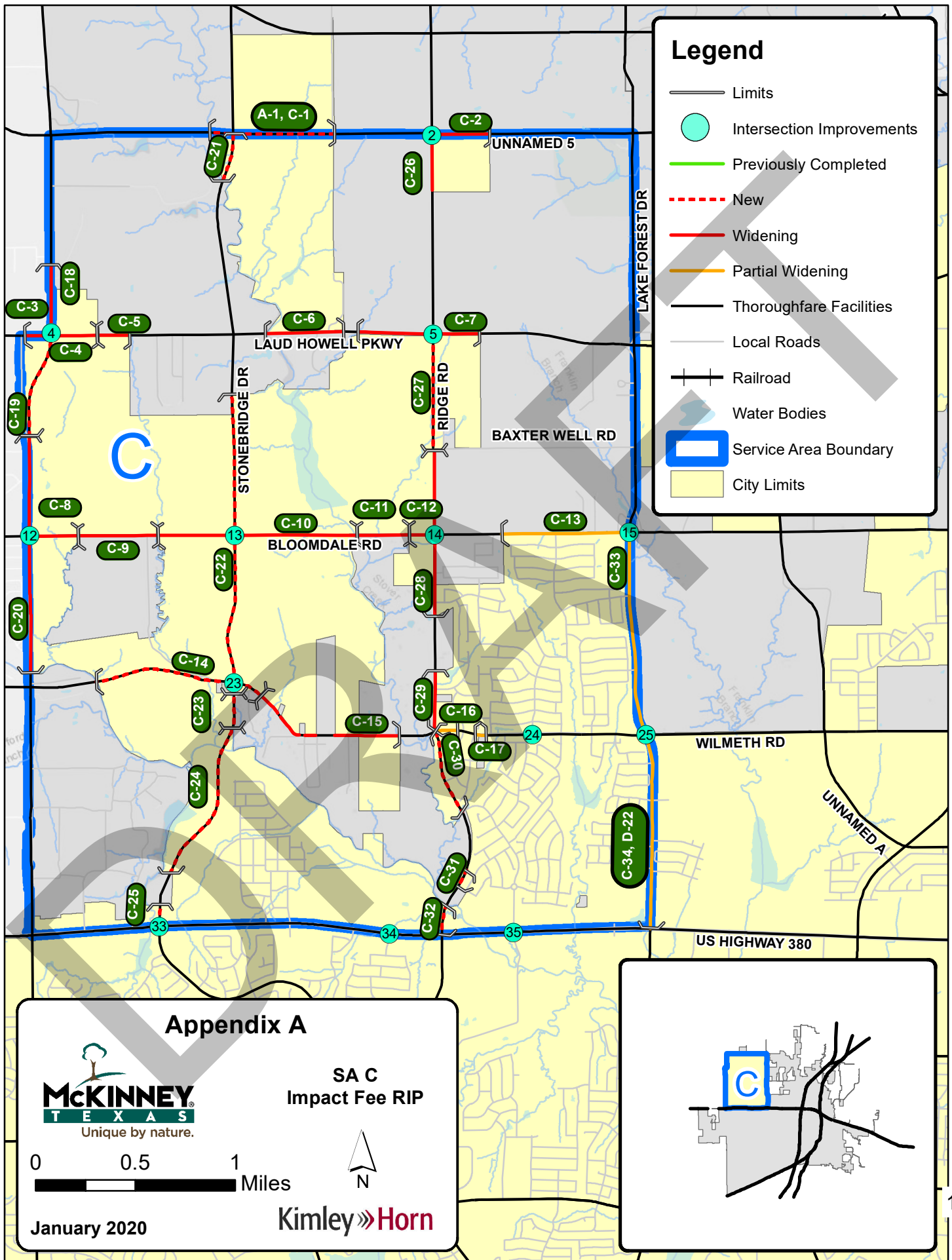
updated: 12/13/2019

Project Information:		Description:	Project No.	B-4
Name:	HARDIN BLVD (3)	This project consists of the construction of a new six-lane divided greenway arterial.		
Limits:	1,940' N OF UNNAMED 5 TO UNNAMED 5			
Impact Fee Class:	G6D			
Thoroughfare Class:	Greenway Arterial			
Length (lf):	1,940			
Service Area(s):	B			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
116	Unclassified Street Excavation	23,711	cy	\$ 10.00	\$ 237,111
216	Lime Treated Subgrade (8") (PI<12)	15,520	sy	\$ 7.00	\$ 108,640
316	9" Concrete Pavement	14,658	sy	\$ 60.00	\$ 879,467
416	4" Topsoil	12,287	sy	\$ 2.50	\$ 30,717
516	6" Curb & Gutter	7,760	lf	\$ 5.00	\$ 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 Allowances**:					
Item Description		Notes		Allowance	Item Cost
✓	Traffic Control	None Anticipated		1%	\$ 15,221
✓	Pavement Markings/Markers			3%	\$ 45,664
✓	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
✓	Illumination	Standard Illumination System		6%	\$ 91,328
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 563,187
Paving and Allowance Subtotal:					\$ 2,085,315
Mobilization:				5%	\$ 104,266
Site Preparation:				5%	\$ 104,266
Construction Cost TOTAL:					\$ 2,294,000
Construction Contingency:				15%	\$ 344,100
Construction Cost TOTAL W/ CONTINGENCY:					\$ 2,639,000

Impact Fee Project Cost Summary			
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.
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.



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%	\$ 332,500
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%	\$ 1,429,750
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%	\$ 3,179,400
C-9	P6D	BLOOMDALE RD (2)	1,310' E OF CUSTER RD TO 2,030' W OF STONEBRIDGE DR	\$ 4,838,400	50%	\$ 2,419,200
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	Intersection	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		Signal	BLOOMDALE RD & RIDGE RD	\$ 300,000	50%	\$ 150,000
15		Signal	BLOOMDALE RD & LAKE FOREST DR	\$ 300,000	25%	\$ 75,000
23		Signal	STONEBRIDGE DR & WILMETH RD	\$ 300,000	100%	\$ 300,000
24		Signal	WILMETH RD & RIDGEKNOLL AVE	\$ 300,000	100%	\$ 300,000
25		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
				\$ 156,098,456		\$ 116,870,616

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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-1, C-1
Name:	UNNAMED 5 (1)	This project consists of the construction of a new six-lane divided major arterial.	
Limits:	635' W OF STONEBRIDGE DR TO CR 168		
Impact Fee Class:	M6D		
Thoroughfare Class:	Major Arterial		
Length (lf):	3,315		
Service Area(s):	A and C		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
109	Unclassified Street Excavation	36,833	cy	\$ 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
Major Construction Component Allowances**:					
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 Illumination System		6%	\$ 161,339
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 1,244,925
Paving and Allowance Subtotal:					\$ 3,933,912
Mobilization:				5%	\$ 196,696
Site Preparation:				5%	\$ 196,696
Construction Cost TOTAL:					\$ 4,328,000
Construction Contingency:				15%	\$ 649,200
Construction Cost TOTAL W/ CONTINGENCY:					\$ 4,978,000

Impact Fee Project Cost Summary			
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 Project Cost TOTAL:			\$ 7,715,900

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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-2
Name:	UNNAMED 5 (2)	This project consists of the reconstruction of a two-lane asphalt facility to a six-lane divided major arterial. Based on the existing City Limits, the northern half of the roadway is not included in the Impact Fee RIP.		
Limits:	RIDGE RD TO 1,505' E OF RIDGE RD			
Impact Fee Class:	M6D			
Thoroughfare Class:	Major Arterial			
Length (lf):	1,505			
Service Area(s):	C, Half			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
109	Unclassified Street Excavation	16,722	cy	\$ 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	lf	\$ 5.00	\$ 30,100
609	Allotment for Turn Lanes and Median Openings	918	sy	\$ 77.00	\$ 70,721
709	Moisture Conditioning	13,043	sy	\$ 8.00	\$ 104,347
Paving Construction Cost Subtotal:					\$ 1,220,792
Major Construction Component Allowances**:					
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 System		25%	\$ 305,198
	Special Drainage Structures	None Anticipated			\$ -
✓	Water	Incidental Adjustments		3%	\$ 36,624
✓	Sewer	Incidental Adjustments		3%	\$ 36,624
✓	Establish Turf / Erosion Control			2%	\$ 24,416
✓	Illumination	Standard Illumination System		6%	\$ 73,248
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 549,356
Paving and Allowance Subtotal:					\$ 1,770,148
Mobilization:				5%	\$ 88,507
Site Preparation:				5%	\$ 88,507
Construction Cost TOTAL:					\$ 1,948,000
Construction Contingency:				15%	\$ 292,200
Construction Cost TOTAL W/ CONTINGENCY:					\$ 2,241,000

Impact Fee Project Cost Summary			
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 Project Cost TOTAL:			\$ 3,137,400

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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-3
Name:	LAUD HOWELL PKWY (1) 695' W OF CUSTER RD TO CUSTER RD	This project consists of the reconstruction of a two-lane asphalt facility to a six-lane divided greenway arterial. Based on the existing City Limits, the northern half of the roadway is not included in the Impact Fee RIP.	
Limits:			
Impact Fee Class:	G6D		
Thoroughfare Class:	Greenway Arterial		
Length (If):	695		
Service Area(s):	C, Half		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
116	Unclassified Street Excavation	4,247	cy	\$ 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
Paving Construction Cost Subtotal:					\$ 517,243
Major Construction Component Allowances**:					
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 Illumination System		6%	\$ 31,035
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 232,759
				Paving and Allowance Subtotal:	\$ 750,003
				Mobilization:	5% \$ 37,500
				Site Preparation:	5% \$ 37,500
				Construction Cost TOTAL:	\$ 826,000
				Construction Contingency:	15% \$ 123,900
				Construction Cost TOTAL W/ CONTINGENCY:	\$ 950,000

Impact Fee Project Cost Summary			
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 Contribution)			\$ 665,000

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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-4
Name:	LAUD HOWELL PKWY (2)		This project consists of the reconstruction of a two-lane asphalt facility to a six-lane divided greenway arterial.	
Limits:	CUSTER RD TO 1,225' E OF CUSTER RD			
Impact Fee Class:	G6D			
Thoroughfare Class:	Greenway Arterial			
Length (lf):	1,225			
Service Area(s):	C			

Roadway Construction Cost Projection					
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	lf	\$ 5.00	\$ 24,500
716	Allotment for Turn Lanes and Median Openings	847	sy	\$ 87.00	\$ 73,652
Paving Construction Cost Subtotal:					\$ 911,688
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	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 Adjustments	3%	\$	27,351
✓	Sewer	Incidental Adjustments	3%	\$	27,351
✓	Establish Turf / Erosion Control		2%	\$	18,234
✓	Illumination	Standard Illumination System	6%	\$	54,701
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	410,259
Paving and Allowance Subtotal:				\$	1,321,947
Mobilization:				5%	\$ 66,097
Site Preparation:				5%	\$ 66,097
Construction Cost TOTAL:				\$	1,455,000
Construction Contingency:				15%	\$ 218,250
Construction Cost TOTAL W/ CONTINGENCY:				\$	1,674,000

Impact Fee Project Cost Summary			
Item Description	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 Fee Project Cost TOTAL (50% City Contribution)			\$ 1,171,800

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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-5
Name:	LAUD HOWELL PKWY (3) 1,225' E OF CUSTER RD TO 2,070'		This project consists of the reconstruction of a two-lane asphalt facility to a six-lane divided greenway arterial. Based on the existing City Limits, the northern half of the roadway is not included in the Impact Fee RIP.	
Limits:	E OF CUSTER RD			
Impact Fee Class:	G6D			
Thoroughfare Class:	Greenway Arterial			
Length (lf):	845			
Service Area(s):	C, Half			

Roadway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Item Cost
116	Unclassified Street Excavation	5,164	cy	\$ 77,458
216	Lime Treated Subgrade (8") (PI<12)	6,760	sy	\$ 47,320
316	4" TY D HMAC Underlayment	6,384	sy	\$ 31,922
416	9" Concrete Pavement	6,384	sy	\$ 383,067
516	4" Topsoil	5,352	sy	\$ 21,407
616	6" Curb & Gutter	3,380	lf	\$ 16,900
716	Allotment for Turn Lanes and Median Openings	584	sy	\$ 50,805
Paving Construction Cost Subtotal:				\$ 628,878
Major Construction Component Allowances**:				
Item Description	Notes	Allowance	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 Adjustments	3%	\$	18,866
✓ Sewer	Incidental Adjustments	3%	\$	18,866
✓ Establish Turf / Erosion Control		2%	\$	12,578
✓ Illumination	Standard Illumination System	6%	\$	37,733
Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 282,995
			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 Project Cost TOTAL (50% City Contribution)			\$ 808,500

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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-6
Name:	LAUD HOWELL PKWY (4) 840' E OF STONEBRIDGE DR TO 2,905' E OF STONEBRIDGE DR	This project consists of the reconstruction of a two-lane asphalt facility to a six-lane divided greenway arterial. Based on the existing City Limits, the southern half of the roadway is not included in the Impact Fee RIP.	
Limits:	G6D		
Impact Fee Class:	Greenway Arterial		
Thoroughfare Class:	2,065		
Length (lf):	C, Half		
Service Area(s):			

Roadway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Item Cost
116	Unclassified Street Excavation	12,619	cy	\$ 189,292
216	Lime Treated Subgrade (8") (PI<12)	16,520	sy	\$ 115,640
316	4" TY D HMA Underlayment	15,602	sy	\$ 78,011
416	9" Concrete Pavement	15,602	sy	\$ 936,133
516	4" Topsoil	13,078	sy	\$ 52,313
616	6" Curb & Gutter	8,260	lf	\$ 41,300
716	Allotment for Turn Lanes and Median Openings	1,427	sy	\$ 124,156
Paving Construction Cost Subtotal:				\$ 1,536,845
Major Construction Component Allowances**:				
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 Illumination System	6%	\$	92,211
Other:				
**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
Construction Contingency:			15%	\$ 532,800
Construction Cost TOTAL W/ CONTINGENCY:			\$	4,085,000

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 Project Cost TOTAL (50% City Contribution)			\$ 2,859,500

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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-7
Name:	LAUD HOWELL PKWY (5) 1,985' W OF RIDGE RD TO 1,230' E OF RIDGE RD		This project consists of the reconstruction of a two-lane asphalt facility to a six-lane divided greenway arterial. Based on the existing City Limits, the northern half of the roadway is not included in the Impact Fee RIP.	
Limits:	G6D			
Impact Fee Class:	Greenway Arterial			
Thoroughfare Class:	3,215			
Length (lf):	C, Half			
Service Area(s):				

Roadway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Item Cost
116	Unclassified Street Excavation	19,647	cy	\$ 294,708
216	Lime Treated Subgrade (8") (PI<12)	25,720	sy	\$ 180,040
316	4" TY D HMA Underlayment	24,291	sy	\$ 121,456
416	9" Concrete Pavement	24,291	sy	\$ 1,457,467
516	4" Topsoil	20,362	sy	\$ 81,447
616	6" Curb & Gutter	12,860	lf	\$ 64,300
716	Allotment for Turn Lanes and Median Openings	2,222	sy	\$ 193,298
Paving Construction Cost Subtotal:				\$ 2,392,715
Major 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		\$	-
✓ Water	Incidental Adjustments	3%	\$	71,781
✓ Sewer	Incidental Adjustments	3%	\$	71,781
✓ Establish Turf / Erosion Control		2%	\$	47,854
✓ Illumination	Standard Illumination System	6%	\$	143,563
Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 1,076,722
			Paving and Allowance Subtotal:	\$ 3,469,437
			Mobilization:	5% \$ 173,472
			Site Preparation:	5% \$ 173,472
			Construction Cost TOTAL:	\$ 3,817,000
			Construction Contingency:	15% \$ 572,550
			Construction Cost TOTAL W/ CONTINGENCY:	\$ 4,390,000

Impact Fee Project Cost Summary			
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 Project Cost TOTAL (50% City Contribution)			\$ 3,073,000

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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-8
Name:	BLOOMDALE RD (1)	This project consists of the reconstruction of a two-lane asphalt facility to a six-lane divided principal arterial.		
Limits:	CUSTER RD TO 1,310' E OF CUSTER RD			
Impact Fee Class:	P6D			
Thoroughfare Class:	Principal Arterial			
Length (lf):	1,310			
Service Area(s):	C			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	14,556	cy	\$ 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 Openings	799	sy	\$ 77.00	\$ 61,558
713	Moisture Conditioning	11,353	sy	\$ 8.00	\$ 90,827
Paving Construction Cost Subtotal:					\$ 1,064,800
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	31,944
✓	Pavement Markings/Markers		3%	\$	31,944
✓	Roadway Drainage	Standard Internal System	25%	\$	266,200
✓	Special Drainage Structures	Stream Crossing		\$	250,000
✓	Water	Incidental Adjustments	3%	\$	31,944
✓	Sewer	Incidental Adjustments	3%	\$	31,944
✓	Establish Turf / Erosion Control		2%	\$	21,296
✓	Illumination	Standard Illumination System	6%	\$	63,888
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	729,160
Paving and Allowance Subtotal:				\$	1,793,959
Mobilization:				5%	\$ 89,698
Site Preparation:				5%	\$ 89,698
Construction Cost TOTAL:				\$	1,974,000
Construction Contingency:				15%	\$ 296,100
Construction Cost TOTAL W/ CONTINGENCY:				\$	2,271,000

Impact Fee Project Cost Summary			
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
Impact Fee Project Cost TOTAL:			\$ 3,179,400

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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-9
Name:	BLOOMDALE RD (2)	This project consists of the reconstruction of a two-lane asphalt facility to a six-lane divided principal arterial. Based on the existing City Limits, the southern half of the roadway is not included in the Impact Fee RIP.		
Limits:	1,310' E OF CUSTER RD TO 2,030' W OF STONEBRIDGE DR			
Impact Fee Class:	P6D			
Thoroughfare Class:	Principal Arterial			
Length (lf):	2,105			
Service Area(s):	C, Half			

Roadway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Item Cost
113	Unclassified Street Excavation	23,389	cy	\$ 233,889
213	Lime Treated Subgrade (8") (PI<12)	18,243	sy	\$ 127,703
313	9" Concrete Pavement	17,308	sy	\$ 1,038,467
413	4" Topsoil	9,589	sy	\$ 23,974
513	6" Curb & Gutter	8,420	lf	\$ 42,100
613	Allotment for Turn Lanes and Median Openings	1,285	sy	\$ 98,916
713	Moisture Conditioning	18,243	sy	\$ 145,947
Paving Construction Cost Subtotal:				\$ 1,710,995
Major Construction Component Allowances**:				
Item Description	Notes	Allowance	Item Cost	
✓ Traffic Control	Construction Phase Traffic Control	3%	\$	51,330
✓ Pavement Markings/Markers		3%	\$	51,330
✓ Roadway Drainage	Standard Internal System	25%	\$	427,749
✓ Special Drainage Structures	Stream Crossing		\$	250,000
✓ Water	Incidental Adjustments	3%	\$	51,330
✓ Sewer	Incidental Adjustments	3%	\$	51,330
✓ Establish Turf / Erosion Control		2%	\$	34,220
✓ Illumination	Standard Illumination System	6%	\$	102,660
Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 1,019,948
Paving and Allowance Subtotal:			\$	2,730,942
Mobilization:			5%	\$ 136,547
Site Preparation:			5%	\$ 136,547
Construction Cost TOTAL:			\$	3,005,000
Construction Contingency:			15%	\$ 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:			\$ 4,838,400

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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-10
Name:	BLOOMDALE RD (3)	This project consists of the reconstruction of a two-lane asphalt facility to a six-lane divided principal arterial.		
Limits:	2,030' W OF STONEBRIDGE DR TO			
Impact Fee Class:	3,245' E OF STONEBRIDGE DR			
Thoroughfare Class:	P6D			
Length (If):	Principal Arterial			
Service Area(s):	5,275			
	C			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	58,611	cy	\$ 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 Component Allowances**:					
Item Description	Notes	Allowance	Item Cost		
✓ Traffic Control	Construction Phase Traffic Control	3%	\$	128,629	
✓ Pavement Markings/Markers		3%	\$	128,629	
✓ Roadway Drainage	Standard Internal System	25%	\$	1,071,912	
✓ Special Drainage Structures	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 Illumination System	6%	\$	257,259	
Other:					
**Allowances based on % of Paving Construction Cost Subtotal					Allowance Subtotal: \$ 3,229,441
Paving and Allowance Subtotal:					\$ 7,517,088
Mobilization:					5% \$ 375,854
Site Preparation:					5% \$ 375,854
Construction Cost TOTAL:					\$ 8,269,000
Construction Contingency:					15% \$ 1,240,350
Construction Cost TOTAL W/ CONTINGENCY:					\$ 9,510,000

Impact Fee Project Cost Summary			
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 Cost TOTAL:			\$ 13,314,000

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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-11
Name:	BLOOMDALE RD (4) 3,245' E OF STONEBRIDGE DR TO 695' W OF RIDGE RD	This project consists of the reconstruction of a two-lane asphalt facility to a six-lane divided principal arterial. Based on the existing City Limits, the southern half of the roadway is not included in the Impact Fee RIP.		
Limits:				
Impact Fee Class:	P6D			
Thoroughfare Class:	Principal Arterial			
Length (If):	1,365			
Service Area(s):	C, Half			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	15,167	cy	\$ 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
613	Allotment for Turn Lanes and Median Openings	833	sy	\$ 77.00	\$ 64,142
713	Moisture Conditioning	11,830	sy	\$ 8.00	\$ 94,640
Paving Construction Cost Subtotal:					\$ 1,109,505
Major Construction Component Allowances**:					
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 System		25%	\$ 277,376
✓	Special Drainage Structures	Stream Crossing			\$ 250,000
✓	Water	Incidental Adjustments		3%	\$ 33,285
✓	Sewer	Incidental Adjustments		3%	\$ 33,285
✓	Establish Turf / Erosion Control			2%	\$ 22,190
✓	Illumination	Standard Illumination System		6%	\$ 66,570
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 749,277
				Paving and Allowance Subtotal:	\$ 1,858,782
				Mobilization:	5% \$ 92,939
				Site Preparation:	5% \$ 92,939
				Construction Cost TOTAL:	\$ 2,045,000
				Construction Contingency:	15% \$ 306,750
				Construction Cost TOTAL W/ CONTINGENCY:	\$ 2,352,000

Impact Fee Project Cost Summary			
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 Cost TOTAL:			\$ 3,292,800

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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-12
Name:	BLOOMDALE RD (5)	This project consists of the reconstruction of a two-lane asphalt facility to a six-lane divided principal arterial.	
Limits:	695' W OF RIDGE RD TO RIDGE RD		
Impact Fee Class:	P6D		
Thoroughfare Class:	Principal Arterial		
Length (lf):	695		
Service Area(s):	C		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	7,722	cy	\$ 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 Allowances**:					
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
✓	Illumination	Standard Illumination System	6%	\$	33,895
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	254,211
Paving and Allowance Subtotal:				\$	819,123
Mobilization:				5%	\$ 40,956
Site Preparation:				5%	\$ 40,956
Construction Cost TOTAL:				\$	902,000
Construction Contingency:				15%	\$ 135,300
Construction Cost TOTAL W/ CONTINGENCY:				\$	1,038,000

Impact Fee Project Cost Summary			
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
Impact Fee Project Cost TOTAL:			\$ 1,453,200

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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-13
Name:	BLOOMDALE RD (6) 3,400' W OF LAKE FOREST DR TO LAKE FOREST DR	This project consists of the construction of four additional through lanes of the ultimate six-lane divided principal arterial. Based on the existing City Limits, the northern half of the roadway is not included in the Impact Fee RIP	
Limits:			
Impact Fee Class:	P6D(2/3)		
Thoroughfare Class:	Principal Arterial		
Length (lf):	3,400		
Service Area(s):	C, Half		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
115	Unclassified Street Excavation	30,978	cy	\$ 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
Major Construction Component Allowances**:					
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 System	25%	\$	452,546
	Special Drainage Structures	None Anticipated		\$	-
✓	Water	Incidental Adjustments	3%	\$	54,306
✓	Sewer	Incidental Adjustments	3%	\$	54,306
✓	Establish Turf / Erosion Control		2%	\$	36,204
✓	Illumination	Standard Illumination System	6%	\$	108,611
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	814,583
Paving and Allowance Subtotal:					\$ 2,624,769
Mobilization:				5%	\$ 131,238
Site Preparation:				5%	\$ 131,238
Construction Cost TOTAL:					\$ 2,888,000
Construction Contingency:				15%	\$ 433,200
Construction Cost TOTAL W/ CONTINGENCY:					\$ 3,322,000

Impact Fee Project Cost Summary			
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
Impact Fee Project Cost TOTAL:			\$ 4,650,800

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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 815' E OF STONEBRIDGE DR		This project consists of the construction of a new four-lane divided greenway arterial.	
Limits:				
Impact Fee Class:	G4D			
Thoroughfare Class:	Greenway Arterial			
Length (lf):	4,540			
Service Area(s):	C			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
107	Unclassified Street Excavation	44,391	cy	\$ 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
Major Construction Component Allowances**:					
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 Illumination System		6%	\$ 180,025
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 1,510,153
				Paving and Allowance Subtotal:	\$ 4,510,565
				Mobilization:	5% \$ 225,528
				Site Preparation:	5% \$ 225,528
				Construction Cost TOTAL:	\$ 4,962,000
				Construction Contingency:	15% \$ 744,300
				Construction Cost TOTAL W/ CONTINGENCY:	\$ 5,707,000

Impact Fee Project Cost Summary			
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
Impact Fee Project Cost TOTAL:			\$ 8,845,850

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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-15
Name:	WILMETH RD (2) 815' E OF STONEBRIDGE DR TO 995' W OF RIDGE RD	This project consists of the reconstruction of a two-lane asphalt facility to a four-lane divided greenway arterial. Based on the existing City Limits, the southern half of the roadway is not included in the Impact Fee RIP for the 2,285' western section while the northern half of the roadway is not included for the remaining 1,055' eastern section. 775' of this roadway is not included in the Impact Fee RIP.		
Limits:				
Impact Fee Class:	G4D			
Thoroughfare Class:	Greenway Arterial			
Length (If):	3,340			
Service Area(s):	C			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
107	Unclassified Street Excavation	32,658	cy	\$ 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 Openings	1,961	sy	\$ 72.00	\$ 141,191
707	Moisture Conditioning	24,493	sy	\$ 8.00	\$ 195,947
Paving Construction Cost Subtotal:					\$ 2,207,352
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	66,221
✓	Pavement Markings/Markers		3%	\$	66,221
✓	Roadway Drainage	Standard Internal System	25%	\$	551,838
✓	Special Drainage Structures	Stream Crossing		\$	300,000
✓	Water	Incidental Adjustments	3%	\$	66,221
✓	Sewer	Incidental Adjustments	3%	\$	66,221
✓	Establish Turf / Erosion Control		2%	\$	44,147
✓	Illumination	Standard Illumination System	6%	\$	132,441
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance 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	
Construction Contingency:				15%	\$ 577,650
Construction Cost TOTAL W/ CONTINGENCY:				\$ 4,429,000	

Impact Fee Project Cost Summary			
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
Impact Fee Project Cost TOTAL:			\$ 6,200,600

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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-16
Name:	WILMETH RD (3)	This project is part of the Ridge Rd project from US 380 to Wilmeth Rd which includes a roundabout at the Ridge Rd & Wilmeth Rd intersection. The City provided an overall project cost estimate of \$17,700,000. This project consists of the construction of two additional lanes of the ultimate four-lane divided greenway arterial. This project accounted for \$1,593,000 of eligible funds.	
Limits:	RIDGE RD TO 585' E OF RIDGE RD		
Impact Fee Class:	G4D(1/2)		
Thoroughfare Class:	Greenway Arterial		
Length (lf):	585		
Service Area(s):	C		

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

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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-17
Name:	WILMETH RD (4)	This project is part of the Ridge Rd project from US 380 to Wilmeth Rd which includes a roundabout at the Ridge Rd & Wilmeth Rd intersection. The City provided an overall project cost estimate of \$17,700,000. This project consists of the construction of two additional lanes of the ultimate four-lane divided greenway arterial. This project accounted for \$708,000 of eligible funds.		
Limits:	1,095' E OF RIDGE RD TO 1,365' E OF RIDGE RD			
Impact Fee Class:	G4D(1/2)			
Thoroughfare Class:	Greenway Arterial			
Length (lf):	270			
Service Area(s):	C, Half			

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

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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-18
Name:	CUSTER RD (1)	This project consists of the reconstruction of a two-lane asphalt facility to a six-lane divided principal arterial. Based on the existing City Limits, the western half of the roadway is not included in the Impact Fee RIP.		
Limits:	1,855' N OF LAUD HOWELL PKWY TO LAUD HOWELL PKWY			
Impact Fee Class:	P6D			
Thoroughfare Class:	Principal Arterial			
Length (If):	1,855			
Service Area(s):	C, Half			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	10,306	cy	\$ 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
413	9" Concrete Pavement	15,252	sy	\$ 60.00	\$ 915,133
513	4" Topsoil	8,451	sy	\$ 4.00	\$ 33,802
613	6" Curb & Gutter	7,420	lf	\$ 5.00	\$ 37,100
713	Allotment for Turn Lanes and Median Openings	1,132	sy	\$ 87.00	\$ 98,488
Paving Construction Cost Subtotal:					\$ 1,427,905
Major Construction Component Allowances**:					
Item Description		Notes		Allowance	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			\$ -
✓	Water	Incidental Adjustments		3%	\$ 42,837
✓	Sewer	Incidental Adjustments		3%	\$ 42,837
✓	Establish Turf / Erosion Control			2%	\$ 28,558
✓	Illumination	Standard Illumination System		6%	\$ 85,674
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 642,557
				Paving and Allowance Subtotal:	\$ 2,070,462
				Mobilization:	5% \$ 103,523
				Site Preparation:	5% \$ 103,523
				Construction Cost TOTAL:	\$ 2,278,000
				Construction Contingency:	15% \$ 341,700
				Construction Cost TOTAL W/ CONTINGENCY:	\$ 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

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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-19
Name:	CUSTER RD (2)	This project consists of the construction of a new alignment of Custer Road to a six-lane divided principal arterial.	
Limits:	LAUD HOWELL PKWY TO 2,775 N OF BLOOMDALE RD		
Impact Fee Class:	P6D		
Thoroughfare Class:	Principal Arterial		
Length (lf):	2,775		
Service Area(s):	C		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	15,417	cy	\$ 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
513	4" Topsoil	12,642	sy	\$ 4.00	\$ 50,567
613	6" Curb & Gutter	11,100	lf	\$ 5.00	\$ 55,500
713	Allotment for Turn Lanes and Median Openings	1,693	sy	\$ 87.00	\$ 147,334
Paving Construction Cost Subtotal:					\$ 2,136,084
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	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%	\$	-
	Sewer	None Anticipated	0%	\$	-
✓	Establish Turf / Erosion Control		2%	\$	42,722
✓	Illumination	Standard Illumination System	6%	\$	128,165
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	790,351
Paving and Allowance Subtotal:				\$	2,926,435
Mobilization:				5%	\$ 146,322
Site Preparation:				5%	\$ 146,322
Construction Cost TOTAL:				\$	3,220,000
Construction Contingency:				15%	\$ 483,000
Construction Cost TOTAL W/ CONTINGENCY:				\$	3,703,000

Impact Fee Project Cost Summary			
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

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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-20
Name:	CUSTER RD (3) 2,655 N OF BLOOMDALE RD TO 375' N OF WILMETH RD	This project consists of the reconstruction of a two-lane asphalt facility to a six-lane divided principal arterial. The City contributed approximately \$1,080,000 of eligible funds from '12-'19. Based on the existing City Limits, the western half of the roadway is not included in the Impact Fee RIP.	
Limits:			
Impact Fee Class:	P6D		
Thoroughfare Class:	Principal Arterial		
Length (lf):	6,275		
Service Area(s):	C, Half		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	34,861	cy	\$ 15.00	\$ 522,917
213	Lime Treated Subgrade (8") (PI<12)	54,383	sy	\$ 7.00	\$ 380,683
313	4" TY D HMAC Underlayment	51,594	sy	\$ 5.00	\$ 257,972
413	9" Concrete Pavement	51,594	sy	\$ 60.00	\$ 3,095,667
513	4" Topsoil	28,586	sy	\$ 4.00	\$ 114,344
613	6" Curb & Gutter	25,100	lf	\$ 5.00	\$ 125,500
713	Allotment for Turn Lanes and Median Openings	3,829	sy	\$ 87.00	\$ 333,161
Paving Construction Cost Subtotal:					\$ 4,830,245
Major Construction Component Allowances**:					
Item Description		Notes		Allowance	Item Cost
✓	Traffic Control	Construction Phase Traffic Control		3%	\$ 144,907
✓	Pavement Markings/Markers			3%	\$ 144,907
✓	Roadway Drainage			25%	\$ 1,207,561
✓	Special Drainage Structures	Bridge			\$ 1,500,000
✓	Water	Incidental Adjustments		3%	\$ 144,907
✓	Sewer	Incidental Adjustments		3%	\$ 144,907
✓	Establish Turf / Erosion Control			2%	\$ 96,605
✓	Illumination	Standard Illumination System		6%	\$ 289,815
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 3,673,610
				Paving and Allowance Subtotal:	\$ 8,503,855
				Mobilization:	5% \$ 425,193
				Site Preparation:	5% \$ 425,193
				Construction Cost TOTAL:	\$ 9,355,000
				Construction Contingency:	15% \$ 1,403,250
				Construction Cost TOTAL W/ CONTINGENCY:	\$ 10,759,000

Impact Fee Project Cost Summary			
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

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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-21
Name:	STONEBRIDGE DR (2)	This project consists of the construction of a new four-lane divided greenway arterial.	
Limits:	UNNAMED 5 TO 1,280' S OF UNNAMED 5		
Impact Fee Class:	G4D		
Thoroughfare Class:	Greenway Arterial		
Length (lf):	1,280		
Service Area(s):	C		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
107	Unclassified Street Excavation	12,516	cy	\$ 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
✓	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
✓	Illumination	Standard Illumination System	6%	\$	50,756
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	562,995
Paving and Allowance Subtotal:				\$	1,408,926
Mobilization:				5%	\$ 70,446
Site Preparation:				5%	\$ 70,446
Construction Cost TOTAL:				\$	1,550,000
Construction Contingency:				15%	\$ 232,500
Construction Cost TOTAL W/ CONTINGENCY:				\$	1,783,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,783,000
Engineering/Survey/Testing:		20%	\$ 356,600
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	New Roadway Alignment	35%	\$ 624,050
Impact Fee Project Cost TOTAL:			\$ 2,763,650

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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-22
Name:	STONEBRIDGE DR (3) 1,570' S OF LAUD HOWELL PKWY TO 280' S OF WILMETH RD		This project consists of the construction of a new four-lane divided greenway arterial.	
Limits:	G4D			
Impact Fee Class:	Greenway Arterial			
Thoroughfare Class:	7,995			
Length (lf):	C			
Service Area(s):				

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
107	Unclassified Street Excavation	78,173	cy	\$ 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 Median Openings	4,694	sy	\$ 72.00	\$ 337,970
707	Moisture Conditioning	58,630	sy	\$ 8.00	\$ 469,040
Paving Construction Cost Subtotal:					\$ 5,283,766
Major Construction Component Allowances**:					
Item Description	Notes	Allowance	Item Cost		
✓ Traffic Control	None Anticipated	1%	\$	52,838	
✓ Pavement Markings/Markers		3%	\$	158,513	
✓ Roadway Drainage	Standard Internal System	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 Illumination System	6%	\$	317,026	
Other:					
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	1,954,994
Paving and Allowance Subtotal:				\$	7,238,760
Mobilization:				5%	\$ 361,938
Site Preparation:				5%	\$ 361,938
Construction Cost TOTAL:				\$	7,963,000
Construction Contingency:				15%	\$ 1,194,450
Construction Cost TOTAL W/ CONTINGENCY:				\$	9,158,000

Impact Fee Project Cost Summary			
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

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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-23
Name:	STONEBRIDGE DR (4) 280' S OF WILMETH RD TO 1,195' S OF WILMETH RD		This project consists of the construction of a new four-lane divided greenway arterial. Based on the existing City Limits, the eastern half of the roadway is not included in the Impact Fee RIP.	
Limits:	G4D			
Impact Fee Class:	Greenway Arterial			
Thoroughfare Class:	915			
Length (lf):	C, Half			
Service Area(s):				

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
107	Unclassified Street Excavation	8,947	cy	\$ 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	6" Curb & Gutter	3,660	lf	\$ 5.00	\$ 18,300
607	Allotment for Turn Lanes and Median Openings	537	sy	\$ 72.00	\$ 38,680
707	Moisture Conditioning	6,710	sy	\$ 8.00	\$ 53,680
Paving Construction Cost Subtotal:					\$ 604,709
Major Construction Component Allowances**:					
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 Illumination System		6%	\$ 36,283
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 473,742
				Paving and Allowance Subtotal:	\$ 1,078,451
				Mobilization:	5% \$ 53,923
				Site Preparation:	5% \$ 53,923
				Construction Cost TOTAL:	\$ 1,187,000
				Construction Contingency:	15% \$ 178,050
				Construction Cost TOTAL W/ CONTINGENCY:	\$ 1,366,000

Impact Fee Project Cost 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 Cost TOTAL:			\$ 2,117,300

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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-24
Name:	STONEBRIDGE DR (5)		This project consists of the construction of a new four-lane divided greenway arterial.	
Limits:	1,195' S OF WILMETH RD TO 5,555' S OF WILMETH RD			
Impact Fee Class:	G4D			
Thoroughfare Class:	Greenway Arterial			
Length (lf):	4,360			
Service Area(s):	C			

Roadway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Item Cost
107	Unclassified Street Excavation	42,631	cy	\$ 426,311
207	Lime Treated Subgrade (8") (PI<12)	31,973	sy	\$ 223,813
307	8" Concrete Pavement	30,036	sy	\$ 1,651,956
407	4" Topsoil	20,831	sy	\$ 52,078
507	6" Curb & Gutter	17,440	lf	\$ 87,200
607	Allotment for Turn Lanes and Median Openings	2,560	sy	\$ 184,309
707	Moisture Conditioning	31,973	sy	\$ 255,787
Paving Construction Cost Subtotal:				\$ 2,881,454
Major Construction Component Allowances**:				
Item Description	Notes	Allowance	Item Cost	
✓ Traffic Control	None Anticipated	1%	\$	28,815
✓ Pavement Markings/Markers		3%	\$	86,444
✓ Roadway Drainage	Standard Internal System	25%	\$	720,363
✓ Special Drainage Structures	Stream Crossing		\$	250,000
Water	None Anticipated	0%	\$	-
Sewer	None Anticipated	0%	\$	-
✓ Establish Turf / Erosion Control		2%	\$	57,629
✓ Illumination	Standard Illumination System	6%	\$	172,887
Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal: \$ 1,316,138
Paving and Allowance Subtotal:				\$ 4,197,591
Mobilization:				5% \$ 209,880
Site Preparation:				5% \$ 209,880
Construction Cost TOTAL:				\$ 4,618,000
Construction Contingency:				15% \$ 692,700
Construction Cost TOTAL W/ CONTINGENCY:				\$ 5,311,000

Impact Fee Project Cost Summary			
Item Description	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 Project Cost TOTAL:			\$ 8,232,050

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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 construction of a new four-lane divided greenway arterial.	
Limits:	580' N OF US HIGHWAY 380 TO US HIGHWAY 380			
Impact Fee Class:	G4D			
Thoroughfare Class:	Greenway Arterial			
Length (lf):	580			
Service Area(s):	C			

Roadway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Item Cost
107	Unclassified Street Excavation	5,671	cy	\$ 10.00 \$ 56,711
207	Lime Treated Subgrade (8") (PI<12)	4,253	sy	\$ 7.00 \$ 29,773
307	8" Concrete Pavement	3,996	sy	\$ 55.00 \$ 219,756
407	4" Topsoil	2,771	sy	\$ 2.50 \$ 6,928
507	6" Curb & Gutter	2,320	lf	\$ 5.00 \$ 11,600
607	Allotment for Turn Lanes and Median Openings	341	sy	\$ 72.00 \$ 24,518
707	Moisture Conditioning	4,253	sy	\$ 8.00 \$ 34,027
Paving Construction Cost Subtotal:				\$ 383,313
Major Construction Component Allowances**:				
Item Description	Notes	Allowance	Item Cost	
✓ Traffic Control	None Anticipated	1%	\$	3,833
✓ Pavement Markings/Markers		3%	\$	11,499
✓ Roadway Drainage	Standard Internal System	25%	\$	95,828
Special Drainage Structures	None Anticipated		\$	-
Water	None Anticipated	0%	\$	-
Sewer	None Anticipated	0%	\$	-
✓ Establish Turf / Erosion Control		2%	\$	7,666
✓ Illumination	Standard Illumination System	6%	\$	22,999
Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 141,826
Paving and Allowance Subtotal:			\$	525,138
Mobilization:			5%	\$ 26,257
Site Preparation:			5%	\$ 26,257
Construction Cost TOTAL:			\$	578,000
Construction Contingency:			15%	\$ 86,700
Construction Cost TOTAL W/ CONTINGENCY:			\$	665,000

Impact Fee Project Cost Summary			
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
Impact Fee Project Cost TOTAL:			\$ 1,030,750

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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-26
Name:	RIDGE RD (1) UNNAMED 5 TO 1,485' S OF UNNAMED 5	This project consists of the reconstruction of a two-lane asphalt facility to a six-lane divided major arterial. Based on the existing City Limits, the western half of the roadway is not included in the Impact Fee RIP.	
Limits:			
Impact Fee Class:	M6D		
Thoroughfare Class:	Major Arterial		
Length (If):	1,485		
Service Area(s):	C, Half		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
109	Unclassified Street Excavation	16,500	cy	\$ 10.00	\$ 165,000
209	Lime Treated Subgrade (8") (PI<12)	12,870	sy	\$ 7.00	\$ 90,090
309	9" Concrete Pavement	12,210	sy	\$ 60.00	\$ 732,600
409	4" Topsoil	5,775	sy	\$ 2.50	\$ 14,438
509	6" Curb & Gutter	5,940	lf	\$ 5.00	\$ 29,700
609	Allotment for Turn Lanes and Median Openings	906	sy	\$ 77.00	\$ 69,781
709	Moisture Conditioning	12,870	sy	\$ 8.00	\$ 102,960
Paving Construction Cost Subtotal:					\$ 1,204,569
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	36,137
✓	Pavement Markings/Markers		3%	\$	36,137
✓	Roadway Drainage	Standard Internal System	25%	\$	301,142
	Special Drainage Structures	None Anticipated		\$	-
✓	Water	Incidental Adjustments	3%	\$	36,137
✓	Sewer	Incidental Adjustments	3%	\$	36,137
✓	Establish Turf / Erosion Control		2%	\$	24,091
✓	Illumination	Standard Illumination System	6%	\$	72,274
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	542,056
Paving and Allowance Subtotal:				\$	1,746,625
Mobilization:				5%	\$ 87,331
Site Preparation:				5%	\$ 87,331
Construction Cost TOTAL:				\$	1,922,000
Construction Contingency:				15%	\$ 288,300
Construction Cost TOTAL W/ CONTINGENCY:				\$	2,211,000

Impact Fee Project Cost Summary			
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 Cost TOTAL:			\$ 3,095,400

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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-27
Name:	RIDGE RD (2)	This project consists of the construction of a new six-lane divided major arterial.	
Limits:	LAUD HOWELL PKWY TO BAXTER WELL RD		
Impact Fee Class:	M6D		
Thoroughfare Class:	Major Arterial		
Length (lf):	3,110		
Service Area(s):	C		

Roadway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Item Cost
109	Unclassified Street Excavation	34,556	cy	\$ 345,556
209	Lime Treated Subgrade (8") (PI<12)	26,953	sy	\$ 188,673
309	9" Concrete Pavement	25,571	sy	\$ 1,534,267
409	4" Topsoil	12,094	sy	\$ 30,236
509	6" Curb & Gutter	12,440	lf	\$ 62,200
609	Allotment for Turn Lanes and Median Openings	1,898	sy	\$ 146,141
709	Moisture Conditioning	26,953	sy	\$ 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 Illumination System	6%	\$	151,362
Other:				
**Allowances based on % of Paving Construction Cost Subtotal				
Allowance Subtotal:				\$ 1,183,399
Paving and Allowance Subtotal:				\$ 3,706,098
Mobilization:				5% \$ 185,305
Site Preparation:				5% \$ 185,305
Construction Cost TOTAL:				\$ 4,077,000
Construction Contingency:				15% \$ 611,550
Construction Cost TOTAL W/ CONTINGENCY:				\$ 4,689,000

Impact Fee Project Cost Summary			
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 Cost TOTAL:			\$ 7,267,950

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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-28
Name:	RIDGE RD (3) BAXTER WELL RD TO 2,160' S OF BLOOMDALE RD	This project consists of the reconstruction of a two-lane asphalt facility to a six-lane divided major arterial. Based on the existing City Limits, the eastern half of the roadway is not included in the Impact Fee RIP for the 3,540' northern section while the western half of the roadway is not included for the remaining 850' southern section.		
Limits:	M6D			
Impact Fee Class:	M6D			
Thoroughfare Class:	Major Arterial			
Length (lf):	4,390			
Service Area(s):	C, Half			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
109	Unclassified Street Excavation	48,778	cy	\$ 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
509	6" Curb & Gutter	17,560	lf	\$ 5.00	\$ 87,800
609	Allotment for Turn Lanes and Median Openings	2,679	sy	\$ 77.00	\$ 206,289
709	Moisture Conditioning	38,047	sy	\$ 8.00	\$ 304,373
Paving Construction Cost Subtotal:					\$ 3,560,981
Major Construction Component Allowances**:					
Item Description		Notes		Allowance	Item Cost
✓	Traffic Control	Construction Phase Traffic Control		3%	\$ 106,829
✓	Pavement Markings/Markers			3%	\$ 106,829
✓	Roadway Drainage	Standard Internal System		25%	\$ 890,245
	Special Drainage Structures	None Anticipated			\$ -
✓	Water	Incidental Adjustments		3%	\$ 106,829
✓	Sewer	Incidental Adjustments		3%	\$ 106,829
✓	Establish Turf / Erosion Control			2%	\$ 71,220
✓	Illumination	Standard Illumination System		6%	\$ 213,659
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 1,602,441
Paving and Allowance Subtotal:				\$	5,163,422
Mobilization:				5%	\$ 258,171
Site Preparation:				5%	\$ 258,171
Construction Cost TOTAL:				\$	5,680,000
Construction Contingency:				15%	\$ 852,000
Construction Cost TOTAL W/ CONTINGENCY:				\$	6,532,000

Impact Fee Project Cost Summary			
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

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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-29
Name:	RIDGE RD (4) 1,590' N OF WILMETH RD TO WILMETH RD	This project consists of the reconstruction of a two-lane asphalt facility to a six-lane divided major arterial. Based on the existing City Limits, the western half of the roadway is not included in the Impact Fee RIP.		
Limits:				
Impact Fee Class:	M6D			
Thoroughfare Class:	Major Arterial			
Length (lf):	1,590			
Service Area(s):	C, Half			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
109	Unclassified Street Excavation	17,667	cy	\$ 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 Openings	970	sy	\$ 77.00	\$ 74,715
709	Moisture Conditioning	13,780	sy	\$ 8.00	\$ 110,240
Paving Construction Cost Subtotal:					\$ 1,289,740
Major Construction Component Allowances**:					
Item Description		Notes		Allowance	Item Cost
✓	Traffic Control	Construction Phase Traffic Control		3%	\$ 38,692
✓	Pavement Markings/Markers			3%	\$ 38,692
✓	Roadway Drainage	Standard Internal System		25%	\$ 322,435
✓	Special Drainage Structures	Stream Crossing			\$ 250,000
✓	Water	Incidental Adjustments		3%	\$ 38,692
✓	Sewer	Incidental Adjustments		3%	\$ 38,692
✓	Establish Turf / Erosion Control			2%	\$ 25,795
✓	Illumination	Standard Illumination System		6%	\$ 77,384
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 830,383
				Paving and Allowance Subtotal:	\$ 2,120,123
				Mobilization:	5% \$ 106,006
				Site Preparation:	5% \$ 106,006
				Construction Cost TOTAL:	\$ 2,333,000
				Construction Contingency:	15% \$ 349,950
				Construction Cost TOTAL W/ CONTINGENCY:	\$ 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 Cost TOTAL:			\$ 3,756,200

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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-30
Name:	RIDGE RD (5) WILMETH RD TO 2,280' S OF WILMETH RD	This project is part of the Ridge Rd project from US 380 to Wilmeth Rd which includes a roundabout at the Ridge Rd & Wilmeth Rd intersection. The City provided an overall project cost estimate of \$17,700,000. This project accounted for \$6,372,000 of eligible funds for four of the ultimate six lanes. This project consists of the construction of two additional through lanes of the ultimate six-lane divided major arterial.		
Limits:	M6D(1/3)			
Impact Fee Class:	Major Arterial			
Thoroughfare Class:	2,280			
Length (If):				
Service Area(s):	C			

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
111	Unclassified Street Excavation	7,093	cy	\$ 10.00	\$ 70,933
211	Lime Treated Subgrade (8") (PI<12)	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	lf	\$ 5.00	\$ 22,800
611	Allotment for Turn Lanes and Median Openings	1,391	sy	\$ 77.00	\$ 107,139
Paving Construction Cost Subtotal:					\$ 633,819
Major Construction Component Allowances**:					
	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				Allowance Subtotal:	\$ 50,706
Paving and Allowance Subtotal:					\$ 684,524
Mobilization:				5%	\$ 34,226
Site Preparation:				5%	\$ 34,226
Construction Cost TOTAL:					\$ 753,000
Construction Contingency:				15%	\$ 112,950
Construction Cost TOTAL W/ CONTINGENCY:					\$ 866,000

Impact Fee Project Cost Summary

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:			\$ 7,411,200

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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-31
Name:	RIDGE RD (6) 1,860' N OF US HIGHWAY 380 TO 1,390' N OF US HIGHWAY 380	This project is part of the Ridge Rd project from US 380 to Wilmeth Rd which includes a roundabout at the Ridge Rd & Wilmeth Rd intersection. The City provided an overall project cost estimate of \$17,700,000. This project accounted for \$1,239,000 of eligible funds for four of the ultimate six lanes. This project consists of the construction of two additional through lanes of the ultimate six-lane divided major arterial.	
Limits:			
Impact Fee Class:	M6D(1/3)		
Thoroughfare Class:	Major Arterial		
Length (If):	470		
Service Area(s):	C, Half		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
111	Unclassified Street Excavation	1,462	cy	\$ 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	lf	\$ 5.00	\$ 4,700
611	Allotment for Turn Lanes and Median Openings	287	sy	\$ 77.00	\$ 22,086
Paving Construction Cost Subtotal:					\$ 130,656
Major Construction Component Allowances**:					
Item Description		Notes		Allowance	Item Cost
✓	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:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 10,452
Paving and Allowance Subtotal:				\$	141,108
Mobilization:				5%	\$ 7,055
Site Preparation:				5%	\$ 7,055
Construction Cost TOTAL:				\$	156,000
Construction Contingency:				15%	\$ 23,400
Construction Cost TOTAL W/ CONTINGENCY:				\$	180,000

Impact Fee Project Cost Summary			
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:			\$ 1,455,000

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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-32
Name:	RIDGE RD (7) 775' N OF US HIGHWAY 380 TO US HIGHWAY 380	This project is part of the Ridge Rd project from US 380 to Wilmeth Rd which includes a roundabout at the Ridge Rd & Wilmeth Rd intersection. The City provided an overall project cost estimate of \$17,700,000. This project accounted for \$2,124,000 of eligible funds for four of the ultimate six lanes. This project consists of the construction of two additional through lanes of the ultimate six-lane divided major arterial.	
Limits:	M6D(1/3)		
Impact Fee Class:	Major Arterial		
Thoroughfare Class:	775		
Length (lf):			
Service Area(s):	C		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
111	Unclassified Street Excavation	2,411	cy	\$ 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	lf	\$ 5.00	\$ 7,750
611	Allotment for Turn Lanes and Median Openings	473	sy	\$ 77.00	\$ 36,418
Paving Construction Cost Subtotal:					\$ 215,443
Major Construction Component Allowances**:					
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 Widening		\$	250,000	
Water	None Anticipated	0%	\$	-	
Sewer	None Anticipated	0%	\$	-	
✓ Establish Turf / Erosion Control		2%	\$	4,309	
Illumination	None Anticipated	0%	\$	-	
Other:					
**Allowances based on % of Paving Construction Cost Subtotal					Allowance Subtotal: \$ 267,235
Paving and Allowance Subtotal:					\$ 482,678
Mobilization:				5%	\$ 24,134
Site Preparation:				5%	\$ 24,134
Construction Cost TOTAL:					\$ 531,000
Construction Contingency:					15% \$ 79,650
Construction Cost TOTAL W/ CONTINGENCY:					\$ 611,000

Impact Fee Project Cost Summary			
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%	\$ -
Impact Fee Project Cost TOTAL:			\$ 2,857,200

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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-33
Name:	LAKE FOREST DR (2)	This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided major arterial. The City contributed approximately \$2,541,781 of eligible funds from '12-'19. Based on the existing City Limits, the eastern half of the roadway is not included in the Impact Fee RIP.	
Limits:	BLOOMDALE RD TO WILMETH RD		
Impact Fee Class:	M6D(1/3)		
Thoroughfare Class:	Major Arterial		
Length (lf):	5,410		
Service Area(s):	C, Half		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
111	Unclassified Street Excavation	16,831	cy	\$ 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
511	6" Curb & Gutter	10,820	lf	\$ 5.00	\$ 54,100
611	Allotment for Turn Lanes and Median Openings	3,302	sy	\$ 77.00	\$ 254,220
Paving Construction Cost Subtotal:					\$ 1,503,930
Major Construction Component Allowances**:					
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:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 120,314	
Paving and Allowance Subtotal:				\$ 1,624,244	
Mobilization:				5%	\$ 81,212
Site Preparation:				5%	\$ 81,212
Construction Cost TOTAL:				\$ 1,787,000	
Construction Contingency:				15%	\$ 268,050
Construction Cost TOTAL W/ CONTINGENCY:				\$ 2,056,000	

Impact Fee Project Cost Summary			
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%	\$ -
Impact Fee Project Cost TOTAL:			\$ 5,008,981

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

Kimley-Horn and Associates, Inc.

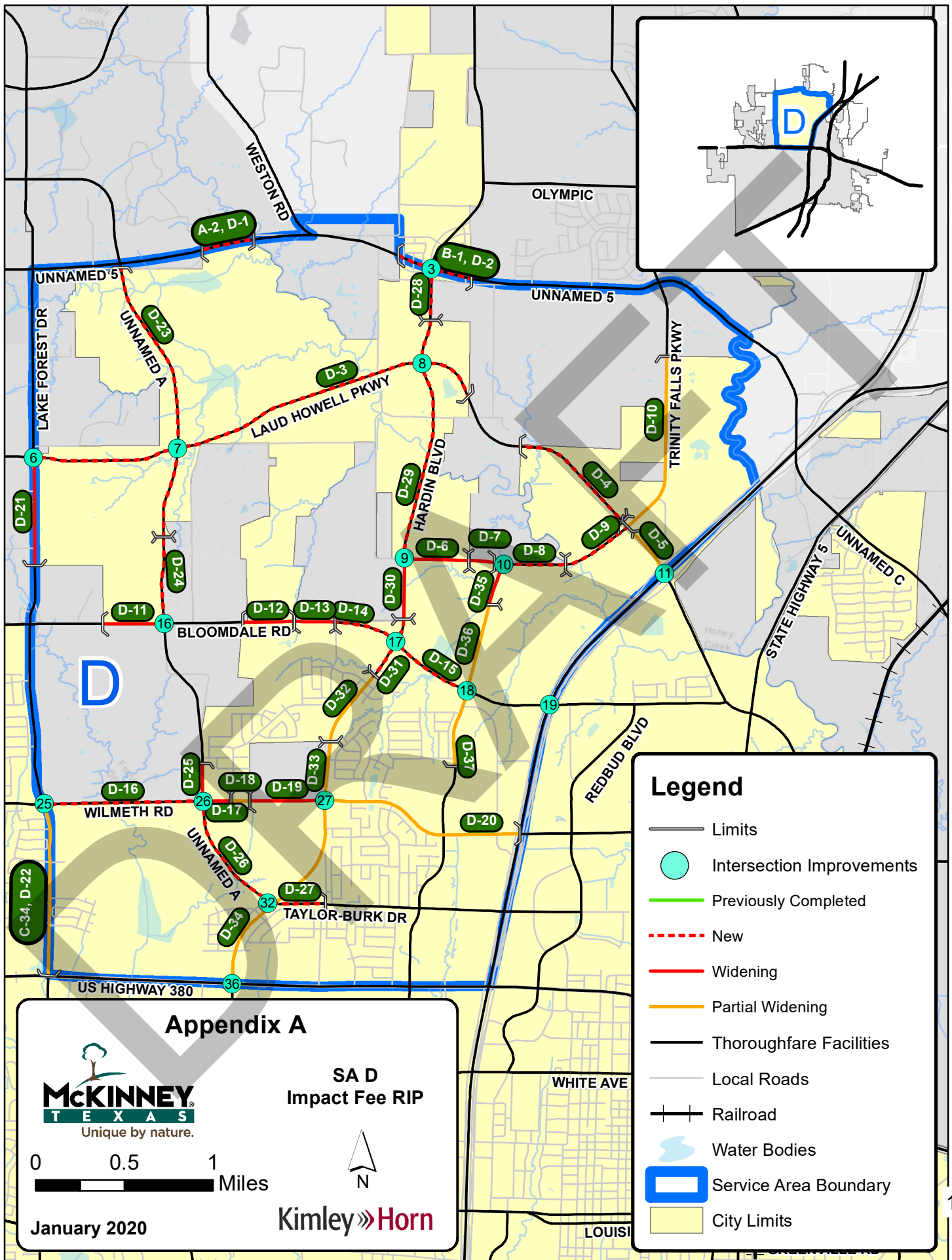
updated: 12/13/2019

Project Information:		Description:	Project No. C-34, D-22
Name:	LAKE FOREST DR (3)	This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided major arterial.	
Limits:	WILMETH RD TO US HIGHWAY 380		
Impact Fee Class:	M6D(1/3)		
Thoroughfare Class:	Major Arterial		
Length (lf):	5,155		
Service Area(s):	C and D		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
111	Unclassified Street Excavation	16,038	cy	\$ 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:					
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:		
			\$ 114,643		
			Paving and Allowance Subtotal:		
			\$ 1,547,686		
			Mobilization:		
			5% \$ 77,384		
			Site Preparation:		
			5% \$ 77,384		
			Construction Cost TOTAL:		
			\$ 1,703,000		
			Construction Contingency:		
			15% \$ 255,450		
			Construction Cost TOTAL W/ CONTINGENCY:		
			\$ 1,959,000		

Impact Fee Project Cost Summary			
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

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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

#	Costing Class	Project	Limits	Total Cost	Percent in Service Area	Cost in Service Area
A-2, D-1	M6D	UNNAMED 5 (3)	CR 168 TO 1,560' E OF CR 168	\$ 7,517,500	50%	\$ 3,758,750
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
D-3	G6D	LAUD HOWELL PKWY (6)	LAKE FOREST DR TO 1860' E OF HARDIN BLVD	\$ 39,497,100	100%	\$ 39,497,100
D-4	G6D	LAUD HOWELL PKWY (7)	4,170' N OF TRINITY FALLS PKWY TO 240' N OF TRINITY FALLS PKWY	\$ 8,774,550	100%	\$ 8,774,550
D-5	G6D(1/3)	LAUD HOWELL PKWY (8)	240' N OF TRINITY FALLS PKWY TO US HIGHWAY 75	\$ 2,220,027	100%	\$ 2,220,027
D-6	G4D	TRINITY FALLS PKWY (1)	HARDIN BLVD TO 1,910' E OF HARDIN BLVD	\$ 3,243,800	100%	\$ 3,243,800
D-7	G4D	TRINITY FALLS PKWY (2)	1,910' E OF HARDIN BLVD TO 2,675' E OF HARDIN BLVD	\$ 1,300,600	50%	\$ 650,300
D-8	G4D	TRINITY FALLS PKWY (3)	COMMUNITY AVE TO 2,200' W OF LAUD HOWELL PKWY	\$ 5,976,800	50%	\$ 2,988,400
D-9	G4D	TRINITY FALLS PKWY (4)	LAUD HOWELL PKWY TO 2,200' W OF LAUD HOWELL PKWY	\$ 8,418,050	100%	\$ 8,418,050
D-10	M6D(1/3)	TRINITY FALLS PKWY (5)	4,275' N OF WESTON RD TO LAUD HOWELL PKWY	\$ 7,622,400	100%	\$ 7,622,400
D-11	P6D	BLOOMDALE RD (7)	1,820' W OF TAYLOR-BURK DR TO TAYLOR-BURK DR	\$ 3,799,600	50%	\$ 1,899,800
D-12	P6D	BLOOMDALE RD (8)	1,485' E OF CR 1006 TO 1,215' W OF CR 1007	\$ 3,206,000	100%	\$ 3,206,000
D-13	P6D	BLOOMDALE RD (9)	1,225' W OF CR 1007 TO CR 1007	\$ 3,001,600	50%	\$ 1,500,800
D-14	P6D(2/3)	BLOOMDALE RD (10)	CR 1007 TO HARDIN BLVD	\$ 5,885,810	100%	\$ 5,885,810
D-15	P6D(1/3)	BLOOMDALE RD (11)	HARDIN BLVD TO COMMUNITY AVE	\$ 5,165,390	100%	\$ 5,165,390
D-16	G4D	WILMETH RD (5)	LAKE FOREST DR TO UNNAMED A	\$ 10,991,050	50%	\$ 5,495,525
D-17	G4D	WILMETH RD (6)	UNNAMED A TO 825' E OF UNNAMED A	\$ 1,401,400	100%	\$ 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	\$ 411,600	100%	\$ 411,600
D-19	G4D	WILMETH RD (8)	1,380' E OF TAYLOR-BURK DR TO HARDIN BLVD	\$ 3,803,800	50%	\$ 1,901,900
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 PKWY TO 3,200' S OF LAUD HOWELL PKWY	\$ 6,448,400	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-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	\$ 4,598,850	50%	\$ 2,299,425
D-25	G4D	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 1,550' S OF UNNAMED 5	\$ 3,267,400	50%	\$ 1,633,700
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 1,815' S OF TRINITY FALLS PKWY	\$ 4,102,000	50%	\$ 2,051,000
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-32	G6D(1/3)	HARDIN BLVD (8)	1,190' S OF BLOOMDALE RD TO 3,590' S OF BLOOMDALE RD	\$ 1,070,400	100%	\$ 1,070,400
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-34	G6D(1/3)	HARDIN BLVD (10)	WILMETH RD TO US HIGHWAY 380	\$ 2,904,000	100%	\$ 2,904,000
D-35	G4D	COMMUNITY AVE (1)	TRINITY FALLS PKWY TO 1,275' S OF TRINITY FALLS PKWY	\$ 2,164,400	100%	\$ 2,164,400
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-37	M4U(1/2)	COMMUNITY AVE (3)	BLOOMDALE RD TO 2,305' S OF BLOOMDALE RD	\$ 1,174,600	100%	\$ 1,174,600
3	Intersection	Signal	HARDIN BLVD & UNNAMED 5	\$ 300,000	50%	\$ 150,000
6		Signal	LAUD HOWELL PKWY & LAKE FOREST DR	\$ 300,000	50%	\$ 150,000
7		Signal	LAUD HOWELL PKWY & UNNAMED A	\$ 300,000	100%	\$ 300,000
8		Signal	LAUD HOWELL PKWY & HARDIN BLVD	\$ 300,000	100%	\$ 300,000
9		Signal	HARDIN BLVD & TRINITY FALLS PKWY	\$ 300,000	75%	\$ 225,000
10		Roundabout	TRINITY FALLS PKWY & COMMUNITY AVE	\$ 200,000	50%	\$ 100,000
11		Interchange Signals	US HIGHWAY 75 & LAUD HOWELL PKWY	\$ 600,000	50%	\$ 300,000
16		Signal	BLOOMDALE RD & UNNAMED A	\$ 300,000	25%	\$ 75,000
17		Signal	BLOOMDALE RD & HARDIN BLVD	\$ 300,000	100%	\$ 300,000
18		Signal	BLOOMDALE RD & COMMUNITY AVE	\$ 300,000	100%	\$ 300,000
19		Interchange Signals	US HIGHWAY 75 & BLOOMDALE RD	\$ 600,000	50%	\$ 300,000
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
				\$ 225,290,659		\$ 189,016,118

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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 construction of a new six-lane divided major arterial.	
Limits:	CR 168 TO 1,560' E OF CR 168		
Impact Fee Class:	M6D		
Thoroughfare Class:	Major Arterial		
Length (lf):	1,560		
Service Area(s):	A and D		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
109	Unclassified Street Excavation	17,333	cy	\$ 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
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 Illumination System		6%	\$ 75,924
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 2,568,200
Paving and Allowance Subtotal:					\$ 3,833,606
Mobilization:				5%	\$ 191,680
Site Preparation:				5%	\$ 191,680
Construction Cost TOTAL:					\$ 4,217,000
Construction Contingency:				15%	\$ 632,550
Construction Cost TOTAL W/ CONTINGENCY:					\$ 4,850,000

Impact Fee Project Cost Summary			
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 Project Cost TOTAL:			\$ 7,517,500

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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.	B-1, D-2
Name:	UNNAMED 5 (4)	This project consists of the construction of a new six-lane divided major arterial.		
Limits:	1,050' W OF HARDIN BLVD TO 1,200' E OF HARDIN BLVD			
Impact Fee Class:	M6D			
Thoroughfare Class:	Major Arterial			
Length (If):	2,250			
Service Area(s):	B and D			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
109	Unclassified Street Excavation	25,000	cy	\$ 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
Major Construction Component Allowances**:					
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 Illumination System		6%	\$ 109,506
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 675,289
				Paving and Allowance Subtotal:	\$ 2,500,393
				Mobilization:	5% \$ 125,020
				Site Preparation:	5% \$ 125,020
				Construction Cost TOTAL:	\$ 2,751,000
				Construction Contingency:	15% \$ 412,650
				Construction Cost TOTAL W/ CONTINGENCY:	\$ 3,164,000

Impact Fee Project Cost Summary			
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 Project Cost TOTAL:			\$ 4,904,200

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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-3
Name:	LAUD HOWELL PKWY (6)		This project consists of the construction of a new six-lane divided greenway arterial.	
Limits:	LAKE FOREST DR TO 1860' E OF HARDIN BLVD			
Impact Fee Class:	G6D			
Thoroughfare Class:	Greenway Arterial			
Length (lf):	13,995			
Service Area(s):	D			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
116	Unclassified Street Excavation	171,050	cy	\$ 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 Allowances**:					
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 Illumination System		6%	\$ 658,830
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 9,162,786
Paving and Allowance Subtotal:				\$	20,143,289
Mobilization:				5%	\$ 1,007,164
Site Preparation:				5%	\$ 1,007,164
Construction Cost TOTAL:				\$	22,158,000
Construction Contingency:				15%	\$ 3,323,700
Construction Cost TOTAL W/ CONTINGENCY:				\$	25,482,000

Impact Fee Project Cost Summary			
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
Impact Fee Project Cost TOTAL:			\$ 39,497,100

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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) 4,170' N OF TRINITY FALLS PKWY TO 240' N OF TRINITY FALLS		This project consists of the construction of a new six-lane divided greenway arterial.	
Limits:				
Impact Fee Class:	G6D			
Thoroughfare Class:	Greenway Arterial			
Length (lf):	3,930			
Service Area(s):	D			

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
116	Unclassified Street Excavation	48,033	cy	\$ 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

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 Illumination System	6%	\$ 185,009
Other:			

**Allowances based on % of Paving Construction Cost Subtotal

Allowance Subtotal: \$ 1,390,890

Paving and Allowance Subtotal: \$ 4,474,375

Mobilization: 5% \$ 223,719

Site Preparation: 5% \$ 223,719

Construction Cost TOTAL: \$ 4,922,000

Construction Contingency: 15% \$ 738,300

Construction Cost TOTAL W/ CONTINGENCY: \$ 5,661,000

Impact Fee Project Cost Summary

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

Impact Fee Project Cost TOTAL: \$ 8,774,550

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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-5
Name:	LAUD HOWELL PKWY (8)		This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided greenway arterial. The City contributed approximately \$1,320,027 of eligible funds from '12-'19.	
Limits:	240' N OF TRINITY FALLS PKWY TO US HIGHWAY 75			
Impact Fee Class:	G6D(1/3)			
Thoroughfare Class:	Greenway Arterial			
Length (If):	2,020			
Service Area(s):	D			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
117	Unclassified Street Excavation	5,836	cy	\$ 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	lf	\$ 5.00	\$ 20,200
617	Allotment for Turn Lanes and Median Openings	1,396	sy	\$ 77.00	\$ 107,490
Paving Construction Cost Subtotal:					\$ 548,524
Major Construction Component Allowances**:					
Item Description	Notes	Allowance			Item Cost
✓ 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%	\$		-
Sewer	None Anticipated	0%	\$		-
✓ Establish Turf / Erosion Control		2%	\$		10,970
Illumination	None Anticipated	0%	\$		-
Other:					
**Allowances based on % of Paving Construction Cost Subtotal					
Allowance Subtotal:					\$ 43,882
Paving and Allowance Subtotal:					\$ 592,405
Mobilization:					5% \$ 29,620
Site Preparation:					5% \$ 29,620
Construction Cost TOTAL:					\$ 652,000
Construction Contingency:					15% \$ 97,800
Construction Cost TOTAL W/ CONTINGENCY:					\$ 750,000

Impact Fee Project Cost Summary			
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:			\$ 2,220,027

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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-6
Name:	TRINITY FALLS PKWY (1)	This project consists of the reconstruction of a two-lane asphalt facility to a four-lane divided greenway arterial.		
Limits:	HARDIN BLVD TO 1,910' E OF HARDIN BLVD			
Impact Fee Class:	G4D			
Thoroughfare Class:	Greenway Arterial			
Length (lf):	1,910			
Service Area(s):	D			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
107	Unclassified Street Excavation	18,676	cy	\$ 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
Paving Construction Cost Subtotal:					\$ 1,262,288
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 Illumination System	6%	\$	75,737
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	568,030
Paving and Allowance Subtotal:				\$	1,830,318
Mobilization:				5%	\$ 91,516
Site Preparation:				5%	\$ 91,516
Construction Cost TOTAL:				\$	2,014,000
Construction Contingency:				15%	\$ 302,100
Construction Cost TOTAL W/ CONTINGENCY:				\$	2,317,000

Impact Fee Project Cost Summary			
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
Impact Fee Project Cost TOTAL:			\$ 3,243,800

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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-7
Name:	TRINITY FALLS PKWY (2)	This project consists of the reconstruction of a two-lane asphalt facility to a four-lane divided greenway arterial. Based on the existing City Limits, the northern half of the roadway is not included in the Impact Fee RIP.		
Limits:	1,910' E OF HARDIN BLVD TO			
Impact Fee Class:	2,675' E OF HARDIN BLVD			
Thoroughfare Class:	G4D			
Length (If):	Greenway Arterial			
Service Area(s):	765			
	D, Half			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
107	Unclassified Street Excavation	7,480	cy	\$ 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 Openings	449	sy	\$ 72.00	\$ 32,339
707	Moisture Conditioning	5,610	sy	\$ 8.00	\$ 44,880
Paving Construction Cost Subtotal:					\$ 505,576
Major Construction Component Allowances**:					
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 System	25%	\$	126,394
	Special Drainage Structures	None Anticipated		\$	-
✓	Water	Incidental Adjustments	3%	\$	15,167
✓	Sewer	Incidental Adjustments	3%	\$	15,167
✓	Establish Turf / Erosion Control		2%	\$	10,112
✓	Illumination	Standard Illumination System	6%	\$	30,335
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	227,509
Paving and Allowance Subtotal:				\$	733,085
Mobilization:				5%	\$ 36,654
Site Preparation:				5%	\$ 36,654
Construction Cost TOTAL:				\$	807,000
Construction Contingency:				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
Impact Fee Project Cost TOTAL:			\$ 1,300,600

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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-8
Name:	TRINITY FALLS PKWY (3) COMMUNITY AVE TO 2,200' W OF LAUD HOWELL PKWY		This project consists of the construction of a new four-lane divided greenway arterial. Based on the existing City Limits, the northern half of the roadway is not included in the Impact Fee RIP.	
Limits:				
Impact Fee Class:	G4D			
Thoroughfare Class:	Greenway Arterial			
Length (lf):	1,820			
Service Area(s):	D, Half			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
107	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	lf	\$ 5.00	\$ 36,400
607	Allotment for Turn Lanes and Median Openings	1,069	sy	\$ 72.00	\$ 76,936
707	Moisture Conditioning	13,347	sy	\$ 8.00	\$ 106,773
Paving Construction Cost Subtotal:					\$ 1,202,809
Major Construction Component Allowances**:					
Item Description		Notes		Allowance	Item Cost
✓	Traffic Control	None Anticipated		1%	\$ 12,028
✓	Pavement Markings/Markers			3%	\$ 36,084
✓	Roadway Drainage	Standard Internal System		25%	\$ 300,702
✓	Special Drainage Structures	Bridge			\$ 1,400,000
	Water	None Anticipated		0%	\$ -
	Sewer	None Anticipated		0%	\$ -
✓	Establish Turf / Erosion Control			2%	\$ 24,056
✓	Illumination	Standard Illumination System		6%	\$ 72,169
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 1,845,039
				Paving and Allowance Subtotal:	\$ 3,047,848
				Mobilization:	5% \$ 152,392
				Site Preparation:	5% \$ 152,392
				Construction Cost TOTAL:	\$ 3,353,000
				Construction Contingency:	15% \$ 502,950
				Construction Cost TOTAL W/ CONTINGENCY:	\$ 3,856,000

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 Cost TOTAL:			\$ 5,976,800

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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-9
Name:	TRINITY FALLS PKWY (4) LAUD HOWELL PKWY TO 2,200' W OF LAUD HOWELL PKWY		This project consists of the construction of a new four-lane divided greenway arterial.	
Limits:	G4D			
Impact Fee Class:	Greenway Arterial			
Thoroughfare Class:	2,200			
Length (lf):	D			
Service Area(s):				

Roadway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Item Cost
107	Unclassified Street Excavation	21,511	cy	\$ 215,111
207	Lime Treated Subgrade (8") (PI<12)	16,133	sy	\$ 112,933
307	8" Concrete Pavement	15,156	sy	\$ 833,556
407	4" Topsoil	10,511	sy	\$ 26,278
507	6" Curb & Gutter	8,800	lf	\$ 44,000
607	Allotment for Turn Lanes and Median Openings	1,292	sy	\$ 93,000
707	Moisture Conditioning	16,133	sy	\$ 129,067
Paving Construction Cost Subtotal:				\$ 1,453,944
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 Illumination System	6%	\$	87,237
Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 2,837,959
Paving and Allowance Subtotal:			\$	4,291,904
Mobilization:			5%	\$ 214,595
Site Preparation:			5%	\$ 214,595
Construction Cost TOTAL:			\$	4,722,000
Construction Contingency:			15%	\$ 708,300
Construction Cost TOTAL W/ CONTINGENCY:			\$	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 Cost TOTAL:			\$ 8,418,050

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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-10
Name:	TRINITY FALLS PKWY (5)	This section is currently under construction for a four-lane divided section and the City contributed approximately \$5,100,000 of eligible funds from '12-'19. This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided major arterial.		
Limits:	4,275' N OF WESTON RD TO LAUD			
Impact Fee Class:	HOWELL PKWY			
Thoroughfare Class:	M6D(1/3)			
Length (If):	Major Arterial			
Service Area(s):	5,530			
	D			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit 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	lf	\$ 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	Allowance	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					Allowance Subtotal: \$ 122,983
Paving and Allowance Subtotal:					\$ 1,660,272
Mobilization:				5%	\$ 83,014
Site Preparation:				5%	\$ 83,014
Construction Cost TOTAL:					\$ 1,827,000
Construction Contingency:					15% \$ 274,050
Construction Cost TOTAL W/ CONTINGENCY:					\$ 2,102,000

Impact Fee Project Cost Summary			
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

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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-11
Name:	BLOOMDALE RD (7)	This project consists of the reconstruction of a two-lane asphalt facility to a six-lane divided principal arterial. Based on the existing City Limits, the southern half of the roadway is not included in the Impact Fee RIP.		
Limits:	1,820' W OF TAYLOR-BURK DR TO TAYLOR-BURK DR			
Impact Fee Class:	P6D			
Thoroughfare Class:	Principal Arterial			
Length (If):	1,820			
Service Area(s):	D, Half			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	20,222	cy	\$ 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
513	6" Curb & Gutter	7,280	lf	\$ 5.00	\$ 36,400
613	Allotment for Turn Lanes and Median Openings	1,111	sy	\$ 77.00	\$ 85,523
713	Moisture Conditioning	15,773	sy	\$ 8.00	\$ 126,187
Paving Construction Cost Subtotal:					\$ 1,479,340
Major Construction Component Allowances**:					
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 System		25%	\$ 369,835
	Special Drainage Structures	None Anticipated			\$ -
✓	Water	Incidental Adjustments		3%	\$ 44,380
✓	Sewer	Incidental Adjustments		3%	\$ 44,380
✓	Establish Turf / Erosion Control			2%	\$ 29,587
✓	Illumination	Standard Illumination System		6%	\$ 88,760
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance 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
Construction Contingency:				15%	\$ 354,000
Construction Cost TOTAL W/ CONTINGENCY:				\$	2,714,000

Impact Fee Project Cost Summary			
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 Cost TOTAL:			\$ 3,799,600

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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-12
Name:	BLOOMDALE RD (8)	This project consists of the reconstruction of a two-lane asphalt facility to a six-lane divided principal arterial.	
Limits:	1,485' E OF CR 1006 TO 1,215' W OF CR 1007		
Impact Fee Class:	P6D		
Thoroughfare Class:	Principal Arterial		
Length (lf):	1,535		
Service Area(s):	D		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	17,056	cy	\$ 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
Paving Construction Cost Subtotal:					\$ 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
✓	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 Illumination System		6%	\$ 74,861
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 561,458
Paving and Allowance Subtotal:					\$ 1,809,143
Mobilization:				5%	\$ 90,457
Site Preparation:				5%	\$ 90,457
Construction Cost TOTAL:					\$ 1,991,000
Construction Contingency:				15%	\$ 298,650
Construction Cost TOTAL W/ CONTINGENCY:					\$ 2,290,000

Impact Fee Project Cost Summary			
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

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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-13
Name:	BLOOMDALE RD (9)	This project consists of the reconstruction of a two-lane asphalt facility to a six-lane divided principal arterial. Based on the existing City Limits, the northern half of the roadway is not included in the Impact Fee RIP.	
Limits:	1,225' W OF CR 1007 TO CR 1007		
Impact Fee Class:	P6D		
Thoroughfare Class:	Principal Arterial		
Length (lf):	1,225		
Service Area(s):	D, Half		

Roadway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Item Cost
113	Unclassified Street Excavation	13,611	cy	\$ 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 Openings	748	sy	\$ 77.00 \$ 57,564
713	Moisture Conditioning	10,617	sy	\$ 8.00 \$ 84,933
Paving Construction Cost Subtotal:				\$ 995,709
Major Construction Component Allowances**:				
Item Description	Notes	Allowance	Item Cost	
✓ Traffic Control	Construction Phase Traffic Control	3%	\$	29,871
✓ Pavement Markings/Markers		3%	\$	29,871
✓ Roadway Drainage	Standard Internal System	25%	\$	248,927
✓ Special Drainage Structures	Stream Crossing		\$	250,000
✓ Water	Incidental Adjustments	3%	\$	29,871
✓ Sewer	Incidental Adjustments	3%	\$	29,871
✓ Establish Turf / Erosion Control		2%	\$	19,914
✓ Illumination	Standard Illumination System	6%	\$	59,743
Other:				
**Allowances based on % of Paving Construction Cost Subtotal				
Allowance Subtotal:				\$ 698,069
Paving and Allowance Subtotal:				\$ 1,693,779
Mobilization:				5% \$ 84,689
Site Preparation:				5% \$ 84,689
Construction Cost TOTAL:				\$ 1,864,000
Construction Contingency:				15% \$ 279,600
Construction Cost TOTAL W/ CONTINGENCY:				\$ 2,144,000

Impact Fee Project Cost Summary			
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
Impact Fee Project Cost TOTAL:			\$ 3,001,600

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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-14
Name:	BLOOMDALE RD (10)	The City contributed approximately \$2,962,610 of eligible funds from '12-'19 for two of the six lanes. This project consists of the construction of four additional through lanes of the ultimate six-lane divided principal arterial.	
Limits:	CR 1007 TO HARDIN BLVD		
Impact Fee Class:	P6D(2/3)		
Thoroughfare Class:	Principal Arterial		
Length (lf):	1,965		
Service Area(s):	D		

Roadway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Item Cost
115	Unclassified Street Excavation	17,903	cy	\$ 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
515	6" Curb & Gutter	5,895	lf	\$ 5.00 \$ 29,475
615	Allotment for Turn Lanes and Median Openings	1,199	sy	\$ 77.00 \$ 92,337
715	Moisture Conditioning	11,463	sy	\$ 8.00 \$ 91,700
Paving Construction Cost Subtotal:				\$ 1,137,881
Major Construction Component Allowances**:				
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 System	25%	\$	284,470
Special Drainage Structures	None Anticipated		\$	-
✓ Water	Incidental Adjustments	3%	\$	34,136
✓ Sewer	Incidental Adjustments	3%	\$	34,136
✓ Establish Turf / Erosion Control		2%	\$	22,758
✓ Illumination	Standard Illumination System	6%	\$	68,273
Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 512,046
			Paving and Allowance Subtotal:	\$ 1,649,927
			Mobilization:	5% \$ 82,496
			Site Preparation:	5% \$ 82,496
			Construction Cost TOTAL:	\$ 1,815,000
			Construction Contingency:	15% \$ 272,250
			Construction Cost TOTAL W/ CONTINGENCY:	\$ 2,088,000

Impact Fee Project Cost Summary			
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
Impact Fee Project Cost TOTAL:			\$ 5,885,810

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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-15
Name:	BLOOMDALE RD (11)	The City contributed approximately \$3,887,390 of eligible funds from '12-'19 for four of the six lanes. This project consists of the construction of two additional through lanes within the median of the ultimate six-lane divided principal arterial.	
Limits:	HARDIN BLVD TO COMMUNITY AVE		
Impact Fee Class:	P6D(1/3)		
Thoroughfare Class:	Principal Arterial		
Length (lf):	2,580		
Service Area(s):	D		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
114	Unclassified Street Excavation	8,027	cy	\$ 10.00	\$ 80,267
214	Lime Treated Subgrade (8") (PI<12)	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
514	6" Curb & Gutter	5,160	lf	\$ 5.00	\$ 25,800
614	Allotment for Turn Lanes and Median Openings	1,574	sy	\$ 77.00	\$ 121,236
714	Moisture Conditioning	7,740	sy	\$ 8.00	\$ 61,920
Paving Construction Cost Subtotal:					\$ 779,136
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	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:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	62,331
Paving and Allowance Subtotal:				\$	841,467
Mobilization:				5%	\$ 42,073
Site Preparation:				5%	\$ 42,073
Construction Cost TOTAL:				\$	926,000
Construction Contingency:				15%	\$ 138,900
Construction Cost TOTAL W/ CONTINGENCY:				\$	1,065,000

Impact Fee Project Cost Summary			
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 Cost TOTAL:			\$ 5,165,390

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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-16
Name:	WILMETH RD (5)	This project consists of the construction of a new four-lane divided greenway arterial. Based on the existing City Limits, the northern half of the roadway is not included in the Impact Fee RIP.		
Limits:	LAKE FOREST DR TO UNNAMED A			
Impact Fee Class:	G4D			
Thoroughfare Class:	Greenway Arterial			
Length (lf):	4,755			
Service Area(s):	D, Half			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
107	Unclassified Street Excavation	46,493	cy	\$ 10.00	\$ 464,933
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	lf	\$ 5.00	\$ 95,100
607	Allotment for Turn Lanes and Median Openings	2,792	sy	\$ 72.00	\$ 201,007
707	Moisture Conditioning	34,870	sy	\$ 8.00	\$ 278,960
Paving Construction Cost Subtotal:					\$ 3,142,503
Major Construction Component Allowances**:					
Item Description		Notes		Allowance	Item Cost
✓	Traffic Control	None Anticipated		1%	\$ 31,425
✓	Pavement Markings/Markers			3%	\$ 94,275
✓	Roadway Drainage	Standard Internal System		25%	\$ 785,626
✓	Special Drainage Structures	Bridge			\$ 1,300,000
	Water	None Anticipated		0%	\$ -
	Sewer	None Anticipated		0%	\$ -
✓	Establish Turf / Erosion Control			2%	\$ 62,850
✓	Illumination	Standard Illumination System		6%	\$ 188,550
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 2,462,726
Paving and Allowance Subtotal:					\$ 5,605,229
Mobilization:				5%	\$ 280,261
Site Preparation:				5%	\$ 280,261
Construction Cost TOTAL:					\$ 6,166,000
Construction Contingency:				15%	\$ 924,900
Construction Cost TOTAL W/ CONTINGENCY:					\$ 7,091,000

Impact Fee Project Cost Summary			
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
Impact Fee Project Cost TOTAL:			\$ 10,991,050

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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-17
Name:	WILMETH RD (6)	This project consists of the reconstruction of a two-lane asphalt facility to a four-lane divided greenway arterial.	
Limits:	UNNAMED A TO 825' E OF UNNAMED A		
Impact Fee Class:	G4D		
Thoroughfare Class:	Greenway Arterial		
Length (lf):	825		
Service Area(s):	D		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
107	Unclassified Street Excavation	8,067	cy	\$ 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
Paving Construction Cost Subtotal:					\$ 545,229
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	16,357
✓	Pavement Markings/Markers		3%	\$	16,357
✓	Roadway Drainage	Standard Internal System	25%	\$	136,307
	Special Drainage Structures	None Anticipated		\$	-
✓	Water	Incidental Adjustments	3%	\$	16,357
✓	Sewer	Incidental Adjustments	3%	\$	16,357
✓	Establish Turf / Erosion Control		2%	\$	10,905
✓	Illumination	Standard Illumination System	6%	\$	32,714
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	245,353
Paving and Allowance Subtotal:				\$	790,582
Mobilization:				5%	\$ 39,529
Site Preparation:				5%	\$ 39,529
Construction Cost TOTAL:				\$	870,000
Construction Contingency:				15%	\$ 130,500
Construction Cost TOTAL W/ CONTINGENCY:				\$	1,001,000

Impact Fee Project Cost Summary			
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

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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 construction of two additional lanes of the ultimate four-lane divided greenway arterial.	
Limits:	825' E OF TAYLOR-BURK DR TO		
Impact Fee Class:	1,380' E OF TAYLOR-BURK DR		
Thoroughfare Class:	G4D(1/2)		
Length (lf):	555		
Service Area(s):	D		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
108	Unclassified Street Excavation	2,097	cy	\$ 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 Allowances**:					
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 Illumination System	6%	\$	9,564	
Other:					
**Allowances based on % of Paving Construction Cost Subtotal					
Allowance Subtotal:					\$ 71,733
Paving and Allowance Subtotal:					\$ 231,140
Mobilization:					5% \$ 11,557
Site Preparation:					5% \$ 11,557
Construction Cost TOTAL:					\$ 255,000
Construction Contingency:					15% \$ 38,250
Construction Cost TOTAL W/ CONTINGENCY:					\$ 294,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item 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
Impact Fee Project Cost TOTAL:			\$ 411,600

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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-19
Name:	WILMETH RD (8)	This project consists of the reconstruction of a two-lane asphalt facility to a four-lane divided greenway arterial. Based on the existing City Limits, the northern half of the roadway is not included in the Impact Fee RIP.		
Limits:	1,380' E OF TAYLOR-BURK DR TO HARDIN BLVD			
Impact Fee Class:	G4D			
Thoroughfare Class:	Greenway Arterial			
Length (If):	2,240			
Service Area(s):	D, Half			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
107	Unclassified Street Excavation	21,902	cy	\$ 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	lf	\$ 5.00	\$ 44,800
607	Allotment for Turn Lanes and Median Openings	1,315	sy	\$ 72.00	\$ 94,691
707	Moisture Conditioning	16,427	sy	\$ 8.00	\$ 131,413
Paving Construction Cost Subtotal:					\$ 1,480,380
Major Construction Component Allowances**:					
Item Description	Notes	Allowance	Item Cost		
✓ Traffic Control	Construction Phase Traffic Control	3%	\$	44,411	
✓ Pavement Markings/Markers		3%	\$	44,411	
✓ Roadway Drainage	Standard Internal System	25%	\$	370,095	
Special Drainage Structures	None Anticipated		\$	-	
✓ Water	Incidental Adjustments	3%	\$	44,411	
✓ Sewer	Incidental Adjustments	3%	\$	44,411	
✓ Establish Turf / Erosion Control		2%	\$	29,608	
✓ Illumination	Standard Illumination System	6%	\$	88,823	
Other:					
**Allowances based on % of Paving Construction Cost Subtotal			Allowance 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
Construction Contingency:				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

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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-20
Name:	WILMETH RD (9)	This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided major arterial.		
Limits:	HARDIN BLVD TO US HIGHWAY 75			
Impact Fee Class:	M6D(1/3)			
Thoroughfare Class:	Major Arterial			
Length (lf):	6,140			
Service Area(s):	D			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
111	Unclassified Street Excavation	19,102	cy	\$ 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
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:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	136,549
Paving and Allowance Subtotal:				\$	1,843,412
Mobilization:				5%	\$ 92,171
Site Preparation:				5%	\$ 92,171
Construction Cost TOTAL:				\$	2,028,000
Construction Contingency:				15%	\$ 304,200
Construction Cost TOTAL W/ CONTINGENCY:				\$	2,333,000

Impact Fee Project Cost Summary			
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%	\$ -
Impact Fee Project Cost TOTAL:			\$ 2,799,600

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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-21
Name:	LAKE FOREST DR (1) LAUD HOWELL PKWY TO 3,200' S OF LAUD HOWELL PKWY		This project consists of the reconstruction of a two-lane asphalt facility to a six-lane divided greenway arterial. Based on the existing City Limits, the western half of the roadway is not included in the Impact Fee RIP.	
Limits:	G6D			
Impact Fee Class:	Greenway Arterial			
Thoroughfare Class:	3,200			
Length (If):	D, Half			
Service Area(s):				

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
116	Unclassified Street Excavation	39,111	cy	\$ 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	lf	\$ 5.00	\$ 64,000
616	Allotment for Turn Lanes and Median Openings	2,211	sy	\$ 77.00	\$ 170,281
716	Moisture Conditioning	25,600	sy	\$ 8.00	\$ 204,800
Paving Construction Cost Subtotal:					\$ 2,510,726
Major Construction Component Allowances**:					
Item Description		Notes		Allowance	Item Cost
✓	Traffic Control	Construction Phase Traffic Control		3%	\$ 75,322
✓	Pavement Markings/Markers			3%	\$ 75,322
✓	Roadway Drainage	Standard Internal System		25%	\$ 627,681
	Special Drainage Structures	None Anticipated			\$ -
✓	Water	Incidental Adjustments		3%	\$ 75,322
✓	Sewer	Incidental Adjustments		3%	\$ 75,322
✓	Establish Turf / Erosion Control			2%	\$ 50,215
✓	Illumination	Standard Illumination System		6%	\$ 150,644
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 1,129,827
				Paving and Allowance Subtotal:	\$ 3,640,553
				Mobilization:	5% \$ 182,028
				Site Preparation:	5% \$ 182,028
				Construction Cost TOTAL:	\$ 4,005,000
				Construction Contingency:	15% \$ 600,750
				Construction Cost TOTAL W/ CONTINGENCY:	\$ 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

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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-34, D-22
Name:	LAKE FOREST DR (3)	This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided major arterial.	
Limits:	WILMETH RD TO US HIGHWAY 380		
Impact Fee Class:	M6D(1/3)		
Thoroughfare Class:	Major Arterial		
Length (lf):	5,155		
Service Area(s):	C and D		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
111	Unclassified Street Excavation	16,038	cy	\$ 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:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	114,643
Paving and Allowance Subtotal:				\$	1,547,686
Mobilization:				5%	\$ 77,384
Site Preparation:				5%	\$ 77,384
Construction Cost TOTAL:				\$	1,703,000
Construction Contingency:				15%	\$ 255,450
Construction Cost TOTAL W/ CONTINGENCY:				\$	1,959,000

Impact Fee Project Cost Summary			
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

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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) 5,785' N OF LAUD HOWELL PKWY TO 2,710' S OF LAUD HOWELL		This project consists of the construction of a new four-lane divided greenway arterial.	
Limits:				
Impact Fee Class:	G4D			
Thoroughfare Class:	Greenway Arterial			
Length (lf):	8,495			
Service Area(s):	D			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
107	Unclassified Street Excavation	83,062	cy	\$ 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
Major Construction Component Allowances**:					
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 Illumination System	6%	\$	336,852
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	3,277,257
Paving and Allowance Subtotal:				\$	8,891,465
Mobilization:				5%	\$ 444,573
Site Preparation:				5%	\$ 444,573
Construction Cost TOTAL:				\$	9,781,000
Construction Contingency:				15%	\$ 1,467,150
Construction Cost TOTAL W/ CONTINGENCY:				\$	11,249,000

Impact Fee Project Cost Summary			
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 Project Cost TOTAL:			\$ 17,435,950

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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-24
Name:	UNNAMED A (2)	This project consists of the construction of a new four-lane divided greenway arterial. Based on the existing City Limits, the eastern half of the roadway is not included in the Impact Fee RIP.		
Limits:	2,710' S OF LAUD HOWELL PKWY TO BLOOMDALE RD			
Impact Fee Class:	G4D			
Thoroughfare Class:	Greenway Arterial			
Length (If):	2,590			
Service Area(s):	D, Half			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
107	Unclassified Street Excavation	25,324	cy	\$ 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 Openings	1,521	sy	\$ 72.00	\$ 109,486
707	Moisture Conditioning	18,993	sy	\$ 8.00	\$ 151,947
Paving Construction Cost Subtotal:					\$ 1,711,689
Major Construction Component Allowances**:					
Item Description		Notes		Allowance	Item Cost
✓	Traffic Control	None Anticipated		1%	\$ 17,117
✓	Pavement Markings/Markers			3%	\$ 51,351
✓	Roadway Drainage	Standard Internal System		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 Illumination System		6%	\$ 102,701
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 633,325
Paving and Allowance Subtotal:				\$	2,345,014
Mobilization:				5%	\$ 117,251
Site Preparation:				5%	\$ 117,251
Construction Cost TOTAL:				\$	2,580,000
Construction Contingency:				15%	\$ 387,000
Construction Cost TOTAL W/ CONTINGENCY:				\$	2,967,000

Impact Fee Project Cost Summary			
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 Cost TOTAL:			\$ 4,598,850

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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-25
Name:	UNNAMED A (3)	This project consists of the reconstruction of a four-lane divided greenway arterial. Based on the existing City Limits, the western half of the roadway is not included in the Impact Fee RIP.	
Limits:	1,105' N OF WILMETH RD TO WILMETH RD		
Impact Fee Class:	G4D		
Thoroughfare Class:	Greenway Arterial		
Length (lf):	1,105		
Service Area(s):	D, Half		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
107	Unclassified Street Excavation	10,804	cy	\$ 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
507	6" Curb & Gutter	4,420	lf	\$ 5.00	\$ 22,100
607	Allotment for Turn Lanes and Median Openings	649	sy	\$ 72.00	\$ 46,711
707	Moisture Conditioning	8,103	sy	\$ 8.00	\$ 64,827
Paving Construction Cost Subtotal:					\$ 730,277
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	21,908
✓	Pavement Markings/Markers		3%	\$	21,908
✓	Roadway Drainage	Standard Internal System	25%	\$	182,569
	Special Drainage Structures	None Anticipated		\$	-
✓	Water	Incidental Adjustments	3%	\$	21,908
✓	Sewer	Incidental Adjustments	3%	\$	21,908
✓	Establish Turf / Erosion Control		2%	\$	14,606
✓	Illumination	Standard Illumination System	6%	\$	43,817
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	328,624
Paving and Allowance Subtotal:				\$	1,058,901
Mobilization:				5%	\$ 52,945
Site Preparation:				5%	\$ 52,945
Construction Cost TOTAL:				\$	1,165,000
Construction Contingency:				15%	\$ 174,750
Construction Cost TOTAL W/ CONTINGENCY:				\$	1,340,000

Impact Fee Project Cost Summary			
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
Impact Fee Project Cost TOTAL:			\$ 1,876,000

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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-26
Name:	UNNAMED A (4)	This project consists of the construction of a new four-lane divided minor arterial.		
Limits:	WILMETH RD TO HARDIN BLVD			
Impact Fee Class:	M4D			
Thoroughfare Class:	Minor Arterial			
Length (lf):	3,940			
Service Area(s):	D			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
105	Unclassified Street Excavation	31,520	cy	\$ 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 Construction Component Allowances**:					
Item Description		Notes		Allowance	Item Cost
✓	Traffic Control	None Anticipated		1%	\$ 20,391
✓	Pavement Markings/Markers			3%	\$ 61,174
✓	Roadway Drainage	Standard Internal System		25%	\$ 509,787
✓	Special Drainage Structures	Stream Crossing			\$ 250,000
	Water	None Anticipated		0%	\$ -
	Sewer	None Anticipated		0%	\$ -
✓	Establish Turf / Erosion Control			2%	\$ 40,783
✓	Illumination	Standard Illumination System		6%	\$ 122,349
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 1,004,485
Paving and Allowance Subtotal:					\$ 3,043,634
Mobilization:				5%	\$ 152,182
Site Preparation:				5%	\$ 152,182
Construction Cost TOTAL:					\$ 3,348,000
Construction Contingency:				15%	\$ 502,200
Construction Cost TOTAL W/ CONTINGENCY:					\$ 3,851,000

Impact Fee Project Cost Summary			
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 Project Cost TOTAL:			\$ 5,969,050

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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-27
Name:	TAYLOR-BURK DR (1)	This project consists of the construction of a new four-lane divided minor arterial.		
Limits:	HARDIN BLVD TO SKYLINE DR			
Impact Fee Class:	M4D			
Thoroughfare Class:	Minor Arterial			
Length (lf):	1,465			
Service Area(s):	D			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
105	Unclassified Street Excavation	11,720	cy	\$ 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	lf	\$ 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
Major Construction Component Allowances**:					
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 Illumination System		6%	\$ 45,493
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 280,538
Paving and Allowance Subtotal:					\$ 1,038,750
Mobilization:				5%	\$ 51,937
Site Preparation:				5%	\$ 51,937
Construction Cost TOTAL:					\$ 1,143,000
Construction Contingency:				15%	\$ 171,450
Construction Cost TOTAL W/ CONTINGENCY:					\$ 1,315,000

Impact Fee Project Cost Summary			
Item Description	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
Impact Fee Project Cost TOTAL:			\$ 2,038,250

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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-28
Name:	HARDIN BLVD (4)	This project consists of the construction of a new six-lane divided greenway arterial. Based on the existing City Limits, the eastern half of the roadway is not included in the Impact Fee RIP.	
Limits:	UNNAMED 5 TO 1,550' S OF UNNAMED 5		
Impact Fee Class:	G6D		
Thoroughfare Class:	Greenway Arterial		
Length (lf):	1,550		
Service Area(s):	D, Half		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
116	Unclassified Street Excavation	18,944	cy	\$ 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	lf	\$ 5.00	\$ 31,000
616	Allotment for Turn Lanes and Median Openings	1,071	sy	\$ 77.00	\$ 82,480
716	Moisture Conditioning	12,400	sy	\$ 8.00	\$ 99,200
Paving Construction Cost Subtotal: \$					1,216,133
Major Construction Component Allowances**:					
Item Description		Notes		Allowance	Item Cost
✓	Traffic Control	None Anticipated		1%	\$ 12,161
✓	Pavement Markings/Markers			3%	\$ 36,484
✓	Roadway Drainage	Standard Internal System		25%	\$ 304,033
	Special Drainage Structures	None Anticipated			\$ -
	Water	None Anticipated		0%	\$ -
	Sewer	None Anticipated		0%	\$ -
✓	Establish Turf / Erosion Control			2%	\$ 24,323
✓	Illumination	Standard Illumination System		6%	\$ 72,968
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal: \$	449,969
Paving and Allowance Subtotal: \$					1,666,102
Mobilization:				5%	\$ 83,305
Site Preparation:				5%	\$ 83,305
Construction Cost TOTAL: \$					1,833,000
Construction Contingency:				15%	\$ 274,950
Construction Cost TOTAL W/ CONTINGENCY: \$					2,108,000

Impact Fee Project Cost Summary			
Item Description	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
Impact Fee Project Cost TOTAL:			\$ 3,267,400

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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-29
Name:	HARDIN BLVD (5)		This project consists of the construction of a new six-lane divided greenway arterial.	
Limits:	1,545' S OF UNNAMED 5 TO TRINITY FALLS PKWY			
Impact Fee Class:	G6D			
Thoroughfare Class:	Greenway Arterial			
Length (lf):	7,310			
Service Area(s):	D			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
116	Unclassified Street Excavation	89,344	cy	\$ 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 Allowances**:					
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 Illumination System		6%	\$ 344,126
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 5,122,113
Paving and Allowance Subtotal:					\$ 10,857,552
Mobilization:				5%	\$ 542,878
Site Preparation:				5%	\$ 542,878
Construction Cost TOTAL:					\$ 11,944,000
Construction Contingency:				15%	\$ 1,791,600
Construction Cost TOTAL W/ CONTINGENCY:					\$ 13,736,000

Impact Fee Project Cost Summary			
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
Impact Fee Project Cost TOTAL:			\$ 21,290,800

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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-30
Name:	HARDIN BLVD (6) TRINITY FALLS PKWY TO 1,815' S OF TRINITY FALLS PKWY	This project consists of the reconstruction of a two-lane dirt/gravel facility to a six-lane divided greenway arterial. Based on the existing City Limits, the western half of the roadway is not included in the Impact Fee RIP.		
Limits:				
Impact Fee Class:	G6D			
Thoroughfare Class:	Greenway Arterial			
Length (If):	1,815			
Service Area(s):	D, Half			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
116	Unclassified Street Excavation	22,183	cy	\$ 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	\$ 28,738
516	6" Curb & Gutter	7,260	lf	\$ 5.00	\$ 36,300
616	Allotment for Turn Lanes and Median Openings	1,254	sy	\$ 77.00	\$ 96,582
716	Moisture Conditioning	14,520	sy	\$ 8.00	\$ 116,160
Paving Construction Cost Subtotal:					\$ 1,424,052
Major Construction Component Allowances**:					
Item Description		Notes		Allowance	Item Cost
✓	Traffic Control	Construction Phase Traffic Control		3%	\$ 42,722
✓	Pavement Markings/Markers			3%	\$ 42,722
✓	Roadway Drainage	Standard Internal System		25%	\$ 356,013
✓	Special Drainage Structures	Stream Crossing			\$ 250,000
✓	Water	Incidental Adjustments		3%	\$ 42,722
✓	Sewer	Incidental Adjustments		3%	\$ 42,722
✓	Establish Turf / Erosion Control			2%	\$ 28,481
✓	Illumination	Standard Illumination System		6%	\$ 85,443
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 890,824
				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

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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) 1,815' S OF TRINITY FALLS PKWY TO 1,190' S OF BLOOMDALE RD		This project consists of the construction of a new six-lane divided greenway arterial.	
Limits:				
Impact Fee Class:	G6D			
Thoroughfare Class:	Greenway Arterial			
Length (lf):	1,920			
Service Area(s):	D			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
116	Unclassified Street Excavation	23,467	cy	\$ 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 Illumination System	6%	\$	90,386
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	807,381
Paving and Allowance Subtotal:				\$	2,313,817
Mobilization:				5%	\$ 115,691
Site Preparation:				5%	\$ 115,691
Construction Cost TOTAL:				\$	2,546,000
Construction Contingency:				15%	\$ 381,900
Construction Cost TOTAL W/ CONTINGENCY:				\$	2,928,000

Impact Fee Project Cost Summary			
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

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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-32
Name:	HARDIN BLVD (8) 1,190' S OF BLOOMDALE RD TO 3,590' S OF BLOOMDALE RD	This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided greenway arterial.	
Limits:	G6D(1/3)		
Impact Fee Class:	Greenway Arterial		
Thoroughfare Class:	2,400		
Length (lf):	D		
Service Area(s):			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
117	Unclassified Street Excavation	6,933	cy	\$ 10.00	\$ 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	\$ 2.50	\$ 16,000
517	6" Curb & Gutter	4,800	lf	\$ 5.00	\$ 24,000
617	Allotment for Turn Lanes and Median Openings	1,659	sy	\$ 77.00	\$ 127,711
Paving Construction Cost Subtotal:					\$ 651,711
Major Construction Component Allowances**:					
Item Description	Notes	Allowance	Item Cost		
✓ Traffic Control	Construction Phase Traffic Control	3%	\$	19,551	
✓ Pavement Markings/Markers		3%	\$	19,551	
Roadway Drainage	None Anticipated	0%	\$	-	
Special Drainage Structures	None Anticipated		\$	-	
Water	None Anticipated	0%	\$	-	
Sewer	None Anticipated	0%	\$	-	
✓ Establish Turf / Erosion Control		2%	\$	13,034	
Illumination	None Anticipated	0%	\$	-	
Other:					
**Allowances based on % of Paving Construction Cost Subtotal					
Allowance Subtotal:					\$ 52,137
Paving and Allowance Subtotal:					\$ 703,848
Mobilization:				5%	\$ 35,192
Site Preparation:				5%	\$ 35,192
Construction Cost TOTAL:					\$ 775,000
Construction Contingency:					15% \$ 116,250
Construction Cost TOTAL W/ CONTINGENCY:					\$ 892,000

Impact Fee Project Cost Summary			
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%	\$ -
Impact Fee Project Cost TOTAL:			\$ 1,070,400

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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-33
Name:	HARDIN BLVD (9) 3,590' S OF BLOOMDALE RD TO WILMETH RD	This project consists of the construction of four additional through lanes of the ultimate six-lane divided greenway arterial. Based on the existing City Limits, the western half of the roadway is not included in the Impact Fee RIP	
Limits:	G6D(2/3)		
Impact Fee Class:	Greenway Arterial		
Thoroughfare Class:	1,755		
Length (lf):	D, Half		
Service Area(s):			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
118	Unclassified Street Excavation	13,455	cy	\$ 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
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	26,265
✓	Pavement Markings/Markers		3%	\$	26,265
✓	Roadway Drainage	Standard Internal System	25%	\$	218,871
	Special Drainage Structures	None Anticipated		\$	-
✓	Water	Incidental Adjustments	3%	\$	26,265
✓	Sewer	Incidental Adjustments	3%	\$	26,265
✓	Establish Turf / Erosion Control		2%	\$	17,510
✓	Illumination	Standard Illumination System	6%	\$	52,529
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 393,968
Paving and Allowance Subtotal:					\$ 1,269,453
Mobilization:				5%	\$ 63,473
Site Preparation:				5%	\$ 63,473
Construction Cost TOTAL:					\$ 1,397,000
Construction Contingency:				15%	\$ 209,550
Construction Cost TOTAL W/ CONTINGENCY:					\$ 1,607,000

Impact Fee Project Cost Summary			
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
Impact Fee Project Cost TOTAL:			\$ 2,249,800

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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-34
Name:	HARDIN BLVD (10)	This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided greenway arterial.		
Limits:	WILMETH RD TO US HIGHWAY 380			
Impact Fee Class:	G6D(1/3)			
Thoroughfare Class:	Greenway Arterial			
Length (lf):	6,520			
Service Area(s):	D			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
117	Unclassified Street Excavation	18,836	cy	\$ 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
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:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	141,639
Paving and Allowance Subtotal:				\$	1,912,120
Mobilization:				5%	\$ 95,606
Site Preparation:				5%	\$ 95,606
Construction Cost TOTAL:				\$	2,104,000
Construction Contingency:				15%	\$ 315,600
Construction Cost TOTAL W/ CONTINGENCY:				\$	2,420,000

Impact Fee Project Cost Summary			
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%	\$ -
Impact Fee Project Cost TOTAL:			\$ 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.
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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) TRINITY FALLS PKWY TO 1,275' S OF TRINITY FALLS PKWY		This project consists of the reconstruction of a two-lane asphalt facility to a four-lane divided greenway arterial.	
Limits:	G4D			
Impact Fee Class:	Greenway Arterial			
Thoroughfare Class:	1,275			
Length (lf):	D			
Service Area(s):				

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
107	Unclassified Street Excavation	12,467	cy	\$ 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 Construction Cost Subtotal:					\$ 842,627
Major Construction Component Allowances**:					
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 Illumination System	6%	\$	50,558
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	379,182
Paving and Allowance Subtotal:				\$	1,221,809
Mobilization:				5%	\$ 61,090
Site Preparation:				5%	\$ 61,090
Construction Cost TOTAL:				\$	1,344,000
Construction Contingency:				15%	\$ 201,600
Construction Cost TOTAL W/ CONTINGENCY:				\$	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
Impact Fee Project Cost TOTAL:			\$ 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.

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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-36
Name:	COMMUNITY AVE (2)		This project consists of the construction of two additional lanes of the ultimate four-lane divided greenway arterial.	
Limits:	1,275' S OF TRINITY FALLS PKWY TO BLOOMDALE RD			
Impact Fee Class:	G4D(1/2)			
Thoroughfare Class:	Greenway Arterial			
Length (lf):	2,655			
Service Area(s):	D			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
108	Unclassified Street Excavation	10,030	cy	\$ 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 Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	22,877
✓	Pavement Markings/Markers		3%	\$	22,877
✓	Roadway Drainage	Standard Internal System	25%	\$	190,642
	Special Drainage Structures	None Anticipated		\$	-
✓	Water	Incidental Adjustments	3%	\$	22,877
✓	Sewer	Incidental Adjustments	3%	\$	22,877
✓	Establish Turf / Erosion Control		2%	\$	15,251
✓	Illumination	Standard Illumination System	6%	\$	45,754
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	343,156
Paving and Allowance Subtotal:				\$	1,105,724
Mobilization:				5%	\$ 55,286
Site Preparation:				5%	\$ 55,286
Construction Cost TOTAL:				\$	1,217,000
Construction Contingency:				15%	\$ 182,550
Construction Cost TOTAL W/ CONTINGENCY:				\$	1,400,000

Impact Fee Project Cost Summary			
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
Impact Fee Project Cost TOTAL:			\$ 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.
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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-37
Name:	COMMUNITY AVE (3)		This project consists of the construction of two additional lanes of the ultimate four-lane undivided minor arterial.	
Limits:	BLOOMDALE RD TO 2,305' S OF BLOOMDALE RD			
Impact Fee Class:	M4U(1/2)			
Thoroughfare Class:	Minor Arterial			
Length (lf):	2,305			
Service Area(s):	D			

Roadway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Item Cost
104	Unclassified Street Excavation	6,147	cy	\$ 61,467
204	Lime Treated Subgrade (8") (PI<12)	6,019	sy	\$ 42,130
304	8" Concrete Pavement	5,891	sy	\$ 323,981
404	4" Topsoil	2,433	sy	\$ 6,083
504	6" Curb & Gutter	4,610	lf	\$ 23,050
Paving Construction Cost Subtotal:				\$ 456,710
Major Construction Component Allowances**:				
Item Description	Notes	Allowance	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 Illumination System	6%	\$	27,403
Other:				
**Allowances based on % of Paving Construction Cost Subtotal		Allowance Subtotal:	\$	205,520
Paving and Allowance Subtotal:			\$	662,230
Mobilization:			5%	\$ 33,111
Site Preparation:			5%	\$ 33,111
Construction Cost TOTAL:			\$	729,000
Construction Contingency:			15%	\$ 109,350
Construction Cost TOTAL W/ CONTINGENCY:			\$	839,000

Impact Fee Project Cost Summary			
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
Impact Fee Project Cost TOTAL:			\$ 1,174,600

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Appendix A



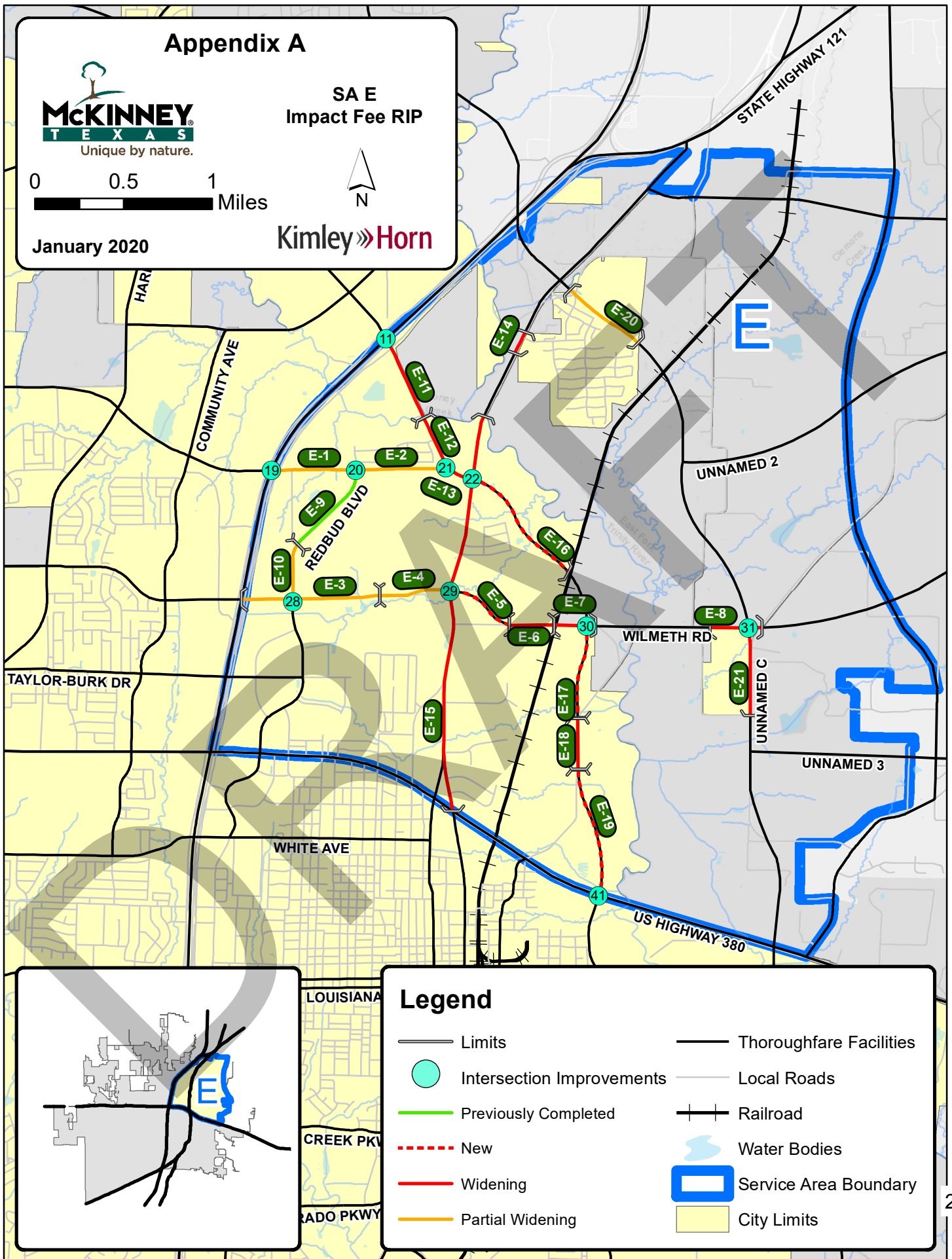
SA E
Impact Fee RIP

0 0.5 1 Miles



January 2020

Kimley»Horn



Legend

- | | |
|-----------------------------|---------------------------|
| — Limits | — Thoroughfare Facilities |
| ● Intersection Improvements | — Local Roads |
| — Previously Completed | — Railroad |
| - - - New | Water Bodies |
| — Widening | Service Area Boundary |
| — Partial Widening | City Limits |

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 Class	Project	Limits	Total Cost	Percent in Service Area	Cost in Service Area
E-1	P6D(1/3)	BLOOMDALE RD (12)	US HIGHWAY 75 TO REDBUD BLVD	\$ 955,200	100%	\$ 955,200
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	100%	\$ 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	Intersection	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		Signal	LAUD HOWELL PKWY & BLOOMDALE RD	\$ 300,000	100%	\$ 300,000
22		Signal Mod	STATE HIGHWAY 5 & LAUD HOWELL PKWY	\$ 150,000	100%	\$ 150,000
28		Signal	WILMETH RD & REDBUD BLVD	\$ 300,000	100%	\$ 300,000
29		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

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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-1
Name:	BLOOMDALE RD (12)	This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided principal arterial.		
Limits:	US HIGHWAY 75 TO REDBUD BLVD			
Impact Fee Class:	P6D(1/3)			
Thoroughfare Class:	Principal Arterial			
Length (lf):	2,520			
Service Area(s):	E			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
114	Unclassified Street Excavation	7,840	cy	\$ 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
Paving Construction Cost Subtotal:					\$ 582,120
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	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:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	46,570
Paving and Allowance Subtotal:				\$	628,690
Mobilization:				5%	\$ 31,434
Site Preparation:				5%	\$ 31,434
Construction Cost TOTAL:				\$	692,000
Construction Contingency:				15%	\$ 103,800
Construction Cost TOTAL W/ CONTINGENCY:				\$	796,000

Impact Fee Project Cost Summary			
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.

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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-2
Name:	BLOOMDALE RD (13)	This project consists of the construction of four additional through lanes of the ultimate six-lane divided principal arterial.		
Limits:	REDBUD BLVD TO AIRPORT DR			
Impact Fee Class:	P6D(2/3)			
Thoroughfare Class:	Principal Arterial			
Length (lf):	2,695			
Service Area(s):	E			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
115	Unclassified Street Excavation	24,554	cy	\$ 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 Illumination System		6%	\$ 78,492
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 588,689
				Paving and Allowance Subtotal:	\$ 1,896,887
				Mobilization:	5% \$ 94,844
				Site Preparation:	5% \$ 94,844
				Construction Cost TOTAL:	\$ 2,087,000
				Construction Contingency:	15% \$ 313,050
				Construction Cost TOTAL W/ CONTINGENCY:	\$ 2,401,000

Impact Fee Project Cost Summary			
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

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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-3
Name:	WILMETH RD (10)	This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided major arterial.		
Limits:	US HIGHWAY 75 TO 2,570' E OF REDBUD BLVD			
Impact Fee Class:	M6D(1/3)			
Thoroughfare Class:	Major Arterial			
Length (lf):	4,105			
Service Area(s):	E			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
111	Unclassified Street Excavation	12,771	cy	\$ 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
Major Construction Component Allowances**:					
Item Description		Notes		Allowance	Item Cost
✓	Traffic Control	Construction Phase Traffic Control		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:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 325,860
				Paving and Allowance Subtotal:	\$ 1,274,115
				Mobilization:	5% \$ 63,706
				Site Preparation:	5% \$ 63,706
				Construction Cost TOTAL:	\$ 1,402,000
				Construction Contingency:	15% \$ 210,300
				Construction Cost TOTAL W/ CONTINGENCY:	\$ 1,613,000

Impact Fee Project Cost Summary			
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.
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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-4
Name:	WILMETH RD (11)		This project consists of the construction of four additional through lanes of the ultimate six-lane divided major arterial.	
Limits:	2,570' E OF REDBUD BLVD TO STATE HIGHWAY 5			
Impact Fee Class:	M6D(2/3)			
Thoroughfare Class:	Major Arterial			
Length (lf):	2,145			
Service Area(s):	E			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
112	Unclassified Street Excavation	17,160	cy	\$ 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	lf	\$ 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 Illumination System	6%	\$	60,936
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	457,019
Paving and Allowance Subtotal:				\$	1,472,617
Mobilization:				5%	\$ 73,631
Site Preparation:				5%	\$ 73,631
Construction Cost TOTAL:				\$	1,620,000
Construction Contingency:				15%	\$ 243,000
Construction Cost TOTAL W/ CONTINGENCY:				\$	1,863,000

Impact Fee Project Cost Summary			
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

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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-5
Name:	WILMETH RD (12)		This project consists of the construction of a new six-lane divided major arterial.	
Limits:	STATE HIGHWAY 5 TO 2,100' E OF SH 5			
Impact Fee Class:	M6D			
Thoroughfare Class:	Major Arterial			
Length (lf):	2,100			
Service Area(s):	E			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
109	Unclassified Street Excavation	23,333	cy	\$ 10.00	\$ 233,333
209	Lime Treated Subgrade (8") (PI<12)	18,200	sy	\$ 7.00	\$ 127,400
309	9" Concrete Pavement	17,267	sy	\$ 60.00	\$ 1,036,000
409	4" Topsoil	8,167	sy	\$ 2.50	\$ 20,417
509	6" Curb & Gutter	8,400	lf	\$ 5.00	\$ 42,000
609	Allotment for Turn Lanes and Median Openings	1,282	sy	\$ 77.00	\$ 98,681
709	Moisture Conditioning	18,200	sy	\$ 8.00	\$ 145,600
Paving Construction Cost Subtotal:					\$ 1,703,431
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	None Anticipated	1%	\$	17,034
✓	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
✓	Illumination	Standard Illumination System	6%	\$	102,206
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 880,269	
Paving and Allowance 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/ CONTINGENCY:				\$ 3,270,000	

Impact Fee Project Cost Summary			
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
Impact Fee Project Cost TOTAL:			\$ 5,068,500

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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 reconstruction of a two-lane asphalt facility to a six-lane divided major arterial.		
Limits:	2,100' E OF SH 5 TO 980' W OF AIRPORT DR			
Impact Fee Class:	M6D			
Thoroughfare Class:	Major Arterial			
Length (lf):	1,345			
Service Area(s):	E			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
109	Unclassified Street Excavation	14,944	cy	\$ 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	Allotment for Turn Lanes and Median Openings	821	sy	\$ 77.00	\$ 63,203
709	Moisture Conditioning	11,657	sy	\$ 8.00	\$ 93,253
Paving Construction Cost Subtotal:					\$ 1,091,007
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 Illumination System	6%	\$	65,460
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	490,953
Paving and Allowance Subtotal:				\$	1,581,960
Mobilization:				5%	\$ 79,098
Site Preparation:				5%	\$ 79,098
Construction Cost TOTAL:				\$	1,741,000
Construction Contingency:				15%	\$ 261,150
Construction Cost TOTAL W/ CONTINGENCY:				\$	2,003,000

Impact Fee Project Cost Summary			
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
Impact Fee Project Cost TOTAL:			\$ 2,804,200

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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-7
Name:	WILMETH RD (14)	This project consists of the reconstruction of a two-lane asphalt facility to a six-lane divided major arterial. Based on the existing City Limits, the northern half of the roadway is not included in the Impact Fee RIP.		
Limits:	980' W OF AIRPORT DR TO 235' E			
Impact Fee Class:	OF AIRPORT DR			
Thoroughfare Class:	M6D			
Length (If):	Major Arterial			
Service Area(s):	1,215			
	E, Half			

Roadway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Item Cost
109	Unclassified Street Excavation	13,500	cy	\$ 135,000
209	Lime Treated Subgrade (8") (PI<12)	10,530	sy	\$ 73,710
309	9" Concrete Pavement	9,990	sy	\$ 599,400
409	4" Topsoil	4,725	sy	\$ 11,813
509	6" Curb & Gutter	4,860	lf	\$ 24,300
609	Allotment for Turn Lanes and Median Openings	741	sy	\$ 57,094
709	Moisture Conditioning	10,530	sy	\$ 84,240
Paving Construction Cost Subtotal:				\$ 985,556
Major Construction Component Allowances**:				
Item Description	Notes	Allowance	Item Cost	
✓ Traffic Control	Construction Phase Traffic Control	3%	\$	29,567
✓ Pavement Markings/Markers		3%	\$	29,567
✓ Roadway Drainage	Standard Internal System	25%	\$	246,389
Special Drainage Structures	None Anticipated		\$	-
✓ Water	Incidental Adjustments	3%	\$	29,567
✓ Sewer	Incidental Adjustments	3%	\$	29,567
✓ Establish Turf / Erosion Control		2%	\$	19,711
✓ Illumination	Standard Illumination System	6%	\$	59,133
Other:	Railroad Crossing		\$	500,000
**Allowances based on % of Paving Construction Cost Subtotal				Allowance 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
Construction Contingency:				15% \$ 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

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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-8
Name:	WILMETH RD (15)	This project consists of the reconstruction of a two-lane asphalt facility to a six-lane divided major arterial. Based on the existing City Limits, the northern half of the roadway is not included in the Impact Fee RIP.		
	1,150' W OF FM 2933 TO 400' E OF			
Limits:	FM 2933			
Impact Fee Class:	M6D			
Thoroughfare Class:	Major Arterial			
Length (lf):	1,550			
Service Area(s):	E, Half			

Roadway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Item Cost
109	Unclassified Street Excavation	17,222	cy	\$ 172,222
209	Lime Treated Subgrade (8") (PI<12)	13,433	sy	\$ 94,033
309	9" Concrete Pavement	12,744	sy	\$ 764,667
409	4" Topsoil	6,028	sy	\$ 15,069
509	6" Curb & Gutter	6,200	lf	\$ 31,000
609	Allotment for Turn Lanes and Median Openings	946	sy	\$ 72,836
709	Moisture Conditioning	13,433	sy	\$ 107,467
Paving Construction Cost Subtotal:				\$ 1,257,294
Major Construction Component Allowances**:				
Item Description	Notes	Allowance	Item Cost	
✓ Traffic Control	Construction Phase Traffic Control	3%	\$	37,719
✓ Pavement Markings/Markers		3%	\$	37,719
✓ Roadway Drainage	Standard Internal System	25%	\$	314,323
Special Drainage Structures	None Anticipated		\$	-
✓ Water	Incidental Adjustments	3%	\$	37,719
✓ Sewer	Incidental Adjustments	3%	\$	37,719
✓ Establish Turf / Erosion Control		2%	\$	25,146
✓ Illumination	Standard Illumination System	6%	\$	75,438
Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 565,782
			Paving and Allowance Subtotal:	\$ 1,823,076
			Mobilization:	5% \$ 91,154
			Site Preparation:	5% \$ 91,154
			Construction Cost TOTAL:	\$ 2,006,000
			Construction Contingency:	15% \$ 300,900
			Construction Cost TOTAL W/ CONTINGENCY:	\$ 2,307,000

Impact Fee Project Cost Summary			
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:			\$ 3,229,800

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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-9
Name:	REDBUD BLVD (1)			
Limits:	BLOOMDALE RD TO 2,930' S OF BLOOMDALE RD			
Impact Fee Class:	M4D			
Thoroughfare Class:	Minor Arterial			
Length (lf):	2,930			
Service Area(s):	E			
This completed project consists of the construction of a four-lane divided minor arterial. The City contributed approximately \$650,000 of eligible funds from '12-'19.				

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ 650,000
Impact Fee Project Cost TOTAL:			\$ 650,000

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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-10
Name:	REDBUD BLVD (2)	This project consists of the construction of two additional lanes of the ultimate four-lane divided minor arterial.	
Limits:	2,930' S OF BLOOMDALE RD TO WILMETH RD		
Impact Fee Class:	M4D(1/2)		
Thoroughfare Class:	Minor Arterial		
Length (lf):	1,645		
Service Area(s):	E		

Roadway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Item Cost
106	Unclassified Street Excavation	4,752	cy	\$ 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 Allowances**:				
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 Illumination System	6%	\$	19,891
Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 149,181
			Paving and Allowance Subtotal:	\$ 480,694
			Mobilization:	5% \$ 24,035
			Site Preparation:	5% \$ 24,035
			Construction Cost TOTAL:	\$ 529,000
			Construction Contingency:	15% \$ 79,350
			Construction Cost TOTAL W/ CONTINGENCY:	\$ 609,000

Impact Fee Project Cost Summary			
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 Project Cost TOTAL:			\$ 852,600

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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-11
Name:	LAUD HOWELL PKWY (9) US HIGHWAY 75 TO 2,620' S OF US		This project consists of the reconstruction of a two-lane asphalt facility to a six-lane divided major arterial. Based on the existing City Limits, the eastern half of the roadway is not included in the Impact Fee RIP.	
Limits:	HIGHWAY 75			
Impact Fee Class:	M6D			
Thoroughfare Class:	Major Arterial			
Length (lf):	2,620			
Service Area(s):	E, Half			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
109	Unclassified Street Excavation	14,556	cy	\$ 15.00	\$ 218,333
209	Lime Treated Subgrade (8") (PI<12)	22,707	sy	\$ 7.00	\$ 158,947
309	4" TY D HMA 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
609	6" Curb & Gutter	10,480	lf	\$ 5.00	\$ 52,400
709	Allotment for Turn Lanes and Median Openings	1,599	sy	\$ 87.00	\$ 139,105
Paving Construction Cost Subtotal:					\$ 2,009,785
Major Construction Component Allowances**:					
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
✓	Special Drainage Structures	Bridge		\$	1,500,000
✓	Water	Incidental Adjustments	3%	\$	60,294
✓	Sewer	Incidental Adjustments	3%	\$	60,294
✓	Establish Turf / Erosion Control		2%	\$	40,196
✓	Illumination	Standard Illumination System	6%	\$	120,587
Other:					
Allowance Subtotal:					\$ 2,404,403
Paving and Allowance Subtotal:					\$ 4,414,188
Mobilization:				5%	\$ 220,709
Site Preparation:				5%	\$ 220,709
Construction Cost TOTAL:					\$ 4,856,000
Construction Contingency:				15%	\$ 728,400
Construction Cost TOTAL W/ CONTINGENCY:					\$ 5,585,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 5,585,000
Engineering/Survey/Testing:		20%	\$ 1,117,000
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ -
ROW/Easement Acquisition:	Existing Alignment	20%	\$ 1,117,000
Impact Fee Project Cost TOTAL (50% City Contribution)			\$ 3,909,500

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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-12
Name:	LAUD HOWELL PKWY (10)		This project consists of the reconstruction of a two-lane asphalt facility to a six-lane divided major arterial.	
Limits:	2,620' S OF US HIGHWAY 75 TO BLOOMDALE RD			
Impact Fee Class:	M6D			
Thoroughfare Class:	Major Arterial			
Length (lf):	1,635			
Service Area(s):	E			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
109	Unclassified Street Excavation	9,083	cy	\$ 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 Allowances**:					
Item Description		Notes		Allowance	Item Cost
✓	Traffic Control	Construction Phase Traffic Control		3%	\$ 37,626
✓	Pavement Markings/Markers			3%	\$ 37,626
✓	Roadway Drainage			25%	\$ 313,549
✓	Special Drainage Structures	Stream Crossing			\$ 300,000
✓	Water	Incidental Adjustments		3%	\$ 37,626
✓	Sewer	Incidental Adjustments		3%	\$ 37,626
✓	Establish Turf / Erosion Control			2%	\$ 25,084
✓	Illumination	Standard Illumination System		6%	\$ 75,252
Other:					
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 864,389
Paving and Allowance Subtotal:					\$ 2,118,587
Mobilization:				5%	\$ 105,929
Site Preparation:				5%	\$ 105,929
Construction Cost TOTAL:					\$ 2,331,000
Construction Contingency:				15%	\$ 349,650
Construction Cost TOTAL W/ CONTINGENCY:					\$ 2,681,000

Impact Fee Project Cost Summary			
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 Contribution)			\$ 1,876,700

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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-13
Name:	LAUD HOWELL PKWY (11)		This project consists of the reconstruction of a two-lane asphalt facility to a six-lane divided principal arterial.	
Limits:	BLOOMDALE RD TO STATE HIGHWAY 5			
Impact Fee Class:	P6D			
Thoroughfare Class:	Principal Arterial			
Length (lf):	870			
Service Area(s):	E			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	4,833	cy	\$ 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
Paving Construction Cost Subtotal:					\$ 669,691
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 Illumination System	6%	\$	40,181
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	301,361
Paving and Allowance Subtotal:				\$	971,052
Mobilization:				5%	\$ 48,553
Site Preparation:				5%	\$ 48,553
Construction Cost TOTAL:				\$	1,069,000
Construction Contingency:				15%	\$ 160,350
Construction Cost TOTAL W/ CONTINGENCY:				\$	1,230,000

Impact Fee Project Cost Summary			
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
Impact Fee Project Cost TOTAL (50% City Contribution)			\$ 861,000

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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-14
Name:	STATE HIGHWAY 5 (1) 4,700' N OF AIRPORT DR TO 3,995' N OF AIRPORT DR		This project consists of the reconstruction of a two-lane asphalt facility to a six-lane divided major arterial. Based on the existing City Limits, the western half of the roadway is not included in the Impact Fee RIP.	
Limits:	M6D			
Impact Fee Class:	Major Arterial			
Thoroughfare Class:	705			
Length (If):	E, Half			
Service Area(s):				

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
109	Unclassified Street Excavation	3,917	cy	\$ 15.00	\$ 58,750
209	Lime Treated Subgrade (8") (PI<12)	6,110	sy	\$ 7.00	\$ 42,770
309	4" TY D HMAC Underlayment	5,797	sy	\$ 5.00	\$ 28,983
409	9" Concrete Pavement	5,797	sy	\$ 60.00	\$ 347,800
509	4" Topsoil	2,742	sy	\$ 4.00	\$ 10,967
609	6" Curb & Gutter	2,820	lf	\$ 5.00	\$ 14,100
709	Allotment for Turn Lanes and Median Openings	430	sy	\$ 87.00	\$ 37,431
Paving Construction Cost Subtotal:					\$ 540,801
Major Construction Component Allowances**:					
Item Description		Notes		Allowance	Item Cost
✓	Traffic Control	Construction Phase Traffic Control		3%	\$ 16,224
✓	Pavement Markings/Markers			3%	\$ 16,224
✓	Roadway Drainage			25%	\$ 135,200
	Special Drainage Structures	None Anticipated			\$ -
✓	Water	Incidental Adjustments		3%	\$ 16,224
✓	Sewer	Incidental Adjustments		3%	\$ 16,224
✓	Establish Turf / Erosion Control			2%	\$ 10,816
✓	Illumination	Standard Illumination System		6%	\$ 32,448
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 243,360
				Paving and Allowance Subtotal:	\$ 784,161
				Mobilization:	5% \$ 39,208
				Site Preparation:	5% \$ 39,208
				Construction Cost TOTAL:	\$ 863,000
				Construction Contingency:	15% \$ 129,450
				Construction Cost TOTAL W/ CONTINGENCY:	\$ 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.

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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-15
Name:	STATE HIGHWAY 5 (2)		This project consists of the reconstruction of the existing asphalt facility to a six-lane divided major arterial.	
Limits:	1,915' N OF AIRPORT DR TO US HIGHWAY 380			
Impact Fee Class:	M6D			
Thoroughfare Class:	Major Arterial			
Length (lf):	11,960			
Service Area(s):	E			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
109	Unclassified Street Excavation	66,444	cy	\$ 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 Illumination System		6%	\$ 550,466
Other:					
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 6,628,497
Paving and Allowance Subtotal:					\$ 15,802,934
Mobilization:				5%	\$ 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 Summary			
Item Description	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

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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-16
Name:	AIRPORT DR (1)		This project consists of the construction of a new six-lane divided principal arterial.	
Limits:	STATE HIGHWAY 5 TO 4,070 S OF STATE HIGHWAY 5			
Impact Fee Class:	P6D			
Thoroughfare Class:	Principal Arterial			
Length (lf):	4,070			
Service Area(s):	E			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	45,222	cy	\$ 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	lf	\$ 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:					\$ 3,308,194
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 Illumination System		6%	\$ 198,492
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 1,474,032
Paving and Allowance Subtotal:					\$ 4,782,226
Mobilization:				5%	\$ 239,111
Site Preparation:				5%	\$ 239,111
Construction Cost TOTAL:					\$ 5,261,000
Construction Contingency:				15%	\$ 789,150
Construction Cost TOTAL W/ CONTINGENCY:					\$ 6,051,000

Impact Fee Project Cost Summary			
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

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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 construction of a new six-lane divided principal arterial.	
Limits:	WILMETH RD TO WOODLAWN RD (N)		
Impact Fee Class:	P6D		
Thoroughfare Class:	Principal Arterial		
Length (lf):	2,790		
Service Area(s):	E		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	31,000	cy	\$ 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 Allowances**:					
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 Illumination System	6%	\$	136,067
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 1,089,078	
Paving and Allowance Subtotal:				\$ 3,356,857	
Mobilization:				5%	\$ 167,843
Site Preparation:				5%	\$ 167,843
Construction Cost TOTAL:				\$ 3,693,000	
Construction Contingency:				15%	\$ 553,950
Construction Cost TOTAL W/ CONTINGENCY:				\$ 4,247,000	

Impact Fee Project Cost Summary			
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
Impact Fee Project Cost TOTAL:			\$ 6,582,850

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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-18
Name:	AIRPORT DR (3)	This project consists of the reconstruction of a two-lane asphalt facility to a six-lane divided principal arterial.	
Limits:	WOODLAWN RD (N) TO WOODLAWN RD (S)		
Impact Fee Class:	P6D		
Thoroughfare Class:	Principal Arterial		
Length (lf):	1,535		
Service Area(s):	E		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	17,056	cy	\$ 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
Paving Construction Cost Subtotal:					\$ 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
✓	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 Illumination System		6%	\$ 74,861
Other:					
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 811,458
Paving and Allowance Subtotal:					\$ 2,059,143
Mobilization:				5%	\$ 102,957
Site Preparation:				5%	\$ 102,957
Construction Cost TOTAL:					\$ 2,266,000
Construction Contingency:				15%	\$ 339,900
Construction Cost TOTAL W/ CONTINGENCY:					\$ 2,606,000

Impact Fee Project Cost Summary			
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
Impact Fee Project Cost TOTAL:			\$ 3,648,400

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.
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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 construction of a new six-lane divided principal arterial.	
Limits:	WOODLAWN RD (S) TO US HIGHWAY 380		
Impact Fee Class:	P6D		
Thoroughfare Class:	Principal Arterial		
Length (lf):	3,875		
Service Area(s):	E		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	43,056	cy	\$ 10.00	\$ 430,556
213	Lime Treated Subgrade (8") (PI<12)	33,583	sy	\$ 7.00	\$ 235,083
313	9" Concrete Pavement	31,861	sy	\$ 60.00	\$ 1,911,667
413	4" Topsoil	17,653	sy	\$ 2.50	\$ 44,132
513	6" Curb & Gutter	15,500	lf	\$ 5.00	\$ 77,500
613	Allotment for Turn Lanes and Median Openings	2,365	sy	\$ 77.00	\$ 182,089
713	Moisture Conditioning	33,583	sy	\$ 8.00	\$ 268,667
Paving Construction Cost Subtotal:					\$ 3,149,693
Major Construction Component Allowances**:					
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 Illumination System		6%	\$ 188,982
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 1,415,387
Paving and Allowance Subtotal:					\$ 4,565,080
Mobilization:				5%	\$ 228,254
Site Preparation:				5%	\$ 228,254
Construction Cost TOTAL:					\$ 5,022,000
Construction Contingency:				15%	\$ 753,300
Construction Cost TOTAL W/ CONTINGENCY:					\$ 5,776,000

Impact Fee Project Cost Summary			
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

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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-20
Name:	UNNAMED C (1) 410' E OF STATE HIGHWAY 5 TO 3,010' E OF STATE HIGHWAY 5		This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided principal arterial. This section is currently under construction for the four-lane divided section by Willowood.	
Limits:	P6D(1/3)			
Impact Fee Class:	Principal Arterial			
Thoroughfare Class:	2,600			
Length (lf):	E			
Service Area(s):	E			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
114	Unclassified Street Excavation	8,089	cy	\$ 10.00	\$ 80,889
214	Lime Treated Subgrade (8") (PI<12)	7,800	sy	\$ 7.00	\$ 54,600
314	9" Concrete Pavement	7,222	sy	\$ 60.00	\$ 433,333
414	4" Topsoil	2,311	sy	\$ 2.50	\$ 5,778
514	6" Curb & Gutter	5,200	lf	\$ 5.00	\$ 26,000
Paving Construction Cost Subtotal:					\$ 600,600
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	18,018
✓	Pavement Markings/Markers		3%	\$	18,018
	Roadway Drainage	None Anticipated	0%	\$	-
	Special Drainage Structures	None Anticipated		\$	-
	Water	None Anticipated	0%	\$	-
	Sewer	None Anticipated	0%	\$	-
✓	Establish Turf / Erosion Control		2%	\$	12,012
	Illumination	None Anticipated	0%	\$	-
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	48,048
Paving and Allowance Subtotal:				\$	648,648
Mobilization:				5%	\$ 32,432
Site Preparation:				5%	\$ 32,432
Construction Cost TOTAL:				\$	714,000
Construction Contingency:				15%	\$ 107,100
Construction Cost TOTAL W/ CONTINGENCY:				\$	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 Cost TOTAL:			\$ 986,400

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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-21
Name:	UNNAMED C (2) WILMETH RD TO 2,615' S OF WILMETH RD		This project consists of the reconstruction of a two-lane asphalt facility to a six-lane divided principal arterial. Based on the existing City Limits, the eastern half of the roadway is not included in the Impact Fee RIP.	
Limits:				
Impact Fee Class:	P6D			
Thoroughfare Class:	Principal Arterial			
Length (lf):	2,615			
Service Area(s):	E, Half			

Roadway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Item Cost
113	Unclassified Street Excavation	14,528	cy	\$ 217,917
213	Lime Treated Subgrade (8") (PI<12)	22,663	sy	\$ 158,643
313	4" TY D HMAC Underlayment	21,501	sy	\$ 107,506
413	9" Concrete Pavement	21,501	sy	\$ 1,290,067
513	4" Topsoil	11,913	sy	\$ 47,651
613	6" Curb & Gutter	10,460	lf	\$ 52,300
713	Allotment for Turn Lanes and Median Openings	1,596	sy	\$ 138,839
Paving Construction Cost Subtotal:				\$ 2,012,923
Major Construction Component Allowances**:				
Item Description	Notes	Allowance	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 Adjustments	3%	\$	60,388
✓ Sewer	Incidental Adjustments	3%	\$	60,388
✓ Establish Turf / Erosion Control		2%	\$	40,258
✓ Illumination	Standard Illumination System	6%	\$	120,775
Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 1,155,815
			Paving and Allowance Subtotal:	\$ 3,168,738
			Mobilization:	5% \$ 158,437
			Site Preparation:	5% \$ 158,437
			Construction Cost TOTAL:	\$ 3,486,000
			Construction Contingency:	15% \$ 522,900
			Construction Cost TOTAL W/ CONTINGENCY:	\$ 4,009,000

Impact Fee Project Cost Summary			
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 Project Cost TOTAL (50% City Contribution)			\$ 2,806,300

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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.

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 Class	Project	Limits	Total Cost	Percent in Service Area	Cost in Service Area
No Thoroughfare Roadways within City Limits Currently Present within Service Area 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.

Appendix A



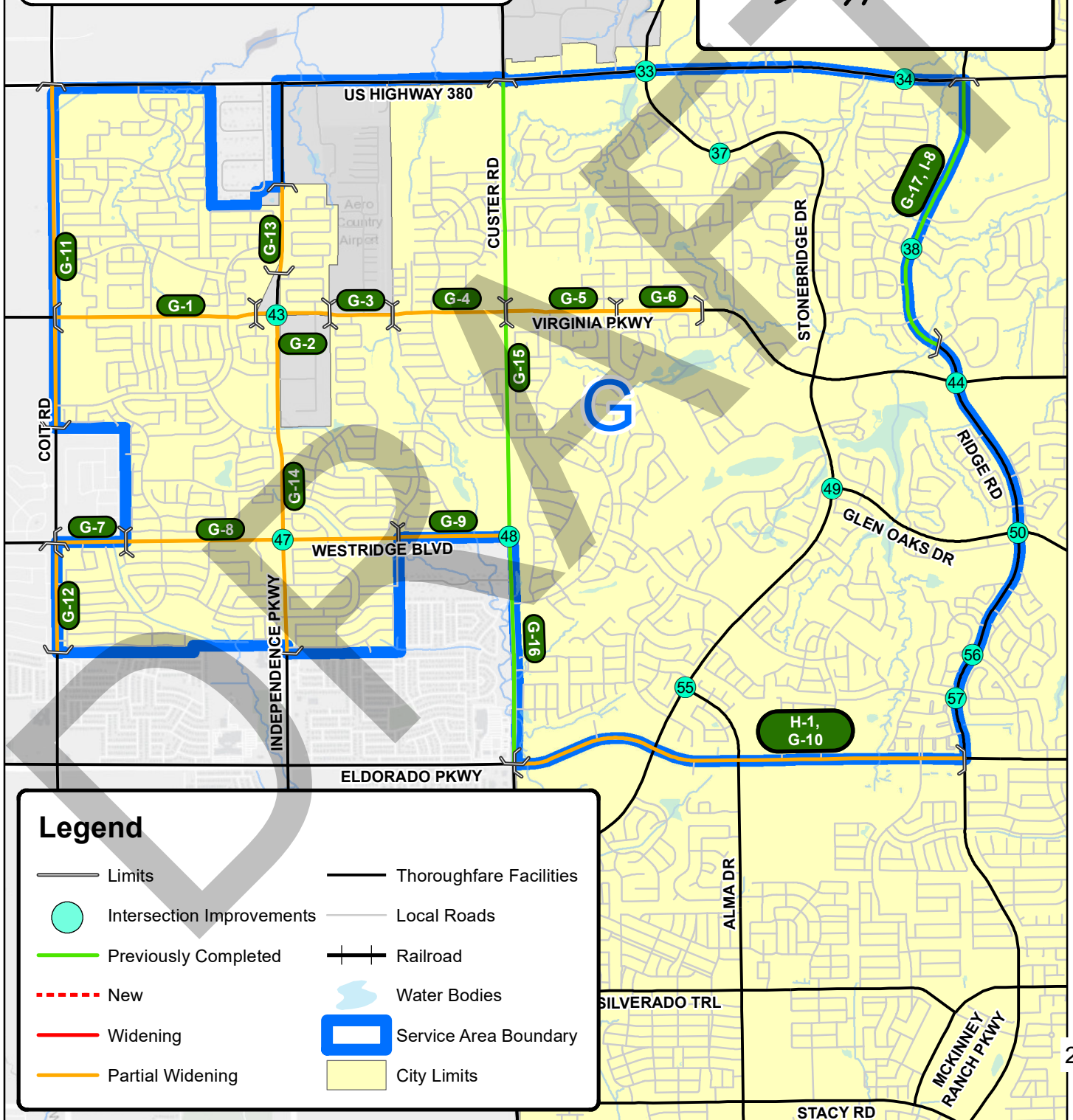
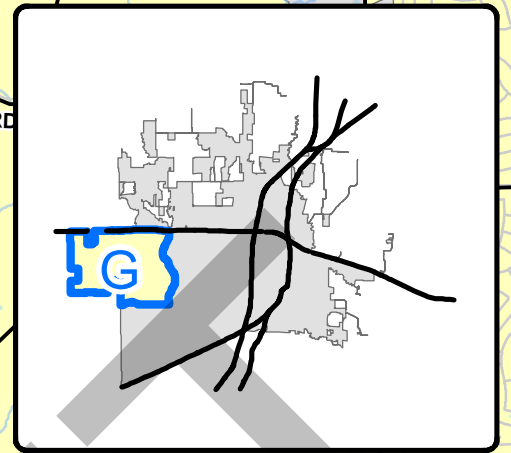
SA G
Impact Fee RIP

0 0.5 1 Miles



January 2020

Kimley»Horn



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 Class	Project	Limits	Total Cost	Percent in Service Area	Cost in Service Area
G-1	M6D(1/3)	VIRGINIA PKWY (1)	COIT RD TO 500' W OF INDEPENDENCE PKWY	\$ 2,158,800	100%	\$ 2,158,800
G-2	M6D(1/3)	VIRGINIA PKWY (2)	500' W OF INDEPENDENCE PKWY TO 325' E OF FORKHORN DR	\$ 794,400	50%	\$ 397,200
G-3	M6D(1/3)	VIRGINIA PKWY (3)	325' E OF FORKHORN DR TO 935' W OF VIRGINIA HILLS DR	\$ 913,196	50%	\$ 456,598
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%	\$ 1,182,000
G-6	M6D(1/6)	VIRGINIA PKWY (6)	410' E OF DANBURY RD TO VIRGINIA PARKLANDS BLVD	\$ 392,400	100%	\$ 392,400
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%	\$ 1,840,800
G-12	M6D(1/3)	COIT RD (2)	WESTRIDGE BLVD TO 2,595' S OF WESTRIDGE BLVD	\$ 1,184,400	50%	\$ 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	\$ 951,600	100%	\$ 951,600
G-14	M6D(1/3)	INDEPENDENCE PKWY (2)	VIRGINIA PKWY TO 2,690' S OF WESTRIDGE BLVD	\$ 3,666,000	100%	\$ 3,666,000
G-15	P6D	CUSTER RD (4)	US HIGHWAY 380 TO WESTRIDGE BLVD	\$ 3,260,945	100%	\$ 3,260,945
G-16	P6D	CUSTER RD (5)	WESTRIDGE BLVD TO ELDORADO PKWY	\$ 1,476,398	100%	\$ 1,476,398
G-17, I-8	G4D	RIDGE RD (8)	US HIGHWAY 380 TO CREEKSIDE DR	\$ 550,813	50%	\$ 275,407
33	Intersection	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		Under Construction	VIRGINIA PKWY & RIDGE RD	\$ 390,341	50%	\$ 195,171
47		Signal	INDEPENDENCE PKWY & WESTRIDGE BLVD	\$ 300,000	100%	\$ 300,000
48		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		Roundabout	RIDGE RD & GLEN OAKS DR	\$ 2,640,000	50%	\$ 1,320,000
55		Signal	STONEBRIDGE DR & ALMA DR	\$ 300,000	100%	\$ 300,000
56		Signal	RIDGE RD & RUSH CREEK RD	\$ 300,000	50%	\$ 150,000
57		Signal	RIDGE RD & BERKSHIRE RD	\$ 300,000	50%	\$ 150,000
				\$ 39,689,697		\$ 30,208,237

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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.	G-1
Name:	VIRGINIA PKWY (1)	This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided major arterial.		
Limits:	COIT RD TO 500' W OF INDEPENDENCE PKWY			
Impact Fee Class:	M6D(1/3)			
Thoroughfare Class:	Major Arterial			
Length (lf):	4,735			
Service Area(s):	G			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
111	Unclassified Street Excavation	14,731	cy	\$ 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	lf	\$ 5.00	\$ 47,350
611	Allotment for Turn Lanes and Median Openings	2,890	sy	\$ 77.00	\$ 222,501
Paving Construction Cost Subtotal:					\$ 1,316,286
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:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	105,303
Paving and Allowance Subtotal:				\$	1,421,589
Mobilization:				5%	\$ 71,079
Site Preparation:				5%	\$ 71,079
Construction Cost TOTAL:				\$	1,564,000
Construction Contingency:				15%	\$ 234,600
Construction Cost TOTAL W/ CONTINGENCY:				\$	1,799,000

Impact Fee Project Cost Summary			
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

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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. G-2
Name:	VIRGINIA PKWY (2) 500' W OF INDEPENDENCE PKWY TO 325' E OF FORKHORN DR	This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided major arterial. Based on the existing City Limits, the northern half of 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.	
Limits:			
Impact Fee Class:	M6D(1/3)		
Thoroughfare Class:	Major Arterial		
Length (lf):	1,740		
Service Area(s):	G, Half		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
111	Unclassified Street Excavation	5,413	cy	\$ 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	lf	\$ 5.00	\$ 17,400
611	Allotment for Turn Lanes and Median Openings	1,062	sy	\$ 77.00	\$ 81,764
Paving Construction Cost Subtotal: \$					483,704
Major Construction Component Allowances**:					
Item Description		Notes		Allowance	Item Cost
√	Traffic Control	Construction Phase Traffic 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:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal: \$	38,696
				Paving and Allowance Subtotal: \$	522,400
				Mobilization:	5% \$ 26,120
				Site Preparation:	5% \$ 26,120
				Construction Cost TOTAL: \$	575,000
				Construction Contingency:	15% \$ 86,250
				Construction Cost TOTAL W/ CONTINGENCY: \$	662,000

Impact Fee Project Cost Summary			
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%	\$ -
Impact Fee Project Cost TOTAL:			\$ 794,400

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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.	G-3
Name:	VIRGINIA PKWY (3)	This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided major arterial. Based on the existing City Limits, the northern half of the roadway is not included in the Impact Fee RIP.		
Limits:	325' E OF FORKHORN DR TO 935' W OF VIRGINIA HILLS DR			
Impact Fee Class:	M6D(1/3)			
Thoroughfare Class:	Major Arterial			
Length (lf):	1,465			
Service Area(s):	G, Half			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
111	Unclassified Street Excavation	4,558	cy	\$ 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 Median Openings	894	sy	\$ 77.00	\$ 68,841
Paving Construction Cost Subtotal:					\$ 407,256
Major Construction Component Allowances**:					
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:					
**Allowances based on % of Paving Construction Cost Subtotal		Allowance Subtotal:	\$	32,581	
Paving and Allowance Subtotal:			\$	439,837	
Mobilization:			5%	\$	21,992
Site Preparation:			5%	\$	21,992
Construction Cost TOTAL:			\$	484,000	
Construction Contingency:			15%	\$	72,600
Construction Cost TOTAL W/ CONTINGENCY:			\$	557,000	

Impact Fee Project Cost Summary			
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

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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.	G-4
Name:	VIRGINIA PKWY (4)	This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided major arterial. The City contributed approximately \$436,663 of eligible funds from '08-'12.		
Limits:	935' W OF VIRGINIA HILLS DR TO CUSTER RD			
Impact Fee Class:	M6D(1/3)			
Thoroughfare Class:	Major Arterial			
Length (lf):	2,685			
Service Area(s):	G			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
111	Unclassified Street Excavation	8,353	cy	\$ 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 Median Openings	1,639	sy	\$ 77.00	\$ 126,170
Paving Construction Cost Subtotal:					\$ 746,405
Major Construction Component Allowances**:					
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:					
**Allowances based on % of Paving Construction Cost Subtotal					
Allowance Subtotal:					\$ 59,712
Paving and Allowance Subtotal:					\$ 806,118
Mobilization:				5%	\$ 40,306
Site Preparation:				5%	\$ 40,306
Construction Cost TOTAL:					\$ 887,000
Construction Contingency:					15% \$ 133,050
Construction Cost TOTAL W/ CONTINGENCY:					\$ 1,021,000

Impact Fee Project Cost Summary			
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%	\$ -
Impact Fee Project Cost TOTAL:			\$ 1,661,863

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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.	G-5
Name:	VIRGINIA PKWY (5)	This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided major arterial.		
Limits:	CUSTER RD TO 410' E OF DANBURY RD			
Impact Fee Class:	M6D(1/3)			
Thoroughfare Class:	Major Arterial			
Length (lf):	2,590			
Service Area(s):	G			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
111	Unclassified Street Excavation	8,058	cy	\$ 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	lf	\$ 5.00	\$ 25,900
611	Allotment for Turn Lanes and Median Openings	1,581	sy	\$ 77.00	\$ 121,706
Paving Construction Cost Subtotal:					\$ 719,996
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:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	57,600
Paving and Allowance Subtotal:				\$	777,596
Mobilization:				5%	\$ 38,880
Site Preparation:				5%	\$ 38,880
Construction Cost TOTAL:				\$	856,000
Construction Contingency:				15%	\$ 128,400
Construction Cost TOTAL W/ CONTINGENCY:				\$	985,000

Impact Fee Project Cost Summary			
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 Cost TOTAL:			\$ 1,182,000

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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.	G-6
Name:	VIRGINIA PKWY (6)			This project consists of the construction of one additional through lane within the existing median of the ultimate six-lane divided major arterial.
Limits:	410' E OF DANBURY RD TO VIRGINIA PARKLANDS BLVD			
Impact Fee Class:	M6D(1/6)			
Thoroughfare Class:	Major Arterial			
Length (lf):	2,050			
Service Area(s):	G			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
110	Unclassified Street Excavation	3,189	cy	\$ 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
510	6" Curb & Gutter	2,050	lf	\$ 5.00	\$ 10,250
610	Allotment for Turn Lanes and Median Openings	0	sy	\$ 77.00	\$ -
Paving Construction Cost Subtotal:					\$ 239,053
Major Construction Component Allowances**:					
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:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	19,124
Paving and Allowance Subtotal:				\$	258,177
Mobilization:				5%	\$ 12,909
Site Preparation:				5%	\$ 12,909
Construction Cost TOTAL:				\$	284,000
Construction Contingency:				15%	\$ 42,600
Construction Cost TOTAL W/ CONTINGENCY:				\$	327,000

Impact Fee Project Cost Summary			
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

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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. G-7
Name:	WESTRIDGE BLVD (1)	This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided major arterial. Based on the existing City Limits, the northern half of the roadway is not included in the Impact Fee RIP.	
Limits:	COIT RD TO 1,635' E OF COIT RD		
Impact Fee Class:	M6D(1/3)		
Thoroughfare Class:	Major Arterial		
Length (lf):	1,635		
Service Area(s):	G, Half		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
111	Unclassified Street Excavation	5,087	cy	\$ 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
Paving Construction Cost Subtotal:					\$ 454,515
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	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:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	36,361
Paving and Allowance Subtotal:				\$	490,876
Mobilization:				5%	\$ 24,544
Site Preparation:				5%	\$ 24,544
Construction Cost TOTAL:				\$	540,000
Construction Contingency:				15%	\$ 81,000
Construction Cost TOTAL W/ CONTINGENCY:				\$	621,000

Impact Fee Project Cost Summary			
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 Cost TOTAL:			\$ 745,200

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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.	G-8
Name:	WESTRIDGE BLVD (2)	This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided major arterial.		
Limits:	1,635' E OF COIT RD TO 2,720' E			
Impact Fee Class:	OF INDEPENDENCE PKWY			
Thoroughfare Class:	M6D(1/3)			
Length (lf):	Major Arterial			
Service Area(s):	6,430			
	G			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
111	Unclassified Street Excavation	20,004	cy	\$ 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 Construction Cost Subtotal:					\$ 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:				
**Allowances based on % of Paving Construction Cost Subtotal					
Allowance Subtotal:				\$	142,998
Paving and Allowance Subtotal:					\$ 1,930,479
Mobilization:				5%	\$ 96,524
Site Preparation:				5%	\$ 96,524
Construction Cost TOTAL:					\$ 2,124,000
Construction Contingency:				15%	\$ 318,600
Construction Cost TOTAL W/ CONTINGENCY:					\$ 2,443,000

Impact Fee Project Cost Summary			
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%	\$ -
Impact Fee Project Cost TOTAL:			\$ 2,931,600

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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.	G-9
Name:	WESTRIDGE BLVD (3) 2,720' E OF INDEPENDENCE	This project consists of the construction of one additional through lane within the existing median of the ultimate six-lane divided major arterial. Based on the existing City Limits, the southern half of the roadway is not included in the Impact Fee RIP.		
Limits:	PKWY TO CUSTER RD			
Impact Fee Class:	M6D(1/3)			
Thoroughfare Class:	Major Arterial			
Length (If):	2,615			
Service Area(s):	G, Half			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
111	Unclassified Street Excavation	8,136	cy	\$ 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
Paving Construction Cost Subtotal:					\$ 726,946
Major Construction Component Allowances**:					
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:					
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 58,156
				Paving and Allowance Subtotal:	\$ 785,101
				Mobilization:	5% \$ 39,255
				Site Preparation:	5% \$ 39,255
				Construction Cost TOTAL:	\$ 864,000
				Construction Contingency:	15% \$ 129,600
				Construction Cost TOTAL W/ CONTINGENCY:	\$ 994,000

Impact Fee Project Cost Summary			
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 Cost TOTAL:			\$ 1,192,800

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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. H-1, G-10
Name:	ELDORADO PKWY (1)	This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided greenway arterial.	
Limits:	CUSTER RD TO RIDGE RD		
Impact Fee Class:	G6D(1/3)		
Thoroughfare Class:	Greenway Arterial		
Length (lf):	10,830		
Service Area(s):	G and H		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
117	Unclassified Street Excavation	31,287	cy	\$ 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
Major Construction Component Allowances**:					
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%	\$	-
✓	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:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	485,268
Paving and Allowance Subtotal:				\$	3,426,114
Mobilization:				5%	\$ 171,306
Site Preparation:				5%	\$ 171,306
Construction Cost TOTAL:				\$	3,769,000
Construction Contingency:				15%	\$ 565,350
Construction Cost TOTAL W/ CONTINGENCY:				\$	4,335,000

Impact Fee Project Cost Summary			
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

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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.	G-11
Name:	COIT RD (1)	This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided major arterial. Based on the existing City Limits, the western half of the roadway is not included in the Impact Fee RIP.		
Limits:	US HIGHWAY 380 TO 2,610' S OF VIRGINIA PKWY			
Impact Fee Class:	M6D(1/3)			
Thoroughfare Class:	Major Arterial			
Length (lf):	8,075			
Service Area(s):	G, Half			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
111	Unclassified Street Excavation	25,122	cy	\$ 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	lf	\$ 5.00	\$ 80,750
611	Allotment for Turn Lanes and Median Openings	4,928	sy	\$ 77.00	\$ 379,450
Paving Construction Cost Subtotal:					\$ 2,244,775
Major Construction Component Allowances**:					
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:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 179,582
				Paving and Allowance Subtotal:	\$ 2,424,357
				Mobilization:	5% \$ 121,218
				Site Preparation:	5% \$ 121,218
				Construction Cost TOTAL:	\$ 2,667,000
				Construction Contingency:	15% \$ 400,050
				Construction Cost TOTAL W/ CONTINGENCY:	\$ 3,068,000

Impact Fee Project Cost Summary			
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

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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.	G-12
Name:	COIT RD (2)	This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided major arterial. Based on the existing City Limits, the western half of the roadway is not included in the Impact Fee RIP.		
Limits:	WESTRIDGE BLVD TO 2,595' S OF WESTRIDGE BLVD			
Impact Fee Class:	M6D(1/3)			
Thoroughfare Class:	Major Arterial			
Length (lf):	2,595			
Service Area(s):	G, Half			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
111	Unclassified Street Excavation	8,073	cy	\$ 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 and Median Openings	1,584	sy	\$ 77.00	\$ 121,941
Paving Construction Cost Subtotal:					\$ 721,386
Major Construction Component Allowances**:					
Item Description	Notes	Allowance		Item Cost	
✓ Traffic Control	Construction Phase Traffic Control	3%		\$ 21,642	
✓ Pavement Markings/Markers		3%		\$ 21,642	
Roadway Drainage	None Anticipated	0%		\$ -	
Special Drainage Structures	None Anticipated			\$ -	
Water	None Anticipated	0%		\$ -	
Sewer	None Anticipated	0%		\$ -	
✓ Establish Turf / Erosion Control		2%		\$ 14,428	
Illumination	None Anticipated	0%		\$ -	
Other:					
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 57,711
				Paving and Allowance Subtotal:	\$ 779,097
				Mobilization:	5% \$ 38,955
				Site Preparation:	5% \$ 38,955
				Construction Cost TOTAL:	\$ 858,000
				Construction Contingency:	15% \$ 128,700
				Construction Cost TOTAL W/ CONTINGENCY:	\$ 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 Cost 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.
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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. G-13
Name:	INDEPENDENCE PKWY (1)	This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided major arterial.	
Limits:	2,380' S OF US HIGHWAY 380 TO		
Impact Fee Class:	4,465' S OF US HIGHWAY 380		
Thoroughfare Class:	M6D(1/3)		
Length (lf):	Major Arterial		
Service Area(s):	2,085		
	G		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
111	Unclassified Street Excavation	6,487	cy	\$ 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
Paving Construction Cost Subtotal:					\$ 579,611
Major Construction Component Allowances**:					
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:					
**Allowances based on % of Paving Construction Cost Subtotal					
Allowance Subtotal:					\$ 46,369
Paving and Allowance Subtotal:					\$ 625,980
Mobilization:				5%	\$ 31,299
Site Preparation:				5%	\$ 31,299
Construction Cost TOTAL:					\$ 689,000
Construction Contingency:					15% \$ 103,350
Construction Cost TOTAL W/ CONTINGENCY:					\$ 793,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item 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%	\$ -
Impact Fee Project Cost TOTAL:			\$ 951,600

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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.	G-14
Name:	INDEPENDENCE PKWY (2)		This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided major arterial.	
Limits:	VIRGINIA PKWY TO 2,690' S OF WESTRIDGE BLVD			
Impact Fee Class:	M6D(1/3)			
Thoroughfare Class:	Major Arterial			
Length (lf):	8,040			
Service Area(s):	G			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
111	Unclassified Street Excavation	25,013	cy	\$ 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 Median Openings	4,907	sy	\$ 77.00	\$ 377,806
Paving Construction Cost Subtotal:					\$ 2,235,046
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	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:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	178,804
Paving and Allowance Subtotal:				\$	2,413,849
Mobilization:				5%	\$ 120,692
Site Preparation:				5%	\$ 120,692
Construction Cost TOTAL:				\$	2,656,000
Construction Contingency:				15%	\$ 398,400
Construction Cost TOTAL W/ CONTINGENCY:				\$	3,055,000

Impact Fee Project Cost Summary			
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%	\$ -
Impact Fee Project Cost TOTAL:			\$ 3,666,000

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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. G-15
Name:	CUSTER RD (4)	This completed project consists of the construction of a six-lane divided principal arterial. The City contributed approximately \$2,653,673 of eligible funds from '08-'12. This project was also part of Custer Road project from Stonebridge to US 380 which had a total City contribution of approximately \$1,029,274 from '12-'19. This projected accounted for \$607,272 of eligible	
Limits:	US HIGHWAY 380 TO WESTRIDGE BLVD		
Impact Fee Class:	P6D		
Thoroughfare Class:	Principal Arterial		
Length (lf):	10,720		
Service Area(s):	G		

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
2008 - 2012 City contribution			\$ 2,653,673
2012 - 2019 City contribution			\$ 607,272
Impact Fee Project Cost TOTAL:			\$ 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.
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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.	G-16
Name:	CUSTER RD (5)			This completed project consists of the construction of a six-lane divided principal arterial. The City contributed approximately \$1,167,616 of eligible funds from '08-'12. This project was also part of Custer Road project from Stonebridge to US 380 which had a total City contribution of approximately \$1,029,274 from '12-'19. This projected accounted for \$308,782 of eligible
Limits:	WESTRIDGE BLVD TO ELDORADO PKWY			
Impact Fee Class:	P6D			
Thoroughfare Class:	Principal Arterial			
Length (lf):	5,380			
Service Area(s):	G			

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 Cost TOTAL:			\$ 1,476,398

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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. G-17, I-8
Name:	RIDGE RD (8)	This completed project consists of the construction of a four-lane divided greenway arterial. The City contributed approximately \$550,813 of eligible funds from '08-'12.	
Limits:	US HIGHWAY 380 TO CREEKSIDE DR		
Impact Fee Class:	G4D		
Thoroughfare Class:	Greenway Arterial		
Length (lf):	6,875		
Service Area(s):	G and I		

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
2008 - 2012 City contribution			\$ 550,813
2012 - 2019 City contribution			\$ -
Impact Fee Project Cost TOTAL:			\$ 550,813

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Appendix A



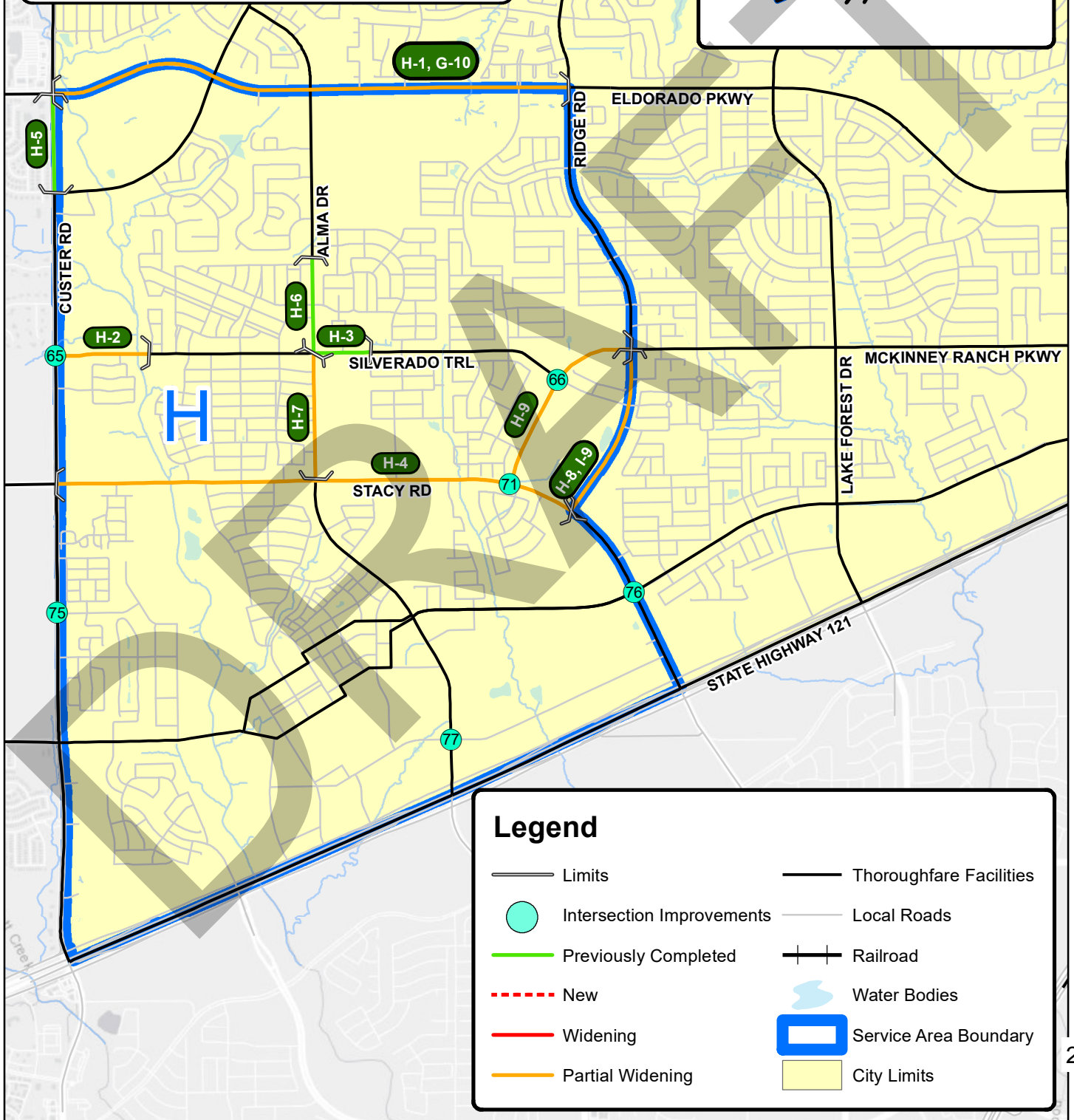
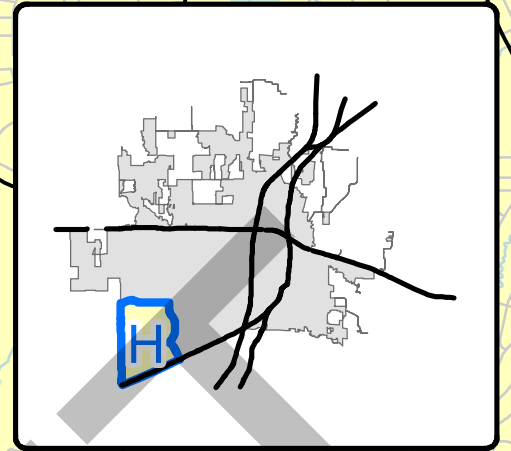
SA H
Impact Fee RIP

0 0.5 1 Miles



January 2020

Kimley»Horn



Legend

- | | |
|-----------------------------|---------------------------|
| — Limits | — Thoroughfare Facilities |
| ● Intersection Improvements | — Local Roads |
| — Previously Completed | — Railroad |
| --- New | — Water Bodies |
| — Widening | □ Service Area Boundary |
| — Partial Widening | ■ City Limits |

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 Class	Project	Limits	Total Cost	Percent in Service Area	Cost in Service 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	Intersection	Signal	CUSTER RD & SILVERADO TRL	\$ 300,000	50%	\$ 150,000
66		Signal	MCKINNEY RANCH PKWY & SILVERADO TRL	\$ 300,000	100%	\$ 300,000
71		Signal	STACY RD & MCKINNEY RANCH PKWY	\$ 300,000	100%	\$ 300,000
75		Signal	CUSTER RD & PARADISE DR	\$ 300,000	50%	\$ 150,000
76		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

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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. H-1, G-10
Name:	ELDORADO PKWY (1)	This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided greenway arterial.	
Limits:	CUSTER RD TO RIDGE RD		
Impact Fee Class:	G6D(1/3)		
Thoroughfare Class:	Greenway Arterial		
Length (lf):	10,830		
Service Area(s):	G and H		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
117	Unclassified Street Excavation	31,287	cy	\$ 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
Major Construction Component Allowances**:					
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%	\$	-
✓	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:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	485,268
Paving and Allowance Subtotal:				\$	3,426,114
Mobilization:				5%	\$ 171,306
Site Preparation:				5%	\$ 171,306
Construction Cost TOTAL:				\$	3,769,000
Construction Contingency:				15%	\$ 565,350
Construction Cost TOTAL W/ CONTINGENCY:				\$	4,335,000

Impact Fee Project Cost Summary			
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

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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.	H-2
Name:	SILVERADO TRL (1)	This project consists of the construction of two additional lanes of the ultimate four-lane divided minor arterial. The City contributed approximately \$224,893 of eligible funds from '12-'19.		
Limits:	CUSTER RD TO BURNETT DR			
Impact Fee Class:	M4D(1/2)			
Thoroughfare Class:	Minor Arterial			
Length (lf):	1,930			
Service Area(s):	H			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
106	Unclassified Street Excavation	5,576	cy	\$ 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 Openings	567	sy	\$ 72.00	\$ 40,793
Paving Construction Cost Subtotal:					\$ 429,742
Major Construction Component Allowances**:					
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 System	25%	\$	107,435
✓	Special Drainage Structures	Bridge		\$	800,000
✓	Water	Incidental Adjustments	3%	\$	12,892
✓	Sewer	Incidental Adjustments	3%	\$	12,892
✓	Establish Turf / Erosion Control		2%	\$	8,595
✓	Illumination	Standard Illumination System	6%	\$	25,785
Other:					
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	993,384
Paving and Allowance Subtotal:				\$	1,423,126
Mobilization:				5%	\$ 71,156
Site Preparation:				5%	\$ 71,156
Construction Cost TOTAL:				\$	1,566,000
Construction Contingency:				15%	\$ 234,900
Construction Cost TOTAL W/ CONTINGENCY:				\$	1,801,000

Impact Fee Project Cost Summary			
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

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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.	H-3
Name:	SILVERADO TRL (2)	This completed project consists of the construction of a four-lane divided minor arterial. This project was part of the Alma Rd and Silverado Trail project which had a total City contribution of approximately \$705,400 from '08-'12. This project accounted for \$141,088 of eligible funds.		
Limits:	ALMA DR TO ALFALFA DR			
Impact Fee Class:	M4D			
Thoroughfare Class:	Minor Arterial			
Length (lf):	1,170			
Service Area(s):	H			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
2008 - 2012 City contribution			\$ 141,088
2012 - 2019 City contribution			\$ -
Impact Fee Project Cost TOTAL:			\$ 141,088

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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.	H-4
Name:	STACY RD (1)	This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided principal arterial. This project is currently under design and the City provided a cost estimate of \$4,479,991.		
Limits:	CUSTER RD TO RIDGE RD			
Impact Fee Class:	P6D(1/3)			
Thoroughfare Class:	Principal Arterial			
Length (lf):	10,715			
Service Area(s):	H			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ 4,479,991
Impact Fee Project Cost TOTAL:			\$ 4,479,991

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updated: 12/16/2019

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.	H-6
Name:	ALMA DR (1)			
Limits:	805' S OF BEAVER CREEK DR TO SILVERADO TRL			
Impact Fee Class:	G4D			
Thoroughfare Class:	Greenway Arterial			
Length (lf):	1,960			
Service Area(s):	H			
				This completed project consists of the construction of a four-lane divided greenway arterial. This project was part of the Alma Rd and Silverado Trail 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

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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.	H-7
Name:	ALMA DR (2)	This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided major arterial. This project was part of the Alma Rd and Silverado Trail project which had a total City contribution of approximately \$705,400 from '08-'12. This project accounted for \$324,502 of eligible funds.		
Limits:	SILVERADO TRL TO STACY RD			
Impact Fee Class:	M6D(1/3)			
Thoroughfare Class:	Major Arterial			
Length (lf):	2,625			
Service Area(s):	H			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
111	Unclassified Street Excavation	8,167	cy	\$ 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	sy	\$ 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 Construction Cost Subtotal:					\$ 729,726
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	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:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	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 Summary			
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

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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. H-8, I-9
Name:	RIDGE RD (9)	This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided major arterial.	
Limits:	MCKINNEY RANCH PKWY TO STACY RD		
Impact Fee Class:	M6D(1/3)		
Thoroughfare Class:	Major Arterial		
Length (lf):	3,645		
Service Area(s):	H and I		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
111	Unclassified Street Excavation	11,340	cy	\$ 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
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:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	81,062
Paving and Allowance 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 Summary			
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

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

Kimley-Horn and Associates, Inc.

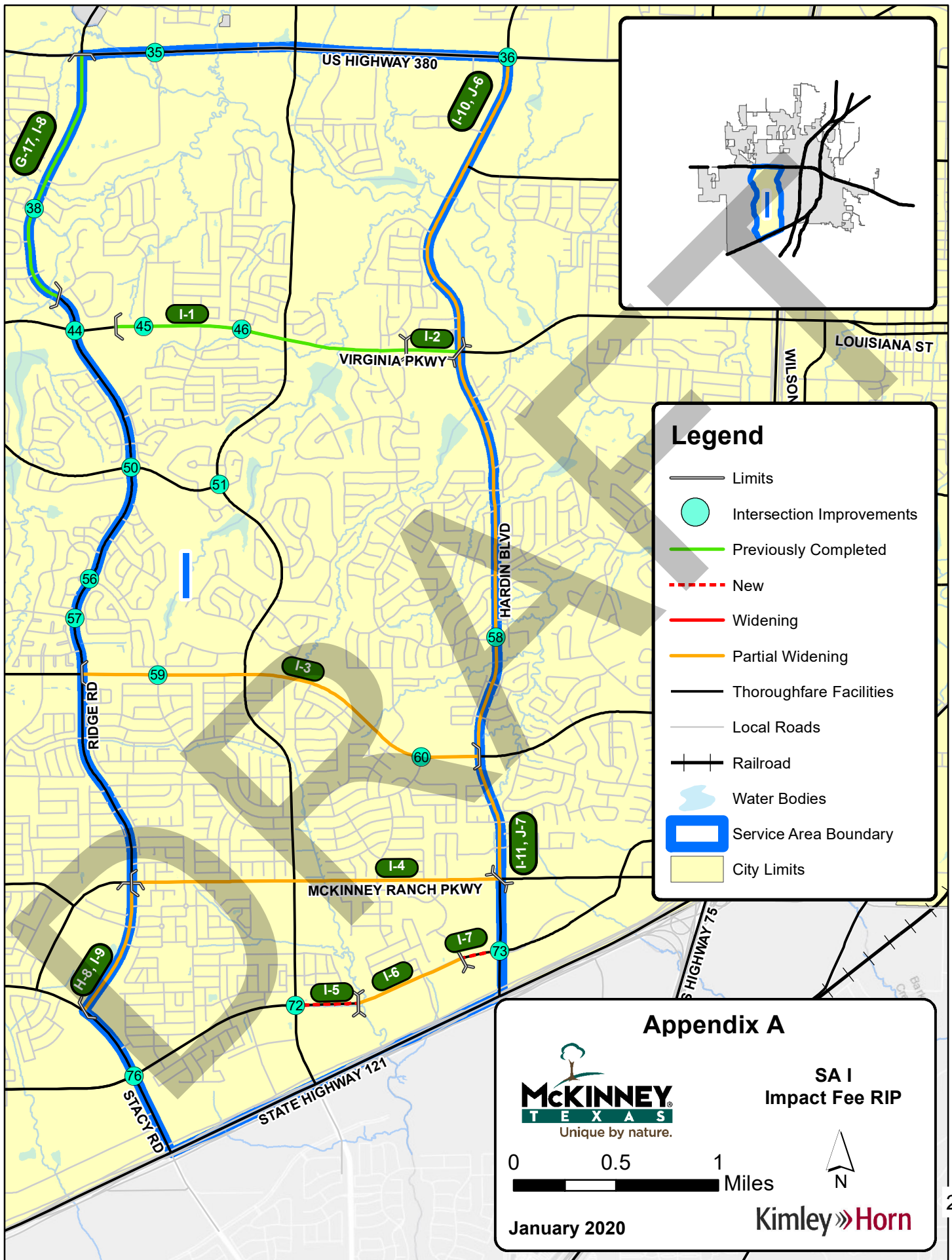
updated: 12/16/2019

Project Information:		Description:	Project No.	H-9
Name:	MCKINNEY RANCH PKWY (1)	This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided major arterial.		
Limits:	RIDGE RD TO STACY RD			
Impact Fee Class:	M6D(1/3)			
Thoroughfare Class:	Major Arterial			
Length (lf):	4,075			
Service Area(s):	H			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
111	Unclassified Street Excavation	12,678	cy	\$ 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	
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	33,984
✓	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:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	90,625
Paving and Allowance Subtotal:				\$	1,223,437
Mobilization:				5%	\$ 61,172
Site Preparation:				5%	\$ 61,172
Construction Cost TOTAL:				\$	1,346,000
Construction Contingency:				15%	\$ 201,900
Construction Cost TOTAL W/ CONTINGENCY:				\$	1,548,000

Impact Fee Project Cost Summary			
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%	\$ -
Impact Fee Project Cost TOTAL:			\$ 1,857,600

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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 Class	Project	Limits	Total Cost	Percent in Service Area	Cost in Service 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	Intersection	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		Roundabout	RIDGE RD & GLEN OAKS DR	\$ 2,640,000	50%	\$ 1,320,000
51		Roundabout	LAKE FOREST DR & GLEN OAKS DR	\$ 1,900,000	100%	\$ 1,900,000
56		Signal	RIDGE RD & RUSH CREEK RD	\$ 300,000	50%	\$ 150,000
57		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

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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.	I-1
Name:	VIRGINIA PKWY (7)		This completed project consists of the construction of a six-lane divided major arterial. The City contributed approximately \$2,567,378 of eligible funds from '12-'19	
Limits:	1035' E OF RIDGE RD TO 1355' W OF HARDIN BLVD			
Impact Fee Class:	M6D			
Thoroughfare Class:	Major Arterial			
Length (lf):	7,565			
Service Area(s):	I			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ 2,567,378
Impact Fee Project Cost TOTAL:			\$ 2,567,378

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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.	I-2
Name:	VIRGINIA PKWY (8)			
Limits:	1355' W OF HARDIN BLVD TO HARDIN BLVD			
Impact Fee Class:	M6D			
Thoroughfare Class:	Major Arterial			
Length (lf):	1,380			
Service Area(s):	I			

This completed project consists of the construction of a six-lane divided major arterial. This project was part of the Virginia Pkwy project from Bellegrave 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 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 Cost TOTAL:			\$ 531,979

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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.	I-3
Name:	ELDORADO PKWY (2)	This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided greenway arterial.		
Limits:	RIDGE RD TO HARDIN BLVD			
Impact Fee Class:	G6D(1/3)			
Thoroughfare Class:	Greenway Arterial			
Length (lf):	10,910			
Service Area(s):	I			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
117	Unclassified Street Excavation	31,518	cy	\$ 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 Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	88,877
✓	Pavement Markings/Markers		3%	\$	88,877
	Roadway Drainage	None Anticipated	0%	\$	-
	Special Drainage Structures	None Anticipated		\$	-
	Water	None Anticipated	0%	\$	-
	Sewer	None Anticipated	0%	\$	-
✓	Establish Turf / Erosion Control		2%	\$	59,251
	Illumination	None Anticipated	0%	\$	-
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	237,006
Paving and Allowance Subtotal:				\$	3,199,576
Mobilization:				5%	\$ 159,979
Site Preparation:				5%	\$ 159,979
Construction Cost TOTAL:				\$	3,520,000
Construction Contingency:				15%	\$ 528,000
Construction Cost TOTAL W/ CONTINGENCY:				\$	4,048,000

Impact Fee Project Cost Summary			
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%	\$ -
Impact Fee Project Cost TOTAL:			\$ 4,857,600

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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.	I-4
Name:	MCKINNEY RANCH PKWY (2)	This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided major arterial.		
Limits:	RIDGE RD TO HARDIN BLVD			
Impact Fee Class:	M6D(1/3)			
Thoroughfare Class:	Major Arterial			
Length (lf):	9,515			
Service Area(s):	I			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
111	Unclassified Street Excavation	29,602	cy	\$ 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
Major Construction Component Allowances**:					
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:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	211,607
Paving and Allowance Subtotal:				\$	2,856,688
Mobilization:				5%	\$ 142,834
Site Preparation:				5%	\$ 142,834
Construction Cost TOTAL:				\$	3,143,000
Construction Contingency:				15%	\$ 471,450
Construction Cost TOTAL W/ CONTINGENCY:				\$	3,615,000

Impact Fee Project Cost Summary			
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

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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.	I-5
Name:	COLLIN MCKINNEY PKWY (2)	This project consists of the construction of a four-lane divided greenway arterial. This project is part of the Collin McKinney Pkwy project from Lake Forest to Hardin which the City provided an anticipated construction cost of approximately \$6,100,000 from '12-'19. This projected accounted for \$1,777,105 of eligible funds.		
Limits:	LAKE FOREST DR TO COTTONWOOD CREEK			
Impact Fee Class:	G4D			
Thoroughfare Class:	Greenway Arterial			
Length (lf):	1,615			
Service Area(s):	I			

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 Cost TOTAL:			\$ 1,777,105

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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.	I-6
Name:	COLLIN MCKINNEY PKWY (3)		This project consists of the construction of two additional lanes of the ultimate four-lane divided greenway arterial. This project is part of the Collin McKinney Pkwy project from Lake Forest to Hardin which the City provided an anticipated construction cost of approximately \$6,100,000 from '12-'19. This projected accounted for \$3,221,002 of eligible funds.	
Limits:	COTTONWOOD CREEK TO 1110' E OF TINA DR			
Impact Fee Class:	G4D(1/2)			
Thoroughfare Class:	Greenway Arterial			
Length (lf):	2,930			
Service Area(s):	I			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ 3,221,002
Impact Fee Project Cost TOTAL:			\$ 3,221,002

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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.	I-7
Name:	COLLIN MCKINNEY PKWY (4)	This project consists of the construction of a four-lane divided greenway arterial. This project is part of the Collin McKinney Pkwy project from Lake Forest to Hardin which the City provided an anticipated construction cost of approximately \$6,100,000 from '12-'19. This projected accounted for \$1,101,893 of eligible funds.		
Limits:	1110' E OF TINA TO HARDIN BLVD			
Impact Fee Class:	G4D			
Thoroughfare Class:	Greenway Arterial			
Length (lf):	1,000			
Service Area(s):	I			

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

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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. G-17, I-8
Name:	RIDGE RD (8)	This completed project consists of the construction of a four-lane divided greenway arterial. The City contributed approximately \$550,813 of eligible funds from '08-'12.	
Limits:	US HIGHWAY 380 TO CREEKSIDE DR		
Impact Fee Class:	G4D		
Thoroughfare Class:	Greenway Arterial		
Length (lf):	6,875		
Service Area(s):	G and I		

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item 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.
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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. H-8, I-9
Name:	RIDGE RD (9)	This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided major arterial.	
Limits:	MCKINNEY RANCH PKWY TO STACY RD		
Impact Fee Class:	M6D(1/3)		
Thoroughfare Class:	Major Arterial		
Length (lf):	3,645		
Service Area(s):	H and I		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
111	Unclassified Street Excavation	11,340	cy	\$ 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
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:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	81,062
Paving and Allowance 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 Summary			
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.
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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. I-10, J-6
Name:	HARDIN BLVD (11)	This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided greenway arterial. The City contributed approximately \$8,352,097 of eligible funds from '08-'12.	
Limits:	US HIGHWAY 380 TO VIRGINIA PKWY		
Impact Fee Class:	G6D(1/3)		
Thoroughfare Class:	Greenway Arterial		
Length (lf):	8,340		
Service Area(s):	I and J		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
117	Unclassified Street Excavation	24,093	cy	\$ 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	lf	\$ 5.00	\$ 83,400
617	Allotment for Turn Lanes and Median Openings	5,764	sy	\$ 77.00	\$ 443,796
Paving Construction Cost Subtotal:					\$ 2,264,696
Major Construction Component Allowances**:					
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:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 1,181,176	
Paving and Allowance Subtotal:				\$ 3,445,872	
Mobilization:				5%	\$ 172,294
Site Preparation:				5%	\$ 172,294
Construction Cost TOTAL:				\$ 3,791,000	
Construction Contingency:				15%	\$ 568,650
Construction Cost TOTAL W/ CONTINGENCY:				\$ 4,360,000	

Impact Fee Project Cost Summary			
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 Cost TOTAL:			\$ 13,584,097

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

Kimley-Horn and Associates, Inc.

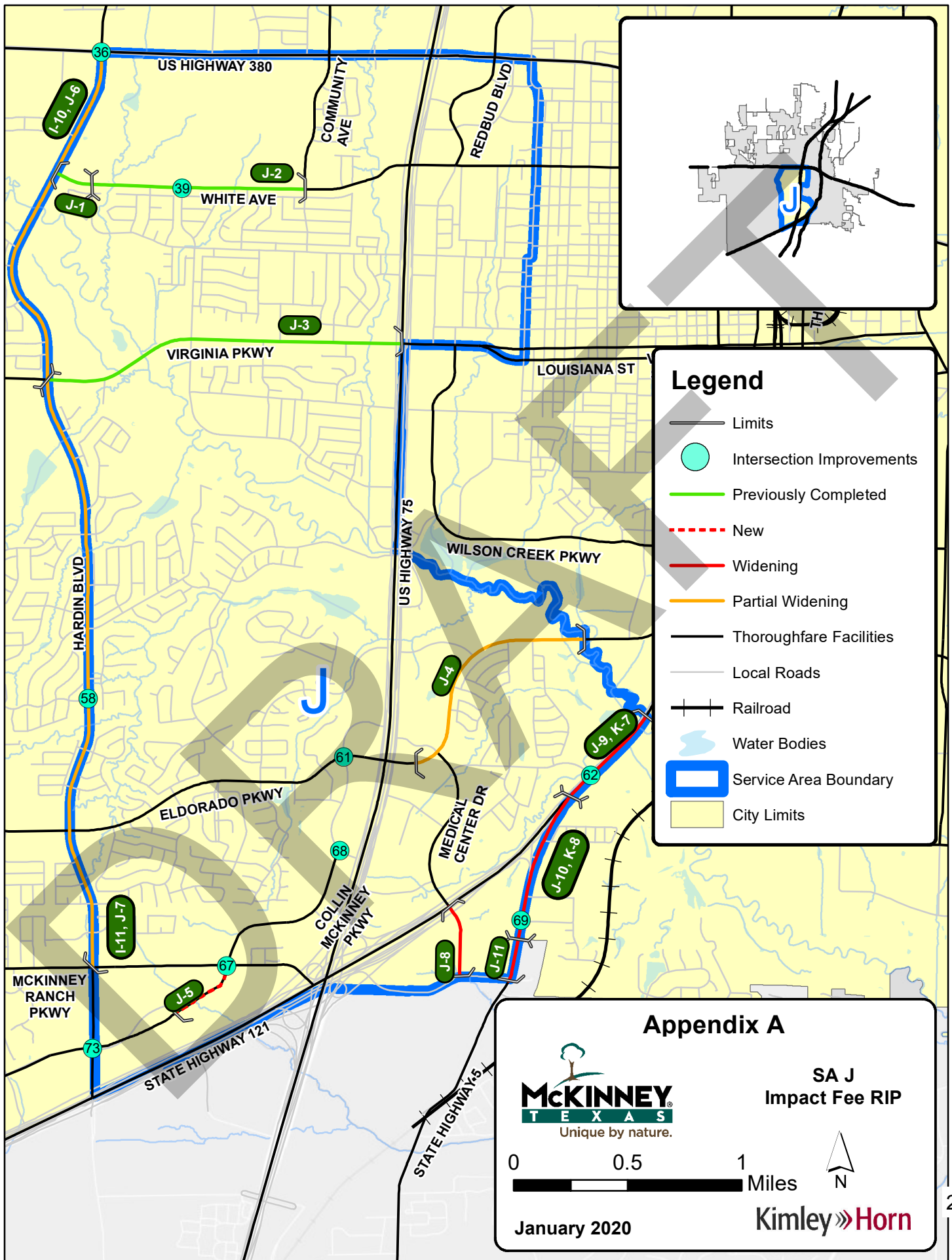
updated: 12/16/2019

Project Information:		Description:	Project No.
Name:	HARDIN BLVD (12)	This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided greenway arterial.	I-11, J-7
Limits:	VIRGINIA PKWY TO MCKINNEY RANCH PKWY		
Impact Fee Class:	G6D(1/3)		
Thoroughfare Class:	Greenway Arterial		
Length (lf):	13,945		
Service Area(s):	I and J		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
117	Unclassified Street Excavation	40,286	cy	\$ 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 Construction Component Allowances**:					
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:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 302,937	
Paving and Allowance Subtotal:				\$ 4,089,650	
Mobilization:				5%	\$ 204,483
Site Preparation:				5%	\$ 204,483
Construction Cost TOTAL:				\$ 4,499,000	
Construction Contingency:				15%	\$ 674,850
Construction Cost TOTAL W/ CONTINGENCY:				\$ 5,174,000	

Impact Fee Project Cost Summary			
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

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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 Class	Project	Limits	Total Cost	Percent in Service Area	Cost in Service 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	Intersection	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 Improvements	ELDORADO PKWY & CRAIG DR	\$ 150,000	100%	\$ 150,000
62		Signal	STATE HIGHWAY 5 & STEWART RD	\$ 300,000	50%	\$ 150,000
67		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.

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-1
Name:	WHITE AVE (1)	This completed project consists of the construction of a four-lane divided minor arterial. The City contributed approximately \$981,327 of eligible funds from '08-'12.		
Limits:	HARDIN BLVD TO BOIS D'ARC RD			
Impact Fee Class:	M4D			
Thoroughfare Class:	Minor Arterial			
Length (lf):	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 Cost TOTAL:			\$ 981,328

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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-2
Name:	WHITE AVE (2)			
Limits:	BOIS D'ARC RD TO COMMUNITY AVE			
Impact Fee Class:	M4D			
Thoroughfare Class:	Minor Arterial			
Length (lf):	4,930			
Service Area(s):	J			

This completed project consists of the construction of a four-lane divided minor arterial. The City contributed approximately \$231,991 of eligible funds from '08-'12

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
2008 - 2012 City contribution			\$ 213,991
2012 - 2019 City contribution			\$ -
Impact Fee Project Cost TOTAL:			\$ 213,991

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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-3
Name:	VIRGINIA PKWY (9)	This completed project consists of the construction of a six-lane divided major arterial. This project was part of the Virginia Pkwy project from Bellegrove to US 75 which had a total City contribution of approximately \$3,799,852 from '12-'19. This projected accounted for \$3,267,873 of eligible funds and is currently under construction.		
Limits:	HARDIN BLVD TO US HIGHWAY 75			
Impact Fee Class:	M6D			
Thoroughfare Class:	Major Arterial			
Length (lf):	8,470			
Service Area(s):	J			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
2008 - 2012 City contribution			\$ -
2012 - 2019 City contribution			\$ 3,267,873
Impact Fee Project Cost TOTAL:			\$ 3,267,873

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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) 710' E OF US HIGHWAY 75 TO 1,180' E OF BARRANCA WAY	This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided greenway arterial.		
Limits:	G6D(1/3)			
Impact Fee Class:	Greenway Arterial			
Thoroughfare Class:	5,680			
Length (lf):	J			
Service Area(s):				

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
117	Unclassified Street Excavation	16,409	cy	\$ 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:					\$ 1,542,383
Major Construction Component Allowances**:					
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:					
**Allowances based on % of Paving Construction Cost Subtotal					
Allowance Subtotal:					\$ 1,123,391
Paving and Allowance Subtotal:					\$ 2,665,774
Mobilization:				5%	\$ 133,289
Site Preparation:				5%	\$ 133,289
Construction Cost TOTAL:					\$ 2,933,000
Construction Contingency:					15% \$ 439,950
Construction Cost TOTAL W/ CONTINGENCY:					\$ 3,373,000

Impact Fee Project Cost Summary			
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%	\$ -
Impact Fee Project Cost TOTAL:			\$ 4,047,600

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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-5
Name:	COLLIN MCKINNEY PKWY (5)		This project consists of the construction of a new three-lane undivided minor arterial.	
Limits:	2,100' E OF HARDIN BLVD TO MCKINNEY RANCH PKWY			
Impact Fee Class:	M3U			
Thoroughfare Class:	Minor Arterial			
Length (lf):	1,720			
Service Area(s):	J			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
102	Unclassified Street Excavation	3,822	cy	\$ 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
402	4" Topsoil	4,013	sy	\$ 2.50	\$ 10,033
502	6" Curb & Gutter	3,440	lf	\$ 5.00	\$ 17,200
602	0	0	0	\$ -	\$ -
702	Moisture Conditioning	7,453	sy	\$ 8.00	\$ 59,627
Paving Construction Cost Subtotal:					\$ 543,616
Major Construction Component Allowances**:					
Item Description		Notes		Allowance	Item Cost
✓	Traffic Control	None Anticipated		1%	\$ 5,436
✓	Pavement Markings/Markers			3%	\$ 16,308
✓	Roadway Drainage	Standard Internal System		25%	\$ 135,904
✓	Special Drainage Structures	Stream Crossing			\$ 250,000
	Water	None Anticipated		0%	\$ -
	Sewer	None Anticipated		0%	\$ -
✓	Establish Turf / Erosion Control			2%	\$ 10,872
✓	Illumination	Standard Illumination System		6%	\$ 32,617
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 451,138
Paving and Allowance Subtotal:					\$ 994,753
Mobilization:				5%	\$ 49,738
Site Preparation:				5%	\$ 49,738
Construction Cost TOTAL:					\$ 1,095,000
Construction Contingency:				15%	\$ 164,250
Construction Cost TOTAL W/ CONTINGENCY:					\$ 1,260,000

Impact Fee Project Cost Summary			
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 Project Cost TOTAL:			\$ 1,953,000

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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. I-10, J-6
Name:	HARDIN BLVD (11)	This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided greenway arterial. The City contributed approximately \$8,352,097 of eligible funds from '08-'12.	
Limits:	US HIGHWAY 380 TO VIRGINIA PKWY		
Impact Fee Class:	G6D(1/3)		
Thoroughfare Class:	Greenway Arterial		
Length (lf):	8,340		
Service Area(s):	I and J		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
117	Unclassified Street Excavation	24,093	cy	\$ 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	lf	\$ 5.00	\$ 83,400
617	Allotment for Turn Lanes and Median Openings	5,764	sy	\$ 77.00	\$ 443,796
Paving Construction Cost Subtotal:					\$ 2,264,696
Major Construction Component Allowances**:					
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:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 1,181,176	
Paving and Allowance Subtotal:				\$ 3,445,872	
Mobilization:				5%	\$ 172,294
Site Preparation:				5%	\$ 172,294
Construction Cost TOTAL:				\$ 3,791,000	
Construction Contingency:				15%	\$ 568,650
Construction Cost TOTAL W/ CONTINGENCY:				\$ 4,360,000	

Impact Fee Project Cost Summary			
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 Cost TOTAL:			\$ 13,584,097

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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. I-11, J-7
Name:	HARDIN BLVD (12)	This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided greenway arterial.	
Limits:	VIRGINIA PKWY TO MCKINNEY RANCH PKWY		
Impact Fee Class:	G6D(1/3)		
Thoroughfare Class:	Greenway Arterial		
Length (lf):	13,945		
Service Area(s):	I and J		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
117	Unclassified Street Excavation	40,286	cy	\$ 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 Construction Component Allowances**:					
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:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	302,937
Paving and Allowance Subtotal:				\$	4,089,650
Mobilization:				5%	\$ 204,483
Site Preparation:				5%	\$ 204,483
Construction Cost TOTAL:				\$	4,499,000
Construction Contingency:				15%	\$ 674,850
Construction Cost TOTAL W/ CONTINGENCY:				\$	5,174,000

Impact Fee Project Cost Summary			
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

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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 reconstruction of a three-lane concrete facility to a four-lane divided minor arterial.	
Limits:	STATE HIGHWAY 121 TO 1,685' S		
Impact Fee Class:	OF STATE HIGHWAY 121		
Thoroughfare Class:	M4D		
Length (If):	Minor Arterial		
Service Area(s):	1,685		
	J		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
105	Unclassified Street Excavation	13,480	cy	\$ 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	lf	\$ 5.00	\$ 33,700
605	Allotment for Turn Lanes and Median Openings	989	sy	\$ 72.00	\$ 71,230
705	Moisture Conditioning	9,361	sy	\$ 8.00	\$ 74,889
Paving Construction Cost Subtotal:					\$ 872,073
Major Construction Component Allowances**:					
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 System		25%	\$ 218,018
	Special Drainage Structures	None Anticipated			\$ -
✓	Water	Incidental Adjustments		3%	\$ 26,162
✓	Sewer	Incidental Adjustments		3%	\$ 26,162
✓	Establish Turf / Erosion Control			2%	\$ 17,441
✓	Illumination	Standard Illumination System		6%	\$ 52,324
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 392,433
				Paving and Allowance Subtotal:	\$ 1,264,505
				Mobilization:	5% \$ 63,225
				Site Preparation:	5% \$ 63,225
				Construction Cost TOTAL:	\$ 1,391,000
				Construction Contingency:	15% \$ 208,650
				Construction Cost TOTAL W/ CONTINGENCY:	\$ 1,600,000

Impact Fee Project Cost Summary			
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 Cost TOTAL:			\$ 2,240,000

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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.
Name:	STATE HIGHWAY 5 (4)	This project consists of the reconstruction of a four-lane asphalt section to a six-lane divided major arterial.	J-9, K-7
Limits:	640' S OF HARRY MCKILLOP BLVD / FM 546 TO STATE HIGHWAY 121		
Impact Fee Class:	M6D		
Thoroughfare Class:	Major Arterial		
Length (lf):	2,470		
Service Area(s):	J and K		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
109	Unclassified Street Excavation	13,722	cy	\$ 15.00	\$ 205,833
209	Lime Treated Subgrade (8") (Pl<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
Paving Construction Cost Subtotal:					\$ 1,894,721
Major Construction Component Allowances**:					
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 Illumination 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
Mobilization:					5% \$ 262,367
Site Preparation:					5% \$ 262,367
Construction Cost TOTAL:					\$ 5,773,000
Construction Contingency:					15% \$ 865,950
Construction Cost TOTAL W/ CONTINGENCY:					\$ 6,639,000

Impact Fee Project Cost 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

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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-10, K-8
Name:	STATE HIGHWAY 5 (5) STATE HIGHWAY 121 TO 3,525' S OF STATE HIGHWAY 121		This project consists of the reconstruction of a two-lane asphalt facility to a four-lane divided minor arterial.	
Limits:				
Impact Fee Class:	M4D			
Thoroughfare Class:	Minor Arterial			
Length (lf):	3,525			
Service Area(s):	J and K			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
105	Unclassified Street Excavation	14,100	cy	\$ 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 Construction Cost Subtotal:					\$ 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 Illumination System		6%	\$ 103,853
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 778,901
Paving and Allowance Subtotal:				\$	2,509,792
Mobilization:				5%	\$ 125,490
Site Preparation:				5%	\$ 125,490
Construction Cost TOTAL:				\$	2,761,000
Construction Contingency:				15%	\$ 414,150
Construction Cost TOTAL W/ CONTINGENCY:				\$	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 Project Cost TOTAL (50% City Contribution)			\$ 2,223,200

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

Kimley-Horn and Associates, Inc.

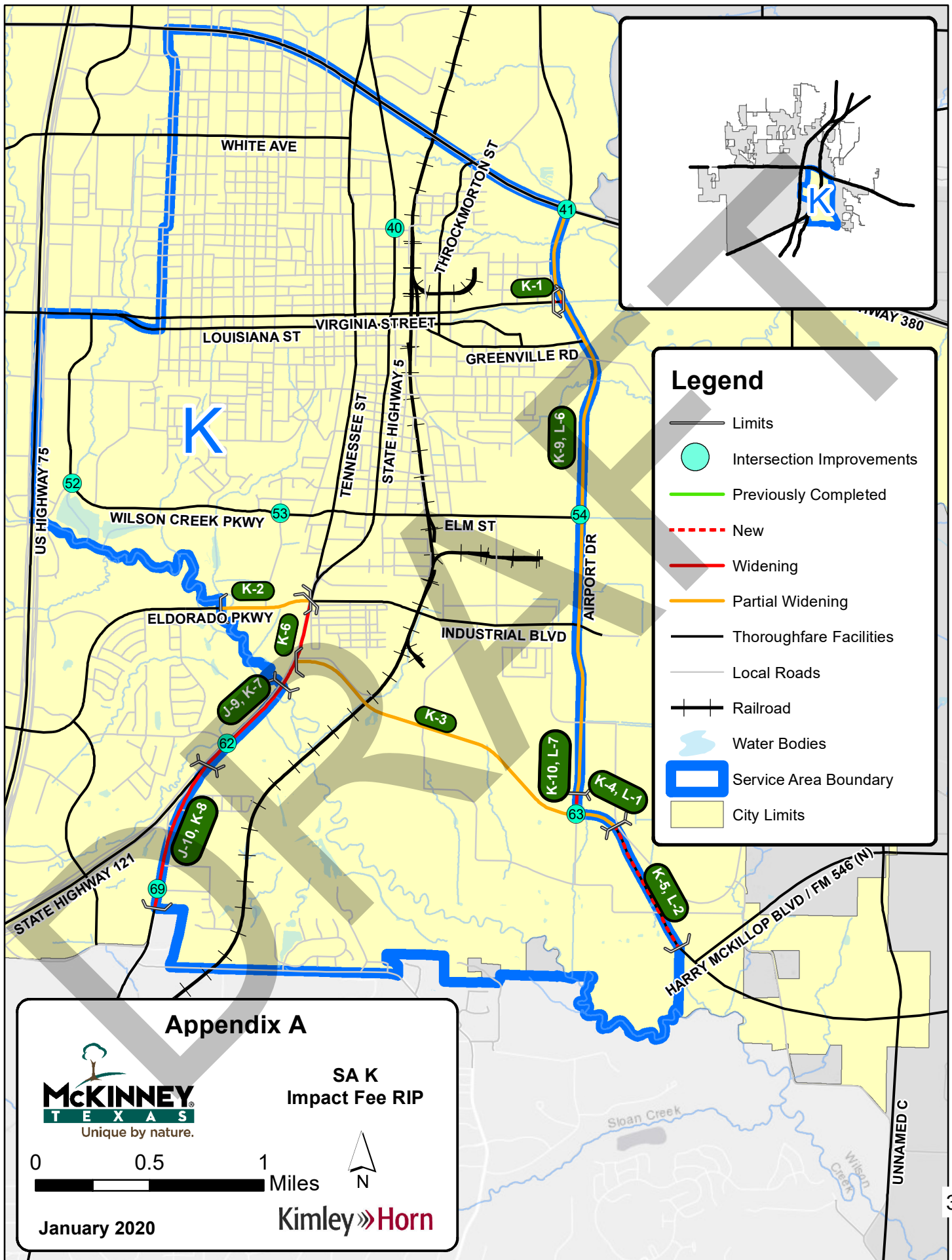
updated: 12/16/2019

Project Information:		Description:	Project No. J-11
Name:	STATE HIGHWAY 5 (6)	This project consists of the reconstruction of a two-lane asphalt facility to a four-lane divided minor arterial. Based on the existing City Limits, the eastern half of the roadway is not included in the Impact Fee RIP.	
	3,525' S OF STATE HIGHWAY 121		
	TO 4,520' S OF STATE HIGHWAY 121		
Limits:			
Impact Fee Class:	M4D		
Thoroughfare Class:	Minor Arterial		
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	cy	\$ 15.00	\$ 59,700
205	Lime Treated Subgrade (8") (Pl<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
505	4" Topsoil	4,312	sy	\$ 4.00	\$ 17,247
605	6" Curb & Gutter	3,980	lf	\$ 5.00	\$ 19,900
705	Allotment for Turn Lanes and Median Openings	584	sy	\$ 82.00	\$ 47,903
Paving Construction Cost Subtotal:					\$ 488,578
Major Construction Component Allowances**:					
Item Description	Notes	Allowance	Item Cost		
✓ Traffic Control	Construction Phase Traffic Control	3%	\$	14,657	
✓ Pavement Markings/Markers		3%	\$	14,657	
✓ Roadway Drainage		25%	\$	122,144	
Special Drainage Structures	None Anticipated		\$	-	
✓ Water	Incidental Adjustments	3%	\$	14,657	
✓ Sewer	Incidental Adjustments	3%	\$	14,657	
✓ Establish Turf / Erosion Control		2%	\$	9,772	
✓ Illumination	Standard Illumination System	6%	\$	29,315	
Other:					
**Allowances based on % of Paving Construction Cost Subtotal					Allowance Subtotal: \$ 219,860
Paving and Allowance Subtotal:					\$ 708,438
Mobilization:					5% \$ 35,422
Site Preparation:					5% \$ 35,422
Construction Cost TOTAL:					\$ 780,000
Construction Contingency:					15% \$ 117,000
Construction Cost TOTAL W/ CONTINGENCY:					\$ 897,000

Impact Fee Project Cost Summary			
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 Fee Project Cost TOTAL (50% City Contribution)			\$ 627,900

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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 Class	Project	Limits	Total Cost	Percent in Service Area	Cost in Service 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	Intersection	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		Roundabout	WILSON CREEK PKWY & PARK VIEW AVE	\$ 1,820,000	100%	\$ 1,820,000
53		Signal	WILSON CREEK PKWY & COLLEGE ST	\$ 300,000	100%	\$ 300,000
54		Signal	AIRPORT DR & ELM ST	\$ 300,000	50%	\$ 150,000
62		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
				\$ 29,773,250		\$ 19,363,000

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.

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-1
Name:	VIRGINIA STREET	This project consists of the construction of a new two-lane undivided town thoroughfare.		
Limits:	225' W OF AIRPORT DR TO AIRPORT DR			
Impact Fee Class:	2UO			
Thoroughfare Class:	Town Thoroughfare			
Length (lf):	225			
Service Area(s):	K			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	500	cy	\$ 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 Allowances**:					
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 Illumination System	6%	\$	4,229
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	326,080
Paving and Allowance Subtotal:				\$	396,568
Mobilization:				5%	\$ 19,828
Site Preparation:				5%	\$ 19,828
Construction Cost TOTAL:				\$	437,000
Construction Contingency:				15%	\$ 65,550
Construction Cost TOTAL W/ CONTINGENCY:				\$	503,000

Impact Fee Project Cost Summary			
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
Impact Fee Project Cost TOTAL:			\$ 779,650

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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-2
Name:	ELDORADO PKWY (4)			This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided greenway arterial.
Limits:	1,180' E OF BARRANCA WAY TO STATE HIGHWAY 5			
Impact Fee Class:	G6D(1/3)			
Thoroughfare Class:	Greenway Arterial			
Length (lf):	2,110			
Service Area(s):	K			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
117	Unclassified Street Excavation	6,096	cy	\$ 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 Openings	1,458	sy	\$ 77.00	\$ 112,279
Paving Construction Cost Subtotal:					\$ 572,963
Major Construction Component Allowances**:					
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:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 545,837
Paving and Allowance Subtotal:					\$ 1,118,800
Mobilization:				5%	\$ 55,940
Site Preparation:				5%	\$ 55,940
Construction Cost TOTAL:					\$ 1,231,000
Construction Contingency:				15%	\$ 184,650
Construction Cost TOTAL W/ CONTINGENCY:					\$ 1,416,000

Impact Fee Project Cost Summary			
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

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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-3
Name:	HARRY MCKILLOP BLVD / FM 546 (1)		This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided principal arterial.	
Limits:	STATE HIGHWAY 121 TO AIRPORT DR			
Impact Fee Class:	P6D(1/3)			
Thoroughfare Class:	Principal Arterial			
Length (lf):	7,695			
Service Area(s):	K			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
114	Unclassified Street Excavation	11,970	cy	\$ 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
414	9" Concrete Pavement	21,375	sy	\$ 60.00	\$ 1,282,500
514	4" Topsoil	6,840	sy	\$ 4.00	\$ 27,360
614	6" Curb & Gutter	15,390	lf	\$ 5.00	\$ 76,950
714	Allotment for Turn Lanes and Median Openings	4,696	sy	\$ 87.00	\$ 408,554
Paving Construction Cost Subtotal:					\$ 2,243,384
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	67,302
✓	Pavement Markings/Markers		3%	\$	67,302
	Roadway Drainage		0%	\$	-
	Special Drainage Structures	None Anticipated		\$	-
	Water	None Anticipated	0%	\$	-
	Sewer	None Anticipated	0%	\$	-
✓	Establish Turf / Erosion Control		2%	\$	44,868
	Illumination	None Anticipated	0%	\$	-
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	179,471
Paving and Allowance Subtotal:				\$	2,422,855
Mobilization:				5%	\$ 121,143
Site Preparation:				5%	\$ 121,143
Construction Cost TOTAL:				\$	2,666,000
Construction Contingency:				15%	\$ 399,900
Construction Cost TOTAL W/ CONTINGENCY:				\$	3,066,000

Impact Fee Project Cost Summary			
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%	\$ -
Impact Fee Project Cost TOTAL (50% City Contribution)			\$ 1,839,600

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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-4, L-1
Name:	HARRY MCKILLOP BLVD / FM 546 (2)		This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided principal arterial.	
Limits:	AIRPORT DR TO 980' E OF AIRPORT DR			
Impact Fee Class:	P6D(1/3)			
Thoroughfare Class:	Principal Arterial			
Length (lf):	980			
Service Area(s):	L and K			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
114	Unclassified Street Excavation	1,524	cy	\$ 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 Openings	598	sy	\$ 87.00	\$ 52,032
Paving Construction Cost Subtotal:					\$ 285,707
Major Construction Component Allowances**:					
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:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	22,857
Paving and Allowance Subtotal:				\$	308,564
Mobilization:				5%	\$ 15,428
Site Preparation:				5%	\$ 15,428
Construction Cost TOTAL:				\$	340,000
Construction Contingency:				15%	\$ 51,000
Construction Cost TOTAL W/ CONTINGENCY:				\$	391,000

Impact Fee Project Cost Summary			
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

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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 MCKILLOP BLVD / FM 546 (N)		This project consists of the construction of a new six-lane divided principal arterial.	
Limits:	P6D			
Impact Fee Class:	Principal Arterial			
Thoroughfare Class:	3,160			
Length (lf):	K and L			
Service Area(s):				

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	17,556	cy	\$ 15.00	\$ 263,333
213	Lime Treated Subgrade (8") (PI<12)	27,387	sy	\$ 7.00	\$ 191,707
313	4" TY D HMA 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
Major Construction Component Allowances**:					
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 Illumination System	6%	\$	145,947
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 900,004	
Paving and Allowance Subtotal:				\$ 3,332,445	
Mobilization:				5%	\$ 166,622
Site Preparation:				5%	\$ 166,622
Construction Cost TOTAL:				\$ 3,666,000	
Construction Contingency:				15%	\$ 549,900
Construction Cost TOTAL W/ CONTINGENCY:				\$ 4,216,000	

Impact Fee Project Cost Summary			
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 Contribution)			\$ 3,267,400

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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-6
Name:	STATE HIGHWAY 5 (3) INDUSTRIAL BLVD TO 640' S OF HARRY MCKILLOP BLVD / FM 546		This project consists of the reconstruction of a four-lane asphalt section to a six-lane divided major arterial.	
Limits:				
Impact Fee Class:	M6D			
Thoroughfare Class:	Major Arterial			
Length (lf):	2,095			
Service Area(s):	K			

Roadway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Item Cost
109	Unclassified Street Excavation	11,639	cy	\$ 15.00 \$ 174,583
209	Lime Treated Subgrade (8") (PI<12)	18,157	sy	\$ 7.00 \$ 127,097
309	4" TY D HMA 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	lf	\$ 5.00 \$ 41,900
709	Allotment for Turn Lanes and Median Openings	1,279	sy	\$ 87.00 \$ 111,231
Paving Construction Cost Subtotal:				\$ 1,607,061
Major Construction Component Allowances**:				
Item Description	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 Illumination System	6%	\$	96,424
Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 723,177
			Paving and Allowance Subtotal:	\$ 2,330,238
			Mobilization:	5% \$ 116,512
			Site Preparation:	5% \$ 116,512
			Construction Cost TOTAL:	\$ 2,564,000
			Construction Contingency:	15% \$ 384,600
			Construction Cost TOTAL W/ CONTINGENCY:	\$ 2,949,000

Impact Fee Project Cost Summary			
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

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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-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 arterial.	
Limits:	640' S OF HARRY MCKILLOP BLVD / FM 546 TO STATE HIGHWAY 121			
Impact Fee Class:	M6D			
Thoroughfare Class:	Major Arterial			
Length (lf):	2,470			
Service Area(s):	J and K			

Roadway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Item Cost
109	Unclassified Street Excavation	13,722	cy	\$ 205,833
209	Lime Treated Subgrade (8") (PI<12)	21,407	sy	\$ 149,847
309	4" TY D HMAC Underlayment	20,309	sy	\$ 101,544
409	9" Concrete Pavement	20,309	sy	\$ 1,218,533
509	4" Topsoil	9,606	sy	\$ 38,422
609	6" Curb & Gutter	9,880	lf	\$ 49,400
709	Allotment for Turn Lanes and Median Openings	1,507	sy	\$ 131,141
Paving Construction Cost Subtotal:				\$ 1,894,721
Major Construction Component Allowances**:				
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 Illumination 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
		Mobilization:	5%	\$ 262,367
		Site Preparation:	5%	\$ 262,367
		Construction Cost TOTAL:	\$	5,773,000
		Construction Contingency:	15%	\$ 865,950
		Construction Cost TOTAL W/ CONTINGENCY:	\$	6,639,000

Impact Fee Project Cost 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

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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-10, K-8
Name:	STATE HIGHWAY 5 (5) STATE HIGHWAY 121 TO 3,525' S OF STATE HIGHWAY 121		This project consists of the reconstruction of a two-lane asphalt facility to a four-lane divided minor arterial.	
Limits:				
Impact Fee Class:	M4D			
Thoroughfare Class:	Minor Arterial			
Length (lf):	3,525			
Service Area(s):	J and K			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
105	Unclassified Street Excavation	14,100	cy	\$ 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 Construction Cost Subtotal:					\$ 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 Illumination System		6%	\$ 103,853
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 778,901
				Paving and Allowance Subtotal:	\$ 2,509,792
				Mobilization:	5% \$ 125,490
				Site Preparation:	5% \$ 125,490
				Construction Cost TOTAL:	\$ 2,761,000
				Construction Contingency:	15% \$ 414,150
				Construction Cost TOTAL W/ CONTINGENCY:	\$ 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 Project Cost TOTAL (50% City Contribution)			\$ 2,223,200

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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-9, L-6
Name:	AIRPORT DR (5)	This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided principal arterial.	
Limits:	US HIGHWAY 380 TO 470' N OF		
Impact Fee Class:	HARRY MCKILLOP BLVD / FM 546		
Thoroughfare Class:	P6D(1/3)		
Length (lf):	Principal Arterial		
Service Area(s):	13,870		
	K and L		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
114	Unclassified Street Excavation	43,151	cy	\$ 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
414	4" Topsoil	12,329	sy	\$ 2.50	\$ 30,822
514	6" Curb & Gutter	27,740	lf	\$ 5.00	\$ 138,700
614	Allotment for Turn Lanes and Median Openings	8,464	sy	\$ 77.00	\$ 651,762
Paving Construction Cost Subtotal:					\$ 3,855,732
Major Construction Component Allowances**:					
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%	\$	-	
Sewer	None Anticipated	0%	\$	-	
✓ Establish Turf / Erosion Control		2%	\$	77,115	
Illumination	None Anticipated	0%	\$	-	
Other:					
**Allowances based on % of Paving Construction Cost Subtotal					
Allowance Subtotal:					\$ 308,459
Paving and Allowance Subtotal:					\$ 4,164,190
Mobilization:				5%	\$ 208,210
Site Preparation:				5%	\$ 208,210
Construction Cost TOTAL:					\$ 4,581,000
Construction Contingency:					15% \$ 687,150
Construction Cost TOTAL W/ CONTINGENCY:					\$ 5,269,000

Impact Fee Project Cost Summary			
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.
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City of McKinney
2018 - 2019 Roadway Impact Fee Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated:

12/16/2019

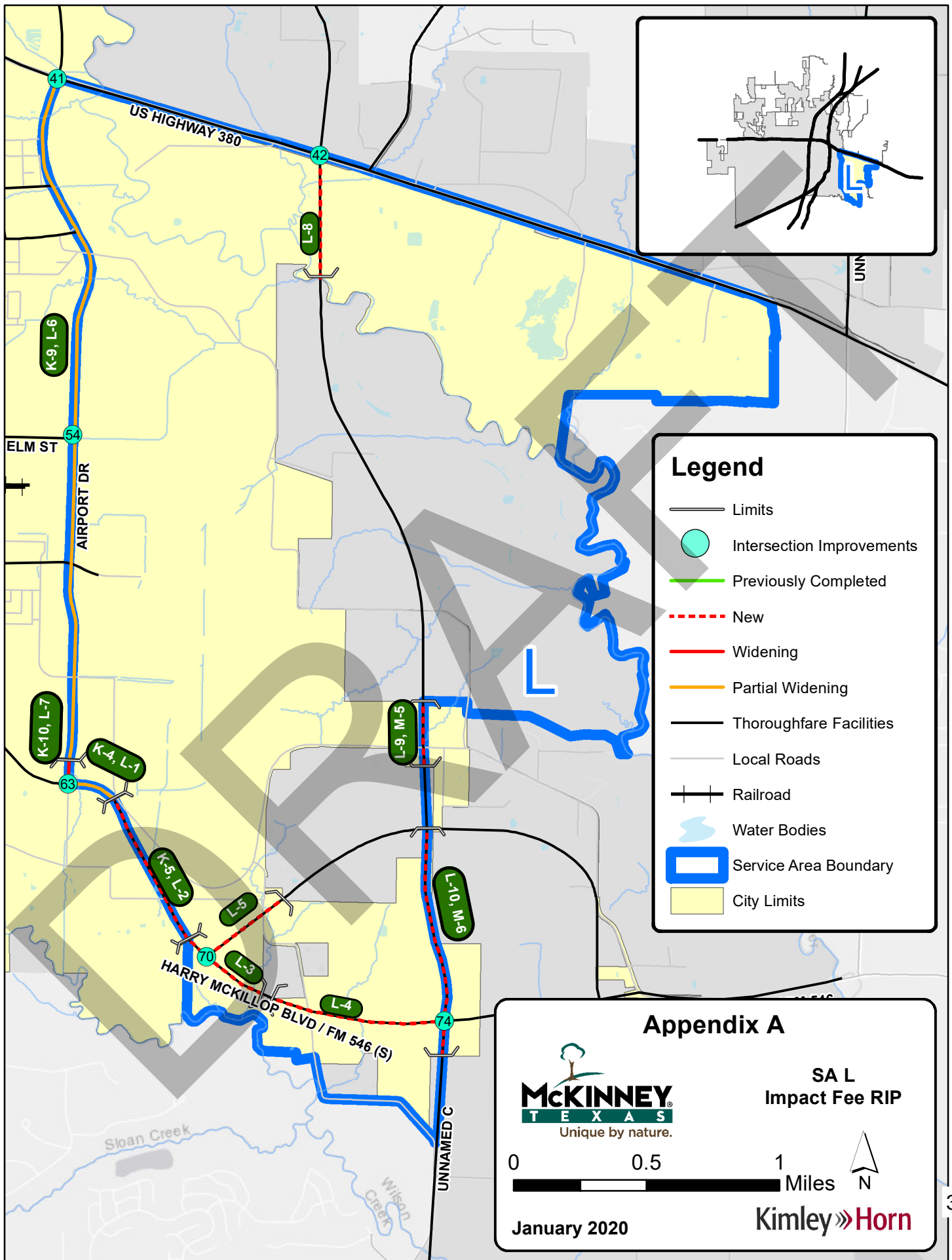
Project Information:		Description:	Project No.
Name:	AIRPORT DR (6)		K-10, L-7
Limits:	470' N OF HARRY MCKILLOP BLVD / FM 546 TO HARRY MCKILLOP BLVD / FM 546		
Impact Fee Class:	P6D		
Thoroughfare Class:	Principal Arterial		
Length (lf):	470		
Service Area(s):	K and L		

This project consists of the reconstruction of a two-lane asphalt facility to a six-lane divided principal arterial. The City contributed approximately \$1,500,000 of eligible funds from '12-'19.

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	5,222	cy	\$ 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	lf	\$ 5.00	\$ 9,400
613	Allotment for Turn Lanes and Median Openings	287	sy	\$ 77.00	\$ 22,086
713	Moisture Conditioning	4,073	sy	\$ 8.00	\$ 32,587
Paving Construction Cost Subtotal:					\$ 382,027
Major Construction Component Allowances**:					
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 System	25%	\$	95,507	
✓ Special Drainage Structures	Stream Crossing		\$	250,000	
✓ Water	Incidental Adjustments	3%	\$	11,461	
✓ Sewer	Incidental Adjustments	3%	\$	11,461	
✓ Establish Turf / Erosion Control		2%	\$	7,641	
✓ Illumination	Standard Illumination System	6%	\$	22,922	
Other:					
**Allowances based on % of Paving Construction Cost Subtotal					
Allowance Subtotal:					\$ 421,912
Paving and Allowance Subtotal:					\$ 803,940
Mobilization:					5% \$ 40,197
Site Preparation:					5% \$ 40,197
Construction Cost TOTAL:					\$ 885,000
Construction Contingency:					15% \$ 132,750
Construction Cost TOTAL W/ CONTINGENCY:					\$ 1,018,000

Impact Fee Project Cost Summary			
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

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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 L

#	Costing Class	Project	Limits	Total Cost	Percent in Service Area	Cost in Service 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	Inter-section	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		Signal	AIRPORT DR & ELM ST	\$ 300,000	50%	\$ 150,000
63		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 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
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 12/16/2019

Project Information:		Description:	Project No.	K-4, L-1
Name:	HARRY MCKILLOP BLVD / FM 546 (2)		This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided principal arterial.	
Limits:	AIRPORT DR TO 980' E OF AIRPORT DR			
Impact Fee Class:	P6D(1/3)			
Thoroughfare Class:	Principal Arterial			
Length (lf):	980			
Service Area(s):	L and K			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
114	Unclassified Street Excavation	1,524	cy	\$ 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 Openings	598	sy	\$ 87.00	\$ 52,032
Paving Construction Cost Subtotal:					\$ 285,707
Major Construction Component Allowances**:					
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:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	22,857
Paving and Allowance Subtotal:				\$	308,564
Mobilization:				5%	\$ 15,428
Site Preparation:				5%	\$ 15,428
Construction Cost TOTAL:				\$	340,000
Construction Contingency:				15%	\$ 51,000
Construction Cost TOTAL W/ CONTINGENCY:				\$	391,000

Impact Fee Project Cost Summary			
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

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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 MCKILLOP BLVD / FM 546 (N)		This project consists of the construction of a new six-lane divided principal arterial.	
Limits:				
Impact Fee Class:	P6D			
Thoroughfare Class:	Principal Arterial			
Length (lf):	3,160			
Service Area(s):	K and L			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	17,556	cy	\$ 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
Major Construction Component Allowances**:					
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 Illumination System		6%	\$ 145,947
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 900,004
				Paving and Allowance Subtotal:	\$ 3,332,445
				Mobilization:	5% \$ 166,622
				Site Preparation:	5% \$ 166,622
				Construction Cost TOTAL:	\$ 3,666,000
				Construction Contingency:	15% \$ 549,900
				Construction Cost TOTAL W/ CONTINGENCY:	\$ 4,216,000

Impact Fee Project Cost Summary			
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 Contribution)			\$ 3,267,400

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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-3
Name:	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)		This project consists of the construction of a new six-lane divided principal arterial.	
Limits:				
Impact Fee Class:	P6D			
Thoroughfare Class:	Principal Arterial			
Length (lf):	1,845			
Service Area(s):	L			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	10,250	cy	\$ 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	lf	\$ 5.00	\$ 36,900
713	Allotment for Turn Lanes and Median Openings	1,126	sy	\$ 87.00	\$ 97,957
Paving Construction Cost Subtotal:					\$ 1,420,207
Major Construction Component Allowances**:					
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%	\$	-
✓	Establish Turf / Erosion Control		2%	\$	28,404
✓	Illumination	Standard Illumination System	6%	\$	85,212
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	775,477
Paving and Allowance Subtotal:				\$	2,195,684
Mobilization:				5%	\$ 109,784
Site Preparation:				5%	\$ 109,784
Construction Cost TOTAL:				\$	2,416,000
Construction Contingency:				15%	\$ 362,400
Construction Cost TOTAL W/ CONTINGENCY:				\$	2,779,000

Impact Fee Project Cost Summary			
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 Fee Project Cost TOTAL (50% City Contribution)			\$ 2,153,725

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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 construction of a new six-lane divided principal arterial.	
Limits:	3,480' W OF UNNAMED D TO UNNAMED D			
Impact Fee Class:	P6D			
Thoroughfare Class:	Principal Arterial			
Length (lf):	3,480			
Service Area(s):	L			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	19,333	cy	\$ 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
613	6" Curb & Gutter	13,920	lf	\$ 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
Major Construction Component Allowances**:					
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 Illumination System		6%	\$ 160,726
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 1,241,143
Paving and Allowance Subtotal:					\$ 3,919,908
Mobilization:				5%	\$ 195,995
Site Preparation:				5%	\$ 195,995
Construction Cost TOTAL:					\$ 4,312,000
Construction Contingency:				15%	\$ 646,800
Construction Cost TOTAL W/ CONTINGENCY:					\$ 4,959,000

Impact Fee Project Cost Summary			
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 Fee Project Cost TOTAL (50% City Contribution)			\$ 3,843,225

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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-5
Name:	HARRY MCKILLOP BLVD / FM 546 (N) (1) HARRY MCKILLOP BLVD / FM 546 (S) TO 1,865' E OF HARRY MCKILLOP BLVD / FM 546 (S)		This project consists of the construction of a new six-lane divided major arterial.	
Limits:				
Impact Fee Class:	M6D			
Thoroughfare Class:	Major Arterial			
Length (If):	1,865			
Service Area(s):	L			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
109	Unclassified Street Excavation	10,361	cy	\$ 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:					\$ 1,430,629
Major Construction Component Allowances**:					
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 Illumination System		6%	\$ 85,838
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 779,333
				Paving and Allowance Subtotal:	\$ 2,209,962
				Mobilization:	5% \$ 110,498
				Site Preparation:	5% \$ 110,498
				Construction Cost TOTAL:	\$ 2,431,000
				Construction Contingency:	15% \$ 364,650
				Construction Cost TOTAL W/ CONTINGENCY:	\$ 2,796,000

Impact Fee Project Cost Summary			
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 Project Cost TOTAL (50% City Contribution)			\$ 2,166,900

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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-9, L-6
Name:	AIRPORT DR (5)	This project consists of the construction of two additional through lanes within the existing median of the ultimate six-lane divided principal arterial.	
Limits:	US HIGHWAY 380 TO 470' N OF		
Impact Fee Class:	HARRY MCKILLOP BLVD / FM 546		
Thoroughfare Class:	P6D(1/3)		
Length (lf):	Principal Arterial		
Service Area(s):	13,870		
	K and L		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
114	Unclassified Street Excavation	43,151	cy	\$ 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
414	4" Topsoil	12,329	sy	\$ 2.50	\$ 30,822
514	6" Curb & Gutter	27,740	lf	\$ 5.00	\$ 138,700
614	Allotment for Turn Lanes and Median Openings	8,464	sy	\$ 77.00	\$ 651,762
Paving Construction Cost Subtotal:					\$ 3,855,732
Major Construction Component Allowances**:					
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%	\$	-	
Sewer	None Anticipated	0%	\$	-	
✓ Establish Turf / Erosion Control		2%	\$	77,115	
Illumination	None Anticipated	0%	\$	-	
Other:					
**Allowances based on % of Paving Construction Cost Subtotal					
Allowance Subtotal:					\$ 308,459
Paving and Allowance Subtotal:					\$ 4,164,190
Mobilization:				5%	\$ 208,210
Site Preparation:				5%	\$ 208,210
Construction Cost TOTAL:					\$ 4,581,000
Construction Contingency:					15% \$ 687,150
Construction Cost TOTAL W/ CONTINGENCY:					\$ 5,269,000

Impact Fee Project Cost Summary			
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.
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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.
Name:	AIRPORT DR (6)	This project consists of the reconstruction of a two-lane asphalt facility to a six-lane divided principal arterial. The City contributed approximately \$1,500,000 of eligible funds from '12-'19.	K-10, L-7
Limits:	470' N OF HARRY MCKILLOP BLVD / FM 546 TO HARRY MCKILLOP BLVD / FM 546		
Impact Fee Class:	P6D		
Thoroughfare Class:	Principal Arterial		
Length (lf):	470		
Service Area(s):	K and L		

Roadway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Unit Price
113	Unclassified Street Excavation	5,222	cy	\$ 10.00
213	Lime Treated Subgrade (8") (PI<12)	4,073	sy	\$ 7.00
313	9" Concrete Pavement	3,864	sy	\$ 60.00
413	4" Topsoil	2,141	sy	\$ 2.50
513	6" Curb & Gutter	1,880	lf	\$ 5.00
613	Allotment for Turn Lanes and Median Openings	287	sy	\$ 77.00
713	Moisture Conditioning	4,073	sy	\$ 8.00
Paving Construction Cost Subtotal:				\$ 382,027
Major Construction Component Allowances**:				
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 System	25%	\$	95,507
✓ Special Drainage Structures	Stream Crossing		\$	250,000
✓ Water	Incidental Adjustments	3%	\$	11,461
✓ Sewer	Incidental Adjustments	3%	\$	11,461
✓ Establish Turf / Erosion Control		2%	\$	7,641
✓ Illumination	Standard Illumination System	6%	\$	22,922
Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal: \$ 421,912
Paving and Allowance Subtotal:				\$ 803,940
Mobilization:				5% \$ 40,197
Site Preparation:				5% \$ 40,197
Construction Cost TOTAL:				\$ 885,000
Construction Contingency:				15% \$ 132,750
Construction Cost TOTAL W/ CONTINGENCY:				\$ 1,018,000

Impact Fee Project Cost Summary			
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

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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-8
Name:	UNNAMED C (3)		This project consists of the construction of a new six-lane divided principal arterial.	
Limits:	US HIGHWAY 380 TO 2,435' S OF US HIGHWAY 380			
Impact Fee Class:	P6D			
Thoroughfare Class:	Principal Arterial			
Length (lf):	2,435			
Service Area(s):	L			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	27,056	cy	\$ 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
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 Illumination System		6%	\$ 118,754
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal				Allowance Subtotal:	\$ 982,314
Paving and Allowance Subtotal:					\$ 2,961,540
Mobilization:				5%	\$ 148,077
Site Preparation:				5%	\$ 148,077
Construction Cost TOTAL:					\$ 3,258,000
Construction Contingency:				15%	\$ 488,700
Construction Cost TOTAL W/ CONTINGENCY:					\$ 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
Impact Fee Project Cost TOTAL:			\$ 5,807,850

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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-9, M-5
Name:	UNNAMED C (4)	This project consists of the construction of a new six-lane divided principal arterial.		
Limits:	2,525' N OF HARRY MCKILLOP			
Impact Fee Class:	BLVD / FM 546 TO 1,230' N OF			
Thoroughfare Class:	HARRY MCKILLOP BLVD / FM 546			
Length (lf):	P6D			
Service Area(s):	Principal Arterial			
	1,295			
	L and M			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	14,389	cy	\$ 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
Major Construction Component Allowances**:					
Item Description	Notes	Allowance	Item Cost		
✓ Traffic Control	None Anticipated	1%	\$	10,526	
✓ Pavement Markings/Markers		3%	\$	31,578	
✓ Roadway Drainage	Standard Internal System	25%	\$	263,152	
Special Drainage Structures	None Anticipated		\$	-	
Water	None Anticipated	0%	\$	-	
Sewer	None Anticipated	0%	\$	-	
✓ Establish Turf / Erosion Control		2%	\$	21,052	
✓ Illumination	Standard Illumination System	6%	\$	63,156	
Other:					
**Allowances based on % of Paving Construction Cost Subtotal					Allowance Subtotal: \$ 389,465
Paving and Allowance Subtotal:				\$	1,442,072
Mobilization:				5%	\$ 72,104
Site Preparation:				5%	\$ 72,104
Construction Cost TOTAL:				\$	1,587,000
Construction Contingency:				15%	\$ 238,050
Construction Cost TOTAL W/ CONTINGENCY:				\$	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
Impact Fee Project Cost TOTAL:			\$ 2,830,300

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

Kimley-Horn and Associates, Inc.

updated:

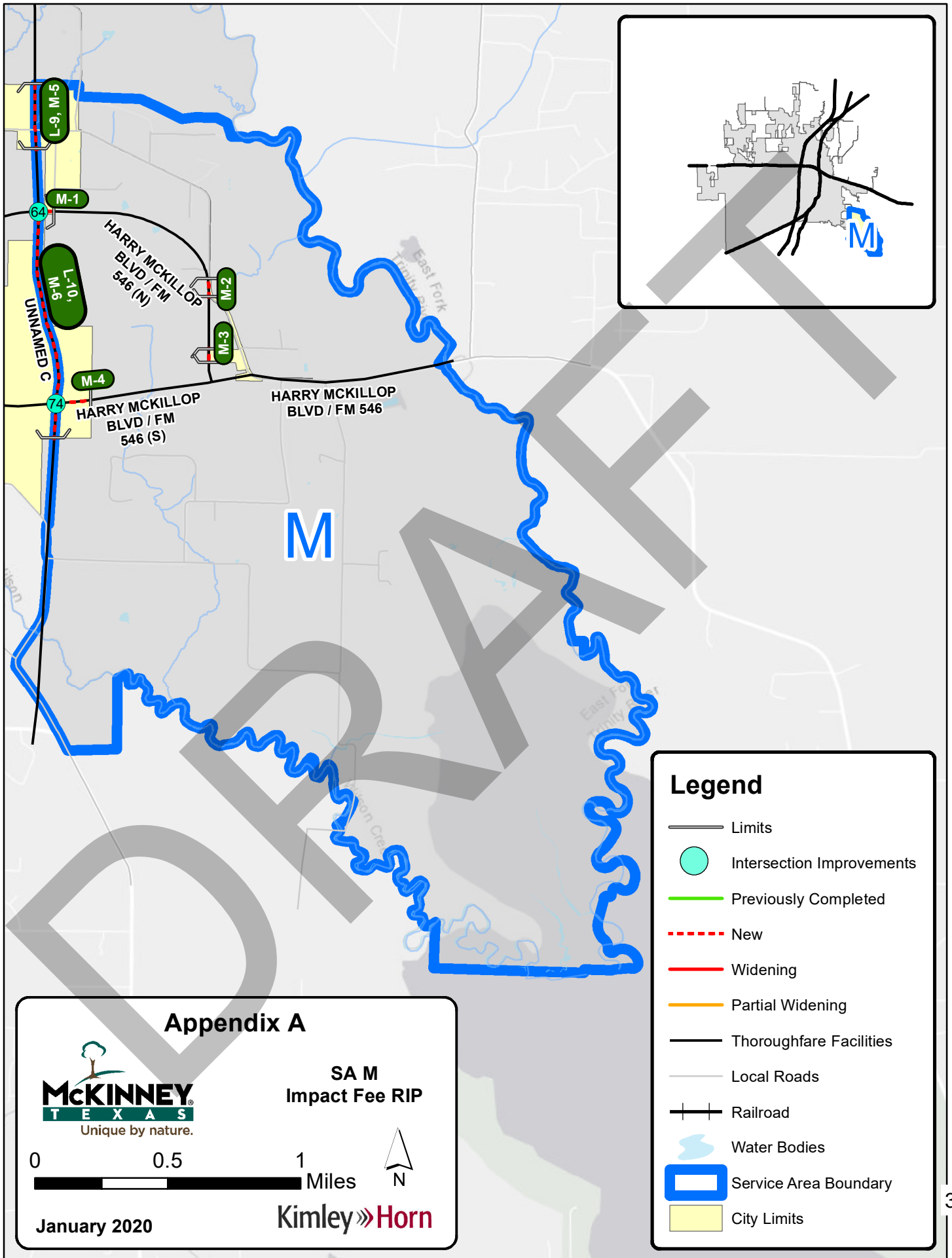
12/16/2019

Project Information:		Description:	Project No.
Name:	UNNAMED C (5)	This project consists of the construction of a new six-lane divided principal arterial.	L-10, M-6
Limits:	HARRY MCKILLOP BLVD / FM 546		
Impact Fee Class:	(N) TO 705' S OF HARRY		
Thoroughfare Class:	MCKILLOP BLVD / FM 546 (S)		
Length (lf):	P6D		
Service Area(s):	Principal Arterial		
	4,580		
	L and M		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	50,889	cy	\$ 10.00	\$ 508,889
213	Lime Treated Subgrade (8") (Pl<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	lf	\$ 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
Major Construction Component Allowances**:					
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 Illumination System	6%	\$	223,364	
Other:					
**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 Summary			
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

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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 M

#	Costing Class	Project	Limits	Total Cost	Percent in Service Area	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	\$ 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

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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-1
Name:	HARRY MCKILLOP BLVD / FM 546 (N) (2)		This project consists of the construction of a new six-lane divided major arterial.	
Limits:	110' E OF UNNAMED C TO 300' E OF UNNAMED C			
Impact Fee Class:	M6D			
Thoroughfare Class:	Major Arterial			
Length (lf):	190			
Service Area(s):	M			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
109	Unclassified Street Excavation	1,056	cy	\$ 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
Paving Construction Cost Subtotal:					\$ 145,748
Major Construction Component Allowances**:					
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 Illumination System	6%	\$	8,745
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	53,927
Paving and Allowance Subtotal:				\$	199,674
Mobilization:				5%	\$ 9,984
Site Preparation:				5%	\$ 9,984
Construction Cost TOTAL:				\$	220,000
Construction Contingency:				15%	\$ 33,000
Construction Cost TOTAL W/ CONTINGENCY:				\$	253,000

Impact Fee Project Cost Summary			
Item Description	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 Fee Project Cost TOTAL (50% City Contribution)			\$ 196,075

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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) 1,700' N OF HARRY MCKILLOP BLVD / FM 546 TO 2,050' N OF HARRY MCKILLOP BLVD / FM 546		This project consists of the construction of a new six-lane divided major arterial.	
Limits:	M6D			
Impact Fee Class:	Major Arterial			
Thoroughfare Class:	350			
Length (If):	M			
Service Area(s):				

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
109	Unclassified Street Excavation	1,944	cy	\$ 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	lf	\$ 5.00	\$ 7,000
709	Allotment for Turn Lanes and Median Openings	214	sy	\$ 87.00	\$ 18,583
Paving Construction Cost Subtotal:					\$ 268,483
Major 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 Illumination System	6%	\$	16,109	
Other:					
**Allowances based on % of Paving Construction Cost Subtotal					
Allowance Subtotal:					\$ 99,339
Paving and Allowance Subtotal:					\$ 367,821
Mobilization:			5%	\$	18,391
Site Preparation:			5%	\$	18,391
Construction Cost TOTAL:					\$ 405,000
Construction Contingency:			15%	\$	60,750
Construction Cost TOTAL W/ CONTINGENCY:					\$ 466,000

Impact Fee Project Cost Summary			
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 Fee Project Cost TOTAL (50% City Contribution)			\$ 361,150

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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-3
Name:	HARRY MCKILLOP BLVD / FM 546 (N) (4) 405' N OF HARRY MCKILLOP BLVD / FM 546 TO 675' N OF HARRY MCKILLOP BLVD / FM 546		This project consists of the construction of a new six-lane divided major arterial.	
Limits:	M6D			
Impact Fee Class:	Major Arterial			
Thoroughfare Class:	270			
Length (lf):	M			
Service Area(s):				

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
109	Unclassified Street Excavation	1,500	cy	\$ 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	lf	\$ 5.00	\$ 5,400
709	Allotment for Turn Lanes and Median Openings	165	sy	\$ 87.00	\$ 14,335
Paving Construction Cost Subtotal:					\$ 207,115
Major Construction Component Allowances**:					
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 Illumination System	6%	\$	12,427	
Other:					
**Allowances based on % of Paving Construction Cost Subtotal					Allowance Subtotal: \$ 76,633
Paving and Allowance Subtotal:					\$ 283,748
Mobilization:				5%	\$ 14,187
Site Preparation:				5%	\$ 14,187
Construction Cost TOTAL:					\$ 313,000
Construction Contingency:					15% \$ 46,950
Construction Cost TOTAL W/ CONTINGENCY:					\$ 360,000

Impact Fee Project Cost Summary			
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 Fee Project Cost TOTAL (50% City Contribution)			\$ 279,000

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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-4
Name:	HARRY MCKILLOP BLVD / FM 546 (S) (3)		This project consists of the construction of a new six-lane divided principal arterial.	
Limits:	UNNAMED C TO 695' E OF UNNAMED C			
Impact Fee Class:	P6D			
Thoroughfare Class:	Principal Arterial			
Length (lf):	695			
Service Area(s):	M			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	3,861	cy	\$ 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
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 Illumination System	6%	\$	32,099
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	197,944
Paving and Allowance Subtotal:				\$	732,927
Mobilization:				5%	\$ 36,646
Site Preparation:				5%	\$ 36,646
Construction Cost TOTAL:				\$	807,000
Construction Contingency:				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:	New Roadway Alignment	35%	\$ 325,150
Impact Fee Project Cost TOTAL (50% City Contribution)			\$ 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.
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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-9, M-5
Name:	UNNAMED C (4) 2,525' N OF HARRY MCKILLOP BLVD / FM 546 TO 1,230' N OF HARRY MCKILLOP BLVD / FM 546		This project consists of the construction of a new six-lane divided principal arterial.	
Limits:	P6D			
Impact Fee Class:	Principal Arterial			
Thoroughfare Class:	1,295			
Length (lf):	M and L			
Service Area(s):				

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	14,389	cy	\$ 10.00	\$ 143,889
213	Lime Treated Subgrade (8") (Pl<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
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	None Anticipated	1%	\$	10,526
✓	Pavement Markings/Markers		3%	\$	31,578
✓	Roadway Drainage	Standard Internal System	25%	\$	263,152
	Special Drainage Structures	None Anticipated		\$	-
	Water	None Anticipated	0%	\$	-
	Sewer	None Anticipated	0%	\$	-
✓	Establish Turf / Erosion Control		2%	\$	21,052
✓	Illumination	Standard Illumination System	6%	\$	63,156
	Other:				
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	389,465
Paving and Allowance Subtotal:				\$	1,442,072
Mobilization:				5%	\$ 72,104
Site Preparation:				5%	\$ 72,104
Construction Cost TOTAL:				\$	1,587,000
Construction Contingency:				15%	\$ 238,050
Construction Cost TOTAL W/ CONTINGENCY:				\$	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
Impact Fee Project Cost TOTAL:			\$ 2,830,300

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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-10, M-6
Name:	UNNAMED C (5) HARRY MCKILLOP BLVD / FM 546 (N) TO 705' S OF HARRY MCKILLOP BLVD / FM 546 (S)	This project consists of the construction of a new six-lane divided principal arterial.		
Limits:				
Impact Fee Class:	P6D			
Thoroughfare Class:	Principal Arterial			
Length (If):	4,580			
Service Area(s):	M and L			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	50,889	cy	\$ 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	lf	\$ 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
Major Construction Component Allowances**:					
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 Illumination System		6%	\$ 223,364
	Other:				
**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 Summary			
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

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Appendix B – Roadway Impact Fee RIP Service Units of Supply

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City of McKinney - 2018 - 2019 Roadway Impact Fee Update

RIP Service Units of Supply

Service Area A

12/13/2019

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
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
SUBTOTAL									2,653		0	2,653	\$ 19,912,850	\$ 9,956,425

\$ 11,692

TOTAL COST IN SERVICE AREA A \$ 9,968,117

City of McKinney - 2018 - 2019 Roadway Impact Fee Update

RIP Service Units of Supply

Service Area B

12/13/2019

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
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
														TOTAL COST IN SERVICE AREA B \$ 9,711,642

City of McKinney - 2018 - 2019 Roadway Impact Fee Update

RIP Service Units of Supply

Service Area C

12/13/2019

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-FIT 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
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	\$ 2,763,650
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	\$ 14,194,900
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	\$ 8,232,050
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	\$ 4,572,400
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	\$ 2,504,491
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%						\$ 300,000	\$ 75,000
23	Signal	STONEBRIDGE DR & WILMETH RD					100%						\$ 300,000	\$ 300,000
24	Signal	WILMETH RD & RIDGEKNOLL AVE					100%						\$ 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%						\$ 150,000	\$ 75,000
34	Signal	US HIGHWAY 380 & FOREST RIDGE LN					50%						\$ 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	\$ 116,870,616

TOTAL COST IN SERVICE AREA C \$ 116,882,308

City of McKinney - 2018 - 2019 Roadway Impact Fee Update

RIP Service Units of Supply

Service Area D

12/13/2019

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
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	\$ 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	3,980	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					50%						\$ 600,000	\$ 300,000
16	Signal	BLOOMDALE RD & UNNAMED A					25%						\$ 300,000	\$ 75,000
17	Signal	BLOOMDALE RD & HARDIN BLVD					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					50%						\$ 1,830,000	\$ 915,000
26	Roundabout	WILMETH RD & UNNAMED A					75%						\$ 200,000	\$ 150,000
27	Roundabout	HARDIN BLVD & WILMETH RD					75%						\$ 2,100,000	\$ 1,575,000
32	Roundabout	HARDIN BLVD & TAYLOR-BURK DR					100%						\$ 1,200,000	\$ 1,200,000
36	Under Construction	US HIGHWAY 380 & HARDIN BLVD					50%						\$ 780,682	\$ 390,341
SUBTOTAL									59,041		1,923	57,118	\$ 225,290,659	\$ 189,016,118

TOTAL COST IN SERVICE AREA D \$ 189,027,810

City of McKinney - 2018 - 2019 Roadway Impact Fee Update

RIP Service Units of Supply

Service Area E

12/13/2019

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
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	\$ 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 DR	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 5	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					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					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
SUBTOTAL									36,038		3,602	32,437	\$ 81,725,400	\$ 73,721,350

\$ 11,692

TOTAL COST IN SERVICE AREA E \$ 73,733,042

City of McKinney - 2018 - 2019 Roadway Impact Fee Update

RIP Service Units of Supply

Service Area G

12/13/2019

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
No Thoroughfare Roadways within the City Limits Currently Present within Service Area F														
SUBTOTAL									0		0	0	\$ -	\$ -

\$ 11,692

TOTAL COST IN SERVICE AREA F \$ 11,692

City of McKinney - 2018 - 2019 Roadway Impact Fee Update

RIP Service Units of Supply

Service Area G

12/13/2019

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
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%						\$ 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

TOTAL COST IN SERVICE AREA G \$ 30,219,929

City of McKinney - 2018 - 2019 Roadway Impact Fee Update

RIP Service Units of Supply

Service Area H

12/13/2019

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
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)		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		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)		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		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		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)		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	\$ 16,391,649

\$ 11,692

TOTAL COST IN SERVICE AREA H \$ 16,403,341

City of McKinney - 2018 - 2019 Roadway Impact Fee Update

RIP Service Units of Supply

Service Area I

12/13/2019

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
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	\$ 2,567,378
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	\$ 531,979
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	\$ 4,857,600
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	\$ 4,338,000
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	\$ 1,777,105
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	\$ 3,221,002
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	\$ 1,101,893
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
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	\$ 831,000
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
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
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%						\$ 2,640,000	\$ 1,320,000
51	Roundabout	LAKE FOREST DR & GLEN OAKS DR					100%						\$ 1,900,000	\$ 1,900,000
56	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
SUBTOTAL									22,925		6,301	16,624	\$ 49,754,690	\$ 35,579,653

\$ 11,692

TOTAL COST IN SERVICE AREA I \$ 35,591,345

City of McKinney - 2018 - 2019 Roadway Impact Fee Update

RIP Service Units of Supply

Service Area J

12/13/2019

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

TOTAL COST IN SERVICE AREA J \$ 11,692
\$ 28,206,303

City of McKinney - 2018 - 2019 Roadway Impact Fee Update

RIP Service Units of Supply

Service Area K

12/13/2019

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
K-1	VIRGINIA STREET	225' W OF AIRPORT DR TO AIRPORT DR	211	2	2UO									
K-2	ELDORADO PKWY (4)	1,180' E OF BARRANCA WAY TO STATE HIGHWAY 5	2,112	2	G6D(1/3)	New	100%	500	40	211,000	0	40	\$ 779,650	\$ 779,650
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	\$ 1,699,200	\$ 1,699,200
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	\$ 1,839,600	\$ 1,839,600
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	\$ 234,600	\$ 117,300
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	\$ 3,267,400	\$ 1,633,700
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	\$ 2,064,300	\$ 2,064,300
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	\$ 4,647,300	\$ 2,323,650
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	\$ 2,223,200	\$ 1,111,600
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	\$ 6,322,800	\$ 3,161,400
40	Signal	STATE HIGHWAY 5 & SMITH ST					100%						\$ 2,925,200	\$ 1,462,600
41	Signal Mod	US HIGHWAY 380 & AIRPORT DR					50%						\$ 300,000	\$ 300,000
52	Roundabout	WILSON CREEK PKWY & PARK VIEW AVE					100%						\$ 150,000	\$ 75,000
53	Signal	WILSON CREEK PKWY & COLLEGE ST					100%						\$ 1,820,000	\$ 1,820,000
54	Signal	AIRPORT DR & ELM ST					50%						\$ 300,000	\$ 300,000
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
SUBTOTAL									10,297		3,061	7,236	\$ 29,773,250	\$ 19,363,000

TOTAL COST IN SERVICE AREA K \$ 11,692
\$ 19,374,692

City of McKinney - 2018 - 2019 Roadway Impact Fee Update

RIP Service Units of Supply

Service Area L

12/13/2019

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
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

12/13/2019

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	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	\$ 150,000
74	Signal	UNNAMED C & HARRY MCKILLOP BLVD / FM 546 (S)					50%						\$ 300,000	\$ 150,000
SUBTOTAL									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

DRAFT

City of McKinney - 2018 - 2019 Roadway Impact Fee Update
Existing Roadway Facilities Inventory

Service Area A

12/13/2019

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES		TYPE	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN		VEH-MI SUPPLY PK-HR TOTAL		VEH-MI DEMAND PK-HR TOTAL		EXCESS CAPACITY PK-HR VEH-MI		EXISTING DEFICIENCIES PK-HR VEH-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
													135		14		121		0	

**City of McKinney - 2018 - 2019 Roadway Impact Fee Update
Existing Roadway Facilities Inventory**

12/13/2019

Service Area B

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES		TYPE	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN		VEH-MI SUPPLY PK-HR TOTAL		VEH-MI DEMAND PK-HR TOTAL		EXCESS CAPACITY PK-HR VEH-MI		EXISTING DEFICIENCIES PK-HR VEH-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
													255		27		228		0	

City of McKinney - 2018 - 2019 Roadway Impact Fee Update
Existing Roadway Facilities Inventory

Service Area C

12/13/2019

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES		TYPE	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN		VEH-MI SUPPLY PK-HR TOTAL		VEH-MI DEMAND PK-HR TOTAL		EXCESS CAPACITY PK-HR VEH-MI		EXISTING DEFICIENCIES PK-HR VEH-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
US HIGHWAY 380	RIDGE RD	LAKE FOREST DR	5,517	1.04	3	3	6D	2,025	2,025	100%	780	780	2,445	2,445	2,116	2,116	329	329		
US HIGHWAY 380	CUSTER RD	STONEBRIDGE DR	3,371	0.64	3	3	6D	1,679	1,731	100%	780	780	1,494	1,494	1,072	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		
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		
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		
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		
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		
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		
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		
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		
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		
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		
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		
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		
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		
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		
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		
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		
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		
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		
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		
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		
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		
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		
WILMETH RD	RIDGEWAY DR	RIDGEKNOLL AVE	1,222	0.23	2	2	4D	66	66	100%	700	700	324	324	15	15	309	309		
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	0.05	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			75,180	14.24									12,288	12,288	7,679	7,620	4,609	4,669	25	30
													24,577		15,299		9,278		55	

City of McKinney - 2018 - 2019 Roadway Impact Fee Update
Existing Roadway Facilities Inventory

Service Area D

12/13/2019

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES		TYPE	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN		VEH-MI SUPPLY PK-HR TOTAL		VEH-MI DEMAND PK-HR TOTAL		EXCESS CAPACITY PK-HR VEH-MI		EXISTING DEFICIENCIES PK-HR VEH-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
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	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		663	

City of McKinney - 2018 - 2019 Roadway Impact Fee Update
Existing Roadway Facilities Inventory

Service Area E

12/13/2019

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES		TYPE	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN		VEH-MI SUPPLY PK-HR TOTAL		VEH-MI DEMAND PK-HR TOTAL		EXCESS CAPACITY PK-HR VEH-MI		EXISTING DEFICIENCIES PK-HR VEH-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
US 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		
US 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		
US 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	151
SUBTOTAL			67,800	12.84									14,223	14,223	7,371	7,484	6,852	6,739	213	213
													28,446		14,855		13,591		427	

**City of McKinney - 2018 - 2019 Roadway Impact Fee Update
Existing Roadway Facilities Inventory**

12/13/2019

Service Area F

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES		TYPE	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN		VEH-MI SUPPLY PK-HR TOTAL		VEH-MI DEMAND PK-HR TOTAL		EXCESS CAPACITY PK-HR VEH-MI		EXISTING DEFICIENCIES PK-HR VEH-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
					No Thoroughfare Roadways within City Limits Currently Present within Service Area F															
SUBTOTAL			0	0.00									0	0	0	0	0	0	0	0
													0		0		0		0	

City of McKinney - 2018 - 2019 Roadway Impact Fee Update
Existing Roadway Facilities Inventory

Service Area G

12/13/2019

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES		TYPE	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN		VEH-MI SUPPLY PK-HR TOTAL		VEH-MI DEMAND PK-HR TOTAL		EXCESS CAPACITY PK-HR VEH-MI		EXISTING DEFICIENCIES PK-HR VEH-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
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		
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		
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	INDEPENDENCE PKWY	511	0.10	2	2	4D	598	599	50%	700	700	68	68	29	29	39	39		
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		
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 PKWY	CUSTER RD	2,617	0.50	1	1	2U	374	385	50%	475	475	118	118	93	95	25	22		
SUBTOTAL			143,268	27.13									39,231	38,960	19,444	19,567	19,787	19,393	0	0
													78,191		39,010		39,180		0	

City of McKinney - 2018 - 2019 Roadway Impact Fee Update
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Service Area H

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ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES		TYPE	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN		VEH-MI SUPPLY PK-HR TOTAL		VEH-MI DEMAND PK-HR TOTAL		EXCESS CAPACITY PK-HR VEH-MI		EXISTING DEFICIENCIES PK-HR VEH-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
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	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
													57,081	28,068	29,014			113		

City of McKinney - 2018 - 2019 Roadway Impact Fee Update
Existing Roadway Facilities Inventory

Service Area I

12/13/2019

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES		TYPE	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN		VEH-MI SUPPLY PK-HR TOTAL		VEH-MI DEMAND PK-HR TOTAL		EXCESS CAPACITY PK-HR VEH-MI		EXISTING DEFICIENCIES PK-HR VEH-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
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		
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		
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		
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		
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	253
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		
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		
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		
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		
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		
SUBTOTAL			141,304	26.76									40,011	40,011	24,215	24,386	15,796	15,625	254	254
													80,022		48,601		31,421		507	

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Existing Roadway Facilities Inventory

Service Area J

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ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES		TYPE	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN		VEH-MI SUPPLY PK-HR TOTAL		VEH-MI DEMAND PK-HR TOTAL		EXCESS CAPACITY PK-HR VEH-MI		EXISTING DEFICIENCIES PK-HR VEH-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	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	142
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	395
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		
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	2,019		
HARDIN BLVD	WHITE AVE	VIRGINIA PKWY	5,297	1.00	2	2	4D	701	701	50%	700	700	702	702	352	352	351	351		
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		
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		
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	985' E OF HARDIN BLVD	2,100' E OF HARDIN BLVD	1,118	0.21	1	1	3U	100	100	100%	525	525	111	111	21	21	90	90		
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		
SUBTOTAL			99,731	18.89									26,500	26,652	15,520	15,643	10,979	11,009	582	582
													53,151		31,163		21,988		1,163	

City of McKinney - 2018 - 2019 Roadway Impact Fee Update
Existing Roadway Facilities Inventory

Service Area K

1/7/2020

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES		TYPE	PM PEAK HOUR VOL	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN		VEH-MI SUPPLY PK-HR TOTAL		VEH-MI DEMAND PK-HR TOTAL		EXCESS CAPACITY VEH-MI		EXISTING DEFICIENCIES PK-HR VEH-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		
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			
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 546	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	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	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	2UO	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	2UO	479	0	100%	475	475	814	0	410	0	404	0			
TENNESSEE ST	VIRGINIA STREET	LOUISIANA ST	249	0.05	2	0	2UO	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	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	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	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	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	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	1,935	100%	780	780	655	655	542	542	114	114			
TENNESSEE ST	LAMAR ST	VIRGINIA STREET	953	0.18	2	0	2UO	161	0	100%	475	475	171	0	29	0	142	0			
TENNESSEE ST	LAMAR ST	VIRGINIA STREET	953	0.18	2	0	2UO	141	0	100%	475	475	171	0	25	0	146	0			
TENNESSEE ST	LOUISIANA ST	DAVIS ST	468	0.09	2	0	2UO	162	0	100%	475	475	84	0	14	0	70	0			
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 / FM 546	1,656	0.31	2	2	4D	22	22	50%	700	700	220	220	3	3	216	216			
LOUISIANA ST	VIRGINIA STREET	GRAVES ST	1,050	0.20	2	0	2UO	631	0	100%	475	475	189	0	126	0	63	0			
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			
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	STATE HIGHWAY 5	419	0.08	2	2	4D	656	656	100%	700	700	111	111	52	52	59	59			
HARRY MCKILLOP BLVD / FM 546	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			126,338	23.93										24,086	23,595	14,430	14,560	9,657	9,035	973	999
														47,682	28,990		18,692		1,972		

**City of McKinney - 2018 - 2019 Roadway Impact Fee Update
Existing Roadway Facilities Inventory**

Service Area L

12/13/2019

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES		TYPE	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN		VEH-MI SUPPLY PK-HR TOTAL		VEH-MI DEMAND PK-HR TOTAL		EXCESS CAPACITY PK-HR VEH-MI		EXISTING DEFICIENCIES PK-HR VEH-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
AIRPORT DR	470' N OF HARRY MCKILLOP BLVD	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		2,975		2,545		302	

City of McKinney - 2018 - 2019 Roadway Impact Fee Update
Existing Roadway Facilities Inventory

12/13/2019

Service Area M

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES		TYPE	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN		VEH-MI SUPPLY PK-HR TOTAL		VEH-MI DEMAND PK-HR TOTAL		EXCESS CAPACITY PK-HR VEH-MI		EXISTING DEFICIENCIES PK-HR VEH-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
					No Thoroughfare Roadways within City Limits Currently Present within Service Area M															
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

DRAFT

SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

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	<u>\$ 2,272,855</u>	

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:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.

This is the maximum cost that can be recovered through impact fees.

SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

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 E - 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	<u>\$ 9,640,068</u>	

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:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.

This is the maximum cost that can be recovered through impact fees.

SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

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:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.

This is the maximum cost that can be recovered through impact fees.

SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

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	<u>\$ 8,560,746</u>	

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:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.

This is the maximum cost that can be recovered through impact fees.

SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

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	<u>\$ 2,552,974</u>	

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:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.

This is the maximum cost that can be recovered through impact fees.

SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

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	<u>\$ 2,942,747</u>	

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:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.

This is the maximum cost that can be recovered through impact fees.

SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

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	<u>\$ 7,106,451</u>	

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:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.

This is the maximum cost that can be recovered through impact fees.

SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

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	<u>\$ 2,915,731</u>	

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:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.

This is the maximum cost that can be recovered through impact fees.

SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

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	<u>\$ 2,590,329</u>	

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:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.

This is the maximum cost that can be recovered through impact fees.

SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

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	<u>\$ 829,021</u>	

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:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.

This is the maximum cost that can be recovered through impact fees.

SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

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	<u>\$ 157,670</u>	

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:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.

This is the maximum cost that can be recovered through impact fees.

Appendix E – Plan for Awarding the Roadway Impact Fee Credit Summary Supporting Exhibits

AS PREPARED BY NEWGEN STRATEGIES & SOLUTIONS, LLC

DRAFT

City of McKinney - 2019 Roadway Impact Fee Study
Capital Improvement Plan for Impact Fees
Appendix E - Impact Fee Calculation Assumptions
Service Area B

I. General Assumptions

Annual Interest Rate on Deposits ⁽¹⁾	2.00%
Annual Vehicle Mile Growth ⁽²⁾	958
Existing Fund Balance ⁽³⁾	\$ -

Portion of Projects Funded by Existing Debt ⁽⁴⁾	\$ -
Non-debt Funded Project Cost ⁽⁵⁾	4,819,097
New Project Cost Funded Through New Debt ⁽⁶⁾	4,819,097
Total Recoverable Project Cost ⁽⁷⁾	\$ 9,638,193

II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal</u> ⁽⁸⁾	<u>Interest</u> ⁽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
Total	\$ 4,819,097		

III. Capital Expenditure Assumptions

<u>Year</u>	<u>Annual Capital Expenditures</u> ⁽¹⁰⁾
1	\$ 481,910
2	642,546
3	803,183
4	963,819
5	963,819
6	963,819
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) 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

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>	<u>Series 1</u>	<u>Series 2</u>	<u>Series 3</u>	<u>Series 4</u>	<u>Series 5</u>	<u>Series 6</u>	<u>Series 7</u>	<u>Series 8</u>	<u>Series 9</u>	<u>Series 10</u>	<u>Total Annual New Debt Service</u>
1	\$ 35,460	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 35,460
2	35,460	35,460	-	-	-	-	-	-	-	-	70,920
3	35,460	35,460	35,460	-	-	-	-	-	-	-	106,379
4	35,460	35,460	35,460	35,460	-	-	-	-	-	-	141,839
5	35,460	35,460	35,460	35,460	35,460	-	-	-	-	-	177,299
6	35,460	35,460	35,460	35,460	35,460	35,460	-	-	-	-	212,759
7	35,460	35,460	35,460	35,460	35,460	35,460	35,460	-	-	-	248,218
8	35,460	35,460	35,460	35,460	35,460	35,460	35,460	35,460	-	-	283,678
9	35,460	35,460	35,460	35,460	35,460	35,460	35,460	35,460	35,460	-	319,138
10	35,460	35,460	35,460	35,460	35,460	35,460	35,460	35,460	35,460	35,460	354,598
11	35,460	35,460	35,460	35,460	35,460	35,460	35,460	35,460	35,460	35,460	354,598
12	35,460	35,460	35,460	35,460	35,460	35,460	35,460	35,460	35,460	35,460	354,598
13	35,460	35,460	35,460	35,460	35,460	35,460	35,460	35,460	35,460	35,460	354,598
14	35,460	35,460	35,460	35,460	35,460	35,460	35,460	35,460	35,460	35,460	354,598
15	35,460	35,460	35,460	35,460	35,460	35,460	35,460	35,460	35,460	35,460	354,598
16	35,460	35,460	35,460	35,460	35,460	35,460	35,460	35,460	35,460	35,460	354,598
17	35,460	35,460	35,460	35,460	35,460	35,460	35,460	35,460	35,460	35,460	354,598
18	35,460	35,460	35,460	35,460	35,460	35,460	35,460	35,460	35,460	35,460	354,598
19	35,460	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	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	-	-	-	-	-	-	-	-	-	35,460	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

<u>Year</u>	<u>New Annual Debt Service⁽¹⁾</u>	<u>Annual Capital Expenditures⁽²⁾</u>	<u>Annual Bond Proceeds⁽²⁾</u>	<u>Existing Annual Debt Service⁽³⁾</u>	<u>Annual Credit⁽⁴⁾</u>	<u>Total Expense</u>
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

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area B

<u>Year</u>	<u>Impact Fee</u>	<u>Vehicle Miles</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund 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	

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees

Appendix E - Impact Fee Calculation Assumptions

Service Area B

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Annual Vehicle Miles</u>		<u>Annual Expense</u>	
				<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
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	3	1.0508	1.0000	-	-	105,048	110,385
28	2	1.0302	1.0000	-	-	70,032	72,147
29	1	1.0100	1.0000	-	-	35,016	35,366
					<u>15,431</u>		<u>\$ 16,883,217</u>

Annual Interest Rate: 2.00%

Present Value of Initial Impact Fee Fund Balance \$ -

Total Escalated Expense for Entire Period \$ 16,883,217

Less Future Value of Initial Impact Fee Fund Balance -

Sub-Total \$ 16,883,217

Total Escalated Vehicle Miles 15,431

Impact Fee For Service Area B \$ 1,094

City of McKinney - 2019 Roadway Impact Fee Study
 Capital Improvement Plan for Impact Fees
 Appendix E - Impact Fee Calculation Assumptions
 Service Area B

<u>Impact Fee Project Name⁽¹⁾</u>	<u>Impact Fee Project No.⁽¹⁾</u>	<u>Cost In Service Area⁽¹⁾</u>		<u>Impact Fee Recoverable Cost⁽²⁾</u>		<u>Debt Funded⁽³⁾</u>		<u>Non-Debt Funded⁽³⁾</u>	<u>Impact Fee Recoverable Cost</u>
						<u>Existing</u>	<u>Proposed</u>		
UNNAMED 5 (4)	B-1, D-2	\$	2,452,100	\$	2,433,532	\$	-	\$ 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	-	74,432	74,432	148,864
Signal	3		150,000		148,864	-	74,432	74,432	148,864
Impact Fee Study			11,692		11,692	-	5,846	5,846	11,692
Total		\$	9,711,642	\$	9,638,193	\$	-	\$ 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.

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area B

<u>Year</u>	<u>Eligible Debt Service⁽¹⁾</u>	<u>Annual Vehicle Miles</u>	<u>Eligible Debt Service per Vehicle Mile</u>	<u>Annual Growth in Vehicle Miles (Cumulative)</u>	<u>Credit for Annual Ad Valorem 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	0.46	9,578	4,436
19	354,598	765,636	0.46	9,578	4,436
20	354,598	765,636	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⁾	588,343
Ten Year Growth in Vehicle Miles in Service Area ⁽³⁾	9,578
Annual Growth in Vehicle Miles	<u>10 years</u> 958
Ten Year Growth in Vehicle Miles In Other Service Areas ⁽³⁾	167,715
Annual Growth in Vehicle Miles	<u>10 years</u> 16,772
Credit Amount	\$ 82,337

(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

City of McKinney - 2019 Roadway Impact Fee Study
Capital Improvement Plan for Impact Fees
Appendix E - Impact Fee Calculation Assumptions
Service Area C

I. General Assumptions

Annual Interest Rate on Deposits ⁽¹⁾	2.00%
Annual Vehicle Mile Growth ⁽²⁾	1,558
Existing Fund Balance ⁽³⁾	\$ 1,784,813
Portion of Projects Funded by Existing Debt ⁽⁴⁾	\$ 4,941,103
Non-debt Funded Project Cost ⁽⁵⁾	18,704,299
New Project Cost Funded Through New Debt ⁽⁶⁾	18,541,789
Total Recoverable Project Cost ⁽⁷⁾	\$ 42,187,190

II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal</u> ⁽⁸⁾	<u>Interest</u> ⁽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

<u>Year</u>	<u>Annual Capital Expenditures</u> ⁽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) 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

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

<u>Year</u>	<u>Series 1</u>	<u>Series 2</u>	<u>Series 3</u>	<u>Series 4</u>	<u>Series 5</u>	<u>Series 6</u>	<u>Series 7</u>	<u>Series 8</u>	<u>Series 9</u>	<u>Series 10</u>	<u>Total Annual New Debt Service</u>
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	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	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	-	-	-	-	-	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
	\$ 2,728,675	\$ 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

<u>Year</u>	<u>New Annual Debt Service⁽¹⁾</u>	<u>Annual Capital Expenditures⁽²⁾</u>	<u>Annual Bond Proceeds⁽²⁾</u>	<u>Existing Annual Debt Service⁽³⁾</u>	<u>Annual Credit⁽⁴⁾</u>	<u>Total Expense</u>
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

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area C

<u>Year</u>	<u>Impact Fee</u>	<u>Vehicle Miles</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
Initial							\$ 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	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	-	-	-	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	-	-	-	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	

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees

Appendix E - Impact Fee Calculation Assumptions

Service Area C

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Annual Vehicle Miles</u>		<u>Annual Expense</u>	
				<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
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	-	-	133,657	134,994
				<u>25,104</u>		<u>\$ 73,660,447</u>	

Annual Interest Rate: 2.00%

Present Value of Initial Impact Fee Fund Balance \$ 1,784,813

Total Escalated Expense for Entire Period \$ 73,660,447

Less Future Value of Initial Impact Fee Fund Balance 3,169,551

Sub-Total \$ 70,490,896

Total Escalated Vehicle Miles 25,104

Impact Fee For Service Area C \$ 2,808

City of McKinney - 2019 Roadway Impact Fee Study
Capital Improvement Plan for Impact Fees
Appendix E - Impact Fee Calculation Assumptions
Service Area C

Impact Fee Project Name⁽¹⁾	Total		Cost In		Impact Fee		Debt Funded⁽³⁾		Non-Debt		Impact Fee	
	Project Cost⁽¹⁾		Service Area⁽¹⁾		Recoverable Cost⁽²⁾		Existing	Proposed	Funded⁽³⁾		Recoverable Cost	
UNNAMED 5 (1)	\$ 7,715,900	\$	3,857,950	\$	1,392,232	\$	-	\$ 696,116	\$	696,116	\$	1,392,232
UNNAMED 5 (2)	3,137,400		1,568,700		566,102		-	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)		16,425		574,871
WILMETH RD (4)	708,000		708,000		255,498		248,198	-		7,300		255,498
CUSTER RD (1)	1,834,000		917,000		330,921		-	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		-	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	19,487		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	\$	116,882,308	\$	42,187,190	\$	4,941,103	\$ 18,541,789	\$	18,704,299	\$	42,187,190

(1) Per Kinley-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.

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area C

<u>Year</u>	<u>Eligible Debt Service⁽¹⁾</u>	<u>Annual Vehicle Miles</u>	<u>Eligible Debt Service per Vehicle Mile</u>	<u>Annual Growth in Vehicle Miles (Cumulative)</u>	<u>Credit for Annual Ad Valorem 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⁾	588,343
Ten Year Growth in Vehicle Miles in Service Area ⁽³⁾	15,582
Annual Growth in Vehicle Miles	<u>10 years</u> 1,558
Ten Year Growth in Vehicle Miles In Other Service Areas ⁽³⁾	161,711
Annual Growth in Vehicle Miles	<u>10 years</u> 16,171
Credit Amount	\$ 601,239

(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

City of McKinney - 2019 Roadway Impact Fee Study
Capital Improvement Plan for Impact Fees
Appendix E - Impact Fee Calculation Assumptions
Service Area D

I. General Assumptions

Annual Interest Rate on Deposits ⁽¹⁾	2.00%
Annual Vehicle Mile Growth ⁽²⁾	4,130
Existing Fund Balance ⁽³⁾	\$ 131,981
Portion of Projects Funded by Existing Debt ⁽⁴⁾	\$ 9,639,457
Non-debt Funded Project Cost ⁽⁵⁾	62,068,334
New Project Cost Funded Through New Debt ⁽⁶⁾	60,419,273
Total Recoverable Project Cost ⁽⁷⁾	\$ 132,127,064

II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal</u> ⁽⁸⁾	<u>Interest</u> ⁽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

<u>Year</u>	<u>Annual Capital Expenditures</u> ⁽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) 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

City of McKinney - 2019 Roadway Impact Fee Study
Capital Improvement Plan for Impact Fees
Appendix E - Impact Fee Calculation Assumptions
Service Area D

I. New Debt Service Detail

<u>Year</u>	<u>Series 1</u>	<u>Series 2</u>	<u>Series 3</u>	<u>Series 4</u>	<u>Series 5</u>	<u>Series 6</u>	<u>Series 7</u>	<u>Series 8</u>	<u>Series 9</u>	<u>Series 10</u>	<u>Total Annual New Debt Service</u>
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	-	-	-	-	-	-	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	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	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	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	-	-	-	-	-	-	-	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	\$ 88,915,117

II. Summary of Annual Expenses

<u>Year</u>	<u>New Annual Debt Service⁽¹⁾</u>	<u>Annual Capital Expenditures⁽²⁾</u>	<u>Annual Bond Proceeds⁽²⁾</u>	<u>Existing Annual Debt Service⁽³⁾</u>	<u>Annual Credit⁽⁴⁾</u>	<u>Total Expense</u>
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)	2,944,164
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

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area D

<u>Year</u>	<u>Impact Fee</u>	<u>Vehicle Miles</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
Initial							\$ 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	4,691,401	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	-	-	-	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	-	-	-	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	-	-	-	2,102,974	(2,102,974)	100,693	4,083,850
26	-	-	-	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	

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees

Appendix E - Impact Fee Calculation Assumptions

Service Area D

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Annual Vehicle Miles</u>		<u>Annual Expense</u>	
				<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</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	1.1602	1.0000	-	-	3,364,759	3,903,701
23	7	1.1374	1.0000	-	-	2,944,164	3,348,763
24	6	1.1151	1.0000	-	-	2,523,569	2,814,086
25	5	1.0933	1.0000	-	-	2,102,974	2,299,090
26	4	1.0718	1.0000	-	-	1,682,379	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
				<u>66,538</u>		<u>\$ 228,968,108</u>	

Annual Interest Rate: 2.00%

Present Value of Initial Impact Fee Fund Balance \$ 131,981

Total Escalated Expense for Entire Period \$ 228,968,108

Less Future Value of Initial Impact Fee Fund Balance 234,378

Sub-Total \$ 228,733,730

Total Escalated Vehicle Miles 66,538

Impact Fee For Service Area D \$ 3,438

City of McKinney - 2019 Roadway Impact Fee Study
Capital Improvement Plan for Impact Fees
Appendix E - Impact Fee Calculation Assumptions
Service Area D

Impact Fee Project Name ⁽¹⁾	Impact Fee Project No. ⁽¹⁾	Cost In		Impact Fee		Debt Funded ⁽³⁾		Non-Debt Funded ⁽³⁾	Impact Fee	
		Service Area ⁽¹⁾		Recoverable Cost ⁽²⁾		Existing	Proposed		Recoverable Cost	
UNNAMED 5 (3)	A-2, D-1	\$	3,758,750	\$	2,627,229	\$	-	\$ 1,313,615	\$	2,627,229
UNNAMED 5 (4)	B-1, D-2		2,452,100		1,713,928		-	856,964		1,713,928
LAUD HOWELL PKWY (6)	D-3		39,497,100		27,607,032		-	13,803,516		27,607,032
LAUD HOWELL PKWY (7)	D-4		8,774,550		6,133,090		-	3,066,545		6,133,090
LAUD HOWELL PKWY (8)	D-5		2,220,027		1,551,718	438,978		314,534		1,551,718
TRINITY FALLS PKWY (1)	D-6		3,243,800		2,267,298	-		1,133,649		2,267,298
TRINITY FALLS PKWY (2)	D-7		650,300		454,536	-		227,268		454,536
TRINITY FALLS PKWY (3)	D-8		2,988,400		2,088,783	-		1,044,391		2,088,783
TRINITY FALLS PKWY (4)	D-9		8,418,050		5,883,910	-		2,941,955		5,883,910
TRINITY FALLS PKWY (5)	D-10		7,622,400		5,327,780	3,497,455		881,533		5,327,780
BLOOMDALE RD (7)	D-11		1,899,800		1,327,891	-		663,945		1,327,891
BLOOMDALE RD (8)	D-12		3,206,000		2,240,877	-		1,120,439		2,240,877
BLOOMDALE RD (9)	D-13		1,500,800		1,049,004	-		524,502		1,049,004
BLOOMDALE RD (10)	D-14		5,885,810		4,113,966	1,939,066		1,021,605		4,113,966
BLOOMDALE RD (11)	D-15		5,165,390		3,610,419	2,544,347		446,637		3,610,419
WILMETH RD (5)	D-16		5,495,525		3,841,172	-		1,920,586		3,841,172
WILMETH RD (6)	D-17		1,401,400		979,527	-		489,764		979,527
WILMETH RD (7)	D-18		411,600		287,693	-		143,847		287,693
WILMETH RD (8)	D-19		1,901,900		1,329,359	-		664,679		1,329,359
WILMETH RD (9)	D-20		2,799,600		1,956,818	-		978,409		1,956,818
LAKE FOREST DR (1)	D-21		3,224,200		2,253,598	-		1,126,799		2,253,598
LAKE FOREST DR (3)	C-34, D-22		1,175,400		821,562	-		410,781		821,562
UNNAMED A (1)	D-23		17,435,950		12,187,093	-		6,093,547		12,187,093
UNNAMED A (2)	D-24		2,299,425		1,607,214	-		803,607		1,607,214
UNNAMED A (3)	D-25		938,000		655,628	-		327,814		655,628
UNNAMED A (4)	D-26		5,969,050		4,172,148	-		2,086,074		4,172,148
TAYLOR-BURK DR (1)	D-27		2,038,250		1,424,662	-		712,331		1,424,662
HARDIN BLVD (4)	D-28		1,633,700		1,141,897	-		570,948		1,141,897
HARDIN BLVD (5)	D-29		21,290,800		14,881,493	-		7,440,746		14,881,493
HARDIN BLVD (6)	D-30		2,051,000		1,433,574	-		716,787		1,433,574
HARDIN BLVD (7)	D-31		4,538,400		3,172,176	-		1,586,088		3,172,176
HARDIN BLVD (8)	D-32		1,070,400		748,171	-		374,085		748,171
HARDIN BLVD (9)	D-33		1,124,900		786,264	-		393,132		786,264
HARDIN BLVD (10)	D-34		2,904,000		2,029,790	-		1,014,895		2,029,790
COMMUNITY AVE (1)	D-35		2,164,400		1,512,837	-		756,418		1,512,837
COMMUNITY AVE (2)	D-36		1,960,000		1,369,969	-		684,984		1,369,969
COMMUNITY AVE (3)	D-37		1,174,600		821,003	-		410,501		821,003
Signal	3		150,000		104,845	-		52,422		104,845
Signal	6		150,000		104,845	-		52,422		104,845
Signal	7		300,000		209,689	-		104,845		209,689
Signal	8		300,000		209,689	-		104,845		209,689
Signal	9		225,000		157,267	-		78,633		157,267
Roundabout	10		100,000		69,896	-		34,948		69,896
Interchange Signals	11		300,000		209,689	-		104,845		209,689
Signal	16		75,000		52,422	-		26,211		52,422
Signal	17		300,000		209,689	-		104,845		209,689
Signal	18		300,000		209,689	-		104,845		209,689
Interchange Signals	19		300,000		209,689	-		104,845		209,689
Roundabout	25		915,000		639,552	-		-		639,552
Roundabout	26		150,000		104,845	-		52,422		104,845
Roundabout	27		1,575,000		1,100,868	1,034,148		-		1,100,868
Roundabout	32		1,200,000		838,756	-		419,378		838,756
Under Construction	36		390,341		272,834	185,464		-		272,834
Impact Fee Study			11,692		11,692	-		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.

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area D

<u>Year</u>	<u>Eligible Debt Service⁽¹⁾</u>	<u>Annual Vehicle Miles</u>	<u>Eligible Debt Service per Vehicle Mile</u>	<u>Annual Growth in Vehicle Miles (Cumulative)</u>	<u>Credit for Annual Ad Valorem Revenues</u>
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	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	23,981
Total	\$ 102,252,013				\$ 5,004,090

2019 Vehicle Miles ⁽²⁾	588,343
Ten Year Growth in Vehicle Miles in Service Area ⁽³⁾	41,299
Annual Growth in Vehicle Miles	4,130
Ten Year Growth in Vehicle Miles In Other Service Areas ⁽³⁾	135,994
Annual Growth in Vehicle Miles	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

City of McKinney - 2019 Roadway Impact Fee Study
Capital Improvement Plan for Impact Fees
Appendix E - Impact Fee Calculation Assumptions
Service Area E

I. General Assumptions

Annual Interest Rate on Deposits ⁽¹⁾	2.00%
Annual Vehicle Mile Growth ⁽²⁾	1,785
Existing Fund Balance ⁽³⁾	\$ 129,689
Portion of Projects Funded by Existing Debt ⁽⁴⁾	\$ 122,934
Non-debt Funded Project Cost ⁽⁵⁾	18,276,732
New Project Cost Funded Through New Debt ⁽⁶⁾	18,078,145
Total Recoverable Project Cost ⁽⁷⁾	\$ 36,477,811

II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal</u> ⁽⁸⁾	<u>Interest</u> ⁽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

<u>Year</u>	<u>Annual Capital Expenditures</u> ⁽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) 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

City of McKinney - 2019 Roadway Impact Fee Study
Capital Improvement Plan for Impact Fees
Appendix E - Impact Fee Calculation Assumptions
Service Area E

I. New Debt Service Detail

Year	Series 1	Series 2	Series 3	Series 4	Series 5	Series 6	Series 7	Series 8	Series 9	Series 10	Total Annual New Debt Service
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	-	-	-	-	-	-	-	-	-	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

Year	New Annual Debt Service⁽¹⁾	Annual Capital Expenditures⁽²⁾	Annual Bond Proceeds⁽²⁾	Existing Annual Debt Service⁽³⁾	Annual Credit⁽⁴⁾	Total 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	1,330,222	-	-	9,838	(31,233)	1,308,826
15	1,330,222	-	-	9,843	(31,233)	1,308,831
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
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

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area E

<u>Year</u>	<u>Impact Fee</u>	<u>Vehicle Miles</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
Initial							\$ 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	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	-	-	-	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	(129,922)	1,274	-
			\$ 39,294,334	\$ 44,460,346		\$ 5,036,323	

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area E

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Annual Vehicle Miles</u>		<u>Annual Expense</u>	
				<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
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	1.1151	1.0000	-	-	779,531	869,271
25	5	1.0933	1.0000	-	-	649,609	710,189
26	4	1.0718	1.0000	-	-	519,687	557,011
27	3	1.0508	1.0000	-	-	389,765	409,567
28	2	1.0302	1.0000	-	-	259,844	267,691
29	1	1.0100	1.0000	-	-	129,922	131,221
				<u>28,750</u>		<u>\$ 63,538,166</u>	

Annual Interest Rate: 2.00%

Present Value of Initial Impact Fee Fund Balance \$ 129,689

Total Escalated Expense for Entire Period \$ 63,538,166

Less Future Value of Initial Impact Fee Fund Balance 230,308

Sub-Total \$ 63,307,859

Total Escalated Vehicle Miles 28,750

Impact Fee For Service Area E \$ 2,202

City of McKinney - 2019 Roadway Impact Fee Study
Capital Improvement Plan for Impact Fees
Appendix E - Impact Fee Calculation Assumptions
Service Area E

<u>Impact Fee Project Name⁽¹⁾</u>	<u>Impact Fee Project No.⁽¹⁾</u>	<u>Cost In</u>		<u>Impact Fee</u>		<u>Debt Funded⁽³⁾</u>		<u>Non-Debt</u>	<u>Impact Fee</u>	
		<u>Service Area⁽¹⁾</u>		<u>Recoverable Cost⁽²⁾</u>		<u>Existing</u>	<u>Proposed</u>	<u>Funded⁽³⁾</u>	<u>Recoverable Cost</u>	
BLOOMDALE RD (12)	E-1	\$	955,200	\$	472,488	\$	-	\$ 236,244	\$	472,488
BLOOMDALE RD (13)	E-2		3,361,400		1,662,710		-	831,355		1,662,710
WILMETH RD (10)	E-3		1,935,600		957,441		-	478,720		957,441
WILMETH RD (11)	E-4		2,608,200		1,290,141		-	645,070		1,290,141
WILMETH RD (12)	E-5		5,068,500		2,507,123		-	1,253,562		2,507,123
WILMETH RD (13)	E-6		2,804,200		1,387,092		-	693,546		1,387,092
WILMETH RD (14)	E-7		1,708,700		845,205		-	422,603		845,205
WILMETH RD (15)	E-8		1,614,900		798,807		-	399,404		798,807
REDBUD BLVD (1)	E-9		650,000		321,521	122,934	-	198,587		321,521
REDBUD BLVD (2)	E-10		852,600		421,737		-	210,868		421,737
LAUD HOWELL PKWY (9)	E-11		1,954,750		966,913		-	483,457		966,913
LAUD HOWELL PKWY (10)	E-12		1,876,700		928,306		-	464,153		928,306
LAUD HOWELL PKWY (11)	E-13		861,000		425,892		-	212,946		425,892
STATE HIGHWAY 5 (1)	E-14		347,550		171,915		-	85,957		171,915
STATE HIGHWAY 5 (2)	E-15		13,994,400		6,922,302		-	3,461,151		6,922,302
AIRPORT DR (1)	E-16		9,379,050		4,639,328		-	2,319,664		4,639,328
AIRPORT DR (2)	E-17		6,582,850		3,256,194		-	1,628,097		3,256,194
AIRPORT DR (3)	E-18		3,648,400		1,804,674		-	902,337		1,804,674
AIRPORT DR (4)	E-19		8,952,800		4,428,485		-	2,214,242		4,428,485
UNNAMED C (1)	E-20		986,400		487,921		-	243,960		487,921
UNNAMED C (2)	E-21		1,403,150		694,065		-	347,033		694,065
Interchange Signals	11		300,000		148,394		-	74,197		148,394
Interchange Signals	19		300,000		148,394		-	74,197		148,394
Signal	20		300,000		148,394		-	74,197		148,394
Signal	21		300,000		148,394		-	74,197		148,394
Signal Mod	22		150,000		74,197		-	37,099		74,197
Signal	28		300,000		148,394		-	74,197		148,394
Signal Mod	29		150,000		74,197		-	37,099		74,197
Signal	30		150,000		74,197		-	37,099		74,197
Signal	31		150,000		74,197		-	37,099		74,197
Signal Mod	41		75,000		37,099		-	18,549		37,099
Impact Fee Study			11,692		11,692		-	5,846		11,692
Total		\$	73,733,042	\$	36,477,811	\$	122,934	\$ 18,078,145	\$ 18,276,732	\$ 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.

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area E

<u>Year</u>	<u>Eligible Debt Service⁽¹⁾</u>	<u>Annual Vehicle Miles</u>	<u>Eligible Debt Service per Vehicle Mile</u>	<u>Annual Growth in Vehicle Miles (Cumulative)</u>	<u>Credit for Annual Ad Valorem Revenues</u>
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	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
Annual Growth in Vehicle Miles	<u>10</u> years 1,785
Ten Year Growth in Vehicle Miles In Other Service Areas ⁽³⁾	159,448
Annual Growth in Vehicle Miles	<u>10</u> years 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

City of McKinney - 2019 Roadway Impact Fee Study
Capital Improvement Plan for Impact Fees
Appendix E - Impact Fee Calculation Assumptions
Service Area G

I. General Assumptions

Annual Interest Rate on Deposits ⁽¹⁾	2.00%
Annual Vehicle Mile Growth ⁽²⁾	774
Existing Fund Balance ⁽³⁾	\$ 448,086
Portion of Projects Funded by Existing Debt ⁽⁴⁾	\$ 2,373,984
Non-debt Funded Project Cost ⁽⁵⁾	2,914,970
New Project Cost Funded Through New Debt ⁽⁶⁾	2,752,700
Total Recoverable Project Cost ⁽⁷⁾	\$ 8,041,653

II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal⁽⁸⁾</u>	<u>Interest⁽⁹⁾</u>	<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

<u>Year</u>	<u>Annual Capital Expenditures⁽¹⁰⁾</u>
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

City of McKinney - 2019 Roadway Impact Fee Study
Capital Improvement Plan for Impact Fees
Appendix E - Impact Fee Calculation Assumptions
Service Area G

I. New Debt Service Detail

<u>Year</u>	<u>Series 1</u>	<u>Series 2</u>	<u>Series 3</u>	<u>Series 4</u>	<u>Series 5</u>	<u>Series 6</u>	<u>Series 7</u>	<u>Series 8</u>	<u>Series 9</u>	<u>Series 10</u>	<u>Total Annual New Debt Service</u>
1	\$ 20,255	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 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	-	-	-	-	-	-	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	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	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	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	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	-	-	-	-	-	-	-	20,255	20,255	20,255	60,765
28	-	-	-	-	-	-	-	-	20,255	20,255	40,510
29	-	-	-	-	-	-	-	-	-	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

<u>Year</u>	<u>New Annual Debt Service⁽¹⁾</u>	<u>Annual Capital Expenditures⁽²⁾</u>	<u>Annual Bond Proceeds⁽²⁾</u>	<u>Existing Annual Debt Service⁽³⁾</u>	<u>Annual Credit⁽⁴⁾</u>	<u>Total Expense</u>
1	\$ 20,255	\$ 291,497	\$ (275,270)	\$ 182,760	\$ (259)	\$ 218,983
2	40,510	383,254	(275,270)	182,765	(554)	330,704
3	60,765	475,010	(275,270)	182,759	(882)	442,382
4	81,019	566,767	(275,270)	182,764	(1,239)	554,041
5	101,274	566,767	(275,270)	182,760	(1,624)	573,908
6	121,529	566,767	(275,270)	182,766	(2,035)	593,758
7	141,784	566,767	(275,270)	182,763	(2,469)	613,575
8	162,039	566,767	(275,270)	182,768	(2,925)	633,379
9	182,294	566,767	(275,270)	182,762	(3,401)	653,152
10	202,548	566,767	(275,270)	182,765	(3,896)	672,914
11	202,548	275,270	-	182,765	(3,896)	656,687
12	202,548	183,513	-	182,762	(3,896)	564,927
13	202,548	91,757	-	182,765	(3,896)	473,174
14	202,548	-	-	182,764	(3,896)	381,416
15	202,548	-	-	182,768	(3,896)	381,420
16	202,548	-	-	182,766	(3,896)	381,418
17	202,548	-	-	176,117	(3,829)	374,836
18	202,548	-	-	176,117	(3,829)	374,836
19	202,548	-	-	176,117	(3,829)	374,836
20	202,548	-	-	176,117	(3,829)	374,836
21	182,294	-	-	-	(1,843)	180,450
22	162,039	-	-	-	(1,639)	160,400
23	141,784	-	-	-	(1,434)	140,350
24	121,529	-	-	-	(1,229)	120,300
25	101,274	-	-	-	(1,024)	100,250
26	81,019	-	-	-	(819)	80,200
27	60,765	-	-	-	(614)	60,150
28	40,510	-	-	-	(410)	40,100
29	20,255	-	-	-	(205)	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

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees

Appendix E - Impact Fee Calculation Assumptions

Service Area G

<u>Year</u>	<u>Impact Fee</u>	<u>Vehicle Miles</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
Initial							\$ 448,086
1	\$ 1,155	774	\$ 894,233	\$ 218,983	\$ 675,250	\$ 15,714	1,139,050
2	1,155	774	894,233	330,704	563,529	28,416	1,730,996
3	1,155	774	894,233	442,382	451,850	39,138	2,221,985
4	1,155	774	894,233	554,041	340,191	47,842	2,610,018
5	1,155	774	894,233	573,908	320,325	55,404	2,985,746
6	1,155	774	894,233	593,758	300,475	62,720	3,348,941
7	1,155	774	894,233	613,575	280,658	69,785	3,699,384
8	1,155	774	894,233	633,379	260,854	76,596	4,036,835
9	1,155	774	894,233	653,152	241,081	83,148	4,361,063
10	1,155	774	894,233	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	-	-	-	60,150	(60,150)	1,750	59,171
28	-	-	-	40,100	(40,100)	782	19,853
29	-	-	-	20,050	(20,050)	197	-
			\$ 8,942,328	\$ 10,527,433		\$ 1,137,019	

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees

Appendix E - Impact Fee Calculation Assumptions

Service Area G

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Annual Vehicle Miles</u>		<u>Annual Expense</u>	
				<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
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
				<u>12,473</u>		<u>\$ 15,202,888</u>	

Annual Interest Rate: 2.00%

Present Value of Initial Impact Fee Fund Balance \$ 448,086

Total Escalated Expense for Entire Period \$ 15,202,888

Less Future Value of Initial Impact Fee Fund Balance 795,731

Sub-Total \$ 14,407,157

Total Escalated Vehicle Miles 12,473

Impact Fee For Service Area G \$ 1,155

City of McKinney - 2019 Roadway Impact Fee Study
Capital Improvement Plan for Impact Fees
Appendix E - Impact Fee Calculation Assumptions
Service Area G

<u>Impact Fee Project Name⁽¹⁾</u>	<u>Impact Fee Project No.⁽¹⁾</u>	<u>Cost In Service Area⁽¹⁾</u>	<u>Impact Fee Recoverable Cost⁽²⁾</u>	<u>Debt Funded⁽³⁾</u>		<u>Non-Debt Funded⁽³⁾</u>	<u>Impact Fee Recoverable Cost</u>
				<u>Existing</u>	<u>Proposed</u>		
VIRGINIA PKWY (1)	G-1	\$ 2,158,800	\$ 573,853	\$ -	\$ 286,926	\$ 286,926	\$ 573,853
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.

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area G

<u>Year</u>	<u>Eligible Debt Service⁽¹⁾</u>	<u>Annual Vehicle Miles</u>	<u>Eligible Debt Service per Vehicle Mile</u>	<u>Annual Growth in Vehicle Miles (Cumulative)</u>	<u>Credit for Annual Ad Valorem Revenues</u>
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	0.49	7,742	3,829
19	378,665	765,636	0.49	7,742	3,829
20	378,665	765,636	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⁾	588,343
Ten Year Growth in Vehicle Miles in Service Area ⁽³⁾	7,742
Annual Growth in Vehicle Miles	<u>10 years</u> 774
Ten Year Growth in Vehicle Miles In Other Service Areas ⁽³⁾	169,551
Annual Growth in Vehicle Miles	<u>10 years</u> 16,955
Credit Amount	\$ 67,194

(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

City of McKinney - 2019 Roadway Impact Fee Study
Capital Improvement Plan for Impact Fees
Appendix E - Impact Fee Calculation Assumptions
Service Area H

I. General Assumptions

Annual Interest Rate on Deposits ⁽¹⁾	2.00%
Annual Vehicle Mile Growth ⁽²⁾	3,132
Existing Fund Balance ⁽³⁾	\$ 293,933

Portion of Projects Funded by Existing Debt ⁽⁴⁾	\$ 3,596,908
Non-debt Funded Project Cost ⁽⁵⁾	3,387,483
New Project Cost Funded Through New Debt ⁽⁶⁾	3,229,433
Total Recoverable Project Cost ⁽⁷⁾	\$ 10,213,823

II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal</u> ⁽⁸⁾	<u>Interest</u> ⁽⁹⁾	<u>Term</u>
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

<u>Year</u>	<u>Annual Capital Expenditures</u> ⁽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) 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

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

<u>Year</u>	<u>Series 1</u>	<u>Series 2</u>	<u>Series 3</u>	<u>Series 4</u>	<u>Series 5</u>	<u>Series 6</u>	<u>Series 7</u>	<u>Series 8</u>	<u>Series 9</u>	<u>Series 10</u>	<u>Total Annual New Debt Service</u>
1	\$ 23,763	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 23,763
2	23,763	23,763	-	-	-	-	-	-	-	-	47,525
3	23,763	23,763	23,763	-	-	-	-	-	-	-	71,288
4	23,763	23,763	23,763	23,763	-	-	-	-	-	-	95,051
5	23,763	23,763	23,763	23,763	23,763	-	-	-	-	-	118,814
6	23,763	23,763	23,763	23,763	23,763	23,763	-	-	-	-	142,576
7	23,763	23,763	23,763	23,763	23,763	23,763	23,763	-	-	-	166,339
8	23,763	23,763	23,763	23,763	23,763	23,763	23,763	23,763	-	-	190,102
9	23,763	23,763	23,763	23,763	23,763	23,763	23,763	23,763	23,763	-	213,865
10	23,763	23,763	23,763	23,763	23,763	23,763	23,763	23,763	23,763	23,763	237,627
11	23,763	23,763	23,763	23,763	23,763	23,763	23,763	23,763	23,763	23,763	237,627
12	23,763	23,763	23,763	23,763	23,763	23,763	23,763	23,763	23,763	23,763	237,627
13	23,763	23,763	23,763	23,763	23,763	23,763	23,763	23,763	23,763	23,763	237,627
14	23,763	23,763	23,763	23,763	23,763	23,763	23,763	23,763	23,763	23,763	237,627
15	23,763	23,763	23,763	23,763	23,763	23,763	23,763	23,763	23,763	23,763	237,627
16	23,763	23,763	23,763	23,763	23,763	23,763	23,763	23,763	23,763	23,763	237,627
17	23,763	23,763	23,763	23,763	23,763	23,763	23,763	23,763	23,763	23,763	237,627
18	23,763	23,763	23,763	23,763	23,763	23,763	23,763	23,763	23,763	23,763	237,627
19	23,763	23,763	23,763	23,763	23,763	23,763	23,763	23,763	23,763	23,763	237,627
20	23,763	23,763	23,763	23,763	23,763	23,763	23,763	23,763	23,763	23,763	237,627
21	-	23,763	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	\$ 475,255	\$ 475,255	\$ 475,255	\$ 475,255	\$ 475,255	\$ 475,255	\$ 475,255	\$ 475,255	\$ 475,255	\$ 4,752,546

II. Summary of Annual Expenses

<u>Year</u>	<u>New Annual Debt Service⁽¹⁾</u>	<u>Annual Capital Expenditures⁽²⁾</u>	<u>Annual Bond Proceeds⁽²⁾</u>	<u>Existing Annual Debt Service⁽³⁾</u>	<u>Annual Credit⁽⁴⁾</u>	<u>Total Expense</u>
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)	205,115
22	190,102	-	-	-	(7,778)	182,324
23	166,339	-	-	-	(6,805)	159,534
24	142,576	-	-	-	(5,833)	136,743
25	118,814	-	-	-	(4,861)	113,953
26	95,051	-	-	-	(3,889)	91,162
27	71,288	-	-	-	(2,917)	68,372
28	47,525	-	-	-	(1,944)	45,581
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

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area H

<u>Year</u>	<u>Impact Fee</u>	<u>Vehicle Miles</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
Initial							\$ 293,933
1	\$ 361	3,132	\$ 1,129,758	\$ 521,557	\$ 608,201	\$ 11,961	914,095
2	361	3,132	1,129,758	424,347	705,411	25,336	1,644,841
3	361	3,132	1,129,758	552,642	577,116	38,668	2,260,626
4	361	3,132	1,129,758	679,973	449,785	49,710	2,760,121
5	361	3,132	1,129,758	750,457	379,301	58,995	3,198,418
6	361	3,132	1,129,758	693,086	436,672	68,335	3,703,426
7	361	3,132	1,129,758	781,726	348,032	77,549	4,129,007
8	361	3,132	1,129,758	893,326	236,432	84,944	4,450,383
9	361	3,132	1,129,758	891,852	237,906	91,387	4,779,676
10	361	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	-	-	-	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	

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area H

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Annual Vehicle Miles</u>		<u>Annual Expense</u>	
				<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
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	-	-	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	11	1.2312	1.0000	-	-	400,887	493,566
20	10	1.2070	1.0000	-	-	400,839	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
				<u>50,467</u>		<u>\$ 18,723,729</u>	

Annual Interest Rate: 2.00%

Present Value of Initial Impact Fee Fund Balance \$ 293,933

Total Escalated Expense for Entire Period \$ 18,723,729

Less Future Value of Initial Impact Fee Fund Balance 521,979

Sub-Total \$ 18,201,750

Total Escalated Vehicle Miles 50,467

Impact Fee For Service Area H \$ 361

City of McKinney - 2019 Roadway Impact Fee Study
Capital Improvement Plan for Impact Fees
Appendix E - Impact Fee Calculation Assumptions
Service Area H

<u>Impact Fee Project Name⁽¹⁾</u>	<u>Impact Fee Project No.⁽¹⁾</u>	<u>Cost In</u>		<u>Impact Fee</u>		<u>Debt Funded⁽³⁾</u>		<u>Non-Debt</u>	<u>Impact Fee</u>
		<u>Service Area⁽¹⁾</u>		<u>Recoverable Cost⁽²⁾</u>		<u>Existing</u>	<u>Proposed</u>	<u>Funded⁽³⁾</u>	<u>Recoverable Cost</u>
ELDORADO PKWY (1)	H-1, G-10	\$	2,601,000	\$	1,618,857	\$	-	\$ 809,429	\$ 1,618,857
SILVERADO TRL (1)	H-2		2,746,293		1,709,287		-	784,657	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)	2,788,338
CUSTER RD (6)	H-5		622,725		387,583		369,505	-	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	947,353
RIDGE RD (9)	H-8, I-9		831,000		517,213		-	258,606	517,213
MCKINNEY RANCH PKWY (1)	H-9		1,857,600		1,156,167		-	578,083	1,156,167
Signal	65		150,000		93,360		-	46,680	93,360
Signal	66		300,000		186,719		-	93,360	186,719
Signal	71		300,000		186,719		-	93,360	186,719
Signal	75		150,000		93,360		-	46,680	93,360
Signal	76		150,000		93,360		-	46,680	93,360
Signal	77		300,000		186,719		-	93,360	186,719
Impact Fee Study			11,692		11,692		-	5,846	11,692
Total		\$	16,403,341	\$	10,213,823	\$	3,596,908	\$ 3,229,433	\$ 10,213,823

(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.

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area H

<u>Year</u>	<u>Eligible Debt Service⁽¹⁾</u>	<u>Annual Vehicle Miles</u>	<u>Eligible Debt Service per Vehicle Mile</u>	<u>Annual Growth in Vehicle Miles (Cumulative)</u>	<u>Credit for Annual Ad Valorem 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	0.55	31,324	17,100
19	417,988	765,636	0.55	31,324	17,101
20	417,938	765,636	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⁾	588,343
Ten Year Growth in Vehicle Miles in Service Area ⁽³⁾	31,324
Annual Growth in Vehicle Miles	<u>10 years</u> 3,132
Ten Year Growth in Vehicle Miles In Other Service Areas ⁽³⁾	145,969
Annual Growth in Vehicle Miles	<u>10 years</u> 14,597
Credit Amount	\$ 333,123

(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

City of McKinney - 2019 Roadway Impact Fee Study
Capital Improvement Plan for Impact Fees
Appendix E - Impact Fee Calculation Assumptions
Service Area I

I. General Assumptions

Annual Interest Rate on Deposits ⁽¹⁾	2.00%
Annual Vehicle Mile Growth ⁽²⁾	1,833
Existing Fund Balance ⁽³⁾	\$ 5,189,258
Portion of Projects Funded by Existing Debt ⁽⁴⁾	\$ 8,841,956
Non-debt Funded Project Cost ⁽⁵⁾	9,795,967
New Project Cost Funded Through New Debt ⁽⁶⁾	6,383,918
Total Recoverable Project Cost ⁽⁷⁾	\$ 25,021,841

II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal</u> ⁽⁸⁾	<u>Interest</u> ⁽⁹⁾	<u>Term</u>
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

<u>Year</u>	<u>Annual Capital Expenditures</u> ⁽¹⁰⁾
1	\$ 979,597
2	1,192,394
3	1,405,191
4	1,617,988
5	1,617,988
6	1,617,988
7	1,617,988
8	1,617,988
9	1,617,988
10	1,617,988
11	638,392
12	425,595
13	212,797
Total	\$ 16,179,885

- (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

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

<u>Year</u>	<u>Series 1</u>	<u>Series 2</u>	<u>Series 3</u>	<u>Series 4</u>	<u>Series 5</u>	<u>Series 6</u>	<u>Series 7</u>	<u>Series 8</u>	<u>Series 9</u>	<u>Series 10</u>	<u>Total Annual New Debt Service</u>
1	\$ 46,974	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 46,974
2	46,974	46,974	-	-	-	-	-	-	-	-	93,948
3	46,974	46,974	46,974	-	-	-	-	-	-	-	140,922
4	46,974	46,974	46,974	46,974	-	-	-	-	-	-	187,896
5	46,974	46,974	46,974	46,974	46,974	-	-	-	-	-	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	-	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	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	46,974	46,974	46,974	46,974	46,974	46,974	46,974	46,974	46,974	46,974	469,740
19	46,974	46,974	46,974	46,974	46,974	46,974	46,974	46,974	46,974	46,974	469,740
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	422,766
22	-	-	46,974	46,974	46,974	46,974	46,974	46,974	46,974	46,974	375,792
23	-	-	-	46,974	46,974	46,974	46,974	46,974	46,974	46,974	328,818
24	-	-	-	-	46,974	46,974	46,974	46,974	46,974	46,974	281,844
25	-	-	-	-	-	46,974	46,974	46,974	46,974	46,974	234,870
26	-	-	-	-	-	-	46,974	46,974	46,974	46,974	187,896
27	-	-	-	-	-	-	-	46,974	46,974	46,974	140,922
28	-	-	-	-	-	-	-	-	46,974	46,974	93,948
29	-	-	-	-	-	-	-	-	-	46,974	46,974
	\$ 939,480	\$ 939,480	\$ 939,480	\$ 939,480	\$ 939,480	\$ 939,480	\$ 939,480	\$ 939,480	\$ 939,480	\$ 939,480	\$ 9,394,797

II. Summary of Annual Expenses

<u>Year</u>	<u>New Annual Debt Service⁽¹⁾</u>	<u>Annual Capital Expenditures⁽²⁾</u>	<u>Annual Bond Proceeds⁽²⁾</u>	<u>Existing Annual Debt Service⁽³⁾</u>	<u>Annual Credit⁽⁴⁾</u>	<u>Total Expense</u>
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

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area I

<u>Year</u>	<u>Impact Fee</u>	<u>Vehicle Miles</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
Initial							\$ 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	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	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	-	-	-	91,699	(91,699)	1,789	45,400
29	-	-	-	45,849	(45,849)	450	-
			\$ 23,188,757	\$ 31,679,290		\$ 3,301,274	

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees

Appendix E - Impact Fee Calculation Assumptions

Service Area I

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Annual Vehicle Miles</u>		<u>Annual Expense</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	3	1.0508	1.0000	-	-	137,548	144,536
28	2	1.0302	1.0000	-	-	91,699	94,468
29	1	1.0100	1.0000	-	-	45,849	46,308
				<u>29,535</u>		<u>\$ 46,575,170</u>	

Annual Interest Rate: 2.00%

Present Value of Initial Impact Fee Fund Balance \$ 5,189,258

Total Escalated Expense for Entire Period \$ 46,575,170

Less Future Value of Initial Impact Fee Fund Balance 9,215,316

Sub-Total \$ 37,359,854

Total Escalated Vehicle Miles 29,535

Impact Fee For Service Area I \$ 1,265

City of McKinney - 2019 Roadway Impact Fee Study
Capital Improvement Plan for Impact Fees
Appendix E - Impact Fee Calculation Assumptions
Service Area I

<u>Impact Fee Project Name⁽¹⁾</u>	<u>Impact Fee Project No.⁽¹⁾</u>	<u>Cost In Service Area⁽¹⁾</u>	<u>Impact Fee Recoverable Cost⁽²⁾</u>	<u>Debt Funded⁽³⁾</u>		<u>Non-Debt Funded⁽³⁾</u>	<u>Impact Fee Recoverable Cost</u>
				<u>Existing</u>	<u>Proposed</u>		
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	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.

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area I

<u>Year</u>	<u>Eligible Debt Service⁽¹⁾</u>	<u>Annual Vehicle Miles</u>	<u>Eligible Debt Service per Vehicle Mile</u>	<u>Annual Growth in Vehicle Miles (Cumulative)</u>	<u>Credit for Annual Ad Valorem 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⁾	588,343
Ten Year Growth in Vehicle Miles in Service Area ⁽³⁾	18,332
	<u>10</u> years
Annual Growth in Vehicle Miles	1,833
Ten Year Growth in Vehicle Miles In Other Service Areas ⁽³⁾	158,961
	<u>10</u> years
Annual Growth in Vehicle Miles	15,896
Credit Amount	\$ 449,003

(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

City of McKinney - 2019 Roadway Impact Fee Study
Capital Improvement Plan for Impact Fees
Appendix E - Impact Fee Calculation Assumptions
Service Area J

I. General Assumptions

Annual Interest Rate on Deposits ⁽¹⁾	2.00%
Annual Vehicle Mile Growth ⁽²⁾	2,486
Existing Fund Balance ⁽³⁾	\$ 2,179,356
Portion of Projects Funded by Existing Debt ⁽⁴⁾	\$ 2,989,838
Non-debt Funded Project Cost ⁽⁵⁾	3,326,536
New Project Cost Funded Through New Debt ⁽⁶⁾	3,305,234
Total Recoverable Project Cost ⁽⁷⁾	\$ 9,621,608

II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal</u> ⁽⁸⁾	<u>Interest</u> ⁽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
Total	\$ 3,305,234		

III. Capital Expenditure Assumptions

<u>Year</u>	<u>Annual Capital Expenditures</u> ⁽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) 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

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>	<u>Series 1</u>	<u>Series 2</u>	<u>Series 3</u>	<u>Series 4</u>	<u>Series 5</u>	<u>Series 6</u>	<u>Series 7</u>	<u>Series 8</u>	<u>Series 9</u>	<u>Series 10</u>	<u>Total Annual New Debt Service</u>
1	\$ 24,320	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 24,320
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	-	-	-	-	-	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	-	-	-	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	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	243,205
17	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	243,205
18	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	218,884
22	-	-	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	170,243
24	-	-	-	-	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	121,602
26	-	-	-	-	-	-	24,320	24,320	24,320	24,320	97,282
27	-	-	-	-	-	-	-	24,320	24,320	24,320	72,961
28	-	-	-	-	-	-	-	-	24,320	24,320	48,641
29	-	-	-	-	-	-	-	-	-	24,320	24,320
	\$ 486,410	\$ 486,410	\$ 486,410	\$ 486,410	\$ 486,410	\$ 486,410	\$ 486,410	\$ 486,410	\$ 486,410	\$ 486,410	\$ 4,864,097

II. Summary of Annual Expenses

<u>Year</u>	<u>New Annual Debt Service⁽¹⁾</u>	<u>Annual Capital Expenditures⁽²⁾</u>	<u>Annual Bond Proceeds⁽²⁾</u>	<u>Existing Annual Debt Service⁽³⁾</u>	<u>Annual Credit⁽⁴⁾</u>	<u>Total Expense</u>
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	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

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area J

<u>Year</u>	<u>Impact Fee</u>	<u>Vehicle Miles</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
Initial							\$ 2,179,356
1	\$ 347	2,486	\$ 863,383	\$ 258,259	\$ 605,124	\$ 49,638	2,834,118
2	347	2,486	863,383	391,615	471,767	61,400	3,367,286
3	347	2,486	863,383	524,735	338,648	70,732	3,776,666
4	347	2,486	863,383	657,863	205,520	77,589	4,059,774
5	347	2,486	863,383	680,613	182,770	83,023	4,325,567
6	347	2,486	863,383	703,376	160,006	88,111	4,573,685
7	347	2,486	863,383	725,941	137,441	92,848	4,803,974
8	347	2,486	863,383	748,523	114,860	97,228	5,016,062
9	347	2,486	863,383	770,908	92,474	101,246	5,209,782
10	347	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	-	-	-	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	

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area J

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Annual Vehicle Miles</u>		<u>Annual Expense</u>	
				<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
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	26	1.6570	1.0000	2,486	4,120	657,863	1,090,087
5	25	1.6245	1.0000	2,486	4,039	680,613	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	725,941	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	6	1.1151	1.0000	-	-	141,184	157,437
25	5	1.0933	1.0000	-	-	117,653	128,625
26	4	1.0718	1.0000	-	-	94,123	100,883
27	3	1.0508	1.0000	-	-	70,592	74,178
28	2	1.0302	1.0000	-	-	47,061	48,483
29	1	1.0100	1.0000	-	-	23,531	23,766
					<u>40,059</u>		<u>\$ 17,780,324</u>

Annual Interest Rate: 2.00%

Present Value of Initial Impact Fee Fund Balance \$ 2,179,356

Total Escalated Expense for Entire Period \$ 17,780,324

Less Future Value of Initial Impact Fee Fund Balance 3,870,198

Sub-Total \$ 13,910,126

Total Escalated Vehicle Miles 40,059

Impact Fee For Service Area J \$ 347

City of McKinney - 2019 Roadway Impact Fee Study
Capital Improvement Plan for Impact Fees
Appendix E - Impact Fee Calculation Assumptions
Service Area J

<u>Impact Fee Project Name⁽¹⁾</u>	<u>Impact Fee Project No.⁽¹⁾</u>	<u>Cost In Service Area⁽¹⁾</u>		<u>Impact Fee Recoverable Cost⁽²⁾</u>		<u>Debt Funded⁽³⁾</u>		<u>Non-Debt Funded⁽³⁾</u>	<u>Impact Fee Recoverable Cost</u>
						<u>Existing</u>	<u>Proposed</u>		
WHITE AVE (1)	J-1	\$	981,328	\$	334,478	\$	334,478	\$	334,478
WHITE AVE (2)	J-2		213,991		72,937		72,937		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	1,379,593
COLLIN MCKINNEY PKWY (5)	J-5		1,953,000		665,665		-	332,832	665,665
HARDIN BLVD (11)	I-10, J-6		6,792,049		2,315,017		1,423,374	445,822	2,315,017
HARDIN BLVD (12)	I-11, J-7		3,104,400		1,058,111		-	529,055	1,058,111
MEDICAL CENTER DR	J-8		2,240,000		763,487		-	381,743	763,487
STATE HIGHWAY 5 (4)	J-9, K-7		2,323,650		791,998		-	395,999	791,998
STATE HIGHWAY 5 (5)	J-10, K-8		1,111,600		378,880		-	189,440	378,880
STATE HIGHWAY 5 (6)	J-11		313,950		107,007		-	53,504	107,007
Under Construction	36		195,171		66,522		45,220	-	66,522
Signal	39		300,000		102,253		-	51,126	102,253
Signal	58		150,000		51,126		-	25,563	51,126
Intersection Improvements	61		150,000		51,126		-	25,563	51,126
Signal	62		150,000		51,126		-	25,563	51,126
Signal	67		300,000		102,253		-	51,126	102,253
Signal	68		300,000		102,253		-	51,126	102,253
Signal	69		150,000		51,126		-	25,563	51,126
Signal	73		150,000		51,126		-	25,563	51,126
Impact Fee Study			11,692		11,692		-	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.

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area J

<u>Year</u>	<u>Eligible Debt Service⁽¹⁾</u>	<u>Annual Vehicle Miles</u>	<u>Eligible Debt Service per Vehicle Mile</u>	<u>Annual Growth in Vehicle Miles (Cumulative)</u>	<u>Credit for Annual Ad Valorem 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	0.52	24,864	12,933
19	398,259	765,636	0.52	24,864	12,933
20	398,259	765,636	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⁾	588,343
Ten Year Growth in Vehicle Miles in Service Area ⁽³⁾	24,864
Annual Growth in Vehicle Miles	<u>10</u> years 2,486
Ten Year Growth in Vehicle Miles In Other Service Areas ⁽³⁾	152,429
Annual Growth in Vehicle Miles	<u>10</u> years 15,243
Credit Amount	\$ 257,003

(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

City of McKinney - 2019 Roadway Impact Fee Study
Capital Improvement Plan for Impact Fees
Appendix E - Impact Fee Calculation Assumptions
Service Area K

I. General Assumptions

Annual Interest Rate on Deposits ⁽¹⁾	2.00%
Annual Vehicle Mile Growth ⁽²⁾	853
Existing Fund Balance ⁽³⁾	\$ 779,111
Portion of Projects Funded by Existing Debt ⁽⁴⁾	\$ 1,159,792
Non-debt Funded Project Cost ⁽⁵⁾	4,449,077
New Project Cost Funded Through New Debt ⁽⁶⁾	4,295,800
Total Recoverable Project Cost ⁽⁷⁾	\$ 9,904,669

II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal</u> ⁽⁸⁾	<u>Interest</u> ⁽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

<u>Year</u>	<u>Annual Capital Expenditures</u> ⁽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) 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

City of McKinney - 2019 Roadway Impact Fee Study
Capital Improvement Plan for Impact Fees
Appendix E - Impact Fee Calculation Assumptions
Service Area K

I. New Debt Service Detail

<u>Year</u>	<u>Series 1</u>	<u>Series 2</u>	<u>Series 3</u>	<u>Series 4</u>	<u>Series 5</u>	<u>Series 6</u>	<u>Series 7</u>	<u>Series 8</u>	<u>Series 9</u>	<u>Series 10</u>	<u>Total Annual New Debt Service</u>
1	\$ 31,609	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 31,609
2	31,609	31,609	-	-	-	-	-	-	-	-	63,218
3	31,609	31,609	31,609	-	-	-	-	-	-	-	94,828
4	31,609	31,609	31,609	31,609	-	-	-	-	-	-	126,437
5	31,609	31,609	31,609	31,609	31,609	-	-	-	-	-	158,046
6	31,609	31,609	31,609	31,609	31,609	31,609	-	-	-	-	189,655
7	31,609	31,609	31,609	31,609	31,609	31,609	31,609	-	-	-	221,265
8	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	-	-	252,874
9	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	-	284,483
10	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	316,092
11	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	316,092
12	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	316,092
13	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	316,092
14	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	316,092
15	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	316,092
16	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	316,092
17	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	316,092
18	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	316,092
19	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	316,092
20	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	316,092
21	-	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	31,609	284,483
22	-	-	31,609	31,609	31,609	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	-	-	-	-	-	31,609	31,609	31,609	31,609	31,609	158,046
26	-	-	-	-	-	-	31,609	31,609	31,609	31,609	126,437
27	-	-	-	-	-	-	-	31,609	31,609	31,609	94,828
28	-	-	-	-	-	-	-	-	31,609	31,609	63,218
29	-	-	-	-	-	-	-	-	-	31,609	31,609
	\$ 632,185	\$ 632,185	\$ 632,185	\$ 632,185	\$ 632,185	\$ 632,185	\$ 632,185	\$ 632,185	\$ 632,185	\$ 632,185	\$ 6,321,850

II. Summary of Annual Expenses

<u>Year</u>	<u>New Annual Debt Service⁽¹⁾</u>	<u>Annual Capital Expenditures⁽²⁾</u>	<u>Annual Bond Proceeds⁽²⁾</u>	<u>Existing Annual Debt Service⁽³⁾</u>	<u>Annual Credit⁽⁴⁾</u>	<u>Total Expense</u>
1	\$ 31,609	\$ 444,908	\$ (429,580)	\$ 89,873	\$ (171)	\$ 136,639
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

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees

Appendix E - Impact Fee Calculation Assumptions

Service Area K

<u>Year</u>	<u>Impact Fee</u>	<u>Vehicle Miles</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
Initial							\$ 779,111
1	\$ 1,197	853	\$ 1,020,837	\$ 136,639	\$ 884,198	\$ 24,424	1,687,733
2	1,197	853	1,020,837	311,206	709,631	40,851	2,438,215
3	1,197	853	1,020,837	485,675	535,162	54,116	3,027,492
4	1,197	853	1,020,837	660,109	360,728	64,157	3,452,377
5	1,197	853	1,020,837	691,266	329,571	72,343	3,854,292
6	1,197	853	1,020,837	722,394	298,443	80,070	4,232,805
7	1,197	853	1,020,837	753,445	267,392	87,330	4,587,527
8	1,197	853	1,020,837	784,472	236,365	94,114	4,918,006
9	1,197	853	1,020,837	815,427	205,410	100,414	5,223,830
10	1,197	853	1,020,837	846,362	174,475	106,221	5,504,526
11	-	-	-	831,035	(831,035)	101,780	4,775,272
12	-	-	-	687,834	(687,834)	88,627	4,176,065
13	-	-	-	544,649	(544,649)	78,075	3,709,490
14	-	-	-	401,453	(401,453)	70,175	3,378,212
15	-	-	-	401,463	(401,463)	63,550	3,040,299
16	-	-	-	401,458	(401,458)	56,791	2,695,632
17	-	-	-	383,260	(383,260)	50,080	2,362,452
18	-	-	-	383,260	(383,260)	43,416	2,022,609
19	-	-	-	383,260	(383,260)	36,620	1,675,968
20	-	-	-	383,260	(383,260)	29,687	1,322,395
21	-	-	-	281,314	(281,314)	23,635	1,064,716
22	-	-	-	250,057	(250,057)	18,794	833,453
23	-	-	-	218,800	(218,800)	14,481	629,135
24	-	-	-	187,543	(187,543)	10,707	452,299
25	-	-	-	156,285	(156,285)	7,483	303,497
26	-	-	-	125,028	(125,028)	4,820	183,288
27	-	-	-	93,771	(93,771)	2,728	92,245
28	-	-	-	62,514	(62,514)	1,220	30,951
29	-	-	-	31,257	(31,257)	306	-
			\$ 10,208,369	\$ 12,414,496		\$ 1,427,017	

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees

Appendix E - Impact Fee Calculation Assumptions

Service Area K

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Annual Vehicle Miles</u>		<u>Annual Expense</u>	
				<u>Actual</u>	<u>Escalated</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	-	-	31,257	31,570
				<u>13,743</u>		<u>\$ 17,830,480</u>	

Annual Interest Rate: 2.00%

Present Value of Initial Impact Fee Fund Balance \$ 779,111

Total Escalated Expense for Entire Period \$ 17,830,480

Less Future Value of Initial Impact Fee Fund Balance 1,383,580

Sub-Total \$ 16,446,899

Total Escalated Vehicle Miles 13,743

Impact Fee For Service Area K \$ 1,197

City of McKinney - 2019 Roadway Impact Fee Study
Capital Improvement Plan for Impact Fees
Appendix E - Impact Fee Calculation Assumptions
Service Area K

<u>Impact Fee Project Name⁽¹⁾</u>	<u>Impact Fee Project No.⁽¹⁾</u>	<u>Cost In</u>		<u>Impact Fee</u>		<u>Debt Funded⁽³⁾</u>		<u>Non-Debt</u>	<u>Impact Fee</u>
		<u>Service Area⁽¹⁾</u>		<u>Recoverable Cost⁽²⁾</u>		<u>Existing</u>	<u>Proposed</u>	<u>Funded⁽³⁾</u>	
VIRGINIA STREET	K-1	\$	779,650	\$	398,340	\$	199,170	\$	398,340
ELDORADO PKWY (4)	K-2		1,699,200		868,158	-	434,079		868,158
HARRY MCKILLOP BLVD / FM 546 (1)	K-3		1,839,600		939,892	-	469,946		939,892
HARRY MCKILLOP BLVD / FM 546 (2)	K-4, L-1		117,300		59,931	-	29,966		59,931
HARRY MCKILLOP BLVD / FM 546 (3)	K-5, L-2		1,633,700		834,693	-	417,346		834,693
STATE HIGHWAY 5 (3)	K-6		2,064,300		1,054,696	-	527,348		1,054,696
STATE HIGHWAY 5 (4)	J-9, K-7		2,323,650		1,187,203	-	593,602		1,187,203
STATE HIGHWAY 5 (5)	J-10, K-8		1,111,600		567,941	-	283,970		567,941
AIRPORT DR (5)	K-9, L-6		3,161,400		1,615,228	-	807,614		1,615,228
AIRPORT DR (6)	K-10, L-7		1,462,600		747,274	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	-	19,160	19,160	38,319
Roundabout	52		1,820,000		929,877	929,877	-	-	929,877
Signal	53		300,000		153,277	-	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	\$	4,295,800
									\$
									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.

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area K

<u>Year</u>	<u>Eligible Debt Service⁽¹⁾</u>	<u>Annual Vehicle Miles</u>	<u>Eligible Debt Service per Vehicle Mile</u>	<u>Annual Growth in Vehicle Miles (Cumulative)</u>	<u>Credit for Annual Ad Valorem 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⁾	588,343
Ten Year Growth in Vehicle Miles in Service Area ⁽³⁾	8,530
	<u>10</u> years
Annual Growth in Vehicle Miles	853
Ten Year Growth in Vehicle Miles In Other Service Areas ⁽³⁾	168,763
	<u>10</u> years
Annual Growth in Vehicle Miles	16,876
Credit Amount	\$ 80,502

(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

City of McKinney - 2019 Roadway Impact Fee Study
Capital Improvement Plan for Impact Fees
Appendix E - Impact Fee Calculation Assumptions
Service Area L

I. General Assumptions

Annual Interest Rate on Deposits ⁽¹⁾	2.00%
Annual Vehicle Mile Growth ⁽²⁾	189
Existing Fund Balance ⁽³⁾	\$ 5,532
Portion of Projects Funded by Existing Debt ⁽⁴⁾	\$ 57,132
Non-debt Funded Project Cost ⁽⁵⁾	1,761,891
New Project Cost Funded Through New Debt ⁽⁶⁾	1,723,803
Total Recoverable Project Cost ⁽⁷⁾	\$ 3,542,826

II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal⁽⁸⁾</u>	<u>Interest⁽⁹⁾</u>	<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

<u>Year</u>	<u>Annual Capital Expenditures⁽¹⁰⁾</u>
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

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

<u>Year</u>	<u>Series 1</u>	<u>Series 2</u>	<u>Series 3</u>	<u>Series 4</u>	<u>Series 5</u>	<u>Series 6</u>	<u>Series 7</u>	<u>Series 8</u>	<u>Series 9</u>	<u>Series 10</u>	<u>Total Annual New Debt Service</u>
1	\$ 12,684	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12,684
2	12,684	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	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	12,684	-	-	-	88,788
8	12,684	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	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	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	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	12,684	12,684	12,684	126,840
19	12,684	12,684	12,684	12,684	12,684	12,684	12,684	12,684	12,684	12,684	126,840
20	12,684	12,684	12,684	12,684	12,684	12,684	12,684	12,684	12,684	12,684	126,840
21	-	12,684	12,684	12,684	12,684	12,684	12,684	12,684	12,684	12,684	114,156
22	-	-	12,684	12,684	12,684	12,684	12,684	12,684	12,684	12,684	101,472
23	-	-	-	12,684	12,684	12,684	12,684	12,684	12,684	12,684	88,788
24	-	-	-	-	12,684	12,684	12,684	12,684	12,684	12,684	76,104
25	-	-	-	-	-	12,684	12,684	12,684	12,684	12,684	63,420
26	-	-	-	-	-	-	12,684	12,684	12,684	12,684	50,736
27	-	-	-	-	-	-	-	12,684	12,684	12,684	38,052
28	-	-	-	-	-	-	-	-	12,684	12,684	25,368
29	-	-	-	-	-	-	-	-	-	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

<u>Year</u>	<u>New Annual Debt Service⁽¹⁾</u>	<u>Annual Capital Expenditures⁽²⁾</u>	<u>Annual Bond Proceeds⁽²⁾</u>	<u>Existing Annual Debt Service⁽³⁾</u>	<u>Annual Credit⁽⁴⁾</u>	<u>Total Expense</u>
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

(2) Appendix E - Service Area L, Page 1

(3) Eligible debt funded projects as a percent of total principal times original annual debt service

(4) Appendix E - Service Area L, Page 6

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area L

<u>Year</u>	<u>Impact Fee</u>	<u>Vehicle Miles</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund 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	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	

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area L

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Annual Vehicle Miles</u>		<u>Annual Expense</u>	
				<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
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	1.6902	1.0000	189	320	161,312	272,642
4	26	1.6570	1.0000	189	314	231,434	383,488
5	25	1.6245	1.0000	189	308	244,084	396,519
6	24	1.5927	1.0000	189	301	256,735	408,894
7	23	1.5614	1.0000	189	296	269,375	420,612
8	22	1.5308	1.0000	189	290	282,016	431,716
9	21	1.5008	1.0000	189	284	294,646	442,206
10	20	1.4714	1.0000	189	279	307,277	452,121
11	19	1.4425	1.0000	-	-	303,468	437,761
12	18	1.4142	1.0000	-	-	246,006	347,913
13	17	1.3865	1.0000	-	-	188,548	261,425
14	16	1.3593	1.0000	-	-	131,087	178,191
15	15	1.3327	1.0000	-	-	131,090	174,700
16	14	1.3065	1.0000	-	-	131,089	171,273
17	13	1.2809	1.0000	-	-	126,527	162,071
18	12	1.2558	1.0000	-	-	126,527	158,893
19	11	1.2312	1.0000	-	-	126,527	155,778
20	10	1.2070	1.0000	-	-	126,527	152,723
21	9	1.1834	1.0000	-	-	113,874	134,756
22	8	1.1602	1.0000	-	-	101,221	117,434
23	7	1.1374	1.0000	-	-	88,569	100,740
24	6	1.1151	1.0000	-	-	75,916	84,656
25	5	1.0933	1.0000	-	-	63,263	69,163
26	4	1.0718	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	1.0100	1.0000	-	-	12,653	12,779
					<u>3,050</u>		<u>\$ 6,242,892</u>

Annual Interest Rate: 2.00%

Present Value of Initial Impact Fee Fund Balance \$ 5,532

Total Escalated Expense for Entire Period \$ 6,242,892

Less Future Value of Initial Impact Fee Fund Balance 9,824

Sub-Total \$ 6,233,068

Total Escalated Vehicle Miles 3,050

Impact Fee For Service Area L \$ 2,044

City of McKinney - 2019 Roadway Impact Fee Study
Capital Improvement Plan for Impact Fees
Appendix E - Impact Fee Calculation Assumptions
Service Area L

<u>Impact Fee Project Name⁽¹⁾</u>	<u>Impact Fee Project No.⁽¹⁾</u>	<u>Cost In Service Area⁽¹⁾</u>	<u>Impact Fee Recoverable Cost⁽²⁾</u>	<u>Debt Funded⁽³⁾</u>		<u>Non-Debt Funded⁽³⁾</u>	<u>Impact Fee Recoverable Cost</u>
				<u>Existing</u>	<u>Proposed</u>		
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	-	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	-	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.

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area L

<u>Year</u>	<u>Eligible Debt Service⁽¹⁾</u>	<u>Annual Vehicle Miles</u>	<u>Eligible Debt Service per Vehicle Mile</u>	<u>Annual Growth in Vehicle Miles (Cumulative)</u>	<u>Credit for Annual Ad Valorem 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	0.08	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	0.17	1,893	314
19	126,840	765,636	0.17	1,893	314
20	126,840	765,636	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⁾	588,343
Ten Year Growth in Vehicle Miles in Service Area ⁽³⁾	1,893
Annual Growth in Vehicle Miles	<u>10 years</u> 189
Ten Year Growth in Vehicle Miles In Other Service Areas ⁽³⁾	175,400
Annual Growth in Vehicle Miles	<u>10 years</u> 17,540
Credit Amount	\$ 5,956

(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

City of McKinney - 2019 Roadway Impact Fee Study
Capital Improvement Plan for Impact Fees
Appendix E - Impact Fee Calculation Assumptions
Service Area M

I. General Assumptions

Annual Interest Rate on Deposits ⁽¹⁾	2.00%
Annual Vehicle Mile Growth ⁽²⁾	30
Existing Fund Balance ⁽³⁾	\$ -
Portion of Projects Funded by Existing Debt ⁽⁴⁾	\$ -
Non-debt Funded Project Cost ⁽⁵⁾	334,305
New Project Cost Funded Through New Debt ⁽⁶⁾	334,305
Total Recoverable Project Cost ⁽⁷⁾	\$ 668,610

II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal</u> ⁽⁸⁾	<u>Interest</u> ⁽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

<u>Year</u>	<u>Annual Capital Expenditures</u> ⁽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) 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

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

<u>Year</u>	<u>Series 1</u>	<u>Series 2</u>	<u>Series 3</u>	<u>Series 4</u>	<u>Series 5</u>	<u>Series 6</u>	<u>Series 7</u>	<u>Series 8</u>	<u>Series 9</u>	<u>Series 10</u>	<u>Total Annual New Debt Service</u>
1	\$ 2,460	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 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	-	-	-	-	-	-	-	-	-	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

<u>Year</u>	<u>New Annual Debt Service⁽¹⁾</u>	<u>Annual Capital Expenditures⁽²⁾</u>	<u>Annual Bond Proceeds⁽²⁾</u>	<u>Existing Annual Debt Service⁽³⁾</u>	<u>Annual Credit⁽⁴⁾</u>	<u>Total Expense</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	66,861	(33,430)	-	(10)	58,019
11	24,599	33,430	-	-	(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)	24,589
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

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees

Appendix E - Impact Fee Calculation Assumptions

Service Area M

<u>Year</u>	<u>Impact Fee</u>	<u>Vehicle Miles</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
Initial							\$ -
1	\$ 2,406	30	\$ 73,149	\$ 2,460	\$ 70,689	\$ 707	71,396
2	2,406	30	73,149	16,063	57,086	1,999	130,480
3	2,406	30	73,149	29,666	43,483	3,044	177,008
4	2,406	30	73,149	43,268	29,880	3,839	210,727
5	2,406	30	73,149	45,727	27,421	4,489	242,637
6	2,406	30	73,149	48,186	24,963	5,102	272,703
7	2,406	30	73,149	50,644	22,504	5,679	300,886
8	2,406	30	73,149	53,103	20,046	6,218	327,150
9	2,406	30	73,149	55,561	17,587	6,719	351,456
10	2,406	30	73,149	58,019	15,129	7,180	373,765
11	-	-	-	58,019	(58,019)	6,895	322,641
12	-	-	-	46,876	(46,876)	5,984	281,749
13	-	-	-	35,732	(35,732)	5,278	251,294
14	-	-	-	24,589	(24,589)	4,780	231,485
15	-	-	-	24,589	(24,589)	4,384	211,280
16	-	-	-	24,589	(24,589)	3,980	190,671
17	-	-	-	24,589	(24,589)	3,568	169,649
18	-	-	-	24,589	(24,589)	3,147	148,208
19	-	-	-	24,589	(24,589)	2,718	126,337
20	-	-	-	24,589	(24,589)	2,281	104,029
21	-	-	-	22,130	(22,130)	1,859	83,758
22	-	-	-	19,671	(19,671)	1,478	65,565
23	-	-	-	17,212	(17,212)	1,139	49,492
24	-	-	-	14,753	(14,753)	842	35,581
25	-	-	-	12,294	(12,294)	589	23,875
26	-	-	-	9,836	(9,836)	379	14,419
27	-	-	-	7,377	(7,377)	215	7,257
28	-	-	-	4,918	(4,918)	96	2,435
29	-	-	-	2,459	(2,459)	24	-
			\$ 731,486	\$ 826,099		\$ 94,613	

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area M

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Annual Vehicle Miles</u>		<u>Annual Expense</u>	
				<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
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	81,291
9	21	1.5008	1.0000	30	46	55,561	83,387
10	20	1.4714	1.0000	30	45	58,019	85,369
11	19	1.4425	1.0000	-	-	58,019	83,695
12	18	1.4142	1.0000	-	-	46,876	66,294
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	-	-	2,459	2,483
				<hr/>			
				490			\$ 1,178,511

Annual Interest Rate: 2.00%

Present Value of Initial Impact Fee Fund Balance \$ -

Total Escalated Expense for Entire Period \$ 1,178,511

Less Future Value of Initial Impact Fee Fund Balance -

Sub-Total \$ 1,178,511

Total Escalated Vehicle Miles

 490

Impact Fee For Service Area M \$ 2,406

City of McKinney - 2019 Roadway Impact Fee Study
Capital Improvement Plan for Impact Fees
Appendix E - Impact Fee Calculation Assumptions
Service Area M

<u>Impact Fee Project Name⁽¹⁾</u>	<u>Impact Fee Project No.⁽¹⁾</u>	<u>Cost In</u>		<u>Impact Fee</u>		<u>Debt Funded⁽³⁾</u>		<u>Non-Debt</u>	<u>Impact Fee</u>	
		<u>Service Area⁽¹⁾</u>		<u>Recoverable Cost⁽²⁾</u>		<u>Existing</u>	<u>Proposed</u>	<u>Funded⁽³⁾</u>	<u>Recoverable Cost</u>	
HARRY MCKILLOP BLVD / FM 546 (N) (2)	M-1	\$	98,038	\$	8,200	\$	-	\$ 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	\$	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.

City of McKinney - 2019 Roadway Impact Fee Study

Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area M

<u>Year</u>	<u>Eligible Debt Service⁽¹⁾</u>	<u>Annual Vehicle Miles</u>	<u>Eligible Debt Service per Vehicle Mile</u>	<u>Annual Growth in Vehicle Miles (Cumulative)</u>	<u>Credit for Annual Ad Valorem 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	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⁾	588,343
Ten Year Growth in Vehicle Miles in Service Area ⁽³⁾	304
Annual Growth in Vehicle Miles	<u>10</u> years 30
Ten Year Growth in Vehicle Miles In Other Service Areas ⁽³⁾	176,989
Annual Growth in Vehicle Miles	<u>10</u> years 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

2019 – 2029 WATER & WASTEWATER IMPACT FEE UPDATE

Submitted To



Submitted By

BIRKHOFF, HENDRICKS & CARTER, L.L.P.

January 2020

DRAFT

CITY OF MCKINNEY
2019 - 2029 WATER & WASTEWATER IMPACT FEE UPDATE

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DRAFT

CITY OF McKINNEY
2019 – 2029 WATER & WASTEWATER IMPACT FEE UPDATE

SECTION I – INTRODUCTION

A. GENERAL

In accordance with the requirements of Chapter 395.052 of the Local Government Code, this report establishes the City of McKinney's Capital Improvement Plan (CIP) for water and wastewater impact fees and calculates the maximum allowable fee for each. Land use assumptions for development of the CIP were generated under a separate document by the City of McKinney's Planning Department using the City's 2018 Comprehensive Plan Update.

Chapter 395, of the Local Government Code is an act that provides guidelines for financing capital improvements required by new development in municipalities, counties, and certain other local governments. The basis for determination of an impact fee requires the preparation and adoption of a land use plan and growth assumption, and the preparation of a 10-year capital improvement plan. The capital improvement plan requires an analysis of total capacity, the level of current usage and commitments of capacity of existing capital improvements. From these two phases, a maximum impact fee is calculated.

The Act allows the maximum impact fee to be charged if revenues from future ad valorem taxes, and water and sewer bills are included as a credit in the analysis. If not, the Act allows the maximum fee to be set at 50% of the calculated maximum fee. The following items were included in the impact fee calculation:

1. The portion of the cost of the new infrastructure that is to be paid by the City, including property acquisition and construction cost.
2. Existing excess capacity in lines and facilities that will serve future growth and which were paid for in whole or part by the City.
3. Engineering and quality control fees for construction projects.
4. Interest and other finance charges on bonds issued by the City to cover its portion of the cost.

The engineering analysis portion of the Water and Wastewater Fee determines utilized capacity cost of the major water distribution and wastewater collection facilities between the year 2019 and the year 2029. Facilities in this analysis include, water pump stations, water storage tanks, water transmission lines, wastewater collection lines, wastewater lift stations and wastewater treatment and conveyance expansion costs associated with the North Texas Municipal Water District (NTMWD) regional wastewater systems.

The NTMWD water treatment, water supply and distribution expansion components were excluded from this analysis. (NTMWD typically does not provide CIP data for their water supply systems.) NTMWD did, however, provide CIP data for their regional wastewater collection and wastewater treatment systems which support McKinney, and the cost data provided identified those projects which provide service capacity for new growth. The portion of McKinney's projected payments to NTMWD for wastewater collection, conveyance and treatment systems expansions for provision of service to new growth are included in this calculation of the maximum wastewater system impact fee.

The study period is a ten-year period with 2019 as the base year. The impact fee calculations for the water and wastewater systems are based on land use assumptions provided by the City of McKinney. Prior to this impact fee update, the City's Water Distribution and Wastewater Collection hydraulic models were updated for 2019, 2029 and buildout conditions. The hydraulic model results are available for review from the City of McKinney. The equivalency factors utilized in this analysis conform to McKinney's water meter manufacturer's maximum flow ratings.

B. LAND USE ASSUMPTIONS *(Provided By: City of McKinney Planning Department)*

The impact fee land use assumptions utilized in this update were prepared by the City of McKinney's Planning Department and are presented in a separate document. The land use assumptions projected an ultimate residential population of approximately 433,874 in the City of McKinney's ultimate planning boundary. This is a higher ultimate population than projected in the City's 2012 Water and Wastewater Impact Fee Update, which estimated a residential population of 357,967, an increase of 75,898 people.

The residential and non-residential growth provided by the City for the year 2019 through 2029 is summarized in **Table No. 1**.

TABLE NO. 1**Residential and Non-Residential Growth from 2019 to 2029**

Year	Residential Population*	Non-Residential Uses**	
		Type	Developed Area (SF)
2019	193,011	Basic	13,324,039
		Service	16,601,750
		Retail	16,061,533
		Total:	45,987,322
2029	262,084	Basic	17,554,598
		Service	22,761,815
		Retail	22,197,558
		Total:	62,513,971
BUILDOUT	433,874	Basic	49,159,884
		Service	56,609,800
		Retail	47,811,292
		Total:	153,580,976
Res. Growth Rate	135.787%	Non-Res. Growth Rate	135.937%

* Residential Population – Represent Estate, Low Density, Medium Density and High Density Residential Categories

** Basic – Industrial Land Uses

** Service – Office & Institutional Land Uses

** Retail – Commercial Land Uses

As shown in **Table No. 1**, increases in the residential population and non-residential uses will occur during the 10-year capital recovery period within the planning area. The water demand and wastewater flows from the residential and non-residential uses dictate the ultimate size of facilities, while the rate of growth is important to determine the timing of system improvements to meet the City's growing needs.

The eligible water impact fee facilities are shown on **Exhibit 1**. The eligible wastewater facilities are shown on **Exhibit 2** in this report.

SECTION II

WATER & WASTEWATER C.I.P. AND IMPACT FEE ANALYSIS

A. DEFINITION OF A SERVICE UNIT – WATER AND WASTEWATER

Chapter 395 of the Local Government Code requires that impact fees be based on a defined service unit. A “service unit” means a standardized measure of consumption, use generation, or discharge attributable to an individual unit of development calculated in accordance with generally accepted engineering or planning standards. This impact fee defines a water and wastewater service unit to be a $\frac{3}{4}$ -inch water meter and has referred to this service unit as a Single Family Living Unit Equivalent (SFLUE). The SFLUE is based on the continuous duty capacity of a $\frac{3}{4}$ -inch water meter. This is the typical meter used for a single family detached dwelling, and therefore is considered to be equivalent to one “living unit”. Other meter sizes can be compared to the $\frac{3}{4}$ -inch meter through a ratio of water flow rate capacities, as published by the water meter manufacturer for McKinney as shown in **Table No. 2** below. This same ratio is then used to determine the proportional water and wastewater impact fee amount for each water meter size.

TABLE NO. 2

Living Unit Equivalencies For Various Types and Sizes of Water Meters

Meter Type	Meter Size	Continuous Duty Maximum Rate (gpm) ^(a)	Ratio to 3/4” Meter
Multijet	$\frac{3}{4}$ ”	30	1.00
Multijet	1”	50	1.67
Multijet	1½”	100	3.33
Ultrasonic	2”	250	8.33
Ultrasonic	3”	500	16.67
Ultrasonic	4”	1,000	33.33
Ultrasonic	6”	1,600	53.33
Ultrasonic	8”	2,800	93.33
Ultrasonic	12”	5,500	183.33

^(a) Source: Master Meter Performance Data

B. CALCULATION OF WATER & WASTEWATER - LIVING UNIT EQUIVALENTS

The City of McKinney provided the existing water meter count by size category as of September 2019. In total, there are 60,645 domestic water and irrigation meters serving an existing population of 193,011 residents and the existing business. **Table No. 3** shows the number of existing meters, the living unit equivalent factor and the total number of living unit equivalents for each sized water meter.

The residential growth rate of 135.787% in **Table 1** was applied to ¾-inch and 1-inch meters. The non-residential growth rate of 135.937% in **Table 1** was applied to 1½-inch through 12-inch meters. Utilizing these growth rates in a straight-line extrapolation of the existing water and wastewater accounts, the numbers of new accounts was calculated for the year 2029. Living unit equivalents were calculated for the water meters and wastewater accounts for 2019 and 2029, resulting in a total number of living units. The difference in the total number of 2019 and 2029 living units results in the new living unit equivalents during the impact fee period. The calculation of living unit equivalents is summarized in **Table 3** and **Table 4**.

TABLE NO. 3
Water Living Unit Equivalents 2019 – 2029

Meter Size	2019			2029			New Living Units During Impact Fee Period
	Meter Count	Living Units per Meter	Total Living Units	Meter Count	Living Units per Meter	Total Living Units	
¾"	43,303	1.00	43,303	58,800	1.00	58,799	15,496
1"	14,015	1.67	23,405	19,031	1.67	31,781	8,376
1½"	468	3.33	1,558	636	3.33	2,118	560
2"	2,533	8.33	21,099	3,443	8.33	28,682	7,583
3"	225	16.67	3,750	306	16.67	5,098	1,348
4"	68	33.33	2,266	92	33.33	3,080	814
6"	22	53.33	1,173	30	53.33	1,594	421
8"	9	93.33	839	12	93.33	1,141	302
12"	2	183.33	366	3	183.33	498	132
Totals:	60,645		97,759	82,353		132,791	35,032

The number of wastewater accounts was determined by subtracting the number of irrigation meters from the number of domestic water meters. This equates to 58,099 existing wastewater accounts. **Table No. 4** illustrates the existing wastewater accounts and the SFLUE's.

TABLE NO. 4
Wastewater Living Unit Equivalents 2019 – 2029

Meter Size	2019			2029			New Living Units During Impact Fee Period
	Meter Count	Living Units per Meter	Total Living Units	Meter Count	Living Units per Meter	Total Living Units	
¾"	43,084	1.00	43,084	58,503	1.00	58,502	15,418
1"	13,171	1.67	21,995	17,885	1.67	29,867	7,872
1½"	287	3.33	955	390	3.33	1,299	344
2"	1,246	8.33	10,379	1,694	8.33	14,109	3,730
3"	215	16.67	3,584	292	16.67	4,872	1,288
4"	65	33.33	2,166	88	33.33	2,945	779
6"	20	53.33	1,066	27	53.33	1,449	383
8"	9	93.33	839	12	93.33	1,141	302
12"	2	183.33	366	3	183.33	498	132
Totals:	58,099		84,434	78,894		114,682	30,248

C. COST OF FACILITIES

Unit cost for proposed water and wastewater lines larger than 12 inches in diameter that are anticipated to be constructed by private development include only the City's oversize cost participation. These water and wastewater lines are colored Green on **Exhibits 1 through 2**. Oversize cost participation from City is when funds are available. For City participation, the developer must bid the 12-inch as a base and the oversize as an additive alternate. City initiated water and wastewater lines include the full cost of the proposed facility. These water and wastewater lines are colored Red on **Exhibits 1 through 2**. Existing water and wastewater lines that the City funded or participated in the cost of the project that were assessed for utilized capacity are colored Dark Blue on **Exhibits 1 through 2**. Developer initiated water and wastewater line projects which are 12 inches or less in diameter are not included in this Impact Fee analysis, as the cost for these size lines are the responsibility of the developer. These water and wastewater lines are colored Light Blue on **Exhibits 1 through 2**.

Actual construction costs of the various elements of the water and wastewater systems were utilized where the information was known. The existing cost of facilities was determined from Contractor's final pay requests, City purchase orders, bid tabulation forms and developer's agreements. Most of the cost data for existing water and wastewater lines included in the impact fee analysis have been located. A 4.5% debt service, over a period of 20-years, has been added to all projects. Actual costs were used for those existing projects where records were available.

D. WATER DISTRIBUTION SYSTEM

Computer models for the years 2019, 2029 and Buildout were prepared and analyzed by Birkhoff, Hendricks & Carter, LLP. The models were developed and water demand distributed from residential population and non-residential land use projections provided by the City of McKinney's Planning Department. The projected developed land areas from the City's Land Use Assumptions follow closely to the construction of major facilities in the system. These facilities include pump stations, storage tanks, and major distribution lines. All computer models were run for the Maximum Hourly Demands in a three-day extended period simulation to ensure proper sizing of the facilities to meet peak demands.

1. Existing Pump Stations, Ground Storage Reservoirs & Elevated Storage Tanks

The existing pump station, ground storage and elevated storage facilities of the water distribution system are summarized in **Table No. 5** and **Table No. 6**. These facilities are included in the impact fee analysis as additional capacity is available.

TABLE NO. 5

Water Distribution System - Existing Pump Stations & Ground Storage

Pump Station	Number of Pumps	Rated Capacity (MGD)	Number of Ground Storage Tanks	Total Ground Storage Available (Gallons)
McKinney Ranch	11	56.5	2	16,000,000
University	6	50.0	3	26,000,000
Gerrish	4	18.1	1	2,000,000
Total:	21	124.6	6	44,000,000

TABLE NO. 6
Existing Elevated Storage Tanks

Elevated Storage Tanks	Capacity in Million Gallons
Industrial Elevated Storage Tank	2.0
U.S. 380 Elevated Storage Tank	1.5
Hardin Elevated Storage Tank	2.0
Wilmeth Elevated Storage Tank	2.0
Virginia Elevated Storage Tank	1.5
Independence Elevated Storage Tank	3.0
Community Elevated Storage Tank	3.0
Total	15.0

The existing McKinney Ranch 850 Pump Station 1 pumps and the Chestnut Elevated Storage Tank are no longer utilized and were not included in the impact fee calculation.

The pump stations and ground storage facilities were analyzed with the maximum daily demand, while the dynamic hydraulics of elevated storage facilities were analyzed utilizing the difference between the Maximum Hourly Demand and the Maximum Daily Demand.

2. Distribution Lines

The distribution lines consist of all lines within the Service Area planning boundary supplying water to customers in the City of McKinney. Existing and proposed distribution lines vary in size from 3/4-inch services to 72-inch transmission lines. The cost of water lines includes construction cost, appurtenances (water valves, fire hydrants, taps and the like), utility relocations, purchase of easements and engineering costs. Financing cost over a 20-year term is included for each project.

Unit cost for proposed capital improvement water lines that are classified as City-initiated include the City's full cost of the proposed facility. CIP projects classified as City-participation in oversize are reduced in cost by the unit cost for 12-inches water line. Developer's initiated water line projects, 12 inches or less in diameter were not included in this Impact Fee analysis, as the cost for these size lines is the responsibility of the developer.

3. **Water Supply**

The City of McKinney currently receives all of its water supply from the North Texas Municipal Water District (NTMWD). McKinney's allocation of the capital cost of services as a Member of the NTMWD was specifically excluded from the impact fee analysis.

4. **Water Distribution System Capital Improvement Projects for Impact Fees**

In order to meet the demands of the anticipated growth over the next 10-years, as provided in the Land Use Assumptions prepared by the City of McKinney, certain water distribution system improvements are required. **Exhibit 1** shows the recommended water system improvements and **Table No. 7** itemizes each project and the project cost in 2019 dollars. These recommended improvements form the basis for the water system impact fee calculation.

The capital improvement plan for impact fees provides for system improvements within the defined Service Area Planning Boundary where the land use assumptions show growth.



2019 - 2029 WATER IMPACT FEE
10-YEAR CAPITAL IMPROVEMENT PLAN

BIRKHOFF, HENDRICKS & CARTER, L.L.P.
Professional Engineers
Dallas, Texas
NOVEMBER 2019

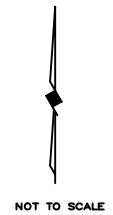
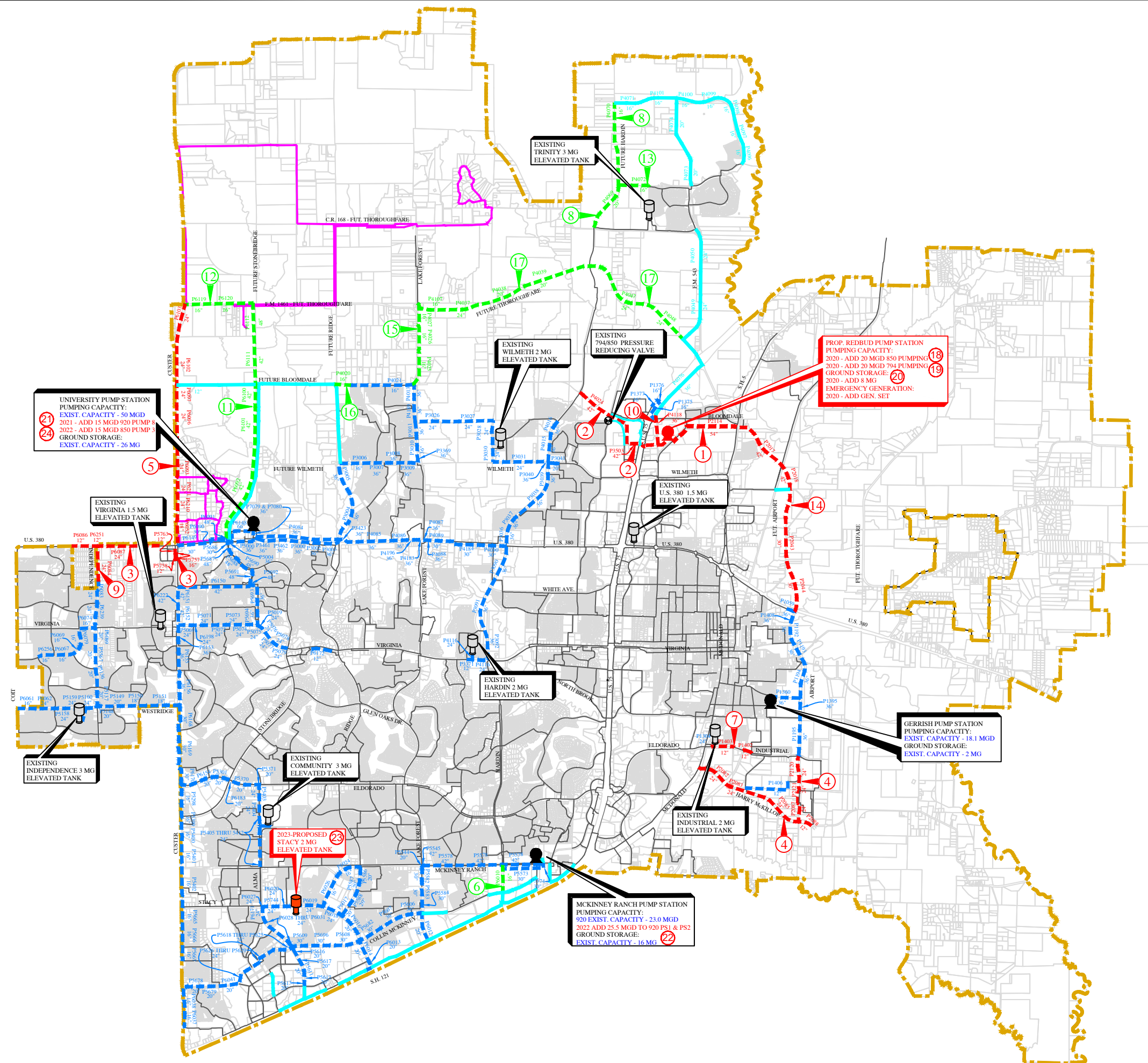


EXHIBIT 1
DRAFT



LEGEND

- EXIST. WATER LINE
- DANVILLE SYSTEM REMAINING IN 2029
- EXIST. IMPACT FEE LINE
- PROP. WATER LINE
(DEVELOPER CONSTRUCTED
12-INCH UNLESS OTHERWISE NOTED)
- PROP. IMPACT FEE WATER LINE
(DEVELOPER INITIATED - CITY OVERSIZE)
- PROPOSED IMPACT FEE WATER LINE
(CITY INITIATED & CONSTRUCTED)
- PLANNING BOUNDARY
- EXISTING PUMP STATION
- PROPOSED PUMP STATION
- EXISTING ELEVATED STORAGE TANK
- PROPOSED ELEVATED STORAGE TANK
- EXISTING PRESSURE REDUCING VALVE
- CIP PROJECT NUMBER

Table No. 7

Water Distribution System 10-Year Capital Improvement Plan Summary

PROPOSED WATER LINES

Proj. No.	Year	1=City Participation in Cost Oversize 2=City Initiated and Funded	Project	Size	Opinion of Construction Cost (A)	Debt Service (B)	Total Project Cost
1	2020	2	REDBUD 794 PUMP STATION 54" DISCHARGE LINE	54"	\$ 4,496,262	\$ 2,416,844	\$ 6,913,106
2	2019	2	REDBUD 850 PUMP STATION 42" DISCHARGE LINE	42"	\$ 8,137,350	\$ 4,374,012	\$ 12,511,362
3	2020	2	US 380 / INDEPENDENCE LOOP	12" , 16" , 24"	\$ 2,203,102	\$ 1,184,218	\$ 3,387,320
4	2021	2	HARRY McKILLOP BLVD. 24" WATER LINE	12" , 24"	\$ 8,350,000	\$ 4,488,315	\$ 12,838,315
5	2021	2	CUSTER 24" NORTH WATER LINE	18" , 24"	\$ 11,888,125	\$ 6,390,139	\$ 18,278,264
6	2021	1	HARDIN SOUTH 16" WATER LINE	16"	\$ 108,900	\$ 58,536	\$ 167,436
7	2022	2	INDUSTRIAL BLVD. 12" WATER LINE (PIPE BURST 8" to 12")	12"	\$ 569,109	\$ 305,909	\$ 875,018
8	2022	1	HARDIN 24" & 16" (TRINITY FALLS WEST FEED NORTH)	16" , 24"	\$ 691,392	\$ 371,639	\$ 1,063,031
9	2022	2	INDEPENDENCE CONNECTION TO US 380	24"	\$ 561,120	\$ 301,615	\$ 862,735
10	2023	2	REDBUD PUMP STATION 850 DISCHARGE LINE (T-FALLS EAST FEED)	42"	\$ 737,100	\$ 396,208	\$ 1,133,308
11	2024	1	STONEBRIDGE 42" WATER LINE	42"	\$ 5,342,040	\$ 2,871,468	\$ 8,213,508
12	2025	1	F.M. 1461 (FUTURE E/W THOROUGHFARE)	16"	\$ 289,560	\$ 155,645	\$ 445,205
13	2025	1	COUNTY ROAD 228 16" WATER LINE	16"	\$ 125,100	\$ 67,244	\$ 192,344
14	2026	2	AIRPORT WATER LINE NORTH LOOP	30" , 36"	\$ 4,821,900	\$ 2,591,882	\$ 7,413,782
15	2027	1	LAKE FOREST 16" WATER LINE	16"	\$ 337,138	\$ 181,219	\$ 518,357
16	2027	1	BLOOMDALE 16" WATER LINE	16"	\$ 200,220	\$ 107,623	\$ 307,843
17	2029	1	FUT. 850 EAST / WEST THOROUGHFARE WATER LINE	12" , 20" , 24"	\$ 2,245,020	\$ 1,206,749	\$ 3,451,769
Subtotal: Proposed Water Lines					\$ 51,103,438	\$ 27,469,265	\$ 78,572,703

PUMPING AND STORAGE FACILITIES

Proj. No.	Year	Project	Capacity	Opinion of Construction Cost (A)	Debt Service (B)	Total Project Cost
18	2020	Redbud Pump Station - Phase I Improvements (850)	20 MGD	\$ 12,600,000	\$ 6,772,788	\$ 19,372,788
19	2020	Redbud Pump Station - Phase I Improvements (794)	20 MGD	\$ 12,600,000	\$ 6,772,788	\$ 19,372,788
20	2020	Redbud Pump Station 8-MG Ground Storage Reservoir No. 1	8 MG	\$ 3,828,000	\$ 2,057,638	\$ 5,885,638
21	2021	University Pump Station Phase III Improvements - Add Pump 920 PS2 Pump 8	15-MGD	\$ 2,482,830	\$ 1,334,578	\$ 3,817,408
22	2022	McK. Ranch P.S. - Phase I - Replace PS 1 PMPs 6-8, Add 9, PS 2 Pumps 1 & 2	25.5 MGD	\$ 10,574,487	\$ 5,684,029	\$ 16,258,516
23	2023	Stacy 2-MG Elevated Storage Tank	2 MG	\$ 5,500,000	\$ 2,956,376	\$ 8,456,376
24	2029	University Pump Station Phase III Improvements - Add Pump 920 PS2 Pump 8	15-MGD	\$ 2,420,000	\$ 1,300,805	\$ 3,720,805
Subtotal: Pumping and Storage Facilities				\$ 50,005,317	\$ 26,879,002	\$ 76,884,319
GRAND TOTAL: Water Distribution System CIP				\$ 101,108,755	\$ 54,348,267	\$ 155,457,022

- (A) Opinion of Cost includes:
- a) Engineer's Opinion of Construction Cost
 - b) Professional Services Fees (Survey, Engineering, Testing, Legal)
 - c) Cost of Easement or Land Acquisitions
- (B) Debt Service based on 20-year simple interest bonds at 4.5%

5. Utilized Capacity

Utilized capacity for the water distribution system was calculated based on the water line peak flow rate for each model year (2019, 2029 and buildout). The proposed water distribution lines are sized for the maximum flow rates reported by the hydraulic model at buildout. Pump station capacity is generally based on the maximum daily system demand. Peak flow rates in the water system lines can be observed during either the maximum hourly demand or during the minimum hourly demand, during refilling of elevated storage tanks, for a particular water line, whichever demand generates the greater flow rate.

The percent utilized capacity was then calculated for each year based on the buildout capacity. The utilized capacity during the Impact Fee period is the difference between the year 2029 capacity and the year 2019 capacity. **Table No. 8** below summarizes the project cost and utilized cost over the impact fee period of 2019 - 2029 for each element of the Water Distribution System. The utilized capacity for each water distribution facility, both existing and proposed, is presented in detail in Impact Fee Capacity Calculation **Table Nos. 9, 10, 11, 12 and 13.**

Table No. 8

Summary of Eligible Water Distribution Project Cost and Utilized Capacity Cost

Water System Facility	<u>20-Year Project Cost</u>	<u>Utilized Capacity in the CRP Period</u>
Existing Pump Stations	\$30,631,427	\$9,408,650
Existing Ground Storage Reservoirs	\$34,931,412	\$12,013,850
Existing Elevated Storage Tanks	\$29,760,105	\$9,552,229
Existing Transmission/Distribution Lines	\$64,978,704	\$11,094,827
Proposed Pump Stations	\$62,542,305	\$21,078,674
Proposed Ground Storage Reservoirs	\$5,885,638	\$2,471,968
Proposed Elevated Storage Tanks	\$8,456,376	\$6,257,718
Proposed Transmission/Distribution Lines	\$78,572,703	\$28,836,729
Planning Expenses	\$204,417	\$204,417
Total:	\$315,963,087	\$100,919,062

TABLE NO. 9
Water Pump Station Facilities

Pump Station Improvements	Year Const.	Projected Capacity (MGD)	Pump Station Cost (\$)				Capacity Utilized (%)			Capacity Utilized (\$)			
			Const.	Engineering & Testing	20 Year Debt Service Interest Rate	Total 20 Yr. Project Cost \$ 4.5%	2019	2029	In The CRF Period	2019	2029	In The CRF Period	
EXISTING PUMP STATIONS													
McKinney Ranch Pump Station													
Original Construction (920)	[3] *	1987	14.3	\$ 189,700	\$ 18,970	\$ 112,165	\$ 320,835	88.0%	100.0%	12.0%	\$ 282,335	\$ 320,835	\$ 38,500
Phase I Improvements (920)	[4]	1999	20.1	\$ 1,020,172	\$ 103,000	\$ 603,731	\$ 1,726,903	39.0%	83.0%	44.0%	\$ 673,492	\$ 1,433,329	\$ 759,837
Phase II Improvements (920)	[1]	2002	5.0	\$ 157,929	\$ 40,000	\$ 106,391	\$ 304,320	39.0%	83.0%	44.0%	\$ 118,685	\$ 252,586	\$ 133,901
850 Service Area Pumps (850)	[3]	2007	15.0	\$ 4,184,997	\$ 303,285	\$ 2,412,554	\$ 6,900,836	100.0%	100.0%	0.0%	\$ 6,900,836	\$ 6,900,836	\$ -
Emergency Generator (2 Sets)		2008		\$ 1,875,964	\$ 222,263	\$ 1,127,845	\$ 3,226,071	50.0%	100.0%	50.0%	\$ 1,613,036	\$ 3,226,071	\$ 1,613,036
University Pump Station													
Phase IA Improvements (920)	[2]	2004	20.0	\$2,380,738	\$166,880	\$ 1,369,403	\$ 3,917,021	49.00%	100.00%	51.0%	\$ 1,919,340	\$ 3,917,021	\$ 1,997,681
Phase II Improvements (850)	[2]	2007	30.0	\$2,949,246	\$189,113	\$ 1,686,939	\$ 4,825,297	67.00%	100.00%	33.0%	\$ 3,232,949	\$ 4,825,297	\$ 1,592,348
Phase II Improvements (920)	[2]	2007	30.0	\$2,949,246	\$189,113	\$ 1,686,939	\$ 4,825,297	67.00%	93.00%	26.0%	\$ 3,232,949	\$ 4,487,526	\$ 1,254,577
Emergency Generator - Set 1		2008		\$2,024,937	\$148,017	\$ 1,168,012	\$ 3,340,966	50.00%	100.00%	50.0%	\$ 1,670,483	\$ 3,340,966	\$ 1,670,483
Gerrish Pump Station													
(1) Replace Pump 4 + Electrical	[1]	2017	4.8	\$ 740,877	\$ 68,140	\$ 434,865	\$ 1,243,882	72.0%	100.0%	28.0%	\$ 895,595	\$ 1,243,882	\$ 348,287
SUBTOTAL EXISTING:				\$ 18,473,804	\$ 1,448,779	\$ 10,708,844	\$ 30,631,427						\$ 9,408,650
PROPOSED PUMP STATIONS													
University Pump Station													
Phase III - Add 920 PS 2 Pump 8	[1]	2021	15.0	\$2,369,065	\$113,765	\$ 1,334,578	\$ 3,817,408	0.0%	93.0%	93.0%	\$ -	\$ 3,550,189	\$ 3,550,189
1 PhaseIV - Add 850 PS2 Pump 3	[1]	2029	15.0	\$2,300,000	\$120,000	\$ 1,300,805	\$ 3,720,805	0.0%	37.0%	37.0%	\$ -	\$ 1,376,698	\$ 1,376,698
McKinney Ranch Pump Station													
1 Phase I & 2	[6]	2022	25.5	\$9,613,170	\$961,317	\$ 5,684,029	\$ 16,258,516	54.0%	89.0%	35.0%	\$ 8,779,599	\$ 14,470,079	\$ 5,690,481
Redbud Pump Station													
Phase I Improvements (850)	[2] *	2020	20.0	\$ 12,000,000	\$ 600,000	\$ 6,772,788	\$ 19,372,788	0.0%	26.0%	26.0%	\$ -	\$ 5,036,925	\$ 5,036,925
Phase I Improvements (794)	[2] *	2020	20.0	\$ 12,000,000	\$ 600,000	\$ 6,772,788	\$ 19,372,788	0.0%	28.0%	28.0%	\$ -	\$ 5,424,381	\$ 5,424,381
SUBTOTAL PROPOSED:				\$ 38,282,235	\$ 2,395,082	\$ 21,864,988	\$ 62,542,305						\$ 21,078,674
EXISTING + PROPOSED TOTAL:							\$ 93,173,732						\$ 30,487,324

* 10% of Construction Assumed for Engineering and Testing

(1) Estimated Cost in 2019 Dollars

[#] Number of Proposed Pumps

TABLE NO. 10
Ground Storage Reservoirs

Pump Station	Year Const.	Capacity (MG)	Capital Cost (\$)				Capacity Utilized (%)			Capacity Utilized (\$)			
			Const.	Eng. & Testing	Total 20 Yr. Project Cost \$ 4.5%	Total 20 Yr. Project Cost \$	2009	2019	In the CRF Period	2019	2029	In the CRF Period	
EXISTING GROUND STORAGE RESERVOIRS													
McKinney Ranch No. 1	*	1987	6.0	\$ 2,910,000	\$ 291,000	\$ 1,720,611	\$ 4,921,611	44.2%	84.6%	40.4%	\$ 2,177,704	\$ 4,163,770	\$ 1,986,066
McKinney Ranch No. 2	1	2007	10.0	\$ 3,748,480	\$ 335,500	\$ 2,195,233	\$ 6,279,213	44.2%	84.6%	40.4%	\$ 2,778,413	\$ 5,312,325	\$ 2,533,913
University No. 1	1	2003	6.0	\$ 2,008,499	\$ 150,544	\$ 1,160,535	\$ 3,319,578	52.6%	84.2%	31.6%	\$ 1,747,146	\$ 2,795,434	\$ 1,048,288
University No. 2	1	2007	10.0	\$ 5,921,753	\$ 257,689	\$ 3,321,592	\$ 9,501,034	52.6%	84.2%	31.6%	\$ 5,000,544	\$ 8,000,871	\$ 3,000,327
University No. 3	1	2014	10.0	\$ 6,740,817	\$ 354,997	\$ 3,814,162	\$ 10,909,976	52.6%	84.2%	31.6%	\$ 5,742,093	\$ 9,187,348	\$ 3,445,256
SUBTOTAL EXISTING:		42.0					\$ 34,931,412						\$ 12,013,850
PROPOSED GROUND STORAGE RESERVOIRS													
Redbud No. 1	1*	2020	8.0	\$ 3,445,200	\$ 382,800	\$ 2,057,638	\$ 5,885,638	0.0%	42.0%	42.0%	\$ -	\$ 2,471,968	\$ 2,471,968
SUBTOTAL PROPOSED:		8.0					\$ 5,885,638						\$ 2,471,968
EXISTING + PROPOSED TOTAL:		50.0					\$ 40,817,050						\$ 14,485,818

* 10% of Construction Assumed for Engineering and Testing

(1) Actual Cost

TABLE NO. 11
Elevated Storage Tanks

Elevated Storage	Pressure Divide	Year Const.	Storage Capacity (MGD)	Capital Cost (\$)				Capacity Utilized (%)			Capacity Utilized (\$)			
				Const.	Eng. & Testing	Total 20 Yr. Project Cost \$ 4.5%	Total 20 Yr. Project Cost \$	2019	2029	In the CRF Period	2019	2029	In the CRF Period	
EXISTING ELEVATED STORAGE TANKS														
U.S. 380	2*	794	Unknown	1.5	\$ 550,000	\$ 55,000	\$ 325,201	\$ 930,201	84%	87%	3%	\$ 781,369	\$ 809,275	\$ 27,906
Virginia	1*	920	1993	1.5	\$ 1,234,301	\$ 123,430	\$ 729,812	\$ 2,087,543	90%	100%	10%	\$ 1,878,789	\$ 2,087,543	\$ 208,754
Community	1	920	2002	3.0	\$ 3,313,500	\$ 105,000	\$ 1,837,522	\$ 5,256,022	0%	96%	96%	\$ -	\$ 5,045,781	\$ 5,045,781
Industrial	1	794	2002	2.0	\$ 1,787,500	\$ 70,000	\$ 998,449	\$ 2,855,949	68%	84%	16%	\$ 1,942,045	\$ 2,398,997	\$ 456,952
Wilmeth	1	850	2006	2.0	\$ 2,400,000	\$ 280,137	\$ 1,440,635	\$ 4,120,772	81%	84%	3%	\$ 3,337,825	\$ 3,461,448	\$ 123,623
Hardin	1	850	2013	2.0	\$ 4,682,481	\$ 374,585	\$ 2,718,289	\$ 7,775,355	77%	95%	18%	\$ 5,987,023	\$ 7,386,587	\$ 1,399,564
Independence	1	920	2008	3.0	\$ 4,218,250	\$ 161,693	\$ 2,354,320	\$ 6,734,263	65%	99%	34%	\$ 4,377,271	\$ 6,666,920	\$ 2,289,649
SUBTOTAL EXISTING:				15.0				\$ 29,760,105						\$ 9,552,229
PROPOSED ELEVATED STORAGE TANKS														
Stacy	2*	920	2023	2.0	\$ 5,000,000	\$ 500,000	\$ 2,956,376	\$ 8,456,376	0%	74%	74%	\$ -	\$ 6,257,718	\$ 6,257,718
SUBTOTAL PROPOSED:				2.0				\$ 8,456,376						\$ 6,257,718
EXISTING +PROPOSED TOTAL:				17.0				\$ 38,216,481						\$ 15,809,947

* 15% of Construction Assumed for Engineering and Testing

(1) Actual Cost

(2) Estimated Cost in 2019 Dollars

TABLE NO. 12
Existing Impact Fee Water Lines

1 - City Participation in Cost Oversize

2 - City Initiated and Funded

Pipe Number	Pressure Plane	Length (Ft.)	Diameter (Inches)	Date of Const.	Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Year Project Cost (\$)	Utilized Capacity			Utilized Capacity		
										2019	2029	During Fee Period	2019	2029	During Fee Period
F.M. 720 PUMP STATION 30" WATER LINE															
Pump Station Name Change to McKinney Ranch - Project from McKinney Ranch Pump Station to Hardin Rd.															
1	P5573	920	2,282	30		\$61.63	\$140,651	\$75,603	\$216,254	57%	91%	34%	\$123,265	\$196,791	\$73,526
1	P5574	920	287	30		\$61.63	\$17,689	\$9,508	\$27,197	51%	90%	39%	\$13,870	\$24,477	\$10,607
Subtotal:		2,569		1990			\$158,340	4.5%	\$85,111	\$243,451			\$137,135	\$221,268	\$84,133
VIRGINIA PARKWAY 24" WATER LINE															
From Stonebridge Dr. West to the Virginia Elevated Storage Tank															
1	P5069	920	976	24		\$6.01	\$5,864	\$3,152	\$9,016	79%	91%	12%	\$7,123	\$8,205	\$1,082
1	P5070	920	299	24		\$6.01	\$1,796	\$965	\$2,761	94%	100%	6%	\$2,595	\$2,761	\$166
1	P5071	920	582	24		\$6.01	\$3,497	\$1,880	\$5,377	95%	100%	5%	\$5,108	\$5,377	\$269
1	P5072	920	1,109	24		\$6.01	\$6,663	\$3,582	\$10,245	99%	100%	1%	\$10,143	\$10,245	\$102
1	P5073	920	298	24		\$6.01	\$1,790	\$962	\$2,752	100%	100%	0%	\$2,752	\$2,752	\$0
1	P5074	920	919	24		\$6.01	\$5,521	\$2,968	\$8,489	100%	100%	0%	\$8,489	\$8,489	\$0
1	P5075	920	636	24		\$6.01	\$3,821	\$2,054	\$5,875	100%	100%	0%	\$5,875	\$5,875	\$0
1	P5076	920	1,148	24		\$6.01	\$6,897	\$3,707	\$10,604	100%	100%	0%	\$10,604	\$10,604	\$0
1	P5077	920	552	24		\$6.01	\$3,316	\$1,782	\$5,098	100%	100%	0%	\$5,098	\$5,098	\$0
1	P5078	920	469	24		\$6.01	\$2,818	\$1,515	\$4,333	100%	100%	0%	\$4,333	\$4,333	\$0
1	P5079	920	376	24		\$6.01	\$2,259	\$1,214	\$3,473	100%	100%	0%	\$3,473	\$3,473	\$0
1	P5747	920	98	24		\$6.01	\$589	\$317	\$906	100%	100%	0%	\$906	\$906	\$0
1	P5761	920	454	12		\$6.01	\$2,728	\$1,466	\$4,194	39%	100%	61%	\$1,636	\$4,194	\$2,558
1	P6198	920	387	24		\$6.01	\$2,325	\$1,250	\$3,575	93%	100%	7%	\$3,325	\$3,575	\$250
Subtotal:		8,303		1992			\$49,884	4.5%	\$26,814	\$76,698			\$71,460	\$75,887	\$4,427
CUSTER 16" WATER LINE															
From Stacy Rd. to Stonebridge Dr.															
1	P5399	920	483	16		\$62.34	\$30,112	\$16,186	\$46,298	100%	100%	0%	\$46,298	\$46,298	\$0
1	P5400	920	1,289	16		\$62.34	\$80,360	\$43,195	\$123,555	100%	100%	0%	\$123,555	\$123,555	\$0
1	P5401	920	1,311	16		\$62.34	\$81,732	\$43,933	\$125,665	100%	100%	0%	\$125,665	\$125,665	\$0
1	P5402	920	1,287	16		\$62.34	\$80,236	\$43,129	\$123,365	100%	100%	0%	\$123,365	\$123,365	\$0
Subtotal:		4,370		1996			\$272,440	4.5%	\$146,443	\$418,883			\$418,883	\$418,883	\$0
F.M. 720 PARALLEL 42" WATER LINE															
F.M. 720 Now Called McKinney Ranch Pkwy.- Project Begins at McKinney Ranch Pump Station and Ends at Lake Forest Dr.															
2	P5544	920	59	20		\$173.14	\$10,215	\$5,491	\$15,706	60%	88%	28%	\$9,424	\$13,821	\$4,398
2	P5545	920	42	42		\$173.14	\$7,272	\$3,909	\$11,181	60%	88%	28%	\$6,709	\$9,839	\$3,131
2	P5578	920	8,018	42		\$173.14	\$1,388,205	\$746,192	\$2,134,397	56%	89%	33%	\$1,195,262	\$1,899,613	\$704,351
Subtotal:		8,119		1999			\$1,405,692	4.5%	\$755,592	\$2,161,284			\$1,211,395	\$1,923,273	\$711,880
INDUSTRIAL 2-MG ELEVATED STORAGE TANK WATER LINE															
From Industrial Elevated Storage Tank to McDonald St.															
2	P1304	794	385	24		\$334.79	\$128,893	\$69,283	\$198,176	67%	100%	33%	\$132,778	\$198,176	\$65,398
Subtotal:		385		2002			\$128,893	4.5%	\$69,283	\$198,176			\$132,778	\$198,176	\$65,398

TABLE NO. 12
Existing Impact Fee Water Lines

1 - City Participation in Cost Oversize

2 - City Initiated and Funded

Pipe Number	Pressure Plane	Length (Ft.)	Diameter (Inches)	Date of Const.	Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Year Project Cost (\$)	(%) Utilized Capacity			(\$) Utilized Capacity		
										2019	2029	During Fee Period	2019	2029	During Fee Period
ALMA ROAD 24-INCH WATER LINE															
From Eldorado Pkwy. South to Community 3-MG Elevated Storage Tank															
1	P5403	920	1,146	24		\$157.44		\$96,981	\$277,404	100%	100%	0%	\$277,404	\$277,404	\$0
1	P5404	920	897	24		\$157.44		\$75,910	\$217,131	100%	100%	0%	\$217,131	\$217,131	\$0
1	P5405	920	674	24		\$157.44		\$57,038	\$163,150	100%	100%	0%	\$163,150	\$163,150	\$0
1	P5406	920	140	24		\$157.44		\$11,848	\$33,889	100%	100%	0%	\$33,889	\$33,889	\$0
Subtotal:		2,857		2005		\$449,797	4.5 %	\$241,777	\$691,574				\$691,574	\$691,574	\$0
ELDORADO 20-INCH WATER LINE															
From Alma Rd. to Custer Rd.															
1	P5301	920	1,367	20		\$14.56		\$10,695	\$30,592	100%	100%	0%	\$30,592	\$30,592	\$0
1	P5370	920	1,863	20		\$14.56		\$14,576	\$41,693	100%	100%	0%	\$41,693	\$41,693	\$0
1	P5371	920	116	20		\$14.56		\$907	\$2,595	100%	100%	0%	\$2,595	\$2,595	\$0
1	P6154	920	2,061	20		\$14.56		\$16,125	\$46,124	100%	100%	0%	\$46,124	\$46,124	\$0
Subtotal:		5,407		2005		\$78,702	4.5 %	\$42,303	\$121,004				\$121,004	\$121,004	\$0
GERRISH PUMP STATION / AIRPORT BLVD. 36-INCH WATER LINES															
From Gerrish Pump Station East to Airport Blvd. and Airport Blvd. from U.S. 380 to Industrial Blvd.															
2	P1059	794	532	36		\$115.52		\$33,033	\$94,488	100%	100%	0%	\$94,488	\$94,488	\$0
2	P1192	794	1,366	36		\$115.52		\$84,818	\$242,613	42%	95%	53%	\$101,897	\$230,482	\$128,585
2	P1193	794	952	36		\$115.52		\$59,112	\$169,083	48%	83%	35%	\$81,160	\$140,339	\$59,179
2	P1194	794	2,918	36		\$115.52		\$181,186	\$518,262	50%	70%	20%	\$259,131	\$362,783	\$103,652
2	P1195	794	2,574	36		\$115.52		\$159,826	\$457,164	20%	56%	36%	\$91,433	\$256,012	\$164,579
2	P1360	794	2,110	36		\$115.52		\$131,015	\$374,754	49%	100%	51%	\$183,629	\$374,754	\$191,125
2	P1395	794	1,300	36		\$115.52		\$80,720	\$230,891	24%	57%	33%	\$55,414	\$131,608	\$76,194
2	P1408	794	831	36		\$115.52		\$51,599	\$147,593	42%	96%	54%	\$61,989	\$141,689	\$79,700
Subtotal:		12,583		2003		\$1,453,539	4.5 %	\$781,309	\$2,234,848				\$929,141	\$1,732,155	\$803,014

TABLE NO. 12
Existing Impact Fee Water Lines

1 - City Participation in Cost Oversize

2 - City Initiated and Funded

Pipe Number	Pressure Plane	Length (Ft.)	Diameter (Inches)	Date of Const.	Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Year Project Cost (\$)	Utilized Capacity			Utilized Capacity			
										2019	2029	During Fee Period	2019	2029	During Fee Period	
UNIVERSITY 36-INCH WATER LINE - DISCHARGE LINE 1																
From University Pump Station to U.S. 380; East Along U.S. 380 to Stonebridge Dr.																
2	P5000	920	1,878	36		\$313.15	\$588,092		\$316,113	\$904,205	75%	100%	25%	\$678,154	\$904,205	\$226,051
2	P5004	920	60	36		\$313.15	\$18,789		\$10,100	\$28,889	75%	100%	25%	\$21,667	\$28,889	\$7,222
Subtotal:		1,938		2003		\$606,881	4.5%	\$326,213	\$933,094				\$699,821	\$933,094	\$233,273	
HARDIN BLVD. 36-INCH WATER LINE - (VIRGINIA TO US 380)																
From Virginia Pkwy. to U.S. 380																
2	P3090	850	2,375	36		\$161.00	\$382,368		\$205,532	\$587,900	85%	100%	15%	\$499,715	\$587,900	\$88,185
2	P3091	850	3,645	36		\$161.00	\$586,834		\$315,437	\$902,271	85%	100%	15%	\$766,930	\$902,271	\$135,341
2	P3092	850	2,005	36		\$161.00	\$322,799		\$173,512	\$496,311	87%	100%	13%	\$431,791	\$496,311	\$64,520
Subtotal:		8,025		2003		\$1,292,000	4.5%	\$694,481	\$1,986,482				\$1,698,436	\$1,986,482	\$288,046	
HARDIN NORTH WATER LINE - (US 380 TO BUCHANAN)																
From U.S. 380 North to Buchanan St. (Constructed with President's Point)																
1	P3036	850	599	36		\$272.00	\$162,928		\$87,578	\$250,506	100%	100%	0%	\$250,506	\$250,506	\$0
1	P3037	850	1,264	36		\$272.00	\$343,808		\$184,805	\$528,613	100%	100%	0%	\$528,613	\$528,613	\$0
Subtotal:		1,863		2002		\$347,000	4.5%	\$272,383	\$779,119				\$779,119	\$779,119	\$0	
850 WILMETH WATER MAIN - PHASE 1																
Along Hardin Blvd from Buchanan St. to Wilmeth Rd.																
2	P3038	850	3,414	36		\$145.90	\$498,086		\$267,733	\$765,819	100%	100%	0%	\$765,819	\$765,819	\$0
2	P3039	850	783	36		\$145.90	\$114,236		\$61,404	\$175,640	98%	100%	2%	\$172,127	\$175,640	\$3,513
2	P3040	850	97	36		\$145.90	\$14,152		\$7,607	\$21,759	85%	100%	15%	\$18,495	\$21,759	\$3,264
2	P3041	850	723	20		\$145.90	\$105,482		\$56,699	\$162,181	96%	100%	4%	\$155,694	\$162,181	\$6,487
Subtotal:		5,017		2005		\$731,955	4.5%	\$393,443	\$1,125,399				\$1,112,135	\$1,125,399	\$13,264	
850 WILMETH WATER MAIN - PHASE 2																
Along Wilmeth Rd. from Hardin Blvd. to C.R. 943; North Along C.R. 943 2,880-ft; West to Lake Forest Dr.; South Along Lake Forest Dr. to Wilmeth Rd.																
2	P3010	850	1,443	36		\$145.90	\$210,527		\$113,163	\$323,690	62%	100%	38%	\$200,688	\$323,690	\$123,002
2	P3011	850	1,083	36		\$145.90	\$158,004		\$84,931	\$242,935	61%	100%	39%	\$148,190	\$242,935	\$94,745
2	P3026	850	2,897	24		\$145.90	\$422,658		\$227,188	\$649,846	100%	100%	0%	\$649,846	\$649,846	\$0
2	P3027	850	2,285	24		\$145.90	\$333,370		\$179,194	\$512,564	100%	100%	0%	\$512,564	\$512,564	\$0
2	P3028	850	1,848	24		\$145.90	\$269,614		\$144,924	\$414,538	100%	100%	0%	\$414,538	\$414,538	\$0
2	P3030	850	910	24		\$145.90	\$132,764		\$71,364	\$204,128	80%	91%	11%	\$163,302	\$185,756	\$22,454
2	P3031	850	2,760	24		\$145.90	\$402,670		\$216,444	\$619,114	86%	86%	0%	\$532,438	\$532,438	\$0
2	P3369	850	302	36		\$145.90	\$44,060		\$23,683	\$67,743	62%	100%	38%	\$42,001	\$67,743	\$25,742
Subtotal:		13,528		2005		\$1,973,668	4.5%	\$1,060,891	\$3,034,558				\$2,663,567	\$2,929,510	\$265,943	

TABLE NO. 12
Existing Impact Fee Water Lines

1 - City Participation in Cost Oversize

2 - City Initiated and Funded

Pipe Number	Pressure Plane	Length (Ft.)	Diameter (Inches)	Date of Const.	Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Year Project Cost (\$)	Utilized Capacity			Utilized Capacity		
										(%)		During Fee Period	(%)		During Fee Period
										2019	2029		2019	2029	
850 LOOPED SYSTEM NORTH															
From University Pump Station East to Future Ridge Rd.; Along Future Ridge Rd. North to Wilmeth Rd.; East Along Wilmeth Rd. to Lake Forest Dr.															
2	P3000	850	1,830	36	\$145.90	\$266,988		\$143,512	\$410,500	68%	100%	32%	\$279,140	\$410,500	\$131,360
2	P3002	850	1,373	36	\$145.90	\$200,314		\$107,673	\$307,987	69%	100%	31%	\$212,511	\$307,987	\$95,476
2	P3003	850	663	36	\$145.90	\$96,728		\$51,994	\$148,722	70%	100%	30%	\$104,105	\$148,722	\$44,617
2	P3004	850	4,325	36	\$145.90	\$630,996		\$339,175	\$970,171	55%	100%	45%	\$533,594	\$970,171	\$436,577
2	P3005	850	1,694	36	\$145.90	\$247,146		\$132,847	\$379,993	56%	100%	44%	\$212,796	\$379,993	\$167,197
2	P3006	850	2,602	36	\$145.90	\$379,619		\$204,054	\$583,673	68%	100%	32%	\$396,898	\$583,673	\$186,775
2	P3007	850	522	36	\$145.90	\$76,157		\$40,936	\$117,093	67%	100%	33%	\$78,452	\$117,093	\$38,641
2	P3008	850	1,032	36	\$145.90	\$150,564		\$80,932	\$231,496	64%	100%	36%	\$148,157	\$231,496	\$83,339
2	P3009	850	1,172	36	\$145.90	\$170,989		\$91,911	\$262,900	61%	100%	39%	\$160,369	\$262,900	\$102,531
2	P3461	850	1,049	36	\$145.90	\$153,044		\$82,265	\$235,309	68%	100%	32%	\$160,010	\$235,309	\$75,299
2	P3462	850	625	36	\$145.90	\$91,184		\$49,013	\$140,197	68%	100%	32%	\$95,334	\$140,197	\$44,863
Subtotal:			16,887	2005		\$2,463,730	4.5 %	\$1,324,312	\$3,788,041				\$2,381,366	\$3,788,041	\$1,406,675
STONEBRIDGE 48-INCH WATERMAIN															
U.S. 380 to Lacima Dr.															
2	P5686	920	52	30	\$406.96	\$21,162		\$11,375	\$32,537	100%	100%	0%	\$32,537	\$32,537	\$0
2	P5687	920	866	48	\$406.96	\$352,425		\$189,437	\$541,862	100%	100%	0%	\$541,862	\$541,862	\$0
2	P5688	920	1,087	48	\$406.96	\$442,363		\$237,780	\$680,143	100%	100%	0%	\$680,143	\$680,143	\$0
2	P5690	920	874	48	\$406.96	\$355,681		\$191,187	\$546,868	100%	100%	0%	\$546,868	\$546,868	\$0
Subtotal:			2,879	2006		\$1,171,630	4.5 %	\$629,779	\$1,801,410				\$1,801,410	\$1,801,410	\$0
36-INCH & 48INCH WATERLINE FROM VIRGINIA TO STONEBRIDGE															
Along Lacima Dr. from Stonebridge Dr. to Bristol Dr.; Along Bristol Dr. from Lacima Dr. to St. Gabriel Dr.; Along St. Gabriel Dr. from Bristol Dr. to Virginia Pkwy.															
2	P5034	920	49	48	\$406.96	\$19,941		\$10,719	\$30,660	100%	100%	0%	\$30,660	\$30,660	\$0
2	P5691	920	740	48	\$406.96	\$301,148		\$161,874	\$463,022	100%	100%	0%	\$463,022	\$463,022	\$0
2	P5692	920	212	48	\$406.96	\$86,275		\$46,375	\$132,650	100%	100%	0%	\$132,650	\$132,650	\$0
2	P5693	920	2,726	36	\$406.96	\$1,109,365		\$596,309	\$1,705,674	100%	100%	0%	\$1,705,674	\$1,705,674	\$0
2	P5694	920	390	36	\$406.96	\$158,713		\$85,312	\$244,025	100%	100%	0%	\$244,025	\$244,025	\$0
Subtotal:			4,117	2006		\$1,675,443	4.5 %	\$900,589	\$2,576,031				\$2,576,031	\$2,576,031	\$0
ALMA ROAD 24-INCH WATER LINE (CRAIG RANCH NORTH)															
From Community 3-MG Elevated Storage Tank South to C.R. 152															
1	P5407	920	772	24	\$596.59	\$460,564		\$0	\$460,564	100%	100%	0%	\$460,564	\$460,564	\$0
1	P5408	920	154	24	\$596.59	\$91,874		\$0	\$91,874	100%	100%	0%	\$91,874	\$91,874	\$0
1	P5409	920	831	24	\$596.59	\$495,763		\$0	\$495,763	100%	100%	0%	\$495,763	\$495,763	\$0
1	P5410	920	265	24	\$596.59	\$158,095		\$0	\$158,095	100%	100%	0%	\$158,095	\$158,095	\$0
1	P5411	920	704	24	\$596.59	\$419,996		\$0	\$419,996	100%	100%	0%	\$419,996	\$419,996	\$0
1	P5412	920	77	24	\$596.59	\$45,937		\$0	\$45,937	100%	100%	0%	\$45,937	\$45,937	\$0
Subtotal:			2,803	2002		\$1,672,230	0.0 %	\$0	\$1,672,229				\$1,672,229	\$1,672,229	\$0

TABLE NO. 12
Existing Impact Fee Water Lines

1 - City Participation in Cost Oversize

2 - City Initiated and Funded

Pipe Number	Pressure Plane	Length (Ft.)	Diameter (Inches)	Date of Const.	Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Year Project Cost (\$)	Utilized Capacity			Utilized Capacity			
										(%)	2019	2029	During Fee Period	(%)	2019	2029
LAKE FOREST DRIVE 30-INCH WATER LINE (WAL-MART)																
From McKinney Ranch Pkwy. South 1,400-ft																
1	P5582	920	1,373	30		\$148.02	\$203,232		\$109,242	\$312,474	63%	90%	27%	\$196,859	\$281,227	\$84,368
Subtotal:		1,373		2004			\$203,232	4.5%	\$109,242	\$312,474				\$196,859	\$281,227	\$84,368
VILLAGE PARK - PHASE 1 - 20", 30" & 36" WATER LINE (LAKE FOREST DR., COLLIN MCKINNEY PKWY. & RIDGE RD.)																
20" - Ridge Road from Stacy Rd. to McKinney Ranch Pkwy.; 30" -Lake Forest Dr. from 1,400-ft South of McKinney Ranch Pkwy. to Collin McKinney Pkwy.;																
36"- Collin McKinney Pkwy. from Lake Forest Dr. to 1,900-ft West																
1	P5583	920	1,087	30		\$66.01	\$71,758		\$38,572	\$110,330	63%	89%	26%	\$69,508	\$98,194	\$28,686
	P5584	920	711	30		\$66.01	\$46,936		\$25,229	\$72,165	63%	89%	26%	\$45,464	\$64,227	\$18,763
1	P5606	920	666	36		\$66.01	\$43,966		\$23,633	\$67,599	56%	85%	29%	\$37,855	\$57,459	\$19,604
1	P5586	920	1,054	20		\$66.01	\$69,580		\$37,401	\$106,981	28%	81%	53%	\$29,955	\$86,655	\$56,700
1	P5587	920	434	20		\$66.01	\$28,650		\$15,400	\$44,050	21%	79%	58%	\$9,251	\$34,800	\$25,549
1	P5588	920	1,331	20		\$66.01	\$87,866		\$47,230	\$135,096	39%	99%	60%	\$52,687	\$133,745	\$81,058
1	P6017	920	690	20		\$66.01	\$45,550		\$24,484	\$70,034	32%	85%	53%	\$22,411	\$59,529	\$37,118
Subtotal:		5,973		2004			\$394,306	4.5%	\$211,949	\$606,255				\$267,131	\$534,609	\$267,478
COLLIN MCKINNEY 30" & 36" WATER LINE (CRAIG RANCH INFRASTRUCTURE) (VCIM 1)																
From 1,900-ft West of Lake Forest Dr. to Alma Dr.																
1	P5607	920	3,484	36		\$71.56	\$249,309		\$0	\$249,309	54%	82%	28%	\$134,627	\$204,433	\$69,807
1	P5608	920	2,844	30		\$71.56	\$203,512		\$0	\$203,512	53%	77%	24%	\$107,861	\$156,704	\$48,843
1	P5609	920	603	30		\$71.56	\$43,150		\$0	\$43,150	53%	75%	22%	\$22,870	\$32,363	\$9,493
1	P5682	920	358	30		\$71.56	\$25,618		\$0	\$25,618	54%	81%	27%	\$13,834	\$20,751	\$6,917
1	P5696	920	895	30		\$71.56	\$64,045		\$0	\$64,045	53%	77%	24%	\$33,944	\$49,315	\$15,371
Subtotal:		8,184		2004			\$585,633	0.0%	\$0	\$585,634				\$313,136	\$463,566	\$150,431

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Existing Impact Fee Water Lines

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2 - City Initiated and Funded

Pipe Number	Pressure Plane	Length (Ft.)	Diameter (Inches)	Date of Const.	Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Year Project Cost (\$)	Utilized Capacity			Utilized Capacity		
										(%)		During Fee Period	(%)		During Fee Period
										2019	2029		2019	2029	
COLLIN MCKINNEY 20" & 24" WATER LINE (CRAIG RANCH INFRASTRUCTURE) (VCIM 1)															
From Alma Dr. to TPC Dr.															
1	P5610	920	299	20		\$71.56	\$21,396	\$0	\$21,396	53%	73%	20%	\$11,340	\$15,619	\$4,279
1	P5618	920	495	24		\$71.56	\$35,421	\$0	\$35,421	43%	54%	11%	\$15,231	\$19,127	\$3,896
1	P5619	920	307	24		\$71.56	\$21,968	\$0	\$21,968	47%	60%	13%	\$10,325	\$13,181	\$2,856
1	P5620	920	294	24		\$71.56	\$21,038	\$0	\$21,038	61%	76%	15%	\$12,833	\$15,989	\$3,156
1	P5621	920	238	24		\$71.56	\$17,031	\$0	\$17,031	61%	76%	15%	\$10,389	\$12,944	\$2,555
1	P5622	920	290	24		\$71.56	\$20,752	\$0	\$20,752	62%	76%	14%	\$12,866	\$15,772	\$2,905
1	P5623	920	298	24		\$71.56	\$21,324	\$0	\$21,324	62%	76%	14%	\$13,221	\$16,206	\$2,985
1	P5624	920	290	24		\$71.56	\$20,752	\$0	\$20,752	63%	77%	14%	\$13,074	\$15,979	\$2,905
1	P5625	920	296	24		\$71.56	\$21,181	\$0	\$21,181	64%	78%	14%	\$13,556	\$16,521	\$2,965
1	P5626	920	220	24		\$71.56	\$15,743	\$0	\$15,743	46%	52%	6%	\$7,242	\$8,186	\$945
1	P5627	920	586	24		\$71.56	\$41,933	\$0	\$41,933	44%	50%	6%	\$18,451	\$20,967	\$2,516
1	P5628	920	597	24		\$71.56	\$42,720	\$0	\$42,720	42%	44%	2%	\$17,942	\$18,797	\$854
1	P5629	920	922	24		\$71.56	\$65,977	\$0	\$65,977	41%	44%	3%	\$27,051	\$29,030	\$1,979
Subtotal:			5,132	2004			\$367,237	0.0%	\$0	\$367,236			\$183,521	\$218,318	\$34,796
ALMA ROAD 20-INCH WATER LINE (CRAIG RANCH INFRASTRUCTURE) (VCIM 1)															
From Collin McKinney Parkway to S.H. 121															
1	P5611	920	879	20		\$71.56	\$62,900	\$0	\$62,900	26%	100%	74%	\$16,354	\$62,900	\$46,546
1	P5612	920	349	20		\$71.56	\$24,974	\$0	\$24,974	25%	32%	7%	\$6,244	\$7,992	\$1,748
1	P5613	920	347	20		\$71.56	\$24,831	\$0	\$24,831	26%	64%	38%	\$6,456	\$15,892	\$9,436
1	P5616	920	624	20		\$71.56	\$44,652	\$0	\$44,652	29%	42%	13%	\$12,949	\$18,754	\$5,805
1	P5617	920	583	20		\$71.56	\$41,719	\$0	\$41,719	29%	32%	3%	\$12,099	\$13,350	\$1,252
Subtotal:			2,782	2004			\$199,075	0.0%	\$0	\$199,076			\$54,102	\$118,888	\$64,787
WESTRIDGE WATER LINE															
From Custer Rd. to the Independence Elevated Storage Tank															
1	P5148	920	1,100	20		\$47.44	\$52,179	\$28,047	\$80,226	100%	100%	0%	\$80,226	\$80,226	\$0
1	P5149	920	578	20		\$47.44	\$27,418	\$14,738	\$42,156	100%	100%	0%	\$42,156	\$42,156	\$0
1	P5150	920	1,106	18		\$47.44	\$52,464	\$28,201	\$80,665	100%	100%	0%	\$80,665	\$80,665	\$0
1	P5151	920	2,736	18		\$47.44	\$129,784	\$69,762	\$199,546	100%	100%	0%	\$199,546	\$199,546	\$0
Subtotal:			5,520	2002			\$261,844	4.5%	\$140,748	\$402,593			\$402,593	\$402,593	\$0
INDEPENDENCE 20-INCH WATER LINE															
From Westridge Blvd. to 650-ft South of Virginia Pkwy.															
1	P5136	920	1,245	20		\$46.76	\$58,212	\$31,290	\$89,502	75%	100%	25%	\$67,127	\$89,502	\$22,376
1	P5137	920	1,005	20		\$46.76	\$46,991	\$25,259	\$72,250	82%	100%	18%	\$59,245	\$72,250	\$13,005
1	P5138	920	259	20		\$46.76	\$12,110	\$6,509	\$18,619	86%	100%	14%	\$16,012	\$18,619	\$2,607
1	P5567	920	1,205	20		\$46.76	\$56,342	\$30,285	\$86,627	60%	100%	40%	\$51,976	\$86,627	\$34,651
1	P5695	920	920	20		\$46.76	\$43,016	\$23,122	\$66,138	61%	100%	39%	\$40,344	\$66,138	\$25,794
Subtotal:			4,634	2002			\$216,672	4.5%	\$116,465	\$333,136			\$234,704	\$333,136	\$98,433

TABLE NO. 12
Existing Impact Fee Water Lines

1 - City Participation in Cost Oversez

2 - City Initiated and Funded

Pipe Number	Pressure Plane	Length (Ft.)	Diameter (Inches)	Date of Const.	Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Year Project Cost (\$)	(%) Utilized Capacity			(\$) Utilized Capacity			
										2019	2029	During Fee Period	2019	2029	During Fee Period	
STACY ROAD WATER LINE																
From S.H. 121 to Old FM 720																
1	P6013	920	485	20		\$55.40	\$26,869	\$14,443	\$41,312	51%	100%	49%	\$21,069	\$41,312	\$20,243	
1	P6014	920	1,553	20		\$55.40	\$86,036	\$46,246	\$132,282	44%	98%	54%	\$58,204	\$129,636	\$71,432	
1	P6016	920	2,084	20		\$54.65	\$113,891	\$61,219	\$175,110	51%	74%	23%	\$89,306	\$129,581	\$40,275	
1	P6018	920	1,376	24		\$82.11	\$112,983	\$60,731	\$173,714	31%	67%	36%	\$53,851	\$116,388	\$62,537	
1	P6019	920	1,423	24		\$82.11	\$116,843	\$62,806	\$179,649	28%	68%	40%	\$50,302	\$122,161	\$71,860	
Subtotal:			6,921	2007			\$456,622	4.5 %	\$245,445	\$702,067			\$272,732	\$539,078	\$266,347	
MCKINNEY RANCH 16-INCH WATER LINE																
From Ridge Rd. to Stacy Rd.																
1	P6024	920	1,666	16		\$34.40	\$57,310	\$30,805	\$88,115	25%	68%	43%	\$22,029	\$59,918	\$37,889	
1	P6026	920	2,331	16		\$34.40	\$80,186	\$43,102	\$123,288	21%	72%	51%	\$25,890	\$88,767	\$62,877	
Subtotal:			3,997	2007			\$137,496	4.5 %	\$73,907	\$211,403			\$47,919	\$148,685	\$100,766	
COLLIN MCKINNEY 20-INCH WATER LINE - (CRAIG RANCH INFRASTRUCTURE) (VCIM 2)																
From Boston Rd. to Custer Rd.																
1	P5678	920	1,001	20		\$130.87	\$131,001	\$0	\$131,001	35%	100%	65%	\$45,850	\$131,001	\$85,151	
1	P5679	920	1,391	20		\$130.87	\$182,040	\$0	\$182,040	32%	100%	68%	\$58,253	\$182,040	\$123,787	
Subtotal:			2,392	2007			\$313,041	0.0 %	\$0	\$313,041			\$104,103	\$313,041	\$208,938	
ALMA ROAD 24-INCH WATER LINE - (CRAIG RANCH INFRASTRUCTURE) (VCIM 2)																
From Stacy Road to Collin McKinney Pkwy.																
1	P6027	920	147	24		\$130.87	\$19,238	\$10,341	\$29,579	100%	100%	0%	\$29,579	\$29,579	\$0	
1	P6028	920	684	24		\$130.87	\$89,515	\$48,116	\$137,631	46%	64%	18%	\$63,310	\$88,084	\$24,774	
1	P6029	920	626	24		\$130.87	\$81,925	\$44,037	\$125,962	47%	65%	18%	\$59,202	\$81,875	\$22,673	
1	P6030	920	727	24		\$130.87	\$95,143	\$51,142	\$146,285	47%	64%	17%	\$68,754	\$93,622	\$24,868	
1	P6031	920	472	24		\$130.87	\$61,771	\$33,203	\$94,974	47%	65%	18%	\$44,638	\$61,733	\$17,095	
1	P6171	920	1,014	24		\$130.87	\$132,702	\$71,330	\$204,032	44%	65%	21%	\$89,774	\$132,621	\$42,847	
Subtotal:			3,670	2007			\$480,293	4.5 %	\$258,169	\$738,463			\$355,257	\$487,514	\$132,257	
CUSTER ROAD 16-INCH WATER LINE - (CRAIG RANCH INFRASTRUCTURE) (VCIM 2)																
From Stacy Rd. to Town Crossing (2,720-ft South of Boston Rd.)																
1	P5665	920	1,561	16		\$130.87	\$204,288	\$109,809	\$314,097	86%	100%	14%	\$270,123	\$314,097	\$43,974	
1	P5666	920	1,113	16		\$130.87	\$145,658	\$78,295	\$223,953	86%	100%	14%	\$192,600	\$223,953	\$31,353	
1	P5667	920	917	16		\$130.87	\$120,008	\$64,507	\$184,515	69%	100%	31%	\$127,315	\$184,515	\$57,200	
1	P6037	920	1,290	16		\$130.87	\$168,822	\$90,746	\$259,568	47%	100%	53%	\$121,997	\$259,568	\$137,571	
1	P6038	920	1,430	16		\$130.87	\$187,144	\$100,594	\$287,738	26%	100%	74%	\$74,812	\$287,738	\$212,926	
Subtotal:			6,311	2007			\$825,921	4.5 %	\$443,951	\$1,269,871			\$786,847	\$1,269,871	\$483,024	

TABLE NO. 12
Existing Impact Fee Water Lines

1 - City Participation in Cost Oversize

2 - City Initiated and Funded

Pipe Number	Pressure Plane	Length (Ft.)	Diameter (Inches)	Date of Const.	Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Year Project Cost (\$)	Utilized Capacity			Utilized Capacity		
										(%)		During Fee Period	(%)		During Fee Period
COLLIN MCKINNEY 20-INCH WATER LINE - ROWLETT CREEK BRIDGE															
From TPC Dr. to Boston Rd.															
2	P6041	920	1,324	20		\$18.35		\$13,056	\$37,345	37%	43%	6%	\$13,818	\$16,058	\$2,241
Subtotal:			1,324	2006		\$24,289	4.5%	\$13,056	\$37,345				\$13,818	\$16,058	\$2,241
BRISTOL / CUSTER 42-INCH WATER LINE															
Bristol Dr. from Lacima Dr. to Custer Rd. & Custer Rd. from Bristol Dr. to Virginia Pkwy.															
2	P6150	920	4,864	42		\$ 507.59		\$1,327,089	\$3,795,987	100%	100%	0%	\$3,795,987	\$3,795,987	\$0
2	P6151	920	610	42		\$ 507.59		\$166,432	\$476,059	100%	100%	0%	\$476,059	\$476,059	\$0
2	P6152	920	871	42		\$ 507.59		\$237,643	\$679,750	100%	100%	0%	\$679,750	\$679,750	\$0
2	P6222	920	900	42		\$ 507.59		\$245,555	\$702,382	100%	100%	0%	\$702,382	\$702,382	\$0
Subtotal:			7,245	2008		\$3,677,460	4.5%	\$1,976,719	\$5,654,178				\$5,654,178	\$5,654,178	\$0
CUSTER ROAD UTILITY RELOCATION															
From Virginia Pkwy. to Eldorado Pkwy.															
2	P5130	920	275	36		\$ 432.41		\$63,918	\$182,831	100%	100%	0%	\$182,831	\$182,831	\$0
2	P5132	920	260	36		\$ 432.41		\$60,432	\$172,859	100%	100%	0%	\$172,859	\$172,859	\$0
2	P5754	920	487	30		\$ 432.41		\$113,194	\$323,778	100%	100%	0%	\$323,778	\$323,778	\$0
2	P6153	920	841	36		\$ 432.41		\$195,474	\$559,131	100%	100%	0%	\$559,131	\$559,131	\$0
2	P6155	920	1,717	36		\$ 432.41		\$399,083	\$1,141,531	100%	100%	0%	\$1,141,531	\$1,141,531	\$0
2	P6156	920	2,392	36		\$ 432.41		\$555,973	\$1,590,297	100%	100%	0%	\$1,590,297	\$1,590,297	\$0
2	P6168	920	1,347	30		\$ 432.41		\$313,083	\$895,539	100%	100%	0%	\$895,539	\$895,539	\$0
2	P6169	920	2,744	30		\$ 432.41		\$637,788	\$1,824,320	100%	100%	0%	\$1,824,320	\$1,824,320	\$0
2	P6170	920	1,007	30		\$ 432.41		\$234,057	\$669,494	100%	100%	0%	\$669,494	\$669,494	\$0
Subtotal:			11,070	2010		\$4,786,776	4.5%	\$2,573,002	\$7,359,780				\$7,359,780	\$7,359,780	\$0
ELDORADO PKWY. / STONEBRIDGE DRIVE INTERSECTION 20-INCH WATER LINE															
Intersection of Eldorado Pkwy. and Stonebridge Dr. - Replace Existing 12" Water Line with 20" Water Line by Bore															
2	P6183	920	182	20		\$1,202.14		\$117,604	\$336,393	100%	100%	0%	\$336,393	\$336,393	\$0
Subtotal:			182	2012		\$218,789	4.5%	\$218,789	\$218,789				\$336,393	\$336,393	\$0

TABLE NO. 12
Existing Impact Fee Water Lines

1 - City Participation in Cost Oversize

2 - City Initiated and Funded

Pipe Number	Pressure Plane	Length (Ft.)	Diameter (Inches)	Date of Const.	Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Year Project Cost (\$)	(%) Utilized Capacity			(\$) Utilized Capacity			
										2019	2029	During Fee Period	2019	2029	During Fee Period	
U.S. 380 36-INCH WATER LINE																
From University Pump Station to Hardin Rd.																
2	P3423	850	30	36	\$361.33	\$10,840		\$5,827	\$16,667	87%	100%	13%	\$14,500	\$16,667	\$2,167	
2	P4084	850	5,597	36	\$361.33	\$2,022,341		\$1,087,055	\$3,109,396	71%	100%	29%	\$2,207,671	\$3,109,396	\$901,725	
2	P4085	850	3,643	36	\$361.33	\$1,316,310		\$707,547	\$2,023,857	87%	100%	13%	\$1,760,756	\$2,023,857	\$263,101	
2	P4086	850	1,082	36	\$361.33	\$390,955		\$210,147	\$601,102	93%	100%	7%	\$559,025	\$601,102	\$42,077	
2	P4087	850	320	36	\$361.33	\$115,624		\$62,151	\$177,775	97%	100%	3%	\$172,442	\$177,775	\$5,333	
2	P4088	850	129	30	\$361.33	\$46,611		\$25,054	\$71,665	97%	100%	3%	\$69,515	\$71,665	\$2,150	
2	P4089	850	1,451	30	\$361.33	\$524,284		\$281,815	\$806,099	100%	100%	0%	\$806,099	\$806,099	\$0	
2	P4090	850	926	30	\$361.33	\$334,588		\$179,849	\$514,437	100%	100%	0%	\$514,437	\$514,437	\$0	
2	P4183	850	441	36	\$361.33	\$159,345		\$85,652	\$244,997	95%	100%	5%	\$232,747	\$244,997	\$12,250	
2	P4184	850	3,229	30	\$361.33	\$1,166,722		\$627,140	\$1,793,862	100%	100%	0%	\$1,793,862	\$1,793,862	\$0	
2	P4196	850	366	36	\$361.33	\$132,245		\$71,085	\$203,330	95%	100%	5%	\$193,164	\$203,330	\$10,167	
Subtotal:						17,214	2012		\$6,219,865	4.5%	\$3,343,322	\$9,563,187	\$8,324,218	\$9,563,187	\$1,238,970	
UNIVERSITY PUMP STATION DISCHARGE LINE NO. 2																
From University Pump Station West to Future Stonebridge Dr.; South Along Future Stonebridge Dr. to U.S. 380; U.S. 380 to Custer Rd.																
2	P6090	920	184	30	\$689.46	\$126,860		\$68,190	\$195,050	100%	100%	0%	\$195,050	\$195,050	\$0	
2	P6091	920	112	48	\$689.46	\$77,219		\$41,507	\$118,726	11%	33%	22%	\$13,060	\$39,180	\$26,120	
2	P6148	920	2,145	66	\$689.46	\$1,478,883		\$794,933	\$2,273,816	54%	88%	34%	\$1,227,861	\$2,000,958	\$773,097	
2	P6149	920	2,784	30	\$689.46	\$1,919,445		\$1,031,746	\$2,951,191	48%	100%	52%	\$1,416,572	\$2,951,191	\$1,534,619	
2	P6235	920	623	30	\$689.46	\$429,531		\$230,883	\$660,414	46%	100%	54%	\$303,790	\$660,414	\$356,624	
Subtotal:						5,848	2009		\$4,031,938	4.5%	\$2,167,259	\$6,199,197	\$3,156,333	\$5,846,793	\$2,690,460	
STACY ROAD 24-INCH WATER LINE																
From Alma Rd. East 2,756-ft																
1	P6020	920	1,033	24	193.1679939	\$199,543		\$107,259	\$306,802	52%	100%	48%	\$159,537	\$306,802	\$147,265	
1	P5744	920	1,604	24	193.1679939	\$309,841		\$166,547	\$476,388	48%	100%	52%	\$228,666	\$476,388	\$247,722	
Subtotal:						2,637	2009		\$509,384	4.5%	\$273,806	\$783,190	\$388,203	\$783,190	\$394,987	
HARDIN 36-INCH WATER LINE (TIMBER CREEK ACCESS IMPROVEMENTS)																
From Wilmeth Rd. to Holly Ridge Way																
1	P4015	850	1,200	36	\$249.82	\$299,782		\$161,140	\$460,922	58%	100%	42%	\$267,335	\$460,922	\$193,587	
1	P4016	850	1,606	36	\$249.82	\$401,208		\$215,658	\$616,866	53%	100%	47%	\$326,939	\$616,866	\$289,927	
Subtotal:						2,806	2010		\$700,990	4.5%	\$376,798	\$1,077,788	\$594,274	\$1,077,788	\$483,514	
LAKE FOREST 20-INCH WATER LINE																
From Collin McKinney Pkwy. to S.H. 121																
1	P6012	920	1,879	20	\$302.70	\$568,772		\$305,728	\$874,500	100%	100%	0%	\$874,500	\$874,500	\$0	
Subtotal:						1,879	2010		\$568,772	4.5%	\$305,728	\$874,500	\$874,500	\$874,500	\$0	

TABLE NO. 12
Existing Impact Fee Water Lines

1 - City Participation in Cost Oversize

2 - City Initiated and Funded

Only Limited and Phase																
Pipe Number	Pressure Plane	Length (Ft.)	Diameter (Inches)	Date of Const.	Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Year Project Cost (\$)	(%) Utilized Capacity			(\$ Utilized Capacity			
										2019	2029	During Fee Period	2019	2029	During Fee Period	
VALOR POINTE AT WESTRIDGE, PHASE 10 - 16-INCH WATER LINES																
Along Virginia Parkway West 1,250-ft to Future Westridge Subdivision; South & Southwest in Future Westridge Subdivision																
1	P6069	920	1,243	16		\$18.30	\$22,741		\$12,224	\$34,965	28%	100%	72%	\$9,790	\$34,965	\$25,175
1	P6079	920	643	16		\$18.30	\$11,764		\$6,323	\$18,087	26%	100%	74%	\$4,703	\$18,087	\$13,384
Subtotal:			1,886	2012			\$34,505	4.5%	\$18,547	\$53,052				\$14,493	\$53,052	\$38,559
920 VIRGINIA PKWY. 12-INCH PARALLEL LINE																
From Adriatic Pkwy. to Ridge Rd.																
2	P5232	920	949	12		\$67.51	\$64,065		\$34,436	\$98,501	93%	100%	7%	\$91,606	\$98,501	\$6,895
2	P5702	920	620	8		\$67.51	\$41,855		\$22,498	\$64,353	100%	100%	0%	\$64,353	\$64,353	\$0
2	P5736	920	949	12		\$67.51	\$64,065		\$34,436	\$98,501	94%	100%	6%	\$92,591	\$98,501	\$5,910
2	P5737	920	389	8		\$67.51	\$26,261		\$14,116	\$40,377	100%	100%	0%	\$40,377	\$40,377	\$0
2	P6172	920	1,095	12		\$67.51	\$73,921		\$39,734	\$113,655	100%	100%	0%	\$113,655	\$113,655	\$0
Subtotal:			4,002	2011			\$270,166	4.5%	\$145,220	\$415,387				\$402,582	\$415,387	\$12,805
WESTRIDGE 24-INCH WATER LINE																
Westridge Blvd. Phase 4A & 4B (Custer West Partners) From Independence Elevated Storage Tank to Willard Dr.																
1	P5158	920	1,163	24		\$50.72	\$58,988		\$31,707	\$90,695	88%	100%	12%	\$79,812	\$90,695	\$10,883
1	P5159	920	632	24		\$50.72	\$32,055		\$17,230	\$49,285	89%	100%	11%	\$43,864	\$49,285	\$5,421
1	P5160	920	867	24		\$50.72	\$43,975		\$23,638	\$67,613	86%	100%	14%	\$58,147	\$67,613	\$9,466
1	P5683	920	287	24		\$50.72	\$14,557		\$7,825	\$22,382	88%	100%	12%	\$19,696	\$22,382	\$2,686
1	P6062	920	1,289	24		\$50.72	\$65,379		\$35,143	\$100,522	70%	100%	30%	\$70,365	\$100,522	\$30,157
Subtotal:			4,238	2007			\$214,953	4.5%	\$115,543	\$330,497				\$271,884	\$330,497	\$58,613

TABLE NO. 12
Existing Impact Fee Water Lines

1 - City Participation in Cost Oversize

2 - City Initiated and Funded

Pipe Number	Pressure Plane	Length (Ft.)	Diameter (Inches)	Date of Const.	Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Year Project Cost (\$)	(%) Utilized Capacity			(\$) Utilized Capacity		
										2019	2029	During Fee Period	2019	2029	During Fee Period
LAKE FOREST 36-INCH WATER LINE															
From Willmeth Phase 2 Water Line to Bloomdale Rd.															
1	P4013	850	1,650	36	\$421.05	\$694,738		\$373,438	\$1,068,176	10%	27%	17%	\$106,818	\$288,408	\$181,590
1	P4189	850	892	36	\$421.05	\$375,579		\$201,882	\$577,461	18%	29%	11%	\$103,943	\$167,464	\$63,521
Subtotal:		2,542		2010		\$1,070,317	4.5%	\$575,320	\$1,645,637				\$210,761	\$455,872	\$245,111
COUCH DRIVE 12" WATER LINE LOOP															
From Airport Rd. to Couch Dr.															
2	P1406 *	794	3,454	12	\$94.38	\$326,000		\$175,232	\$501,232	38%	66%	28%	\$190,468	\$330,813	\$140,345
		3,454		2014		\$326,000	4.5%	\$175,232	\$501,232				\$190,468	\$330,813	\$140,345
HARDIN ELEVATED STORAGE TANK WATER LINES															
From Mallard Lakes 12" WL to Hardin Blvd.															
2	P3359	850	464	24	\$407.34	\$189,006		\$101,595	\$290,601	96%	100%	4%	\$278,977	\$290,601	\$11,624
2	P3371	850	369	12	\$169.32	\$62,479		\$33,584	\$96,063	100%	100%	0%	\$96,063	\$96,063	\$0
2	P4116	850	1,072	24	\$300.92	\$322,586		\$173,397	\$495,983	98%	100%	2%	\$486,063	\$495,983	\$9,920
Subtotal:		1,905		2012		\$574,071	4.5%	\$308,576	\$882,647				\$861,103	\$882,647	\$21,544
EXISTING TOTAL:		223,317							\$64,978,704				\$11,094,827		

TABLE NO. 13
Proposed Impact Fee Water Lines

1 - City Participation in Cost Oversize

2 - City Initiated and Funded

! Average Unit Costs are Based on Bid Tabulation or Design Opinion of Cost, plus Engineering and Easements

*Average Unit Costs are Based in 2019 Dollars Unless Otherwise Indicated and Includes 20% for Engineering and Easements.

Pipe Number	Pressure Plane	Length (Ft.)	Diameter (Inches)	Date of Const.	Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Year Project Cost (\$)	(%) Utilized Capacity			(\$) Utilized Capacity		
												During Fee Period			During Fee Period
										2019	2029		2019	2029	
REDBUD 794 PUMP STATION 54" DISCHARGE LINE															
From Future Redbud Pump Station to S.H. 5															
2	P2114 *	794	4,739		\$948.78	\$4,496,262		\$2,416,844	\$6,913,106	0%	26%	26%	\$0	\$1,797,408	\$1,797,408
Subtotal:						\$4,496,262	4.5%	\$2,416,844	\$6,913,106				\$0	\$1,797,408	\$1,797,408
REDBUD 850 PUMP STATION 42" DISCHARGE LINE															
From Future Redbud Pump Station to Community Ave.															
2	P3503 !	850	4,768	42	\$1,112.42	\$5,304,017		\$2,851,031	\$8,155,048	0%	30%	30%	\$0	\$2,446,514	\$2,446,514
2	P4024 !	850	2,547	42	\$1,112.42	\$2,833,333		\$1,522,981	\$4,356,314	0%	28%	28%	\$0	\$1,219,768	\$1,219,768
Subtotal:						\$8,137,350	4.5%	\$4,374,012	\$12,511,362				\$0	\$3,666,282	\$3,666,282
US 380 / INDEPENDENCE LOOP															
From Custer Rd. to Independence Pkwy. & Independence Pkwy. from US 380 to Virginia Pkwy. (Pipe 5757 is a Bore Across Custer)						\$8,137,350									
2	P5757 !	920	146	16	\$268.02	\$39,131		\$21,034	\$60,165	0%	78%	78%	\$0	\$46,929	\$46,929
2	P5758 !	920	449	12	\$268.02	\$120,340		\$64,686	\$185,026	0%	100%	100%	\$0	\$185,026	\$185,026
2	P5763 !	920	329	12	\$268.02	\$88,178		\$47,398	\$135,576	0%	51%	51%	\$0	\$69,144	\$69,144
2	P6083 !	920	1,523	24	\$268.02	\$408,190		\$219,411	\$627,601	0%	100%	100%	\$0	\$627,601	\$627,601
2	P6086 !	920	1,215	12	\$268.02	\$325,641		\$175,039	\$500,680	0%	100%	100%	\$0	\$500,680	\$500,680
2	P6087 !	920	4,099	24	\$268.02	\$1,098,603		\$590,524	\$1,689,127	0%	100%	100%	\$0	\$1,689,127	\$1,689,127
2	P6251	920	459	12	\$268.02	\$123,020		\$66,126	\$189,146	0%	100%	100%	\$0	\$189,146	\$189,146
						\$2,203,102	4.5%	\$1,184,218	\$3,387,320				\$0	\$3,307,653	\$3,307,653
HARRY McKILLOP BLVD. 24" WATER LINE															
From McDonald St. to Future Airport Blvd.															
2	P2082 !	794	2,051	24	\$629.95	\$1,292,029		\$694,495	\$1,986,524	0%	63%	63%	\$0	\$1,251,510	\$1,251,510
2	P2083 !	794	1,631	24	\$629.95	\$1,027,450		\$552,278	\$1,579,728	0%	63%	63%	\$0	\$995,229	\$995,229
2	P2085 !	794	4,142	24	\$629.95	\$2,609,257		\$1,402,535	\$4,011,792	0%	65%	65%	\$0	\$2,607,665	\$2,607,665
2	P2087 !	794	1,135	24	\$629.95	\$714,994		\$384,326	\$1,099,320	0%	57%	57%	\$0	\$626,612	\$626,612
2	P2088 !	794	900	12	\$629.95	\$566,956		\$304,752	\$871,708	0%	19%	19%	\$0	\$165,625	\$165,625
2	P2120 !	794	2,296	24	\$629.95	\$1,446,367		\$777,455	\$2,223,822	0%	52%	52%	\$0	\$1,156,387	\$1,156,387
2	P2121 !	794	1,100	24	\$629.95	\$692,946		\$372,474	\$1,065,420	0%	52%	52%	\$0	\$554,018	\$554,018
Subtotal:						\$8,350,000	4.5%	\$4,488,315	\$12,838,315				\$0	\$7,357,046	\$7,357,046

TABLE NO. 13
Proposed Impact Fee Water Lines

1 - City Participation in Cost Oversize

2 - City Initiated and Funded

! Average Unit Costs are Based on Bid Tabulation or Design Opinion of Cost, plus Engineering and Easements

*Average Unit Costs are Based in 2019 Dollars Unless Otherwise Indicated and Includes 20% for Engineering and Easements.

Pipe Number	Pressure Plane	Length (Ft.)	Diameter (Inches)	Date of Const.	Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Year Project Cost (\$)	(%) Utilized Capacity			(\$) Utilized Capacity		
										2019	2029	During Fee Period	2019	2029	During Fee Period
CUSTER 24" NORTH WATER LINE															
From U.S. 380 North to FM 1461 (Future E / W Thoroughfare)															
2	P6052 !	920	1,426	18	\$742.50	\$1,058,801		\$569,130	\$1,627,931	0%	36%	36%	\$0	\$586,055	\$586,055
2	P6093 !	920	2,204	24	\$742.50	\$1,636,464		\$879,637	\$2,516,101	0%	32%	32%	\$0	\$805,152	\$805,152
2	P6096 !	920	2,587	24	\$742.50	\$1,920,841		\$1,032,496	\$2,953,337	0%	26%	26%	\$0	\$767,868	\$767,868
2	P6097 !	920	1,392	24	\$742.50	\$1,033,556		\$555,560	\$1,589,116	0%	27%	27%	\$0	\$429,061	\$429,061
2	P6102 !	920	3,111	24	\$742.50	\$2,309,909		\$1,241,629	\$3,551,538	0%	19%	19%	\$0	\$674,792	\$674,792
2	P6103 !	920	2,357	24	\$742.50	\$1,750,066		\$940,701	\$2,690,767	0%	20%	20%	\$0	\$538,153	\$538,153
2	P6210 !	920	1,925	24	\$742.50	\$1,429,307		\$768,285	\$2,197,592	0%	33%	33%	\$0	\$725,205	\$725,205
2	P6211 !	920	1,009	24	\$742.50	\$749,180		\$402,701	\$1,151,881	0%	32%	32%	\$0	\$368,602	\$368,602
Subtotal:					16,011	\$11,888,125	4.5%	\$6,390,139	\$18,278,264				\$0	\$4,894,888	\$4,894,888
HARDIN SOUTH 16" WATER LINE															
From McKinney Ranch Pkwy. to Collin McKinney Pkwy.															
1	P6010 *	920	1,815	16	\$60.00	\$108,900		\$58,536	\$167,436	0%	84%	84%	\$0	\$140,646	\$140,646
Subtotal:					1,815	\$108,900	4.5%	\$58,536	\$167,436				\$0	\$140,646	\$140,646
INDUSTRIAL BLVD. 12" WATER LINE (PIPE BURST 8" to 12")															
From Industrial Elevated Tank East 1,540-ft & from Union Pacific RR to Lavon Dr.															
2	P1402 *	794	630	12	\$261.90	\$164,997		\$88,690	\$253,687	0%	33%	33%	\$0	\$83,717	\$83,717
2	P1403 *	794	1,543	12	\$261.90	\$404,112		\$217,219	\$621,331	0%	0%	0%	\$0	\$0	\$0
Subtotal:					2,173	\$569,109	4.5%	\$305,909	\$875,018				\$0	\$83,717	\$83,717
HARDIN 24" & 16" (TRINITY FALLS WEST FEED NORTH)															
"Trinity Falls West Feed" From F.M. 546 to Trinity Falls North Loop															
1	P4069 *	850	3,359	20	\$108.00	\$362,772		\$194,998	\$557,770	0%	33%	33%	\$0	\$184,064	\$184,064
1	P4070 *	850	5,477	16	\$60.00	\$328,620		\$176,641	\$505,261	0%	33%	33%	\$0	\$166,736	\$166,736
Subtotal:					8,836	\$691,392	4.5%	\$371,639	\$1,063,031				\$0	\$350,800	\$350,800
INDEPENDENCE CONNECTION TO US 380															
From Existing Pipe P6083 to U.S. 380															
2	P6084 *	920	2,338	24	\$240.00	\$561,120		\$301,615	\$862,735	0%	100%	100%	\$0	\$862,735	\$862,735
Subtotal:					2,338	\$561,120	4.5%	\$301,615	\$862,735				\$0	\$862,735	\$862,735
REDBUD PUMP STATION 850 DISCHARGE LINE (T-FALLS EAST FEED)															
From Redbud Pump Station North Along McLarry Dr. to N. Side of Bloomdale Road															
2	P4118 *	850	1,890	36	\$390.00	\$737,100		\$396,208	\$1,133,308	0%	30%	30%	\$0	\$339,992	\$339,992
Subtotal:					1,890	\$737,100	4.5%	\$396,208	\$1,133,308				\$0	\$339,992	\$339,992

TABLE NO. 13
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2 - City Initiated and Funded

! Average Unit Costs are Based on Bid Tabulation or Design Opinion of Cost, plus Engineering and Easements

*Average Unit Costs are Based in 2019 Dollars Unless Otherwise Indicated and Includes 20% for Engineering and Easements.

Pipe Number	Pressure Plane	Length (Ft.)	Diameter (Inches)	Date of Const.	Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Year Project Cost (\$)	(%) Utilized Capacity			(\$) Utilized Capacity		
										2019	2029	During Fee Period	2019	2029	During Fee Period
STONEBRIDGE 42" WATER LINE															
From U.S. 380 to F.M. 1461 (Future East-West Thoroughfare)															
1	P6092 *	920	6,831	42	\$330.00	\$2,254,230		\$1,211,700	\$3,465,930	0%	9%	9%	\$0	\$311,934	\$311,934
1	P6100 *	920	1,500	42	\$330.00	\$495,000		\$266,074	\$761,074	0%	6%	6%	\$0	\$45,664	\$45,664
1	P6101 *	920	2,380	42	\$330.00	\$785,400		\$422,170	\$1,207,570	0%	6%	6%	\$0	\$72,454	\$72,454
1	P6111 *	920	3,289	42	\$330.00	\$1,085,370		\$583,411	\$1,668,781	0%	4%	4%	\$0	\$66,751	\$66,751
1	P6112 *	920	2,188	42	\$330.00	\$722,040		\$388,113	\$1,110,153	0%	4%	4%	\$0	\$44,406	\$44,406
Subtotal:						\$5,342,040	4.5%	\$2,871,468	\$8,213,508				\$0	\$541,209	\$541,209
F.M. 1461 (FUTURE E/W THOROUGHFARE)															
From Custer Rd. to Future Stonebridge Dr.															
1	P6119 *	920	1,932	16	\$60.00	\$115,920		\$62,310	\$178,230	0%	69%	69%	\$0	\$122,979	\$122,979
1	P6120 *	920	2,894	16	\$60.00	\$173,640		\$93,335	\$266,975	0%	71%	71%	\$0	\$189,552	\$189,552
Subtotal:						\$289,560	4.5%	\$155,645	\$445,205				\$0	\$312,531	\$312,531
COUNTY ROAD 228 16" WATER LINE															
From CR 227 (Future Hardin Rd. East to Trinity Falls)															
1	P4072 *	850	2,085	16	\$60.00	\$125,100		\$67,244	\$192,344	0%	43%	43%	\$0	\$82,708	\$82,708
Subtotal:						\$125,100	4.5%	\$67,244	\$192,344				\$0	\$82,708	\$82,708
AIRPORT WATER LINE NORTH LOOP															
Along Future Airport Blvd. From Bloomdale Rd. to U.S. 380															
2	P2017 *	794	3,911	42	\$450.00	\$1,759,950		\$946,013	\$2,705,963	0%	30%	30%	\$0	\$811,789	\$811,789
2	P2018 *	794	1,729	42	\$450.00	\$778,050		\$418,220	\$1,196,270	0%	31%	31%	\$0	\$370,844	\$370,844
2	P2043 *	794	4,941	30	\$276.00	\$1,363,716		\$733,029	\$2,096,745	0%	73%	73%	\$0	\$1,530,624	\$1,530,624
2	P2044 *	794	3,334	30	\$276.00	\$920,184		\$494,620	\$1,414,804	0%	77%	77%	\$0	\$1,089,399	\$1,089,399
Subtotal:						\$4,821,900	4.5%	\$2,591,882	\$7,413,782				\$0	\$3,802,656	\$3,802,656
LAKE FOREST 16" WATER LINE															
From Bloomdale Rd. to Future E/W Thoroughfare at C.R. 166 and F.M. 1461															
1	P4025 *	850	2,317	16	\$60.00	\$139,020		\$74,726	\$213,746	0%	21%	21%	\$0	\$44,887	\$44,887
1	P4026 *	850	1,780	16	\$60.00	\$106,800		\$57,407	\$164,207	0%	22%	22%	\$0	\$36,126	\$36,126
1	P4027 *	850	1,522	16	\$60.00	\$91,318		\$49,086	\$140,404	0%	21%	21%	\$0	\$29,485	\$29,485
Subtotal:						\$337,138	4.5%	\$181,219	\$518,357				\$0	\$110,498	\$110,498
BLOOMDALE 16" WATER LINE															
From Future Ridge Rd. to West side of Bloomridge Subdivision															
1	P4020 *	850	3,337	16	\$60.00	\$200,220		\$107,623	\$307,843	0%	16%	16%	\$0	\$49,255	\$49,255
Subtotal:						\$200,220	4.5%	\$107,623	\$307,843				\$0	\$49,255	\$49,255

TABLE NO. 13
Proposed Impact Fee Water Lines

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Pipe Number	Pressure Plane	Length (Ft.)	Diameter (Inches)	Date of Const.	Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Year Project Cost (\$)	(%) Utilized Capacity			(\$) Utilized Capacity		
												During Fee Period			During Fee Period
										2019	2029		2019	2029	
FUT. 850 EAST / WEST THOROUGHFARE WATER LINE															
From U.S. 75 to Future Lake Forest Dr.															
1	P4037 *	850	2,361	24		\$120.00	\$283,320	\$152,291	\$435,611	0%	28%	28%	\$0	\$121,971	\$121,971
1	P4038 *	850	3,220	20		\$108.00	\$347,760	\$186,929	\$534,689	0%	37%	37%	\$0	\$197,835	\$197,835
1	P4039 *	850	4,465	20		\$108.00	\$482,220	\$259,204	\$741,424	0%	35%	35%	\$0	\$259,498	\$259,498
1	P4047 *	850	5,383	24		\$120.00	\$645,960	\$347,218	\$993,178	0%	30%	30%	\$0	\$297,953	\$297,953
1	P4048 *	850	3,089	24		\$120.00	\$370,680	\$199,249	\$569,929	0%	30%	30%	\$0	\$170,979	\$170,979
1	P4107 *	850	1,918	16		\$60.00	\$115,080	\$61,858	\$176,938	0%	50%	50%	\$0	\$88,469	\$88,469
Subtotal:			20,436	2029		\$2,245,020	4.5%	\$1,206,749	\$3,451,769				\$0	\$1,136,705	\$1,136,705
PROPOSED TOTAL:		128,487							\$78,572,703				\$28,836,729		

E. WASTEWATER COLLECTION SYSTEM

Hydraulic wastewater collection system models for the years 2019, 2029 and Buildout were prepared by Birkhoff, Hendricks & Carter, LLP. The models were developed with the peak flows calculated from the residential population and non-residential land use projections provided by the City of McKinney's Planning Department. The models were simulated to determine peak wet weather flow to ensure proper sizing of the collection system and to determine utilized capacities.

1. Collection Lines

Wastewater generated by the City of McKinney is collected through the installed system of collection lines that flow into the geographic area serviced by the North Texas Municipal Water District (NTMWD).

The wastewater collection system analysis covered all of the drainage basins in the Service Area planning boundary. Each branch of the collection system was analyzed, and future lines were sized to accommodate ultimate wastewater flows. Generally, sewer lines larger than 12-inches in diameter, that are proposed to be constructed within the 10-year period, were included in the Capital Improvements Plan (CIP), shown on **Exhibit 2**. Wastewater lines 12-inches in diameter and smaller, being generally the responsibility of developers, are excluded from the impact fee calculation. The wastewater project costs include necessary appurtenances (manholes, lift stations, aerial crossings and the like), purchase of easements, utility relocation, pavement removal and replacement, and engineering costs. For existing Impact Fee projects, actual costs were used where known. CIP project cost estimates were based on 2019 average unit costs or were provided by the City based on preliminary engineering design budgets.

Eligible wastewater collection line projects in the Service Area planning boundary were included in the impact fee analysis. The eligible existing and proposed wastewater collection lines and facilities are shown on **Exhibit 2**.

2. Lift Stations

The City of McKinney owns and operates seven (7) existing lift stations. The highest-capacity lift station, known as the Stonebridge Lift Station, is approaching a need for additional capacity. The wastewater system CIP proposes a bypass sanitary sewer line which will relieve peak flows to the lift station. Timing for the full relief or abandonment of Stonebridge Lift Station is dependent on the provision of additional capacity to the existing NTMWD trunk sewers along Wilson Creek by NTMWD.

The Rutherford Branch East Lift Station will also require additional pumping capacity to support the peak flow rates generated during the study period. Replacement of the two (2) existing pumps for larger-capacity pumps is included in the CIP.

The Sloan Creek Lift Station is a newer City Lift Station which was placed in service in 2018. Although this lift station was projected to be developer-constructed in the last impact fee CIP, the City did contribute financially to the installation. The Sloan Creek Lift Station is considered an existing lift station in this study and its initial existing utilized capacity is based on existing land uses in the service area.

3. NTMWD Regional Wastewater Collection, Conveyance and Treatment

The North Texas Municipal Water District (NTMWD) provides the City of McKinney with a significant portion of its wastewater collection and conveyance system. NTMWD also owns and operates the Wilson Creek Treatment Plant and provides all of McKinney's wastewater treatment. McKinney pays NTMWD for the cost of this service according to the City's proportional contribution of wastewater flows in any given year.

This Impact Fee study includes McKinney's share of the cost to expand NTMWD's regional wastewater collection, conveyance and treatment facilities to accommodate the new growth. NTMWD provided their 10-year CIP costs for the required collection system and treatment plant expansions which are specified to serve the new growth, being labeled "*Expanding / New Growth*". McKinney's estimated share of NTMWD's Regional Wastewater System (RWWS) and NTMWD's Upper East Fork Interceptor System (UEFIS) expansion costs are summarized in **Table 14**. Approximately 32-percent of McKinney's estimated payments to NTMWD over the next 10-years are projected to be used for expansion of the capacity of the two (2) regional wastewater systems which serve

McKinney in order to provide service to the anticipated new growth. One element of NTMWD's CIP is the proposed 48-inch to 72-inch McKinney-Prosper Transfer Sewer (MPTS) along Wilson Creek that is currently under design to provide the necessary wastewater conveyance capacity to serve new growth in the City.

Table No. 14
NTMWD's 10-Year C.I.P. for New Growth
(McKinney's Share of Regional Collection & Treatment Systems CIP)

NTMWD Regional Collection & Treatment System	NTMWD Total 10-Year Member Charges	McKinney's Total 10-Year Estimated Charge	McKinney's Overall 10-Year Cost Share (%)	⁽¹⁾ NTMWD Total 10-Year CIP Growth Charges	McKinney's Share of 10-year Capacity Expansion for new Growth
* RWWS	\$1,219,574,169	\$213,425,660	17.5%	\$476,957,590	\$83,467,649
** UEFIS	\$604,645,159	\$149,871,738	24.8%	\$135,899,000	\$33,684,913
Total:	\$1,824,219,328	\$363,297,398		\$612,856,590	\$117,152,561

* RWWS - NTMWD's "Regional Wastewater System"

** UEFIS - NTMWD's "Upper East Fork Interceptor System"

⁽¹⁾ - Based on Summation of NTMWD's 10-year CIP Elements for 'Expanding/ New Growth'

It should be noted, the 10-year CIP provided by NTMWD included additional projects that were designated as projects for "*Peak Flows / New Growth*", but these projects were excluded from this wastewater impact fee CIP.

4. Wastewater System Capital Improvement Projects for Impact Fees

The 10-year Wastewater System CIP for Impact Fees was developed by Birkhoff, Hendricks & Carter for the proposed lines and facilities that will be owned and operated by the City. **Exhibit 2** shows the recommended system improvements along with improvements that are currently under design or construction, and **Table No. 15** itemizes each proposed CIP project and the project cost. These recommended improvements form the basis for the Wastewater System Impact Fee Calculation.

Referencing **Exhibit 2**, the Dark Blue colored sewer lines represent existing infrastructure that was assessed for utilized capacity. The Green and Red colored facilities are proposed CIP projects; with Red representing City-initiated and funded projects and Green representing projects that the City intends to participate in oversize costs. Projects colored Light Blue are considered fully developer-funded lines that are generally 12-inches in diameter and smaller.



2019 - 2029 WASTEWATER IMPACT FEE
10-YEAR CAPITAL IMPROVEMENT PLAN

BIRKHOFF, HENDRICKS & CARTER, L.L.P.
PROFESSIONAL ENGINEERS
Dallas, Texas
NOVEMBER 2019

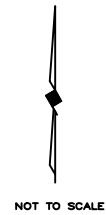
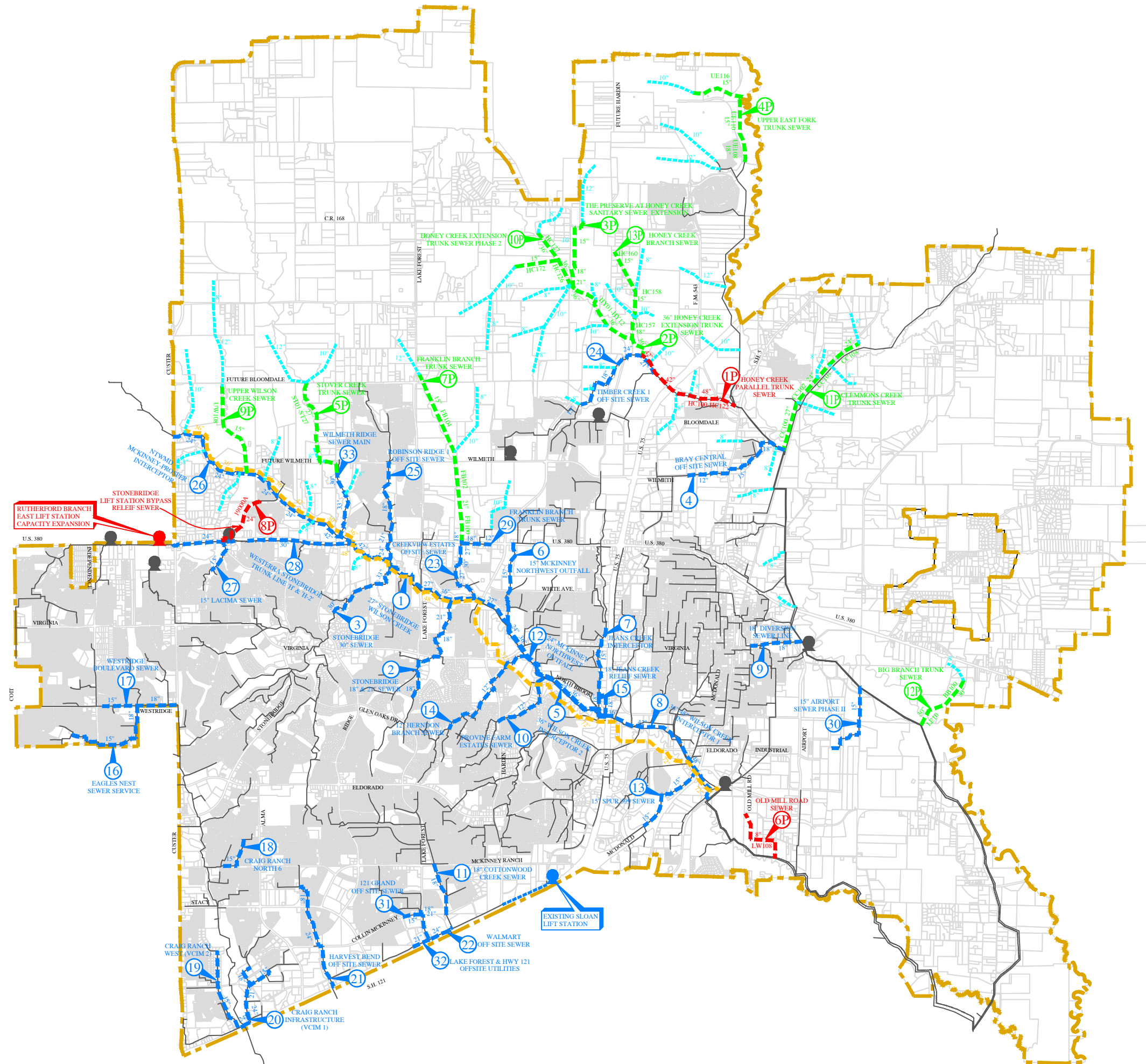


EXHIBIT 2
DRAFT



- LEGEND**
- EXIST. WASTEWATER LINE
 - EXIST. IMPACT FEE LINE
 - PROP. IMPACT FEE WASTEWATER LINE (DEVELOPER INITIATED - CITY OVERSIZE)
 - PROP. WASTEWATER LINE (DEVELOPER CONSTRUCTED)
 - PROP. WASTEWATER R LINE (CITY CONSTRUCTED)
 - FUTURE NTMWD WASTEWATER LINE (IN THIS 10-YEAR C.I.P.)
 - PLANNING BOUNDARY
 - EXIST. IMPACT FEE LIFT STATION
 - PROP. IMPACT FEE LIFT STATION
 - EXIST. LIFT STATION & FORCE MAIN
 - CIP PROJECT NUMBER

Table No. 15

Wastewater Collection System 10-Year Capital Improvement Plan Summary

WASTEWATER COLLECTION C.I.P.

Project ID.	Year	(1) = City Participation in Cost Oversize (2) = City Initiated and Funded	Project	Size	Total Capital Cost (A)	Debt Service (B)	Total Project Cost (\$)
PROPOSED WASTEWATER COLLECTION LINES							
1P	2022	(2)	Honey Creek Parallel Trunk Sewer	42" - 48"	\$ 11,000,000	\$ 5,912,750	\$ 16,912,750
2P	2020	(1)	36" Honey Creek Extension Trunk Sewer	36"	\$ 1,018,593	\$ 547,518	\$ 1,566,111
3P	2020	(1)	The Preserve at Honey Creek	15" - 21"	\$ 307,836	\$ 165,468	\$ 473,304
4P	2021	(1)	Upper East Fork Trunk Sewer	15" - 18"	\$ 324,625	\$ 174,493	\$ 499,118
5P	2020	(1)	Stover Creek Trunk Sewer Phase 2	27"	\$ 1,240,000	\$ 666,526	\$ 1,906,527
6P	2020	(2)	Old Mill Road Sewer (WW 1858)	8"	\$ 2,000,000	\$ 1,075,046	\$ 3,075,046
7P	2022	(1)	Franklin Branch Trunk Sewer	15" - 21"	\$ 696,949	\$ 374,626	\$ 1,071,575
8P	2024	(2)	Stonebridge Lift Station No. 1 Bypass Sewer	24"	\$ 4,000,000	\$ 2,150,092	\$ 6,150,092
9P	2022	(1)	Upper Wilson Creek Sewer	15"	\$ 224,864	\$ 120,870	\$ 345,734
10P	2027	(1)	Honey Creek Extension Trunk Sewer Phase 2	36"	\$ 1,331,872	\$ 715,911	\$ 2,047,783
11P	2025	(1)	Clemons Creek Trunk Sewer	24" - 27"	\$ 1,183,662	\$ 636,245	\$ 1,819,907
12P	2026	(1)	Big Branch Trunk Sewer	30"	\$ 894,445	\$ 480,785	\$ 1,375,230
13P	2026	(1)	Honey Creek Branch Sewer	15" - 18"	\$ 343,825	\$ 184,814	\$ 528,639
PROPOSED WASTEWATER COLLECTION LINES SUBTOTAL:					\$ 24,566,671	\$ 13,205,144	\$ 37,771,816
PROPOSED WASTEWATER LIFT STATIONS							
PWWF-1	2023	(2)	Rutherford Branch East Pumping Capacity Expansion	5.9-MGD	\$ 440,000	\$ 236,510	\$ 676,510
PROPOSED WASTEWATER LIFT STATIONS SUBTOTAL:					\$ 440,000	\$ 236,510	\$ 676,510
CAPITAL IMPROVEMENTS PLAN TOTAL:					\$ 25,006,671	\$ 13,441,654	\$ 38,448,326

(A) Opinion of Cost includes:

- a) Engineer's Opinion of Construction Cost
- b) Professional Services Fees (Survey, Engineering, Testing, Legal)
- c) Cost of Easement or Land Acquisitions

(B) Debt Service based on 20-year simple interest bonds at 4.5%

5. Utilized Capacity

Utilized capacity for the wastewater collection system was calculated based on land use assumptions provided by the City of McKinney. Future wastewater flow rates were calculated utilizing the City's projections of population and non-residential growth in each wastewater drainage basin. These growth rates were utilized to calculate 2019, 2029 and buildout peak wastewater design flows.

The percent-utilized capacity was calculated from the wastewater design flow of each study year based on the required buildout capacity. The utilized capacity during the Impact Fee period is the difference between the year 2029 required capacity and the year 2019 required capacity. **Table No. 16** summarizes the project cost and utilized cost over the impact fee period of 2019 – 2029.

TABLE NO. 16**Summary of Eligible Capital Cost and Utilized Capacity Cost**

Waste water System Facility	<u>20-Year</u> <u>Project Cost</u>	<u>Utilized Capacity</u> <u>in the CRP</u> <u>Period</u>
Existing Lift Stations	\$2,862,087	\$137,870
Existing Wastewater Collection Lines	\$21,637,663	\$1,557,169
Proposed Lift Stations	\$676,510	\$539,821
Proposed Wastewater Collection Lines	\$37,771,816	\$17,806,099
Proposed NTMWD Systems CIP	\$117,152,561	\$117,152,561
Planning Expenses	\$294,000	\$294,000
Total:	\$180,394,637	\$137,487,520

The details of the utilized capacity calculations for the eligible existing and proposed wastewater lift station projects are presented in **Table Nos. 17 and 18**. The details of the utilized capacity calculations for each eligible existing wastewater collection line are presented in **Table No. 19**, and the calculation details for each proposed City of McKinney wastewater collection line are presented in **Table No. 20**.

TABLE 17
Existing Wastewater Lift Stations

Pump Station Improvements	Year Const.	Estimated Capacity	Cost (\$)						Capacity Utilized (%)			Capacity Utilized (\$)		
			Const.	Engineering	Total Project Cost	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Yr. Project Cost \$	2019	2029	In The CRF Period	2019	2029	In The CRF Period
Existing Lift Station Facilities														
(2) Sloan Lift Station & Force Main (WW1623)	2018	1.4-MGD	\$1,861,492	\$0	\$1,861,492	4.5%	\$1,000,595	\$2,862,087	62%	67%	5%	\$1,768,486	\$1,906,356	\$137,870
TOTAL EXISTING WASTEWATER LIFT STATIONS:			\$1,861,492	\$0	\$1,861,492		\$1,000,595	\$2,862,087				\$1,768,486	\$1,906,356	\$137,870

- (1) Opinion of Probable Cost
- (2) Cost Obtained from the City of McKinney
- (3) Cost Obtained from Final Pay Request
- (4) Cost from Bid Tabulation

TABLE 18
Proposed Wastewater Lift Stations

Waste Water Lift Station Facility Improvements	Projected Year	Estimated Capacity	Cost (\$)						Capacity Utilized (%)			Capacity Utilized (\$)		
			Const.	Engineering	Total Project Cost	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Yr. Project Cost \$	2019	2029	In The CRF Period	2019	2029	In The CRF Period
Proposed Lift Station Facilities														
(1) Rutherford Branch East Pumping Capacity Expansion	2023	5.9-MGD	\$400,000	\$40,000	\$440,000	4.5%	\$236,510	\$676,510	0%	80%	80%	\$0	\$539,821	\$539,821
TOTAL PROPOSED WASTEWATER LIFT STATIONS:			\$400,000	\$40,000	\$440,000	\$0	\$236,510	\$676,510				\$0	\$539,821	\$539,821

(1) Opinion of Probable Cost

TABLE 19
Existing Wastewater Collection Lines

Pipe Number	Length (Ft.)	Diameter (Inches)	Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Intersest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Yr. Project Cost (\$)	20 Year Utilized Capacity			20 Year Utilized Capacity		
								2019	2029	During Fee Period	2019	2029	During Fee Period
1 - Stonebridge 27" Offsite Sewer Along Wilson Creek (1987) Line A1													
North Of Virginia Parkway (Wilson Creek Main Interceptor)													
440	378	27	\$46.24	\$17,491	4.5%	\$9,402	\$26,893	100%	22%	0%	\$26,893	\$5,843	\$0
446	189	27	\$46.24	\$8,731	4.5%	\$4,693	\$13,424	100%	12%	0%	\$13,424	\$1,557	\$0
464	297	27	\$46.24	\$13,756	4.5%	\$7,394	\$21,150	100%	12%	0%	\$21,150	\$2,454	\$0
18443	178	27	\$46.24	\$8,230	4.5%	\$4,424	\$12,654	100%	12%	0%	\$12,654	\$1,468	\$0
498	302	27	\$46.24	\$13,945	4.5%	\$7,496	\$21,441	100%	7%	0%	\$21,441	\$1,489	\$0
496	425	27	\$46.24	\$19,633	4.5%	\$10,553	\$30,186	100%	7%	0%	\$30,186	\$2,097	\$0
501	301	27	\$46.24	\$13,899	4.5%	\$7,471	\$21,370	100%	7%	0%	\$21,370	\$1,484	\$0
539	283	27	\$46.24	\$13,092	4.5%	\$7,037	\$20,129	100%	7%	0%	\$20,129	\$1,398	\$0
587	146	27	\$46.24	\$6,769	4.5%	\$3,638	\$10,407	100%	7%	0%	\$10,407	\$723	\$0
588	464	27	\$46.24	\$21,451	4.5%	\$11,530	\$32,981	100%	7%	0%	\$32,981	\$2,291	\$0
612	63	27	\$46.24	\$2,924	4.5%	\$1,572	\$4,496	100%	2%	0%	\$4,496	\$111	\$0
613	333	27	\$46.24	\$15,393	4.5%	\$8,274	\$23,667	100%	2%	0%	\$23,667	\$583	\$0
615	274	27	\$46.24	\$12,662	4.5%	\$6,806	\$19,468	100%	2%	0%	\$19,468	\$479	\$0
665	302	27	\$46.24	\$13,949	4.5%	\$7,498	\$21,447	100%	2%	0%	\$21,447	\$528	\$0
695	501	27	\$46.24	\$23,175	4.5%	\$12,457	\$35,632	100%	2%	0%	\$35,632	\$878	\$0
713	411	27	\$46.24	\$19,026	4.5%	\$10,227	\$29,253	100%	2%	0%	\$29,253	\$721	\$0
714	493	27	\$46.24	\$22,814	4.5%	\$12,263	\$35,077	100%	23%	0%	\$35,077	\$8,136	\$0
710	298	27	\$46.24	\$13,787	4.5%	\$7,411	\$21,198	100%	23%	0%	\$21,198	\$4,917	\$0
720	501	27	\$46.24	\$23,160	4.5%	\$12,449	\$35,609	100%	23%	0%	\$35,609	\$8,259	\$0
727	178	27	\$46.24	\$8,250	4.5%	\$4,435	\$12,685	100%	23%	0%	\$12,685	\$2,942	\$0
734	410	27	\$46.24	\$18,978	4.5%	\$10,201	\$29,179	100%	23%	0%	\$29,179	\$6,768	\$0
749	502	27	\$46.24	\$23,222	4.5%	\$12,482	\$35,704	100%	25%	0%	\$35,704	\$8,969	\$0
778	494	27	\$46.24	\$22,864	4.5%	\$12,290	\$35,154	100%	25%	0%	\$35,154	\$8,831	\$0
817	140	27	\$46.24	\$6,455	4.5%	\$3,470	\$9,925	100%	25%	0%	\$9,925	\$2,493	\$0
834	126	27	\$46.24	\$5,814	4.5%	\$3,125	\$8,939	100%	25%	0%	\$8,939	\$2,246	\$0
867	286	27	\$46.24	\$13,247	4.5%	\$7,121	\$20,368	100%	25%	0%	\$20,368	\$5,117	\$0
906	351	27	\$46.24	\$16,223	4.5%	\$8,720	\$24,943	100%	25%	0%	\$24,943	\$6,266	\$0
952	505	27	\$46.24	\$23,353	4.5%	\$12,553	\$35,906	100%	25%	0%	\$35,906	\$9,021	\$0
42293	202	27	\$46.24	\$9,336	4.5%	\$5,018	\$14,354	100%	25%	0%	\$14,354	\$3,606	\$0
18435	326	27	\$46.24	\$15,070	4.5%	\$8,100	\$23,170	100%	2%	0%	\$23,170	\$571	\$0
Subtotal:	9,659			\$446,699	4.5%	\$240,110	\$686,809				\$686,809	\$102,246	\$0
2 - Stonebridge 18" & 21" Offsite Sewer (1987) Line A1-1													
Main Interceptor Crossing Virginia Parkway (Wilson Creek Lateral #22)													
799	443	21	\$44.94	\$19,899	4.5%	\$10,696	\$30,595	86%	88%	2%	\$26,331	\$26,881	\$550
873	376	21	\$44.94	\$16,878	4.5%	\$9,072	\$25,950	86%	88%	2%	\$22,334	\$22,800	\$466
920	318	21	\$44.94	\$14,307	4.5%	\$7,690	\$21,997	86%	88%	2%	\$18,931	\$19,327	\$396
980	381	21	\$44.94	\$17,146	4.5%	\$9,216	\$26,362	86%	88%	2%	\$22,688	\$23,162	\$474
1059	329	21	\$44.94	\$14,765	4.5%	\$7,937	\$22,702	87%	88%	2%	\$19,650	\$20,047	\$397
1164	379	18	\$44.94	\$17,046	4.5%	\$9,163	\$26,209	87%	89%	2%	\$22,821	\$23,267	\$446
1212	354	18	\$44.94	\$15,908	4.5%	\$8,551	\$24,459	87%	89%	2%	\$21,303	\$21,721	\$418
1254	162	18	\$44.94	\$7,298	4.5%	\$3,923	\$11,221	87%	89%	2%	\$9,776	\$9,969	\$193
1260	164	18	\$44.94	\$7,384	4.5%	\$3,969	\$11,353	87%	89%	2%	\$9,894	\$10,090	\$196

TABLE 19
Existing Wastewater Collection Lines

Pipe Number	Length (Ft.)	Diameter (Inches)	Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Yr. Project Cost (\$)	(%) Utilized Capacity			(\$) Utilized Capacity		
								2019	2029	During Fee Period	2019	2029	During Fee Period
1262	61	18	\$44.94	\$2,749	4.5%	\$1,478	\$4,227	87%	89%	2%	\$3,685	\$3,758	\$73
1314	166	18	\$44.94	\$7,463	4.5%	\$4,012	\$11,475	87%	89%	2%	\$10,007	\$10,206	\$199
1343	140	18	\$44.94	\$6,313	4.5%	\$3,393	\$9,706	87%	89%	2%	\$8,467	\$8,636	\$169
1358	63	18	\$44.94	\$2,851	4.5%	\$1,532	\$4,383	87%	89%	2%	\$3,826	\$3,903	\$77
1363	119	18	\$44.94	\$5,336	4.5%	\$2,868	\$8,204	87%	89%	2%	\$7,159	\$7,303	\$144
1458	362	18	\$44.94	\$16,253	4.5%	\$8,736	\$24,989	87%	89%	2%	\$21,821	\$22,261	\$440
1473	111	18	\$44.94	\$4,968	4.5%	\$2,670	\$7,638	87%	89%	2%	\$6,672	\$6,807	\$135
1533	198	18	\$44.94	\$8,901	4.5%	\$4,784	\$13,685	87%	89%	2%	\$11,958	\$12,201	\$243
1550	114	18	\$44.94	\$5,131	4.5%	\$2,758	\$7,889	87%	89%	2%	\$6,896	\$7,037	\$141
1623	228	18	\$44.94	\$10,231	4.5%	\$5,499	\$15,730	87%	89%	2%	\$13,755	\$14,036	\$281
1619	388	18	\$44.94	\$17,452	4.5%	\$9,381	\$26,833	88%	90%	2%	\$23,636	\$24,051	\$415
1682	457	18	\$44.94	\$20,543	4.5%	\$11,042	\$31,585	88%	90%	1%	\$27,871	\$28,344	\$473
1686	125	18	\$44.94	\$5,607	4.5%	\$3,014	\$8,621	89%	90%	1%	\$7,634	\$7,759	\$125
1688	225	18	\$44.94	\$10,112	4.5%	\$5,435	\$15,547	88%	90%	1%	\$13,750	\$13,979	\$229
1715	341	18	\$44.94	\$15,331	4.5%	\$8,241	\$23,572	88%	90%	1%	\$20,823	\$21,173	\$350
1732	127	18	\$44.94	\$5,709	4.5%	\$3,069	\$8,778	91%	92%	1%	\$7,998	\$8,073	\$75
1810	208	18	\$44.94	\$9,350	4.5%	\$5,026	\$14,376	91%	92%	1%	\$13,099	\$13,221	\$122
1829	79	18	\$44.94	\$3,551	4.5%	\$1,909	\$5,460	91%	92%	1%	\$4,975	\$5,022	\$47
1830	53	18	\$44.94	\$2,382	4.5%	\$1,280	\$3,662	91%	92%	1%	\$3,337	\$3,368	\$31
1905	203	18	\$44.94	\$9,122	4.5%	\$4,903	\$14,025	91%	92%	1%	\$12,780	\$12,900	\$120
1971	155	18	\$44.94	\$6,984	4.5%	\$3,754	\$10,738	91%	92%	1%	\$9,789	\$9,888	\$99
1981	86	18	\$44.94	\$3,884	4.5%	\$2,088	\$5,972	92%	92%	0%	\$5,480	\$5,487	\$7
2071	345	18	\$44.94	\$15,508	4.5%	\$8,336	\$23,844	92%	92%	0%	\$21,876	\$21,904	\$28
2153	338	18	\$44.94	\$15,194	4.5%	\$8,167	\$23,361	92%	92%	0%	\$21,430	\$21,458	\$28
2182	128	18	\$44.94	\$5,731	4.5%	\$3,081	\$8,812	92%	92%	0%	\$8,082	\$8,093	\$11
2279	310	18	\$44.94	\$13,933	4.5%	\$7,489	\$21,422	92%	92%	0%	\$19,646	\$19,672	\$26
2323	282	18	\$44.94	\$12,685	4.5%	\$6,818	\$19,503	92%	92%	0%	\$17,882	\$17,908	\$26
2372	190	18	\$44.94	\$8,551	4.5%	\$4,596	\$13,147	92%	92%	0%	\$12,052	\$12,070	\$18
2426	239	18	\$44.94	\$10,741	4.5%	\$5,774	\$16,515	92%	92%	0%	\$15,138	\$15,160	\$22
Subtotal:	8,749			\$393,197	4.5%	\$211,350	\$604,547				\$535,252	\$542,942	\$7,690
3 - Stonebridge 30" Offsite Sewer (1987) Line B1													
<i>Along Gray Branch (Wilson Creek Lateral #25)</i>													
458	156	33	\$52.35	\$8,156	4.5%	\$4,384	\$12,540	100%	100%	0%	\$12,540	\$12,540	\$0
474	231	33	\$52.35	\$12,089	4.5%	\$6,498	\$18,587	100%	100%	0%	\$18,587	\$18,587	\$0
475	237	33	\$52.35	\$12,400	4.5%	\$6,665	\$19,065	100%	100%	0%	\$19,065	\$19,065	\$0
518	274	33	\$52.35	\$14,355	4.5%	\$7,716	\$22,071	100%	100%	0%	\$22,071	\$22,071	\$0
532	239	30	\$52.35	\$12,533	4.5%	\$6,737	\$19,270	100%	100%	0%	\$19,270	\$19,270	\$0
554	235	30	\$52.35	\$12,317	4.5%	\$6,621	\$18,938	100%	100%	0%	\$18,938	\$18,938	\$0
557	390	30	\$52.35	\$20,399	4.5%	\$10,965	\$31,364	100%	100%	0%	\$31,364	\$31,364	\$0
558	252	30	\$52.35	\$13,182	4.5%	\$7,086	\$20,268	100%	100%	0%	\$20,268	\$20,268	\$0
589	454	30	\$52.35	\$23,772	4.5%	\$12,778	\$36,550	100%	100%	0%	\$36,550	\$36,550	\$0
593	368	30	\$52.35	\$19,271	4.5%	\$10,359	\$29,630	100%	100%	0%	\$29,630	\$29,630	\$0
604	368	30	\$52.35	\$19,261	4.5%	\$10,353	\$29,614	100%	100%	0%	\$29,614	\$29,614	\$0
630	331	30	\$52.35	\$17,335	4.5%	\$9,318	\$26,653	100%	100%	0%	\$26,653	\$26,653	\$0

TABLE 19
Existing Wastewater Collection Lines

Pipe Number	Length (Ft.)	Diameter (Inches)	Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Yr. Project Cost (\$)	(%) Utilized Capacity			(\$) Utilized Capacity		
								2019	2029	During Fee Period	2019	2029	During Fee Period
718	331	30	\$52.35	\$17,344	4.5%	\$9,323	\$26,667	100%	100%	0%	\$26,667	\$26,667	\$0
741	282	30	\$52.35	\$14,754	4.5%	\$7,931	\$22,685	100%	100%	0%	\$22,685	\$22,685	\$0
780	297	30	\$52.35	\$15,557	4.5%	\$8,362	\$23,919	100%	100%	0%	\$23,919	\$23,919	\$0
809	259	30	\$52.35	\$13,565	4.5%	\$7,291	\$20,856	100%	100%	0%	\$20,856	\$20,856	\$0
805	267	30	\$52.35	\$13,996	4.5%	\$7,523	\$21,519	100%	100%	0%	\$21,519	\$21,519	\$0
822	217	30	\$52.35	\$11,369	4.5%	\$6,111	\$17,480	100%	100%	0%	\$17,480	\$17,480	\$0
868	366	30	\$52.35	\$19,171	4.5%	\$10,305	\$29,476	100%	100%	0%	\$29,476	\$29,476	\$0
674	267	30	\$52.35	\$13,973	4.5%	\$7,511	\$21,484	100%	100%	0%	\$21,484	\$21,484	\$0
Subtotal:	5,823			\$304,799	4.5%	\$163,837	\$468,636				\$468,636	\$468,636	\$0
4 - Bray Central 2 - Off Site Sewer													
<i>Trinity River Lateral #6</i>													
43272	381	18	\$6.62	\$2,521	4.5%	\$1,355	\$3,876	91%	100%	9%	\$3,527	\$3,876	\$349
21	443	18	\$6.62	\$2,929	4.5%	\$1,574	\$4,503	91%	100%	9%	\$4,098	\$4,503	\$405
18	329	18	\$6.62	\$2,175	4.5%	\$1,169	\$3,344	91%	100%	9%	\$3,043	\$3,344	\$301
25	576	21	\$6.62	\$3,811	4.5%	\$2,048	\$5,859	91%	100%	9%	\$5,332	\$5,859	\$527
29	473	15	\$6.62	\$3,127	4.5%	\$1,681	\$4,808	99%	100%	1%	\$4,782	\$4,808	\$26
30	498	15	\$6.62	\$3,294	4.5%	\$1,771	\$5,065	99%	100%	1%	\$5,038	\$5,065	\$27
31	195	15	\$6.62	\$1,293	4.5%	\$695	\$1,988	99%	100%	1%	\$1,965	\$1,988	\$23
32	430	15	\$6.62	\$2,846	4.5%	\$1,530	\$4,376	99%	100%	1%	\$4,325	\$4,376	\$51
34	235	15	\$6.62	\$1,556	4.5%	\$836	\$2,392	99%	100%	1%	\$2,364	\$2,392	\$28
12498	191	15	\$6.62	\$1,266	4.5%	\$681	\$1,947	99%	100%	1%	\$1,924	\$1,947	\$23
35	187	15	\$6.62	\$1,236	4.5%	\$664	\$1,900	99%	100%	1%	\$1,877	\$1,900	\$23
12496	148	15	\$6.62	\$976	4.5%	\$525	\$1,501	99%	100%	1%	\$1,482	\$1,501	\$19
40	167	15	\$6.62	\$1,106	4.5%	\$595	\$1,701	99%	100%	1%	\$1,679	\$1,701	\$22
42	204	15	\$6.62	\$1,352	4.5%	\$727	\$2,079	99%	100%	1%	\$2,051	\$2,079	\$28
39	340	15	\$6.62	\$2,246	4.5%	\$1,207	\$3,453	99%	100%	1%	\$3,406	\$3,453	\$47
41	119	15	\$6.62	\$787	4.5%	\$423	\$1,210	99%	100%	1%	\$1,193	\$1,210	\$17
49	448	16	\$6.62	\$2,967	4.5%	\$1,595	\$4,562	99%	100%	1%	\$4,495	\$4,562	\$67
46	301	15	\$6.62	\$1,992	4.5%	\$1,071	\$3,063	99%	100%	1%	\$3,018	\$3,063	\$45
45	402	16	\$6.62	\$2,663	4.5%	\$1,431	\$4,094	99%	100%	1%	\$4,035	\$4,094	\$59
50	342	12	\$6.62	\$2,265	4.5%	\$1,217	\$3,482	99%	100%	1%	\$3,433	\$3,482	\$49
52	132	12	\$6.62	\$871	4.5%	\$468	\$1,339	99%	100%	1%	\$1,321	\$1,339	\$18
51	551	12	\$6.62	\$3,645	4.5%	\$1,959	\$5,604	99%	100%	1%	\$5,527	\$5,604	\$77
53	109	12	\$6.62	\$723	4.5%	\$389	\$1,112	99%	100%	1%	\$1,098	\$1,112	\$14
24022	140	12	\$6.62	\$926	4.5%	\$498	\$1,424	99%	100%	1%	\$1,407	\$1,424	\$17
56	478	12	\$6.62	\$3,163	4.5%	\$1,700	\$4,863	99%	100%	1%	\$4,806	\$4,863	\$57
47	146	16	\$6.62	\$964	4.5%	\$518	\$1,482	98%	100%	2%	\$1,460	\$1,482	\$22
Subtotal:	7,965			\$52,700	4.5%	\$28,327	\$81,027				\$78,686	\$81,027	\$2,341
5 - 36" Wilson Creek Interceptor Phase 2													
<i>Along Wilson Creek To Wastewater Treatment Plant (Wilson Creek Main Interceptor)</i>													
13612	74	36	\$46.52	\$3,423	4.5%	\$1,840	\$5,263	60%	18%	0%	\$3,160	\$954	\$0
13611	259	36	\$46.52	\$12,045	4.5%	\$6,474	\$18,519	60%	18%	0%	\$11,119	\$3,355	\$0

TABLE 19
Existing Wastewater Collection Lines

Pipe Number	Length (Ft.)	Diameter (Inches)	Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Yr. Project Cost (\$)	(%) Utilized Capacity			(\$) Utilized Capacity		
								2019	2029	During Fee Period	2019	2029	During Fee Period
13610	142	36	\$46.52	\$6,628	4.5%	\$3,563	\$10,191	61%	18%	0%	\$6,187	\$1,857	\$0
13634	382	36	\$46.52	\$17,773	4.5%	\$9,553	\$27,326	51%	29%	0%	\$13,830	\$7,820	\$0
18421	24	36	\$46.52	\$1,111	4.5%	\$597	\$1,708	44%	54%	11%	\$746	\$927	\$181
18422	20	36	\$46.52	\$922	4.5%	\$496	\$1,418	44%	54%	11%	\$619	\$770	\$151
13633	653	36	\$46.52	\$30,393	4.5%	\$16,337	\$46,730	59%	31%	0%	\$27,636	\$14,518	\$0
13631	626	36	\$46.52	\$29,115	4.5%	\$15,650	\$44,765	59%	31%	0%	\$26,474	\$13,906	\$0
13630	210	36	\$46.52	\$9,785	4.5%	\$5,260	\$15,045	59%	16%	0%	\$8,897	\$2,337	\$0
13628	453	36	\$46.52	\$21,068	4.5%	\$11,325	\$32,393	59%	16%	0%	\$19,156	\$5,031	\$0
13626	113	36	\$46.52	\$5,265	4.5%	\$2,830	\$8,095	60%	17%	0%	\$4,823	\$1,401	\$0
13627	746	36	\$46.52	\$34,709	4.5%	\$18,657	\$53,366	60%	17%	0%	\$31,796	\$9,234	\$0
1743	137	36	\$46.52	\$6,389	4.5%	\$3,434	\$9,823	60%	16%	0%	\$5,853	\$1,536	\$0
13625	225	36	\$46.52	\$10,471	4.5%	\$5,628	\$16,099	60%	16%	0%	\$9,591	\$2,518	\$0
13624	87	36	\$46.52	\$4,061	4.5%	\$2,183	\$6,244	60%	16%	0%	\$3,720	\$977	\$0
1834	391	36	\$46.52	\$18,178	4.5%	\$9,771	\$27,949	60%	16%	0%	\$16,652	\$4,371	\$0
13622	174	36	\$46.52	\$8,097	4.5%	\$4,352	\$12,449	60%	16%	0%	\$7,417	\$1,947	\$0
13620	236	36	\$46.52	\$10,990	4.5%	\$5,907	\$16,897	61%	20%	0%	\$10,327	\$3,445	\$0
13619	794	36	\$46.52	\$36,939	4.5%	\$19,856	\$56,795	61%	20%	0%	\$34,710	\$11,579	\$0
13618	601	36	\$46.52	\$27,942	4.5%	\$15,019	\$42,961	61%	20%	0%	\$26,256	\$8,758	\$0
13617	752	36	\$46.52	\$35,003	4.5%	\$18,815	\$53,818	61%	20%	0%	\$32,891	\$10,972	\$0
13616	712	36	\$46.52	\$33,109	4.5%	\$17,797	\$50,906	61%	20%	0%	\$31,111	\$10,378	\$0
13615	730	36	\$46.52	\$33,956	4.5%	\$18,252	\$52,208	61%	20%	0%	\$31,907	\$10,643	\$0
13613	474	36	\$46.52	\$22,050	4.5%	\$11,852	\$33,902	59%	16%	0%	\$20,098	\$5,563	\$0
13614	19	36	\$46.52	\$899	4.5%	\$483	\$1,382	59%	16%	0%	\$819	\$227	\$0
13632	17	36	\$46.52	\$796	4.5%	\$428	\$1,224	59%	31%	0%	\$724	\$380	\$0
13621	352	36	\$46.52	\$16,390	4.5%	\$8,810	\$25,200	61%	20%	0%	\$15,401	\$5,138	\$0
13623	398	36	\$46.52	\$18,494	4.5%	\$9,941	\$28,435	60%	16%	0%	\$16,940	\$4,447	\$0
Subtotal:	9,801			\$456,001	4.5%	\$245,110	\$701,111				\$418,860	\$144,989	\$332
6 - 15" McKinney Northwest Outfall Sewer (1982)													
<i>From Wilson Creek To Wastewater Treatment Plant (Wilson Creek Lateral #20)</i>													
265	355	15	\$33.72	\$11,975	4.5%	\$6,437	\$18,412	87%	95%	7%	\$16,054	\$17,421	\$1,367
311	499	15	\$33.72	\$16,841	4.5%	\$9,052	\$25,893	87%	95%	7%	\$22,587	\$24,504	\$1,917
348	456	15	\$33.72	\$15,382	4.5%	\$8,268	\$23,650	87%	95%	7%	\$20,641	\$22,385	\$1,744
376	461	15	\$33.72	\$15,531	4.5%	\$8,348	\$23,879	87%	95%	7%	\$20,858	\$22,606	\$1,748
435	508	15	\$33.72	\$17,117	4.5%	\$9,201	\$26,318	87%	95%	7%	\$23,007	\$24,920	\$1,913
483	604	15	\$33.72	\$20,370	4.5%	\$10,949	\$31,319	87%	95%	7%	\$27,401	\$29,660	\$2,259
542	423	15	\$33.72	\$14,257	4.5%	\$7,663	\$21,920	87%	94%	7%	\$19,052	\$20,693	\$1,641
600	346	15	\$33.72	\$11,676	4.5%	\$6,276	\$17,952	85%	94%	8%	\$15,327	\$16,806	\$1,479
658	127	15	\$33.72	\$4,267	4.5%	\$2,294	\$6,561	86%	94%	8%	\$5,610	\$6,148	\$538
669	226	15	\$33.72	\$7,616	4.5%	\$4,094	\$11,710	86%	94%	8%	\$10,028	\$10,983	\$955
698	58	15	\$33.72	\$1,970	4.5%	\$1,059	\$3,029	86%	94%	8%	\$2,598	\$2,843	\$245
701	216	15	\$33.72	\$7,296	4.5%	\$3,922	\$11,218	86%	94%	8%	\$9,634	\$10,540	\$906
730	125	15	\$33.72	\$4,204	4.5%	\$2,260	\$6,464	86%	94%	8%	\$5,558	\$6,078	\$520
Subtotal:	4,404			\$148,502	4.5%	\$79,823	\$228,325				\$198,355	\$215,587	\$17,232

TABLE 19
Existing Wastewater Collection Lines

Pipe Number	Length (Ft.)	Diameter (Inches)	Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Yr. Project Cost (\$)	(%) Utilized Capacity			(\$) Utilized Capacity		
								2019	2029	During Fee Period	2019	2029	During Fee Period
7 - Jeans Creek Interceptor Line													
Along Jeans Creek (Wilson Creek Lateral #15)													
1081	410	15	\$27.90	\$11,434	4.5%	\$6,146	\$17,580	93%	94%	2%	\$16,290	\$16,589	\$299
1186	284	15	\$27.90	\$7,914	4.5%	\$4,254	\$12,168	93%	94%	2%	\$11,275	\$11,482	\$207
1248	101	15	\$27.90	\$2,805	4.5%	\$1,508	\$4,313	93%	94%	2%	\$3,997	\$4,068	\$71
1278	411	15	\$27.90	\$11,473	4.5%	\$6,167	\$17,640	93%	94%	2%	\$16,346	\$16,638	\$292
1376	125	15	\$27.90	\$3,494	4.5%	\$1,878	\$5,372	93%	94%	2%	\$4,978	\$5,067	\$89
1395	189	15	\$27.90	\$5,265	4.5%	\$2,830	\$8,095	93%	94%	2%	\$7,496	\$7,628	\$132
1460	168	15	\$27.90	\$4,688	4.5%	\$2,520	\$7,208	93%	94%	2%	\$6,675	\$6,792	\$117
1528	152	15	\$27.90	\$4,235	4.5%	\$2,276	\$6,511	93%	94%	2%	\$6,029	\$6,135	\$106
1565	177	15	\$27.90	\$4,927	4.5%	\$2,648	\$7,575	93%	94%	2%	\$7,015	\$7,138	\$123
1618	116	15	\$27.90	\$3,233	4.5%	\$1,738	\$4,971	93%	94%	2%	\$4,605	\$4,682	\$77
1643	360	15	\$27.90	\$10,058	4.5%	\$5,406	\$15,464	93%	94%	2%	\$14,324	\$14,567	\$243
1763	321	15	\$27.90	\$8,968	4.5%	\$4,821	\$13,789	93%	94%	2%	\$12,773	\$12,989	\$216
1868	54	15	\$27.90	\$1,510	4.5%	\$812	\$2,322	93%	94%	1%	\$2,155	\$2,190	\$35
42764	257	15	\$27.90	\$7,170	4.5%	\$3,854	\$11,024	93%	94%	1%	\$10,231	\$10,395	\$164
1963	215	15	\$27.90	\$6,007	4.5%	\$3,229	\$9,236	93%	94%	1%	\$8,572	\$8,709	\$137
2034	151	15	\$27.90	\$4,211	4.5%	\$2,264	\$6,475	93%	94%	1%	\$6,009	\$6,106	\$97
2073	118	18	\$27.90	\$3,285	4.5%	\$1,766	\$5,051	93%	94%	1%	\$4,688	\$4,763	\$75
2072	560	18	\$27.90	\$15,637	4.5%	\$8,405	\$24,042	93%	94%	1%	\$22,313	\$22,671	\$358
2222	604	18	\$27.90	\$16,841	4.5%	\$9,052	\$25,893	93%	94%	1%	\$24,031	\$24,416	\$385
2381	227	18	\$27.90	\$6,335	4.5%	\$3,405	\$9,740	93%	94%	1%	\$9,040	\$9,185	\$145
2387	237	18	\$27.90	\$6,603	4.5%	\$3,549	\$10,152	93%	94%	1%	\$9,422	\$9,573	\$151
2389	80	18	\$27.90	\$2,244	4.5%	\$1,206	\$3,450	93%	94%	1%	\$3,202	\$3,253	\$51
2409	146	18	\$27.90	\$4,068	4.5%	\$2,187	\$6,255	93%	94%	1%	\$5,805	\$5,898	\$93
2439	409	15	\$27.90	\$11,409	4.5%	\$6,133	\$17,542	93%	94%	1%	\$16,287	\$16,547	\$260
2698	384	15	\$27.90	\$10,711	4.5%	\$5,757	\$16,468	93%	94%	1%	\$15,296	\$15,539	\$243
43060	397	15	\$27.90	\$11,075	4.5%	\$5,953	\$17,028	93%	94%	1%	\$15,816	\$16,068	\$252
Subtotal:	6,652			\$185,600	4.5%	\$99,764	\$285,364				\$264,670	\$269,088	\$4,418
8 - 36"-48" Wilson Creek Interceptor Sewer Phase 1													
From Rail Road To West Side Of S.H. 75													
6109	148	42	\$211.76	\$31,336	4.5%	\$16,844	\$48,180	62%	24%	0%	\$29,939	\$11,582	\$0
6110	411	42	\$211.76	\$87,081	4.5%	\$46,808	\$133,889	62%	24%	0%	\$83,199	\$32,185	\$0
6111	95	42	\$211.76	\$20,056	4.5%	\$10,781	\$30,837	81%	40%	0%	\$24,835	\$12,226	\$0
6112	865	42	\$211.76	\$183,278	4.5%	\$98,516	\$281,794	81%	40%	0%	\$226,944	\$111,722	\$0
6176	548	42	\$211.76	\$116,000	4.5%	\$62,353	\$178,353	81%	40%	0%	\$143,636	\$70,711	\$0
6175	370	42	\$211.76	\$78,344	4.5%	\$42,112	\$120,456	81%	40%	0%	\$97,008	\$47,757	\$0
6174	263	48	\$211.76	\$55,660	4.5%	\$29,919	\$85,579	81%	40%	0%	\$68,921	\$33,930	\$0
6173	364	48	\$211.76	\$77,072	4.5%	\$41,428	\$118,500	81%	40%	0%	\$95,433	\$46,982	\$0
6172	293	48	\$211.76	\$62,002	4.5%	\$33,327	\$95,329	81%	40%	0%	\$76,770	\$37,795	\$0
3153	560	48	\$211.76	\$118,604	4.5%	\$63,752	\$182,356	69%	34%	0%	\$126,665	\$62,466	\$0
3238	744	48	\$211.76	\$157,655	4.5%	\$84,743	\$242,398	68%	37%	0%	\$165,653	\$90,848	\$0
3425	231	48	\$211.76	\$48,831	4.5%	\$26,248	\$75,079	68%	37%	0%	\$51,308	\$28,139	\$0
3486	293	48	\$211.76	\$61,983	4.5%	\$33,317	\$95,300	68%	37%	0%	\$65,127	\$35,717	\$0

TABLE 19
Existing Wastewater Collection Lines

Pipe Number	Length (Ft.)	Diameter (Inches)	Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Yr. Project Cost (\$)	(%) Utilized Capacity			(\$) Utilized Capacity		
								2019	2029	During Fee Period	2019	2029	During Fee Period
3553	663	48	\$211.76	\$140,300	4.5%	\$75,414	\$215,714	69%	36%	0%	\$148,592	\$76,697	\$0
3700	232	48	\$211.76	\$49,197	4.5%	\$26,445	\$75,642	70%	38%	0%	\$52,690	\$28,801	\$0
6182	170	48	\$211.76	\$36,094	4.5%	\$19,401	\$55,495	70%	38%	0%	\$38,656	\$21,130	\$0
6183	376	48	\$211.76	\$79,707	4.5%	\$42,844	\$122,551	70%	38%	0%	\$85,365	\$46,661	\$0
6184	435	48	\$211.76	\$92,099	4.5%	\$49,505	\$141,604	70%	38%	0%	\$98,636	\$53,915	\$0
6185	359	48	\$211.76	\$76,001	4.5%	\$40,852	\$116,853	70%	38%	0%	\$81,395	\$44,491	\$0
6186	302	48	\$211.76	\$64,006	4.5%	\$34,405	\$98,411	70%	38%	0%	\$68,552	\$37,467	\$0
6187	273	48	\$211.76	\$57,770	4.5%	\$31,053	\$88,823	70%	38%	0%	\$61,862	\$33,817	\$0
6228	212	48	\$211.76	\$44,978	4.5%	\$24,177	\$69,155	76%	61%	0%	\$52,841	\$42,226	\$0
6103	508	36	\$211.76	\$107,601	4.5%	\$57,838	\$165,439	62%	21%	0%	\$102,087	\$34,804	\$0
6104	80	42	\$211.76	\$16,899	4.5%	\$9,084	\$25,983	62%	21%	0%	\$16,033	\$5,466	\$0
6105	62	42	\$211.76	\$13,213	4.5%	\$7,102	\$20,315	59%	23%	0%	\$12,041	\$4,732	\$0
2828	525	42	\$211.76	\$111,074	4.5%	\$59,705	\$170,779	57%	22%	0%	\$98,105	\$37,633	\$0
2870	169	42	\$211.76	\$35,854	4.5%	\$19,272	\$55,126	57%	22%	0%	\$31,667	\$12,148	\$0
2906	587	42	\$211.76	\$124,265	4.5%	\$66,795	\$191,060	57%	22%	0%	\$109,752	\$42,101	\$0
20740	42	42	\$211.76	\$8,840	4.5%	\$4,752	\$13,592	59%	23%	0%	\$8,057	\$3,166	\$0
Subtotal:	10,180			\$2,155,800	4.5%	\$1,158,792	\$3,314,592				\$2,321,769	\$1,147,315	\$0
9 - 18" Diversion Sewer Line: West, Davis, Louisiana & Woodleigh St.													
<i>From Throckmorton To 27" Ntmwd Sewer Line</i>													
1365	777	18	\$64.24	\$49,933	4.5%	\$26,840	\$76,773	100%	100%	0%	\$76,681	\$76,773	\$92
1369	346	18	\$64.24	\$22,251	4.5%	\$11,960	\$34,211	100%	100%	0%	\$34,211	\$34,211	\$0
1372	496	18	\$64.24	\$31,876	4.5%	\$17,134	\$49,010	100%	100%	0%	\$49,010	\$49,010	\$0
1374	336	18	\$64.24	\$21,592	4.5%	\$11,606	\$33,198	100%	100%	0%	\$33,198	\$33,198	\$0
1389	276	18	\$64.24	\$17,720	4.5%	\$9,525	\$27,245	100%	100%	0%	\$27,245	\$27,245	\$0
1401	207	18	\$64.24	\$13,278	4.5%	\$7,137	\$20,415	100%	100%	0%	\$20,399	\$20,415	\$16
13982	268	18	\$64.24	\$17,216	4.5%	\$9,254	\$26,470	100%	100%	0%	\$26,451	\$26,470	\$19
1397	228	18	\$64.24	\$14,658	4.5%	\$7,879	\$22,537	100%	100%	0%	\$22,520	\$22,537	\$17
15341	495	18	\$64.24	\$31,775	4.5%	\$17,080	\$48,855	100%	100%	0%	\$48,855	\$48,855	\$0
Subtotal:	3,429			\$220,299	4.5%	\$118,415	\$338,714				\$338,570	\$338,714	\$144
10 - 12" Provine Farm Estates													
<i>From Hardin Boulevard To Wilson Creek Interceptor</i>													
2723	174	12	\$48.75	\$8,463	4.5%	\$4,549	\$13,012	100%	100%	0%	\$13,012	\$13,012	\$0
2750	185	12	\$48.75	\$9,007	4.5%	\$4,841	\$13,848	100%	100%	0%	\$13,848	\$13,848	\$0
2769	306	12	\$48.75	\$14,904	4.5%	\$8,011	\$22,915	100%	100%	0%	\$22,915	\$22,915	\$0
2788	295	12	\$48.75	\$14,400	4.5%	\$7,740	\$22,140	100%	100%	0%	\$22,140	\$22,140	\$0
2803	295	12	\$48.75	\$14,384	4.5%	\$7,732	\$22,116	100%	100%	0%	\$22,116	\$22,116	\$0
2820	297	12	\$48.75	\$14,458	4.5%	\$7,772	\$22,230	100%	100%	0%	\$22,230	\$22,230	\$0
2858	329	12	\$48.75	\$16,057	4.5%	\$8,631	\$24,688	100%	100%	0%	\$24,688	\$24,688	\$0
2139	422	15	\$48.75	\$20,552	4.5%	\$11,047	\$31,599	98%	99%	1%	\$30,884	\$31,205	\$321
2154	107	16	\$48.75	\$5,196	4.5%	\$2,793	\$7,989	98%	99%	1%	\$7,828	\$7,907	\$79
2316	521	12	\$48.75	\$25,413	4.5%	\$13,660	\$39,073	100%	100%	0%	\$39,073	\$39,073	\$0
2388	329	12	\$48.75	\$16,039	4.5%	\$8,621	\$24,660	100%	100%	0%	\$24,660	\$24,660	\$0

TABLE 19
Existing Wastewater Collection Lines

Pipe Number	Length (Ft.)	Diameter (Inches)	Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Yr. Project Cost (\$)	(%) Utilized Capacity			(\$) Utilized Capacity		
								2019	2029	During Fee Period	2019	2029	During Fee Period
2502	499	12	\$48.75	\$24,317	4.5%	\$13,071	\$37,388	100%	100%	0%	\$37,388	\$37,388	\$0
2493	149	12	\$48.75	\$7,284	4.5%	\$3,915	\$11,199	100%	100%	0%	\$11,199	\$11,199	\$0
2638	480	12	\$48.75	\$23,404	4.5%	\$12,580	\$35,984	100%	100%	0%	\$35,984	\$35,984	\$0
2650	150	12	\$48.75	\$7,307	4.5%	\$3,928	\$11,235	100%	100%	0%	\$11,235	\$11,235	\$0
2709	486	12	\$48.75	\$23,713	4.5%	\$12,746	\$36,459	100%	100%	0%	\$36,459	\$36,459	\$0
Subtotal:	5,023			\$244,898	4.5%	\$131,637	\$376,535				\$375,659	\$376,059	\$400
11 - 18" Cottonwood Creek Sanitary Sewer													
<i>From S.H. 121 To South Of Eldorado Parkway</i>													
4741	278	18	\$88.25	\$24,540	4.5%	\$13,191	\$37,731	91%	94%	3%	\$34,257	\$35,348	\$1,091
42290	86	18	\$88.25	\$7,619	4.5%	\$4,095	\$11,714	90%	93%	3%	\$10,589	\$10,951	\$362
4720	123	18	\$88.25	\$10,893	4.5%	\$5,855	\$16,748	93%	94%	1%	\$15,579	\$15,769	\$190
4723	785	18	\$88.25	\$69,236	4.5%	\$37,216	\$106,452	92%	94%	2%	\$98,290	\$100,058	\$1,768
4729	762	18	\$88.25	\$67,252	4.5%	\$36,149	\$103,401	92%	94%	2%	\$94,809	\$97,035	\$2,226
4733	481	18	\$88.25	\$42,405	4.5%	\$22,794	\$65,199	91%	94%	3%	\$59,387	\$61,093	\$1,706
5419	721	18	\$88.25	\$63,630	4.5%	\$34,203	\$97,833	91%	94%	3%	\$89,292	\$91,858	\$2,566
4738	401	18	\$88.25	\$35,424	4.5%	\$19,041	\$54,465	91%	94%	3%	\$49,672	\$51,135	\$1,463
Subtotal:	3,637			\$320,999	4.5%	\$172,544	\$493,543				\$451,875	\$463,247	\$11,372
12 - 24" McKinney Northwest Outfall Sewer Along Wilson Creek (1982)													
<i>From West Of S.H. 75 To 1,600 Feet North Of Virginia Parkway</i>													
P6226	54	24	\$100.73	\$5,449	4.5%	\$2,929	\$8,378	59%	9%	0%	\$4,902	\$724	\$0
2789	277	24	\$100.73	\$27,949	4.5%	\$15,023	\$42,972	60%	12%	0%	\$25,745	\$5,124	\$0
2795	134	24	\$100.73	\$13,503	4.5%	\$7,258	\$20,761	60%	21%	0%	\$12,445	\$4,258	\$0
751	252	15	\$100.73	\$25,373	4.5%	\$13,639	\$39,012	86%	94%	8%	\$33,590	\$36,716	\$3,126
784	597	15	\$100.73	\$60,114	4.5%	\$32,313	\$92,427	87%	95%	8%	\$80,446	\$87,389	\$6,943
897	635	15	\$100.73	\$63,939	4.5%	\$34,369	\$98,308	88%	95%	7%	\$86,702	\$93,442	\$6,740
1050	378	24	\$100.73	\$38,104	4.5%	\$20,482	\$58,586	100%	33%	0%	\$58,586	\$19,085	\$0
1157	22	24	\$100.73	\$2,266	4.5%	\$1,218	\$3,484	100%	33%	0%	\$3,484	\$1,135	\$0
1307	714	24	\$100.73	\$71,922	4.5%	\$38,660	\$110,582	28%	2%	0%	\$31,239	\$1,974	\$0
1466	122	24	\$100.73	\$12,243	4.5%	\$6,581	\$18,824	56%	36%	0%	\$10,569	\$6,702	\$0
1499	458	24	\$100.73	\$46,134	4.5%	\$24,798	\$70,932	56%	36%	0%	\$39,806	\$25,254	\$0
1608	109	24	\$100.73	\$10,962	4.5%	\$5,892	\$16,854	57%	17%	0%	\$9,576	\$2,920	\$0
1675	402	24	\$100.73	\$40,528	4.5%	\$21,785	\$62,313	57%	17%	0%	\$35,397	\$10,795	\$0
10219	345	24	\$100.73	\$34,722	4.5%	\$18,664	\$53,386	57%	17%	0%	\$30,321	\$9,248	\$0
1808	57	24	\$100.73	\$5,788	4.5%	\$3,111	\$8,899	57%	18%	0%	\$5,094	\$1,625	\$0
10217	54	24	\$100.73	\$5,426	4.5%	\$2,917	\$8,343	57%	18%	0%	\$4,775	\$1,523	\$0
1781	533	24	\$100.73	\$53,698	4.5%	\$28,864	\$82,562	57%	18%	0%	\$47,247	\$15,072	\$0
2024	595	24	\$100.73	\$59,945	4.5%	\$32,222	\$92,167	57%	18%	0%	\$52,737	\$16,825	\$0
2074	550	24	\$100.73	\$55,410	4.5%	\$29,784	\$85,194	58%	15%	0%	\$49,293	\$12,542	\$0
2132	800	24	\$100.73	\$80,610	4.5%	\$43,330	\$123,940	58%	15%	0%	\$71,698	\$18,246	\$0
2272	600	24	\$100.73	\$60,397	4.5%	\$32,465	\$92,862	58%	15%	0%	\$53,719	\$13,671	\$0
2386	751	24	\$100.73	\$75,659	4.5%	\$40,668	\$116,327	58%	15%	0%	\$67,276	\$17,124	\$0
2506	704	24	\$100.73	\$70,958	4.5%	\$38,142	\$109,100	58%	15%	0%	\$63,088	\$16,060	\$0

TABLE 19
Existing Wastewater Collection Lines

Pipe Number	Length (Ft.)	Diameter (Inches)	Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Yr. Project Cost (\$)	(%) Utilized Capacity			(\$) Utilized Capacity		
								2019	2029	During Fee Period	2019	2029	During Fee Period
2677	716	24	\$100.73	\$72,134	4.5%	\$38,774	\$110,908	58%	15%	0%	\$64,125	\$16,326	\$0
2671	16	24	\$100.73	\$1,657	4.5%	\$891	\$2,548	58%	15%	0%	\$1,473	\$375	\$0
13614MH2	507	24	\$100.73	\$51,080	4.5%	\$27,457	\$78,537	59%	23%	0%	\$46,557	\$17,927	\$0
136322	667	24	\$100.73	\$67,202	4.5%	\$36,123	\$103,325	28%	2%	0%	\$29,192	\$1,848	\$0
Subtotal:	11,051			\$1,113,172	4.5%	\$598,359	\$1,711,531				\$1,019,082	\$453,930	\$16,809
13 - 15" Spur 399 Sanitary Sewer Line													
<i>From Wilson Creek Interceptor To S.H. 75</i>													
3795	481	15	\$51.59	\$24,829	4.5%	\$13,346	\$38,175	72%	91%	19%	\$27,634	\$34,772	\$7,138
43486	115	15	\$51.59	\$5,940	4.5%	\$3,193	\$9,133	72%	91%	19%	\$6,612	\$8,319	\$1,707
3843	184	15	\$51.59	\$9,475	4.5%	\$5,093	\$14,568	72%	91%	19%	\$10,547	\$13,269	\$2,722
3885	310	15	\$51.59	\$16,006	4.5%	\$8,604	\$24,610	72%	91%	19%	\$17,816	\$22,416	\$4,600
3925	337	15	\$51.59	\$17,408	4.5%	\$9,357	\$26,765	72%	91%	19%	\$19,377	\$24,379	\$5,002
3962	375	15	\$51.59	\$19,349	4.5%	\$10,401	\$29,750	72%	91%	19%	\$21,538	\$27,098	\$5,560
3990	333	15	\$51.59	\$17,197	4.5%	\$9,244	\$26,441	72%	91%	19%	\$18,991	\$24,138	\$5,147
4003	82	15	\$51.59	\$4,218	4.5%	\$2,267	\$6,485	71%	92%	20%	\$4,618	\$5,934	\$1,316
4001	312	15	\$51.59	\$16,072	4.5%	\$8,639	\$24,711	70%	92%	22%	\$17,253	\$22,737	\$5,484
21027	494	15	\$51.59	\$25,491	4.5%	\$13,702	\$39,193	69%	92%	23%	\$27,051	\$36,175	\$9,124
4130	228	15	\$51.59	\$11,758	4.5%	\$6,320	\$18,078	68%	93%	24%	\$12,317	\$16,743	\$4,426
4169	280	15	\$51.59	\$14,448	4.5%	\$7,766	\$22,214	67%	93%	26%	\$14,919	\$20,652	\$5,733
4221	338	15	\$51.59	\$17,435	4.5%	\$9,372	\$26,807	66%	93%	27%	\$17,710	\$25,028	\$7,318
4272	380	15	\$51.59	\$19,613	4.5%	\$10,542	\$30,155	65%	94%	29%	\$19,551	\$28,287	\$8,736
4316	373	15	\$51.59	\$19,256	4.5%	\$10,351	\$29,607	63%	94%	31%	\$18,784	\$27,925	\$9,141
4396	489	15	\$51.59	\$25,236	4.5%	\$13,565	\$38,801	62%	95%	33%	\$24,000	\$36,814	\$12,814
21029	309	15	\$51.59	\$15,917	4.5%	\$8,556	\$24,473	71%	92%	21%	\$17,266	\$22,454	\$5,188
Subtotal:	5,420			\$279,648	4.5%	\$150,318	\$429,966				\$295,984	\$397,140	\$101,156
14 - 12" Herdon Branch Trunk Sewer													
<i>From Hills Creek Drive To Wilson Creek Interceptor</i>													
2973	530	12	\$60.00	\$31,799	4.5%	\$17,093	\$48,892	92%	93%	1%	\$45,095	\$45,378	\$283
2731	249	12	\$60.00	\$14,960	4.5%	\$8,041	\$23,001	92%	93%	1%	\$21,088	\$21,363	\$275
2719	223	12	\$60.00	\$13,389	4.5%	\$7,197	\$20,586	92%	93%	1%	\$18,856	\$19,121	\$265
6062	64	12	\$60.00	\$3,821	4.5%	\$2,054	\$5,875	92%	93%	1%	\$5,391	\$5,456	\$65
2758	234	12	\$60.00	\$14,019	4.5%	\$7,536	\$21,555	92%	93%	1%	\$19,747	\$20,020	\$273
2768	479	12	\$60.00	\$28,739	4.5%	\$15,448	\$44,187	92%	93%	1%	\$40,487	\$41,022	\$535
2814	267	12	\$60.00	\$16,023	4.5%	\$8,613	\$24,636	92%	93%	1%	\$22,649	\$22,877	\$228
2850	408	12	\$60.00	\$24,457	4.5%	\$13,146	\$37,603	92%	93%	1%	\$34,602	\$34,911	\$309
2857	188	12	\$60.00	\$11,255	4.5%	\$6,050	\$17,305	92%	93%	1%	\$15,942	\$16,065	\$123
1614	480	12	\$60.00	\$28,827	4.5%	\$15,495	\$44,322	78%	83%	5%	\$34,610	\$36,747	\$2,137
1755	306	12	\$60.00	\$18,370	4.5%	\$9,874	\$28,244	78%	83%	5%	\$22,057	\$23,417	\$1,360
1737	340	12	\$60.00	\$20,390	4.5%	\$10,960	\$31,350	79%	83%	5%	\$24,627	\$26,124	\$1,497
1767	138	12	\$60.00	\$8,273	4.5%	\$4,447	\$12,720	79%	84%	5%	\$10,055	\$10,656	\$601
1875	342	12	\$60.00	\$20,531	4.5%	\$11,036	\$31,567	80%	84%	5%	\$25,116	\$26,592	\$1,476
1880	96	12	\$60.00	\$5,740	4.5%	\$3,085	\$8,825	80%	84%	5%	\$7,028	\$7,444	\$416

TABLE 19
Existing Wastewater Collection Lines

Pipe Number	Length (Ft.)	Diameter (Inches)	Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Yr. Project Cost (\$)	(%) Utilized Capacity			(\$) Utilized Capacity		
								2019	2029	During Fee Period	2019	2029	During Fee Period
6059	288	12	\$60.00	\$17,265	4.5%	\$9,280	\$26,545	80%	84%	5%	\$21,155	\$22,419	\$1,264
2080	503	12	\$60.00	\$30,194	4.5%	\$16,230	\$46,424	80%	85%	5%	\$37,033	\$39,266	\$2,233
2118	441	12	\$60.00	\$26,458	4.5%	\$14,222	\$40,680	80%	85%	5%	\$32,492	\$34,466	\$1,974
2292	623	12	\$60.00	\$37,403	4.5%	\$20,105	\$57,508	82%	86%	5%	\$46,908	\$49,575	\$2,667
2309	60	12	\$60.00	\$3,612	4.5%	\$1,942	\$5,554	83%	88%	4%	\$4,631	\$4,876	\$245
2288	165	12	\$60.00	\$9,885	4.5%	\$5,313	\$15,198	85%	89%	4%	\$12,967	\$13,599	\$632
2407	574	12	\$60.00	\$34,445	4.5%	\$18,515	\$52,960	87%	91%	4%	\$46,287	\$48,348	\$2,061
2509	620	12	\$60.00	\$37,200	4.5%	\$19,996	\$57,196	90%	93%	4%	\$51,238	\$53,304	\$2,066
6060	309	12	\$60.00	\$18,520	4.5%	\$9,955	\$28,475	90%	93%	3%	\$25,684	\$26,509	\$825
2695	239	12	\$60.00	\$14,349	4.5%	\$7,713	\$22,062	91%	93%	2%	\$20,047	\$20,513	\$466
43024	245	12	\$60.00	\$14,675	4.5%	\$7,888	\$22,563	78%	83%	5%	\$17,619	\$18,707	\$1,088
Subtotal:	8,411			\$504,599	4.5%	\$271,234	\$775,833				\$663,411	\$688,775	\$25,364
15 - 18" Jeans Creek Relief Sewer													
<i>Along S.H 75 To Wilson Creek Interceptor</i>													
P7273	371	18	\$66.59	\$24,714	4.5%	\$13,284	\$37,998	89%	91%	2%	\$33,852	\$34,704	\$852
6100	500	18	\$66.59	\$33,300	4.5%	\$17,900	\$51,200	93%	94%	1%	\$47,540	\$48,298	\$758
6101	102	18	\$66.59	\$6,772	4.5%	\$3,640	\$10,412	93%	94%	1%	\$9,668	\$9,822	\$154
P7273	371	18	\$66.59	\$24,714	4.5%	\$13,284	\$37,998	89%	91%	2%	\$33,852	\$34,704	\$852
Subtotal:	1,344			\$89,500	4.5%	\$48,108	\$137,608				\$124,912	\$127,528	\$2,616
16 - Eagles Nest Sewer Service													
<i>Eagles Nest 2 (2002) / Eagle'S Nest 1C & 3 / Eagle'S Nest 4</i>													
13437	315	18	\$3.63	\$1,145	4.5%	\$615	\$1,760	100%	100%	0%	\$1,754	\$1,757	\$3
13438	122	18	\$3.63	\$443	4.5%	\$238	\$681	100%	100%	0%	\$679	\$680	\$1
13440	196	18	\$3.63	\$713	4.5%	\$383	\$1,096	100%	100%	0%	\$1,092	\$1,094	\$2
13441	23	18	\$3.63	\$83	4.5%	\$45	\$128	100%	100%	0%	\$127	\$128	\$1
13451	269	18	\$3.63	\$977	4.5%	\$525	\$1,502	100%	100%	0%	\$1,496	\$1,499	\$3
13452	272	18	\$3.63	\$988	4.5%	\$531	\$1,519	100%	100%	0%	\$1,513	\$1,516	\$3
13458	285	15	\$3.63	\$1,035	4.5%	\$556	\$1,591	100%	100%	0%	\$1,584	\$1,588	\$4
13457	378	15	\$3.63	\$1,375	4.5%	\$739	\$2,114	100%	100%	0%	\$2,105	\$2,110	\$5
13456	353	15	\$3.63	\$1,281	4.5%	\$689	\$1,970	100%	100%	0%	\$1,962	\$1,967	\$5
13468	339	15	\$3.63	\$1,232	4.5%	\$662	\$1,894	100%	100%	0%	\$1,886	\$1,891	\$5
13466	364	15	\$3.63	\$1,322	4.5%	\$711	\$2,033	100%	100%	0%	\$2,024	\$2,029	\$5
14284	143	15	\$3.63	\$519	4.5%	\$279	\$798	99%	100%	0%	\$794	\$796	\$2
P9227	27	15	\$3.63	\$519	4.5%	\$279	\$798	100%	100%	0%	\$794	\$796	\$2
14286	116	15	\$3.63	\$422	4.5%	\$227	\$649	100%	100%	0%	\$646	\$648	\$2
14287	276	15	\$3.63	\$1,003	4.5%	\$539	\$1,542	99%	100%	0%	\$1,534	\$1,539	\$5
14289	275	15	\$3.63	\$1,000	4.5%	\$538	\$1,538	99%	100%	0%	\$1,529	\$1,535	\$6
14290	340	15	\$3.63	\$1,237	4.5%	\$665	\$1,902	99%	100%	0%	\$1,891	\$1,898	\$7
14326	450	15	\$3.63	\$1,636	4.5%	\$879	\$2,515	99%	100%	0%	\$2,499	\$2,509	\$10
14327	500	15	\$3.63	\$1,817	4.5%	\$977	\$2,794	99%	100%	0%	\$2,777	\$2,787	\$10
15492	476	15	\$3.63	\$1,731	4.5%	\$930	\$2,661	100%	100%	0%	\$2,649	\$2,656	\$7
15493	487	15	\$3.63	\$1,768	4.5%	\$950	\$2,718	100%	100%	0%	\$2,706	\$2,713	\$7

TABLE 19
Existing Wastewater Collection Lines

Pipe Number	Length (Ft.)	Diameter (Inches)	Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Yr. Project Cost (\$)	(%) Utilized Capacity			(\$) Utilized Capacity		
								2019	2029	During Fee Period	2019	2029	During Fee Period
41257	183	15	\$3.63	\$665	4.5%	\$357	\$1,022	100%	100%	0%	\$1,017	\$1,020	\$3
13654	190	15	\$3.63	\$689	4.5%	\$370	\$1,059	100%	100%	0%	\$1,054	\$1,057	\$3
13436	423	18	\$3.63	\$1,536	4.5%	\$826	\$2,362	100%	100%	0%	\$2,354	\$2,358	\$4
13439	397	18	\$3.63	\$1,441	4.5%	\$775	\$2,216	100%	100%	0%	\$2,209	\$2,213	\$4
Subtotal:	7,198			\$26,577	4.5%	\$14,285	\$40,862				\$40,675	\$40,784	\$109
17 - Westridge Blvd. Sewer													
<i>Along Westridge Blvd - Independence Pkwy To Custer Rd (Westridge Blvd. Phase 1 (County Road 115) / Westridge Blvd. Phase 2)</i>													
5052	265	18	\$2.99	\$792	4.5%	\$426	\$1,218	99%	58%	0%	\$1,203	\$702	\$0
5072	265	18	\$2.99	\$792	4.5%	\$426	\$1,218	99%	58%	0%	\$1,203	\$702	\$0
5076	500	18	\$2.99	\$1,493	4.5%	\$803	\$2,296	99%	48%	0%	\$2,270	\$1,106	\$0
5077	408	18	\$2.99	\$1,219	4.5%	\$655	\$1,874	99%	100%	1%	\$1,853	\$1,869	\$16
5078	311	18	\$2.99	\$928	4.5%	\$499	\$1,427	99%	100%	1%	\$1,410	\$1,423	\$13
13653	310	18	\$2.99	\$925	4.5%	\$497	\$1,422	99%	100%	1%	\$1,405	\$1,418	\$13
41370	531	18	\$2.99	\$1,586	4.5%	\$853	\$2,439	99%	100%	1%	\$2,410	\$2,432	\$22
5089	475	18	\$2.99	\$1,419	4.5%	\$763	\$2,182	98%	100%	2%	\$2,133	\$2,172	\$39
5090	490	15	\$2.99	\$1,464	4.5%	\$787	\$2,251	98%	100%	2%	\$2,199	\$2,240	\$41
5091	499	15	\$2.99	\$1,490	4.5%	\$801	\$2,291	98%	100%	2%	\$2,237	\$2,280	\$43
12522	159	15	\$2.99	\$474	4.5%	\$255	\$729	98%	100%	2%	\$712	\$725	\$13
14739	316	15	\$2.99	\$945	4.5%	\$508	\$1,453	98%	99%	2%	\$1,417	\$1,445	\$28
14740	360	15	\$2.99	\$1,075	4.5%	\$578	\$1,653	97%	99%	2%	\$1,611	\$1,644	\$33
Subtotal:	4,888			\$14,602	4.5%	\$7,851	\$22,453				\$22,063	\$20,158	\$261
18 - 15" Craig Ranch North 6													
<i>Phase 6</i>													
14651	664	15	\$302.19	\$200,690	4.5%	\$107,875	\$308,565	94%	94%	0%	\$288,864	\$288,965	\$101
14654	265	15	\$302.19	\$80,067	4.5%	\$43,038	\$123,105	94%	94%	0%	\$115,155	\$115,194	\$39
14655	265	15	\$302.19	\$80,083	4.5%	\$43,046	\$123,129	93%	94%	0%	\$115,094	\$115,131	\$37
14656	372	15	\$302.19	\$112,467	4.5%	\$60,454	\$172,921	93%	93%	0%	\$161,527	\$161,552	\$25
14657	264	15	\$302.19	\$79,782	4.5%	\$42,885	\$122,667	93%	93%	0%	\$114,511	\$114,529	\$18
14658	422	15	\$302.19	\$127,438	4.5%	\$68,501	\$195,939	93%	93%	0%	\$182,801	\$182,855	\$54
14676	474	15	\$302.19	\$143,152	4.5%	\$76,947	\$220,099	93%	93%	0%	\$205,225	\$205,255	\$30
Subtotal:	2,726			\$823,679	4.5%	\$442,746	\$1,266,425				\$1,183,177	\$1,183,481	\$304
19 - 15"- 24" Craig Ranch West 1 (VCIM2)													
<i>Phase 1</i>													
41584	374	24	\$132.06	\$49,340	4.5%	\$26,521	\$75,861	70%	84%	15%	\$52,897	\$63,979	\$11,082
41585	76	24	\$132.06	\$9,997	4.5%	\$5,374	\$15,371	70%	84%	15%	\$10,718	\$12,964	\$2,246
41590	236	15	\$132.06	\$31,115	4.5%	\$16,725	\$47,840	73%	83%	11%	\$34,696	\$39,828	\$5,132
41592	229	15	\$132.06	\$30,245	4.5%	\$16,257	\$46,502	77%	81%	4%	\$35,660	\$37,601	\$1,941
41591	128	15	\$132.06	\$16,870	4.5%	\$9,068	\$25,938	77%	81%	4%	\$19,924	\$21,020	\$1,096
41593	220	15	\$132.06	\$29,004	4.5%	\$15,590	\$44,594	75%	79%	4%	\$33,409	\$35,133	\$1,724
41606	410	15	\$132.06	\$54,121	4.5%	\$29,091	\$83,212	74%	78%	4%	\$61,662	\$64,744	\$3,082
41610	439	15	\$132.06	\$57,964	4.5%	\$31,157	\$89,121	74%	78%	4%	\$66,303	\$69,663	\$3,360

TABLE 19
Existing Wastewater Collection Lines

Pipe Number	Length (Ft.)	Diameter (Inches)	Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Yr. Project Cost (\$)	(%) Utilized Capacity			(\$) Utilized Capacity		
								2019	2029	During Fee Period	2019	2029	During Fee Period
41609	356	15	\$132.06	\$47,061	4.5%	\$25,296	\$72,357	75%	78%	4%	\$54,026	\$56,799	\$2,773
41602	332	15	\$132.06	\$43,889	4.5%	\$23,591	\$67,480	73%	77%	4%	\$49,576	\$52,021	\$2,445
41604	332	15	\$132.06	\$43,872	4.5%	\$23,582	\$67,454	74%	77%	4%	\$49,781	\$52,253	\$2,472
42899	510	15	\$132.06	\$67,353	4.5%	\$36,204	\$103,557	72%	83%	11%	\$74,702	\$86,423	\$11,721
42898	752	18	\$132.06	\$99,313	4.5%	\$53,383	\$152,696	72%	83%	11%	\$110,149	\$127,432	\$17,283
42897	645	18	\$132.06	\$85,119	4.5%	\$45,753	\$130,872	72%	83%	11%	\$94,418	\$109,233	\$14,815
42896	332	24	\$132.06	\$43,880	4.5%	\$23,587	\$67,467	70%	85%	15%	\$47,087	\$57,229	\$10,142
42895	647	24	\$132.06	\$85,401	4.5%	\$45,905	\$131,306	70%	85%	15%	\$91,643	\$111,381	\$19,738
Subtotal:	6,017			\$794,544	4.5%	\$427,084	\$1,221,628				\$886,651	\$997,703	\$111,052
20 - 15" - 24" Craig Ranch Infrastructure 1 (VCIM1)													
<i>Phase 1 15" To 24"</i>													
20930	465	24	\$62.21	\$28,951	4.5%	\$15,562	\$44,513	50%	73%	23%	\$22,375	\$32,545	\$10,170
20928	317	24	\$62.21	\$19,748	4.5%	\$10,615	\$30,363	50%	74%	24%	\$15,271	\$22,425	\$7,154
20929	205	24	\$62.21	\$12,742	4.5%	\$6,849	\$19,591	50%	73%	23%	\$9,831	\$14,317	\$4,486
20927	289	24	\$62.21	\$17,954	4.5%	\$9,651	\$27,605	50%	74%	24%	\$13,857	\$20,380	\$6,523
20926	298	21	\$62.21	\$18,526	4.5%	\$9,958	\$28,484	50%	74%	24%	\$14,272	\$21,020	\$6,748
20899	291	21	\$62.21	\$18,078	4.5%	\$9,717	\$27,795	50%	74%	24%	\$13,908	\$20,623	\$6,715
20908	528	21	\$62.21	\$32,832	4.5%	\$17,648	\$50,480	50%	76%	26%	\$25,144	\$38,158	\$13,014
20898	456	21	\$62.21	\$28,337	4.5%	\$15,232	\$43,569	50%	76%	26%	\$21,666	\$33,167	\$11,501
20897	238	21	\$62.21	\$14,777	4.5%	\$7,943	\$22,720	50%	77%	27%	\$11,277	\$17,427	\$6,150
20909	555	18	\$62.21	\$34,497	4.5%	\$18,543	\$53,040	54%	80%	26%	\$28,519	\$42,329	\$13,810
20910	425	18	\$62.21	\$26,462	4.5%	\$14,224	\$40,686	53%	80%	26%	\$21,765	\$32,463	\$10,698
20911	594	18	\$62.21	\$36,974	4.5%	\$19,874	\$56,848	53%	80%	27%	\$30,264	\$45,360	\$15,096
20895	299	15	\$62.21	\$18,573	4.5%	\$9,983	\$28,556	45%	74%	29%	\$12,754	\$20,994	\$8,240
20896	295	15	\$62.21	\$18,350	4.5%	\$9,864	\$28,214	44%	74%	29%	\$12,535	\$20,804	\$8,269
20893	294	15	\$62.21	\$18,298	4.5%	\$9,836	\$28,134	44%	74%	30%	\$12,353	\$20,879	\$8,526
20894	300	15	\$62.21	\$18,684	4.5%	\$10,043	\$28,727	44%	74%	30%	\$12,692	\$21,248	\$8,556
20892	300	15	\$62.21	\$18,636	4.5%	\$10,017	\$28,653	51%	69%	18%	\$14,476	\$19,646	\$5,170
20891	226	15	\$62.21	\$14,041	4.5%	\$7,547	\$21,588	50%	69%	18%	\$10,864	\$14,847	\$3,983
Subtotal:	6,373			\$396,460	4.5%	\$213,106	\$609,566				\$303,823	\$458,632	\$154,809
21 - 18" - 24" Harvest Bend 1 Offsite S.S. Line													
<i>Stacy Road To S.H. 121</i>													
17572	126	24	\$25.64	\$3,240	4.5%	\$1,742	\$4,982	64%	81%	17%	\$3,192	\$4,054	\$862
17571	223	24	\$25.64	\$5,720	4.5%	\$3,075	\$8,795	67%	80%	13%	\$5,884	\$7,057	\$1,173
17570	130	24	\$25.64	\$3,343	4.5%	\$1,797	\$5,140	66%	80%	14%	\$3,415	\$4,113	\$698
17569	274	24	\$25.64	\$7,039	4.5%	\$3,784	\$10,823	66%	80%	14%	\$7,139	\$8,635	\$1,496
17568	447	24	\$25.64	\$11,453	4.5%	\$6,156	\$17,609	65%	80%	14%	\$11,529	\$14,007	\$2,478
42633	598	24	\$25.64	\$15,324	4.5%	\$8,237	\$23,561	65%	79%	14%	\$15,305	\$18,682	\$3,377
17567	596	24	\$25.64	\$15,285	4.5%	\$8,216	\$23,501	64%	79%	15%	\$15,142	\$18,572	\$3,430
19754	243	24	\$25.64	\$6,238	4.5%	\$3,353	\$9,591	64%	79%	15%	\$6,104	\$7,560	\$1,456
19755	481	24	\$25.64	\$12,335	4.5%	\$6,630	\$18,965	63%	78%	15%	\$12,032	\$14,834	\$2,802
19756	584	24	\$25.64	\$14,987	4.5%	\$8,056	\$23,043	64%	78%	14%	\$14,779	\$17,931	\$3,152

TABLE 19
Existing Wastewater Collection Lines

Pipe Number	Length (Ft.)	Diameter (Inches)	Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Yr. Project Cost (\$)	(%) Utilized Capacity			(\$) Utilized Capacity		
								2019	2029	During Fee Period	2019	2029	During Fee Period
19757	501	24	\$25.64	\$12,836	4.5%	\$6,900	\$19,736	65%	77%	12%	\$12,810	\$15,274	\$2,464
19758	234	24	\$25.64	\$6,010	4.5%	\$3,231	\$9,241	66%	77%	11%	\$6,076	\$7,108	\$1,032
19759	397	24	\$25.64	\$10,184	4.5%	\$5,474	\$15,658	67%	76%	10%	\$10,438	\$11,964	\$1,526
19760	262	24	\$25.64	\$6,714	4.5%	\$3,609	\$10,323	68%	76%	8%	\$6,988	\$7,829	\$841
44524	438	24	\$25.64	\$11,238	4.5%	\$6,041	\$17,279	69%	75%	6%	\$11,889	\$12,997	\$1,108
19763	423	18	\$25.64	\$10,858	4.5%	\$5,836	\$16,694	71%	76%	6%	\$11,839	\$12,768	\$929
19762	485	18	\$25.64	\$12,434	4.5%	\$6,684	\$19,118	75%	79%	4%	\$14,379	\$15,115	\$736
44410	296	18	\$25.64	\$7,590	4.5%	\$4,080	\$11,670	76%	79%	3%	\$8,827	\$9,175	\$348
44173	298	18	\$25.64	\$7,641	4.5%	\$4,107	\$11,748	76%	78%	2%	\$8,942	\$9,182	\$240
14629	245	18	\$25.64	\$6,278	4.5%	\$3,375	\$9,653	77%	78%	1%	\$7,399	\$7,495	\$96
19750	546	24	\$25.64	\$13,994	4.5%	\$7,522	\$21,516	65%	81%	16%	\$13,900	\$17,445	\$3,545
Subtotal:	7,828			\$200,741	4.5%	\$107,905	\$308,646				\$208,008	\$241,797	\$33,789
22 - Wal-Mart Super Center Off-Site Sanitary Sewer													
<i>720 & Lake Forest Drive</i>													
13959	295	24	\$31.84	\$9,398	4.5%	\$5,052	\$14,450	91%	94%	3%	\$13,121	\$13,614	\$493
14098	444	24	\$31.84	\$14,122	4.5%	\$7,591	\$21,713	91%	94%	3%	\$19,716	\$20,457	\$741
13957	283	24	\$31.84	\$9,009	4.5%	\$4,843	\$13,852	91%	94%	3%	\$12,578	\$13,050	\$472
42975	312	24	\$31.84	\$9,942	4.5%	\$5,344	\$15,286	91%	94%	3%	\$13,880	\$14,401	\$521
14096	199	24	\$31.84	\$6,325	4.5%	\$3,400	\$9,725	91%	94%	3%	\$8,830	\$9,162	\$332
13955	597	24	\$31.84	\$19,002	4.5%	\$10,214	\$29,216	94%	97%	2%	\$27,514	\$28,239	\$725
13954	367	24	\$31.84	\$11,694	4.5%	\$6,286	\$17,980	95%	97%	2%	\$17,027	\$17,431	\$404
13953	230	24	\$31.84	\$7,321	4.5%	\$3,935	\$11,256	95%	97%	2%	\$10,720	\$10,946	\$226
13952	560	24	\$31.84	\$17,829	4.5%	\$9,583	\$27,412	96%	98%	2%	\$26,259	\$26,742	\$483
13950	154	21	\$31.84	\$4,898	4.5%	\$2,633	\$7,531	96%	98%	2%	\$7,258	\$7,371	\$113
13949	114	18	\$31.84	\$3,641	4.5%	\$1,957	\$5,598	96%	98%	2%	\$5,375	\$5,466	\$91
13940	151	18	\$31.84	\$4,820	4.5%	\$2,591	\$7,411	96%	98%	2%	\$7,115	\$7,236	\$121
Subtotal:	3,706			\$118,001	4.5%	\$63,429	\$181,430				\$169,393	\$174,115	\$4,722
23 - 27" Creekview Estates 1 Offsite Sanitary Sewer													
<i>Franklin Branch - From Wilson Creek To Franklin Branch Trunk Sewer</i>													
43014	258	27	\$56.35	\$14,563	4.5%	\$7,828	\$22,391	15%	61%	46%	\$3,354	\$13,709	\$10,355
34636	136	27	\$56.35	\$7,674	4.5%	\$4,125	\$11,799	15%	61%	46%	\$1,792	\$7,239	\$5,447
34638	383	27	\$56.35	\$21,554	4.5%	\$11,586	\$33,140	15%	61%	46%	\$5,103	\$20,371	\$15,268
34640	375	27	\$56.35	\$21,106	4.5%	\$11,345	\$32,451	16%	62%	46%	\$5,064	\$19,986	\$14,922
34642	484	27	\$56.35	\$27,247	4.5%	\$14,646	\$41,893	23%	62%	39%	\$9,604	\$25,985	\$16,381
34644	231	27	\$56.35	\$12,999	4.5%	\$6,987	\$19,986	23%	62%	39%	\$4,622	\$12,426	\$7,804
34646	359	27	\$56.35	\$20,245	4.5%	\$10,882	\$31,127	23%	62%	39%	\$7,260	\$19,397	\$12,137
34648	443	27	\$56.35	\$24,966	4.5%	\$13,420	\$38,386	24%	63%	39%	\$9,091	\$24,015	\$14,924
34652	377	27	\$56.35	\$21,260	4.5%	\$11,428	\$32,688	24%	63%	39%	\$7,806	\$20,495	\$12,689
34650	209	27	\$56.35	\$11,755	4.5%	\$6,319	\$18,074	24%	63%	39%	\$4,316	\$11,332	\$7,016
Subtotal:	3,254			\$183,369	4.5%	\$98,566	\$281,935				\$58,012	\$174,955	\$116,943
24 - Timber Creek 1 Offsite Sanitary Sewer Main													

TABLE 19
Existing Wastewater Collection Lines

Pipe Number	Length (Ft.)	Diameter (Inches)	Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Yr. Project Cost (\$)	(%) Utilized Capacity			(\$) Utilized Capacity		
								2019	2029	During Fee Period	2019	2029	During Fee Period
Lower Honey Creek													
14459	766	21	\$52.34	\$40,109	4.5%	\$21,560	\$61,669	77%	62%	0%	\$47,380	\$38,058	\$0
14460	725	21	\$52.34	\$37,952	4.5%	\$20,400	\$58,352	100%	70%	0%	\$58,352	\$40,977	\$0
14461	716	24	\$52.34	\$37,457	4.5%	\$20,134	\$57,591	46%	77%	31%	\$26,587	\$44,511	\$17,924
14462	204	21	\$52.34	\$10,694	4.5%	\$5,748	\$16,442	46%	77%	31%	\$7,592	\$12,708	\$5,116
14463	137	21	\$52.34	\$7,185	4.5%	\$3,862	\$11,047	46%	77%	31%	\$5,102	\$8,546	\$3,444
14464	225	21	\$52.34	\$11,777	4.5%	\$6,330	\$18,107	47%	78%	31%	\$8,471	\$14,053	\$5,582
14465	718	21	\$52.34	\$37,566	4.5%	\$20,193	\$57,759	47%	78%	30%	\$27,406	\$44,994	\$17,588
14466	569	18	\$52.34	\$29,776	4.5%	\$16,005	\$45,781	55%	81%	26%	\$25,111	\$36,935	\$11,824
14467	360	18	\$52.34	\$18,845	4.5%	\$10,130	\$28,975	55%	81%	26%	\$15,900	\$23,382	\$7,482
14468	407	18	\$52.34	\$21,328	4.5%	\$11,464	\$32,792	55%	81%	26%	\$18,017	\$26,479	\$8,462
26019	360	18	\$52.34	\$18,868	4.5%	\$10,142	\$29,010	55%	81%	26%	\$15,940	\$23,430	\$7,490
14469	392	18	\$52.34	\$20,525	4.5%	\$11,033	\$31,558	55%	81%	26%	\$17,369	\$25,496	\$8,127
26021	480	18	\$52.34	\$25,105	4.5%	\$13,495	\$38,600	55%	81%	26%	\$21,260	\$31,219	\$9,959
43200	479	18	\$52.34	\$25,079	4.5%	\$13,481	\$38,560	60%	83%	23%	\$23,030	\$31,819	\$8,789
14470	471	18	\$52.34	\$24,649	4.5%	\$13,249	\$37,898	60%	83%	23%	\$22,671	\$31,278	\$8,607
14471	590	18	\$52.34	\$30,897	4.5%	\$16,608	\$47,505	70%	97%	27%	\$33,467	\$46,202	\$12,735
34446	211	21	\$52.34	\$11,065	4.5%	\$5,948	\$17,013	46%	77%	31%	\$7,843	\$13,144	\$5,301
Subtotal:	7,812			\$408,877	4.5%	\$219,782	\$628,659				\$381,498	\$493,231	\$138,430
25 - Robinson Ridge 1 Offsite Sewer													
Wilmeth Road To Wilson Creek													
14517	443	18	\$37.30	\$16,510	4.5%	\$8,875	\$25,385	100%	100%	0%	\$25,385	\$25,385	\$0
14518	383	18	\$37.30	\$14,299	4.5%	\$7,686	\$21,985	100%	100%	0%	\$21,985	\$21,985	\$0
14512	319	21	\$37.30	\$11,895	4.5%	\$6,394	\$18,289	100%	100%	0%	\$18,289	\$18,289	\$0
14513	134	21	\$37.30	\$4,990	4.5%	\$2,682	\$7,672	100%	100%	0%	\$7,672	\$7,672	\$0
14514	202	21	\$37.30	\$7,535	4.5%	\$4,050	\$11,585	100%	100%	0%	\$11,585	\$11,585	\$0
14516	190	18	\$37.30	\$7,077	4.5%	\$3,804	\$10,881	100%	100%	0%	\$10,881	\$10,881	\$0
14515	498	18	\$37.30	\$18,575	4.5%	\$9,984	\$28,559	100%	100%	0%	\$28,559	\$28,559	\$0
14530	110	18	\$37.30	\$4,096	4.5%	\$2,202	\$6,298	100%	100%	0%	\$6,298	\$6,298	\$0
14532	393	18	\$37.30	\$14,646	4.5%	\$7,873	\$22,519	100%	100%	0%	\$22,519	\$22,519	\$0
14528	505	18	\$37.30	\$18,830	4.5%	\$10,122	\$28,952	100%	100%	0%	\$28,952	\$28,952	\$0
14527	454	18	\$37.30	\$16,926	4.5%	\$9,098	\$26,024	100%	100%	0%	\$26,024	\$26,024	\$0
14526	407	18	\$37.30	\$15,164	4.5%	\$8,151	\$23,315	100%	100%	0%	\$23,315	\$23,315	\$0
14525	253	18	\$37.30	\$9,435	4.5%	\$5,072	\$14,507	100%	100%	0%	\$14,507	\$14,507	\$0
14524	300	18	\$37.30	\$11,208	4.5%	\$6,025	\$17,233	100%	100%	0%	\$17,233	\$17,233	\$0
14523	379	18	\$37.30	\$14,149	4.5%	\$7,605	\$21,754	100%	100%	0%	\$21,754	\$21,754	\$0
14522	442	18	\$37.30	\$16,502	4.5%	\$8,870	\$25,372	100%	100%	0%	\$25,372	\$25,372	\$0
14511	434	24	\$37.30	\$16,189	4.5%	\$8,702	\$24,891	100%	100%	0%	\$24,891	\$24,891	\$0
14510	285	24	\$37.30	\$10,628	4.5%	\$5,713	\$16,341	100%	100%	0%	\$16,341	\$16,341	\$0
14509	179	24	\$37.30	\$6,685	4.5%	\$3,593	\$10,278	100%	100%	0%	\$10,278	\$10,278	\$0
14519	76	18	\$37.30	\$2,826	4.5%	\$1,519	\$4,345	100%	100%	0%	\$4,345	\$4,345	\$0
14520	401	18	\$37.30	\$14,950	4.5%	\$8,036	\$22,986	100%	100%	0%	\$22,986	\$22,986	\$0
14521	282	18	\$37.30	\$10,503	4.5%	\$5,646	\$16,149	100%	100%	0%	\$16,149	\$16,149	\$0
14531	31	18	\$37.30	\$1,145	4.5%	\$615	\$1,760	100%	100%	0%	\$1,760	\$1,760	\$0

TABLE 19
Existing Wastewater Collection Lines

Pipe Number	Length (Ft.)	Diameter (Inches)	Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Yr. Project Cost (\$)	(%) Utilized Capacity			(\$) Utilized Capacity		
								2019	2029	During Fee Period	2019	2029	During Fee Period
Subtotal:	7,098			\$264,763	4.5%	\$142,317	\$407,080				\$407,080	\$407,080	\$0
26 - NTMWD McKinney Prosper Interceptor Sewer													
<i>Upper Wilson Creek - Prosper To University Drive</i>													
42016	404	42	\$20.25	\$8,189	4.5%	\$4,402	\$12,591	31%	59%	28%	\$3,868	\$7,457	\$3,589
43412	478	24	\$20.25	\$9,678	4.5%	\$5,202	\$14,880	90%	95%	6%	\$13,364	\$14,207	\$843
43402	481	24	\$20.25	\$9,739	4.5%	\$5,235	\$14,974	100%	100%	0%	\$14,974	\$14,974	\$0
43411	500	24	\$20.25	\$10,125	4.5%	\$5,442	\$15,567	90%	95%	6%	\$13,981	\$14,863	\$882
43410	614	24	\$20.25	\$12,439	4.5%	\$6,686	\$19,125	90%	95%	6%	\$17,176	\$18,260	\$1,084
43409	271	24	\$20.25	\$5,490	4.5%	\$2,951	\$8,441	90%	95%	6%	\$7,581	\$8,059	\$478
42015	267	42	\$20.25	\$5,405	4.5%	\$2,905	\$8,310	47%	82%	36%	\$3,893	\$6,849	\$2,956
43408	773	24	\$20.25	\$15,657	4.5%	\$8,416	\$24,073	90%	95%	6%	\$21,620	\$22,984	\$1,364
10153	693	24	\$20.25	\$14,028	4.5%	\$7,540	\$21,568	92%	96%	4%	\$19,759	\$20,639	\$880
43406	197	24	\$20.25	\$4,000	4.5%	\$2,150	\$6,150	92%	96%	4%	\$5,634	\$5,885	\$251
43405	134	24	\$20.25	\$2,721	4.5%	\$1,463	\$4,184	92%	96%	4%	\$3,833	\$4,004	\$171
43404	735	24	\$20.25	\$14,885	4.5%	\$8,001	\$22,886	92%	96%	4%	\$20,967	\$21,900	\$933
43403	505	24	\$20.25	\$10,234	4.5%	\$5,501	\$15,735	92%	96%	4%	\$14,415	\$15,057	\$642
43401	332	24	\$20.25	\$6,730	4.5%	\$3,618	\$10,348	100%	100%	0%	\$10,348	\$10,348	\$0
42014	417	42	\$20.25	\$8,444	4.5%	\$4,539	\$12,983	47%	82%	36%	\$6,077	\$10,703	\$4,626
41800	452	24	\$20.25	\$9,147	4.5%	\$4,917	\$14,064	87%	95%	8%	\$12,244	\$13,341	\$1,097
41799	318	24	\$20.25	\$6,447	4.5%	\$3,465	\$9,912	90%	95%	6%	\$8,902	\$9,464	\$562
41798	167	24	\$20.25	\$3,377	4.5%	\$1,815	\$5,192	90%	95%	6%	\$4,663	\$4,957	\$294
42025	247	42	\$20.25	\$5,004	4.5%	\$2,690	\$7,694	31%	59%	28%	\$2,366	\$4,554	\$2,188
42021	693	42	\$20.25	\$14,041	4.5%	\$7,547	\$21,588	47%	82%	36%	\$10,095	\$17,800	\$7,705
42020	788	24	\$20.25	\$15,969	4.5%	\$8,584	\$24,553	47%	82%	36%	\$11,467	\$20,256	\$8,789
42019	589	24	\$20.25	\$11,934	4.5%	\$6,415	\$18,349	47%	83%	36%	\$8,601	\$15,184	\$6,583
42018	252	24	\$20.25	\$5,105	4.5%	\$2,744	\$7,849	48%	83%	36%	\$3,736	\$6,528	\$2,792
42017	352	24	\$20.25	\$7,130	4.5%	\$3,833	\$10,963	48%	83%	36%	\$5,210	\$9,141	\$3,931
41848	650	24	\$20.25	\$13,170	4.5%	\$7,079	\$20,249	48%	83%	36%	\$9,621	\$16,884	\$7,263
41824	617	24	\$20.25	\$12,504	4.5%	\$6,721	\$19,225	47%	84%	36%	\$9,059	\$16,068	\$7,009
42024	341	42	\$20.25	\$6,906	4.5%	\$3,712	\$10,618	31%	59%	28%	\$3,264	\$6,286	\$3,022
41807	613	24	\$20.25	\$12,421	4.5%	\$6,677	\$19,098	46%	84%	38%	\$8,872	\$16,128	\$7,256
41806	682	24	\$20.25	\$13,820	4.5%	\$7,429	\$21,249	69%	89%	20%	\$14,633	\$18,817	\$4,184
41805	343	24	\$20.25	\$6,951	4.5%	\$3,736	\$10,687	69%	89%	20%	\$7,360	\$9,464	\$2,104
41804	368	24	\$20.25	\$7,451	4.5%	\$4,005	\$11,456	69%	89%	20%	\$7,889	\$10,145	\$2,256
41803	586	24	\$20.25	\$11,868	4.5%	\$6,379	\$18,247	72%	90%	18%	\$13,145	\$16,415	\$3,270
41802	298	24	\$20.25	\$6,042	4.5%	\$3,248	\$9,290	72%	90%	18%	\$6,692	\$8,357	\$1,665
41801	450	24	\$20.25	\$9,109	4.5%	\$4,896	\$14,005	72%	90%	18%	\$10,089	\$12,599	\$2,510
Subtotal:	15,610			\$316,160	4.5%	\$169,943	\$486,103				\$335,398	\$428,577	\$93,179
27 - 15" Lacima Sanitary Sewer													
<i>Along Watch Hill Lane, Wakehurst Drive To Wilson Creek (Lacima Haven / Lacima Manor)</i>													
13830	160	15	\$5.43	\$870	4.5%	\$468	\$1,338	100%	100%	0%	\$1,338	\$1,338	\$0
13797	50	15	\$5.43	\$270	4.5%	\$145	\$415	100%	100%	0%	\$414	\$415	\$1

TABLE 19
Existing Wastewater Collection Lines

Pipe Number	Length (Ft.)	Diameter (Inches)	Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Yr. Project Cost (\$)	(%) Utilized Capacity			(\$) Utilized Capacity		
								2019	2029	During Fee Period	2019	2029	During Fee Period
13798	307	15	\$5.43	\$1,668	4.5%	\$897	\$2,565	100%	100%	0%	\$2,559	\$2,565	\$6
13799	345	15	\$5.43	\$1,870	4.5%	\$1,005	\$2,875	100%	100%	0%	\$2,875	\$2,875	\$0
13802	334	15	\$5.43	\$1,811	4.5%	\$973	\$2,784	100%	100%	0%	\$2,784	\$2,784	\$0
13808	131	15	\$5.43	\$713	4.5%	\$383	\$1,096	100%	100%	0%	\$1,096	\$1,096	\$0
13810	129	15	\$5.43	\$702	4.5%	\$377	\$1,079	100%	100%	0%	\$1,079	\$1,079	\$0
13827	339	15	\$5.43	\$1,840	4.5%	\$989	\$2,829	100%	100%	0%	\$2,829	\$2,829	\$0
13828	329	15	\$5.43	\$1,784	4.5%	\$959	\$2,743	100%	100%	0%	\$2,743	\$2,743	\$0
13829	81	15	\$5.43	\$438	4.5%	\$235	\$673	100%	100%	0%	\$673	\$673	\$0
13796	64	15	\$5.43	\$346	4.5%	\$186	\$532	100%	100%	0%	\$530	\$532	\$2
Subtotal:	2,269			\$12,312	4.5%	\$6,617	\$18,929				\$18,920	\$18,929	\$9
28 - Westerra Stonebridge Trunk Main "H" & "H-2"													
<i>Line H & H-2</i>													
42026	177	42	\$35.06	\$6,199	4.5%	\$3,332	\$9,531	47%	53%	6%	\$4,481	\$5,058	\$577
5595	284	30	\$35.06	\$9,962	4.5%	\$5,355	\$15,317	100%	100%	0%	\$15,317	\$15,293	\$0
5657	500	24	\$35.06	\$17,518	4.5%	\$9,416	\$26,934	90%	90%	0%	\$24,265	\$24,291	\$26
5647	346	30	\$35.06	\$12,129	4.5%	\$6,520	\$18,649	100%	100%	0%	\$18,649	\$18,649	\$0
5645	391	30	\$35.06	\$13,707	4.5%	\$7,368	\$21,075	100%	100%	0%	\$21,075	\$21,075	\$0
5621	246	30	\$35.06	\$8,622	4.5%	\$4,635	\$13,257	100%	100%	0%	\$13,257	\$13,246	\$0
5648	493	30	\$35.06	\$17,300	4.5%	\$9,299	\$26,599	100%	100%	0%	\$26,599	\$26,599	\$0
5651	495	30	\$35.06	\$17,341	4.5%	\$9,321	\$26,662	100%	100%	0%	\$26,662	\$26,662	\$0
5620	278	30	\$35.06	\$9,748	4.5%	\$5,240	\$14,988	100%	100%	0%	\$14,988	\$14,940	\$0
5619	208	30	\$35.06	\$7,280	4.5%	\$3,913	\$11,193	100%	100%	0%	\$11,193	\$11,137	\$0
5618	488	30	\$35.06	\$17,123	4.5%	\$9,204	\$26,327	100%	100%	0%	\$26,327	\$26,201	\$0
5652	287	30	\$35.06	\$10,047	4.5%	\$5,400	\$15,447	100%	100%	0%	\$15,447	\$15,430	\$0
5653	291	30	\$35.06	\$10,206	4.5%	\$5,486	\$15,692	100%	98%	0%	\$15,692	\$15,327	\$0
5617	233	30	\$35.06	\$8,168	4.5%	\$4,390	\$12,558	100%	100%	0%	\$12,558	\$12,498	\$0
5655	363	24	\$35.06	\$12,726	4.5%	\$6,841	\$19,567	89%	89%	0%	\$17,352	\$17,370	\$18
5656	132	24	\$35.06	\$4,612	4.5%	\$2,479	\$7,091	90%	90%	0%	\$6,386	\$6,395	\$9
5664	487	24	\$35.06	\$17,068	4.5%	\$9,174	\$26,242	92%	92%	0%	\$24,091	\$24,110	\$19
5654	138	24	\$35.06	\$4,852	4.5%	\$2,608	\$7,460						
5663	14	15	\$35.06	\$492	4.5%	\$264	\$756						
5594	384	30	\$35.06	\$13,448	4.5%	\$7,229	\$20,677	100%	100%	0%	\$20,677	\$20,628	\$0
5591	470	30	\$35.06	\$16,485	4.5%	\$8,861	\$25,346	100%	100%	0%	\$25,346	\$25,277	\$0
5665	499	24	\$35.06	\$17,499	4.5%	\$9,406	\$26,905	93%	93%	0%	\$24,998	\$25,001	\$3
12526	223	30	\$35.06	\$7,831	4.5%	\$4,209	\$12,040	100%	100%	0%	\$12,040	\$12,016	\$0
5587	338	42	\$35.06	\$11,866	4.5%	\$6,378	\$18,244	100%	100%	0%	\$18,244	\$18,244	\$0
5586	180	42	\$35.06	\$6,294	4.5%	\$3,383	\$9,677	47%	53%	6%	\$4,535	\$5,136	\$601
5588	457	30	\$35.06	\$16,032	4.5%	\$8,618	\$24,650	100%	99%	0%	\$24,650	\$24,466	\$0
5666	482	24	\$35.06	\$16,889	4.5%	\$9,078	\$25,967	94%	94%	0%	\$24,287	\$24,305	\$18
5589	449	30	\$35.06	\$15,724	4.5%	\$8,452	\$24,176	100%	99%	0%	\$24,176	\$24,019	\$0
5590	514	30	\$35.06	\$18,017	4.5%	\$9,685	\$27,702	100%	100%	0%	\$27,702	\$27,590	\$0
5667	430	24	\$35.06	\$15,067	4.5%	\$8,099	\$23,166	94%	94%	0%	\$21,816	\$21,836	\$20
13770	159	24	\$35.06	\$5,558	4.5%	\$2,988	\$8,546	98%	98%	0%	\$8,340	\$8,347	\$7
5585	290	42	\$35.06	\$10,164	4.5%	\$5,463	\$15,627	47%	53%	6%	\$7,302	\$8,295	\$993

TABLE 19
Existing Wastewater Collection Lines

Pipe Number	Length (Ft.)	Diameter (Inches)	Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Yr. Project Cost (\$)	(%) Utilized Capacity			(\$) Utilized Capacity		
								2019	2029	During Fee Period	2019	2029	During Fee Period
5584	405	42	\$35.06	\$14,208	4.5%	\$7,637	\$21,845	47%	53%	6%	\$10,170	\$11,590	\$1,420
5583	362	42	\$35.06	\$12,707	4.5%	\$6,830	\$19,537	46%	53%	7%	\$9,064	\$10,368	\$1,304
5582	216	42	\$35.06	\$7,578	4.5%	\$4,073	\$11,651	46%	53%	7%	\$5,368	\$6,193	\$825
5581	148	42	\$35.06	\$5,184	4.5%	\$2,787	\$7,971	46%	53%	7%	\$3,669	\$4,237	\$568
5577	155	42	\$35.06	\$5,449	4.5%	\$2,929	\$8,378	46%	53%	7%	\$3,831	\$4,453	\$622
5576	446	42	\$35.06	\$15,650	4.5%	\$8,412	\$24,062	46%	53%	7%	\$10,990	\$12,790	\$1,800
5578	398	42	\$35.06	\$13,936	4.5%	\$7,491	\$21,427	46%	53%	7%	\$9,825	\$11,389	\$1,564
5579	59	42	\$35.06	\$2,082	4.5%	\$1,119	\$3,201	46%	53%	7%	\$1,471	\$1,702	\$231
5580	69	42	\$35.06	\$2,406	4.5%	\$1,293	\$3,699	46%	53%	7%	\$1,701	\$1,967	\$266
5575	396	42	\$35.06	\$13,872	4.5%	\$7,457	\$21,329	46%	53%	7%	\$9,739	\$11,338	\$1,599
5574	136	42	\$35.06	\$4,784	4.5%	\$2,572	\$7,356	48%	55%	7%	\$3,558	\$4,071	\$513
5573	316	42	\$35.06	\$11,090	4.5%	\$5,961	\$17,051	48%	55%	7%	\$8,248	\$9,438	\$1,190
5572	198	42	\$35.06	\$6,951	4.5%	\$3,736	\$10,687	48%	55%	7%	\$5,164	\$5,914	\$750
13769	126	24	\$35.06	\$4,428	4.5%	\$2,380	\$6,808	96%	96%	0%	\$6,545	\$6,552	\$7
5662	207	8	\$35.06	\$7,274	4.5%	\$3,910	\$11,184	97%	98%	1%	\$10,853	\$10,937	\$84
5668	98	24	\$35.06	\$3,443	4.5%	\$1,851	\$5,294	99%	99%	0%	\$5,233	\$5,236	\$3
5658	178	8	\$35.06	\$6,246	4.5%	\$3,357	\$9,603	97%	98%	1%	\$9,312	\$9,402	\$90
5659	64	8	\$35.06	\$2,246	4.5%	\$1,207	\$3,453	97%	98%	1%	\$3,348	\$3,376	\$28
46453	239	8	\$35.06	\$8,386	4.5%	\$4,508	\$12,894	97%	98%	1%	\$12,502	\$12,603	\$101
5661	74	8	\$35.06	\$2,585	4.5%	\$1,389	\$3,974	97%	98%	1%	\$3,857	\$3,888	\$31
Subtotal:	15,018			\$526,479	4.5%	\$282,993	\$809,472				\$672,900	\$686,885	\$15,287
29 - Franklin Branch Trunk Sewer													
<i>From North Side Of Parker Creek Estates North Along Franklin Branch To U.S. 380 And East To Bois D' Arc Road</i>													
42799	102	30	\$205.57	\$20,910	4.5%	\$11,240	\$32,150	15%	61%	46%	\$4,748	\$19,644	\$14,896
42800	38	30	\$205.57	\$7,796	4.5%	\$4,191	\$11,987	14%	61%	47%	\$1,702	\$7,331	\$5,629
16012	60	30	\$205.57	\$12,405	4.5%	\$6,668	\$19,073	14%	61%	48%	\$2,600	\$11,674	\$9,074
42801	381	27	\$205.57	\$78,378	4.5%	\$42,130	\$120,508	13%	61%	48%	\$15,733	\$73,826	\$58,093
43011	800	27	\$205.57	\$164,470	4.5%	\$88,406	\$252,876	12%	61%	49%	\$31,551	\$155,063	\$123,512
43012	60	27	\$205.57	\$12,335	4.5%	\$6,630	\$18,965	12%	61%	49%	\$2,254	\$11,641	\$9,387
43013	209	18	\$205.57	\$43,004	4.5%	\$23,116	\$66,120	1%	64%	64%	\$568	\$42,640	\$42,072
43010	229	18	\$205.57	\$47,053	4.5%	\$25,292	\$72,345	43%	67%	24%	\$31,042	\$48,527	\$17,485
43009	300	18	\$205.57	\$61,619	4.5%	\$33,122	\$94,741	42%	67%	25%	\$39,551	\$63,138	\$23,587
43007	192	18	\$205.57	\$39,425	4.5%	\$21,192	\$60,617	40%	66%	26%	\$24,547	\$40,112	\$15,565
43008	308	18	\$205.57	\$63,364	4.5%	\$34,060	\$97,424	39%	66%	27%	\$38,144	\$63,979	\$25,835
34518	140	18	\$205.57	\$28,779	4.5%	\$15,469	\$44,248	38%	65%	27%	\$16,681	\$28,821	\$12,140
43026	775	12	\$205.57	\$159,327	4.5%	\$85,642	\$244,969	73%	77%	3%	\$180,015	\$188,366	\$8,351
Subtotal:	3,594			\$738,865	4.5%	\$397,158	\$1,136,023				\$389,136	\$754,762	\$365,626
30 - 15" Airport Sewer Phase 2 Sewer Main													
<i>From Northeast Of Termination Of Industrial Blvd To North McKinney Interceptor</i>													
43296	25	15	\$149.89	\$3,816	4.5%	\$2,051	\$5,867	80%	82%	2%	\$4,716	\$4,834	\$118
43295	43	15	\$149.89	\$6,454	4.5%	\$3,469	\$9,923	80%	82%	2%	\$7,977	\$8,175	\$198
43294	438	15	\$149.89	\$65,671	4.5%	\$35,300	\$100,971	80%	82%	2%	\$81,166	\$83,186	\$2,020

TABLE 19
Existing Wastewater Collection Lines

Pipe Number	Length (Ft.)	Diameter (Inches)	Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Yr. Project Cost (\$)	(%) Utilized Capacity			(\$) Utilized Capacity		
								2019	2029	During Fee Period	2019	2029	During Fee Period
43293	500	15	\$149.89	\$74,974	4.5%	\$40,300	\$115,274	80%	82%	2%	\$92,663	\$94,976	\$2,313
43292	500	15	\$149.89	\$74,882	4.5%	\$40,251	\$115,133	80%	82%	2%	\$92,550	\$94,860	\$2,310
43291	500	15	\$149.89	\$75,012	4.5%	\$40,321	\$115,333	80%	82%	2%	\$92,711	\$95,025	\$2,314
43290	183	15	\$149.89	\$27,499	4.5%	\$14,781	\$42,280	80%	82%	2%	\$33,987	\$34,833	\$846
43289	498	15	\$149.89	\$74,701	4.5%	\$40,153	\$114,854	80%	82%	2%	\$92,327	\$94,624	\$2,297
43288	499	15	\$149.89	\$74,768	4.5%	\$40,190	\$114,958	80%	82%	2%	\$92,404	\$94,710	\$2,306
43287	523	15	\$149.89	\$78,400	4.5%	\$42,142	\$120,542	80%	82%	2%	\$96,906	\$99,315	\$2,409
43286	296	15	\$149.89	\$44,350	4.5%	\$23,839	\$68,189	80%	82%	2%	\$54,825	\$56,188	\$1,363
43285	532	15	\$149.89	\$79,816	4.5%	\$42,903	\$122,719	80%	82%	2%	\$98,687	\$101,140	\$2,453
43284	357	15	\$149.89	\$53,464	4.5%	\$28,738	\$82,202	80%	82%	2%	\$66,099	\$67,741	\$1,642
43283	282	15	\$149.89	\$42,255	4.5%	\$22,713	\$64,968	80%	82%	2%	\$52,253	\$53,551	\$1,298
43282	445	15	\$149.89	\$66,709	4.5%	\$35,858	\$102,567	80%	82%	2%	\$82,480	\$84,529	\$2,049
43298	24	15	\$149.89	\$3,667	4.5%	\$1,971	\$5,638	80%	82%	2%	\$4,537	\$4,649	\$112
Subtotal:	5,647			\$846,438	4.5%	\$454,980	\$1,301,418				\$1,046,288	\$1,072,336	\$26,048
31 - 121 Grand Offsite Sewer													
<i>Along Collin Mckinney Pkwy. From Mckinney Place Drive To Lake Forest Drive</i>													
43763	402	15	\$114.35	\$45,976	4.5%	\$24,713	\$70,689	98%	99%	1%	\$69,166	\$69,846	\$680
43762	398	15	\$114.35	\$45,504	4.5%	\$24,459	\$69,963	98%	99%	1%	\$68,472	\$69,146	\$674
43766	385	15	\$114.35	\$44,055	4.5%	\$23,681	\$67,736	98%	99%	1%	\$66,294	\$66,945	\$651
Subtotal:	1,185			\$135,535	4.5%	\$72,853	\$208,388				\$203,932	\$205,937	\$2,005
32 - 21" Lake Forest & Hwy 121 Offsite Utilities													
<i>Along Sh 121 North Row From Mckinney Place Drive To Lake Forest Drive</i>													
42098	203	21	\$507.26	\$103,049	4.5%	\$55,391	\$158,440	58%	68%	11%	\$91,207	\$108,279	\$17,072
42099	226	21	\$507.26	\$114,481	4.5%	\$61,536	\$176,017	58%	68%	11%	\$101,325	\$120,291	\$18,966
42100	223	21	\$507.26	\$113,296	4.5%	\$60,899	\$174,195	58%	68%	11%	\$100,277	\$119,046	\$18,769
42101	420	21	\$507.26	\$212,903	4.5%	\$114,440	\$327,343	58%	68%	11%	\$188,437	\$223,708	\$35,271
45799	91	21	\$507.26	\$46,081	4.5%	\$24,770	\$70,851	58%	68%	11%	\$40,786	\$48,420	\$7,634
Subtotal:	1,163			\$589,810	4.5%	\$317,036	\$906,846				\$522,032	\$619,744	\$97,712
33 - Wilmeth Ridge (Stover Creek) Sanitary Sewer Main 1 (WW4213)													
<i>Wilmeth Road To Wilson Creek</i>													
45715	374	30	\$163.30	\$61,103	4.5%	\$32,844	\$93,947	2%	20%	18%	\$2,160	\$18,676	\$16,516
45716	270	30	\$163.30	\$44,114	4.5%	\$23,712	\$67,826	2%	20%	18%	\$1,559	\$13,483	\$11,924
45717	902	30	\$163.30	\$147,276	4.5%	\$79,164	\$226,440	2%	20%	18%	\$5,206	\$45,014	\$39,808
45718	64	33	\$163.30	\$10,518	4.5%	\$5,654	\$16,172	2%	20%	18%	\$365	\$3,244	\$2,879
45719	104	33	\$163.30	\$16,965	4.5%	\$9,119	\$26,084	2%	20%	18%	\$589	\$5,233	\$4,644
45720	213	33	\$163.30	\$34,769	4.5%	\$18,689	\$53,458	2%	20%	18%	\$1,208	\$10,724	\$9,516
45721	346	33	\$163.30	\$56,480	4.5%	\$30,359	\$86,839	2%	20%	18%	\$1,962	\$17,421	\$15,459
45722	493	33	\$163.30	\$80,524	4.5%	\$43,283	\$123,807	2%	20%	18%	\$2,797	\$24,837	\$22,040
45723	293	33	\$163.30	\$47,893	4.5%	\$25,744	\$73,637	2%	20%	18%	\$1,664	\$14,773	\$13,109
45724	155	33	\$163.30	\$25,379	4.5%	\$13,642	\$39,021	2%	20%	18%	\$882	\$7,828	\$6,946
45725	134	33	\$163.30	\$21,809	4.5%	\$11,723	\$33,532	2%	20%	18%	\$757	\$6,727	\$5,970

TABLE 19
Existing Wastewater Collection Lines

Pipe Number	Length (Ft.)	Diameter (Inches)	Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Yr. Project Cost (\$)	(%) Utilized Capacity			(\$) Utilized Capacity		
								2019	2029	During Fee Period	2019	2029	During Fee Period
45726	237	33	\$163.30	\$38,686	4.5%	\$20,795	\$59,481	2%	20%	18%	\$1,343	\$11,933	\$10,590
45727	267	33	\$163.30	\$43,522	4.5%	\$23,394	\$66,916	2%	20%	18%	\$1,511	\$13,425	\$11,914
45728	148	33	\$163.30	\$24,234	4.5%	\$13,026	\$37,260	2%	20%	18%	\$842	\$7,475	\$6,633
45729	225	33	\$163.30	\$36,744	4.5%	\$19,751	\$56,495	2%	20%	18%	\$1,276	\$11,334	\$10,058
45730	304	33	\$163.30	\$49,717	4.5%	\$26,724	\$76,441	2%	20%	18%	\$1,726	\$15,335	\$13,609
45731	121	33	\$163.30	\$19,709	4.5%	\$10,594	\$30,303	2%	20%	18%	\$684	\$6,079	\$5,395
Subtotal:	4,651			\$759,442	4.5%	\$408,217	\$1,167,659				\$26,531	\$233,541	\$207,010
TOTAL EXISTING COLLECTION LINES:													
	207,586			14,073,067		7,564,596	21,637,663				15,118,047	14,029,870	1,557,169

TABLE 20
Proposed Wastewater Collection Lines

(1) - City Participate in Cost Oversize

(2) - City Initiated and Funded

! Average Unit costs are based on Bid Tabulation or Design Opinion of Cost, plus Engineering and Easements

* Average Unit costs are based in 2019 dollars unless otherwise indicated and include 20% for engineering and easements.

B - Bore Across State Highway or Interstate

Pipe Number		Length (Ft.)	Diameter (Inches)	*Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Yr. Project Cost (\$)	(%) Utilized Capacity			(\$) Utilized Capacity		
									2019	2029	During Fee Period	2019	2029	During Fee Period
1P - Honey Creek Parallel Trunk Sewer														
(2) *	HC100	489	48	\$1,464.81	\$716,398	4.5%	\$385,080	\$1,101,478	0%	38%	38%	\$0	\$421,442	\$421,442
(2) *	HC102	712	48	\$1,464.81	\$1,042,744	4.5%	\$560,499	\$1,603,243	0%	35%	35%	\$0	\$566,953	\$566,953
(2) *	HC104	154	48	\$1,464.81	\$226,285	4.5%	\$121,633	\$347,918	0%	35%	35%	\$0	\$122,462	\$122,462
(2) *	HC106	1,098	48	\$1,464.81	\$1,608,459	4.5%	\$864,584	\$2,473,043	0%	35%	35%	\$0	\$870,584	\$870,584
(2) *	HC108	716	48	\$1,464.81	\$1,049,519	4.5%	\$564,140	\$1,613,659	0%	35%	35%	\$0	\$563,432	\$563,432
(2) *	HC110	823	48	\$1,464.81	\$1,206,156	4.5%	\$648,336	\$1,854,492	0%	35%	35%	\$0	\$647,790	\$647,790
(2) *	HC112	413	42	\$1,464.81	\$605,442	4.5%	\$325,439	\$930,881	0%	35%	35%	\$0	\$323,298	\$323,298
(2) *	HC114	B 430	42	\$1,464.81	\$629,955	4.5%	\$338,615	\$968,570	0%	35%	35%	\$0	\$336,495	\$336,495
(2) *	HC116	372	42	\$1,464.81	\$544,373	4.5%	\$292,613	\$836,986	0%	35%	35%	\$0	\$290,944	\$290,944
(2) *	HC118	823	42	\$1,464.81	\$1,206,163	4.5%	\$648,340	\$1,854,503	0%	35%	35%	\$0	\$644,843	\$644,843
(2) *	HC120	781	42	\$1,464.81	\$1,143,987	4.5%	\$614,919	\$1,758,906	0%	33%	33%	\$0	\$575,504	\$575,504
(2) *	HC122	697	42	\$1,464.81	\$1,020,519	4.5%	\$548,552	\$1,569,071	0%	33%	33%	\$0	\$513,410	\$513,410
Subtotal:		7,510			\$11,000,000	4.5%	\$5,912,750	\$16,912,750				\$0	\$5,877,157	\$5,877,157
2P - 36" Honey Creek Extension Trunk Sewer														
(1) !	HY01	465	36	\$139.51	\$64,900	4.5%	\$34,885	\$99,785	0%	28%	28%	\$0	\$28,413	\$28,413
(1) !	HY02	733	36	\$139.51	\$102,306	4.5%	\$54,992	\$157,298	0%	28%	28%	\$0	\$44,789	\$44,789
(1) !	HY03	429	36	\$139.51	\$59,820	4.5%	\$32,155	\$91,975	0%	28%	28%	\$0	\$26,189	\$26,189
(1) !	HY04	488	36	\$139.51	\$68,023	4.5%	\$36,564	\$104,587	0%	24%	24%	\$0	\$24,855	\$24,855
(1) !	HY05	1,020	36	\$139.51	\$142,296	4.5%	\$76,487	\$218,783	0%	24%	24%	\$0	\$51,994	\$51,994
(1) !	HY06	384	36	\$139.51	\$53,610	4.5%	\$28,817	\$82,427	0%	24%	24%	\$0	\$19,589	\$19,589
(1) !	HY07	1,010	36	\$139.51	\$140,964	4.5%	\$75,771	\$216,735	0%	22%	22%	\$0	\$48,000	\$48,000
(1) !	HY08	695	36	\$139.51	\$96,957	4.5%	\$52,117	\$149,074	0%	22%	22%	\$0	\$33,015	\$33,015
(1) !	HY09	312	36	\$139.51	\$43,533	4.5%	\$23,400	\$66,933	0%	22%	22%	\$0	\$14,824	\$14,824
(1) !	HY10	667	36	\$139.51	\$93,043	4.5%	\$50,013	\$143,056	0%	22%	22%	\$0	\$30,818	\$30,818
(1) !	HY11	688	36	\$139.51	\$96,048	4.5%	\$51,628	\$147,676	0%	22%	22%	\$0	\$31,814	\$31,814
(1) !	HY12	409	36	\$139.51	\$57,093	4.5%	\$30,689	\$87,782	0%	22%	22%	\$0	\$18,911	\$18,911
Subtotal:		7,301			\$1,018,593	4.5%	\$547,518	\$1,566,111				\$0	\$373,211	\$373,211
3P - The Preserve at Honey Creek														
(1) !	HY13	90	21	\$59.10	\$5,304	4.5%	\$2,851	\$8,155	0%	92%	92%	\$0	\$7,466	\$7,466
(1) !	HY14	87	21	\$59.10	\$5,118	4.5%	\$2,751	\$7,869	0%	92%	92%	\$0	\$7,204	\$7,204
(1) !	HY15	109	21	\$59.10	\$6,421	4.5%	\$3,451	\$9,872	0%	92%	92%	\$0	\$9,037	\$9,037
(1) !	HY16	448	21	\$59.10	\$26,504	4.5%	\$14,246	\$40,750	0%	92%	92%	\$0	\$37,305	\$37,305

TABLE 20
Proposed Wastewater Collection Lines

(1) - City Participate in Cost Oversize

(2) - City Initiated and Funded

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* Average Unit costs are based in 2019 dollars unless otherwise indicated and include 20% for engineering and easements.

B - Bore Across State Highway or Interstate

Pipe Number	Length (Ft.)	Diameter (Inches)	*Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Yr. Project Cost (\$)	(%) Utilized Capacity			(\$) Utilized Capacity		
								2019	2029	During Fee Period	2019	2029	During Fee Period
(1) ! HY17	227	18	\$59.10	\$13,391	4.5%	\$7,198	\$20,589	0%	92%	92%	\$0	\$18,849	\$18,849
(1) ! HY18	444	18	\$59.10	\$26,223	4.5%	\$14,095	\$40,318	0%	92%	92%	\$0	\$36,909	\$36,909
(1) ! HY19	272	18	\$59.10	\$16,101	4.5%	\$8,655	\$24,756	0%	92%	92%	\$0	\$22,663	\$22,663
(1) ! HY20	257	18	\$59.10	\$15,180	4.5%	\$8,160	\$23,340	0%	92%	92%	\$0	\$21,367	\$21,367
(1) ! HY21	425	18	\$59.10	\$25,145	4.5%	\$13,516	\$38,661	0%	92%	92%	\$0	\$35,391	\$35,391
(1) ! HY22	499	18	\$59.10	\$29,499	4.5%	\$15,857	\$45,356	0%	92%	92%	\$0	\$41,522	\$41,522
(1) ! HY23	499	18	\$59.10	\$29,499	4.5%	\$15,856	\$45,355	0%	92%	92%	\$0	\$41,519	\$41,519
(1) ! HY24	496	15	\$59.10	\$29,329	4.5%	\$15,765	\$45,094	0%	92%	92%	\$0	\$41,282	\$41,282
(1) ! HY25	488	15	\$59.10	\$28,858	4.5%	\$15,512	\$44,370	0%	92%	92%	\$0	\$40,617	\$40,617
(1) ! HY26	429	15	\$59.10	\$25,332	4.5%	\$13,617	\$38,949	0%	92%	92%	\$0	\$35,655	\$35,655
(1) ! HY27	139	15	\$59.10	\$8,212	4.5%	\$4,414	\$12,626	0%	92%	92%	\$0	\$11,559	\$11,559
(1) ! HY28	300	15	\$59.10	\$17,718	4.5%	\$9,524	\$27,242	0%	92%	92%	\$0	\$24,938	\$24,938
Subtotal:	5,209			\$307,836	4.5%	\$165,468	\$473,304				\$0	\$433,283	\$433,283
4P - Upper East Fork Trunk Sewer													
(1) * UE108	1,905	18	\$60.00	\$114,292	4.5%	\$61,435	\$175,727	0%	80%	80%	\$0	\$140,619	\$140,619
(1) * UE110	2,543	15	\$35.00	\$89,011	4.5%	\$47,845	\$136,856	0%	82%	82%	\$0	\$111,615	\$111,615
(1) * UE116	3,466	15	\$35.00	\$121,322	4.5%	\$65,213	\$186,535	0%	82%	82%	\$0	\$152,142	\$152,142
Subtotal:	7,914			\$324,625	4.5%	\$174,493	\$499,118				\$0	\$404,376	\$404,376
5P - Stover Creek Trunk Sewer Phase 2													
(1) ! ST01	206	27	\$167.85	\$34,613	4.5%	\$18,605	\$53,218	0%	19%	19%	\$0	\$10,354	\$10,354
(1) ! ST02	345	27	\$167.85	\$57,931	4.5%	\$31,139	\$89,070	0%	19%	19%	\$0	\$17,329	\$17,329
(1) ! ST03	144	27	\$167.85	\$24,121	4.5%	\$12,966	\$37,087	0%	19%	19%	\$0	\$7,216	\$7,216
(1) ! ST04	513	27	\$167.85	\$86,190	4.5%	\$46,329	\$132,519	0%	19%	19%	\$0	\$25,783	\$25,783
(1) ! ST05	281	27	\$167.85	\$47,234	4.5%	\$25,389	\$72,623	0%	19%	19%	\$0	\$14,129	\$14,129
(1) ! ST06	151	27	\$167.85	\$25,376	4.5%	\$13,640	\$39,016	0%	19%	19%	\$0	\$7,591	\$7,591
(1) ! ST07	218	27	\$167.85	\$36,577	4.5%	\$19,661	\$56,238	0%	19%	19%	\$0	\$10,457	\$10,457
(1) ! ST08	332	27	\$167.85	\$55,808	4.5%	\$29,998	\$85,806	0%	19%	19%	\$0	\$15,956	\$15,956
(1) ! ST09	277	27	\$167.85	\$46,416	4.5%	\$24,950	\$71,366	0%	19%	19%	\$0	\$13,271	\$13,271
(1) ! ST10	489	27	\$167.85	\$82,075	4.5%	\$44,117	\$126,192	0%	19%	19%	\$0	\$23,465	\$23,465
(1) ! ST11	150	27	\$167.85	\$25,153	4.5%	\$13,520	\$38,673	0%	19%	19%	\$0	\$7,191	\$7,191
(1) ! ST12	56	27	\$167.85	\$9,369	4.5%	\$5,036	\$14,405	0%	19%	19%	\$0	\$2,679	\$2,679
(1) ! ST13	432	27	\$167.85	\$72,454	4.5%	\$38,946	\$111,400	0%	19%	19%	\$0	\$20,715	\$20,715
(1) ! ST14	319	27	\$167.85	\$53,593	4.5%	\$28,807	\$82,400	0%	19%	19%	\$0	\$15,322	\$15,322
(1) ! ST15	181	27	\$167.85	\$30,374	4.5%	\$16,327	\$46,701	0%	19%	19%	\$0	\$8,684	\$8,684
(1) ! ST16	118	27	\$167.85	\$19,791	4.5%	\$10,638	\$30,429	0%	19%	19%	\$0	\$5,658	\$5,658

TABLE 20
Proposed Wastewater Collection Lines

(1) - City Participate in Cost Oversize

(2) - City Initiated and Funded

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* Average Unit costs are based in 2019 dollars unless otherwise indicated and include 20% for engineering and easements.

B - Bore Across State Highway or Interstate

Pipe Number	Length (Ft.)	Diameter (Inches)	*Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Yr. Project Cost (\$)	(%) Utilized Capacity			(\$) Utilized Capacity		
								2019	2029	During Fee Period	2019	2029	During Fee Period
(1) ! ST17	244	27	\$167.85	\$40,877	4.5%	\$21,972	\$62,849	0%	19%	19%	\$0	\$11,686	\$11,686
(1) ! ST18	284	27	\$167.85	\$47,719	4.5%	\$25,650	\$73,369	0%	19%	19%	\$0	\$13,642	\$13,642
(1) ! ST19	229	27	\$167.85	\$38,496	4.5%	\$20,692	\$59,188	0%	19%	19%	\$0	\$11,006	\$11,006
(1) ! ST20	549	27	\$167.85	\$92,222	4.5%	\$49,571	\$141,793	0%	19%	19%	\$0	\$26,365	\$26,365
(1) ! ST21	266	27	\$167.85	\$44,689	4.5%	\$24,021	\$68,710	0%	19%	19%	\$0	\$12,776	\$12,776
(1) ! ST22	212	27	\$167.85	\$35,543	4.5%	\$19,105	\$54,648	0%	19%	19%	\$0	\$10,161	\$10,161
(1) ! ST23	140	27	\$167.85	\$23,467	4.5%	\$12,614	\$36,081	0%	19%	19%	\$0	\$6,709	\$6,709
(1) ! ST24	162	27	\$167.85	\$27,236	4.5%	\$14,640	\$41,876	0%	19%	19%	\$0	\$7,786	\$7,786
(1) ! ST25	623	27	\$167.85	\$104,602	4.5%	\$56,226	\$160,828	0%	19%	19%	\$0	\$29,904	\$29,904
(1) ! ST26	320	27	\$167.85	\$53,670	4.5%	\$28,849	\$82,519	0%	19%	19%	\$0	\$15,344	\$15,344
(1) ! ST27	145	27	\$167.85	\$24,405	4.5%	\$13,118	\$37,523	0%	19%	19%	\$0	\$6,977	\$6,977
Subtotal:	7,388			\$1,240,000	4.5%	\$666,526	\$1,906,527				\$0	\$358,156	\$358,156
6P - Old Mill Road Sewer (WW1858)													
(2) ! LW108	4,455	8	\$448.92	\$2,000,000	4.5%	\$1,075,046	\$3,075,046	0%	107%	107%	\$0	\$3,279,228	\$3,279,228
Subtotal:	4,455			\$2,000,000	4.5%	\$1,075,046	\$3,075,046				\$0	\$3,279,228	\$3,279,228
7P - Franklin Branch Trunk Sewer													
(1) * FB100	883	21	\$85.00	\$75,014	4.5%	\$40,322	\$115,336	0%	65%	65%	\$0	\$74,478	\$74,478
(1) * FB102	5,010	21	\$85.00	\$425,832	4.5%	\$228,894	\$654,726	0%	65%	65%	\$0	\$427,417	\$427,417
(1) * FB104	5,603	15	\$35.00	\$196,103	4.5%	\$105,410	\$301,513	0%	64%	64%	\$0	\$191,882	\$191,882
Subtotal:	11,495			\$696,949	4.5%	\$374,626	\$1,071,575				\$0	\$693,777	\$693,777
8P - Stonebridge Lift Station No. 1 Bypass Sewer													
(2) ! 19000A	4,329	24	\$923.98	\$4,000,000	4.5%	\$2,150,092	\$6,150,092	0%	89%	89%	\$0	\$5,483,703	\$5,483,703
Subtotal:	4,329			\$4,000,000	4.5%	\$2,150,092	\$6,150,092				\$0	\$5,483,703	\$5,483,703
9P - Upper Wilson Creek Sewer													
(1) * UW108	6,425	15	\$35.00	\$224,864	4.5%	\$120,870	\$345,734	0%	60%	60%	\$0	\$208,494	\$208,494
Subtotal:	6,425			\$224,864	4.5%	\$120,870	\$345,734				\$0	\$208,494	\$208,494
10P - Honey Creek Extension Trunk Sewer Phase 2													

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B - Bore Across State Highway or Interstate

Pipe Number	Length (Ft.)	Diameter (Inches)	*Avg. Unit Cost (\$/Ft.)	Total Capital Cost (\$)	Debt Service Interest Rate %	20 Year Debt Service Utilizing Simple Interest	Total 20 Yr. Project Cost (\$)	(%) Utilized Capacity			(\$) Utilized Capacity		
								2019	2029	During Fee Period	2019	2029	During Fee Period
(1) * HC126	2,141	36	\$280.00	\$599,342	4.5%	\$322,160	\$921,502	0%	9%	9%	\$0	\$82,298	\$82,298
(1) * HC127	2,251	36	\$280.00	\$630,394	4.5%	\$338,851	\$969,245	0%	2%	2%	\$0	\$15,000	\$15,000
(1) * HC172	2,918	15	\$35.00	\$102,136	4.5%	\$54,900	\$157,036	0%	71%	71%	\$0	\$112,048	\$112,048
Subtotal:	7,310			\$1,331,872	4.5%	\$715,911	\$2,047,783				\$0	\$209,346	\$209,346
11P - Clemons Creek Trunk Sewer													
(1) * CC100	3,283	27	\$150.00	\$492,469	4.5%	\$264,713	\$757,182	0%	19%	19%	\$0	\$140,413	\$140,413
(1) * CC102	2,106	24	\$120.00	\$252,706	4.5%	\$135,835	\$388,541	0%	6%	6%	\$0	\$23,055	\$23,055
(1) * CC103	1,196	24	\$120.00	\$143,504	4.5%	\$77,137	\$220,641	0%	4%	4%	\$0	\$9,775	\$9,775
(1) * CC104	2,458	24	\$120.00	\$294,983	4.5%	\$158,560	\$453,543	0%	2%	2%	\$0	\$10,969	\$10,969
Subtotal:	9,043			\$1,183,662	4.5%	\$636,245	\$1,819,907				\$0	\$184,212	\$184,212
12P - Big Branch Trunk Sewer													
(1) * LE10	2,227	30	\$210.00	\$467,621	4.5%	\$251,357	\$718,978	0%	3%	3%	\$0	\$21,117	\$21,117
(1) * BB100	2,032	30	\$210.00	\$426,824	4.5%	\$229,428	\$656,252	0%	2%	2%	\$0	\$13,730	\$13,730
Subtotal:	4,259			\$894,445	4.5%	\$480,785	\$1,375,230				\$0	\$34,847	\$34,847
13P - Honey Creek Branch Sewer													
(1) * HC157 B	1,386	18	\$129.24	\$179,186	4.5%	\$96,317	\$275,503	0%	50%	50%	\$0	\$137,210	\$137,210
(1) * HC158	1,710	15	\$35.00	\$59,864	4.5%	\$32,178	\$92,042	0%	53%	53%	\$0	\$48,645	\$48,645
(1) * HC160	2,994	15	\$35.00	\$104,775	4.5%	\$56,319	\$161,094	0%	50%	50%	\$0	\$80,454	\$80,454
Subtotal:	6,090			\$343,825	4.5%	\$184,814	\$528,639				\$0	\$266,309	\$266,309
TOTAL PROPOSED COLLECTION LINES:													
	88,728			\$24,566,671		\$13,205,144	\$37,771,816				\$0	\$17,806,099	\$17,806,099

F. CREDIT CALCULATION FOR UTILITY SERVICE REVENUES

The City elected to pursue determination of a credit for the portion of utility revenues generated by new service units during the analysis period that are used for payment of improvements of the Water and Wastewater Impact Fee CIP. Chapter 395 of the Local Government Code requires the municipality to either award a 50-percent credit of the total projected cost of implementing the CIP or to award a calculated credit that is determined through financial analysis based on the utility service revenues generated by the projected new service units during the analysis period that is used for payment of CIP improvements, including payment of debt.

For the credit analysis, recoverable impact fee costs were provided to the City's financial consultant for this study; NewGen Strategies & Solutions, LLC. NewGen performed monetary amortization calculations that were based on numerous factors including the City's interest earnings on the existing impact fee fund balance and assumptions of the portion of the future project costs that will be financed. The existing financial standings and assumptions were coordinated with the City.

NewGen Strategies & Solutions, LLC provided the following discussion on their credit calculation. Details of the credit calculation are provided as **Appendix E**.

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 utility revenues. 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 Service Growth
- Portion of Utility Revenue Used to Fund Impact Fee Water and Wastewater 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 Impact Fee 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 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 70% of the future project costs, and the remaining 30% with sources other than debt. 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 service unit growth over the 10-year program period is indeterminate at the present time. As such, it is assumed that service unit 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 service units during the program period that are used for payment of improvements that are included in the Water and Wastewater Impact Fee CIP. As an alternative, a credit equal to 50% of the total cost of implementing the Water and Wastewater Impact Fee CIP may be used. The City has elected to pursue the determination of a credit for the portion of utility revenues generated by new service units during the program period that are used for payment of improvements that are included in the Water and Wastewater Impact Fee CIP. It should be noted that the credit is not a determination to recognize the total utility revenue generated by new service units, but is only a credit for the portion of utility revenue that is used for payment of improvements that are included in the Water and Wastewater Impact Fee CIP. Theoretically, the credit determination could be zero (\$0) if the City does not utilize any of the new service unit utility revenue to fund improvements that are included in the Water and Wastewater 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 Water and Wastewater Impact Fee CIP but not otherwise funded) could potentially be funded by utility revenue. Lastly, the City's participation in related NTMWD's projects included in the Wastewater Impact Fee CIP is anticipated to be funded in the wastewater utility rates. This amount was divided evenly over 30 years to match NTWMD's assumed debt terms, and included in the revenue credit calculation for wastewater.

G. MAXIMUM IMPACT FEES - WATER & WASTEWATER

The maximum assessable impact fees for the water and wastewater systems were calculated separately and include credit for utility service revenues. The maximum assessable impact fees were calculated by dividing the recoverable costs and financing by the new service unit equivalents in the analysis period. Recoverable costs include the existing and proposed capital improvements or facility expansions necessitated and attributable to new development in the Service Area within the ten (10) year period.

The City employed the utility service revenue credit analysis, prescribed by the Local Government Code, Chapter 395, to calculate the Maximum Assessable Impact Fees, based on the project costs, utilized capacities and utility service revenues, including interest earnings. Details of the utility service revenue credit analysis, by NewGen Strategies & Solutions, LLC, are provided in **Appendix E**.

The calculated maximum impact fees for the base service unit equivalent, a three-quarter inch (¾”) water meter, having a land use equivalency (LUE) factor of 1.00, are as follows:

- **Maximum Assessable Water System Impact Fee:** **\$1,754/ LUE**
- **Maximum Assessable Wastewater System Impact Fee:** **\$2,899/ LUE**

Table No. 21 summarizes the maximum assessable impact fees that can be charged based on the credit analysis. The NTMWD Wastewater CIP component of the maximum assessable wastewater impact fee is presented separately in Table 21. To simplify collection, we recommend the fee remain fixed throughout the 5-year period, unless changed by Council.

TABLE NO. 21

Maximum Assessable Water & Wastewater Impact Fee by Water Meter Size

Max. Assessable Water Impact fee /LUE **\$1,754.00**
 Max. Assessable Wastewater Impact fee /LUE **\$2,899.00**

Meter Type	Meter Size	Living Unit Equivalent	Max. Assessable Impact Fee				Total
			Water	Wastewater			
				McKinney	NTMWD	Total	
Multijet	¾”	1.00	\$ 1,754.00	\$ 388.00	\$ 2,511.00	\$ 2,899.00	\$ 4,653.00
Multijet	1"	1.67	\$ 2,929.18	\$ 647.96	\$ 4,193.37	\$ 4,841.33	\$ 7,770.51
Multijet	1½”	3.33	\$ 5,840.82	\$ 1,292.04	\$ 8,361.63	\$ 9,653.67	\$ 15,494.49
Ultrasonic	2”	8.33	\$ 14,610.82	\$ 3,232.04	\$ 20,916.63	\$ 24,148.67	\$ 38,759.49
Ultrasonic	3”	16.67	\$ 29,239.18	\$ 6,467.96	\$ 41,858.37	\$ 48,326.33	\$ 77,565.51
Ultrasonic	4”	33.33	\$ 58,460.82	\$ 12,932.04	\$ 83,691.63	\$ 96,623.67	\$ 155,084.49
Ultrasonic	6”	53.33	\$ 93,540.82	\$ 20,692.04	\$ 133,911.63	\$ 154,603.67	\$ 248,144.49
Ultrasonic	8”	93.33	\$ 163,700.82	\$ 36,212.04	\$ 234,351.63	\$ 270,563.67	\$ 434,264.49
Ultrasonic	12"	183.33	\$ 321,560.82	\$ 71,132.04	\$ 460,341.63	\$ 531,473.67	\$ 853,034.49

Appendix – E

Water and Wastewater Systems

Impact Fee Credit Calculation for Utility Service Revenues

City of McKinney - 2019 Water Impact Fee Study
Capital Improvement Plan for Impact Fees
Impact Fee Summary Table
Water Service Area

0	Existing Fund Balance	\$ 4,545,014
1	Existing Number of Service Units	97,759
2	Total Number of Services Units for Planning Period	132,791
3	Additional Service Units Added During Planning Period (Line 2 - Line 1)	35,032
4	Total Cost of the Water Impact Fee CIP	\$ 207,079,119
5	Recoverable Cost for Impact Fee Planning Period	\$ 65,876,352
6	Percent Recoverable for Water Impact Fee Planning Period (Line 5 / Line 4)	31.81%
7	Financing Costs (From Financial Analysis)	\$ 21,554,433
8	Interest Earnings (From Financial Analysis)	\$ (6,222,687)
9	Recoverable Cost of Water Impact Fee and Financing Costs Less Balance (Line 5 + Line 7 + Line 8 - Line 0)	\$ 76,663,084
10	Pre-Credit Maximum Fee (Line 9 / Line 3)	\$ 2,188
11	Credit for Utility Revenues (From Financial Analysis)	\$ (15,216,343)
12	Recoverable Cost of Water Impact Fee and Financing (Line 9 + Line 11)	\$ 61,446,741
13	Maximum Assessable Fee (Line 12 / Line 3)	\$ 1,754

SUMMARY OF WATER IMPACT FEE DETERMINATION

Water Service Area

Recoverable Impact Fee CIP Costs	\$ 65,876,352	BHC Impact Fee Report
Financing Cost	21,554,433	See Detail Below
Existing Fund Balance	(4,545,014)	Water Appendices - page 1
Interest Earnings	(6,222,687)	Water Appendices - page 3
Pre Credit Recoverable Cost for Impact Fee	\$ 76,663,084	Sum of Above
Credit for Utility Revenues	(15,216,343)	Water Appendices - page 6
Maximum Recoverable Cost for Impact Fee	\$ 61,446,741	

Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through impact fees. Reference is the Birkhoff, Hendricks Carter, LLP (BHC) Impact Fee Report.

Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs. Interest costs are derived from existing debt issues and forecasted debt issues.

New Annual Debt Service	\$ 20,071,440	Water Appendices - page 2
Existing Annual Debt Service	50,277,619	Water Appendices - page 2
Principal Component (New and Existing Debt)	(48,794,626)	Water Appendices - page 1
Financing Costs	<u>\$ 21,554,433</u>	

Existing Fund Balance:

Represents impact fee revenue collected but not yet expended. Some projects from the 2013 Impact Fee Study have been included in the 2019 Impact Fee Study. Reference is page 1 of Water Appendices.

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 Accumulated Interest on page 3 of Water Appendices.

Pre Credit Recoverable Cost for Impact Fee:

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Existing Fund Balance and Interest Earnings.

Credit for Utility Revenues:

In 2001, the Local Government Code Chapter 395 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 utility revenues used to fund impact fee eligible projects. Reference is page 6 of Water Appendices.

Maximum Recoverable Cost for Impact Fee:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Utility Revenues. This is the maximum cost that can be recovered through impact fees.

City of McKinney - 2019 Water Impact Fee Study

Capital Improvement Plan for Impact Fees

Impact Fee Calculation Assumptions

Water Service Area

I. General Assumptions

Annual Interest Rate on Deposits ⁽¹⁾	2.00%
Annual Service Unit Growth ⁽²⁾	3,503
Existing Fund Balance ⁽³⁾	4,545,014
Portion of Projects Funded by Existing Debt ⁽⁴⁾	\$ 35,155,755
Non-debt Funded Project Cost ⁽⁵⁾	17,081,727
New Project Cost Funded Through New Debt ⁽⁶⁾	13,638,871
Total Recoverable Project Cost ⁽⁷⁾	\$ 65,876,353

II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal⁽⁸⁾</u>	<u>Interest⁽⁹⁾</u>	<u>Term</u>
1	\$ 1,363,887	4.00%	20
2	1,363,887	4.00%	20
3	1,363,887	4.00%	20
4	1,363,887	4.00%	20
5	1,363,887	4.00%	20
6	1,363,887	4.00%	20
7	1,363,887	4.00%	20
8	1,363,887	4.00%	20
9	1,363,887	4.00%	20
10	1,363,887	4.00%	20
Total	\$ 13,638,871		

III. Capital Expenditure Assumptions

<u>Year</u>	<u>Annual Capital Expenditures⁽¹⁰⁾</u>
1	\$ 1,708,173
2	2,162,802
3	2,617,431
4	3,072,060
5	3,072,060
6	3,072,060
7	3,072,060
8	3,072,060
9	3,072,060
10	3,072,060
11	1,363,887
12	909,258
13	454,629
Total	30,720,598

- (1) Per discussions with City Staff and City files
- (2) Derived from Table 3 Water Living Unit Equivalents 2019-2029 from BHC Impact Fee Report
- (3) Per discussions with City Staff and City files
- (4) Per discussions with City Staff and City files
- (5) This assumes 30% of new project costs funded through sources other than debt, unless specified otherwise
- (6) This assumes 70% of new project costs funded through new debt issues, unless specified otherwise
- (7) Birkhoff, Hendricks Carter, LLP (BHC) Impact Fee Report
- (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

City of McKinney - 2019 Water Impact Fee Study
Capital Improvement Plan for Impact Fees
Debt Service and Expense Summary
Water Service Area

I. New Debt Service Detail

<u>Year</u>	<u>Series 1</u>	<u>Series 2</u>	<u>Series 3</u>	<u>Series 4</u>	<u>Series 5</u>	<u>Series 6</u>	<u>Series 7</u>	<u>Series 8</u>	<u>Series 9</u>	<u>Series 10</u>	<u>Total Annual New Debt Service</u>
1	\$ 100,357	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100,357
2	100,357	100,357	-	-	-	-	-	-	-	-	200,714
3	100,357	100,357	100,357	-	-	-	-	-	-	-	301,072
4	100,357	100,357	100,357	100,357	-	-	-	-	-	-	401,429
5	100,357	100,357	100,357	100,357	100,357	-	-	-	-	-	501,786
6	100,357	100,357	100,357	100,357	100,357	100,357	-	-	-	-	602,143
7	100,357	100,357	100,357	100,357	100,357	100,357	100,357	-	-	-	702,500
8	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	-	-	802,858
9	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	-	903,215
10	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	1,003,572
11	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	1,003,572
12	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	1,003,572
13	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	1,003,572
14	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	1,003,572
15	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	1,003,572
16	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	1,003,572
17	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	1,003,572
18	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	1,003,572
19	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	1,003,572
20	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	1,003,572
21	-	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	903,215
22	-	-	100,357	100,357	100,357	100,357	100,357	100,357	100,357	100,357	802,858
23	-	-	-	100,357	100,357	100,357	100,357	100,357	100,357	100,357	702,500
24	-	-	-	-	100,357	100,357	100,357	100,357	100,357	100,357	602,143
25	-	-	-	-	-	100,357	100,357	100,357	100,357	100,357	501,786
26	-	-	-	-	-	-	100,357	100,357	100,357	100,357	401,429
27	-	-	-	-	-	-	-	100,357	100,357	100,357	301,072
28	-	-	-	-	-	-	-	-	100,357	100,357	200,714
29	-	-	-	-	-	-	-	-	-	100,357	100,357
	\$ 2,007,144	\$ 2,007,144	\$ 2,007,144	\$ 2,007,144	\$ 2,007,144	\$ 2,007,144	\$ 2,007,144	\$ 2,007,144	\$ 2,007,144	\$ 2,007,144	\$ 20,071,440

II. Summary of Annual Expenses

<u>Year</u>	<u>New Annual Debt Service⁽¹⁾</u>	<u>Annual Capital Expenditures⁽²⁾</u>	<u>Annual Bond Proceeds⁽²⁾</u>	<u>Existing Annual Debt Service⁽³⁾</u>	<u>Annual Credit⁽⁴⁾</u>	<u>Total Expense</u>
1	\$ 100,357	\$ 1,708,173	\$ (1,363,887)	\$ 2,832,583	\$ (101,466)	\$ 3,175,759
2	200,714	2,162,802	(1,363,887)	2,825,676	(202,396)	3,622,909
3	301,072	2,617,431	(1,363,887)	2,819,096	(302,874)	4,070,837
4	401,429	3,072,060	(1,363,887)	2,813,564	(403,063)	4,520,102
5	501,786	3,072,060	(1,363,887)	2,809,158	(503,097)	4,516,020
6	602,143	3,072,060	(1,363,887)	2,894,026	(618,688)	4,585,654
7	702,500	3,072,060	(1,363,887)	2,803,127	(703,021)	4,510,779
8	802,858	3,072,060	(1,363,887)	2,677,564	(775,460)	4,413,134
9	903,215	3,072,060	(1,363,887)	2,628,939	(861,370)	4,378,957
10	1,003,572	3,072,060	(1,363,887)	2,520,041	(929,575)	4,302,211
11	1,003,572	1,363,887	-	2,405,363	(899,322)	3,873,501
12	1,003,572	909,258	-	2,406,026	(899,496)	3,419,359
13	1,003,572	454,629	-	2,405,679	(899,405)	2,964,475
14	1,003,572	-	-	2,405,620	(899,389)	2,509,802
15	1,003,572	-	-	2,405,812	(899,440)	2,509,944
16	1,003,572	-	-	2,404,993	(899,224)	2,509,341
17	1,003,572	-	-	2,387,047	(894,490)	2,496,129
18	1,003,572	-	-	2,237,139	(854,942)	2,385,769
19	1,003,572	-	-	1,867,309	(757,376)	2,113,505
20	1,003,572	-	-	1,728,858	(720,851)	2,011,579
21	903,215	-	-	-	(238,280)	664,935
22	802,858	-	-	-	(211,804)	591,053
23	702,500	-	-	-	(185,329)	517,172
24	602,143	-	-	-	(158,853)	443,290
25	501,786	-	-	-	(132,378)	369,408
26	401,429	-	-	-	(105,902)	295,527
27	301,072	-	-	-	(79,427)	221,645
28	200,714	-	-	-	(52,951)	147,763
29	100,357	-	-	-	(26,476)	73,882
	\$ 20,071,440	\$ 30,720,598	\$ (13,638,871)	\$ 50,277,619	\$ (15,216,343)	\$ 72,214,443

(1) Water Appendices - page 2 Section I

(2) Water Appendices - page 1

(3) Eligible debt funded projects as a percent of total principal times original annual debt service

(4) Water Appendices - page 6

City of McKinney - 2019 Water Impact Fee Study
Capital Improvement Plan for Impact Fees
Revenue Test
Water Service Area

<u>Year</u>	<u>Impact Fee</u>	<u>Service Units</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
Initial							\$ 4,545,014
1	\$ 1,754	3,503	\$ 6,144,674	\$ 3,175,759	\$ 2,968,915	\$ 120,589	7,634,518
2	1,754	3,503	6,144,674	3,622,909	2,521,765	177,908	10,334,191
3	1,754	3,503	6,144,674	4,070,837	2,073,837	227,422	12,635,451
4	1,754	3,503	6,144,674	4,520,102	1,624,572	268,955	14,528,977
5	1,754	3,503	6,144,674	4,516,020	1,628,654	306,866	16,464,497
6	1,754	3,503	6,144,674	4,585,654	1,559,020	344,880	18,368,397
7	1,754	3,503	6,144,674	4,510,779	1,633,895	383,707	20,385,999
8	1,754	3,503	6,144,674	4,413,134	1,731,540	425,035	22,542,574
9	1,754	3,503	6,144,674	4,378,957	1,765,717	468,509	24,776,800
10	1,754	3,503	6,144,674	4,302,211	1,842,463	513,961	27,133,224
11	-	-	-	3,873,501	(3,873,501)	503,929	23,763,653
12	-	-	-	3,419,359	(3,419,359)	441,079	20,785,373
13	-	-	-	2,964,475	(2,964,475)	386,063	18,206,961
14	-	-	-	2,509,802	(2,509,802)	339,041	16,036,200
15	-	-	-	2,509,944	(2,509,944)	295,625	13,821,880
16	-	-	-	2,509,341	(2,509,341)	251,344	11,563,884
17	-	-	-	2,496,129	(2,496,129)	206,316	9,274,071
18	-	-	-	2,385,769	(2,385,769)	161,624	7,049,926
19	-	-	-	2,113,505	(2,113,505)	119,863	5,056,284
20	-	-	-	2,011,579	(2,011,579)	81,010	3,125,715
21	-	-	-	664,935	(664,935)	55,865	2,516,645
22	-	-	-	591,053	(591,053)	44,422	1,970,014
23	-	-	-	517,172	(517,172)	34,229	1,487,071
24	-	-	-	443,290	(443,290)	25,309	1,069,089
25	-	-	-	369,408	(369,408)	17,688	717,369
26	-	-	-	295,527	(295,527)	11,392	433,234
27	-	-	-	221,645	(221,645)	6,448	218,038
28	-	-	-	147,763	(147,763)	2,883	73,157
29	-	-	-	73,882	(73,882)	724	-
			\$ 61,446,742	\$ 72,214,443		\$ 6,222,687	

City of McKinney - 2019 Water Impact Fee Study
Capital Improvement Plan for Impact Fees
Impact Fee Calculation
Water Service Area

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Future Value Escalation</u>		<u>Annual Service Units</u>		<u>Annual Expense</u>	
		<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
1	29	1.7584	1.0000	3,503	6,160	\$ 3,175,759	\$ 5,584,365
2	28	1.7240	1.0000	3,503	6,039	3,622,909	6,245,733
3	27	1.6902	1.0000	3,503	5,921	4,070,837	6,880,335
4	26	1.6570	1.0000	3,503	5,805	4,520,102	7,489,864
5	25	1.6245	1.0000	3,503	5,691	4,516,020	7,336,372
6	24	1.5927	1.0000	3,503	5,579	4,585,654	7,303,425
7	23	1.5614	1.0000	3,503	5,470	4,510,779	7,043,309
8	22	1.5308	1.0000	3,503	5,363	4,413,134	6,755,728
9	21	1.5008	1.0000	3,503	5,258	4,378,957	6,571,969
10	20	1.4714	1.0000	3,503	5,155	4,302,211	6,330,184
11	19	1.4425	1.0000	-	-	3,873,501	5,587,636
12	18	1.4142	1.0000	-	-	3,419,359	4,835,808
13	17	1.3865	1.0000	-	-	2,964,475	4,110,285
14	16	1.3593	1.0000	-	-	2,509,802	3,411,642
15	15	1.3327	1.0000	-	-	2,509,944	3,344,936
16	14	1.3065	1.0000	-	-	2,509,341	3,278,561
17	13	1.2809	1.0000	-	-	2,496,129	3,197,353
18	12	1.2558	1.0000	-	-	2,385,769	2,996,068
19	11	1.2312	1.0000	-	-	2,113,505	2,602,114
20	10	1.2070	1.0000	-	-	2,011,579	2,428,064
21	9	1.1834	1.0000	-	-	664,935	786,868
22	8	1.1602	1.0000	-	-	591,053	685,724
23	7	1.1374	1.0000	-	-	517,172	588,243
24	6	1.1151	1.0000	-	-	443,290	494,322
25	5	1.0933	1.0000	-	-	369,408	403,858
26	4	1.0718	1.0000	-	-	295,527	316,751
27	3	1.0508	1.0000	-	-	221,645	232,905
28	2	1.0302	1.0000	-	-	147,763	152,226
29	1	1.0100	1.0000	-	-	73,882	74,620
				<hr/>		56,441	<hr/>
							\$ 107,069,268

Annual Interest Rate: 2.00%

Present Value of Initial Impact Fee Fund Balance \$ 4,545,014

Total Escalated Expense for Entire Period \$ 107,069,268

Less Future Value of Initial Impact Fee Fund Balance 8,071,239

Sub-Total \$ 98,998,029

Total Escalated Service Units

 56,441

Impact Fee for Water Service Area \$ 1,754

City of McKinney - 2019 Water Impact Fee Study
Capital Improvement Plan for Impact Fees
Impact Fee Project Funding
Water Service Area

Impact Fee Project Name ⁽¹⁾	Cost In Service Area ⁽¹⁾	Impact Fee Cost ⁽¹⁾	Debt Funded ⁽²⁾		Non-Debt Funded ⁽²⁾	Impact Fee Cost
	Existing ⁽²⁾	Proposed				
McKinney Ranch Pump Station - Original Construction (920)	\$ 208,670	\$ 25,040	\$ 25,040	\$ -	\$ -	\$ 25,040
McKinney Ranch Pump Station - Phase I Improvements (920)	1,123,172	494,196	494,196	-	-	494,196
McKinney Ranch Pump Station - Phase II Improvements (920)	197,929	87,089	87,089	-	-	87,089
McKinney Ranch Pump Station - 850 Service Area Pumps (850)	4,488,282	-	-	-	-	-
McKinney Ranch Pump Station - Emergency Generator (2 Sets)	2,098,226	1,049,113	1,049,113	-	-	1,049,113
University Pump Station - Phase IA Improvements (920)	2,547,618	1,299,285	-	909,500	389,786	1,299,285
University Pump Station - Phase II Improvements (850)	3,138,358	1,035,658	-	724,961	310,697	1,035,658
University Pump Station - Phase II Improvements (920)	3,138,358	815,973	-	571,181	244,792	815,973
University Pump Station - Emergency Generator - Set 1	2,172,954	1,086,477	586,477	-	500,000	1,086,477
Gerrish Pump Station - Replace Pump 4 + Electrical	809,017	226,525	226,525	-	-	226,525
McKinney Ranch No. 1	3,201,000	1,291,731	1,291,731	-	-	1,291,731
McKinney Ranch No. 2	4,083,980	1,648,049	526,208	-	1,121,841	1,648,049
University No. 1	2,159,043	681,803	681,803	-	-	681,803
University No. 2	6,179,442	1,951,403	1,188,769	-	762,633	1,951,403
University No. 3	7,095,814	2,240,783	647,467	-	1,593,317	2,240,783
U.S. 380	605,000	18,150	18,150	-	-	18,150
Virginia	1,357,731	135,773	135,773	-	-	135,773
Community	3,418,500	3,281,760	3,281,760	-	-	3,281,760
Industrial	1,857,500	297,200	297,200	-	-	297,200
Wilmeth	2,680,137	80,404	80,404	-	-	80,404
Hardin	5,057,066	910,272	910,272	-	-	910,272
Independence	4,379,943	1,489,181	1,169,527	-	319,653	1,489,181
F.M. 720 PUMP STATION 30" WATER LINE	158,340	54,720	54,720	-	-	54,720
VIRGINIA PARKWAY 24" WATER LINE	49,884	2,879	2,879	-	-	2,879
CUSTER 16" WATER LINE	272,440	-	-	-	-	-
F.M. 720 PARALLEL 42" WATER LINE	1,405,692	463,004	463,004	-	-	463,004
INDUSTRIAL 2-MG ELEVATED STORAGE TANK WATER LINE	128,893	42,535	42,535	-	-	42,535
ALMA ROAD 24-INCH WATER LINE	449,797	-	-	-	-	-
ELDORADO 20-INCH WATER LINE	78,702	-	-	-	-	-
GERRISH PUMP STATION / AIRPORT BLVD. 36-INCH WATER LINES	1,453,539	522,278	522,278	-	-	522,278
UNIVERSITY 36-INCH WATER LINE - DISCHARGE LINE 1	606,881	151,720	151,720	-	-	151,720
HARDIN BLVD. 36-INCH WATER LINE - (VIRGINIA TO US 380)	1,292,000	187,344	187,344	-	-	187,344
HARDIN NORTH WATER LINE - (US 380 TO BUCHANAN)	506,736	-	-	-	-	-
850 WILMETH WATER MAIN - PHASE 1	731,955	8,627	8,627	-	-	8,627
850 WILMETH WATER MAIN - PHASE 2	1,973,668	172,969	172,969	-	-	172,969
850 LOOPED SYSTEM NORTH	2,463,730	914,897	914,897	-	-	914,897
STONEBRIDGE 48-INCH WATERMAIN	1,171,630	-	-	-	-	-
36-INCH & 48INCH WATERLINE FROM VIRGINIA TO STONEBRIDGE	1,675,443	-	-	-	-	-
ALMA ROAD 24-INCH WATER LINE (CRAIG RANCH NORTH)	1,672,230	-	-	-	-	-
LAKE FOREST DRIVE 30-INCH WATER LINE (WAL-MART)	203,232	54,873	54,873	-	-	54,873
VILLAGE PARK - PHASE 1 - 20", 30" & 36" WATER LINE	394,306	173,967	173,967	-	-	173,967
COLLIN MCKINNEY 30" & 36" WATER LINE (CRAIG RANCH INFRASTRUCTURE) (VCIM 1)	585,633	150,431	-	-	150,431	150,431
COLLIN MCKINNEY 20" & 24" WATER LINE (CRAIG RANCH INFRASTRUCTURE) (VCIM 1)	367,237	34,796	-	-	34,796	34,796
ALMA ROAD 20-INCH WATER LINE (CRAIG RANCH INFRASTRUCTURE) (VCIM 1)	199,075	64,787	-	-	64,787	64,787
WESTRIDGE WATER LINE	261,844	-	-	-	-	-
INDEPENDENCE 20-INCH WATER LINE	216,672	64,021	64,021	-	-	64,021
STACY ROAD WATER LINE	456,622	173,231	173,231	-	-	173,231
MCKINNEY RANCH 16-INCH WATER LINE	137,496	65,538	65,538	-	-	65,538
COLLIN MCKINNEY 20-INCH WATER LINE - (CRAIG RANCH INFRASTRUCTURE) (VCIM 2)	313,041	208,938	208,938	-	-	208,938
ALMA ROAD 24-INCH WATER LINE - (CRAIG RANCH INFRASTRUCTURE) (VCIM 2)	480,293	86,019	86,020	-	-	86,020
CUSTER ROAD 16-INCH WATER LINE - (CRAIG RANCH INFRASTRUCTURE) (VCIM 2)	825,921	314,157	314,158	-	-	314,158
COLLIN MCKINNEY 20-INCH WATER LINE - ROWLETT CREEK BRIDGE	24,289	1,458	1,458	-	-	1,458
BRISTOL / CUSTER 42-INCH WATER LINE	3,677,460	-	-	-	-	-
CUSTER ROAD UTILITY RELOCATION	478,776	-	-	-	-	-
ELDORADO PKWY. / STONEBRIDGE DRIVE INTERSECTION 20-INCH WATER LINE	218,789	-	-	-	-	-
U.S. 380 36-INCH WATER LINE	6,219,865	805,822	579,813	-	226,009	805,822
UNIVERSITY PUMP STATION DISCHARGE LINE NO. 2	4,031,938	1,749,867	1,315,865	-	434,001	1,749,867
STACY ROAD 24-INCH WATER LINE	509,384	256,898	256,898	-	-	256,898
HARDIN 36-INCH WATER LINE (TIMBER CREEK ACCESS IMPROVEMENTS)	700,990	314,476	314,476	-	-	314,476
LAKE FOREST 20-INCH WATER LINE	568,772	-	-	-	-	-
VALOR POINTE AT WESTRIDGE, PHASE 10 - 16-INCH WATER LINES	34,505	25,079	25,079	-	-	25,079
920 VIRGINIA PKWY. 12-INCH PARALLEL LINE	270,166	8,328	8,328	-	-	8,328
WESTRIDGE 24-INCH WATER LINE	214,953	38,122	38,122	-	-	38,122
LAKE FOREST 36-INCH WATER LINE	1,070,317	159,419	159,419	-	-	159,419
COUCH DRIVE 12" WATER LINE LOOP	326,000	91,280	91,280	-	-	91,280
HARDIN ELEVATED STORAGE TANK WATER LINES	574,071	14,012	14,012	-	-	14,012
University Pump Station - Phase III - Add 920 PS 2 Pump 8	2,482,830	2,309,032	832,564	-	1,476,468	2,309,032
University Pump Station - Phase IV - Add 850 PS2 Pump 3	2,420,000	895,400	-	626,780	268,620	895,400
McKinney Ranch Pump Station - Phase 1 & 2	10,574,487	3,701,070	2,149,000	1,086,449	465,621	3,701,070
Redbud Pump Station - Phase I Improvements (850)	12,600,000	3,276,000	1,636,605	1,147,576	491,818	3,276,000
Redbud Pump Station - Phase I Improvements (794)	12,600,000	3,528,000	1,762,498	1,235,851	529,651	3,528,000
Redbud No. 1	3,828,000	1,607,760	803,195	563,195	241,369	1,607,760
Stacy	5,500,000	4,070,000	-	2,849,000	1,221,000	4,070,000
REDBUD 794 PUMP STATION 54" DISCHARGE LINE	4,496,262	1,169,028	1,169,028	-	-	1,169,028
REDBUD 850 PUMP STATION 42" DISCHARGE LINE	8,137,350	2,384,538	1,718,547	-	665,991	2,384,538
US 380 / INDEPENDENCE LOOP	2,203,102	2,151,287	851,061	-	1,300,226	2,151,287
HARRY MCKILLOP BLVD. 24" WATER LINE	8,350,000	4,785,000	2,956,337	-	1,828,662	4,785,000
CUSTER 24" NORTH WATER LINE	11,888,125	3,183,620	1,883,961	909,761	389,898	3,183,620
HARDIN SOUTH 16" WATER LINE	108,900	91,476	-	64,033	27,443	91,476
INDUSTRIAL BLVD. 12" WATER LINE (PIPE BURST 8" to 12")	569,109	54,449	-	38,115	16,335	54,449
HARDIN 24" & 16" TRINITY FALLS WEST FEED NORTH)	691,392	228,159	-	159,711	68,448	228,159
INDEPENDENCE CONNECTION TO US 380	561,120	561,120	-	-	561,120	561,120
REDBUD PUMP STATION 850 DISCHARGE LINE (T-FALLS EAST FEED)	737,100	221,130	24,570	-	196,560	221,130
STONEBRIDGE 42" WATER LINE	5,342,040	352,001	-	246,400	105,600	352,001
F.M. 1461 (FUTURE E/W THOROUGHFARE)	289,560	203,269	-	142,288	60,981	203,269
COUNTY ROAD 228 16" WATER LINE	125,100	53,793	-	37,655	16,138	53,793
AIRPORT WATER LINE NORTH LOOP	4,821,900	2,473,235	-	1,731,265	741,971	2,473,235
LAKE FOREST 16" WATER LINE	337,138	71,868	-	50,307	21,560	71,868
BLOOMDALE 16" WATER LINE	200,220	32,035	-	22,425	9,611	32,035
FUT. 850 EAST / WEST THOROUGHFARE WATER LINE	2,245,020	739,309	-	517,517	221,793	739,309
Water Master Plan & Impact Fee Update	204,417	204,417	204,417	-	-	204,417
Ad Valorem Tax/Utility Revenue Credit Analysis	7,000	7,000	-	4,900	2,100	7,000
Total	\$ 207,079,119	\$ 65,876,352	\$ 35,155,755	\$ 13,638,871	\$ 17,061,727	\$ 65,876,353

(1) BHC Impact Fee Report. The debt financing costs in the report were removed in order to calculate NewGen's financing costs

(2) Per discussions with City staff and City files

(3) An assumption of 4.5% was used for existing debt funding that did not have a specific bond issuance identified, in accordance with the BHC Impact Fee Report

City of McKinney - 2019 Water Impact Fee Study

Capital Improvement Plan for Impact Fees

Credit Determination

Water Service Area

<u>Year</u>	<u>Eligible Revenue Funded Cost⁽²⁾</u>	<u>Annual Service Units</u>	<u>Eligible Debt Service per Service Unit</u>	<u>Annual Growth in Service Units (Cumulative)</u>	<u>Credit for Annual Water Rate Revenues</u>
1	\$ 2,932,940	101,262	\$ 28.96	3,503	\$ 101,466
2	3,026,391	104,765	28.89	7,006	202,396
3	3,120,167	108,269	28.82	10,510	302,874
4	3,214,993	111,772	28.76	14,013	403,063
5	3,310,944	115,275	28.72	17,516	503,097
6	3,496,170	118,778	29.43	21,019	618,688
7	3,505,628	122,281	28.67	24,522	703,021
8	3,480,422	125,785	27.67	28,026	775,460
9	3,532,154	129,288	27.32	31,529	861,370
10	3,523,613	132,791	26.54	35,032	929,575
11	3,408,935	132,791	25.67	35,032	899,322
12	3,409,598	132,791	25.68	35,032	899,496
13	3,409,251	132,791	25.67	35,032	899,405
14	3,409,192	132,791	25.67	35,032	899,389
15	3,409,384	132,791	25.67	35,032	899,440
16	3,408,565	132,791	25.67	35,032	899,224
17	3,390,619	132,791	25.53	35,032	894,490
18	3,240,711	132,791	24.40	35,032	854,942
19	2,870,881	132,791	21.62	35,032	757,376
20	2,732,430	132,791	20.58	35,032	720,851
21	903,215	132,791	6.80	35,032	238,280
22	802,858	132,791	6.05	35,032	211,804
23	702,500	132,791	5.29	35,032	185,329
24	602,143	132,791	4.53	35,032	158,853
25	501,786	132,791	3.78	35,032	132,378
26	401,429	132,791	3.02	35,032	105,902
27	301,072	132,791	2.27	35,032	79,427
28	200,714	132,791	1.51	35,032	52,951
29	100,357	132,791	0.76	35,032	26,476
Total	\$ 70,349,059				\$ 15,216,343

2019 Service Units⁽¹⁾ 97,759

Ten Year Growth in Service Units⁽¹⁾ 35,032

Annual Growth in Service Units $\frac{35,032}{10}$ years = 3,503

Credit Amount \$ 15,216,343

(1) Derived from Table 3 Water Living Unit Equivalents 2019-2029 from BHC Impact Fee Report

(2) Water Appendices - page 2 Section II

City of McKinney - 2019 Wastewater Impact Fee Study
Capital Improvement Plan for Impact Fees
Impact Fee Summary Table
Wastewater Service Area

0	Existing Fund Balance	\$ 1,368,844
1	Existing Number of Service Units	84,434
2	Total Number of Services Units for Planning Period	114,682
3	Additional Service Units Added During Planning Period (Line 2 - Line 1)	30,248
4	Total Cost of the Wastewater Impact Fee CIP	\$ 158,394,791
5	Recoverable Cost for Impact Fee Planning Period	\$ 130,488,137
6	Percent Recoverable for Wastewater Impact Fee Planning Period (Line 5 / Line 4)	82.38%
7	Financing Costs (From Financial Analysis)	\$ 5,045,156
8	Interest Earnings (From Financial Analysis)	\$ (16,068,573)
9	Recoverable Cost of Wastewater Impact Fee and Financing Costs Less Balance (Line 5 + Line 7 + Line 8 - Line 0)	\$ 118,095,876
10	Pre-Credit Maximum Fee (Line 9 / Line 3)	\$ 3,904
11	Credit for Utility Revenues (From Financial Analysis)	\$ (30,416,281)
12	Recoverable Cost of Wastewater Impact Fee and Financing (Line 9 + Line 11)	\$ 87,679,595
13	Maximum Assessable Fee (Line 12 / Line 3)	\$ 2,899

SUMMARY OF WASTEWATER IMPACT FEE DETERMINATION

Wastewater Service Area

Recoverable Impact Fee CIP Costs	\$ 130,488,137	BHC Impact Fee Report
Financing Cost	5,045,156	See Detail Below
Existing Fund Balance	(1,368,844)	Wastewater Appendices - page 1
Interest Earnings	(16,068,573)	Wastewater Appendices - page 3
Pre Credit Recoverable Cost for Impact Fee	\$ 118,095,876	Sum of Above
Credit for Utility Revenues	(30,416,281)	Wastewater Appendices - page 6
Maximum Recoverable Cost for Impact Fee	\$ 87,679,595	

Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through impact fees. Reference is the Birkhoff, Hendricks Carter, LLP (BHC) Impact Fee Report.

Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs. Interest costs are derived from existing debt issues and forecasted debt issues.

New Annual Debt Service	\$ 5,952,622	Wastewater Appendices - page 2
Existing Annual Debt Service	10,395,042	Wastewater Appendices - page 2
Principal Component (New and Existing Debt)	(11,302,508)	Wastewater Appendices - page 1
Financing Costs	<u>\$ 5,045,156</u>	

Existing Fund Balance:

Represents impact fee revenue collected but not yet expended. Some projects from the 2013 Impact Fee Study have been included in the 2019 Impact Fee Study. Reference is page 1 of Wastewater Appendices.

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 Accumulated Interest on page 3 of Wastewater Appendices.

Pre Credit Recoverable Cost for Impact Fee:

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Existing Fund Balance and Interest Earnings.

Credit for Utility Revenues:

In 2001, the Local Government Code Chapter 395 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 utility revenues used to fund impact fee eligible projects. Reference is page 6 of Wastewater Appendices.

Maximum Recoverable Cost for Impact Fee:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Utility Revenues. This is the maximum cost that can be recovered through Impact fees.

City of McKinney - 2019 Wastewater Impact Fee Study

Capital Improvement Plan for Impact Fees

Impact Fee Calculation Assumptions

Wastewater Service Area

I. General Assumptions

Annual Interest Rate on Deposits ⁽¹⁾	2.00%
Annual Service Unit Growth ⁽²⁾	3,025
Existing Fund Balance ⁽³⁾	1,368,844
Portion of Projects Funded by Existing Debt ⁽⁴⁾	\$ 7,257,604
Non-debt Funded New Project Cost ⁽⁵⁾	119,185,629
New Project Cost Funded Through New Debt ⁽⁶⁾	4,044,904
Total Recoverable Project Cost ⁽⁷⁾	\$ 130,488,137

II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal⁽⁸⁾</u>	<u>Interest⁽⁹⁾</u>	<u>Term</u>
1	\$ 404,490	4.00%	20
2	404,490	4.00%	20
3	404,490	4.00%	20
4	404,490	4.00%	20
5	404,490	4.00%	20
6	404,490	4.00%	20
7	404,490	4.00%	20
8	404,490	4.00%	20
9	404,490	4.00%	20
10	404,490	4.00%	20
Total	\$ 4,044,904		

III. Capital Expenditure Assumptions

<u>Year</u>	<u>Annual Capital Expenditures⁽¹⁰⁾</u>
1	\$ 4,108,392
2	4,243,222
3	4,378,052
4	4,512,883
5	4,512,883
6	4,512,883
7	4,512,883
8	4,512,883
9	4,512,883
10	4,512,883
11	4,309,576
12	4,174,746
13	4,039,916
14-30	66,386,451
Total	\$ 123,230,533

- (1) Per discussions with City Staff and City files
- (2) Derived from Table 4 Wastewater Living Unit Equivalents 2019-2029 from BHC Impact Fee Report
- (3) Per discussions with City Staff and City files
- (4) Per discussions with City Staff and City files
- (5) This assumes 30% of new project costs funded through sources other than debt, unless specified otherwise
- (6) This assumes 70% of new project costs funded through new debt issues, unless specified otherwise
- (7) Birkhoff, Hendricks Carter, LLP (BHC) Impact Fee Report
- (8) Assumes new debt issued in equal annual amounts based on projected time frame
- (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
- Years 14-30 reflect repayment of NTMWD eligible capital over 30 years in monthly wastewater charges

City of McKinney - 2019 Wastewater Impact Fee Study
Capital Improvement Plan for Impact Fees
Debt Service and Expense Summary
Wastewater Service Area

I. New Debt Service Detail

<u>Year</u>	<u>Series 1</u>	<u>Series 2</u>	<u>Series 3</u>	<u>Series 4</u>	<u>Series 5</u>	<u>Series 6</u>	<u>Series 7</u>	<u>Series 8</u>	<u>Series 9</u>	<u>Series 10</u>	<u>Total Annual New Debt Service</u>
1	\$ 29,763	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 29,763
2	29,763	29,763	-	-	-	-	-	-	-	-	59,526
3	29,763	29,763	29,763	-	-	-	-	-	-	-	89,289
4	29,763	29,763	29,763	29,763	-	-	-	-	-	-	119,052
5	29,763	29,763	29,763	29,763	29,763	-	-	-	-	-	148,816
6	29,763	29,763	29,763	29,763	29,763	29,763	-	-	-	-	178,579
7	29,763	29,763	29,763	29,763	29,763	29,763	29,763	-	-	-	208,342
8	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	-	-	238,105
9	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	-	267,868
10	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	297,631
11	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	297,631
12	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	297,631
13	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	297,631
14	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	297,631
15	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	297,631
16	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	297,631
17	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	297,631
18	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	297,631
19	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	297,631
20	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	297,631
21	-	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	267,868
22	-	-	29,763	29,763	29,763	29,763	29,763	29,763	29,763	29,763	238,105
23	-	-	-	29,763	29,763	29,763	29,763	29,763	29,763	29,763	208,342
24	-	-	-	-	29,763	29,763	29,763	29,763	29,763	29,763	178,579
25	-	-	-	-	-	29,763	29,763	29,763	29,763	29,763	148,816
26	-	-	-	-	-	-	29,763	29,763	29,763	29,763	119,052
27	-	-	-	-	-	-	-	29,763	29,763	29,763	89,289
28	-	-	-	-	-	-	-	-	29,763	29,763	59,526
29	-	-	-	-	-	-	-	-	-	29,763	29,763
30	-	-	-	-	-	-	-	-	-	-	-
	\$ 595,262	\$ 595,262	\$ 595,262	\$ 595,262	\$ 595,262	\$ 595,262	\$ 595,262	\$ 595,262	\$ 595,262	\$ 595,262	\$ 5,952,622

II. Summary of Annual Expenses

<u>Year</u>	<u>New Annual Debt Service⁽¹⁾</u>	<u>Annual Capital Expenditures⁽²⁾</u>	<u>Annual Bond Proceeds⁽²⁾</u>	<u>Existing Annual Debt Service⁽³⁾</u>	<u>Annual Credit⁽⁴⁾</u>	<u>Total Expense</u>
1	\$ 29,763	\$ 4,108,392	\$ (404,490)	\$ 540,662	\$ (154,787)	\$ 4,119,539
2	59,526	4,243,222	(404,490)	540,783	(301,224)	4,137,817
3	89,289	4,378,052	(404,490)	540,065	(440,039)	4,162,878
4	119,052	4,512,883	(404,490)	539,723	(572,022)	4,195,146
5	148,816	4,512,883	(404,490)	539,862	(697,845)	4,099,225
6	178,579	4,512,883	(404,490)	541,680	(818,309)	4,010,342
7	208,342	4,512,883	(404,490)	540,398	(933,060)	3,924,072
8	238,105	4,512,883	(404,490)	523,326	(1,039,489)	3,830,333
9	267,868	4,512,883	(404,490)	516,736	(1,143,396)	3,749,600
10	297,631	4,512,883	(404,490)	515,065	(1,244,340)	3,676,748
11	297,631	4,309,576	-	512,697	(1,243,716)	3,876,188
12	297,631	4,174,746	-	513,323	(1,243,881)	3,741,819
13	297,631	4,039,916	-	513,208	(1,243,851)	3,606,904
14	297,631	3,905,085	-	513,086	(1,243,819)	3,471,984
15	297,631	3,905,085	-	513,152	(1,243,836)	3,472,033
16	297,631	3,905,085	-	512,578	(1,243,684)	3,471,610
17	297,631	3,905,085	-	513,073	(1,243,815)	3,471,974
18	297,631	3,905,085	-	492,854	(1,238,482)	3,457,088
19	297,631	3,905,085	-	486,526	(1,236,813)	3,452,429
20	297,631	3,905,085	-	486,246	(1,236,739)	3,452,223
21	267,868	3,905,085	-	-	(1,100,639)	3,072,314
22	238,105	3,905,085	-	-	(1,092,789)	3,050,401
23	208,342	3,905,085	-	-	(1,084,939)	3,028,488
24	178,579	3,905,085	-	-	(1,077,089)	3,006,575
25	148,816	3,905,085	-	-	(1,069,238)	2,984,663
26	119,052	3,905,085	-	-	(1,061,388)	2,962,750
27	89,289	3,905,085	-	-	(1,053,538)	2,940,837
28	59,526	3,905,085	-	-	(1,045,688)	2,918,924
29	29,763	3,905,085	-	-	(1,037,838)	2,897,011
30	-	3,905,085	-	-	(1,029,987)	2,875,098
	\$ 5,952,622	\$ 123,230,533	\$ (4,044,904)	\$ 10,395,042	\$ (30,416,281)	\$ 105,117,012

(1) Wastewater Appendices - page 2 Section I

(2) Wastewater Appendices - page 1

(3) Eligible debt funded projects as a percent of total principal times original annual debt service

(4) Wastewater Appendices - page 6

City of McKinney - 2019 Wastewater Impact Fee Study
Capital Improvement Plan for Impact Fees
Revenue Test
Wastewater Service Area

<u>Year</u>	<u>Impact Fee</u>	<u>Service Units</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
Initial							\$ 1,368,844
1	\$ 2,899	3,025	\$ 8,767,960	\$ 4,119,539	\$ 4,648,421	\$ 73,861	6,091,126
2	2,899	3,025	8,767,960	4,137,817	4,630,143	168,124	10,889,392
3	2,899	3,025	8,767,960	4,162,878	4,605,082	263,839	15,758,313
4	2,899	3,025	8,767,960	4,195,146	4,572,813	360,894	20,692,021
5	2,899	3,025	8,767,960	4,099,225	4,668,735	460,528	25,821,283
6	2,899	3,025	8,767,960	4,010,342	4,757,618	564,002	31,142,903
7	2,899	3,025	8,767,960	3,924,072	4,843,888	671,297	36,658,088
8	2,899	3,025	8,767,960	3,830,333	4,937,626	782,538	42,378,252
9	2,899	3,025	8,767,960	3,749,600	5,018,359	897,749	48,294,360
10	2,899	3,025	8,767,960	3,676,748	5,091,212	1,016,799	54,402,371
11	-	-	-	3,876,188	(3,876,188)	1,049,286	51,575,468
12	-	-	-	3,741,819	(3,741,819)	994,091	48,827,741
13	-	-	-	3,606,904	(3,606,904)	940,486	46,161,323
14	-	-	-	3,471,984	(3,471,984)	888,507	43,577,845
15	-	-	-	3,472,033	(3,472,033)	836,837	40,942,649
16	-	-	-	3,471,610	(3,471,610)	784,137	38,255,176
17	-	-	-	3,471,974	(3,471,974)	730,384	35,513,586
18	-	-	-	3,457,088	(3,457,088)	675,701	32,732,198
19	-	-	-	3,452,429	(3,452,429)	620,120	29,899,889
20	-	-	-	3,452,223	(3,452,223)	563,476	27,011,141
21	-	-	-	3,072,314	(3,072,314)	509,500	24,448,326
22	-	-	-	3,050,401	(3,050,401)	458,463	21,856,387
23	-	-	-	3,028,488	(3,028,488)	406,843	19,234,742
24	-	-	-	3,006,575	(3,006,575)	354,629	16,582,795
25	-	-	-	2,984,663	(2,984,663)	301,809	13,899,942
26	-	-	-	2,962,750	(2,962,750)	248,371	11,185,564
27	-	-	-	2,940,837	(2,940,837)	194,303	8,439,030
28	-	-	-	2,918,924	(2,918,924)	139,591	5,659,698
29	-	-	-	2,897,011	(2,897,011)	84,224	2,846,911
30	-	-	-	2,875,098	(2,875,098)	28,187	-
			\$ 87,679,595	\$ 105,117,012		\$ 16,068,573	

City of McKinney - 2019 Wastewater Impact Fee Study
Capital Improvement Plan for Impact Fees
Impact Fee Calculation
Wastewater Service Area

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Future Value Escalation</u>		<u>Annual Service Units</u>		<u>Annual Expense</u>	
		<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
1	30	1.7936	1.0000	3,025	5,425	\$ 4,119,539	\$ 7,388,818
2	29	1.7584	1.0000	3,025	5,319	4,137,817	7,276,080
3	28	1.7240	1.0000	3,025	5,215	4,162,878	7,176,615
4	27	1.6902	1.0000	3,025	5,112	4,195,146	7,090,436
5	26	1.6570	1.0000	3,025	5,012	4,099,225	6,792,465
6	25	1.6245	1.0000	3,025	4,914	4,010,342	6,514,887
7	24	1.5927	1.0000	3,025	4,818	3,924,072	6,249,744
8	23	1.5614	1.0000	3,025	4,723	3,830,333	5,980,834
9	22	1.5308	1.0000	3,025	4,630	3,749,600	5,739,975
10	21	1.5008	1.0000	3,025	4,540	3,676,748	5,518,088
11	20	1.4714	1.0000	-	-	3,876,188	5,703,343
12	19	1.4425	1.0000	-	-	3,741,819	5,397,681
13	18	1.4142	1.0000	-	-	3,606,904	5,101,041
14	17	1.3865	1.0000	-	-	3,471,984	4,813,953
15	16	1.3593	1.0000	-	-	3,472,033	4,719,628
16	15	1.3327	1.0000	-	-	3,471,610	4,626,523
17	14	1.3065	1.0000	-	-	3,471,974	4,536,283
18	13	1.2809	1.0000	-	-	3,457,088	4,428,268
19	12	1.2558	1.0000	-	-	3,452,429	4,335,589
20	11	1.2312	1.0000	-	-	3,452,223	4,250,323
21	10	1.2070	1.0000	-	-	3,072,314	3,708,417
22	9	1.1834	1.0000	-	-	3,050,401	3,609,772
23	8	1.1602	1.0000	-	-	3,028,488	3,513,569
24	7	1.1374	1.0000	-	-	3,006,575	3,419,751
25	6	1.1151	1.0000	-	-	2,984,663	3,328,262
26	5	1.0933	1.0000	-	-	2,962,750	3,239,045
27	4	1.0718	1.0000	-	-	2,940,837	3,152,048
28	3	1.0508	1.0000	-	-	2,918,924	3,067,217
29	2	1.0302	1.0000	-	-	2,897,011	2,984,501
30	1	1.0100	1.0000	-	-	2,875,098	2,903,849
				<hr/>		49,708	\$ 146,567,002

Annual Interest Rate:	2.00%
Present Value of Initial Impact Fee Fund Balance	\$ 1,368,844
Total Escalated Expense for Entire Period	\$ 146,567,002
Less Future Value of Initial Impact Fee Fund Balance	2,479,471
Sub-Total	<hr/> \$ 144,087,531
Total Escalated Service Units	<hr/> 49,708
Impact Fee for Wastewater Service Area	\$ 2,899

City of McKinney - 2019 Wastewater Impact Fee Study
Capital Improvement Plan for Impact Fees
Impact Fee Project Funding
Wastewater Service Area

Impact Fee Project Name ⁽¹⁾	Cost In		Impact Fee		Debt Funded ⁽²⁾		Non-Debt	Impact Fee				
	Service Area	(1)	Recoverable Cost ⁽¹⁾	Existing ⁽³⁾	Proposed	Funded ⁽²⁾	Funded ⁽²⁾	Recoverable Cost				
Sloan Lift Station & Force Main (WW1623)	\$	1,861,492	\$	89,670	\$	89,670	\$	-	\$	89,670		
Stonebridge 27" Offsite Sewer Along Wilson Creek (1987) Line A1		446,699		-		-		-		-		
Stonebridge 18" & 21" Offsite Sewer (1987) Line A1-1		393,197		5,002		5,002		-		5,002		
Stonebridge 30" Offsite Sewer (1987) Line B1		304,799		-		-		-		-		
Bray Central 2 - Off Site Sewer		52,700		1,523		1,523		-		1,523		
36" Wilson Creek Interceptor Phase 2		456,001		216		216		-		216		
15" Mckinney Northwest Outfall Sewer (1982)		148,502		11,208		11,208		-		11,208		
Jeans Creek Interceptor Line		185,600		2,873		2,873		-		2,873		
36"-48" Wilson Creek Interceptor Sewer Phase 1		2,155,800		-		-		-		-		
18" Diversion Sewer Line: West, Davis, Louisiana & Woodleigh St.		220,299		94		94		-		94		
12" Provine Farm Estates		244,898		260		260		-		260		
18" Cottonwood Creek Sanitary Sewer		320,999		7,396		7,396		-		7,396		
24" Mckinney Northwest Outfall Sewer Along Wilson Creek (1982)		1,113,172		10,932		10,932		-		10,932		
15" Spur 399 Sanitary Sewer Line		279,648		65,791		65,791		-		65,791		
12" Herndon Branch Trunk Sewer		504,599		16,497		16,497		-		16,497		
18" Jeans Creek Relief Sewer		89,500		1,701		1,701		-		1,701		
Eagles Nest Sewer Service		26,577		71		-		71		71		
Westridge Blvd. Sewer		14,602		170		-		170		170		
15" Craig Ranch North 6		823,679		198		-		198		198		
15"- 24" Craig Ranch West 1 (VCIM2)		794,544		72,228		72,228		-		72,228		
15"- 24" Craig Ranch Infrastructure 1 (VCIM1)		396,460		100,687		100,687		-		100,687		
18" - 24" Harvest Bend 1 Offsite S.S. Line		200,741		21,976		21,976		-		21,976		
Wal-Mart Super Center Off-Site Sanitary Sewer		118,001		3,071		3,071		-		3,071		
27" Creekview Estates 1 Offsite Sanitary Sewer		183,369		76,059		76,059		-		76,059		
Timber Creek 1 Offsite Sanitary Sewer Main		408,877		90,034		90,034		-		90,034		
Robinson Ridge 1 Offsite Sewer		264,763		-		-		-		-		
NTMWD McKinney Prosper Interceptor Sewer		316,160		60,603		57,506		3,097		60,603		
15" Lacima Sanitary Sewer		12,312		6		6		-		6		
Westerra Stonebridge Trunk Main "H" & "H-2"		526,479		9,943		9,943		-		9,943		
Franklin Branch Trunk Sewer		738,865		237,802		237,802		-		237,802		
15" Airport Sewer Phase 2 Sewer Main		846,438		16,942		14,940		2,002		16,942		
121 Grand Offsite Sewer		135,535		1,304		1,304		-		1,304		
21" Lake Forest & Hwy 121 Offsite Utilities		589,810		63,552		63,552		-		63,552		
Wilmeth Ridge (Stover Creek) Sanitary Sewer Main 1 (WW4213)		759,442		134,639		134,639		-		134,639		
Rutherford Branch East Pumping Capacity Expansion		440,000		351,098		351,098		-		351,098		
NTMWD Treatment Systems Capacity Expansion Share	117,152,561		117,152,561	-		-	117,152,561		117,152,561			
Honey Creek Parallel Trunk Sewer	11,000,000		3,822,485	55,600	2,636,819		1,130,065		3,822,485			
36" Honey Creek Extension Trunk Sewer	1,018,593		242,735	-	169,915		72,821		242,735			
The Preserve at Honey Creek	307,836		281,806	-	197,264		84,542		281,806			
Upper East Fork Trunk Sewer	324,625		263,005	-	184,104		78,902		263,005			
Stover Creek Trunk Sewer Phase 2	1,240,000		232,944	232,944	-		-		232,944			
Old Mill Road Sewer (WW1858)	2,000,000		2,132,799	2,132,799	-		-		2,132,799			
Franklin Branch Trunk Sewer	696,949		451,230	-	315,861		135,369		451,230			
Stonebridge Lift Station No. 1 Bypass Sewer	4,000,000		3,566,583	3,388,254	124,830		53,499		3,566,583			
Upper Wilson Creek Sewer	224,864		135,604	-	94,923		40,681		135,604			
Honey Creek Extension Trunk Sewer Phase 2	1,331,872		136,158	-	95,311		40,847		136,158			
Clemons Creek Trunk Sewer	1,183,662		119,811	-	83,868		35,943		119,811			
Big Branch Trunk Sewer	894,445		22,664	-	15,865		6,799		22,664			
Honey Creek Branch Sewer	343,825		173,206	-	121,245		51,962		173,206			
Wastewater System Master Plan Update	52,000		52,000	-	-		52,000		52,000			
Wastewater System Impact Fee Update	30,000		30,000	-	-		30,000		30,000			
Wastewater Flow Monitoring Initiative	180,000		180,000	-	-		180,000		180,000			
Wastewater Hydraulic Model Calibration	32,000		32,000	-	-		32,000		32,000			
Ad Valorem Tax/Utility Revenue Credit Analysis	7,000		7,000	-	4,900		2,100		7,000			
Total	\$	158,394,791	\$	130,488,137	\$	7,257,604	\$	4,044,904	\$	119,185,629	\$	130,488,137

(1) BHC Impact Fee Report. The debt financing costs in the report were removed in order to calculate NewGen's financing costs

(2) Per discussions with City staff and City files

(3) An assumption of 4.5% was used for existing debt funding that did not have a specific bond issuance identified, in accordance with the BHC Impact Fee Report

City of McKinney - 2019 Wastewater Impact Fee Study

Capital Improvement Plan for Impact Fees

Credit Determination Wastewater Service Area

<u>Year</u>	<u>Eligible Revenue Funded Cost⁽²⁾</u>	<u>Annual Service Units</u>	<u>Credit Eligible Revenue per Service Unit</u>	<u>Annual Growth in Service Units (Cumulative)</u>	<u>Annual Credit for Costs Paid in Rate Revenues</u>
1	\$ 4,475,510	87,459	\$ 51.17	3,025	\$ 154,787
2	4,505,394	90,484	49.79	6,050	301,224
3	4,534,440	93,508	48.49	9,074	440,039
4	4,563,861	96,533	47.28	12,099	572,022
5	4,593,763	99,558	46.14	15,124	697,845
6	4,625,344	102,583	45.09	18,149	818,309
7	4,653,825	105,608	44.07	21,174	933,060
8	4,666,516	108,632	42.96	24,198	1,039,489
9	4,689,689	111,657	42.00	27,223	1,143,396
10	4,717,781	114,682	41.14	30,248	1,244,340
11	4,715,414	114,682	41.12	30,248	1,243,716
12	4,716,039	114,682	41.12	30,248	1,243,881
13	4,715,924	114,682	41.12	30,248	1,243,851
14	4,715,803	114,682	41.12	30,248	1,243,819
15	4,715,869	114,682	41.12	30,248	1,243,836
16	4,715,294	114,682	41.12	30,248	1,243,684
17	4,715,789	114,682	41.12	30,248	1,243,815
18	4,695,571	114,682	40.94	30,248	1,238,482
19	4,689,243	114,682	40.89	30,248	1,236,813
20	4,688,963	114,682	40.89	30,248	1,236,739
21	4,172,953	114,682	36.39	30,248	1,100,639
22	4,143,190	114,682	36.13	30,248	1,092,789
23	4,113,427	114,682	35.87	30,248	1,084,939
24	4,083,664	114,682	35.61	30,248	1,077,089
25	4,053,901	114,682	35.35	30,248	1,069,238
26	4,024,138	114,682	35.09	30,248	1,061,388
27	3,994,375	114,682	34.83	30,248	1,053,538
28	3,964,612	114,682	34.57	30,248	1,045,688
29	3,934,848	114,682	34.31	30,248	1,037,838
30	3,905,085	114,682	34.05	30,248	1,029,987
Total	\$ 133,500,225				\$ 30,416,281

2019 Service Units⁽¹⁾ 84,434

Ten Year Growth in Service Units⁽¹⁾ 30,248

Annual Growth in Service Units 10 years
3,025

Credit Amount \$ **30,416,281**

(1) Derived from Table 4 Wastewater Living Unit Equivalents 2019-2029 from BHC Impact Fee Report

(2) Wastewater Appendices - page 2 Section II plus repayment of NTMWD eligible capital over 30 years in monthly wastewater charges



2019 - 2029 WATER & WASTEWATER IMPACT FEE UPDATE

BIRKHOFF, HENDRICKS & CARTER, L.L.P.

JANUARY 2020

DRAFT

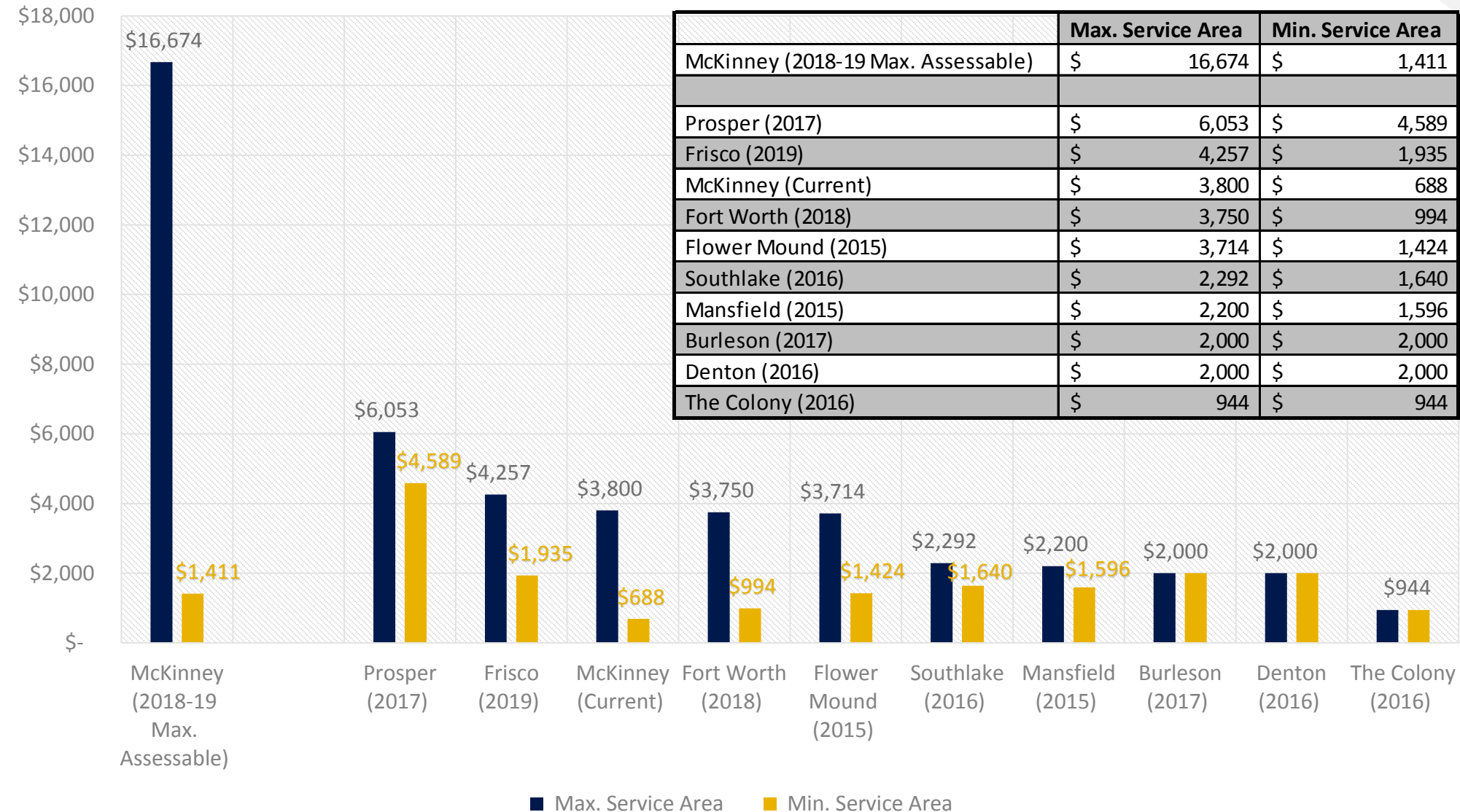


Local City Comparisons

Roadway Impact Fees

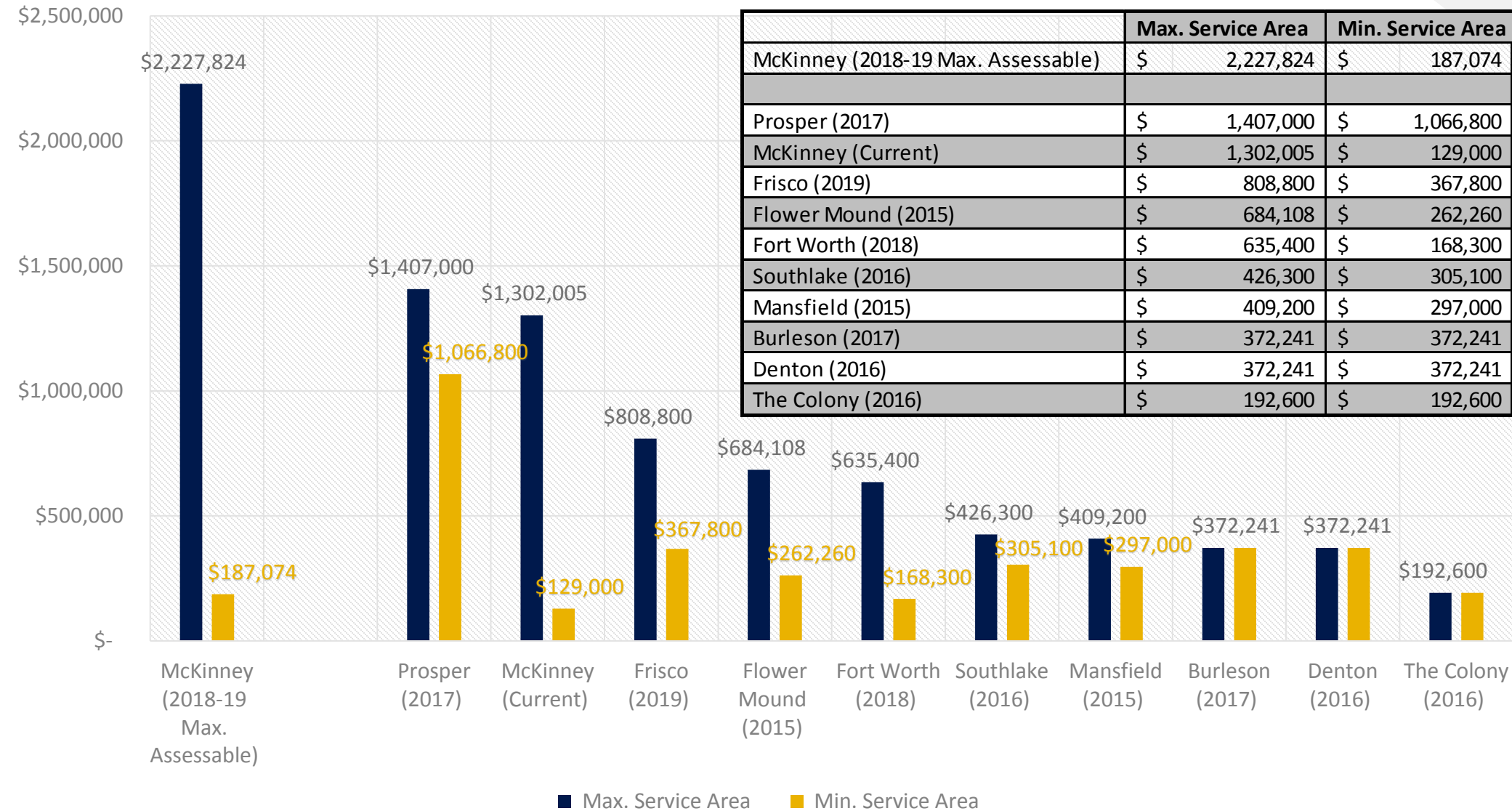
Roadway Impact Fee City Comparison

Actual Fee: One (1) Single Family Dwelling Unit



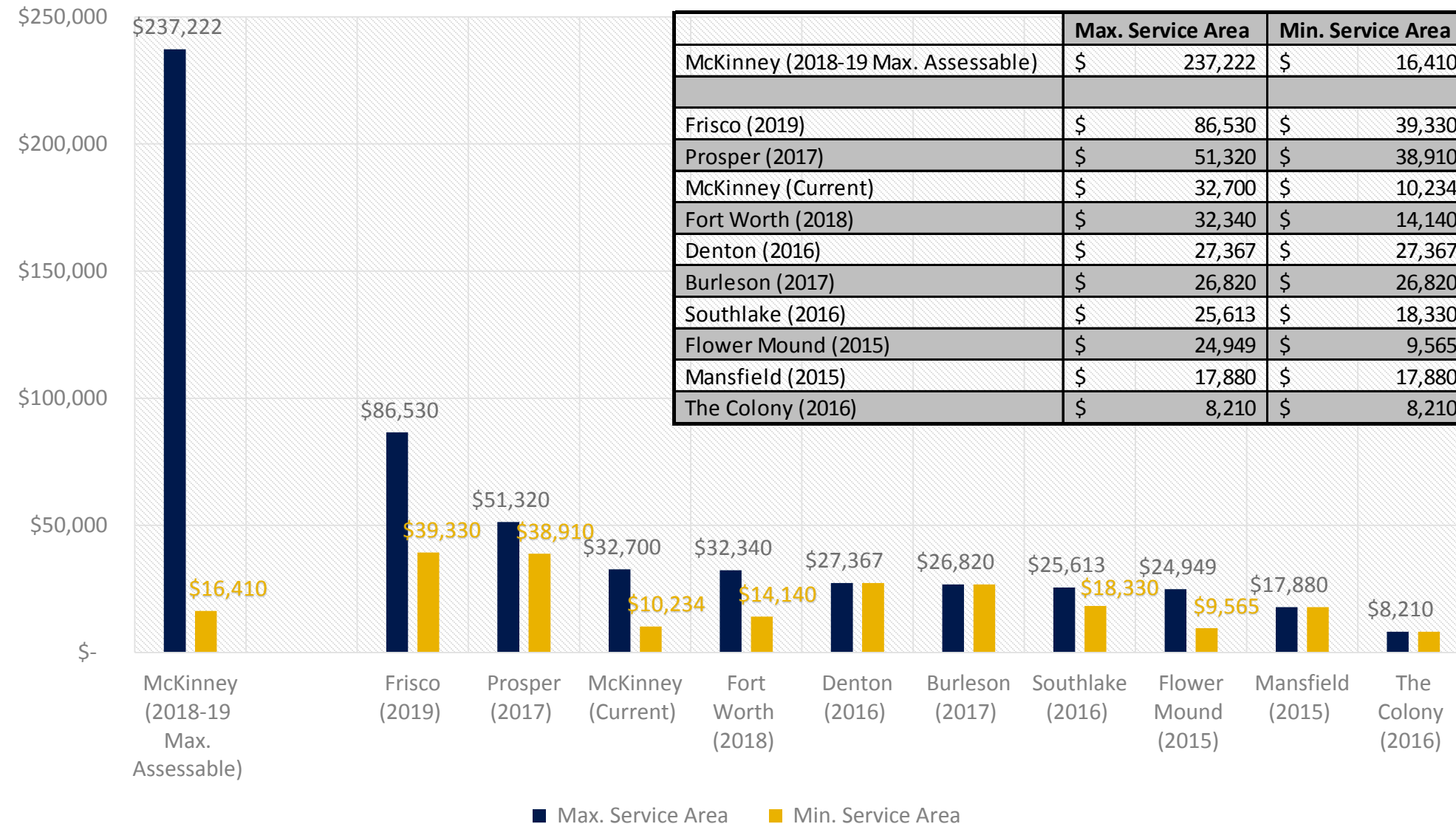
Roadway Impact Fee City Comparison

Actual Fee: 300 Multi-Family Dwelling Units



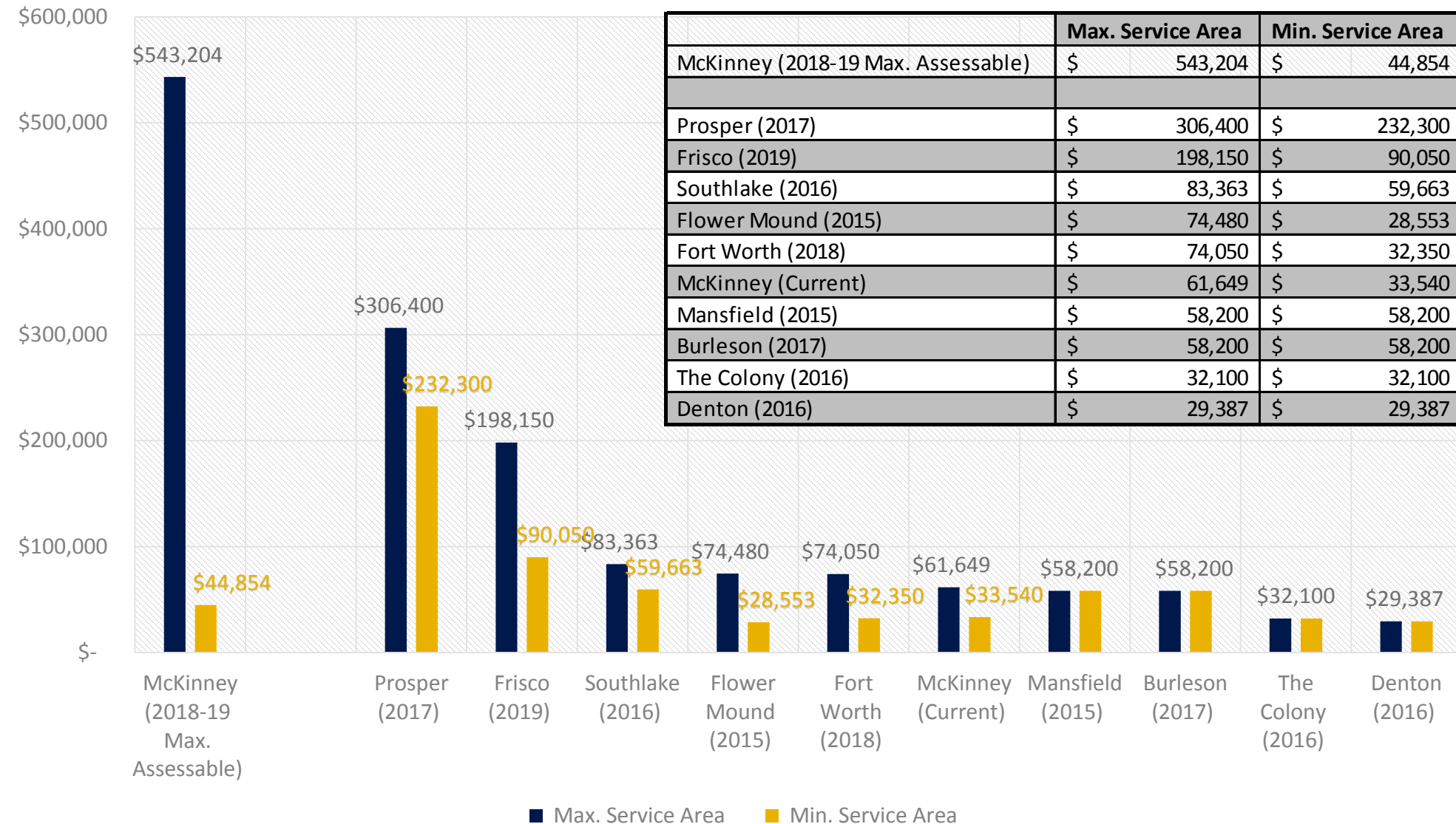
Roadway Impact Fee City Comparison

Actual Fee: 10,000 Square Foot Office Development



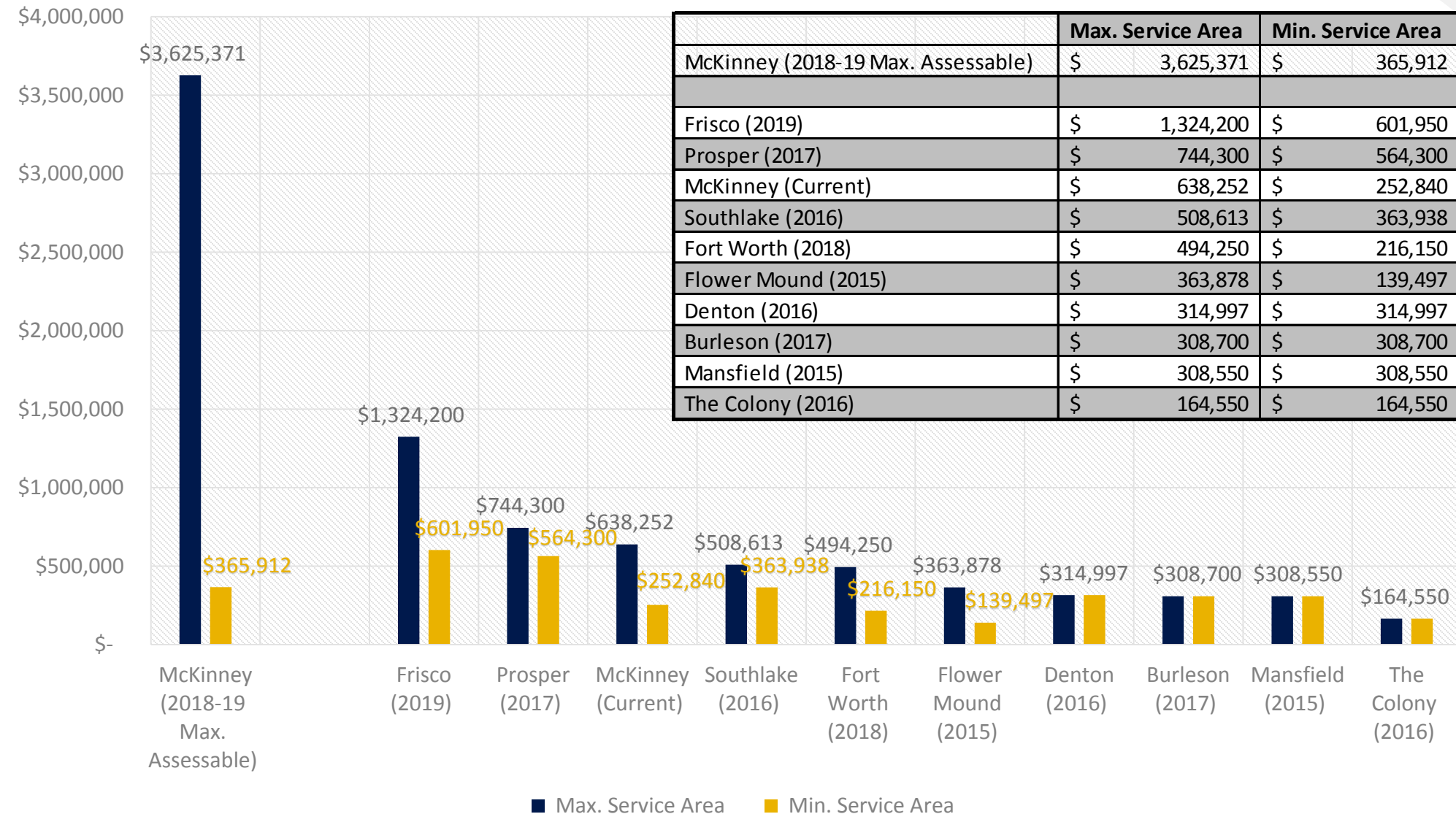
Roadway Impact Fee City Comparison

Actual Fee: 50,000 Square Foot Light Industrial Development



Roadway Impact Fee City Comparison

Actual Fee: 150,000 Square Foot Shopping Center Development

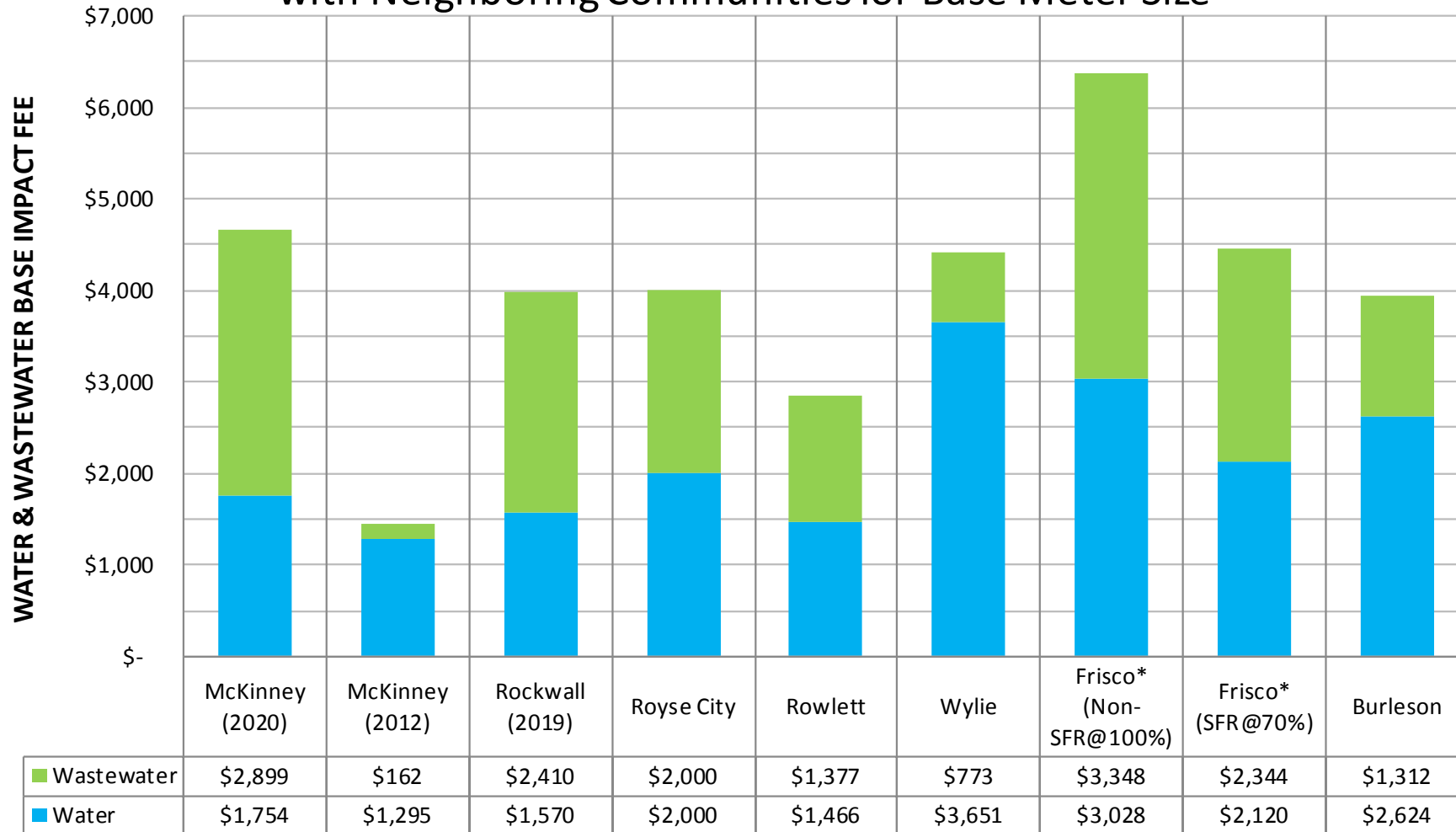




Local City Comparisons

Utility Impact Fees

Calculated Impact Fee Comparison with Neighboring Communities for Base Meter Size



* Frisco's Fee Schedule allows 70% of maximum fee for Single Family Land Use for both Water & Wastewater fees shown