

****PUBLIC NOTICE****



CITY COUNCIL REGULAR SESSION

Thursday, November 02, 2023 at 5:45 PM

City Hall | 3300 Corinth Parkway

Pursuant to section 551.127, Texas Government Code, one or more council members or employees may attend this meeting remotely using videoconferencing technology.

View live stream: www.cityofcorinth.com/remotesession

A. NOTICE IS HEREBY GIVEN of a Regular Meeting of the Corinth City Council.

B. CALL TO ORDER, INVOCATION, PLEDGE OF ALLEGIANCE & TEXAS PLEDGE

C. PROCLAMATIONS AND PRESENTATIONS

1. International Economic Development Council – Award Recognition for Aerial Map.

D. CITIZENS COMMENTS

Please limit your comments to three minutes. Comments about any of the Council agenda items are appreciated by the Council and may be taken into consideration at this time or during that agenda item. Council is prohibited from acting on or discussing items brought before them at this time.

E. BUSINESS AGENDA

2. Consider and act on an Ordinance adopting the Land Use Assumptions, Capital Improvements Plan, and Impact Fees for the City of Corinth Water System and Wastewater System; providing for findings, and providing an effective date.
3. Consider and act on an Ordinance adopting the Land Use Assumptions, Capital Improvements Plan, and Impact Fees for the City of Corinth Roadway Facilities; providing for findings, and providing an effective date.

F. COUNCIL COMMENTS & FUTURE AGENDA ITEMS

The purpose of this section is to allow each Council Member the opportunity to provide general updates and/or comments to fellow Council Members, the public, and/or staff on any issues or future events. Also, in accordance with Section 30.085 of the Code of Ordinances, at this time, any Council Member may direct that an item be added as a business item to any future agenda.

G. EXECUTIVE SESSION**

In accordance with Chapter 551, Texas Government Code, Section 551.001, et seq., (the “Texas Open Meetings Act”), the City Council will recess into Executive Session (closed meeting) to discuss the following items. Any necessary final action or vote will be taken in public by the City Council in accordance with this agenda.

Section 551.071 - Legal Advice. (1) Private consultation with its attorney to seek advice about pending or contemplated litigation; and/or settlement offer; and/or (2) a matter in which the duty of the attorney to the government body under the Texas Disciplinary Rules of Professional Conduct of the State of Texas clearly conflict with Chapter 551.

Section 551.072 - Real Estate. To deliberate the purchase, exchange, lease, or value of real property if deliberations in an open meeting would have a detrimental effect on the position of the governmental body in negotiations with a third person.

a. 1500 block of North Corinth Street.

Section 551.074 - Personnel Matters. To deliberate the appointment, employment, evaluation, reassignment, duties, discipline, or dismissal of a public officer or employee, or to hear a complaint or charge against an officer or employee.

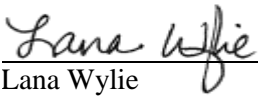
a. City Manager Evaluation.

H. RECONVENE IN OPEN SESSION TO TAKE ACTION, IF NECESSARY, ON EXECUTIVE SESSION ITEMS

I. ADJOURN

**The City Council reserves the right to recess into closed session at any time during the course of this meeting to discuss any of the matters posted on this agenda, as authorized by the Texas Open Meetings Act, Texas Government Code, Section 551.071, "Consultation with Attorney" for the purpose of receiving legal advice.

Posted on this 30th day of October 2023, at 5:00 P.M., on the bulletin board at Corinth City Hall.



Lana Wylie
City Secretary
City of Corinth, Texas



CITY OF CORINTH

Staff Report

Meeting Date:	11/2/2023	Title:	IEDC Award Recognition
Strategic Goals:	<input type="checkbox"/> Resident Engagement <input checked="" type="checkbox"/> Proactive Government <input checked="" type="checkbox"/> Organizational Development <input type="checkbox"/> Health & Safety <input type="checkbox"/> Regional Cooperation <input checked="" type="checkbox"/> Attracting Quality Development		
Owner Support:	<div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Planning & Zoning Commission <input type="checkbox"/> Parks & Recreation Board <input type="checkbox"/> Finance Audit Committee <input type="checkbox"/> Keep Corinth Beautiful </div> <div style="width: 50%;"> <input type="checkbox"/> Economic Development Corporation <input type="checkbox"/> TIRZ Board #2 <input type="checkbox"/> TIRZ Board #3 <input type="checkbox"/> Ethics Commission </div> </div>		

Item/Caption

International Economic Development Council – Award Recognition for Aerial Map.

Item Summary/Background/Prior Action

The City of Corinth was recognized as a 2023 Excellence in Economic Development Awards recipient by the International Economic Development Council (IEDC) for the “2022 Aerial Map” project. The map received a bronze award in the General Purpose Print Promotion category for organizations serving populations of less than 25,000. The IEDC recognizes Economic Development initiatives from communities around the world and to be selected as one of their annual award-winners is a testament to the hard work put in by City Staff to bring this project to fruition.

The 2022 Aerial Map was a joint effort between the City’s Planning, GIS, and Economic Development teams with support from Slate Communications to create a single-source document that delivers effective messaging to multiple audiences regarding current and future development in Corinth. A digital version of the map is available online at [this link](#).



CITY OF CORINTH

Staff Report

Meeting Date:	11/2/2023	Title:	Ordinance Impact Fee Ordinance – Water and Wastewater Systems
Strategic Goals:	<input type="checkbox"/> Resident Engagement <input checked="" type="checkbox"/> Proactive Government <input type="checkbox"/> Organizational Development <input type="checkbox"/> Health & Safety <input type="checkbox"/> Regional Cooperation <input type="checkbox"/> Attracting Quality Development		
Owner Support:	<input type="checkbox"/> Planning & Zoning Commission <input type="checkbox"/> Economic Development Corporation <input type="checkbox"/> Parks & Recreation Board <input type="checkbox"/> TIRZ Board #2 <input type="checkbox"/> Finance Audit Committee <input type="checkbox"/> TIRZ Board #3 <input type="checkbox"/> Keep Corinth Beautiful <input type="checkbox"/> Ethics Commission		

Item/Caption

Consider and act on an Ordinance adopting the Land Use Assumptions, Capital Improvements Plan, and Impact Fees for the City of Corinth Water System and Wastewater System; providing for findings, and providing an effective date.

Item Summary/Background/Prior Action

Impact fees are a one-time fee assessed to recover infrastructure costs required to serve new development. The City of Corinth currently assesses impact fees for roadways, wastewater and water. The purpose of this impact fee study is, per the Texas Local Government Code, to provide an analysis which formulates land use assumptions from which to base any needed impact fee changes, and to recommend a maximum water, wastewater and roadway impact fee to the Capital Improvements Advisory Committee (CIAC) and the City Council. State law requires that cities who have adopted impact fees to periodically study and update the fees. Normally, the impact fees are updated every five years.

The public hearing was held on 10/19/2023 to receive community input on the adoption of the 2023 Land Use Assumptions, Water, Wastewater and Roadway Impact Fee reports. The reports provide a detailed discussion of the land use assumptions and capital improvements plan under which roadway, water and wastewater impact fees may be imposed for new development. Any member of the public has the right to appear at the hearing and present evidence for or against the land use assumptions and the capital improvements plan.

In order to set fee levels, an Ordinance setting the Impact Fee levels must be adopted by Council. Fee levels being recommended are the maximum calculated amount as shown in the report. The City has a 50% credit built into the maximum calculated amount that will cover any future changes to the projects. It is important to note that while fee levels cannot go beyond the calculated maximum level (without a Special Financial Analysis), Council can change the fee levels after they have been set by Ordinance. Previously established fee levels (from previous Impact Fee studies) can also be adjusted by Ordinance provided the new fees are not raised beyond the maximum calculated fee amount.

The Capital Improvements Advisory Committee have reviewed, and recommendation to the City Council prior to the Council's public hearing regarding the proposed land use assumptions and roadway, wastewater and water impact fees.

The City is recommending the Council to accept the maximum fees.

Applicable Owner/Stakeholder Policy

Section 395.052 of the Texas Local Government Code mandates periodic updates to the land use assumptions and capital improvements plan for a political subdivision imposing an impact fee. The City of Corinth is working with Kimley-Horn Associates to prepare an updated study for the City of Corinth's Roadway, Wastewater and Water Impact Fees.

Chapter 395 of the Texas Local Government Code also requires a Capital Improvements Advisory Committee (CIAC) be appointed to provide comments on proposed amendments to the impact fees, land use assumptions and capital improvements plan upon which calculation of the impact fee is based. Per the project schedule, the CIAC (Planning and Zoning Commission) will have the opportunity to review and offer possible comments and recommendations to the City Council regarding the proposed land use assumptions and roadway and water impact fees. discussion forum.

Staff Recommendation/Motion

Staff recommends approving the ordinance to set the roadway, water, and wastewater impact fee to the maximum amount recommended by Kimley Horn.

**CITY OF CORINTH, TEXAS
ORDINANCE NO.**

AN ORDINANCE OF THE CITY OF CORINTH, TEXAS, AMENDING CHAPTER 36, “FINANCE AND REVENUE; TAXATION”, “IMPACT FEES” OF TITLE III, “ADMINISTRATION”, OF THE CODE OF ORDINANCES OF THE CITY OF CORINTH TO ADOPT AND IMPLEMENT THE CITY OF CORINTH, TEXAS WATER IMPACT FEE REPORT FOR 2023, TO ADOPT AMENDED LAND USE ASSUMPTIONS, CAPITAL IMPROVEMENTS PLAN, AND IMPACT FEES FOR WATER FACILITIES AND TO ADOPT AND IMPLEMENT THE CITY OF CORINTH, TEXAS WASTEWATER IMPACT FEE REPORT FOR 2023, TO ADOPT AMENDED LAND USE ASSUMPTIONS, CAPITAL IMPROVEMENTS PLAN, AND IMPACT FEES FOR WASTEWATER FACILITIES; PROVIDING FOR THE INCORPORATION OF PREMISES; PROVIDING FOR THE ADOPTION OF AMENDMENTS TO VARIOUS SECTIONS OF CHAPTER 36, INCLUDING THE ADOPTION OF WATER IMPACT FEES AND WASTEWATER IMPACT FEES; PROVIDING A CLAUSE FOR A PREVIOUSLY PLATTED DEVELOPMENT/LOT; PROVIDING A CUMULATIVE REPEALER AND SAVINGS CLAUSE; PROVIDING FOR SEVERABILITY; PROVIDING FOR PUBLICATION AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, Chapter 395, Tex. Loc. Gov’t Code, (“Chapter 395”) provides requirements and procedures for imposing, collecting, and updating land use assumptions, capital improvements plans and impact fees; and

WHEREAS, the City has retained consultants to prepare updated land use assumptions, impact fee capital improvements plans, impact fees and ordinance provisions in order to meet statutory requirements; and

WHEREAS, the purpose of impact fees is to mitigate in part the impacts generated by new development on the City's water and wastewater systems; and

WHEREAS, impact fees are one measure of the proportionality between the impacts on the City's public facilities created by a development and the contributions required by a developer or property owner to offset such impacts; and

WHEREAS, Chapter 395 mandates that the City compute the maximum impact fee per service unit which is attributable to new development for each category of capital improvements for which an impact fee is charged, and both water and wastewater impact fees are authorized within the corporate limits and the extraterritorial jurisdiction of the City; and

WHEREAS, the City of Corinth appointed the Planning and Zoning Commission to serve as the Capital Improvements Advisory Committee to advise the City Council concerning amendments to the land use assumptions, impact fee capital improvements plans and impact fees as allowed by Chapter 395; and

WHEREAS, the Capital Improvements Advisory Committee submitted its written comments on the proposed amendments to the Land Use Assumptions, Capital Improvements Plan, and Impact Fees contained within the “City of Corinth, Texas Water Impact Fee Report for 2023” (dated July, 2023), performed by Kimley-Horn and Associates, Inc., attached hereto as **Exhibit “A”** and incorporated herein (the “2023 Water Study”); and

WHEREAS, the Capital Improvements Advisory Committee submitted its written comments on the proposed amendments to the Land Use Assumptions, Capital Improvements Plan, and Impact Fees contained within the “City of Corinth, Texas Wastewater Impact Fee Report for 2023” (dated July, 2023), performed by Kimley-Horn and Associates, Inc., attached hereto as **Exhibit “A-1”** and incorporated herein (the “2023 Wastewater Study”); and

WHEREAS, the City Council properly called and published notice of public hearing and conducted a public hearing on October 19, 2023 to hear public input regarding the 2023 Study; and

WHEREAS, the City Council finds that the facility improvements proposed in the 2023 Water Study and the 2023 Wastewater Study will best address the infrastructure requirements imposed upon the City by new development; and

WHEREAS, the City Council further finds that the impact fee assessment rate for each category of capital improvement is an accurate measure of the demand for that type of capital improvement that is created by a new development and should be used as one measure of the proportionality between the impacts created by new development on community facilities systems and the obligations of the developer to offset such impacts; and

WHEREAS, the City Council finds that the updated Water Impact Fee per Service Unit and Wastewater Impact Fee per Service Unit as respectively set forth in the 2023 Water Study and the 2023 Wastewater Study provide the appropriate level of cost recovery to the City attributable to new development and the Council has in fact determined the maximum impact fee per service unit that may be charged for water and wastewater facilities; and

WHEREAS, the City Council finds it to be in the best interest of the health, safety and welfare of the general public and of the citizens of Corinth to adopt the updated Land Use Assumptions, Capital Improvements Plan, and Impact Fees for water and wastewater improvements as set forth in the 2023 Water Study and the 2023 Wastewater Study, respectively, and to amend Chapter 36 as set forth hereinbelow.

NOW THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF CORINTH, TEXAS:

**SECTION 1.
Incorporation of Premises**

That the above recitals are findings of the City Council and are incorporated herein by reference.

**SECTION 2.
Amendments**

2.01 Section 36.55, “Definitions” of Chapter 36, “Finance and Revenue; Taxation”, “Impact Fees” of Title III, “Administration”, of the Code of Ordinances of the City of Corinth is hereby amended to add a new definition for “Water Impact Fee Service Area”, to repeal the definitions for “Service Area” and “Wastewater Impact Fee Study Area”, and to adopt new definitions for “Service Area” and “Wastewater Impact Fee Study Area”, each of which shall be placed in alphabetical order and each shall be and read in its entirety as follows:

“§ 36.55 DEFINITIONS

...

“SERVICE AREA. The area within the corporate boundaries or extraterritorial jurisdiction of the city to be served by the capital improvements or facilities expansions specified in the Capital Improvements Plan for the applicable facilities as approved by the City.”

...

“WASTEWATER IMPACT FEE SERVICE AREA. A geographic area in which wastewater service is provided by the city. There are three wastewater impact fee service areas which are identified as the Denton Service Area, the Upper Trinity East Service Area and the Upper Trinity West Service Area, as further identified in CIP Figure 2.1 in the City of Corinth, Texas Wastewater Impact Fee Report for 2023 (dated July 2023), approved by Ordinance No. 23-11-02-44.

WATER IMPACT FEE SERVICE AREA. A geographic area in which water service is provided by the City. There is one (1) water impact fee service area which is limited to the area within the City’s current Water CCN, the geographic boundary of which is further identified in CIP Figure 1.2 in the City of Corinth, Texas Water Impact Fee Report for 2023 (dated July 2023) approved by Ordinance No. 23-11-02-44.”

2.02. Section 36.57 “Land Use Assumptions and Capital Improvements Plan” of Chapter 36, “Finance and Revenue; Taxation”, “Impact Fees” of Title III, “Administration”, of the Code of Ordinances of the City of Corinth is hereby repealed in its entirety, and a new Section 36.57, “Land

Use Assumptions and Capital Improvements Plan Adopted – Water and Wastewater” of Chapter 36 of the Code of Ordinances is hereby adopted to be and read in its entirety as follows:

“§ 36.57 Land Use Assumptions and Capital Improvements Plan Adopted – Water and Wastewater.

(A) The City of Corinth, Texas Water Impact Fee Report for 2023 and Land Use Assumptions (dated July, 2023), performed by Kimley-Horn and Associates, Inc., attached hereto as Exhibit “A”, containing amended and updated Land Use Assumptions, an amended and updated Impact Fee Capital Improvements Plan, an amended and updated Impact Fee Analysis and Report, an amended and updated Maximum Assessable Water Impact Fee for Commonly Used Meters, and amended and updated Exhibits and Tables, and other related matters (the “2023 Water Study”) is hereby adopted and amends all previously adopted land use assumptions, capital improvements plans, water impact fee calculations, maximum assessable water impact fees for commonly used meters and all related exhibits and tables applicable to the calculation and assessment of water impact fees in the City of Corinth, Texas. The 2023 Water Study as set forth in Exhibit “A” to Ordinance No. 23-11-02-44 is incorporated herein by reference as if fully set forth; a copy of the 2023 Water Study shall be maintained in the Office of the City Secretary.

(B) The City of Corinth, Texas Wastewater Impact Fee Report for 2023 and Land Use Assumptions (dated July, 2023), performed by Kimley-Horn and Associates, Inc., attached hereto as Exhibit “A-1”, containing amended and updated Land Use Assumptions, an amended and updated Impact Fee Capital Improvements Plan, an amended and updated Impact Fee Analysis and Report, an amended and updated Wastewater Impact Fee Calculation, an amended and updated Maximum Assessable Wastewater Impact Fee for Commonly Used Meters and amended and updated Exhibits and Tables, and other related matters (the “2023 Wastewater Study”) is hereby adopted and amends all previously adopted land use assumptions, capital improvements plans, wastewater impact fee calculations, maximum assessable wastewater impact fees for commonly used meters and all related exhibits and tables applicable to the calculation and assessment of wastewater impact fees in the City of Corinth, Texas. The 2023 Wastewater Study as set forth in Exhibit “A-1” to Ordinance No. 23-11-02-44 is incorporated herein by reference as if fully set forth; a copy of the 2023 Study shall be maintained in the Office of the City Secretary.”

2.03. Subsection 36.61, “Fees” of Chapter 36, “Finance and Revenue; Taxation”, “Impact Fees” of Title III, “Administration”, of the Code of Ordinances of the City of Corinth is hereby repealed in its entirety and a new Subsection 36.61 entitled “Fees” of Chapter 36 of the Code of Ordinances is hereby adopted to be and read in its entirety as follows:

“§ 36.61 - FEES.

(A) Water Impact Fees and Wastewater Impact Fees shall be imposed pursuant to and in accordance with the 2023 Water Study and 2023 Wastewater Study respectively, and shall be assessed as follows:

(1) Water Impact Fees shall be assessed in accordance with Table 1.8, “Service Unit Equivalency Table for Commonly Used Meters” of the 2023 Water Study as follows:

Table 1.8 Service Unit Equivalency Table for Commonly Used Meters

Meter Size*	Maximum Continuous Operating Capacity (GPM)**	Service Unit Equivalent	Maximum Assessable Fee (\$)
5/8”x 3/4” PD	10	1	1,330
3/4” PD	15	1.5	1,995
1” PD	25	2.5	3,325
1 1/2” PD	50	5	6,650
2” PD	80	8	10,640
2” Compound	80	8	10,640
2” Turbine	160	16	21,280
3” Compound	175	17.5	23,275
3” Turbine	350	35	46,550
4” Compound	300	30	39,900
4” Turbine	650	65	86,450
6” Compound	675	67.5	89,775
6” Turbine	1,400	140	186,200
8” Compound	900	90	119,700
8” Turbine	2,400	240	319,200
10” Turbine	3,500	350	465,500

* PD = Positive Displacement Meter (Typical residential meter)

** Operating capacities obtained from American Water Works Associate (AWWA) C700-15, C701-15, and C702-15. Turbine and Compound meter flows are based on Class II (in-line) meters.

(2) Wastewater Impact Fees shall be assessed in accordance with Table 2.1, “Maximum Assessable Wastewater Impact Fee” for Commonly Used Meters, of the 2023 Wastewater Study as follows:

Table 2.1 Maximum Assessable Wastewater Impact Fee for Commonly Used Meters

Meter Size*	Maximum Continuous Operating Capacity (GPM)**	Service Unit Equivalent	Maximum Assessable Fee per Service Area (\$)		
			Denton	Upper Trinity East	Upper Trinity West
5/8"x 3/4" PD	10	1	\$0	582	4,785
3/4" PD	15	1.5	\$0	873	7,178
1" PD	25	2.5	\$0	1,456	11,963
1 1/2" PD	50	5	\$0	2,911	23,925
2" PD	80	8	\$0	4,658	38,280
2" Compound	80	8	\$0	4,658	38,280
2" Turbine	160	16	\$0	9,317	76,560
3" Compound	175	17.5	\$0	10,190	83,738
3" Turbine	350	35	\$0	20,380	167,475
4" Compound	300	30	\$0	17,469	143,550
4" Turbine	650	65	\$0	37,849	311,025
6" Compound	675	67.5	\$0	39,304	322,988
6" Turbine	1,400	140	\$0	81,520	669,900
8" Compound	900	90	\$0	52,406	430,650
8" Turbine	2,400	240	\$0	139,749	1,148,400
10" Turbine	3,500	350	\$0	203,801	1,674,750

* PD = Positive Displacement Meter (Typical residential meter)

** Operating capacities obtained from American Water Works Associate (AWWA) C700-15, C701-15, and C702-15. Turbine and Compound meter flows are based on Class II (in-line) meters.

(B) The above fees have been calculated to provide a credit equal to 50% of the total projected cost of implementing the capital improvements plan in accordance with State law.”

**SECTION 3.
PREVIOUSLY PLATTED DEVELOPMENT/LOT**

Impact fees to be collected from development on lots within a subdivision that has received final plat approval from the City before the effective date of this Ordinance shall be assessed and collected at the impact fee rate set forth in the applicable Impact Fee ordinance in effect at the time the lots were platted.

**SECTION 4.
CUMULATIVE REPEALER/SAVINGS**

This Ordinance shall be cumulative of all other ordinances of the City and shall not repeal any of the provisions of such ordinances except for those instances where there are direct conflicts with the provisions of this Ordinance or where expressly repealed hereby and such repeal shall not abate any pending prosecution, claim for nonpayment or other damages from being commenced for any violation if occurring prior to the repeal by this Ordinance. Ordinances or parts thereof in force at the time this Ordinance shall take effect and that are inconsistent with this Ordinance are hereby repealed to the extent that they are inconsistent with this Ordinance. Any other ordinance of the city requiring dedication of land for public parks, requiring dedication of right-of-way or easements, or construction or dedication of on-site water distribution, wastewater collection or drainage facilities, or streets sidewalks, or curbs necessitated by and attributable to new development, or fees to be placed in trust for the purpose of reimbursing the city or developers for oversizing or construction water or sewer mains or lines shall remain in full force and effect and not be repealed by the terms of this ordinance.

**SECTION 5.
SEVERABILITY**

If any section, subsection, clause, phrase, or provision of this Ordinance, or the application thereof to any person or circumstance, shall to any extent be held by a court of competent jurisdiction to be invalid, void, or unconstitutional, the remaining sections, subsections, clauses, phrases, and provisions of this Ordinance, or the application thereof to any person or circumstance, shall remain in full force and effect and shall in no way be affected, impaired or invalidated.

**SECTION 6.
PUBLICATION/EFFECTIVE DATE**

This ordinance shall be in full force and effect from and after its passage and publication as required by law, and it is so ordained.

PASSED AND APPROVED ON THIS _____ DAY OF _____, 2023.

Bill Heidemann, Mayor

ATTEST:

Lana Wylie, City Secretary

APPROVED AS TO FORM:

Patricia A. Adams, City Attorney

EXHIBIT “A”

**City of Corinth, Texas Water Impact Fee Report for 2023 and Land Use Assumptions
(dated July, 2023)**

City of Corinth, Texas Water Impact Fee Report for 2023

July 2023



Prepared for:
City of Corinth

Prepared by:
Kimley»Horn

Kimley-Horn and Associates, Inc.
13455 Noel Rd, Two Galleria Office Tower, Suite 700
Dallas, TX 75240
Phone: 972 770 1300
TBPE Firm Registration Number: F-928
Project Number: 061008059
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Appendices

- A. Conceptual Level Cost Projections

1.1 Water Impact Fee Executive Summary

This study was performed to update the City of Corinth's (City) Water System Impact Fees. Water system analysis and the Water System Master Plan are important tools for facilitating orderly growth of the water system and for providing adequate facilities that promote economic development in the City. The implementation of an impact fee is a way for development to pay their proportionate impact on the water system facilities.

Elements of the water system, including storage facilities, pumping facilities, and the distribution network itself, were evaluated against industry standards, such as the Texas Commission on Environmental Quality (TCEQ), and as outlined in the Design Criteria section of this report. Information related to the growth of the City was developed through evaluation of historical growth rates, discussions with City staff, and the City's Comprehensive Master Plan (2020).

Water system improvements necessary to serve 10-year (2033) and buildout system needs were evaluated. Typically, infrastructure improvements are designed beyond the 10-year requirements; however, Texas' impact fee law (Chapter 395 of the Local Government Code) only allows recovery of costs to serve the 10-year planning period. A portion of the remaining costs past the 10-year window may be recovered as a result of impact fee updates in the future.

The impact fee law defines a service unit as "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 and based on historical data and trends applicable to the political subdivision in which the individual unit of development is located during the previous 10 years". For the purpose of this report, the City defines a service unit as a unit of development that consumes the amount of water requiring a standard 5/8" x 3/4" meter. For developments that require a different size meter, a service unit equivalent has been determined as a multiplier of the 5/8" x 3/4" meter based on its required operating capacity. These service unit equivalency factors and associated maximum assessable impact fees are shown in **Table 1.1**.

Based on the City's 10-year growth projections and the associated demand (consumption) values, **3,571** additional service units will need by the year 2033. Based on the additional service units and the recoverable capital improvements plans, the City may assess a maximum of **\$1,330** per service unit. Support and calculations for these results are included in the following report.

For comparison, the previous water impact fee update determined the City may assess a maximum of \$2,204 per service unit.

Table 1.1 Maximum Assessable Water Impact Fee for Commonly Used Meters

Meter Size*	Maximum Continuous Operating Capacity (GPM)**	Service Unit Equivalent	Maximum Assessable Fee (\$)
5/8"x 3/4" PD	10	1	1,330
3/4" PD	15	1.5	1,995
1" PD	25	2.5	3,325
1 1/2" PD	50	5	6,650
2" PD	80	8	10,640
2" Compound	80	8	10,640
2" Turbine	160	16	21,280
3" Compound	175	17.5	23,275
3" Turbine	350	35	46,550
4" Compound	300	30	39,900
4" Turbine	650	65	86,450
6" Compound	675	67.5	89,775
6" Turbine	1,400	140	186,200
8" Compound	900	90	119,700
8" Turbine	2,400	240	319,200
10" Turbine	3,500	350	465,500

* PD = Positive Displacement Meter (Typical residential meter)

** Operating capacities obtained from American Water Works Associate (AWWA) C700-20, C701-19, and C702-19. Turbine and Compound meter flows are based on Class II (in-line) meters.

1.2 Introduction

The City of Corinth retained the services of Kimley-Horn and Associates, Inc. (Kimley-Horn) for the purpose of updating the existing water impact fee. The impact fees were last updated in 2017 by Kimley-Horn. The purpose of the report is to satisfy the requirements of the law and provide the City with an updated impact fee capital improvements plan and associated impact fees

For convenience and reference, the following is excerpted from Chapter 395 of the *Local Government Code*, "Financing Capital Improvements required by New Development in Municipalities, Counties, and certain other Local Governments."

- (a) *The political subdivision shall use qualified professionals to prepare the capital improvements plan and to calculate the impact fee. The capital improvements plan must contain specific enumeration of the following items:*
- (1) *a description of the existing capital improvements within the service area and the costs to upgrade, update, improve, expand, or replace the improvements to meet existing needs and usage and stricter safety, efficiency, environmental, or regulatory standards, which shall be prepared by a qualified professional engineer licensed to perform such professional engineering services in this state;*
 - (2) *an analysis of the total capacity, the level of current usage, and commitments for usage of capacity of the existing capital improvements, which shall be prepared by a qualified professional engineer licensed to perform such professional engineering services in this state;*
 - (3) *a description of all or the parts of the capital improvements or facility expansions and their costs necessitated by and attributable to new development in the service area based on the approved land use assumptions, which shall be prepared by a qualified professional engineer licensed to perform such professional engineering services in this state;*
 - (4) *a definitive table establishing the specific level or quantity of use, consumption, generation, or discharge of a service unit for each category of capital improvements or facility expansions and an equivalency or conversion table establishing the ratio of a service unit to various types of land uses, including but not limited to residential, commercial, and industrial;*
 - (5) *the total number of projected service units necessitated by and attributable to new development within the service area based on the approved land use assumptions and calculated in accordance with generally accepted engineering or planning criteria;*
 - (6) *the projected demand for capital improvements or facility expansions required by new service units projected over a reasonable period of time, not to exceed 10 years; and*
 - (7) *a plan for awarding;*

- (A) *a credit for the portion of ad valorem tax and utility service revenues generated by new service unit 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 project cost of implementing the capital improvements plan.*

The impact fee study includes information from the *Water and Wastewater Master Plan Report, 2023*. The impact fees are based on recommended capital improvements and the population growth projections outlined in the *Water and Wastewater Master Plan Report* as well as the *City's Comprehensive Master Plan*.

The study process was comprised of three (3) tasks:

A. Land Use Assumptions

In order to assess an impact fee, Land Use Assumptions must be developed to provide the basis for population and employment 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. In addition, these assumptions are useful in assisting the City of Corinth in determining the need and timing of capital improvements to serve future development.

In accordance with Chapter 395, information for the development of the Land Use Assumptions was determined from the City of Corinth Comprehensive Land Use Plan Categories – 2020 as well as working with City staff to identify possible changes to the future land use plan, aerial photography, and consultation with City staff.

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

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

Employment: Acreages based on retail, service, and basic land uses. Each classification has unique demand characteristics.

Retail: Land use activities which provide for the retail sale of goods that 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 administrative offices.

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

The geographic boundary of the impact fee service area for water facilities is shown in **Figure 1.2**. The City of Corinth contains only one (1) service area which is limited to the area within the current Water CCN. A

growth rate was assumed for the service area using growth scenarios outline in the City's Comprehensive Plan Master Plan (2020).

Table 1.1 summarizes the residential and non-residential 10-year growth projections by service area within the City of Corinth.

Table 1.2 Residential and Non-Residential Growth Projections

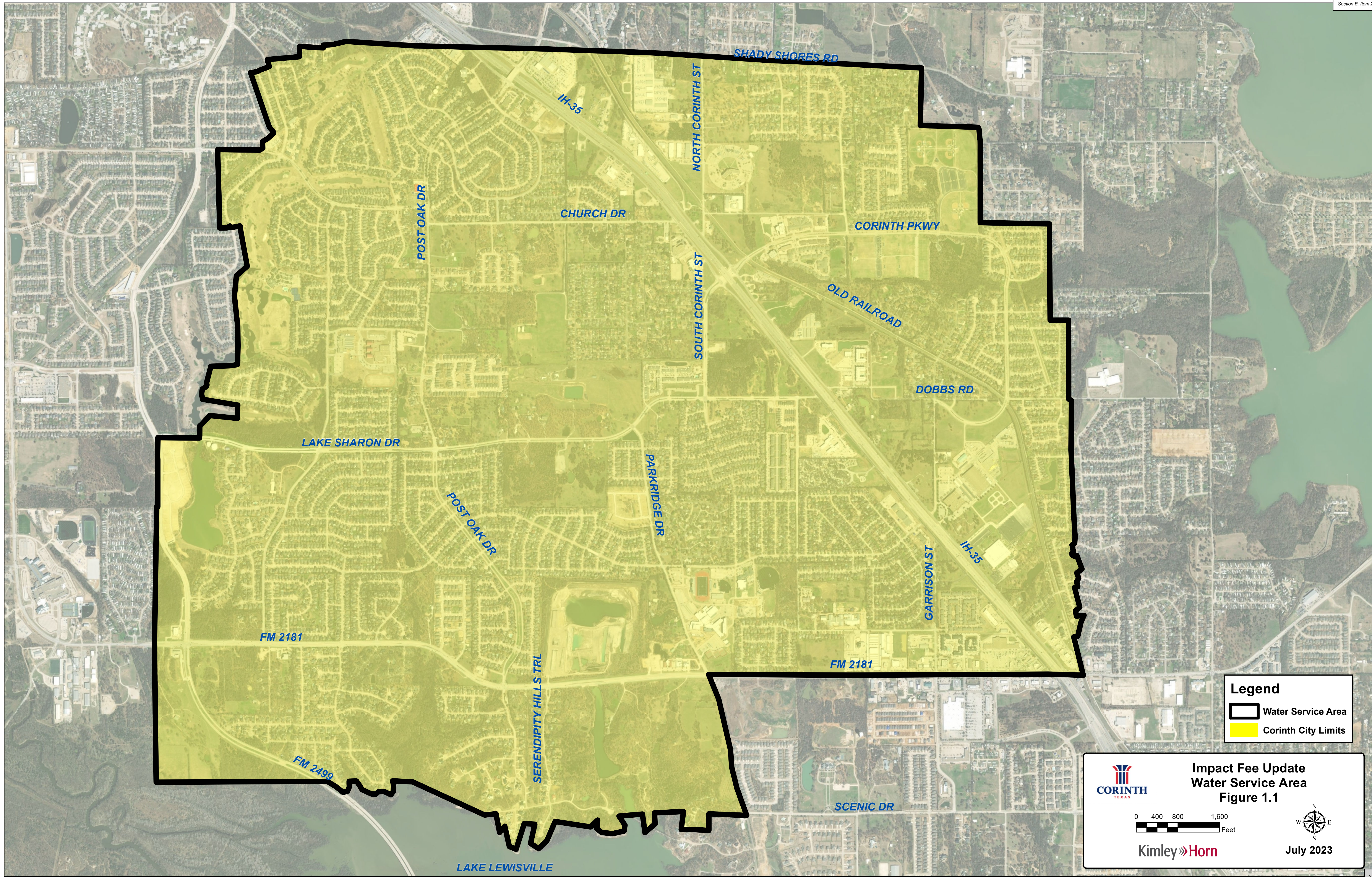
	Year	Population Growth	Employment (Sq. Ft.) Growth			
			Basic	Service	Retail	Total
Corinth	10-Year Growth	9,117	0	1,640,000	1,040,000	2,680,000

B. Impact Fee Capital Improvements Plan

This task involved evaluation of the water capital improvements plan outlined in the master plan and discussion with City staff to identify projects that will be built in the 10-year planning window and meet the design criteria outlined in the *Water Master Plan Report, 2023*. This task also involved estimating the utilized capacity of the existing and proposed capital improvement projects to determine their 10-year recoverable cost.

C. Impact Fee Analysis and Report

This task included calculating the additional service units, service unit equivalents, and credit reduction. These values were then used to determine the impact fee per service unit and the maximum assessable impact fee by meter size.



Legend

- Water Service Area
- Corinth City Limits

CORINTH
TEXAS

**Impact Fee Update
Water Service Area
Figure 1.1**

0 400 800 1,600
Feet

Kimley»Horn

July 2023

1.2 Design Criteria

A. Water Transmission Lines

The function of the transmission system is to transfer water across the water system and fill the elevated storage tanks. There are three (3) conditions for which the transmission system is evaluated:

- **Peak hour demand** — This is the maximum demand that the system experiences. It is the condition under which generally the lowest operational pressures are experienced.
- **Tank filling (minimum hour demand)** — This is the period during which the elevated tank is replenished. This is the period of lowest demand during the maximum day. It normally occurs after midnight and is the condition under which the highest operational pressures may be experienced.
- **Fire flow demand** — During the maximum day demand, the local transmission lines are tested to ensure that fire protection requirements are met. Pressures are allowed to fall below normal operating pressures, but should not drop below 20 psi.

The transmission system should be sized to maintain a minimum pressure of 40 psi during normal operating conditions and a minimum pressure of 20 psi during extreme operating conditions. The State requires a minimum operating pressure of 35 psi. In a current urban-type water system, operating pressures of 30-35 psi normally result in customer complaints. In addition, pressures above 80 psi are undesirable and should be avoided. The maximum pressure in extreme conditions should be limited to 120 psi because high operating pressure will result in increased system maintenance and increased operational cost. The transmission system should also be sized to limit maximum velocity in the pipe to five (5) feet per second.

B. Storage Tanks

The Texas Commission on Environmental Quality (TCEQ) has established criteria for ground and elevated water storage. These criteria address volume and height requirements only. The layout of the distribution system, location of the storage facilities, and the interaction with the high service and booster pumps affect the amount of storage necessary for the most efficient and reliable operation of the system.

1. GROUND STORAGE

Ground storage serves two (2) functions:

- Equalization for differing feed rates between the water supply and pumping to the system; and
- Emergency capacity in the event of temporary loss of water supply.

Generally, ground storage facilities are located at water supply points or at each pump station within the water distribution system. Suggested storage capacities are established based on several criteria including specific requirements of the TCEQ. Although ground and elevated storage facilities perform separate

functions within the system, both are aimed at decreasing the impact of demand fluctuations. Their capacities are established based on knowledge of how demand varies seasonally and daily.

2. ELEVATED STORAGE

Elevated storage serves three (3) purposes:

- Functionally, elevated storage equalizes the pumping rate to compensate for daily variations in demand and to maintain a fairly constant pumping rate (usually referred to as operational storage), or a pumping rate that conforms to the requirements of the electrical rate structure.
- Provides pressure maintenance and protection against surges created by instantaneous demand, such as fire flow and main breaks, and instantaneous change in supply, such as pumps turning on and off.
- Maintains a reserve capacity for fire protection and pressure maintenance in case of power failure to one or more pump stations. Sufficient storage should be maintained to provide two (2) hours of fire flow demand during a loss of power to the pump station.

Suggested storage capacities are established by the TCEQ. Adequate operational storage is established by determining the required volume to equalize the daily fluctuations in flow during the maximum day demand, plus the reserve volume required for fire protection.

The minimum requirements for storage, according to Chapter 290 of the Texas Administrative Code, are as follows:

- Total Storage - Equal to 200 gallons per connection.
- Elevated Storage - Equal to 100 gallons per connection; or
- Elevated Storage – Equal to 200 gallons per connection for a firm pumping capacity reduction from 2.0 gallons per connection to 0.6 gallons per connection.

C. Pump Stations

Pumping capacities must provide the maximum demand or the peak hour demand required by the water system or the suggested capacities established by the TCEQ section §290.41. Pumping capacity should supply the maximum demand with sufficient redundancy to allow for the largest pump at the pump station to be out of service. This is known as firm pumping capacity.

Each pump station or pressure plane must have two or more pumps that have a total capacity of 2.0 gallons per minute per connection, or have a total capacity of at least 1,000 gallons per minute and the ability to meet peak hour demand with the largest pump out of service, whichever is less. If the system provides elevated storage capacity of 200 gallons per connection, two service pumps with a minimum combined capacity of 0.6 gpm per connection are required.

D. Water Demand

The criteria used for projecting the water demands for the water system were derived from the *Water and Wastewater Master Plan Report, 2023*. **Table 1.3** shows the projected average day demand by land use type.

Table 1.3 Average Day Demand by Land Use Type

Residential Land Use	gpcd	
Demand Per Capita	145	
Non-Residential Land Use	gpd/acre	gpm/acre
Parks and Open Space	50	0.03
Public/Semi-Public	1,500	1.04
Mixed Use Non-Residential	1,130	0.78
Office/Business Park	2,000	1.39
Retail	800	0.56
Commercial	1,000	0.69
Industrial	500	0.35

1.3 Impact Fee Capital Improvements Plan

The City of Corinth commissioned Kimley-Horn and Associates, Inc. to update the current Water Master Plan in 2023. The purpose of the water master plan is to provide the City with a logical strategy for upgrading and expanding its water distribution system to accommodate future growth and for addressing existing system deficiencies.

Fourteen (14) projects are determined eligible for recoverable cost through impact fees over the next 10 years. The total cost of these projects is \$22,751,198. The projected total CIP recoverable cost through impact fees is \$7,187,316. The recoverable percentage represents the projected utilization and capacity of each project over the next 10 years. These values were determined by utilizing the hydraulic model prepared for the Water Master Plan Update. These impact fee capital improvements are shown in **Table 1.4** and illustrated in **Figure 1.2**.

**Table 1.4 Water Impact Fee Capital Improvements
Project Cost and 10-Year Recoverable Cost**

Proj. #	Description	2023 Required Capacity (Percent Utilization)	2033 Required Capacity (Percent Utilization)	2023-2033 Required Capacity (Percent Utilization)	2033 Projected Recoverable Cost	Total Project Cost
1	Lake Sharon Pump Station and 3 MG Ground Storage Tank*	96%	100%	4%	\$ 150,744	\$ 3,868,722
2	24-inch and 20-inch Water Line Along Lake Sharon Drive*	72%	90%	18%	\$ 350,881	\$ 1,954,388
3	16-inch Water Line Along South Corinth Street*	52%	78%	26%	\$ 61,076	\$ 237,641
4	12-inch Water Lines Along FM 2181*	25%	65%	41%	\$ 790,259	\$ 1,943,856
5	1.5 MG Ground Storage Tank at Lake Sharon PS*	5%	56%	51%	\$ 1,049,761	\$ 2,058,354
6	12-inch Water Line Along Shady Rest Lane and Shade Shores Road*	25%	65%	41%	\$ 186,485	\$ 458,710
7	12-inch Water Line Along Parkridge Drive, South of FM 2181*	25%	65%	41%	\$ 71,484	\$ 175,835
8	12-inch Water Line Along Parkridge Drive, North of Lake Sharon Drive**	25%	65%	41%	\$ 83,758	\$ 206,026
9	Dobbs Road 16-inch and 20-inch Water Lines	48%	76%	28%	\$ 336,449	\$ 1,200,000
10	Dobbs Road 1.0 MG Elevated Storage Tank	48%	76%	28%	\$ 2,046,729	\$ 7,300,000
11	Lake Sharon Pump Station Expansion Phase 1	0%	60%	60%	\$ 499,034	\$ 830,000
12	12-inch Water Line Along Parkridge Drive	0%	60%	60%	\$ 721,495	\$ 1,200,000
13	12-inch Water Line Along Quail Run Drive	0%	60%	60%	\$ 721,495	\$ 1,200,000
14	Water Master Plan and Impact Fee Report	0%	100%	100%	\$ 117,666	\$ 117,666
Total					\$ 7,187,316	\$ 22,751,198




*Project Cost Shown is Actual Construction Cost

** Project Constructed by Developer. In an Agreement Between the Developer and the City, the Developer Received 100% Water Impact Fee Credit for Project from the City.

Corinth Water Impact Fee CIP Project List

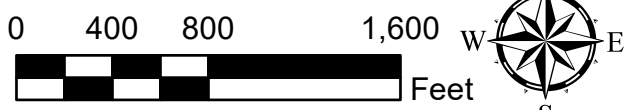
- 1. Lake Sharon Pump Station and 3 MG Ground Storage Tank
- 2. 24-inch and 20-inch Water Line Along Lake Sharon Drive
- 3. 16-inch Water Line Along Corinth Parkway
- 4. 12-inch Water Lines Along FM 2181
- 5. 1.5 MG Ground Storage Tank at Lake Sharon PS
- 6. 12-inch Water Line Along Shady Rest Lane and Shade Shores Road
- 7. 12-inch Water Line Along Parkridge Drive, South of FM 2181
- 8. 12-inch Water Line Along Parkridge Drive, North of Lake Sharon Drive
- 9. Dobbs Road 16-inch and 20-inch Water Lines
- 10. Dobbs Road 1.0 MG Elevated Storage Tank
- 11. Lake Sharon Pump Station Expansion Phase 1
- 12. 12-inch Water Line Along Sharon Drive
- 13. 12-inch Water Line Along Parkridge Drive

Legend

-  Existing Ground Tank
-  Proposed Elevated Tank
-  Existing Pump
-  Proposed Pump
-  Proposed Water Main
-  Existing Water Main
-  Corinth City Limits



Impact Fee Update
Water CIP
Figure 1.2



Kimley»Horn

July 2023

A. Project Descriptions

1. Lake Sharon Pump Station and 3 MG Ground Storage Tank

This project consists of a booster pump station, a 3 MG ground storage tank, and a 20-inch water line along future Lake Sharon Drive extension. The project involved installing 3 - 4,800 gpm pumps in a building sized for the ultimate capacity of 5 - 4,800 gpm pumps.

Project Cost (Actual Construction Cost)	\$3,868,722
Recoverable Cost	\$150,744

2. 24-inch and 20-inch Water Line Along Lake Sharon Drive

This project consists of a 24-inch and 20-inch water line extending into the water distribution system from the Lake Sharon Pump Station. The water line runs along Lake Sharon Drive and extends to Interstate Highway 35E.

Project Cost (Actual Construction Cost)	\$1,954,388
Recoverable Cost	\$350,881

3. 16-inch Water Lines Along South Corinth Street

This project consists of a 16-inch water line along South Corinth Street needed to provide looped connections with the existing 12-inch water lines. The limits for this project are between Blue Jay Drive and Post Oak Drive and Serendipity Hills Trail and Garrison Street.

Project Cost (Actual Construction Cost)	\$237,641
Recoverable Cost	\$61,076

4. 12-inch Water Lines Along FM 2181

This project consists of a 12-inch water line along FM 2181 needed to provide looped connections with the existing 12-inch water lines. The limits for this project are between Blue Jay Drive and Post Oak Drive and Serendipity Hills Trail and Garrison Street.

Project Cost (Actual Construction Cost)	\$1,943,856
Recoverable Cost	\$790,259

5. 1.5 MG Ground Storage Tank at Lake Sharon PS

This project consists of a 1.5 million gallon ground storage tank at the existing Lake Sharon pump station site.

Project Cost (Actual Construction Cost)	\$2,058,354
Recoverable Cost	\$1,049,761

6. 12-inch Water Line Along Shady Rest Lane and Shade Shores Road

This project consists of a 12-inch water line along Shady Rest Lane and Shade Shores Road. The water line connects the existing 16-inch water line along North Corinth Street with the existing 8-inch water line along Corinth Parkway.

Project Cost (Actual Construction Cost)	\$458,710
Recoverable Cost	\$186,485

7. 12-inch Water Line Along Parkridge Drive, South of FM 2181

This project consists of a 12-inch water line along Parkridge Drive from FM 2181 to Scenic Drive.

Project Cost (Actual Construction Cost)	\$175,835
Recoverable Cost	\$71,484

8. 12-inch Water Line Along Parkridge Drive, North of Lake Sharon Drive

This project consists of a 12-inch water line along Parkridge Drive, north of Lake Sharon Drive and south of Valley View Drive.

Project Cost (Impact Fee Credit to Developer from City)	\$206,026
Recoverable Cost	\$83,758

9. Dobbs Road 16-inch and 20-inch Water Lines

This project consists of 20-inch and 16-inch water lines required to provide water supply to the proposed Dobbs Road Elevated Tank. The 20-inch water line runs along Dobbs Road from Interstate Highway 35E to the proposed elevated tank. The 16-inch water line runs along Dobbs Road from the proposed elevated tank to Quail Run.

Project Cost	\$1,200,000
Recoverable Cost	\$336,449

10. Dobbs Road 1.0 MG Elevated Storage Tank

This project consists of a 1.0 MG elevated storage tank along Dobbs Road, east of Interstate 35.

Project Cost	\$7,300,000
Recoverable Cost	\$2,046,729

11. Lake Sharon Pump Station Expansion Phase 1

This project consists of expanding the pump station capacity by adding a 4,800 gpm pump. The additional pump will increase the pump station capacity to 20.7 MGD (firm).

Project Cost	\$830,000
Recoverable Cost	\$499,034

12. 12-inch Water Line Along Parkridge Drive

This project consists of a 12-inch water line along Parkridge Drive, between Church Drive and Valley View Drive, to serve future development.

Project Cost	\$1,200,000
Recoverable Cost	\$721,495

13. 12-inch Water Line Along Quail Run Drive

This project consists of a 12-inch water line that runs along Quail Run from Dobbs Road to Interstate Highway 35E, to serve future development.

Project Cost	\$1,200,000
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Recoverable Cost	\$721,485
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14. Water Master Plan and Impact Fee Report

Based on projected future infrastructure needs, the Water Impact Fees and Master Plan were updated to determine how much of the infrastructure costs may be recovered by the City.

Project Cost	\$117,666
Recoverable Cost	\$117,666

1.4 Water Impact Fee Calculation

In accordance with Chapter 395 of the Local Government Code, the City defines a service unit based on historical water usage over the last 10 years as compared to the estimated residential units. The residential unit is the development type that typically uses a 5/8" x 3/4" meter. The measure of the consumption per service unit is based on a 5/8" x 3/4" meter and the data shown in **Table 1.5**.

Table 1.5 Service Unit Consumption Calculation

Year	Population	Residential Units (2.9 persons/unit) ¹	Water Flow Average Day (MGD)	Flow per Service Unit (GPD)
2012	20,721	7,145	3.19	447
2013	20,772	7,163	2.86	399
2014	20,839	7,186	2.75	383
2015	20,957	7,227	2.90	401
2016	20,764	7,160	2.69	376
2017	20,908	7,210	3.08	427
2018	21,158	7,296	2.95	404
2019	21,491	7,411	2.86	386
2020	22,634	7,805	3.06	392
2021	22,690	7,824	2.90	371
Average Flow per Service Unit				400

Water Usage Source: City of Corinth

(1) Source: 2020 Land Use Assumptions

Additional Service Units and Water Impact Fee Calculation

The City's historic usage of 400 gallons per service unit is less than the usage projected for a single family residential unit in the City's Water Master Plan. The master plan projects a usage of 420 gallons per day per single family residential unit. After evaluating the data available, it was decided to use the Master Plan demand projection for a single family residential unit of **420** gallons per day.

Based on the City's 10-year growth projections and the resulting water demand projections, water service will be required for an additional 3,571 service units. The calculation is as follows:

- A service unit, which is a unit of development that consumes approximately 420 gallons per day (GPD), is a typical residential connection that uses a 5/8"x 3/4" meter. **Table 3.6** outlines the future water demand projections and its relationship to the additional service units projected for the next 10-years.

Table 1.6 10-year Additional Service Units Calculation

Year	Average Day Demand (MGD)	Service Unit Demand (GPD)	Service Units
2023	3.99	420	9,500
2033	5.49	420	13,071
10-year Additional Service Units			3,571

*Projected Water Usage Source: Water and Wastewater Master Plan and Land Use Assumptions, 2023

Impact fee law allows for a credit calculation to credit back the development community based on the utility revenues or ad valorem taxes that are allocated for paying a portion of future capital improvements. The intent of this credit is to prevent the City from double charging development for future capital improvements via impact fees and utility rates. If the City chooses to not do a financial analysis to determine the credit value, they are required by law to reduce the recoverable cost by 50 percent. The city has chosen the latter; therefore, the maximum recoverable cost for impact fee shown below is 50 percent of the Pre Credit Recoverable Cost.

A breakdown of the 10-year recoverable costs and the associated impact fee per service unit is as follows:

Table 1.7 10-year Recoverable Cost Breakdown

Pre Credit CIP Recoverable Cost for Impact Fee	\$7,187,316
Financing Costs (5% Provided by City)	\$2,314,890
Pre Credit Total	\$9,502,206
Credit for Utility Revenues (50% credit)	(\$4,751,103)
Maximum Recoverable Cost for Impact Fee	\$4,751,103

$$\text{Impact fee per service unit} = \frac{\text{10-year recoverable costs}}{\text{10-year additional service units}}$$

$$\text{Impact fee per service unit} = \frac{\$4,751,103}{3,571}$$

$$\text{Impact fee per service unit} = \$1,330$$

Therefore, the maximum assessable impact fee per service unit is **\$1,330**.

For a development that requires a different size meter, a service unit equivalent is established at a multiplier based on its capacity with respect to the 5/8"x 3/4" meter. The maximum impact fee that could be assessed for other meter sizes is based on the value shown on **Table 1.8**, Service Unit Equivalency Table for Commonly Used Meters.

Table 1.8 Service Unit Equivalency Table for Commonly Used Meters

Meter Size*	Maximum Continuous Operating Capacity (GPM)**	Service Unit Equivalent	Maximum Assessable Fee (\$)
5/8"x 3/4" PD	10	1	1,330
3/4" PD	15	1.5	1,995
1" PD	25	2.5	3,325
1 1/2" PD	50	5	6,650
2" PD	80	8	10,640
2" Compound	80	8	10,640
2" Turbine	160	16	21,280
3" Compound	175	17.5	23,275
3" Turbine	350	35	46,550
4" Compound	300	30	39,900
4" Turbine	650	65	86,450
6" Compound	675	67.5	89,775
6" Turbine	1,400	140	186,200
8" Compound	900	90	119,700
8" Turbine	2,400	240	319,200
10" Turbine	3,500	350	465,500

* PD = Positive Displacement Meter (Typical residential meter)

** Operating capacities obtained from American Water Works Associate (AWWA) C700-15, C701-15, and C702-15. Turbine and Compound meter flows are based on Class II (in-line) meters.

Kimley-Horn & Associates, Inc.

Opinion of Probable Construction Cost

Client: City of Corinth	Date: 7/19/2023
Project: Water Capital Improvement Projects	Prepared By: JDJ
KHA No.: 061008059	Checked By: MAS

Title: Dobbs Road 16-inch and 20-inch Water Lines	Project: 9
---	------------

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization, Bonds & Insurance	1	LS	\$ 30,000.00	\$ 30,000
2	Furnish & Install 16-Inch Waterline	1800	LF	\$ 330.00	\$ 594,000
3	Furnish & Install 16-Inch Waterline with 30-Inch Steel Encasement By Bore	100	LF	\$ 1,200.00	\$ 120,000
4	Furnish & Install 16-Inch Valve	1	EA	\$ 15,000.00	\$ 15,000
5	Furnish & Install Combination 2-Inch Air Release/Vacuum Valve & Assembly	1	EA	\$ 10,000.00	\$ 10,000
6	Furnish & Install Standard Fire Hydrant Assembly (including valve & 6-inch lead)	5	EA	\$ 8,000.00	\$ 40,000
7	Connect to 20-Inch/16-Inch Waterline	2	EA	\$ 20,000.00	\$ 40,000
8	Furnish, Install & Mainatin Hydromulch	11100	SY	\$ 3.00	\$ 33,300
9	Furnish, Install & Implement Trench Safety Plan	1800	LF	\$ 4.00	\$ 7,200
10	Stormwater Pollution Prevention Plan & Erosion Control	1	LS	\$ 8,500.00	\$ 8,500

- Basis for Cost Projection:**
- ☒ No Design Completed
- ☐ Preliminary Design
- ☐ Final Design

Subtotal:		\$ 898,000
Contingency (+/- %):	25	\$ 302,000
Total:		\$ 1,200,000

Kimley-Horn & Associates, Inc.

Opinion of Probable Construction Cost

Client: City of Corinth	Date: 7/19/2023
Project: Water Capital Improvement Projects	Prepared By: JDJ
KHA No.: 061008059	Checked By: MAS

Title: Dobbs Road 1.0 MG Elevated Storage Tank	Project: 10
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Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization, Site Preparation, Bonds & Insurance	1	LS	\$ 200,000.00	\$ 200,000
2	Construct 1.0-MG Composite Elevated Steel Water Storage	1	LS	\$3,950,000.00	\$ 3,950,000
3	Separate Inlet and Outlet Piping and Valves	1	LS	\$ 75,000.00	\$ 75,000
4	Specialty Pipe Materials - Type 316 SS	1	LS	\$ 20,000.00	\$ 20,000
5	Inetermediate Landings	1	LS	\$ 10,000.00	\$ 10,000
6	Control Room within Pedestal with HEATING & Lighting	1	LS	\$ 50,000.00	\$ 50,000
7	Tank Mixing System	1	LS	\$ 75,000.00	\$ 75,000
8	Tank & Site Electrical Components	1	LS	\$ 100,000.00	\$ 100,000
9	Connect EST Instrumentation to SCADA System	1	LS	\$ 50,000.00	\$ 50,000
10	Tank Logos	3	EA	\$ 50,000.00	\$ 150,000
11	Furnish & Install 18-Inch Waterline By Open Cut	435	LF	\$ 350.00	\$ 152,250
12	Furnish & Install 18-Inch Gate Valve	2	EA	\$ 22,000.00	\$ 44,000
13	Furnish & Install 12-Inch Waterline By Open Cut	275	LF	\$ 300.00	\$ 82,500
14	Furnish & Install 12-Inch Gate Valve	1	EA	\$ 6,000.00	\$ 6,000
15	Furnish & Install 12"x12" Tapping Sleeve & Valve	1	EA	\$ 14,000.00	\$ 14,000
16	Connect to 20-Inch/16-Inch Waterline	1	LS	\$ 20,000.00	\$ 20,000
17	Furnish & Install 8-Inch Thick Reinforced Concrete Access	1645	SY	\$ 120.00	\$ 197,400
18	Furnish & Install 6-Inch Thick Reinforced Concrete Drivewa	295	SY	\$ 100.00	\$ 29,500
19	Furnish & Install 8-Foot Tall Welded Steel Fence	741	LF	\$ 300.00	\$ 222,300
20	Furnish & Intall 24-Foot Sliding Gate	1	EA	\$ 20,000.00	\$ 20,000
21	EArthwork & Site Grading	950	CY	\$ 40.00	\$ 38,000
22	Furnish & Install 18-Inch RCP	85	LF	\$ 110.00	\$ 9,350
23	Furnish & Install 3'x3' Wye Inlet	2	EA	\$ 5,000.00	\$ 10,000
24	Furnish & Install 18-Inch Safety End Treatment	2	EA	\$ 2,500.00	\$ 5,000
25	Furnish, Install & Maintain Solid Sod	4315	SY	\$ 15.00	\$ 64,725
26	Stormwater Pollution Prevention Plan & Erosion Control	1	LS	\$ 6,000.00	\$ 6,000
27	Site Security & Logo Lighting	1	LS	\$ 225,000.00	\$ 225,000
Basis for Cost Projection:				Subtotal:	\$ 5,826,025
<input checked="" type="checkbox"/> No Design Completed				Contingency (+/- %): 25	\$ 1,473,975
<input type="checkbox"/> Preliminary Design				Total:	\$ 7,300,000
<input type="checkbox"/> Final Design					

Kimley-Horn & Associates, Inc.

Opinion of Probable Construction Cost

Client:	City of Corinth	Date:	7/19/2023
Project:	Water Capital Improvement Projects	Prepared By:	JDJ
KHA No.:	061008059	Checked By:	MAS

Title:	Lake Sharon Pump Station Expansion Phase 1 (4,800 gpm Pump)	Project:	11
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Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	\$ 20,000.00	\$ 20,000
2	4800 GPM Pump and 400 HP Motor	1	EA	\$ 200,000.00	\$ 200,000
3	16" Pump Control Valve	1	EA	\$ 60,000.00	\$ 60,000
4	20" Spool Piping	1	LS	\$ 8,000.00	\$ 8,000
5	16" Spool Piping	1	LS	\$ 6,000.00	\$ 6,000
6	Electrical	1	LS	\$ 200,000.00	\$ 200,000
7	SCADA	1	LS	\$ 75,000.00	\$ 75,000
8	Concrete Pump Base	1	EA	\$ 5,000.00	\$ 5,000
9	2" Air Release Valve	1	EA	\$ 15,000.00	\$ 15,000
Basis for Cost Projection:					
<input checked="" type="checkbox"/>	No Design Completed				
<input type="checkbox"/>	Preliminary Design				
<input type="checkbox"/>	Final Design				
Subtotal:					\$ 589,000
Eng/Survey Fees (+/- %):					15 \$ 88,000
Contingency (+/- %):					25 \$ 153,000
					\$ -
Total:					\$ 830,000

Kimley-Horn & Associates, Inc.

Opinion of Probable Construction Cost

Client:	City of Corinth	Date:	7/19/2023
Project:	Water Capital Improvement Projects	Prepared By:	JDJ
KHA No.:	061008059	Checked By:	MAS

Title:	12-inch Water Line Along Parkridge Drive	Project:	12
--------	--	----------	----

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	\$ 30,000	\$ 30,000
2	12" Water Line	2,650	LF	\$ 250.00	\$ 662,500
3	Trench Safety	2,650	LF	\$ 4.00	\$ 10,600
4	Seed, Fertilizer and Erosion Control	2,640	LF	\$ 15.00	\$ 39,600
5	Concrete Pavement Repair (SY)	10	SY	\$ 120.00	\$ 1,200
6	12" Gate Valve (1 per 2,000 LF of pipe)	2	EA	\$ 6,000.00	\$ 12,000
7	Fire Hydrant Assembly (1 per 2,000 LF of pipe)	2	EA	\$ 8,000.00	\$ 16,000
8	Connect to Existing Water Line	3	EA	\$ 12,000.00	\$ 36,000
9	Hydrostatic Testing and Disinfection	1	LS	\$ 10,000.00	\$ 10,000
Basis for Cost Projection:					
<input checked="" type="checkbox"/>	No Design Completed				Subtotal:
<input type="checkbox"/>	Preliminary Design				Eng/Survey Fees (+/- %):
<input type="checkbox"/>	Final Design				Contingency (+/- %):
					Total:

Kimley-Horn & Associates, Inc.

Opinion of Probable Construction Cost

Client: City of Corinth	Date: 7/19/2023
Project: Water Capital Improvement Projects	Prepared By: JDJ
KHA No.: 061008059	Checked By: MAS

Title: 12-inch Water Line Along Quail Run Drive	Project: 13
---	-------------

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	\$ 30,000	\$ 30,000
2	12" Water Line	2,200	LF	\$ 250.00	\$ 550,000
3	Trench Safety	2,200	LF	\$ 4.00	\$ 8,800
4	Seed, Fertilizer and Erosion Control	1,000	LF	\$ 15.00	\$ 15,000
5	Concrete Pavement Repair (SY)	1,200	SY	\$ 120.00	\$ 144,000
6	12" Gate Valve (1 per 2,000 LF of pipe)	2	EA	\$ 6,000.00	\$ 12,000
7	Fire Hydrant Assembly (1 per 2,000 LF of pipe)	2	EA	\$ 8,000.00	\$ 16,000
8	Connect to Existing Water Line	2	EA	\$ 12,000.00	\$ 24,000
9	Hydrostatic Testing and Disinfection	1	LS	\$ 10,000.00	\$ 10,000
Basis for Cost Projection:					
<input checked="" type="checkbox"/>	No Design Completed				Subtotal: \$ 809,800
<input type="checkbox"/>	Preliminary Design				Eng/Survey Fees (+/- %): 15 \$ 121,000
<input type="checkbox"/>	Final Design				Contingency (+/- %): 25 \$ 269,200
		Total:			\$ 1,200,000

EXHIBIT “A-1”
City of Corinth, Texas Wastewater Impact Fee Report for 2023 and Land Use Assumptions
(dated July, 2023)

City of Corinth, Texas Wastewater Impact Fee Report for 2023

July 2023



Prepared for:
City of Corinth

Prepared by:
Kimley»Horn

Kimley-Horn and Associates, Inc.
13455 Noel Rd, Two Galleria Office Tower, Suite 700
Dallas, TX 75240
Phone: 972 770 1300
TBPE Firm Registration Number: F-928
Project Number: 061008059
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Appendices

- A. Conceptual Level Project Cost Projections

2.1 Wastewater Impact Fee Executive Summary

This study was performed to update the City of Corinth's (City) Wastewater System Impact Fees. Wastewater system analysis and the Wastewater System Master Plan are important tools for facilitating orderly growth of the wastewater system and for providing adequate facilities that promote economic development in the City. The implementation of an impact fee is a way for development to pay their proportionate impact on the wastewater system facilities.

Elements of the wastewater system, including pumping facilities, force mains and the gravity collection system, were evaluated against industry standards, such as the Texas Commission on Environmental Quality (TCEQ), and as outlined in the Design Criteria section of this report. Information related to the growth of the City was developed through evaluation of historical growth rates, discussions with City staff, and the City's Comprehensive Master Plan (2020).

Wastewater system improvements necessary to serve 10-year (2033) and buildout system needs were evaluated. Typically, infrastructure improvements are designed beyond the 10-year requirements; however, Texas' impact fee law (Chapter 395 of the Local Government Code) only allows recovery of costs to serve the 10-year planning period. A portion of the remaining costs past the 10-year window may be recovered as a result of impact fee updates in the future.

The impact fee law defines a service unit as "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 and based on historical data and trends applicable to the political subdivision in which the individual unit of development is located during the previous 10 years". For the purpose of this report, the City defines a service unit as a unit of development that consumes the amount of water requiring a standard 5/8" x 3/4" meter. For developments that require a different size meter, a service unit equivalent has been determined as a multiplier of the 5/8" x 3/4" meter based on its required operating capacity. These service unit equivalency factors and associated maximum assessable impact fees are shown in **Table 2.1**.

The City's Wastewater system is divided into three service areas, Denton, Upper Trinity East, and Upper Trinity West. Each of these areas must be evaluated individually to determine the maximum impact fee allowable for each service area. Based on the City's 10-year growth projections and the associated demand (consumption) values, **0** additional service units will need in the Denton service area, **3,292** will be needed in the Upper Trinity East service area and **292** will be needed in the Upper Trinity West Service Basin by the year 2033. Based on the additional service units and the recoverable capital improvements plans, the City may assess a maximum of **\$582** per service unit for the Upper Trinity East service area, and a maximum of **\$4,785** for the Upper Trinity West service area. Support and calculations for these results are included in the following report.

For comparison, the previous wastewater impact fee update determined the City may assess a maximum of \$0, \$1,271, and \$2,121 per service unit for the Denton, Upper Trinity East, and Upper Trinity West wastewater service areas respectively.

Table 2.1 Maximum Assessable Wastewater Impact Fee for Commonly Used Meters

Meter Size*	Maximum Continuous Operating Capacity (GPM)**	Service Unit Equivalent	Maximum Assessable Fee per Service Area (\$)		
			Denton	Upper Trinity East	Upper Trinity West
5/8"x 3/4" PD	10	1	\$0	582	4,785
3/4" PD	15	1.5	\$0	873	7,178
1" PD	25	2.5	\$0	1,456	11,963
1 1/2" PD	50	5	\$0	2,911	23,925
2" PD	80	8	\$0	4,658	38,280
2" Compound	80	8	\$0	4,658	38,280
2" Turbine	160	16	\$0	9,317	76,560
3" Compound	175	17.5	\$0	10,190	83,738
3" Turbine	350	35	\$0	20,380	167,475
4" Compound	300	30	\$0	17,469	143,550
4" Turbine	650	65	\$0	37,849	311,025
6" Compound	675	67.5	\$0	39,304	322,988
6" Turbine	1,400	140	\$0	81,520	669,900
8" Compound	900	90	\$0	52,406	430,650
8" Turbine	2,400	240	\$0	139,749	1,148,400
10" Turbine	3,500	350	\$0	203,801	1,674,750

* PD = Positive Displacement Meter (Typical residential meter)

** Operating capacities obtained from American Water Works Associate (AWWA) C700-15, C701-15, and C702-15. Turbine and Compound meter flows are based on Class II (in-line) meters.

Table 2.2 Additional Service Units - 2033

Service Area	2033 Additional Service Units
Denton	0
Upper Trinity East	3,292
Upper Trinity West	292
TOTAL	3,584

2.2 Introduction

The City of Corinth retained the services of Kimley-Horn and Associates, Inc. (Kimley-Horn) for the purpose of updating the existing wastewater impact fee. The impact fees were last updated in 2017 by Kimley-Horn. The purpose of the report is to satisfy the requirements of the law and provide the City with an updated impact fee capital improvements plan and associated impact fees

For convenience and reference, the following is excerpted from Chapter 395 of the *Local Government Code*, "Financing Capital Improvements required by New Development in Municipalities, Counties, and certain other Local Governments."

- (a) *The political subdivision shall use qualified professionals to prepare the capital improvements plan and to calculate the impact fee. The capital improvements plan must contain specific enumeration of the following items:*
- (1) *a description of the existing capital improvements within the service area and the costs to upgrade, update, improve, expand, or replace the improvements to meet existing needs and usage and stricter safety, efficiency, environmental, or regulatory standards, which shall be prepared by a qualified professional engineer licensed to perform such professional engineering services in this state;*
 - (2) *an analysis of the total capacity, the level of current usage, and commitments for usage of capacity of the existing capital improvements, which shall be prepared by a qualified professional engineer licensed to perform such professional engineering services in this state;*
 - (3) *a description of all or the parts of the capital improvements or facility expansions and their costs necessitated by and attributable to new development in the service area based on the approved land use assumptions, which shall be prepared by a qualified professional engineer licensed to perform such professional engineering services in this state;*
 - (4) *a definitive table establishing the specific level or quantity of use, consumption, generation, or discharge of a service unit for each category of capital improvements or facility expansions and an equivalency or conversion table establishing the ratio of a service unit to various types of land uses, including but not limited to residential, commercial, and industrial;*
 - (5) *the total number of projected service units necessitated by and attributable to new development within the service area based on the approved land use assumptions and calculated in accordance with generally accepted engineering or planning criteria;*
 - (6) *the projected demand for capital improvements or facility expansions required by new service units projected over a reasonable period of time, not to exceed 10 years; and*
 - (7) *a plan for awarding:*
 - (A) *a credit for the portion of ad valorem tax and utility service revenues generated by new service unit 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 project cost of implementing the capital improvements plan.*

The impact fee study includes information from the *Water and Wastewater Master Plan Report, 2023*. The impact fees are based on recommended capital improvements and the population growth projections outlined in the *Water and Wastewater Master Plan Report as well as the City's Comprehensive Master Plan*.

The study process was comprised of three (3) tasks:

A. Land Use Assumptions

In order to assess an impact fee, Land Use Assumptions must be developed to provide the basis for population and employment 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. In addition, these assumptions are useful in assisting the City of Corinth in determining the need and timing of capital improvements to serve future development.

In accordance with Chapter 395, information for the development of the Land Use Assumptions was determined from the City of Corinth Comprehensive Land Use Plan Categories – 2020 as well as working with City staff to identify possible changes to the future land use plan, aerial photography, and consultation with City staff.

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

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

Employment: Acreages based on retail, service, and basic land uses. Each classification has unique demand characteristics.

Retail: Land use activities which provide for the retail sale of goods that 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 administrative offices.

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

The proposed geographic boundaries for the impact fee service areas for wastewater facilities are shown in **Figure 2.1**. The City of Corinth contains three (3) service areas; Denton, Upper Trinity East, and Upper Trinity West.

B. Impact Fee Capital Improvements Plan

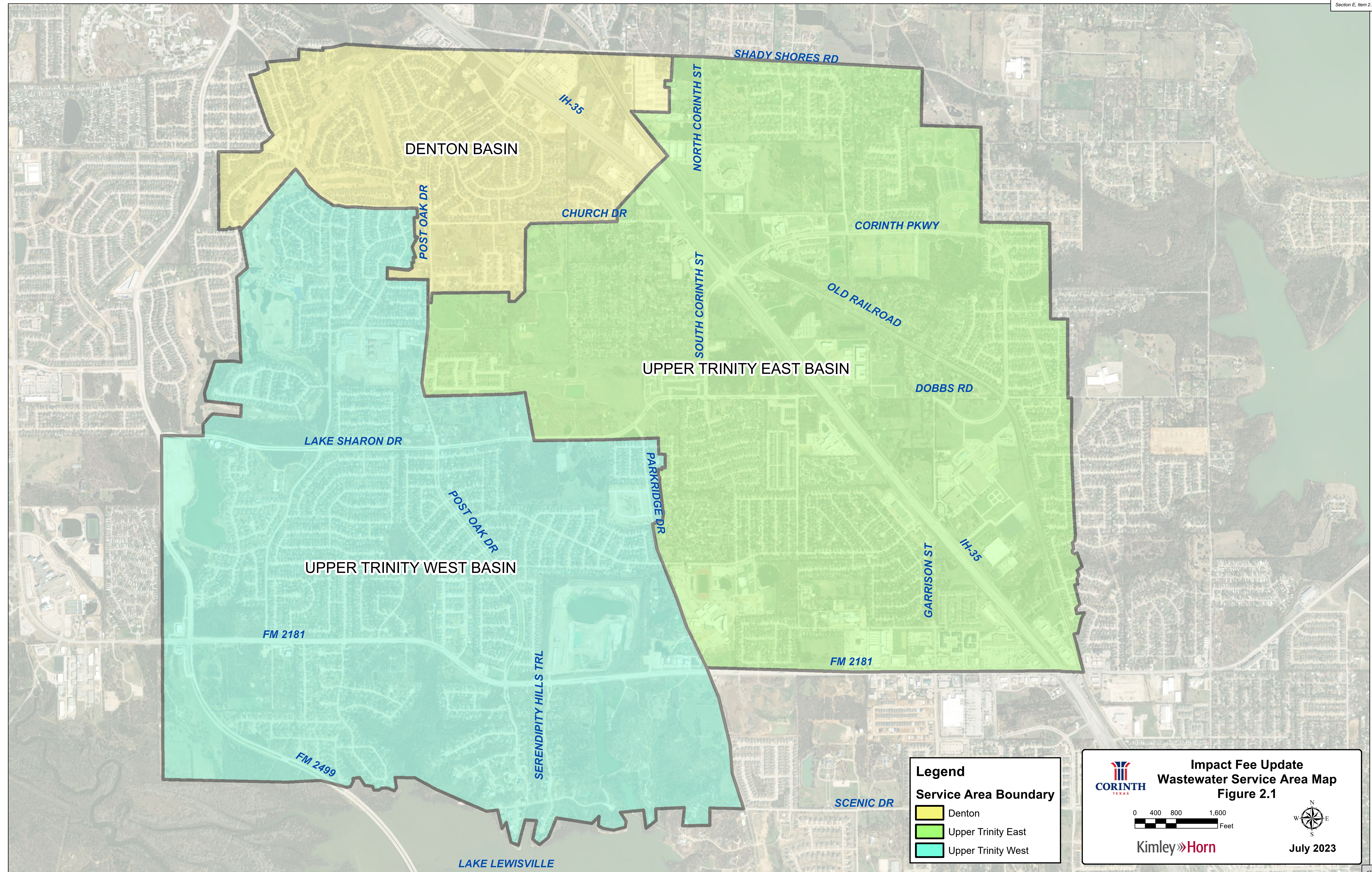
This task involved evaluation of the wastewater capital improvements plan outlined in the master plan and discussion with City staff to identify projects that will be built in the 10-year planning window and meet the design criteria outlined in the Wastewater Master Plan Report, 2023. This task also involved estimating the utilized capacity of the existing and proposed capital improvement projects to determine their 10-year recoverable cost.

C. Impact Fee Analysis and Report

This task included calculating the additional service units, service unit equivalents, and credit reduction. These values were then used to determine the impact fee per service unit and the maximum assessable impact fee by meter size.

Table 2.1 Residential and Non-Residential Growth Projections for the City of Corinth

Service Area	Year	Population Growth	Employment (Sq. Ft.) Growth			
			Basic	Service	Retail	Total
Upper Trinity West	10-Year Growth	630	0	115,830	463,470	579,300
Upper Trinity East	10-Year Growth	8487	0	1,534,170	586,530	2,120,700
Denton	10-Year Growth	0	0	0	0	0



2.2 Design Criteria

A. Sewer Trunk Lines (Interceptors)

The design criteria for sewer trunk lines or interceptors are based on the TCEQ requirements that meet peak wet weather design flows with no overflows while maintaining a minimum of 2 ft/sec cleaning velocity and a maximum of 8 ft/sec velocity.

B. Lift Stations Pumping Capacity

The design criteria for lift station pumping shall be to provide firm pumping capacity to meet 125% of the peak wet weather design flows. The firm pumping capacity is defined as the available total pumping capacity with the largest pump out of service.

C. Force Mains

The design criteria recommended for force mains is to meet the required pumping capacity of the lift station at a velocity less than 8 feet per second and a maximum discharge pressure of 100 psi and to allow a minimum of 2 feet per second scouring velocity during a single pump operation.

D. Wastewater Demand

The criteria used for projecting the water demands for the water system were derived from the *Water and Wastewater Master Plan Report, 2023*. **Table 2.3** shows the projected average day demand by land use type.

Table 2.3 Demand by Land Use Type

Residential Land Use	gpcd
Load Per Capita	70
Non-Residential Land Use	gpd/acre
Parks and Open Space	40
Public/Semi-Public	1,200
Mixed Use Non-Residential	900
Office/Business Park	1,600
Retail	640
Commercial	800
Industrial	400

2.3 Impact Fee Capital Improvements Plan

The City of Corinth commissioned Kimley-Horn and Associates, Inc. to update the current Wastewater Master Plan in 2021. The purpose of the wastewater master plan is to provide the City with a logical strategy for upgrading and expanding its wastewater collection system to accommodate future growth and for addressing existing system deficiencies.

The City's Wastewater system is divided into three service areas: Denton, Upper Trinity East, and Upper Trinity West. Each of these areas must be evaluated individually to determine the maximum impact fee allowable for each service area.

The Denton service area has zero (0) projects planned for the future and as a result there are no recoverable costs associated with this service area. The impact fee for the Denton service area is \$0. While the Denton service area has no City of Corinth Impact Fee residents in this service area may be subject to a charge associated with the City of Denton Impact Fees. The proposed future Wholesale Wastewater Treatment Contract between the City of Denton and the City of Corinth may require that Corinth residents in this service area pay the adopted City of Denton Impact Fee.

The Upper Trinity East service area has nine (9) projects which are determined eligible for recoverable cost through impact fee over the next 10 years. The total cost of these projects is \$7,794,984. The projected total CIP recoverable cost through impact fees is \$2,710,134. These impact fee capital improvements are shown in **Table 2.4.1** and illustrated in **Figure 2.2**.

The Upper Trinity West service area has four (4) projects which are determined eligible for recoverable cost through impact fee over the next 10 years. The total cost of these projects is \$9,048,175. The projected total CIP recoverable cost through impact fees is \$2,233,034. These impact fee capital improvements are shown in **Table 2.4.2** and illustrated in **Figure 2.2**.

The recoverable percentage represents the projected utilization and capacity of each project over the next 10 years. These values were determined by utilizing the hydraulic model prepared for the Wastewater Master Plan Update.

Table 2.4.1 Upper Trinity East

Wastewater Impact Fee Capital Improvements Project Cost and 10-Year Recoverable Cost

Proj. #	Description	2023 Required Capacity (Percent Utilization)	2033 Required Capacity (Percent Utilization)	2023-2033 Required Capacity (Percent Utilization)	2033 Projected Recoverable Cost	Total Project Cost
1*	Lift Station 3A and 18-inch/21-inch Wastewater Line	86%	100%	14%	\$ 234,000	\$ 1,686,163
2*	Lift Station 3A 14-inch/12-inch Force Main	65%	91%	27%	\$ 185,200	\$ 688,165
3*	Lift Station 3A 18-inch Wastewater Line	65%	91%	27%	\$ 78,400	\$ 291,425
4*	Lynchburg 15-inch, 12-inch and 10-inch Wastewater Lines	65%	91%	27%	\$ 342,400	\$ 1,272,325
5*	Lift Station 2 Expansion and 6-inch Force Main	65%	91%	27%	\$ 171,000	\$ 635,572
6	Lift Station 3A Upgrade	0%	52%	52%	\$ 198,100	\$ 380,000
7	Lift Station 3A Parallel Force Main	0%	52%	52%	\$ 990,500	\$ 1,900,000
8	Lynchburg Creek Gravity Interceptor Improvements	0%	52%	52%	\$ 469,200	\$ 900,000
9	Wastewater Master Plan and Impact Fee Update	0%	100%	100%	\$ 41,334	\$ 41,334
Total					\$ 2,710,134	\$ 7,794,984

*Project Cost Shown is Actual Construction Cost

Table 2.4.2 Upper Trinity West

Wastewater Impact Fee Capital Improvements Project Cost and 10-Year Recoverable Cost

Proj. #	Description	2023 Required Capacity (Percent Utilization)	2033 Required Capacity (Percent Utilization)	2023-2033 Required Capacity (Percent Utilization)	2033 Projected Recoverable Cost	Total Project Cost
1*	Westside Lift Station Improvements	16%	39%	22%	\$ 512,200	\$ 2,286,172
2*	FM 2181 18-inch Force Main	16%	39%	22%	\$ 609,600	\$ 2,720,669
3	South Lift Station, Force Main and Gravity Improvements	0%	27%	27%	\$ 1,069,900	\$ 4,000,000
4	Wastewater Master Plan and Impact Fee Update	0%	100%	100%	\$ 41,334	\$ 41,334
Total					\$ 2,233,034	\$ 9,048,175

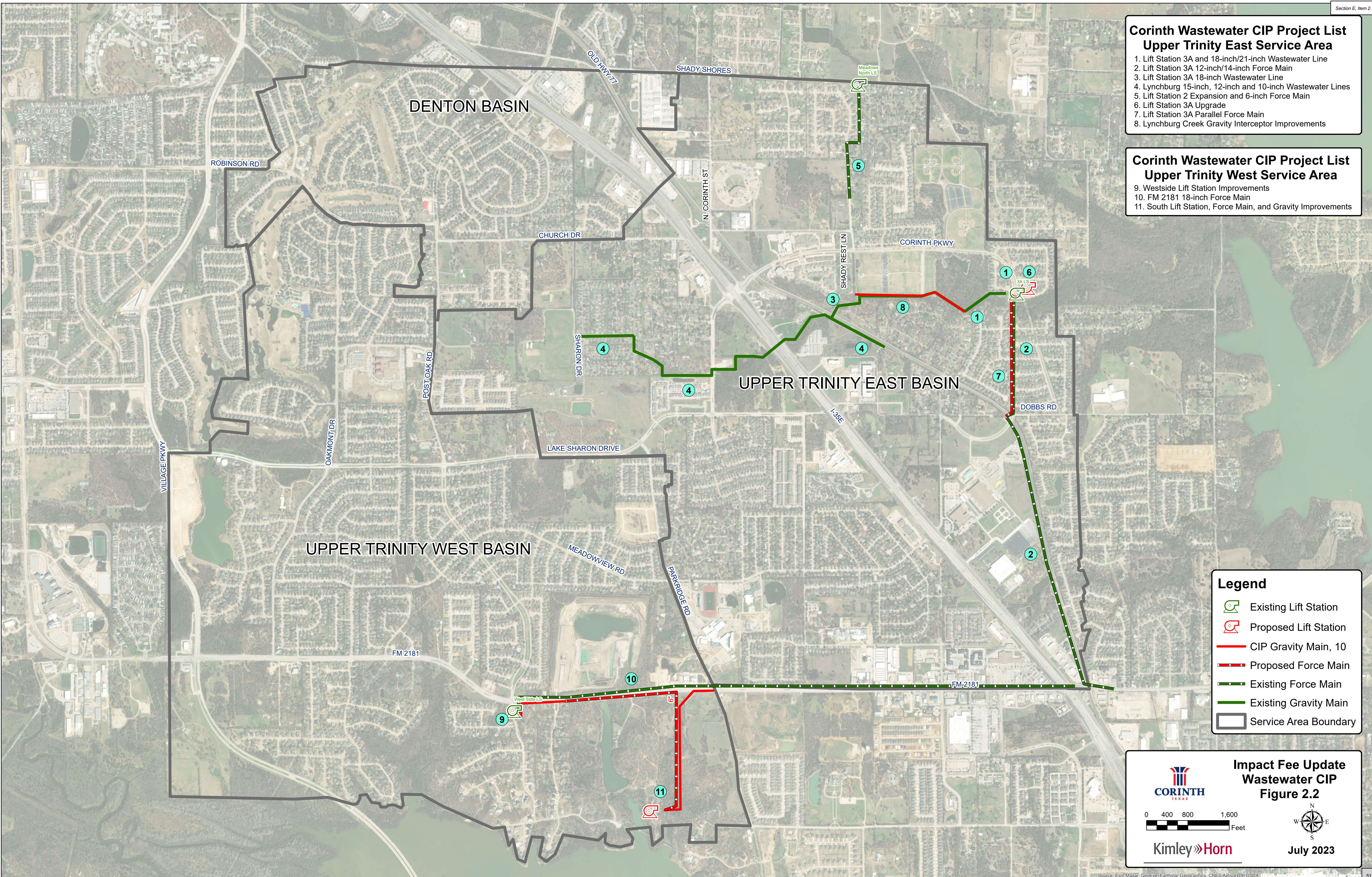
*Project Cost Shown is Actual Construction Cost

Corinth Wastewater CIP Project List Upper Trinity East Service Area

1. Lift Station 3A and 18-inch/21-inch Wastewater Line
2. Lift Station 3A 12-inch/14-inch Force Main
3. Lift Station 3A 18-inch Wastewater Line
4. Lynchburg 15-inch, 12-inch and 10-inch Wastewater Lines
5. Lift Station 2 Expansion and 6-inch Force Main
6. Lift Station 3A Upgrade
7. Lift Station 3A Parallel Force Main
8. Lynchburg Creek Gravity Interceptor Improvements

Corinth Wastewater CIP Project List Upper Trinity West Service Area

9. Westside Lift Station Improvements
10. FM 2181 18-inch Force Main
11. South Lift Station, Force Main, and Gravity Improvements



A. Project Descriptions (By Service Area)

I. Denton Service area

1. No Projects Planned

Project Cost	\$0
Recoverable Cost	\$0

II. Upper Trinity East Service area

1. Lift Station 3A and 18-inch/21-inch Wastewater Line

This project involved the abandonment of Lift Stations 3 and 4 and the installation of three pumps along with the lift station structure. The project also involved an 18-inch/21-inch gravity wastewater line from Shady Rest Lane to the lift station site.

Project Cost (Actual Construction Cost)	\$1,686,163
Recoverable Cost	\$234,000

2. Lift Station 3A 14-inch/12-inch Force Main

This project involved the installation of a 14-inch/12-inch force main from the Lift Station 3A site to an existing UTRWD force main located near FM 2181.

Project Cost (Actual Construction Cost)	\$688,165
Recoverable Cost	\$185,200

3. Lift Station 3A 18-inch Wastewater Line

This project involved the installation of an 18-inch gravity wastewater line from Shady Rest Lane to the Old Railroad.

Project Cost (Actual Construction Cost)	\$291,425
Recoverable Cost	\$78,400

4. Lynchburg 15-inch, 12-inch, and 10-inch Wastewater Lines

This project consisted of the installation of a 12-inch gravity wastewater line from Sharon Drive to Oak Hill Drive, a 15-inch gravity line from Oak Hill Drive to the east side of Interstate Highway 35E, and a 10-inch gravity wastewater line along the Old Railroad.

Project Cost (Actual Construction Cost)	\$1,272,325
Recoverable Cost	\$342,400

5. Lift Station 2 Expansion and 6-inch Force Main

This project consisted of the expansion of the existing Lift Station 2 and the installation of a 6-inch force main from the lift station to Corinth Bend.

Project Cost (Actual Construction Cost)	\$635,572
Recoverable Cost	\$171,000

6. Lift Station 3A Upgrade

This project consists of the installation of a fourth pump at the existing lift station. The additional pump will increase the lift station firm capacity from 2.3 MGD to 3.4 MGD.

Project Cost	\$380,000
Recoverable Cost	\$198,100

7. Lift Station 3A Parallel Force Main

This project consists of the installation of a parallel force main to increase pumping capacity for Lift Station 3A. The force main would begin at the lift station site and end near Dobbs Road.

Project Cost	\$1,900,000
Recoverable Cost	\$990,500

8. Lynchburg Creek Gravity Interceptor Improvements

This project consists of the upsizing the existing 18-inch gravity wastewater line south of Corinth Parkway, west of Lift Station 3A. The wastewater line is recommended to be upsized to a 21-inch wastewater line.

Project Cost	\$496,200
Recoverable Cost	\$900,000

9. Wastewater Master Plan and Impact Fee Update

Based on the projected future infrastructure needs, a Wastewater Impact Fee Update was completed to determine how much of the infrastructure costs may be recovered by the City. The recoverable costs associated with the Wastewater Impact Fee Update have been divided among the Upper Trinity East and Upper Trinity West service areas.

Project Cost	\$41,334
Recoverable Cost	\$41,334

III. Upper Trinity West Service area**1. Westside Lift Station Improvements**

This project involves the expansion of the existing Westside Lift Station. The improvements involved a new wet well and three new 2.8 MGD pumps, an associated electrical building and equipment upgrades.

Project Cost (Actual Construction Cost)	\$2,286,172
Recoverable Cost	\$512,200

2. FM 2181 18-inch Force Main

This project involves the installation of an 18-inch force main from the Westside Lift Station to Interstate Highway 35E.

Project Cost (Actual Construction Cost)	\$2,720,669
Recoverable Cost	\$609,600

3. South Lift Station, Force Main, and Gravity Improvements

Improvements will be required to provide a regional solution to wastewater service for this area to serve future development. Improvements will include gravity wastewater lines, lift station, and force main.

Project Cost (Actual Construction Cost)	\$4,000,000
Recoverable Cost	\$1,069,900

4. Wastewater Master Plan and Impact Fee Update

Based on the projected future infrastructure needs, a Wastewater Impact Fee Update was completed to determine how much of the infrastructure costs may be recovered by the City. The recoverable costs associated with the Wastewater Impact Fee Update have been divided among the Upper Trinity East and Upper Trinity West service areas.

Project Cost	\$41,334
Recoverable Cost	\$41,334

2.4 Wastewater Impact Fee Calculation

Chapter 395 of the Local Government Code defines a service unit as follows, "Service Unit" means a standardized measure of consumption attributable to an individual unit of development calculated in accordance with generally accepted engineering or planning standards and based on historical data and trends applicable to the political subdivision in which the individual unit of development is located during the previous 10 years." Therefore, the City of Corinth defines a *service unit* based on historical wastewater usage over the past 10 years as compared to the estimated residential units. The residential unit is the development type that predominately uses a 5/8"x 3/4" meter. The measure of consumption per service unit is based on a 5/8"x 3/4" meter and the data shown in **Table 2.5**.

Table 2.5 Service Unit Consumption Calculation

Year	Population ¹	Residential Units (2.9 persons/unit) ¹	Wastewater Flow Average Day Flow (MGD)	Flow per Service Unit (GPD)
2012	20,721	7,145	1.30	182
2013	20,772	7,163	1.35	189
2014	20,839	7,186	1.38	192
2015	20,957	7,227	1.50	208
2016	20,764	7,160	1.44	201
2017	20,908	7,210	1.25	173
2018	21,158	7,296	1.43	196
2019	21,491	7,411	1.31	177
2020	22,634	7,805	1.30	167
2021	22,690	7,824	1.34	171
Average Flow per Service Unit				187

Wastewater Usage Source: City of Corinth
 (1) Source: 2022 Land Use Assumptions

The City's historic usage of 187 gallons per service unit is less than the usage projected for a single family residential unit in the City's Wastewater Master Plan. In addition, the historical usage is less than the average flow per service unit required to correspond with the projected water service unit numbers calculated in the Water Impact Fee Report. After evaluating the data available, it was decided that a service unit projection of 240 gallons per day per unit would be utilized in order to correspond with the number of projected water service connections.

Based on the City's 10-year growth projections and the resulting wastewater flow projections, wastewater service will be required for 3,584 additional service units. The calculation is as follows:

- A service unit, which is a unit of development that discharges approximately 240 gallons per day (GPD), is a typical residential connection that uses a 5/8"x 3/4" meter. **Tables 2.6.1 – 2.6.3** outlines the future wastewater discharge projections and its relationship to the additional service units projected for the next 10-years.

Table 2.6.1 Denton Service Area 10-year Additional Service Unit Calculation

Year	Average Day Flow (MGD)	Service Unit Demand (GPD)	Service Units
2023	0.26	240	1,083
2033	0.26	240	1,083
10-year Additional Service Units			0

Table 2.6.2 Upper Trinity East Service Area 10-year Additional Service Unit Calculation

Year	Average Day Flow (MGD)	Service Unit Demand (GPD)	Service Units
2023	1.1	240	4,583
2033	1.89	240	7,875
10-year Additional Service Units			3,292

Table 2.6.3 Upper Trinity West Service Area 10-year Additional Service Unit Calculation

Year	Average Day Flow (MGD)	Service Unit Demand (GPD)	Service Units
2023	0.87	240	3,625
2033	0.94	240	3,917
10-year Additional Service Units			292

Impact fee law allows for a credit calculation to credit back the development community based on the utility revenues or ad valorem taxes that are allocated for paying a portion of future capital improvements. The intent of this credit is to prevent the City from double charging development for future capital improvements via impact fees and utility rates. If the City chooses not to do a financial analysis to determine the credit value, they are required by law to reduce the recoverable cost by 50 percent. The City has chosen the latter; therefore, the maximum recoverable cost for impact fee shown below is 50 percent of the Pre-Credit Recoverable Cost.

A breakdown of the 10-year recoverable costs and the associated impact fee for each service area per service unit is as follows

Table 2.7.1 Denton Service Area 10-year Recoverable Cost Breakdown

Pre Credit Recoverable Cost for Impact Fee	\$0
Credit for Utility Revenues (50% credit)	(\$0)
Maximum Recoverable Cost for Impact Fee	\$0

$$\text{Impact fee per service unit} = \frac{\text{10-year recoverable costs}}{\text{10-year additional service units}}$$

$$\text{Impact fee per service unit} = \frac{\$0.00}{0}$$

$$\text{Impact fee per service unit} = \$0.00$$

Therefore, the maximum assessable impact fee for the Denton service area is **\$0.00**.

Table 2.7.2 Upper Trinity East Service Area 10-year Recoverable Cost Breakdown

Pre Credit CIP Recoverable Cost for Impact Fee	\$2,710,134
Financing Cost (5% Provided by City)	\$1,123,258
Pre Credit Total	\$3,833,392
Credit for Utility Revenues (50% credit)	(\$1,916,696)
Maximum Recoverable Cost for Impact Fee	\$1,916,696

$$\text{Impact fee per service unit} = \frac{\text{10-year recoverable costs}}{\text{10-year additional service units}}$$

$$\text{Impact fee per service unit} = \frac{\$1,916,696}{3,292}$$

$$\text{Impact fee per service unit} = \$582$$

Therefore, the maximum assessable impact fee for the Upper Trinity East service area is **\$582**.

Table 2.7.3 Upper Trinity West Service Area 10-year Recoverable Cost Breakdown

Pre Credit CIP Recoverable Cost for Impact Fee	\$2,233,034
Financing Cost (5% Provided by City)	\$561,696
Pre Credit Total	\$2,794,730
Credit for Utility Revenues (50% credit)	(\$1,397,365)
Maximum Recoverable Cost for Impact Fee	\$1,397,365

Impact fee per service unit = $\frac{\text{10-year recoverable costs}}{\text{10-year additional service units}}$

Impact fee per service unit = $\frac{\$1,397,365}{292}$

Impact fee per service unit = \$4,785

Therefore, the maximum assessable impact fee for the Upper Trinity West service area is **\$4,785**.

For a development that requires a different size meter, a service unit equivalent is established at a multiplier based on its capacity with respect to the 5/8"x 3/4" meter. The maximum impact fee that could be assessed for other meter sizes is based on the value shown on **Table 2.8**, Service Unit Equivalency Table for Commonly Used Meters.

Table 2.8 Service Unit Equivalency Table for Commonly Used Meters

Meter Size*	Maximum Continuous Operating Capacity (GPM)**	Service Unit Equivalent	Maximum Assessable Fee per Service Area (\$)		
			Denton	Upper Trinity East	Upper Trinity West
5/8"x 3/4" PD	10	1	\$0	582	4,785
3/4" PD	15	1.5	\$0	873	7,178
1" PD	25	2.5	\$0	1,456	11,963
1 1/2" PD	50	5	\$0	2,911	23,925
2" PD	80	8	\$0	4,658	38,280
2" Compound	80	8	\$0	4,658	38,280
2" Turbine	160	16	\$0	9,317	76,560
3" Compound	175	17.5	\$0	10,190	83,738
3" Turbine	350	35	\$0	20,380	167,475
4" Compound	300	30	\$0	17,469	143,550
4" Turbine	650	65	\$0	37,849	311,025
6" Compound	675	67.5	\$0	39,304	322,988
6" Turbine	1,400	140	\$0	81,520	669,900
8" Compound	900	90	\$0	52,406	430,650
8" Turbine	2,400	240	\$0	139,749	1,148,400
10" Turbine	3,500	350	\$0	203,801	1,674,750

* PD = Positive Displacement Meter (Typical residential meter)

** Operating capacities obtained from American Water Works Associate (AWWA) C700-15, C701-15, and C702-15. Turbine and Compound meter flows are based on Class II (in-line) meters

Kimley-Horn & Associates, Inc.

Opinion of Probable Construction Cost

Client:	City of Corinth	Date:	7/19/2023
Project:	Wastewater Impact Fee Projects	Prepared By:	JDJ
KHA No.:	061008059	Checked By:	MAS

Title:	Lift Station 3A Upgrade	Project:	UTE - 6
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Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	\$ 8,000.00	\$ 8,000.00
2	750 gpm Pump and Motor (match existing)	1	EA	\$ 120,000.00	\$ 120,000
3	Electrical	1	LS	\$ 60,000.00	\$ 60,000
4	SCADA and Instrumentation	1	LS	\$ 20,000.00	\$ 20,000
5	Mechanical Piping	1	LS	\$ 60,000.00	\$ 60,000
Basis for Cost Projection:		Subtotal:			\$ 268,000
<input checked="" type="checkbox"/>	No Design Completed	Eng/Survey Fees (+/- %):			15 \$ 41,000
<input type="checkbox"/>	Preliminary Design	Contingency (+/- %):			25 \$ 71,000
<input type="checkbox"/>	Final Design	Total:			\$ 380,000

Kimley-Horn & Associates, Inc.

Opinion of Probable Construction Cost

Client: City of Corinth	Date: 7/19/2023
Project: Wastewater Impact Fee Projects	Prepared By: JDJ
KHA No.: 061008059	Checked By: MAS

Title: Lift Station 3A Parallel Force Main	Project: UTE - 7
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Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	\$ 40,000.00	\$ 40,000.00
2	Wastewater Force Main	2,500	LF	\$ 250.00	\$ 625,000
3	Gate Valve	2	EA	\$ 15,000.00	\$ 30,000
4	Connect to Existing Force Main	2	EA	\$ 10,000.00	\$ 20,000
5	Bore with Steel Casing	150	LF	\$ 1,500.00	\$ 225,000
6	Seeding, Fertilizer & Erosion Control	100	LF	\$ 15.00	\$ 1,500
7	Concrete Pavement Repair (SY)	2,500	SY	\$ 130.00	\$ 325,000
8	Trench Safety	2,350	LF	\$ 4.00	\$ 9,400
9	TV Inspection	2,500	LF	\$ 5.00	\$ 12,500
Basis for Cost Projection:		Subtotal:			\$ 1,288,400
<input checked="" type="checkbox"/>	No Design Completed	Eng/Survey Fees (+/- %): 15			\$ 194,000
<input type="checkbox"/>	Preliminary Design	Contingency (+/- %): 25			\$ 417,600
<input type="checkbox"/>	Final Design	Total:			\$ 1,900,000

Kimley-Horn & Associates, Inc.

Opinion of Probable Construction Cost

Client:	City of Corinth	Date:	7/19/2023
Project:	Wastewater Impact Fee Projects	Prepared By:	JDJ
KHA No.:	061008059	Checked By:	MAS

Title:	Lynchburg Creek Gravity Interceptor Improvements	Project:	UTE - 8
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Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	\$ 20,000.00	\$ 20,000.00
2	21" Wastewater Main	2,300	LF	\$ 175.00	\$ 402,500
3	5' Manhole (21" - 30" Main)	6	EA	\$ 15,000.00	\$ 90,000
4	Connect to Existing Manhole	2	EA	\$ 8,000.00	\$ 16,000
5	Tree Removal and Protection	1	LS	\$ 50,000.00	\$ 50,000
6	Seeding, Fertilizer & Erosion Control	2,300	LF	\$ 15.00	\$ 34,500
7	Trench Safety	2,300	LF	\$ 4.00	\$ 9,200
8	TV Inspection	2,300	LF	\$ 5.00	\$ 11,500
Basis for Cost Projection:		Subtotal:			\$ 633,700
<input checked="" type="checkbox"/>	No Design Completed	Eng/Survey Fees (+/- %):			15 \$ 96,000
<input type="checkbox"/>	Preliminary Design	Contingency (+/- %):			25 \$ 170,300
<input type="checkbox"/>	Final Design	Total:			\$ 900,000

Kimley-Horn & Associates, Inc.

Opinion of Probable Construction Cost

Client:	City of Corinth	Date:	7/19/2023
Project:	Wastewater Impact Fee Projects	Prepared By:	JDJ
KHA No.:	061008059	Checked By:	MAS

Title:	South Lift Station, Force Main, and Gravity Improvements	Project:	UTW - 3
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Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	\$ 80,000.00	\$ 80,000.00
2	8" Wastewater Main	4,270	LF	\$ 150.00	\$ 640,500
3	6" Wastewater Force Main	4,600	LF	\$ 100.00	\$ 460,000
4	0.5 MGD Lift Station	1	LS	\$ 800,000.00	\$ 800,000.00
5	4' Manhole (8" - 18" Main)	7	EA	\$ 9,000.00	\$ 63,000
6	Connect to Existing Manhole	1	EA	\$ 8,000.00	\$ 8,000
7	Bore with 16" Steel Casing	60	LF	\$ 1,000.00	\$ 60,000
8	Seeding, Fertilizer & Erosion Control	5,100	LF	\$ 15.00	\$ 76,500
9	Concrete Pavement Repair (SY)	4,200	SY	\$ 130.00	\$ 546,000
10	Trench Safety	8,810	LF	\$ 4.00	\$ 35,240
11	TV Inspection	8,870	LF	\$ 5.00	\$ 44,350
Subtotal:					\$ 2,813,590
			Eng/Survey Fees (+/- %):	15	\$ 423,000
			Contingency (+/- %):	25	\$ 763,410
Total:					\$ 4,000,000

☒ No Design Completed
☐ Preliminary Design
☐ Final Design



CITY OF CORINTH

Staff Report

Meeting Date:	11/2/2023	Title:	Ordinance Impact Fee Ordinance – Roadway System
Strategic Goals:	<input type="checkbox"/> Resident Engagement <input checked="" type="checkbox"/> Proactive Government <input type="checkbox"/> Organizational Development <input type="checkbox"/> Health & Safety <input type="checkbox"/> Regional Cooperation <input type="checkbox"/> Attracting Quality Development		
Owner Support:	<input type="checkbox"/> Planning & Zoning Commission <input type="checkbox"/> Economic Development Corporation <input type="checkbox"/> Parks & Recreation Board <input type="checkbox"/> TIRZ Board #2 <input type="checkbox"/> Finance Audit Committee <input type="checkbox"/> TIRZ Board #3 <input type="checkbox"/> Keep Corinth Beautiful <input type="checkbox"/> Ethics Commission		

Item/Caption

Consider and act on an Ordinance adopting the Land Use Assumptions, Capital Improvements Plan, and Impact Fees for the City of Corinth Roadway Facilities; providing for findings, and providing an effective date.

Item Summary/Background/Prior Action

Impact fees are a one-time fee assessed to recover infrastructure costs required to serve new development. The City of Corinth currently assesses impact fees for roadways, wastewater and water. The purpose of this impact fee study is, per the Texas Local Government Code, to provide an analysis which formulates land use assumptions from which to base any needed impact fee changes, and to recommend a maximum water, wastewater and roadway impact fee to the Capital Improvements Advisory Committee (CIAC) and the City Council. State law requires that cities who have adopted impact fees to periodically study and update the fees. Normally, the impact fees are updated every five years.

The public hearing was held on 10/19/2023 to receive community input on the adoption of the 2023 Land Use Assumptions, Water, Wastewater and Roadway Impact Fee reports. The reports provide a detailed discussion of the land use assumptions and capital improvements plan under which roadway, water and wastewater impact fees may be imposed for new development. Any member of the public has the right to appear at the hearing and present evidence for or against the land use assumptions and the capital improvements plan.

In order to set fee levels, an Ordinance setting the Impact Fee levels must be adopted by Council. Fee levels being recommended are the maximum calculated amount as shown in the report. The City has a 50% credit built into the maximum calculated amount that will cover any future changes to the projects. It is important to note that while fee levels cannot go beyond the calculated maximum level (without a Special Financial Analysis), Council can change the fee levels after they have been set by Ordinance. Previously established fee levels (from previous Impact Fee studies) can also be adjusted by Ordinance provided the new fees are not raised beyond the maximum calculated fee amount.

The Capital Improvements Advisory Committee have reviewed, and recommendation to the City Council prior to the Council's public hearing regarding the proposed land use assumptions and roadway, wastewater and water impact fees.

The City is recommending the Council to accept the maximum fees.

Applicable Owner/Stakeholder Policy

Section 395.052 of the Texas Local Government Code mandates periodic updates to the land use assumptions and capital improvements plan for a political subdivision imposing an impact fee. The City of Corinth is working with Kimley-Horn Associates to prepare an updated study for the City of Corinth’s Roadway, Wastewater and Water Impact Fees.

Chapter 395 of the Texas Local Government Code also requires a Capital Improvements Advisory Committee (CIAC) be appointed to provide comments on proposed amendments to the impact fees, land use assumptions and capital improvements plan upon which calculation of the impact fee is based. Per the project schedule, the CIAC (Planning and Zoning Commission) will have the opportunity to review and offer possible comments and recommendations to the City Council regarding the proposed land use assumptions and roadway and water impact fees. discussion forum.

Staff Recommendation/Motion

Staff recommends approving the ordinance to set the roadway, water, and wastewater impact fee to the maximum amount recommended by Kimley Horn.

**CITY OF CORINTH, TEXAS
ORDINANCE NO.**

AN ORDINANCE OF THE CITY OF CORINTH, TEXAS, AMENDING CHAPTER 36, “FINANCE AND REVENUE; TAXATION”, “ROADWAY IMPROVEMENTS IMPACT FEES” OF TITLE III, “ADMINISTRATION”, OF THE CODE OF ORDINANCES OF THE CITY OF CORINTH TO ADOPT AND IMPLEMENT THE CITY OF CORINTH, TEXAS ROADWAY IMPACT FEE REPORT FOR 2023, TO ADOPT AMENDED LAND USE ASSUMPTIONS, CAPITAL IMPROVEMENTS PLAN, AND IMPACT FEES FOR ROADWAY IMPROVEMENTS; PROVIDING FOR THE INCORPORATION OF PREMISES; PROVIDING FOR THE ADOPTION OF AMENDMENTS TO VARIOUS SECTIONS OF CHAPTER 36; PROVIDING A CLAUSE FOR A PREVIOUSLY PLATTED DEVELOPMENT/LOT; PROVIDING A CUMULATIVE REPEALER AND SAVINGS CLAUSE; PROVIDING FOR SEVERABILITY; PROVIDING FOR PUBLICATION AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, Chapter 395, Tex. Loc. Gov’t Code, (“Chapter 395”) provides requirements and procedures for imposing, collecting, and updating land use assumptions, capital improvements plans and impact fees; and

WHEREAS, the City has retained consultants to prepare updated land use assumptions, impact fee capital improvements plans, impact fees and ordinance provisions in order to meet statutory requirements; and

WHEREAS, the purpose of impact fees is to mitigate in part the impacts generated by new development on the City's roadway systems; and

WHEREAS, impact fees are one measure of the proportionality between the impacts on the City's public facilities created by a development and the contributions required by a developer or property owner to offset such impacts; and

WHEREAS, Chapter 395 mandates that the City compute the maximum impact fee per service unit which is attributable to new development for each category of capital improvements for which an impact fee is charged and roadway impact fees are authorized within the corporate limits of the City; and

WHEREAS, the City of Corinth appointed the Planning and Zoning Commission to serve as the Capital Improvements Advisory Committee to advise the City Council concerning amendments to the land use assumptions, impact fee capital improvements plans and impact fees as allowed by Chapter 395; and

WHEREAS, the Capital Improvements Advisory Committee submitted its written comments on the proposed amendments to the Land Use Assumptions, Capital Improvements

Plan, and Impact Fees contained within the “City of Corinth, Texas Roadway Impact Fee Report for 2023” (dated September, 2023), performed by Kimley-Horn and Associates, Inc., attached hereto as **Exhibit “A”** and incorporated herein; (the “2023 Study”); and

WHEREAS, the City Council properly called and published notice of public hearing and conducted a public hearing on October 19, 2023 to hear public input regarding the 2023 Study; and

WHEREAS, the City Council finds that the facility improvements proposed in the 2023 Study will best address the infrastructure requirements imposed upon the City by new development; and

WHEREAS, the City Council finds that the updated roadway impact fee per Service Unit as set forth in the 2023 Study provides the appropriate level of cost recovery to the City attributable to new development and the Council has in fact determined the maximum impact fee per service unit that may be charged for roadway facilities; and

WHEREAS, the City Council finds it to be in the best interest of the health, safety and welfare of the general public and of the citizens of Corinth to adopt the updated Land Use Assumptions, Capital Improvements Plan, and Impact Fees for roadway improvements as set forth in the 2023 Study and to amend Chapter 36 as set forth hereinbelow.

NOW THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF CORINTH, TEXAS:

SECTION 1.
Incorporation of Premises

That the above recitals are findings of the City Council and are incorporated herein by reference.

SECTION 2.
Amendments

2.01. Subsection 36.101, “Applicability of Roadway Impact Fees” of Chapter 36, “Finance and Revenue; Taxation”, “Roadway Improvements Impact Fees” of Title III, “Administration”, of the Code of Ordinances of the City of Corinth is hereby repealed in its entirety and a new Subsection 36.101 entitled “Adoption of Updated Study; Applicability of Roadway Impact Fees” of the Code of Ordinances is hereby adopted to be and read in its entirety as follows:

“§36.101 Adoption of Updated Study; Applicability of Roadway Impact Fees

(A) Study Adopted. The City of Corinth, Texas Roadway Impact Fee Report for 2023 and Land Use Assumptions (dated September, 2023), performed by Kimley-Horn and Associates, Inc., attached hereto as Exhibit “A”, containing amended and updated Land

Use Assumptions for roadway improvements, an amended and updated Roadway Impact Fee Capital Improvements Plan, an amended and updated Computation Method for Roadway Impact Fees, an amended and updated Roadway Impact Fee Calculation, amended and updated Maximum Assessable Impact Fees, and amended and updated Exhibits and Tables, as well as an amended Plan for Awarding Transportation Impact Fee Credits, and other related matters (the “2023 Study”) is hereby adopted and amends all previously adopted land use assumptions for roadways, roadway capital improvements plans, computation methods for roadway impact fees, roadway impact fee calculations, maximum assessable roadway impact fees and all related exhibits and tables applicable to the calculation and assessment of roadway impact fees in the City of Corinth, Texas. The 2023 Study as set forth in Exhibit “A” to Ordinance No. 23-11-02-43 is incorporated herein by reference as if fully set forth; a copy of the 2023 Study shall be maintained in the Office of the City Secretary.

(B) Applicability. This subchapter shall be uniformly applicable to new development which occurs within the corporate limits of the City, and no new development shall be exempt from the assessment of roadway impact fees except as otherwise provided by law.”

2.02. Section 36.102 “Land Use Assumptions and Capital Improvements Plan” of Chapter 36, “Finance and Revenue; Taxation”, “Roadway Improvements Impact Fees” of Title III, “Administration”, of the Code of Ordinances of the City of Corinth is hereby repealed in its entirety, and a new Section 36.102, “Land Use Assumptions and Capital Improvements Plan” of the Code of Ordinances is hereby adopted to be and read in its entirety as follows:

“§36.102 - LAND USE ASSUMPTIONS AND CAPITAL IMPROVEMENTS PLAN.

(A) The Land Use Assumptions used in the development of the roadway impact fees as are set forth in the “2023 Study”, Exhibit “A”, attached to this Ordinance No. 23-11-02-43, are adopted herein by reference, and shall be a part of this Subchapter.

(B) The Roadway Impact Fee Capital Improvements Plan used in the development of the roadway impact fees as are set forth in the “2023 Study”, Exhibit “A”, attached to this Ordinance No. 23-11-02-43, are adopted herein by reference, and shall be a part of this Subchapter.

(C) The City Council may revise, update, and amend the roadway land use assumptions and capital improvement plan in accordance with state law.”

2.03. Subsection (B) of Section 36.103, “Service Units” of Chapter 36, “Finance and Revenue; Taxation”, “Roadway Improvements Impact Fees” of Title III, “Administration”, of the Code of Ordinances of the City of Corinth is hereby amended to read as follows, with all other subsections of Section 36.103 not expressly amended hereby to remain in full force and effect without amendment:

“§ 36.103 - SERVICE UNITS.

...

(B) Service units for roadway impact fees are established based upon estimated vehicle miles of demand generated by the development. The 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 estimation of trips caused by new development. Each type of development will generate demand based upon size and type of development in the roadway service area. The vehicle mile demand factors used for the calculation of roadway impact fees are set forth in the Land Use/Vehicle-Mile Equivalency Table (Table 10) of the 2023 Study, Exhibit “A” to Ordinance No. 23-11-02-43, incorporated herein.”

...

2.04. Subsections (A) and (C) of Section 36.104, “Roadway Impact Fees” of Chapter 36, “Finance and Revenue; Taxation”, “Roadway Improvements Impact Fees” of Title III, “Administration”, of the Code of Ordinances of the City of Corinth are hereby amended to read as follows, with all other subsections of Section 36.104 not expressly amended hereby to remain in full force and effect without amendment:

“§ 36.104 - ROADWAY IMPACT FEES.

“(A) Maximum Fee and Plan for Credit. The maximum assessable roadway impact fee per service unit is the sum of the eligible Roadway Impact Fee CIP costs for the service area divided by the growth in travel attributable to new development projected to occur within the 10-year period, as further described in the 2023 Study. The maximum assessable roadway impact fee per service unit for each service area shall be computed in accordance with the 2023 Study based upon applicable criteria, including without limitation, the Land Use Assumptions for the Service Area. A credit must be applied against the maximum impact fee credit equal to fifty percent (50%) of the total projected cost of implementing the Roadway Capital Improvements Plan, as further described in the 2023 Study. With the credit, the maximum assessable roadway impact fee is \$1,003 per service unit.”

...

“(C) Fee. Current collected roadway impact fees shall be the maximum fee per service unit of \$1,003.00. Current collected fees may be amended by the City Council from time to time, provided they do not exceed the maximum assessable fees.”

2.05. Subsection (C) of Section 36.105 “Assessment of Roadway Impact Fees” of Chapter 36, “Finance and Revenue; Taxation”, “Roadway Improvements Impact Fees” of Title III, “Administration”, of the Code of Ordinances of the City of Corinth is hereby amended to read as

follows, with all other subsections of Section 36.105 not expressly amended hereby to remain in full force and effect without amendment:

“§ 36.105 - ASSESSMENT OF ROADWAY IMPACT FEES.

...

(C) For a development for which a final plat was recorded in the County Real Property Records prior to the effective date of this subchapter, assessment of roadway impact fees shall be at the time of building permit approval. The city may assess, but shall not collect any roadway impact fees, on any service unit for which a valid building permit is issued for a development for which a final plat was recorded prior to the effective date of this subchapter for one year subsequent to the effective date.”

...

2.06. Subsections (A), (B), and (C) of Section 36.106 “Calculation of Roadway Impact Fees” of Chapter 36, “Finance and Revenue; Taxation”, “Roadway Improvements Impact Fees” of Title III, “Administration”, of the Code of Ordinances of the City of Corinth are hereby amended to read as follows, with all other subsections of Section 36.106 not expressly amended hereby to remain in full force and effect without amendment:

“§ 36.106 - CALCULATION OF ROADWAY IMPACT FEES.

(A) The City is comprised of one roadway service area. The service unit measurement is stated in vehicle miles and the development units are set forth in the 2023 Study. The amount of the roadway impact fee shall be determined by multiplying the number of service units to be generated by the development by the capital cost per service unit set forth in §36.104 less any applicable credits pursuant to §36.114.

(B) Following a request for new development, the City shall identify the service area in which the development is located and then classify the development in one of the land use categories depicted in the “Land Use/Vehicle Mile Equivalency Table (LUVMET)”, **Table 10** of the 2023 Study as incorporated herein by reference, then in effect. Then the current collected roadway impact fee per service unit for the corresponding service area and land use category is multiplied by the total service units of development.

(C) The number of service units (vehicle-miles of travel during the p.m. peak hour) generated by a development shall be determined from the 2023 Study, subject to the following:

(1) When a change of use, redevelopment, or modification of an existing use or building requires the issuance of a building permit or certificate of occupancy, the number of service units generated by the development shall be based on the difference between the service units calculated for the previous

use and the service units calculated for the proposed use. However, should the change of use, redevelopment or modification of an existing use or building result in a net decrease, no refund or credits for past roadway impact fees paid shall be made or created.

(2) In the event that the proposed land use category applicable to a development is not listed in **Table 11**, “Land Use Descriptions” of the 2023 Study as incorporated herein by reference, the City Manager or his designee may determine an alternative service unit applicable to the development.

(3) In the event of a disagreement between the applicant and the City over the land use category or alternative service unit determined by the City Manager as applicable to a development, the applicant may present evidence supporting the appropriateness of a particular land use category, and the final decision shall be made by the City Engineer.”

...

2.07. Subsections (C) of Section 36.107 (Collection of Impact Fees) of Chapter 36, “Finance and Revenue; Taxation”, “Roadway Improvements Impact Fees” of Title III, “Administration”, of the Code of Ordinances of the City of Corinth is hereby amended to read as follows, with all other subsections of Section 36.107 not expressly amended hereby to remain in full force and effect without amendment:

“§ 36.107 - COLLECTION OF IMPACT FEES.

...

(C) All roadway impact fees shall be collected for residential development and nonresidential development at the time of building permit issuance.”

...

**SECTION 3.
PREVIOUSLY PLATTED DEVELOPMENT/LOT**

Impact fees to be collected from development on lots within a subdivision that has received final plat approval from the City before the effective date of this ordinance shall be assessed at the collected impact fee set forth in the Impact Fee ordinance in effect at the time the lots were platted.

**SECTION 4.
CUMULATIVE REPEALER/SAVINGS**

This Ordinance shall be cumulative of all other ordinances of the City and shall not repeal any of the provisions of such ordinances except for those instances where there are direct conflicts with the provisions of this Ordinance or where expressly repealed hereby and such repeal shall not abate any pending prosecution, claim for nonpayment or other damages from being commenced for any violation if occurring prior to the repeal by this Ordinance. Ordinances or parts thereof in force at the time this Ordinance shall take effect and that are inconsistent with this Ordinance are hereby repealed to the extent that they are inconsistent with this Ordinance. Any other ordinance of the city requiring dedication of land for public parks, requiring dedication of right-

of-way or easements, or construction or dedication of on-site water distribution, wastewater collection or drainage facilities, or streets sidewalks, or curbs necessitated by and attributable to new development, or fees to be placed in trust for the purpose of reimbursing the city or developers for oversizing or construction water or sewer mains or lines shall remain in full force and effect and not be repealed by the terms of this ordinance.

**SECTION 5.
SEVERABILITY**

If any section, subsection, clause, phrase, or provision of this Ordinance, or the application thereof to any person or circumstance, shall to any extent be held by a court of competent jurisdiction to be invalid, void, or unconstitutional, the remaining sections, subsections, clauses, phrases, and provisions of this Ordinance, or the application thereof to any person or circumstance, shall remain in full force and effect and shall in no way be affected, impaired or invalidated.

**SECTION 6.
PUBLICATION/EFFECTIVE DATE**

This ordinance shall be in full force and effect from and after its passage and publication as required by law, and it is so ordained.

PASSED AND APPROVED ON THIS _____ DAY OF _____, 2023.

Bill Heidemann, Mayor

ATTEST:

Lana Wylie, City Secretary

APPROVED AS TO FORM:

Patricia A. Adams, City Attorney

EXHIBIT “A”
2023 Roadway Impact Fee Report

City of Corinth, Texas

Roadway Impact Fee Report for 2023

September 2023



Prepared for:

City of Corinth

Prepared by:

Kimley»Horn

Kimley-Horn and Associates, Inc.

801 Cherry Street, Unit 11, Suite 1300

Phone: 817 335 6511

TBPE Firm Registration Number: F-928

Project Number: 061008059

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A handwritten signature in blue ink, appearing to read "Peter C. Kelly", written over the bottom portion of the professional engineer seal.

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Executive Summary

This study was performed to update the City of Corinth's Roadway Impact Fees. The previous Roadway Impact Fee Update was adopted on March 2, 2017. Transportation system analysis is an important tool for facilitating orderly growth of the transportation system and for providing adequate facilities that promote economic development in the City of Corinth. The implementation of an impact fee is a way to shift a portion of the burden of paying for new facilities onto new development.

Roadway improvements necessary to serve 10-year (2033) and ultimate system needs were evaluated. Typically, infrastructure improvements are sized beyond the 10-year requirements; however, Texas' impact fee law (Chapter 395) only allows recovery of costs to serve the 10-year planning period. For example, the projected cost to construct the infrastructure needed through 2033 is \$45,650,424. After financing costs are added and a 50% credit is applied, \$31,307,156 is recoverable through impact fees serving the 10-year system needs. A portion of the remainder can be assessed as the planning window extends beyond 2033 and as the impact fees are updated in the future.

The impact fee law defines a service unit as follows: "Service Unit" means a standardized measure of consumption attributable to an individual unit of development calculated in accordance with generally accepted engineering or planning standards and based on historical data and trends applicable to the political subdivision in which the individual unit of development is located during the previous 10 years." Therefore, the City of Corinth defines a *service unit* as the number of vehicle-miles of travel during the afternoon peak-hour. For each type of development, the City utilizes the Land Use/Vehicle-Mile Equivalency Table (LUVMET), presented in Table 10 to determine the number of service units.

Based on the additional service units (31,193 vehicle-miles) and the recoverable Capital Improvements Plan (\$31,307,156), the City may assess a maximum of \$1,003 per service unit.

1.0 Introduction

Impact Fees are a mechanism for funding the public infrastructure necessitated by new development. In Texas, the legislature has allowed their use for water, wastewater, roadway and drainage facilities. In the most basic terms, impact fees are meant to recover the incremental cost of the impact of each new unit of development which creates new infrastructure needs. In the case of roadway impact fees, the infrastructure need is the increased capacity on arterial and collector roadways that serve the overall transportation system.

Chapter 395 of the Texas Local Government Code describes the procedure political subdivisions must follow in order to create and implement impact fees. Senate Bill 243 (SB 243) amended Chapter 395 in 2001 to define 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 capital improvements or facility expansions necessitated by and attributable to the new development.”

The City retained Kimley-Horn and Associates, Inc. to provide professional transportation engineering services for the 2023 Roadway Impact Fee Update. This report includes details of the Roadway Impact Fee calculation methodology in accordance with Chapter 395, the applicable Land Use Assumptions, development of the Roadway Impact Fee Capital Improvements Plan, and the Land Use Equivalency Table.

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

1. Land Use Assumptions (Pg. 6)
2. Roadway Impact Fee Capital Improvements Plan (CIP) (Pg.11)

Information from these Land Use Assumptions and Roadway Impact Fee CIP is 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 two components:

- A. Computation Method for Roadway Impact Fees (Pg. 14)
- B. Roadway Impact Fee Calculation (Pg. 26)

The components of the Computation Method for Roadway Impact Fee include development of:

- Service Areas (Pg. 14)
- Service Units (Pg. 14)
- Cost Per Service Unit (Pg. 16)
- Roadway Impact Fee CIP Costing Methodology (Pg. 16)
- Summary of Roadway Impact Fee CIP Costs (Pg. 20)
- Service Unit Calculation (Pg. 22)

The Roadway Impact Fee is then calculated as:

- Maximum Assessable Impact Fee Per Service Unit (Pg. 26)
- Plan for Awarding the Transportation Impact Fee Credit (Pg. 28)
- Service Unit Demand Per Unit of Development (Pg. 30)

This report also includes a section concerning the Plan for Awarding the Transportation Impact Fee Credit. In the case of the City of Corinth, the credit calculation was based on awarding a 50 percent credit.

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

2.0 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 employment 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 development in the service area. The land use assumptions are then used in determining the need and timing of transportation improvements to serve future development.

Information from the following sources was compiled to complete the land use assumptions:

- Envision Corinth 2040 Comprehensive Plan
- Denton County Appraisal District (DCAD)
- City of Corinth staff
- Historic Building Permit Data

The Land Use Assumptions include the following components:

- Land Use Assumptions Methodology – An overview of the general methodology used to generate the land use assumptions.
- Roadway Impact Fee Service Areas – Explanation of the division of Corinth into service areas for transportation facilities.
- Residential and Employment– Data on residential and employment growth within the service area over the next ten years (2023 – 2033).
- Land Use Assumptions Summary – A synopsis of the land use assumptions.

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

Residential: Number of dwelling units, both single and multi-family.

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.

These broader 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. 31).

B. Land Use Assumptions Methodology

The residential and non-residential growth projections formulated in this report were performed using reasonable and generally accepted planning principles. The following factors were considered in developing these projections:

- Character, type, density, and quantity of existing development;
- Current zoning;
- Growth trends;
- Location of vacant land;
- Physical restrictions (i.e. flood plains, railroads); and
- Physical development capacity of Corinth.

Existing residential and employment estimates were obtained using Corinth parcel data and an aerial survey of existing development.

For the remaining undeveloped areas, assumptions were based upon the Envision Corinth 2040 plan, information on known planned developments, and staff input to estimate the ten-year growth of residential and employment development.

C. Roadway Impact Fee Service Areas

The geographic boundary of the proposed impact fee service area for transportation facilities is shown in Exhibit 1. The City of Corinth is currently divided into one (1) service area, based upon the six (6) mile limit, as required in Chapter 395 (explained on Pg.14). For roadway facilities, the service areas as required by state law are limited to areas within the current corporate limits. Therefore, areas within the extraterritorial jurisdiction (ETJ) are excluded from this study. This service area covers the entire corporate boundary of the City of Corinth which is approximately four (4) miles in diameter.

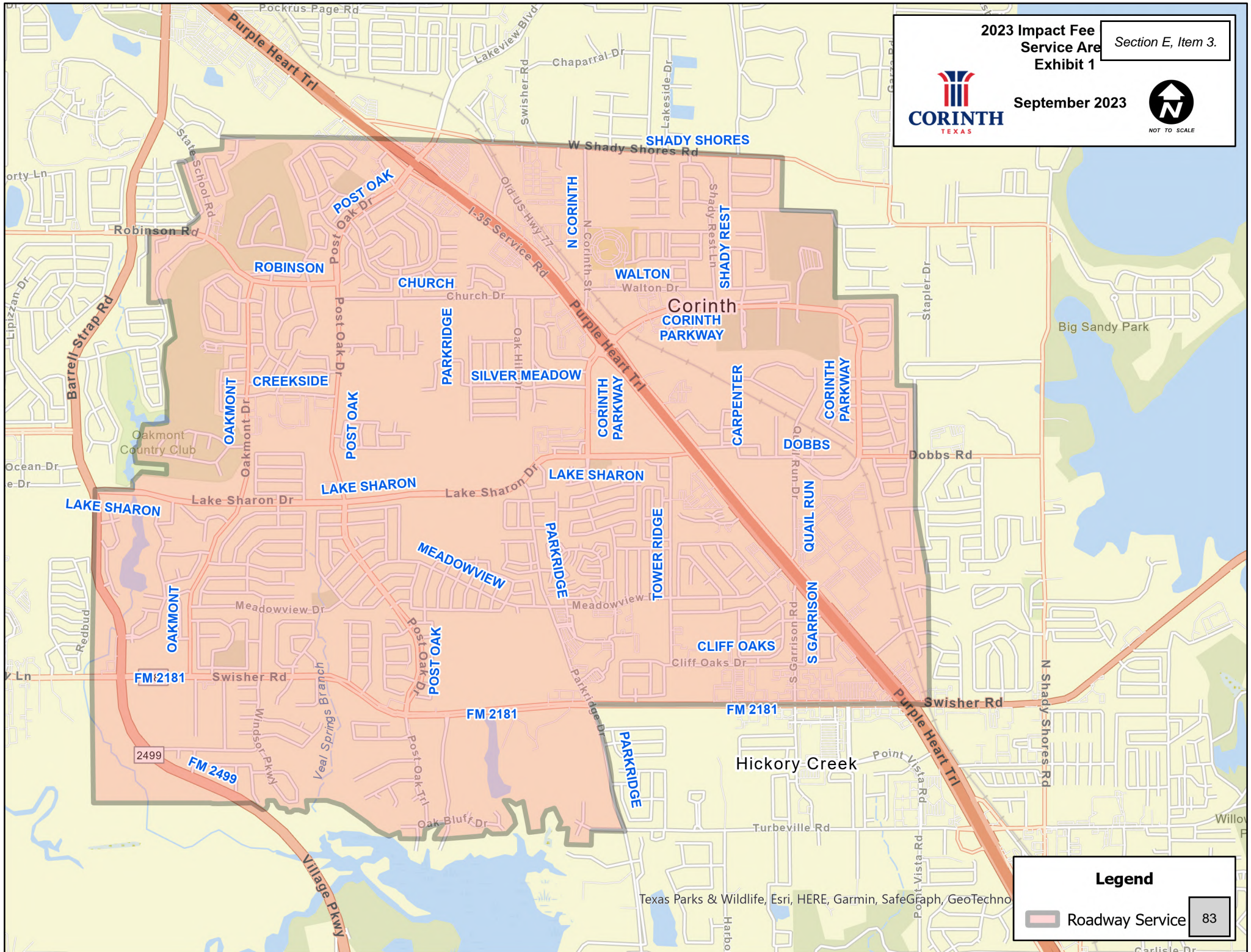
It should be noted that at locations where service area boundaries follow a City thoroughfare facility, the proposed boundary is intended to follow the centerline of the roadway, unless otherwise noted. In cases where a service area boundary follows the City Limits, only those portions of the transportation facility within the City Limits are included in the service area.

2023 Impact Fee
Service Area
Exhibit 1

Section E, Item 3.



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Legend

Roadway Service

D. Residential and Employment

Residential and Employment estimates for the base year (2023) were performed based upon a survey of the existing land uses on Corinth parcel data and aerial verification. Ten-year growth projections were prepared based upon demographic projections and consultation with City staff.

E. Land Use Assumptions Summary

Table 1 summarizes the residential and employment 10-year growth projections. The projected growth over the next ten years is accelerated compared to the historical growth in the previous impact fee study. This is largely driven by projections in the Envision Corinth 2040 Plan and increased opportunity for mixed-use and high-density residential development in the future.

Table 1 Residential and Employment 10-Year Growth Projections

Service Area	Residential (Units)		Employment (Square Feet)		
	Single Family	Multi-Family	Basic	Service	Retail
Corinth	1,175	3,525	0	1,650,000	1,050,000

3.0 Roadway Impact Fee Capital Improvements Plan

Development of a 10-year Roadway Impact Fee Capital Improvement Plan is required per Chapter 395 of the Texas local Government Code. The current Corinth Thoroughfare Plan was used as the basis for this Roadway Impact Fee CIP. The Roadway Impact Fee CIP includes arterial and collector class roadway facilities that serve the overall transportation system, as well as major intersection improvements. All of the facilities identified are included in the current Thoroughfare Plan map.

The proposed Roadway Impact Fee CIP is listed in Table 2 and mapped in Exhibit 2. The table shows the length of each project as well as the facility's Thoroughfare Plan classification. The Roadway Impact Fee CIP was developed in conjunction with input from City of Corinth staff and represents those projects that will be needed to accommodate the growth projected in the Land Use Assumptions section of this report.

Table 2 10-Year Roadway Impact Fee Capital Improvements Plan

Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area
1	Minor	Lake Sharon Dr (1)	FM 2499 to Oakmont Dr	0.59	100%
2	Minor	Lake Sharon Dr (2)	Blue Holley Dr to Parkridge Dr	0.90	100%
3	Minor	Lake Sharon Dr (3)	Parkridge Dr to Tower Ridge Dr	0.64	100%
4	Minor	Lake Sharon Dr (4)	Tower Ridge Dr to Carpenter Ln	0.44	100%
5	Collector	Church Dr	Post Oak Rd to IH-35E SBFR	0.90	100%
6	Collector	Walton Dr	North Corinth St to Shady Rest Ln	0.48	100%
7	Collector	W Shady Shores Rd	Railroad to 205' East of Dalton Dr	1.22	50%
8	Collector	Parkridge Dr (1)	Lake Sharon Dr to Tori Oak Tr	0.09	100%
9	Collector	Parkridge Dr (2)	Warwick Dr to FM 2181	0.76	100%
10	Collector	Parkridge Dr (3)	FM 2181 to South City Limits	0.53	100%
11	Collector	Tower Ridge Dr (1)	Meadow Oaks Dr to 215' South of Brookview Dr	0.42	100%
12	Collector	Tower Ridge Dr (2)	215' South of Brookview Dr to Cliff Oaks Dr	0.43	100%
13	Greenway Collector	Garrison St	IH-35E SBFR to Cliff Oak Dr	0.33	100%
14	Collector	Quail Run Dr	Lake Sharon Dr to IH-35E NBFR	0.35	100%
15	Minor (1/2)	Post Oak Rd	Robinson Rd to Lake Sharon Dr	0.89	100%
16	Collector	Parkridge Dr (4)	Church Dr to Silver Meadow Dr	0.35	100%
17	Collector	Parkridge Dr (5)	Silver Meadow Dr to Lake Sharon Dr	0.59	100%
18	Collector	Shady Rest Ln	Fritz Ln to Walton Dr	0.33	100%
19	Major	FM 2181	West City Limits to IH-35E SBFR	3.38	100%
20	Collector	Cliff Oaks Dr	Tower Ridge Dr to Garrison Rd	0.50	100%
21	Collector	Silver Meadow Ln	Post Oak Dr to Parkridge Dr	0.52	100%
22	Collector	Hollis Dr	Lake Sharon Dr to Custer Dr	0.27	100%
23	Collector	New Collector A	FM 2181 to Parkridge Dr (North)	0.55	100%
24	Collector	New Collector B	FM 2181 to Parkridge Dr (South)	0.55	100%
25	Collector	Old Highway 77	W Shady Shores Rd to IH-35E NBFR	0.35	100%
26	Collector	NCTC Way	IH-35E NBFR to N Corinth St	0.18	100%
27	Collector	N Corinth St	N Corinth St to Corinth Parkway	0.29	100%
28	Collector	Tower Ridge Dr (3)	Cliff Oaks Dr to FM 2181	0.16	100%
Intersection Improvements	Type	Road A	Road B	Status	% in SA
	Roundabout	Lake Sharon Dr	Oakmont Dr	Retrofit	100%
	Roundabout	Lake Sharon Dr	Parkridge Dr	Retrofit	100%
	Roundabout	Dobbs Rd	Quail Run Dr	Retrofit	100%
	Roundabout	N Corinth St	Walton Dr	New	100%
	Roundabout	Tower Ridge Dr	Cliff Oaks Dr	Retrofit	100%
	Traffic Signal	FM 2499	Lake Sharon Dr	Retrofit	100%

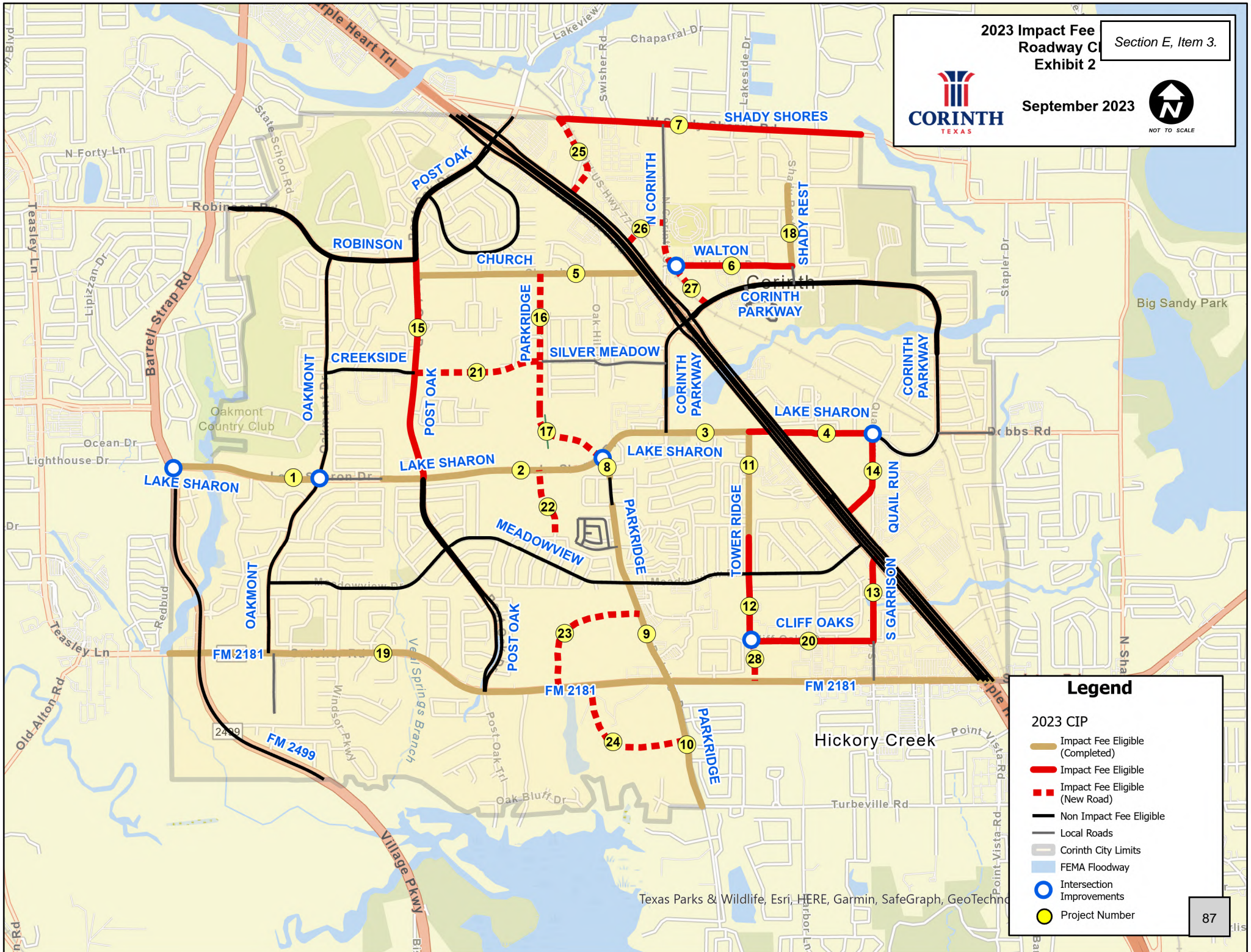
Note: The 10-Year Roadway Impact Fee CIP is not in a prioritized order.

2023 Impact Fee
Roadway CIP
Exhibit 2

Section E, Item 3.



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2023 CIP

- Impact Fee Eligible (Completed)
- Impact Fee Eligible
- - - Impact Fee Eligible (New Road)
- Non Impact Fee Eligible
- Local Roads
- Corinth City Limits
- FEMA Floodway
- Intersection Improvements
- Project Number

4.0 Computation Method for Roadway Impact Fees

A. Service Areas

The service area used in the 2023 Roadway Impact Fee Update is shown in the previously referenced Exhibit 1. 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.” Based on guidance in Chapter 395 and examination of the City of Corinth, one roadway service area was deemed appropriate. This service area covers the entire corporate boundary of the City of Corinth which is approximately four (4) miles in diameter.

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 2023 Roadway Impact Fee Study 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 North Central Texas Council of Governments (NCTCOG) (see Appendix B).

Total Vehicle-Miles of Demand: Based on the 10-year growth projections (Pg. 25). The demand is equal to PM Trip Rate (trips) * Trip Length (miles).

The capacity values used in the 2023 Roadway Impact Fee Study are based upon Thoroughfare Capacity Criteria published by NCTCOG. Tables 3A and 3B show the service volumes as a function of the facility classification and type.

Table 3A Service Volumes for Proposed Facilities

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

Facility Classification	Median Configuration	Hourly Vehicle-Mile Capacity per Lane-Mile of Roadway Facility
Major Arterial	Divided	700
Minor Arterial/Greenway	Divided	650
Collector	Undivided	425

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
2U-R	Rural Cross-Section (i.e., gravel, dirt, etc.)	150
2U	Two lane undivided	350
3U	Three lane undivided (two-way, left-turn lane)	425
4U	Four lane undivided	550
4D	Four lane divided	650
6D	Six lane divided	700

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 at a level of service corresponding to the City's standards. 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.

D. Roadway Impact Fee CIP Costing Methodology

All of the project costs for an arterial or collector facility which serves the overall transportation system are eligible to be included in the Roadway Impact Fee Capital Improvements Plan. 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 capital improvements plan who is not an employee of the political subdivision."

The engineer's opinion of the probable costs of the projects in the Roadway Impact Fee CIP 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, highway ramps, drainage structures, and any other special components are added to each project, as appropriate. In addition, based upon discussions with City of Corinth staff, State, County, and developer driven projects in which the City has contributed a portion of the total project cost have been included in the CIP as lump sum costs. The following is a detailed description of the costing worksheet/methodology for the Roadway Impact Fee CIP.

1. Overview of Roadway Impact Fee CIP Costing Worksheets

For each project a specific costing worksheet was developed (see Appendix A). Each worksheet contained the following four (4) main components:

- Project Information,
- Construction Pay Items,
- Construction Component Allowances and
- Summary of Costs and Allowances

City of Corinth		<i>Kimley-Horn and Associates, Inc.</i>	
2023 Roadway Impact Fee Update		updated: 3/31/2023	
Conceptual Level Project Cost Projection			
Project Information	Project Information:		Description:
	Name: Lake Sharon Dr (4)		Project No. 4
	Limits: Tower Ridge Dr to Carpenter Ln		This project consists of the construction of a new minor arterial.
	Impact Fee Class: Minor		
	Ultimate Class: Minor		
	Length (lf): 2,305		
Construction Pay Items	Service Area(s): Corinth		
	Roadway Construction Cost Projection		
	No.	Item Description	Quantity Unit Unit Price Item Cost
	102	Unclassified Street Excavation	7,171 cy \$ 18.00 \$ 129,080
	202	6" Lime Stabilization (with Lime @ 27#/sy)	13,830 sy \$ 8.00 \$ 110,640
	302	8" Concrete Pavement w/ 6" Curb	12,806 sy \$ 100.00 \$ 1,280,556
Construction Component Allowances	402	4" Topsoil	6,659 sy \$ 5.00 \$ 33,294
	502	5' Concrete Sidewalk	23,050 sf \$ 5.00 \$ 115,250
	602	Concrete Driveway Approach	2 ea \$ 3,250.00 \$ 6,500
	Paving Construction Cost Subtotal:		\$ 1,675,320
	Major Construction Component Allowances**:		
	Item Description	Notes	Allowance Item Cost
Summary of Costs and Allowances	✓ Prep ROW		5% \$ 83,766
	✓ Traffic Control	Construction Phase Traffic Control	7% \$ 117,272
	✓ Pavement Markings/Markers		3% \$ 50,260
	✓ Roadway Drainage	Standard Internal System	30% \$ 502,596
	✓ Illumination		5% \$ 83,766
	✓ Special Drainage Structures	None Anticipated	0% \$ -
Summary of Costs and Allowances	✓ Water	Minor Adjustments	2% \$ 33,506
	✓ Sewer	Minor Adjustments	1% \$ 16,753
	✓ Basic Landscaping/Irrigation		2% \$ 33,506
	Other:		\$0 \$ -
	**Allowances based on % of Paving Construction Cost Subtotal		Allowance Subtotal: \$ 921,426
	Paving and Allowance Subtotal:		\$ 2,596,746
Summary of Costs and Allowances	Construction Contingency:		20% \$ 519,349
	Construction Cost TOTAL:		\$ 3,117,000
	Impact Fee Project Cost Summary		
	Item Description	Notes	Allowance Item Cost
	Construction:		- \$ 3,117,000
	Engineering/Survey/Testing:		18% \$ 561,060
	Mobilization		6% \$ 187,020
	Previous City contribution		
	Other		
	ROW/Easement Acquisition:	Existing Alignment	15% \$ 467,550
	Impact Fee Project Cost TOTAL:		\$ 4,333,000

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

Project Information

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

- Project Number – Identifies the project a corresponding number. The corresponding number does not represent any prioritizations and is used only to identify projects. For example, Project 4 is the 4th 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 for the various elements in the roadway. The construction costs are variable, based on the Thoroughfare Plan classification of the roadway. For example, Type A stands for Major Arterial. A Major Arterial Impact Fee Class means the entire roadway is to be constructed. 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:
 - “(1/2)” for facilities where half of the roadway needs to be constructed.
- Ultimate Class – The functional classification on Corinth's Thoroughfare Plan.
- Length (ft) – The distance measured in feet that is used to cost out the project.
- Service Area – Represents the service area where the project is located.
- Description – Used to describe the project type assumed in the costing such as a widening or reconstruction.

2. Construction Pay Items

A typical roadway project consists of a number of costs, including the following: planning, survey, design engineering, permitting, right-of way acquisition, and 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 are shown in Table 4.

Table 4 Construction Cost Pay Items

City Pay Items
<ul style="list-style-type: none"> • Unclassified street excavation • Lime Stabilization • Concrete pavement and curb • Topsoil • Sidewalk • Driveways

3. 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 and signage, roadway drainage, illumination, minor water and sewer adjustments, landscaping and irrigation. These allowance percentages are also based on historical data.

In addition, lump sum dollar allowances are provided for special drainage structures, railroad crossings, and intersection improvements where needs are anticipated. The paving and allowance subtotal is given a twenty percent (20%) contingency, six percent (6%) mobilizations, and three percent (3%) or five percent (5%) preparation of right-of-way depending on whether the roadway is existing or will be new to determine the construction cost total.

4. Summary of Cost and Allowances

To determine the total Impact Fee Project Cost, eighteen percent (18%) of the construction cost total is added for engineering, surveying, and testing.

Percentages are also allotted ROW/easement acquisition. ROW/easement acquisition was based on whether the project was an existing alignment or future alignment. For an existing alignment, the ROW/easement acquisition cost was provided an allotment equal to 15% of the construction cost total. For a new alignment, the ROW/easement acquisition cost was equal to 30% of the construction cost total. The value for ROW/easement acquisition is an estimated contribution allocation and does not represent actual ROW/easement acquisition needs.

The Impact Fee Project Cost Total is then the Construction Cost Total plus engineering, surveying, testing, and inspection; plus ROW/easement acquisition; and minus roadway escrow agreements.

E. Summary of Roadway Impact Fee CIP Costs

Table 5 is the 10-Year Roadway Impact Fee CIP project lists for the 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 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 Roadway Impact Fee CIP establishes the list of projects for which Impact Fees can be utilized. Projects not included in the Roadway Impact Fee CIP 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 10-Year Roadway Impact Fee CIP with Conceptual Level Cost Projections

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
City Limits	1	Minor	Lake Sharon Dr (1)	FM 2499 to Oakmont Dr	0.59	100%	\$ 5,135,760	\$ 5,135,760
	2	Minor	Lake Sharon Dr (2)	Blue Holley Dr to Parkridge Dr	0.90	100%	\$ 5,137,991	\$ 5,137,991
	3	Minor	Lake Sharon Dr (3)	Parkridge Dr to Tower Ridge Dr	0.64	100%	\$ 3,485,426	\$ 3,485,426
	4	Minor	Lake Sharon Dr (4)	Tower Ridge Dr to Carpenter Ln	0.44	100%	\$ 4,333,000	\$ 4,333,000
	5	Collector	Church Dr	Post Oak Rd to IH-35E SBFR	0.90	100%	\$ 2,700,213	\$ 2,700,213
	6	Collector	Walton Dr	North Corinth St to Shady Rest Ln	0.48	100%	\$ 3,251,000	\$ 3,251,000
	7	Collector	W Shady Shores Rd	Railroad to 205' East of Dalton Dr	1.22	50%	\$ 2,000,000	\$ 1,000,000
	8	Collector	Parkridge Dr (1)	Lake Sharon Dr to Tori Oak Tr	0.09	100%	\$ 765,541	\$ 765,541
	9	Collector	Parkridge Dr (2)	Warwick Dr to FM 2181	0.76	100%	\$ 1,014,513	\$ 1,014,513
	10	Collector	Parkridge Dr (3)	FM 2181 to South City Limits	0.53	100%	\$ 554,490	\$ 554,490
	11	Collector	Tower Ridge Dr (1)	Meadow Oaks Dr to 215' South of Brookview Dr	0.42	100%	\$ 780,001	\$ 780,001
	12	Collector	Tower Ridge Dr (2)	215' South of Brookview Dr to Cliff Oaks Dr	0.43	100%	\$ 3,630,000	\$ 3,630,000
	13	Greenway Collector	Garrison St	IH-35E SBFR to Cliff Oak Dr	0.33	100%	\$ 2,367,000	\$ 2,367,000
	14	Collector	Quail Run Dr	Lake Sharon Dr to IH-35E NBFR	0.35	100%	\$ 2,961,000	\$ 2,961,000
	15	Minor (1/2)	Post Oak Rd	Robinson Rd to Lake Sharon Dr	0.89	100%	\$ 4,408,000	\$ 4,408,000
	16	Collector	Parkridge Dr (4)	Church Dr to Silver Meadow Dr	0.35	100%	\$ 932,580	\$ 932,580
	17	Collector	Parkridge Dr (5)	Silver Meadow Dr to Lake Sharon Dr	0.59	100%	\$ 1,564,860	\$ 1,564,860
	18	Collector	Shady Rest Ln	Fritz Ln to Walton Dr	0.33	100%	\$ 1,544,049	\$ 1,544,049
	19	Major	FM 2181	West City Limits to IH-35E SBFR	3.38	100%	\$ 242,000	\$ 242,000
	20	Collector	Cliff Oaks Dr	Tower Ridge Dr to Garrison Rd	0.50	100%	\$ 3,500,000	\$ 3,500,000
	21	Collector	Silver Meadow Ln	Post Oak Dr to Parkridge Dr	0.52	100%	\$ 1,369,170	\$ 1,369,170
	22	Collector	Hollis Dr	Lake Sharon Dr to Custer Dr	0.27	100%	\$ 704,220	\$ 704,220
	23	Collector	New Collector A	FM 2181 to Parkridge Dr (North)	0.55	100%	\$ 1,445,730	\$ 1,445,730
	24	Collector	New Collector B	FM 2181 to Parkridge Dr (South)	0.55	100%	\$ 1,453,320	\$ 1,453,320
	25	Collector	Old Highway 77	W Shady Shores Rd to IH-35E NBFR	0.35	100%	\$ 2,781,000	\$ 2,781,000
	26	Collector	NCTC Way	IH-35E NBFR to N Corinth St	0.18	100%	\$ 3,262,000	\$ 3,262,000
	27	Collector	N Corinth St	N Corinth St to Corinth Parkway	0.29	100%	\$ 2,338,000	\$ 2,338,000
	28	Collector	Tower Ridge Dr (3)	Cliff Oaks Dr to FM 2181	0.16	100%	\$ 429,330	\$ 429,330
Intersection Improvements		Type	Road A	Road B	Status	200%	Project Cost	Project Cost in SA
		Roundabout	Lake Sharon Dr	Oakmont Dr	Retrofit	300%	\$ 2,500,000	\$ 2,500,000
		Roundabout	Lake Sharon Dr	Parkridge Dr	Retrofit	400%	\$ 2,500,000	\$ 2,500,000
		Roundabout	Dobbs Rd	Quail Run Dr	Retrofit	500%	\$ 2,500,000	\$ 2,500,000
		Roundabout	N Corinth St	Walton Dr	New	600%	\$ 2,000,000	\$ 2,000,000
		Roundabout	Tower Ridge Dr	Cliff Oaks Dr	Retrofit	700%	\$ 2,500,000	\$ 2,500,000
		Traffic Signal	FM 2499	Lake Sharon Dr	Retrofit	700%	\$ 200,000	\$ 200,000
Service Area Project Cost Subtotal								\$ 75,290,194
2023 Roadway Impact Fee Update								\$ 36,000
Total Cost								\$ 75,326,194

- 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 Corinth.
- These planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.
- The project cost total within each Service Area may differ from the total shown in the Summary sheets provided to the City due to some projects that are split between multiple jurisdictions.

F. Service Unit Calculation

The basic service unit for the computation of Corinth's Roadway Impact Fees is the vehicle-mile of travel during the afternoon peak-hour (as explained on Pg.14). To determine the cost per service unit, it is necessary to project the growth in vehicle-miles of travel for the service area for the ten-year period.

The growth in vehicle-miles from 2023 to 2033 is based upon projected changes in residential units and employment for the period. In order to determine this growth, estimates of residential units, basic employment, service employment, and retail employment for 2023 were made, along with growth projections for each of these demographic statistics through 2033. The Land Use Assumptions section of this report details the growth estimates used for impact fee determination.

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 existing and projected number of building square footages for three (3) categories of employment – 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, 11th 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, 11th Edition* and the National Household Travel Survey performed by the FHWA. The *ITE Trip Generation Manual*,

11th 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. For example, a stop at a nearby supermarket on the way home from work does not create a new trip onto the roadway network. 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 National Household Travel Survey (NHTS) conducted by the Federal Highway Administration (FHWA).

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_{max} = Maximum Trip Length (miles),
- L = Average Trip Length (miles), and
- OD = Origin-Destination Reduction (50%)
- SA_L = Max Service Area Trip Length

For land uses which are characterized by longer average trip lengths the maximum trip length is typically limited to six (6) miles based on the maximum trip length within each service area. Chapter 395 of the Texas Local Government Code allows for a service area of six (6) miles in diameter; however, the service area within Corinth is approximated to be four (4) miles in diameter.

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 Roadway Impact Fee 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 Corinth 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.

Table 6 shows the derivation of the *Transportation Demand Factor* for the residential land use and the three (3) non-residential land use categories. The values utilized for all variables shown in the *transportation demand factor* equation are also shown in the table.

Table 6 Transportation Demand Factor Calculations

Variable	Single Family	Multi-Family	Basic	Service	Retail
T	0.94	0.51	0.65	1.44	5.19
P _b	0%	0%	0%	0%	34%
L	9.79	9.79	14.65	14.65	5.60
L _{max} *	4.00	4.00	4.00	4.00	2.80
TDF	3.76	2.04	2.60	5.76	9.60
* L _{max} is less than 4 miles for retail land uses; therefore this lower trip length is used for calculating the TDF for these land uses.					

The application of the demographic projections and the *transportation demand factors* are presented in the 10-Year Growth Projections in Table 7. This table shows the total vehicle-miles by service area for the ten-year period between years 2023 and 2033. These estimates and projections lead to the Vehicle-Miles of Travel for the ten-year period.

Table 7 10-Year Growth Projections

Growth 2023-2033

SERVICE AREA	SINGLE FAMILY VEHICLE-MILES			MULTI-FAMILY VEHICLE-MILES			SQUARE FEET ⁴			TRANS. DEMAND FACTOR (TDF) ⁵				NON-RESIDENTIAL VEHICLE-MILES ⁹			TOTAL VEHICLE-MILES ¹⁰	
	DWELLING UNITS ¹	Trip Rate TDF ²	VEHICLE-MILES ³	DWELLING UNITS ¹	Trip Rate TDF ²	VEHICLE-MILES ³	BASIC	SERVICE	RETAIL	BASIC ⁶	SERVICE ⁷	RETAIL ⁸	BASIC	SERVICE	RETAIL			
Corinth	1,175	0.94 3.76	4,418	3,525	0.51 2.04	7,191	0	1,650,000	1,050,000		0.65 2.60	1.44 5.76	5.19 9.60	0	9,504	10,080	19,584	31,193

VEHICLE-MILES OF INCREASE¹¹ (2022 - 2032)

SERVICE AREA	VEH-MILES
Corinth	31,193

Notes:

- From Land Use Assumptions Section
- Transportation Demand Factor for each Service Area (from LUVNET) using Single Family Detached Housing land use and trip generation rate
- Calculated by multiplying TDF by the number of dwelling units
- From Land Use Assumptions Section
- Trip generation rate and Transportation Demand Factors from LUVNET for each land use
- 'Basic' corresponds to General Light Industrial land use and trip generation rate
- 'Service' corresponds to General Office land use and trip generation rate
- 'Retail' corresponds to Shopping Plaza (40-150k) land use and trip generation rate
- Calculated by multiplying Transportation Demand Factor by the number of thousand square feet for each land use
- Residential plus non-residential vehicle-mile totals for each Service Area
- Total Vehicle-Miles (2023) subtracted from Total Vehicle-Miles (2033)

5.0 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 Roadway Impact Fee CIP 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 8 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 8 Maximum Assessable Roadway Impact Fee Computation

Line	Title	Description
1	<i>Total Vehicle-Miles of Capacity Added by the Roadway Impact Fee CIP</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 – CIP Units of Supply)

Each project identified in the CIP 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 – CIP Units of Supply)
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A number of facilities identified in the CIP 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 Roadway 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 Roadway Impact Fee CIP – 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 Roadway Impact Fee CIP 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 Roadway Impact Fee CIP (in vehicle-miles) that can be recoverable through the collection of impact fees.

5	<i>Total Cost of the Roadway Impact Fee CIP within the Service Area</i>	The total cost of the projects within each service area (from Table 5: 10-Year Roadway Impact Fee Capital Improvements Plan 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 Roadway Impact Fee CIP cost (Line 5) prorated by the ratio of Net Capacity Added (Line 4) to Total Capacity Added (Line 1). $[(\text{Line 4} / \text{Line 1}) * (\text{Line 5})]$
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Using the ratio of vehicle-miles added by the Roadway Impact Fee CIP available to serve future growth to the total vehicle-miles added, the total cost of the CIP 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 Roadway Impact Fee CIP (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 Roadway Impact Fee CIP 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 7)
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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 Roadway Impact Fee CIP 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 Roadway Impact Fee CIP exceeds the growth projected to occur in the next ten years, the Roadway Impact Fee CIP cost is reduced accordingly.

11	<i>Cost of Roadway Impact Fee CIP 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 10).
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This value is the total Roadway Impact Fee CIP 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 Awarding the Transportation Impact Fee Credit

Chapter 395 of the Texas Local Government Code requires the Roadway Impact Fee Capital Improvements Plan 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 following table summarizes the portions of Table 8 that utilize this credit calculation, based on awarding a 50 percent credit.

Line	Title	Description
12	<i>Net Financing Costs</i>	Using 4% Interest Rate for Bond Debt Service.
13	<i>Existing Impact Fee Fund Balance</i>	Existing Roadway Impact Fees in fund balance as of November 2016
14	<i>Cost of the CIP 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)
15	<i>Pre-Credit Maximum Fee Per Service Unit</i>	Found by dividing the Cost of the CIP and Financing Attributable to New Growth (Line 14) by the Total Vehicle-Miles of New Demand Over Ten Years (Line 8). (Line 14 / Line 8)
16	<i>Credit</i>	A credit equal to 50% of the total projected cost, as per section 395.014 of the Texas Local Government Code.
17	<i>Recoverable Cost of CIP and Financing</i>	The difference between the Cost of the CIP and Financing Attributable to New Growth (Line 14) and the Credit for Ad Valorem Taxes (Line 16). (Line 14 - Line 16)
18	<i>Maximum Assessable Fee Per Service Unit</i>	Found by dividing the Recoverable Cost of the CIP and Financing (Line 17) by the Total Vehicle-Miles of New Demand Over Ten Years (Line 8). (Line 17 / Line 8)

Table 9 Maximum Assessable Roadway Impact Fee

SERVICE AREA:		Corinth
1	TOTAL VEH-MI OF CAPACITY ADDED BY THE CIP (FROM CIP SERVICE UNITS OF SUPPLY, APPENDIX B)	31,442
2	TOTAL VEH-MI OF EXISTING DEMAND (FROM CIP SERVICE UNITS OF SUPPLY, APPENDIX B)	12,267
3	TOTAL VEH-MI OF EXISTING DEFICIENCIES (FROM EXISTING FACILITIES INVENTORY, APPENDIX C)	120
4	NET AMOUNT OF VEH-MI OF CAPACITY ADDED (LINE 1 - LINE 2 - LINE 3)	19,055
5	TOTAL COST OF THE CIP AND STUDY WITHIN SERVICE AREA (FROM TABLE 5)	\$ 75,326,194
6	COST OF NET CAPACITY SUPPLIED (LINE 4 / LINE 1) * (LINE 5)	\$ 45,650,424
7	COST TO MEET EXISTING NEEDS AND USAGE (LINE 5 - LINE 6)	\$ 29,675,770
8	TOTAL VEH-MI OF NEW DEMAND OVER TEN YEARS (FROM TABLE 7)	31,193
9	PERCENT OF CAPACITY ADDED ATTRIBUTABLE TO GROWTH (LINE 8 / LINE 4)	163.6%
10	IF LINE 8 > LINE 4, REDUCE LINE 9 TO 100%, OTHERWISE NO CHANGE	100.0%
11	COST OF CAPACITY ADDED ATTRIBUTABLE TO GROWTH (LINE 6 * LINE 10)	\$ 45,650,424
12	FINANCING COSTS	\$ 17,689,539
13	EXISTING IMPACT FEE FUND BALANCE	\$ 725,651
14	COST OF CIP AND FINANCING ATTRIBUTABLE TO GROWTH (LINE 11 + LINE 12 - LINE 13)	\$ 62,614,312
15	PRE-CREDIT MAX FEE PER SERVICE UNIT (\$ PER VEH-MI) (LINE 14 / LINE 8)	\$ 2,007
16	CREDIT (50% OF LINE 14)	\$ 31,307,156
17	RECOVERABLE COST OF CIP AND FINANCING (LINE 14 - LINE 16)	\$ 31,307,156
18	MAX ASSESSABLE FEE PER SERVICE UNIT (\$ PER VEH-MI) (LINE 17 / LINE 8)	\$ 1,003

C. 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 will utilize the Land Use/Vehicle-Mile Equivalency Table (LUVMET), presented in Table 10. This table lists the predominant land uses that may occur within the City of Corinth. 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. The descriptions for each land use are presented in Table 11. 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 10, 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, 11th 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 adjusted trip length values are based on the *Regional Origin-Destination Travel Survey* performed by the NCTCOG and NHTS. The other adjustment to trip length is the 50% origin-destination reduction to avoid double counting of trips. At this stage, another important aspect of the state law is applied – the limit on transportation service unit demand. If the adjusted trip length is above the maximum trip length, four (4) miles, the maximum trip length used for calculation is reduced to four (4) miles. This reduction, as discussed previously, limits the maximum trip length to the approximate size of the service areas.

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.

Table 10 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	NHTS Trip Length (mi)	Adj. For O-D	Adj. Trip Length (mi)	Max Trip Length (mi)	Veh-Mi Per Dev-Unit
PORT AND TERMINAL											
Intermodal Truck Terminal	030	1,000 SF GFA	1.87			1.87	14.65	50%	7.33	4.00	7.48
INDUSTRIAL											
General Light Industrial	110	1,000 SF GFA	0.65			0.65	14.65	50%	7.33	4.00	2.60
Industrial Park	130	1,000 SF GFA	0.34			0.34	14.65	50%	7.33	4.00	1.36
Warehousing	150	1,000 SF GFA	0.18			0.18	14.65	50%	7.33	4.00	0.72
Mini-Warehouse	151	1,000 SF GFA	0.15			0.15	14.65	50%	7.33	4.00	0.60
RESIDENTIAL											
Single-Family Detached Housing	210	Dwelling Unit	0.94			0.94	9.79	50%	4.90	4.00	3.76
Apartment/Multi-family	220	Dwelling Unit	0.51			0.51	9.79	50%	4.90	4.00	2.04
Residential Condominium/Townhome	220	Dwelling Unit	0.51			0.51	9.79	50%	4.90	4.00	2.04
Senior Adult Housing-Single-Family	251	Dwelling Unit	0.30			0.30	9.79	50%	4.90	4.00	1.20
Senior Adult Housing-Multifamily	252	Dwelling Unit	0.25			0.25	9.79	50%	4.90	4.00	1.00
Assisted Living	254	1,000 SF GFA	0.48			0.48	9.79	50%	4.90	4.00	1.92
LODGING											
Hotel	310	Room	0.59			0.59	6.43	50%	3.22	3.22	1.90
Motel / Other Lodging Facilities	320	Room	0.36			0.36	6.43	50%	3.22	3.22	1.16
RECREATIONAL											
Golf Driving Range	432	Tee	1.25			1.25	7.86	50%	3.93	3.93	4.91
Golf Course	430	Acre	0.28			0.28	7.86	50%	3.93	3.93	1.10
Recreational Community Center	495	1,000 SF GFA	2.50			2.50	7.86	50%	3.93	3.93	9.83
Ice Skating Rink	465	1,000 SF GFA	1.33			1.33	7.86	50%	3.93	3.93	5.23
Miniature Golf Course	431	Hole	0.33			0.33	7.86	50%	3.93	3.93	1.30
Movie Theater	445	Screens	13.96			13.96	7.86	50%	3.93	3.93	54.86
Racquet / Tennis Club	491	Court	3.82			3.82	7.86	50%	3.93	3.93	15.01
INSTITUTIONAL											
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
Elementary School	520	Students	0.16			0.16	3.49	50%	1.75	1.75	0.28
Middle School/Junior High School	522	Students	2.10			2.10	3.49	50%	1.75	1.75	3.68
High School	525	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
MEDICAL											
Clinic	630	1,000 SF GFA	3.69			3.69	9.85	50%	4.93	4.00	14.76
Hospital	610	1,000 SF GFA	0.86			0.86	9.85	50%	4.93	4.00	3.44
Nursing Home	620	Beds	0.14			0.14	9.85	50%	4.93	4.00	0.56
Animal Hospital/Veterinary Clinic	640	1,000 SF GFA	3.64	30%	B	2.55	9.85	50%	4.93	4.00	10.20

Key to Sources of Pass-by Rates:

A: ITE Trip Generation Handbook 3rd Edition (August 2014)

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 10 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	NHTS Trip Length (mi)	Adj. For O-D	Adj. Trip Length (mi)	Max Trip Length (mi)	Veh-Mi Per Dev-Unit
OFFICE											
Corporate Headquarters Building	714	1,000 SF GFA	1.30			1.30	14.65	50%	7.33	4.00	5.20
General Office Building	710	1,000 SF GFA	1.44			1.44	14.65	50%	7.33	4.00	5.76
Medical-Dental Office Building	720	1,000 SF GFA	3.93			3.93	9.85	50%	4.93	4.00	15.72
Single Tenant Office Building	715	1,000 SF GFA	1.76			1.76	14.65	50%	7.33	4.00	7.04
Office Park	750	1,000 SF GFA	1.30			1.30	14.65	50%	7.33	4.00	5.20
COMMERCIAL											
Automobile Related											
Automobile Care Center	942	1,000 SF Occ. GLA	3.11	40%	B	1.87	4.45	50%	2.23	2.23	4.17
Automobile Parts Sales	843	1,000 SF GFA	4.90	43%	A	2.79	4.45	50%	2.23	2.23	6.22
Gasoline/Service Station	944	Vehicle Fueling Position	13.91	42%	A	8.07	1.20	50%	0.60	0.60	4.84
Gasoline/Service Station w/ Conv Market	945	Vehicle Fueling Position	48.48	56%	B	21.33	1.20	50%	0.60	0.60	12.80
Automobile Sales (New)	840	1,000 SF GFA	2.42	20%	B	1.94	4.45	50%	2.23	2.23	4.33
Quick Lubrication Vehicle Shop	941	Servicing Positions	4.85	40%	B	2.91	4.45	50%	2.23	2.23	6.49
Self-Service Car Wash	947	Stall	5.54	40%	B	3.32	1.20	50%	0.60	0.60	1.99
Tire Store	848	1,000 SF GFA	3.75	28%	A	2.70	4.45	50%	2.23	2.23	6.02
Dining											
Fast Food Restaurant with Drive-Thru Window	934	1,000 SF GFA	44.61	50%	A	22.31	5.64	50%	2.82	2.82	62.91
Fast Food Restaurant without Drive-Thru Window	933	1,000 SF GFA	43.18	50%	B	21.59	5.64	50%	2.82	2.82	60.88
High Turnover (Sit-Down) Restaurant	932	1,000 SF GFA	9.57	43%	A	5.45	6.07	50%	3.04	3.04	16.57
Fine Dining Restaurant	931	1,000 SF GFA	7.80	44%	A	4.37	6.07	50%	3.04	3.04	13.28
Coffee/Donut Shop with Drive-Thru Window	937	1,000 SF GFA	85.88	70%	A	25.76	4.53	50%	2.27	2.27	58.48
Other Retail											
Free-Standing Discount Store	815	1,000 SF GFA	4.86	30%	C	3.40	5.60	50%	2.80	2.80	9.52
Nursery (Garden Center)	817	1,000 SF GFA	6.94	30%	B	4.86	5.60	50%	2.80	2.80	13.61
Home Improvement Superstore	862	1,000 SF GFA	2.29	48%	A	1.19	5.60	50%	2.80	2.80	3.33
Pharmacy/Drugstore w/o 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 w/ Drive-Thru Window	881	1,000 SF GFA	10.25	49%	A	5.23	5.60	50%	2.80	2.80	14.64
Shopping Center (>150k)	820	1,000 SF GLA	3.40	34%	A	2.24	5.60	50%	2.80	2.80	6.27
Shopping Plaza (40-150k)	821	1,000 SF GLA	5.19	34%	A	3.43	5.60	50%	2.80	2.80	9.60
Strip Retail Plaza (<40k)	822	1,000 SF GLA	6.59	34%	A	4.35	5.60	50%	2.80	2.80	12.18
Supermarket	850	1,000 SF GFA	8.95	36%	A	5.73	5.60	50%	2.80	2.80	16.04
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
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	21.01	47%	A	11.14	4.45	50%	2.23	2.23	24.84
Hair Salon	918	1,000 SF GLA	1.45	30%	B	1.02	4.45	50%	2.23	2.23	2.27

Key to Sources of Pass-by Rates:

A: ITE Trip Generation Handbook 3rd Edition (August 2014)

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 Land Use Descriptions

Land Use Category	ITE Land Use Code	Land Use Description
PORT AND TERMINAL		
Intermodal 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
Residential Condominium/Townhome	215	Single-family ownership units that share a wall with an adjoining dwelling unit
Apartment/Multi-family (Low-Rise)	220	At least 4 rental dwelling units (Apartments) and two or three levels (floors) living space per building
Apartment/Multi-family (Mid-Rise)	221	At least 4 rental dwelling units (Apartments) and between four and ten levels (floors) living space per building
Apartment/Multi-family (High-Rise)	222	At least 4 rental dwelling units (Apartments) and more than ten levels (floors) living space per building
Senior Adult Housing-Single-Family	251	Consists of detached independent living developments that include amenities such as golf courses and swimming pools
Senior Adult Housing-Multifamily	252	Consists of attached independent living developments that include limited social or recreation services
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 Driving Range	432	Facilities with driving tees for practice; may provide individual or group lessons; may have pro shop and/or refreshment facilities
Golf Course	430	May include municipal courses and private country clubs; may have driving ranges, pro shops, and restaurant/banquet facilities
Recreational Community Center	495	Category includes racquet clubs, health/fitness clubs, can include facilities such as YMCA's
Ice Skating Rink	465	Rinks for ice skating and related sports; may contain spectator areas and refreshment 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)
Movie Theater	445	Movie theater with audience seating, minimum of ten screens, lobby, and refreshment area.
Racquet / Tennis Club	491	Indoor or outdoor facilities specifically designed for playing tennis
INSTITUTIONAL		
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
Elementary School	520	Serves students who have not yet entered middle or junior high school
Middle School/Junior High School	522	Serves students who have not yet entered high school
High School	525	Serves students who have completed middle or junior high school
Junior / Community College	540	Two-year junior, community, or technical colleges
University / College	550	Four-year universities or colleges that may or may not offer graduate programs
MEDICAL		
Clinic	630	Facilities with limited diagnostic and outpatient care
Hospital	610	Medical and surgical facilities with overnight accommodations
Nursing Home	620	Rest and convalescent homes with residents who do little or no driving
Animal Hospital/Veterinary Clinic	640	Medical facilities specializing in the treatment of animals

Table 11 (Cont'd) Land Use Descriptions

Land Use Category	ITE Land Use Code	Land Use Description
OFFICE		
Corporate Headquarters Building	714	Office building housing corporate headquarters of a single company or organization
General Office Building	710	Office buildings which house multiple tenants
Medical-Dental Office Building	720	Multi-tenant building with offices for physicians and/or dentists
Single Tenant Office Building	715	Single tenant office buildings other than corporate headquarters
Office Park	750	Office buildings (typically low-rise) in a campus setting and served by a common roadway system
COMMERCIAL		
Automobile Related		
Automobile Care Center	942	Automobile repair and servicing including stereo installations and upholstery
Automobile Parts Sales	843	Retail sale of auto parts but no on-site vehicle repair
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
Automobile Sales (New)	840	New car dealerships, typically with automobile servicing, part sales, and used car sales
Quick Lubrication Vehicle Shop	941	Primary business is to perform oil changes and fluid/filter changes with other repair services not provided
Self-Service Car Wash	947	Has stalls for driver to park and wash the vehicle
Tire Store	848	Primary business is sales and installation of tires; usually do not have large storage or warehouse area
Dining		
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
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
High Turnover (Sit-Down) Restaurant	932	Restaurants with turnover rates less than one hour; typically includes moderately-priced chain restaurants
Fine Dining Restaurant	931	Restaurants with turnover rates of one hour or longer; typically require reservations
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 Discount Store	815	Category includes free-standing stores with off-street parking; typically offer a variety of products and services with long store hours
Nursery (Garden Center)	817	Building with a yard of planting or landscape stock; may have office, storage, shipping or greenhouse facilities
Home Improvement Superstore	862	Warehouse-type facilities offering a large variety of products and services including lumber, tool, paint, lighting, and fixtures
Pharmacy/Drugstore w/o Drive-Thru Window	880	Facilities that primarily sell prescription and non-prescription drugs without a drive-through window
Pharmacy/Drugstore w/ Drive-Thru Window	881	Facilities that primarily sell prescription and non-prescription drugs with a drive-through window
Shopping Center (>150k)	820	Integrated group of commercial establishments; planned, owned, and managed as a unit (>150 ksf)
Shopping Plaza (40-150k)	821	Integrated group of commercial establishments; planned, owned, and managed as a unit (40-150 ksf)
Strip Retail Plaza (<40k)	822	Integrated group of commercial establishments; planned, owned, and managed as a unit (<40 ksf)
Supermarket	850	Primary business is sale of groceries, food, and household cleaning items; may include photo, pharmacy, video rental, and/or other services
Toy/Children's Superstore	864	Businesses specializing in child-oriented merchandise
Department Store	875	Free-standing stores that specialize in the sale of apparel, footwear, bedding, home products, jewelry, etc.
SERVICES		
Walk-In Bank	911	Banks with their own parking lots, no drive-in lanes but contain non-drive-through ATMs
Drive-In Bank	912	Banking facilities to conduct financial transactions from the vehicle; also usually apart of walk-in bank
Hair Salon	918	Facilities that specialize in cosmetic and beauty services including hair cutting and styling

6.0 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

Step 1	Determine Development Unit and Vehicle-Miles Per Development Unit
	From Table 10 [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: 3.76
Step 2	Determine Maximum Assessable Impact Fee Per Service Unit (Vehicle-Mile)
	From Table 9, Line 18 [Maximum Assessable Fee Per Service Unit] Service Area: \$1,003
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 * 3.76 * \$1,003 Maximum Assessable Impact Fee = \$3,771

Example 2:

Development Type – 125,000 square foot Home Improvement Superstore

Step 1	Determine Development Unit and Vehicle-Miles Per Development Unit
	From Table 10 [Land Use – Vehicle-Mile Equivalency Table] Development Type: 125,000 square feet of Home Improvement Superstore Development Unit: 1,000 square feet of Gross Floor Area Veh-Mi Per Development Unit: 3.33
Step 2	Determine Maximum Assessable Impact Fee Per Service Unit (Vehicle-Mile)
	From Table 9, Line 18 [Maximum Assessable Fee Per Service Unit] Service Area: \$1,003
Step 3	Determine Maximum Assessable Impact Fee
	Impact Fee = # of Development Units * Veh-Mi Per Dev Unit * Max. Fee Per Service Unit Impact Fee = 125 * 3.33 * \$1,003 Maximum Assessable Impact Fee = \$417,499

7.0 Adoption and Administration of Roadway Impact Fees

Adoption Process

Chapter 395 of the Texas Local Government Code stipulates a specific process for the adoption of Roadway Impact Fees. A Capital Improvement Advisory Committee (CIAC) is required to review the Land Use Assumptions and Roadway Impact Fees CIP used in calculating the maximum fee, and to provide the Committee's findings for consideration by the City Council. This CIAC also reviews the Roadway Impact Fee ordinance and provides its findings to the City Council. The composition of the CIAC is required to adequately represent the building and development communities. The City Council then conducts a first public hearing on the Land Use Assumptions and Roadway Impact Fee CIP and a second public hearing on the Roadway Impact Fee Ordinance.

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 CIP 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.

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.

8.0 Conclusions

The City of Corinth 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 Corinth. The maximum assessable roadway impact fee calculated in this report is \$1,003 per vehicle-mile.

This document serves as a guide to the assessment of Roadway Impact Fees pertaining to future development, and the City's need for transportation improvements to accommodate that growth. Following the public hearing process, the City Council may establish an impact fee amount to be collected, 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 Capital Improvements Plan are appropriately incorporated into the development of the maximum assessable Roadway Impact Fee.

APPENDICES

- A. Conceptual Level Project Cost Projections
- B. Roadway Impact Fee CIP Service Units of Supply
- C. Existing Roadway Facilities Inventory

Appendix A – Conceptual Level Project Cost Projections

City of Corinth - 2023 Roadway Impact Fee Update

Capital Improvement Plan for Roadway Impact Fees
Summary of Conceptual Level Project Cost Projections

Roadway Improvements - Corinth

#	Class	Project	Limits	Status	% in SA	Project Cost	Project Cost in SA
1	Minor	Lake Sharon Dr (1)	FM 2499 to Oakmont Dr	COMPLETED	100%	\$5,135,760	\$5,135,760
2	Minor	Lake Sharon Dr (2)	Blue Holley Dr to Parkridge Dr	COMPLETED	100%	\$5,137,991	\$5,137,991
3	Minor	Lake Sharon Dr (3)	Parkridge Dr to Tower Ridge Dr	COMPLETED	100%	\$3,485,426	\$3,485,426
4	Minor	Lake Sharon Dr (4)	Tower Ridge Dr to Carpenter Ln	WIDENING	100%	\$4,333,000	\$4,333,000
5	Collector	Church Dr	Post Oak Rd to IH-35E SBFR	COMPLETED	100%	\$2,700,213	\$2,700,213
6	Collector	Walton Dr	North Corinth St to Shady Rest Ln	WIDENING	100%	\$3,251,000	\$3,251,000
7	Collector	W Shady Shores Rd	Railroad to 205' East of Dalton Dr	WIDENING	50%	\$2,000,000	\$1,000,000
8	Collector	Parkridge Dr (1)	Lake Sharon Dr to Tori Oak Tr	COMPLETED	100%	\$765,541	\$765,541
9	Collector	Parkridge Dr (2)	Warwick Dr to FM 2181	COMPLETED	100%	\$1,014,513	\$1,014,513
10	Collector	Parkridge Dr (3)	FM 2181 to South City Limits	COMPLETED	100%	\$554,490	\$554,490
11	Collector	Tower Ridge Dr (1)	Meadow Oaks Dr to 215' South of Brookview Dr	COMPLETED	100%	\$780,001	\$780,001
12	Collector	Tower Ridge Dr (2)	215' South of Brookview Dr to Cliff Oaks Dr	WIDENING	100%	\$3,630,000	\$3,630,000
13	Greenway Collector	Garrison St	IH-35E SBFR to Cliff Oak Dr	WIDENING	100%	\$2,367,000	\$2,367,000
14	Collector	Quail Run Dr	Lake Sharon Dr to IH-35E NBFR	WIDENING	100%	\$2,961,000	\$2,961,000
15	Minor (1/2)	Post Oak Rd	Robinson Rd to Lake Sharon Dr	WIDENING	100%	\$4,408,000	\$4,408,000
16	Collector	Parkridge Dr (4)	Church Dr to Silver Meadow Dr	NEW	100%	\$932,580	\$932,580
17	Collector	Parkridge Dr (5)	Silver Meadow Dr to Lake Sharon Dr	NEW	100%	\$1,564,860	\$1,564,860
18	Collector	Shady Rest Ln	Fritz Ln to Walton Dr	COMPLETED	100%	\$1,544,049	\$1,544,049
19	Major	FM 2181	West City Limits to IH-35E SBFR	COMPLETED	100%	\$242,000	\$242,000
20	Collector	Cliff Oaks Dr	Tower Ridge Dr to Garrison Rd	WIDENING	100%	\$3,500,000	\$3,500,000
21	Collector	Silver Meadow Ln	Post Oak Dr to Parkridge Dr	NEW	100%	\$1,369,170	\$1,369,170
22	Collector	Hollis Dr	Lake Sharon Dr to Custer Dr	NEW	100%	\$704,220	\$704,220
23	Collector	New Collector A	FM 2181 to Parkridge Dr (North)	NEW	100%	\$1,445,730	\$1,445,730
24	Collector	New Collector B	FM 2181 to Parkridge Dr (South)	NEW	100%	\$1,453,320	\$1,453,320
25	Collector	Old Highway 77	W Shady Shores Rd to IH-35E NBFR	NEW	100%	\$2,781,000	\$2,781,000
26	Collector	NCTC Way	IH-35E NBFR to N Corinth St	NEW	100%	\$3,262,000	\$3,262,000
27	Collector	N Corinth St	N Corinth St to Corinth Parkway	NEW	100%	\$2,338,000	\$2,338,000
28	Collector	Tower Ridge Dr (3)	Cliff Oaks Dr to FM 2181	NEW	100%	\$429,330	\$429,330

Intersection Improvements

	Type	Road A	Road B	Status	% in SA	Project Cost	Project Cost in SA
	Roundabout	Lake Sharon Dr	Oakmont Dr	Retrofit	100%	\$2,500,000	\$2,500,000
	Roundabout	Lake Sharon Dr	Parkridge Dr	Retrofit	100%	\$2,500,000	\$2,500,000
	Roundabout	Dobbs Rd	Quail Run Dr	Retrofit	100%	\$2,500,000	\$2,500,000
	Roundabout	N Corinth St	Walton Dr	New	100%	\$2,000,000	\$2,000,000
	Roundabout	Tower Ridge Dr	Cliff Oaks Dr	Retrofit	100%	\$2,500,000	\$2,500,000
	Traffic Signal	FM 2499	Lake Sharon Dr	Retrofit	100%	\$200,000	\$200,000

TOTAL **\$76,290,194** **\$75,290,194**

*Total may be higher than presented in Table 5 (10-Year Roadway Improvement Plan for Roadway Impact Fees with Conceptual Level Cost Opinions) because the cost of some projects are shared between jurisdictions.

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 Corinth.

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

City of Corinth
2023 Roadway Impact Fee Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 7/28/2023

Project Information:		Description:	Project No.
Name:	Lake Sharon Dr (1)	This project consists of the construction of a new minor arterial. The cost estimate of \$6,435,760 was provided by the City of Corinth. \$1,300,000 has been removed from the cost due to a County of Denton ICA Agreement. Therefore, the City contribution to this facility was \$5,135,760.	1
Limits:	FM 2499 to Oakmont Dr		
Impact Fee Class:	Minor		
Ultimate Class:	Minor		
Length (lf):	3,135		
Service Area(s):	Corinth		

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:	Cost Estimate Provided By Corinth		\$ 5,248,000
Engineering/Survey/Testing:			\$ 553,660
Mobilization			\$ -
Previous City contribution			\$ -
Other	County of Denton ICA Agreement		\$ (1,300,000)
ROW/Easement Acquisition:			\$ 634,100
Impact Fee Project Cost TOTAL:			\$ 5,135,760

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 Corinth.

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

City of Corinth
2023 Roadway Impact Fee Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.
updated: 7/28/2023

Project Information:		Description:	Project No.	2
Name:	Lake Sharon Dr (2)	This project consisted of the construction of a minor arterial. This City project was a combination of Impact Fee Project Number 2, 3, and 9. The cost provided by the City for these three projects was \$9,569,257. \$5,167,399 (54%) is contributed to Lake Sharon Drive from Blue Holley to Parkridge Drive. \$29,408 has been removed from the cost for escrow funds. Therefore, the City contribution to this facility was \$5,137,991.		
Limits:	Blue Holley Dr to Parkridge Dr			
Impact Fee Class:	Minor			
Ultimate Class:	Minor			
Length (lf):	4,735			
Service Area(s):	Corinth			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:	Actual Cost Provided By Corinth		\$ 3,716,120
Engineering/Survey/Testing:			\$ 442,512
Previous City contribution	Escrow Funds		\$ (29,408)
Other			\$ 568,320
ROW/Easement Acquisition:	Actual Cost Provided By Corinth		\$ 440,447
Impact Fee Project Cost TOTAL:			\$ 5,137,991

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

City of Corinth
2023 Roadway Impact Fee Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.
updated: 7/28/2023

Project Information:		Description:	Project No.	3
Name:	Lake Sharon Dr (3)	This project consisted of the construction of a minor arterial. This City project was a combination of Impact Fee Project Number 2, 3, and 9. The cost provided by the City for these three projects was \$9,569,257. \$3,636,318 (38%) is contributed to Meadow Oaks Drive from Parkridge Drive to Tower Ridge Drive. \$150,892 has been removed from the cost for escrow funds. Therefore, the City contribution to this facility was \$3,485,426.		
Limits:	Parkridge Dr to Tower Ridge Dr			
Impact Fee Class:	Minor			
Ultimate Class:	Minor			
Length (lf):	3,395			
Service Area(s):	Corinth			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:	Actual Cost Provided By Corinth		\$ 2,615,047
Engineering/Survey/Testing:			\$ 311,397
Previous City contribution	Escrow Funds		\$ (150,892)
Other			\$ 399,929
ROW/Easement Acquisition:	Actual Cost Provided By Corinth		\$ 309,944
Impact Fee Project Cost TOTAL:			\$ 3,485,426

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

City of Corinth
2023 Roadway Impact Fee Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated:

7/28/2023

Project Information:		Description:	Project No.	4
Name:	Lake Sharon Dr (4)	This project consists of the construction of a new minor arterial.		
Limits:	Tower Ridge Dr to Carpenter Ln			
Impact Fee Class:	Minor			
Ultimate Class:	Minor			
Length (lf):	2,305			
Service Area(s):	Corinth			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
102	Unclassified Street Excavation	7,171	cy	\$ 18.00	\$ 129,080
202	6" Lime Stabilization (with Lime @ 27#/sy)	13,830	sy	\$ 8.00	\$ 110,640
302	8" Concrete Pavement w/ 6" Curb	12,806	sy	\$ 100.00	\$ 1,280,556
402	4" Topsoil	6,659	sy	\$ 5.00	\$ 33,294
502	5' Concrete Sidewalk	23,050	sf	\$ 5.00	\$ 115,250
602	Concrete Driveway Approach	2	ea	\$ 3,250.00	\$ 6,500
Paving Construction Cost Subtotal:					\$ 1,675,320
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		5%	\$	83,766
✓	Traffic Control	Construction Phase Traffic Control	7%	\$	117,272
✓	Pavement Markings/Markers		3%	\$	50,260
✓	Roadway Drainage	Standard Internal System	30%	\$	502,596
✓	Illumination		5%	\$	83,766
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	2%	\$	33,506
✓	Sewer	Minor Adjustments	1%	\$	16,753
✓	Basic Landscaping/Irrigation		2%	\$	33,506
	Other:		\$0	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	921,426
Paving and Allowance Subtotal:				\$	2,596,746
Construction Contingency:				20%	\$ 519,349
Construction Cost TOTAL:				\$	3,117,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,117,000
Engineering/Survey/Testing:		18%	\$ 561,060
Mobilization		6%	\$ 187,020
Previous City contribution			
Other			
ROW/Easement Acquisition:	Existing Alignment	15%	\$ 467,550
Impact Fee Project Cost TOTAL:			\$ 4,333,000

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 Corinth.

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

City of Corinth
2023 Roadway Impact Fee Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 7/28/2023

Project Information:		Description:	Project No.	5
Name:	Church Dr	This project consisted of the construction of a collector facility. The cost provided by the City for this facility was \$2,887,440. \$187,227 has been removed from the cost for escrow funds. Therefore, the City contribution to this facility was \$2,700,213.		
Limits:	Post Oak Rd to IH-35E SBFR			
Impact Fee Class:	Collector			
Ultimate Class:	Collector			
Length (lf):	4,755			
Service Area(s):	Corinth			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:	Actual Cost Provided By Corinth	-	\$ 2,287,055
Engineering/Survey/Testing:			\$ 317,150
Previous City contribution	Escrow Funds		\$ (187,227)
Other			\$ 54,220
ROW/Easement Acquisition:	Actual Cost Provided By Corinth		\$ 229,015
Impact Fee Project Cost TOTAL:			\$ 2,700,213

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City of Corinth
2023 Roadway Impact Fee Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 7/28/2023

Project Information:		Description:	Project No.	6
Name:	Walton Dr	This project consists of the reconstruction of the existing two-lane rural asphalt facility to a three-lane concrete collector.		
Limits:	North Corinth St to Shady Rest Ln			
Impact Fee Class:	Collector			
Ultimate Class:	Collector			
Length (lf):	2,515			
Service Area(s):	Corinth			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
103	Unclassified Street Excavation and Demolition	5,729	cy	\$ 18.00	\$ 103,115
203	6" Lime Stabilization (with Lime @ 27#/sy)	11,178	sy	\$ 8.00	\$ 89,422
303	8" Concrete Pavement w/ 6" Curb	10,619	sy	\$ 100.00	\$ 1,061,889
403	4" Topsoil	3,912	sy	\$ 5.00	\$ 19,561
503	5' Concrete Sidewalk	25,150	sf	\$ 5.00	\$ 125,750
603	Concrete Driveway Approach	3	ea	\$ 3,250.00	\$ 9,750
Paving Construction Cost Subtotal:					\$ 1,409,487
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		5%	\$	70,474
✓	Traffic Control	Construction Phase Traffic Control	7%	\$	98,664
✓	Pavement Markings/Markers		3%	\$	42,285
✓	Roadway Drainage	Standard Internal System	30%	\$	422,846
✓	Illumination		5%	\$	70,474
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	2%	\$	28,190
✓	Sewer	Minor Adjustments	1%	\$	14,095
✓	Basic Landscaping/Irrigation		2%	\$	28,190
	Other:		\$0	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	775,218
Paving and Allowance Subtotal:				\$	2,184,705
Construction Contingency:				20%	\$ 436,941
Construction Cost TOTAL:				\$	2,622,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,622,000
Engineering/Survey/Testing:		18%	\$ 471,960
Mobilization		6%	\$ 157,320
Previous City contribution			
Other			
ROW/Easement Acquisition:	NO ROW INCLUDED	0%	\$ -
Impact Fee Project Cost TOTAL:			\$ 3,251,000

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City of Corinth
2023 Roadway Impact Fee Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 7/28/2023

Project Information:		Description:	Project No.	7
Name:	W Shady Shores Rd	This project consists of the reconstruction of a two-lane asphalt facility to a collector. The City of Corinth is co-funding this project in partnership with Denton County and the Shady Shores Development. The City's contribution is \$2,000,000.		
Limits:	Railroad to 205' East of Dalton Dr			
Impact Fee Class:	Collector			
Ultimate Class:	Collector			
Length (lf):	6,455			
Service Area(s):	Corinth			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Impact Fee Project Cost TOTAL:			\$ 2,000,000

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City of Corinth
2023 Roadway Impact Fee Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.
updated: 7/28/2023

Project Information:		Description:	Project No.	8
Name:	Parkridge Dr (1)	This project consisted of the construction of a collector. This City project was a combination of Project Number 2, 3, and 9, The cost provided by the City for these three projects was \$9,569,257. \$765,541 (8%) is contributed to Parkridge Drive from Lake Sharon Drive to Tori Oak Trail.		
Limits:	Lake Sharon Dr to Tori Oak Tr			
Impact Fee Class:	Collector			
Ultimate Class:	Collector			
Length (lf):	475			
Service Area(s):	Corinth			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:	Actual Cost Provided By Corinth		\$ 550,536
Engineering/Survey/Testing:			\$ 65,557
Previous City contribution			
Other			\$ 84,196
ROW/Easement Acquisition:	Actual Cost Provided By Corinth		\$ 65,251
Impact Fee Project Cost TOTAL:			\$ 765,541

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City of Corinth
2023 Roadway Impact Fee Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.
updated: 7/28/2023

Project Information:		Description:	Project No.	9
Name:	Parkridge Dr (2)	This project consisted of the construction of a collector facility. The cost provided by the City for this facility was \$1,805,798. \$41,285 has been removed from the cost for escrow funds. \$750,000 has been removed from the cost due to a County of Denton ICA Agreement. Therefore, the City contribution to this facility was \$1,014,513.		
Limits:	Warwick Dr to FM 2181			
Impact Fee Class:	Collector			
Ultimate Class:	Collector			
Length (lf):	4,000			
Service Area(s):	Corinth			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:	Actual Cost Provided By Corinth		\$ 1,386,175
Engineering/Survey/Testing:			\$ 269,650
Previous Contribution	ICA Agreement and Escrow Fund		\$ (791,285)
Other			\$ 97,534
ROW/Easement Acquisition:	Actual Cost Provided By Corinth		\$ 52,439
Impact Fee Project Cost TOTAL:			\$ 1,014,513

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City of Corinth
2023 Roadway Impact Fee Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.
updated: 7/28/2023

Project Information:		Description:	Project No.	10
Name:	Parkridge Dr (3)	This project consisted of the reconstruction of a two-lane rural asphalt facility to a collector. The cost provided by the City for this facility was \$1,554,490. \$1,000,000 has been removed from the cost due to a County of Denton ICA Agreement. Therefore, the City contribution to this facility was \$554,490.		
Limits:	FM 2181 to South City Limits			
Impact Fee Class:	Collector			
Ultimate Class:	Collector			
Length (lf):	2,775			
Service Area(s):	Corinth			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:	Actual Cost Provided By Corinth		\$ 1,266,343
Engineering/Survey/Testing:	Actual Cost Provided By Corinth		\$ 168,531
Previous Contribution	County of Denton ICA Agreement		\$ (1,000,000)
Other			\$ 12,733
ROW/Easement Acquisition:	Actual Cost Provided By Corinth		\$ 106,883
Impact Fee Project Cost TOTAL:			\$ 554,490

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City of Corinth
2023 Roadway Impact Fee Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated:

7/28/2023

Project Information:		Description:	Project No.	11
Name:	Tower Ridge Dr (1)	This project consisted of the reconstruction of a two-lane rural asphalt facility to a collector. The cost provided by the City for this facility was \$1,105,001. \$75,000 has been removed from the cost for escrow funds. \$250,000 removed from the costs for RW Impact Fees. Therefore, the City contribution to this facility was \$780,001.		
Limits:	Meadow Oaks Dr to 215' South of Brookview Dr			
Impact Fee Class:	Collector			
Ultimate Class:	Collector			
Length (lf):	2,230			
Service Area(s):	Corinth			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:	Actual Cost Provided By Corinth		\$ 1,000,214
Engineering/Survey/Testing:	Actual Cost Provided By Corinth		\$ 104,405
Previous City contribution	Escrow Fund		\$ (325,000)
Other			\$ 382
ROW/Easement Acquisition:			
Impact Fee Project Cost TOTAL:			\$ 780,001

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City of Corinth
2023 Roadway Impact Fee Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 7/28/2023

Project Information:		Description:	Project No. 12
Name:	Tower Ridge Dr (2)	This project consists of the reconstruction of a two-lane rural asphalt facility to a collector.	
Limits:	215' South of Brookview Dr to Cliff Oaks Dr		
Impact Fee Class:	Collector		
Ultimate Class:	Collector		
Length (lf):	2,265		
Service Area(s):	Corinth		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
103	Unclassified Street Excavation and Demolition	5,159	cy	\$ 18.00	\$ 92,865
203	6" Lime Stabilization (with Lime @ 27#/sy)	10,067	sy	\$ 8.00	\$ 80,533
303	8" Concrete Pavement w/ 6" Curb	9,563	sy	\$ 100.00	\$ 956,333
403	4" Topsoil	3,523	sy	\$ 5.00	\$ 17,617
503	5' Concrete Sidewalk	22,650	sf	\$ 5.00	\$ 113,250
603	Concrete Driveway Approach	2	ea	\$ 3,250.00	\$ 6,500
Paving Construction Cost Subtotal:					\$ 1,267,098
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		5%	\$	63,355
✓	Traffic Control	Construction Phase Traffic Control	7%	\$	88,697
✓	Pavement Markings/Markers		3%	\$	38,013
✓	Roadway Drainage	Standard Internal System	30%	\$	380,130
✓	Illumination		5%	\$	63,355
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	2%	\$	25,342
✓	Sewer	Minor Adjustments	1%	\$	12,671
✓	Basic Landscaping/Irrigation		2%	\$	25,342
	Other:		\$0	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	696,904
Paving and Allowance Subtotal:				\$	1,964,002
Construction Contingency:				20%	\$ 392,800
Construction Cost TOTAL:				\$	2,357,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,357,000
Engineering/Survey/Testing:		18%	\$ 424,260
Mobilization		6%	\$ 141,420
Previous City contribution			
Other			
ROW/Easement Acquisition:	Includes purchase of existing Home	30%	\$ 707,100
Impact Fee Project Cost TOTAL:			\$ 3,630,000

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City of Corinth
2023 Roadway Impact Fee Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 7/28/2023

Project Information:		Description:	Project No. 13
Name:	Garrison St	This project consists of the reconstruction of a two-lane rural asphalt facility to a collector.	
Limits:	IH-35E SBFR to Cliff Oak Dr		
Impact Fee Class:	Greenway Collector		
Ultimate Class:	Greenway Collector		
Length (lf):	1,755		
Service Area(s):	Corinth		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
108	Unclassified Street Excavation and Demolition	3,413	cy	\$ 18.00	\$ 61,425
208	6" Lime Stabilization (with Lime @ 27#/sy)	6,630	sy	\$ 8.00	\$ 53,040
308	8" Concrete Pavement w/ 6" Curb	6,240	sy	\$ 100.00	\$ 624,000
408	4" Topsoil	5,948	sy	\$ 5.00	\$ 29,738
508	5' Concrete Sidewalk	28,080	sf	\$ 5.00	\$ 140,400
608	Concrete Driveway Approach	2	ea	\$ 3,250.00	\$ 6,500
Paving Construction Cost Subtotal:					\$ 915,103
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		5%	\$	45,755
✓	Traffic Control	Construction Phase Traffic Control	7%	\$	64,057
✓	Pavement Markings/Markers		3%	\$	27,453
✓	Roadway Drainage	Standard Internal System	30%	\$	274,531
✓	Illumination		5%	\$	45,755
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	2%	\$	18,302
✓	Sewer	Minor Adjustments	1%	\$	9,151
✓	Basic Landscaping/Irrigation		2%	\$	18,302
	Other:		\$0	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	503,306
Paving and Allowance Subtotal:				\$	1,418,409
Construction Contingency:				20%	\$ 283,682
Construction Cost TOTAL:				\$	1,703,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,703,000
Engineering/Survey/Testing:		18%	\$ 306,540
Mobilization		6%	\$ 102,180
Previous City contribution			
Other			
ROW/Easement Acquisition:	Existing Alignment	15%	\$ 255,450
Impact Fee Project Cost TOTAL:			\$ 2,367,000

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City of Corinth
2023 Roadway Impact Fee Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 7/28/2023

Project Information:		Description:	Project No. 14
Name:	Quail Run Dr	This project consists of the reconstruction and realignment of a two-lane rural asphalt facility to a collector.	
Limits:	Lake Sharon Dr to IH-35E NBFR		
Impact Fee Class:	Collector		
Ultimate Class:	Collector		
Length (lf):	1,845		
Service Area(s):	Corinth		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
103	Unclassified Street Excavation and Demolition	4,203	cy	\$ 18.00	\$ 75,645
203	6" Lime Stabilization (with Lime @ 27#/sy)	8,200	sy	\$ 8.00	\$ 65,600
303	8" Concrete Pavement w/ 6" Curb	7,790	sy	\$ 100.00	\$ 779,000
403	4" Topsoil	2,870	sy	\$ 5.00	\$ 14,350
503	5' Concrete Sidewalk	18,450	sf	\$ 5.00	\$ 92,250
603	Concrete Driveway Approach	2	ea	\$ 3,250.00	\$ 6,500
Paving Construction Cost Subtotal:					\$ 1,033,345
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		5%	\$	51,667
✓	Traffic Control	Construction Phase Traffic Control	7%	\$	72,334
✓	Pavement Markings/Markers		3%	\$	31,000
✓	Roadway Drainage	Standard Internal System	30%	\$	310,004
✓	Illumination		5%	\$	51,667
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	2%	\$	20,667
✓	Sewer	Minor Adjustments	1%	\$	10,333
✓	Basic Landscaping/Irrigation		2%	\$	20,667
	Other:		\$0	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	568,340
Paving and Allowance Subtotal:				\$	1,601,685
Construction Contingency:				20%	\$ 320,337
Construction Cost TOTAL:				\$	1,923,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,923,000
Engineering/Survey/Testing:		18%	\$ 346,140
Mobilization		6%	\$ 115,380
Previous City contribution			
Other			
ROW/Easement Acquisition:	Realignment	30%	\$ 576,900
Impact Fee Project Cost TOTAL:			\$ 2,961,000

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City of Corinth
2023 Roadway Impact Fee Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 7/28/2023

Project Information:		Description:	Project No. 15
Name:	Post Oak Rd	This project consists of the widening of a two-lane facility to a minor arterial.	
Limits:	Robinson Rd to Lake Sharon Dr		
Impact Fee Class:	Minor (1/2)		
Ultimate Class:	Minor (1/2)		
Length (lf):	4,725		
Service Area(s):	Corinth		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
106	Unclassified Street Excavation and Demolition	6,825	cy	\$ 18.00	\$ 122,850
206	6" Lime Stabilization (with Lime @ 27#/sy)	13,388	sy	\$ 8.00	\$ 107,100
306	8" Concrete Pavement w/ 6" Curb	12,863	sy	\$ 100.00	\$ 1,286,250
406	4" Topsoil	10,763	sy	\$ 5.00	\$ 53,813
506	5' Concrete Sidewalk	23,625	sf	\$ 5.00	\$ 118,125
606	Concrete Driveway Approach	5	ea	\$ 3,250.00	\$ 16,250
Paving Construction Cost Subtotal:					\$ 1,704,388
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		5%	\$	85,219
✓	Traffic Control	Construction Phase Traffic Control	7%	\$	119,307
✓	Pavement Markings/Markers		3%	\$	51,132
✓	Roadway Drainage	Standard Internal System	30%	\$	511,316
✓	Illumination		5%	\$	85,219
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	2%	\$	34,088
✓	Sewer	Minor Adjustments	1%	\$	17,044
✓	Basic Landscaping/Irrigation		2%	\$	34,088
	Other:		\$0	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	937,413
Paving and Allowance Subtotal:				\$	2,641,801
Construction Contingency:				20%	\$ 528,360
Construction Cost TOTAL:				\$	3,171,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,171,000
Engineering/Survey/Testing:		18%	\$ 570,780
Mobilization		6%	\$ 190,260
Previous City contribution			
Other			
ROW/Easement Acquisition:	Existing Alignment	15%	\$ 475,650
Impact Fee Project Cost TOTAL:			\$ 4,408,000

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City of Corinth
2023 Roadway Impact Fee Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 7/28/2023

Project Information:		Description:	Project No. 16
Name:	Parkridge Dr (4)	This project consists of the construction of a new collector. To be funded 2/3 by development and 1/3 by the City as part of a development agreement.	
Limits:	Church Dr to Silver Meadow Dr		
Impact Fee Class:	Collector		
Ultimate Class:	Collector		
Length (lf):	1,870		
Service Area(s):	Corinth		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
103	Unclassified Street Excavation	4,259	cy	\$ 18.00	\$ 76,670
203	6" Lime Stabilization (with Lime @ 27#/sy)	8,311	sy	\$ 8.00	\$ 66,489
303	8" Concrete Pavement w/ 6" Curb	7,896	sy	\$ 100.00	\$ 789,556
403	4" Topsoil	2,909	sy	\$ 5.00	\$ 14,544
503	5' Concrete Sidewalk	18,700	sf	\$ 5.00	\$ 93,500
603	Concrete Driveway Approach	2	ea	\$ 3,250.00	\$ 6,500
Paving Construction Cost Subtotal:					\$ 1,047,259
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	31,418
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	31,418
✓	Roadway Drainage	Standard Internal System	30%	\$	314,178
✓	Illumination		5%	\$	52,363
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	2%	\$	20,945
✓	Sewer	Minor Adjustments	1%	\$	10,473
✓	Basic Landscaping/Irrigation		2%	\$	20,945
	Other:		\$0	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	481,739
Paving and Allowance Subtotal:				\$	1,528,998
Construction Contingency:				20%	\$ 305,800
Construction Cost TOTAL:				\$	1,835,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,835,000
Engineering/Survey/Testing:		18%	\$ 330,300
Mobilization		6%	\$ 110,100
Previous City contribution			
Other			
ROW/Easement Acquisition:	New Roadway Alignment	30%	\$ 550,500
Impact Fee Project Cost TOTAL (1/3 City Contribution)			\$ 932,580

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City of Corinth
2023 Roadway Impact Fee Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 7/28/2023

Project Information:		Description:	Project No. 17
Name:	Parkridge Dr (5)	This project consists of the construction of a new collector. To be funded 2/3 by development and 1/3 by the City as part of a development agreement.	
Limits:	Silver Meadow Dr to Lake Sharon Dr		
Impact Fee Class:	Collector		
Ultimate Class:	Collector		
Length (lf):	3,140		
Service Area(s):	Corinth		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
103	Unclassified Street Excavation	7,152	cy	\$ 18.00	\$ 128,740
203	6" Lime Stabilization (with Lime @ 27#/sy)	13,956	sy	\$ 8.00	\$ 111,644
303	8" Concrete Pavement w/ 6" Curb	13,258	sy	\$ 100.00	\$ 1,325,778
403	4" Topsoil	4,884	sy	\$ 5.00	\$ 24,422
503	5' Concrete Sidewalk	31,400	sf	\$ 5.00	\$ 157,000
603	Concrete Driveway Approach	3	ea	\$ 3,250.00	\$ 9,750
Paving Construction Cost Subtotal:					\$ 1,757,334
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	52,720
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	52,720
✓	Roadway Drainage	Standard Internal System	30%	\$	527,200
✓	Illumination		5%	\$	87,867
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	2%	\$	35,147
✓	Sewer	Minor Adjustments	1%	\$	17,573
✓	Basic Landscaping/Irrigation		2%	\$	35,147
	Other:		\$0	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	808,374
Paving and Allowance Subtotal:				\$	2,565,708
Construction Contingency:				20%	\$ 513,142
Construction Cost TOTAL:				\$	3,079,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,079,000
Engineering/Survey/Testing:		18%	\$ 554,220
Mobilization		6%	\$ 184,740
Previous City contribution			
Other			
ROW/Easement Acquisition:	New Roadway Alignment	30%	\$ 923,700
Impact Fee Project Cost TOTAL (1/3 City Contribution)			\$ 1,564,860

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City of Corinth
2023 Roadway Impact Fee Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.
updated: 7/28/2023

Project Information:		Description:	Project No.	18
Name:	Shady Rest Ln	This project consisted of the reconstruction of the previously asphalt facility to a two-lane concrete collector. The construction cost provided by the City for this facility was \$1,619,769. \$75,720 has been removed for escrow funds. Therefore, the City contribution to this facility was \$1,544,049.		
Limits:	Fritz Ln to Walton Dr			
Impact Fee Class:	Collector			
Ultimate Class:	Collector			
Length (lf):	1,720			
Service Area(s):	Corinth			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:	Actual Cost Provided By Corinth		\$ 1,239,470
Engineering/Survey/Testing:	Actual Cost Provided By Corinth		\$ 143,995
Previous City contribution	Escrow Funds		\$ (75,720)
Other			
ROW/Easement Acquisition:	Actual Cost Provided By Corinth		\$ 236,304
Impact Fee Project Cost TOTAL:			\$ 1,544,049

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City of Corinth
2023 Roadway Impact Fee Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.
updated: 7/28/2023

Project Information:		Description:	Project No.	19
Name:	FM 2181	This project consisted of the widening of a two-lane TxDOT facility to a six-lane major arterial. The City contributed \$242,000 to the design and environmental testing of this facility.		
Limits:	West City Limits to IH-35E SBFR			
Impact Fee Class:	Major			
Ultimate Class:	Major			
Length (lf):	17,825			
Service Area(s):	Corinth			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:			
Engineering/Survey/Testing:			\$ 242,000
Previous City contribution			
Other			
ROW/Easement Acquisition:			\$ -
Impact Fee Project Cost TOTAL:			\$ 242,000

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City of Corinth
2023 Roadway Impact Fee Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.
updated: 7/28/2023

Project Information:		Description:	Project No.	20
Name:	Cliff Oaks Dr	This project consists of the reconstruction of a two-lane asphalt facility to a collector.		
Limits:	Tower Ridge Dr to Garrison Rd			
Impact Fee Class:	Collector			
Ultimate Class:	Collector			
Length (lf):	2,615			
Service Area(s):	Corinth			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:	Actual TOTAL Cost Provided by Corinth		\$ 3,500,000
Engineering/Survey/Testing:			
Mobilization			
Previous City contribution			
Other			
ROW/Easement Acquisition:			\$ -
Impact Fee Project Cost TOTAL:			\$ 3,500,000

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City of Corinth
2023 Roadway Impact Fee Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 7/28/2023

Project Information:		Description:	Project No. 21
Name:	Silver Meadow Ln	This project consists of the construction of a two-lane asphalt facility to a collector. To be funded 2/3 by development and 1/3 by the City as part of a development agreement.	
Limits:	Post Oak Dr to Parkridge Dr		
Impact Fee Class:	Collector		
Ultimate Class:	Collector		
Length (lf):	2,745		
Service Area(s):	Corinth		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
103	Unclassified Street Excavation and Demolition	6,253	cy	\$ 18.00	\$ 112,545
203	6" Lime Stabilization (with Lime @ 27#/sy)	12,200	sy	\$ 8.00	\$ 97,600
303	8" Concrete Pavement w/ 6" Curb	11,590	sy	\$ 100.00	\$ 1,159,000
403	4" Topsoil	4,270	sy	\$ 5.00	\$ 21,350
503	5' Concrete Sidewalk	27,450	sf	\$ 5.00	\$ 137,250
603	Concrete Driveway Approach	3	ea	\$ 3,250.00	\$ 9,750
Paving Construction Cost Subtotal:					\$ 1,537,495
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	46,125
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	46,125
✓	Roadway Drainage	Standard Internal System	30%	\$	461,249
✓	Illumination		5%	\$	76,875
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	2%	\$	30,750
✓	Sewer	Minor Adjustments	1%	\$	15,375
✓	Basic Landscaping/Irrigation		2%	\$	30,750
	Other:		\$0	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	707,248
Paving and Allowance Subtotal:				\$	2,244,743
Construction Contingency:				20%	\$ 448,949
Construction Cost TOTAL:				\$	2,694,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,694,000
Engineering/Survey/Testing:		18%	\$ 484,920
Mobilization		6%	\$ 161,640
Previous City contribution			
Other			
ROW/Easement Acquisition:	New Roadway Alignment	30%	\$ 808,200
Impact Fee Project Cost TOTAL (1/3 City Contribution)			\$ 1,369,170

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City of Corinth
2023 Roadway Impact Fee Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 7/28/2023

Project Information:		Description:	Project No. 22
Name:	Hollis Dr	This project consists of the construction of a two-lane asphalt facility to a collector. To be funded 2/3 by development and 1/3 by the City as part of a development agreement.	
Limits:	Lake Sharon Dr to Custer Dr		
Impact Fee Class:	Collector		
Ultimate Class:	Collector		
Length (lf):	1,415		
Service Area(s):	Corinth		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
103	Unclassified Street Excavation and Demolition	3,223	cy	\$ 18.00	\$ 58,015
203	6" Lime Stabilization (with Lime @ 27#/sy)	6,289	sy	\$ 8.00	\$ 50,311
303	8" Concrete Pavement w/ 6" Curb	5,974	sy	\$ 100.00	\$ 597,444
403	4" Topsoil	2,201	sy	\$ 5.00	\$ 11,006
503	5' Concrete Sidewalk	14,150	sf	\$ 5.00	\$ 70,750
603	Concrete Driveway Approach	1	ea	\$ 3,250.00	\$ 3,250
Paving Construction Cost Subtotal:					\$ 790,776
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	23,723
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	23,723
✓	Roadway Drainage	Standard Internal System	30%	\$	237,233
✓	Illumination		5%	\$	39,539
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	2%	\$	15,816
✓	Sewer	Minor Adjustments	1%	\$	7,908
✓	Basic Landscaping/Irrigation		2%	\$	15,816
	Other:		\$0	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	363,757
Paving and Allowance Subtotal:				\$	1,154,533
Construction Contingency:				20%	\$ 230,907
Construction Cost TOTAL:				\$	1,386,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,386,000
Engineering/Survey/Testing:		18%	\$ 249,480
Mobilization		6%	\$ 83,160
Previous City contribution			
Other			
ROW/Easement Acquisition:	New Roadway Alignment	30%	\$ 415,800
Impact Fee Project Cost TOTAL (1/3 City Contribution)			\$ 704,220

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City of Corinth
2023 Roadway Impact Fee Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 7/28/2023

Project Information:		Description:	Project No.	23
Name:	New Collector A	This project consists of the construction of a two-lane asphalt facility to a collector. To be funded 2/3 by development and 1/3 by the City as part of a development agreement.		
Limits:	FM 2181 to Parkridge Dr (North)			
Impact Fee Class:	Collector			
Ultimate Class:	Collector			
Length (lf):	2,900			
Service Area(s):	Corinth			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
103	Unclassified Street Excavation and Demolition	6,606	cy	\$ 18.00	\$ 118,900
203	6" Lime Stabilization (with Lime @ 27#/sy)	12,889	sy	\$ 8.00	\$ 103,111
303	8" Concrete Pavement w/ 6" Curb	12,244	sy	\$ 100.00	\$ 1,224,444
403	4" Topsoil	4,511	sy	\$ 5.00	\$ 22,556
503	5' Concrete Sidewalk	29,000	sf	\$ 5.00	\$ 145,000
603	Concrete Driveway Approach	3	ea	\$ 3,250.00	\$ 9,750
Paving Construction Cost Subtotal:					\$ 1,623,761
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	48,713
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	48,713
✓	Roadway Drainage		30%	\$	487,128
✓	Illumination		5%	\$	81,188
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	2%	\$	32,475
✓	Sewer	Minor Adjustments	1%	\$	16,238
✓	Basic Landscaping/Irrigation		2%	\$	32,475
	Other:		\$0	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	746,930
Paving and Allowance Subtotal:				\$	2,370,691
Construction Contingency:				20%	\$ 474,138
Construction Cost TOTAL:				\$	2,845,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,845,000
Engineering/Survey/Testing:		18%	\$ 512,100
Mobilization		6%	\$ 170,700
Previous City contribution			
Other			
ROW/Easement Acquisition:	New Roadway Alignment	30%	\$ 853,500
Impact Fee Project Cost TOTAL (1/3 City Contribution)			\$ 1,445,730

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City of Corinth
2023 Roadway Impact Fee Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 7/28/2023

Project Information:		Description:	Project No. 24
Name:	New Collector B	This project consists of the construction of a two-lane asphalt facility to a collector. To be funded 2/3 by development and 1/3 by the City as part of a development agreement.	
Limits:	FM 2181 to Parkridge Dr (South)		
Impact Fee Class:	Collector		
Ultimate Class:	Collector		
Length (lf):	2,915		
Service Area(s):	Corinth		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
103	Unclassified Street Excavation and Demolition	6,640	cy	\$ 18.00	\$ 119,515
203	6" Lime Stabilization (with Lime @ 27#/sy)	12,956	sy	\$ 8.00	\$ 103,644
303	8" Concrete Pavement w/ 6" Curb	12,308	sy	\$ 100.00	\$ 1,230,778
403	4" Topsoil	4,534	sy	\$ 5.00	\$ 22,672
503	5' Concrete Sidewalk	29,150	sf	\$ 5.00	\$ 145,750
603	Concrete Driveway Approach	3	ea	\$ 3,250.00	\$ 9,750
Paving Construction Cost Subtotal:					\$ 1,632,109
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	48,963
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	48,963
✓	Roadway Drainage		30%	\$	489,633
✓	Illumination		5%	\$	81,605
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	2%	\$	32,642
✓	Sewer	Minor Adjustments	1%	\$	16,321
✓	Basic Landscaping/Irrigation		2%	\$	32,642
	Other:		\$0	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	750,770
Paving and Allowance Subtotal:				\$	2,382,880
Construction Contingency:				20%	\$ 476,576
Construction Cost TOTAL:				\$	2,860,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,860,000
Engineering/Survey/Testing:		18%	\$ 514,800
Mobilization		6%	\$ 171,600
Previous City contribution			
Other			
ROW/Easement Acquisition:	New Roadway Alignment	30%	\$ 858,000
Impact Fee Project Cost TOTAL (1/3 City Contribution)			\$ 1,453,320

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City of Corinth
2023 Roadway Impact Fee Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 7/28/2023

Project Information:		Description:	Project No.	25
Name:	Old Highway 77	This project consists of the reconstruction of a two-lane asphalt facility to a collector.		
Limits:	W Shady Shores Rd to IH-35E NBFR			
Impact Fee Class:	Collector			
Ultimate Class:	Collector			
Length (lf):	1,840			
Service Area(s):	Corinth			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
103	Unclassified Street Excavation and Demolition	4,191	cy	\$ 18.00	\$ 75,440
203	6" Lime Stabilization (with Lime @ 27#/sy)	8,178	sy	\$ 8.00	\$ 65,422
303	8" Concrete Pavement w/ 6" Curb	7,769	sy	\$ 100.00	\$ 776,889
403	4" Topsoil	2,862	sy	\$ 5.00	\$ 14,311
503	5' Concrete Sidewalk	18,400	sf	\$ 5.00	\$ 92,000
603	Concrete Driveway Approach	2	ea	\$ 3,250.00	\$ 6,500
Paving Construction Cost Subtotal:					\$ 1,030,562
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	30,917
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	30,917
✓	Roadway Drainage	Standard Internal System	30%	\$	309,169
✓	Illumination		5%	\$	51,528
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	2%	\$	20,611
✓	Sewer	Minor Adjustments	1%	\$	10,306
✓	Basic Landscaping/Irrigation		2%	\$	20,611
	Other:		\$0	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	474,059
Paving and Allowance Subtotal:				\$	1,504,621
Construction Contingency:				20%	\$ 300,924
Construction Cost TOTAL:				\$	1,806,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,806,000
Engineering/Survey/Testing:		18%	\$ 325,080
Mobilization		6%	\$ 108,360
Previous City contribution			
Other			
ROW/Easement Acquisition:	New Roadway Alignment	30%	\$ 541,800
Impact Fee Project Cost TOTAL:			\$ 2,781,000

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City of Corinth
2023 Roadway Impact Fee Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 7/28/2023

Project Information:		Description:	Project No.	26
Name:	NCTC Way	This project consists of the construction of a two-lane asphalt facility to a collector.		
Limits:	IH-35E NBFR to N Corinth St			
Impact Fee Class:	Collector			
Ultimate Class:	Collector			
Length (lf):	935			
Service Area(s):	Corinth			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
103	Unclassified Street Excavation and Demolition	2,130	cy	\$ 18.00	\$ 38,335
203	6" Lime Stabilization (with Lime @ 27#/sy)	4,156	sy	\$ 8.00	\$ 33,244
303	8" Concrete Pavement w/ 6" Curb	3,948	sy	\$ 100.00	\$ 394,778
403	4" Topsoil	1,454	sy	\$ 5.00	\$ 7,272
503	5' Concrete Sidewalk	9,350	sf	\$ 5.00	\$ 46,750
603	Concrete Driveway Approach	1	ea	\$ 3,250.00	\$ 3,250
Paving Construction Cost Subtotal:					\$ 523,629
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	15,709
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	15,709
✓	Roadway Drainage	Standard Internal System	30%	\$	157,089
✓	Illumination		5%	\$	26,181
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	2%	\$	10,473
✓	Sewer	Minor Adjustments	1%	\$	5,236
✓	Basic Landscaping/Irrigation		2%	\$	10,473
✓	Other:	Railroad Crossing	\$1,000,000	\$	1,000,000
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	1,240,870
Paving and Allowance Subtotal:				\$	1,764,499
Construction Contingency:				20%	\$ 352,900
Construction Cost TOTAL:				\$	2,118,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,118,000
Engineering/Survey/Testing:		18%	\$ 381,240
Mobilization		6%	\$ 127,080
Previous City contribution			
Other			
ROW/Easement Acquisition:	New Roadway Alignment	30%	\$ 635,400
Impact Fee Project Cost TOTAL:			\$ 3,262,000

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City of Corinth
2023 Roadway Impact Fee Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 7/28/2023

Project Information:		Description:	Project No.	27
Name:	N Corinth St	This project consists of the construction of a two-lane asphalt facility to a collector.		
Limits:	N Corinth St to Corinth Parkway			
Impact Fee Class:	Collector			
Ultimate Class:	Collector			
Length (lf):	1,545			
Service Area(s):	Corinth			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
103	Unclassified Street Excavation and Demolition	3,519	cy	\$ 18.00	\$ 63,345
203	6" Lime Stabilization (with Lime @ 27#/sy)	6,867	sy	\$ 8.00	\$ 54,933
303	8" Concrete Pavement w/ 6" Curb	6,523	sy	\$ 100.00	\$ 652,333
403	4" Topsoil	2,403	sy	\$ 5.00	\$ 12,017
503	5' Concrete Sidewalk	15,450	sf	\$ 5.00	\$ 77,250
603	Concrete Driveway Approach	2	ea	\$ 3,250.00	\$ 6,500
Paving Construction Cost Subtotal:					\$ 866,378
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	25,991
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	25,991
✓	Roadway Drainage	Standard Internal System	30%	\$	259,914
✓	Illumination		5%	\$	43,319
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	2%	\$	17,328
✓	Sewer	Minor Adjustments	1%	\$	8,664
✓	Basic Landscaping/Irrigation		2%	\$	17,328
	Other:		\$0	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	398,534
Paving and Allowance Subtotal:				\$	1,264,912
Construction Contingency:				20%	\$ 252,982
Construction Cost TOTAL:				\$	1,518,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,518,000
Engineering/Survey/Testing:		18%	\$ 273,240
Mobilization		6%	\$ 91,080
Previous City contribution			
Other			
ROW/Easement Acquisition:	New Roadway Alignment	30%	\$ 455,400
Impact Fee Project Cost TOTAL:			\$ 2,338,000

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City of Corinth
2023 Roadway Impact Fee Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 7/28/2023

Project Information:		Description:	Project No. 28
Name:	Tower Ridge Dr (3)	This project consists of the construction of a two-lane asphalt facility to a collector. To be funded 2/3 by development and 1/3 by the City as part of a development agreement.	
Limits:	Cliff Oaks Dr to FM 2181		
Impact Fee Class:	Collector		
Ultimate Class:	Collector		
Length (lf):	860		
Service Area(s):	Corinth		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
103	Unclassified Street Excavation and Demolition	1,959	cy	\$ 18.00	\$ 35,260
203	6" Lime Stabilization (with Lime @ 27#/sy)	3,822	sy	\$ 8.00	\$ 30,578
303	8" Concrete Pavement w/ 6" Curb	3,631	sy	\$ 100.00	\$ 363,111
403	4" Topsoil	1,338	sy	\$ 5.00	\$ 6,689
503	5' Concrete Sidewalk	8,600	sf	\$ 5.00	\$ 43,000
603	Concrete Driveway Approach	1	ea	\$ 3,250.00	\$ 3,250
Paving Construction Cost Subtotal:					\$ 481,888
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	14,457
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	14,457
✓	Roadway Drainage	Standard Internal System	30%	\$	144,566
✓	Illumination		5%	\$	24,094
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	2%	\$	9,638
✓	Sewer	Minor Adjustments	1%	\$	4,819
✓	Basic Landscaping/Irrigation		2%	\$	9,638
	Other:		\$0	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	221,668
Paving and Allowance Subtotal:				\$	703,556
Construction Contingency:				20%	\$ 140,711
Construction Cost TOTAL:				\$	845,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 845,000
Engineering/Survey/Testing:		18%	\$ 152,100
Mobilization		6%	\$ 50,700
Previous City contribution			
Other			
ROW/Easement Acquisition:	New Roadway Alignment	30%	\$ 253,500
Impact Fee Project Cost TOTAL (1/3 City Contribution)			\$ 429,330

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 Corinth.

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

Appendix B – Roadway Impact Fee CIP Service Units of Supply

City of Corinth - 2023 Roadway Impact Fee Update

CIP Service Units of Supply

City of Corinth

3/31/2023

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI 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
1	Lake Sharon Dr (1)	FM 2499 to Oakmont Dr	0.59	4	Minor	364	100%	650	1,544	216	1,327	\$ 5,135,760	\$ 5,135,760
2	Lake Sharon Dr (2)	Blue Holley Dr to Parkridge Dr	0.90	4	Minor	457	100%	650	2,332	410	1,922	\$ 5,137,991	\$ 5,137,991
3	Lake Sharon Dr (3)	Parkridge Dr to Tower Ridge Dr	0.64	4	Minor	327	100%	650	1,672	210	1,462	\$ 3,485,426	\$ 3,485,426
4	Lake Sharon Dr (4)	Tower Ridge Dr to Carpenter Ln	0.44	4	Minor	364	100%	650	1,135	159	976	\$ 4,333,000	\$ 4,333,000
5	Church Dr	Post Oak Rd to IH-35E SBFR	0.90	2	Collector	104	100%	425	765	93	672	\$ 2,700,213	\$ 2,700,213
6	Walton Dr	North Corinth St to Shady Rest Ln	0.48	2	Collector	135	100%	425	405	64	341	\$ 3,251,000	\$ 3,251,000
7	W Shady Shores Rd	Railroad to 205' East of Dalton Dr	1.22	2	Collector	798	50%	425	520	488	32	\$ 2,000,000	\$ 1,000,000
8	Parkridge Dr (1)	Lake Sharon Dr to Tori Oak Tr	0.09	2	Collector	672	100%	425	76	60	16	\$ 765,541	\$ 765,541
9	Parkridge Dr (2)	Warwick Dr to FM 2181	0.76	2	Collector	672	100%	425	644	509	135	\$ 1,014,513	\$ 1,014,513
10	Parkridge Dr (3)	FM 2181 to South City Limits	0.53	2	Collector	337	100%	425	447	177	270	\$ 554,490	\$ 554,490
11	Tower Ridge Dr (1)	Meadow Oaks Dr to 215' South of Brookview Dr	0.42	2	Collector	331	100%	425	359	140	219	\$ 780,001	\$ 780,001
12	Tower Ridge Dr (2)	215' South of Brookview Dr to Cliff Oaks Dr	0.43	2	Collector	331	100%	425	365	142	223	\$ 3,630,000	\$ 3,630,000
13	Garrison St	IH-35E SBFR to Cliff Oak Dr	0.33	2	Greenway Collector	438	100%	650	432	146	286	\$ 2,367,000	\$ 2,367,000
14	Quail Run Dr	Lake Sharon Dr to IH-35E NBFR	0.35	2	Collector	564	100%	425	297	197	100	\$ 2,961,000	\$ 2,961,000
15	Post Oak Rd	Robinson Rd to Lake Sharon Dr	0.89	4	Minor (1/2)	533	100%	650	2,327	477	1,849	\$ 4,408,000	\$ 4,408,000
16	Parkridge Dr (4)	Church Dr to Silver Meadow Dr	0.35	2	Collector	New	100%	425	301	0	301	\$ 932,580	\$ 932,580
17	Parkridge Dr (5)	Silver Meadow Dr to Lake Sharon Dr	0.59	2	Collector	New	100%	425	505	0	505	\$ 1,564,860	\$ 1,564,860
18	Shady Rest Ln	Fritz Ln to Walton Dr	0.33	2	Collector	307	100%	425	277	100	177	\$ 1,544,049	\$ 1,544,049
19	FM 2181	West City Limits to IH-35E SBFR	3.38	6	Major	2,520	100%	700	14,179	8,509	5,670	\$ 242,000	\$ 242,000
20	Cliff Oaks Dr	Tower Ridge Dr to Garrison Rd	0.50	2	Collector	339	100%	425	421	168	253	\$ 3,500,000	\$ 3,500,000
21	Silver Meadow Ln	Post Oak Dr to Parkridge Dr	0.52	2	Collector	New	100%	425	442	0	442	\$ 1,369,170	\$ 1,369,170
22	Hollis Dr	Lake Sharon Dr to Custer Dr	0.27	2	Collector	New	100%	425	228	0	228	\$ 704,220	\$ 704,220
23	New Collector A	FM 2181 to Parkridge Dr (North)	0.55	2	Collector	New	100%	425	467	0	467	\$ 1,445,730	\$ 1,445,730
24	New Collector B	FM 2181 to Parkridge Dr (South)	0.55	2	Collector	New	100%	425	469	0	469	\$ 1,453,320	\$ 1,453,320
25	Old Highway 77	W Shady Shores Rd to IH-35E NBFR	0.35	2	Collector	New	100%	425	296	0	296	\$ 2,781,000	\$ 2,781,000
26	NCTC Way	IH-35E NBFR to N Corinth St	0.18	2	Collector	New	100%	425	151	0	151	\$ 3,262,000	\$ 3,262,000
27	N Corinth St	N Corinth St to Corinth Parkway	0.29	2	Collector	New	100%	425	249	0	249	\$ 2,338,000	\$ 2,338,000
28	Tower Ridge Dr (3)	Cliff Oaks Dr to FM 2181	0.16	2	Collector	New	100%	425	138	0	138	\$ 429,330	\$ 429,330
ROADWAY SUBTOTAL									31,442	12,267	16,736	\$ 64,090,194	\$ 63,090,194
												Intersection Subtotal	\$ 12,200,000
												2023 Roadway Impact Fee Update	\$ 36,000
												TOTAL COST IN SERVICE AREA	\$ 75,326,194

Appendix C – Existing Roadway Facilities

City of Corinth - 2023 Roadway Impact Fee Update Existing Roadway Facilities Inventory

City of Corinth - Service Area

ROADWAY	FROM	TO	LENGTH (mi)	EXIST LANES		EXIST SECT	TYPE	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									
CHURCH	Post Oak	IH 35	0.90	1	1	3U	Collector	104	50%	425	383	47	336	
CLIFF OAKS	Toweridge Dr	S Garrison St	0.50	1	1	2U	Collector	339	100%	350	347	168	179	
CORINTH	Dobbs	Dobbs	0.33	2	2	4D	Minor Arterial	559	50%	650	435	93	341	
CORINTH	Lake Sharon	IH 35	0.41	2	2	4D	Minor Arterial	696	100%	650	1,055	282	773	
CORINTH	IH 35	Dobbs	1.53	2	2	4D	Minor Arterial	314	100%	650	3,981	480	3,501	
CORINTH	Bridge	E of IH 35	0.08	4	4	4U	Minor Arterial	2614	100%	550	337	200	137	
CORINTH	W of IH 35	Bridge	0.07	4	4	4U	Minor Arterial	588	50%	550	161	22	139	
CORINTH	IH 35	Shady Shores	0.66	1	1	3U	Collector	603	100%	425	558	396	162	
CREEKSIDE	Oakmont Dr	Post Oak Dr	0.36	1	1	2U	Collector	330	100%	350	255	120	135	
DOBBS	IH 35	Corinth	0.43	1	1	2U	Minor Arterial	114	50%	350	149	24	125	
DOBBS	Kenilworth Dr	City Limits	0.17	1	1	2U	Minor Arterial	570	100%	350	116	94	22	
DOBBS	Corinth	Kenilworth Dr	0.06	1	1	3U	Minor Arterial	570	100%	425	50	33	16	
FM 2181	Village Pkwy	Oakmont	0.28	3	3	6D	Major Arterial	2520	100%	700	1,172	703	469	
FM 2181	Oakmont	Post Oak	0.92	3	3	6D	Major Arterial	2520	100%	700	3,852	2,311	1,540	
FM 2181	Parkridge	S Garrison St	0.83	3	3	6D	Major Arterial	2520	100%	700	3,481	2,089	1,392	
FM 2181	Post Oak	Parkridge	0.75	3	3	6D	Major Arterial	2245	100%	700	3,146	1,681	1,465	
FM 2181	City Limit	Village Pkwy	0.12	3	3	6D	Major Arterial	2038	100%	700	494	240	254	
FM 2181	S Garrison St	IH 35	0.43	3	3	6D	Major Arterial	2213	100%	700	1,792	944	848	
FM 2499	FM 2181	City Limit	0.77	2	2	4D	Major Arterial	1974	100%	650	2,009	1,525	484	
GARRISON	Cliff Oaks Dr	S Garrison St	0.33	1	1	2U	Collector	438	100%	350	233	146	87	
GARRISON	FM 2181	Cliff Oaks Dr	0.16	1	1	2U	Collector	438	100%	350	114	72	43	
LAKE SHARON	Blue Holley Dr	Post Oak Dr	0.17	2	2	4D	Minor Arterial	364	100%	650	432	61	372	
LAKE SHARON	Post Oak Dr	Silvermeadow Ln	0.73	2	2	4D	Minor Arterial	457	100%	650	1,901	334	1,567	
LAKE SHARON	Corinth	Tower Ridge Dr	0.34	2	2	4D	Minor Arterial	547	100%	650	872	183	689	
LAKE SHARON	Silvermeadow Ln	Corinth	0.31	2	2	4D	Minor Arterial	547	50%	650	399	84	315	
LAKE SHARON	Oakmont Dr	Blue Holly Dr	0.26	2	2	4D	Minor Arterial	364	100%	650	671	94	577	
MEADOW OAKS	Toweridge Dr	IH 35	0.08	1	1	2U	Minor Arterial	250	100%	350	55	19	35	
MEADOWVIEW	Post Oak Dr	Parkridge Dr	0.78	1	1	2U	Collector	327	100%	350	545	254	290	
MEADOWVIEW	Oakmont	Post Oak Dr	0.80	1	1	2U	Collector	327	100%	350	557	260	297	
MEADOWVIEW	Tower Ridge Dr	IH 35	0.50	1	1	2U	Collector	327	100%	350	347	162	185	
MEADOWVIEW	Parkridge Dr	Tower Ridge Dr	0.50	1	1	2U	Collector	327	100%	350	347	162	185	
OAKMONT	Lake Sharon Dr	Robinson Rd	0.91	1	1	2U	Collector	580	100%	350	635	527	108	
OAKMONT	Meadowview Dr	Lake Sharon Dr	0.48	1	1	2U	Collector	580	100%	350	334	277	57	
OAKMONT	FM 2181	Meadowview Dr	0.29	1	1	2U	Collector	580	100%	350	200	166	34	
PARKRIDGE	Tori Oak Trail	Lake Sharon	0.09	1	1	3U	Collector	672	100%	425	78	62	16	
PARKRIDGE	FM 2181	Meadowview Dr	0.43	1	1	3U	Collector	672	100%	425	368	291	77	
PARKRIDGE	Meadowview Dr	Warwick Dr	0.33	1	1	3U	Collector	672	100%	425	277	219	58	
PARKRIDGE	City Limits	FM 2181	0.53	1	1	3U	Collector	337	100%	425	447	177	270	
PARKRIDGE	Warwick Dr	Tori Oak Trail	0.11	1	1	3U	Collector	337	100%	425	93	37	56	
PECAN CREEK	Post Oak Dr	Post Oak Dr	0.89	1	1	3U	Collector	110	100%	425	758	99	660	
POST OAK	Church Dr	Robinson Rd	0.06	1	1	3U	Minor Arterial	533	100%	425	55	35	21	
POST OAK	Lake Sharon Dr	South of Creekside Dr	0.29	1	1	2U	Minor Arterial	533	100%	350	205	156	49	
POST OAK	South of Creekside Dr	Church Dr	0.54	1	1	2U	Minor Arterial	533	100%	350	376	286	90	
POST OAK	FM 2181	Lake Sharon	0.98	2	2	4D	Minor Arterial	427	100%	650	2,545	418	2,127	
POST OAK	IH 35	City Limits	0.13	2	2	4D	Minor Arterial	1199	100%	650	331	153	179	
POST OAK			0.03	2	2	4D	Minor Arterial	1199	100%	650	70	32	38	
POST OAK			0.04	2	2	4D	Minor Arterial	1199	100%	650	97	45	53	
POST OAK	Robinson Rd	IH 35	0.59	2	2	4D	Minor Arterial	1199	100%	650	1,534	707	827	
QUAIL RUN	IH 35	Dobbs	0.37	1	1	2U	Collector	564	100%	350	256	207	50	

City of Corinth - 2023 Roadway Impact Fee Update
Existing Roadway Facilities Inventory

City of Corinth - Service Area

ROADWAY	FROM	TO	LENGTH (mi)	EXIST LANES		EXIST SECT	TYPE	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									
ROBINSON			0.02	1	1	2U	Minor Arterial	469	100%	350	13	9	4	
ROBINSON	City Limit	Post Oak Dr	0.81	2	2	4D	Minor Arterial	469	100%	650	2,110	381	1,729	
SHADY REST	Walton Dr	Fritz Ln	0.33	1	1	3U	Collector	307	100%	425	277	100	177	
SHADY REST	Corinth	Walton Dr	0.07	1	1	3U	Collector	307	100%	425	60	22	38	
SHADY SHORES	City Limits	City Limits	1.22	1	1	2U	Collector	798	100%	350	856	976	-120	120
SILVER MEADOW	Silvermeadow Ln	Corinth	0.51	1	1	2U-R	Collector	169	100%	150	152	86	66	
TOWER RIDGE	215' S of Brookview Dr	Meadows Oak Dr	0.42	1	1	3U	Collector	331	100%	425	356	139	217	
TOWER RIDGE	Meadowview Dr	Brookview Dr	0.16	1	1	2U	Collector	331	100%	350	110	52	58	
TOWER RIDGE	Cliff Oaks Dr	Meadowview Dr	0.27	1	1	2U	Collector	331	100%	350	191	90	101	
WALTON	N Corinth St	Shady Rest Ln	0.52	1	1	2U	Collector	135	100%	350	362	70	292	
SUBTOTAL			30								43,393	19,103	24,290	120