

**AGENDA MEMO**  
**BUSINESS OF THE CITY COUNCIL**  
**CITY OF FULSHEAR, TEXAS**

<b>AGENDA OF:</b>	May 28, 2019	<b>AGENDA ITEM:</b>	A
<b>DATE SUBMITTED:</b>	May 28, 2019	<b>DEPARTMENT:</b>	Administration
<b>PREPARED BY:</b>	Brant Gary, Assistant City Manager	<b>PRESENTER:</b>	Brant Gary, Assistant City Manager
<b>SUBJECT:</b>	<b>Consideration and Possible Action on City Energy Contract and Related Projects</b>		
<b>ATTACHMENTS:</b>	1. Presentation by Mothership Energy		
<b>EXPENDITURE REQUIRED:</b>	N/A (All related expenses included in electricity charges)		
<b>AMOUNT BUDGETED:</b>	-		
<b>ACCOUNT NO.:</b>			
<b>ADDITIONAL APPROPRIATION REQUIRED:</b>	N/A		
<b>ACCOUNT NO.:</b>	N/A		

**EXECUTIVE SUMMARY**

In June of 2017, City Council approved the execution of an agreement with Mothership Energy to provide consulting services for our retail electric contract. We are currently in year two of three of our existing retail electric contract with MP2 Energy and can take advantage of favorable pricing levels via contract extension. Mothership Energy (in partnership with Tradition Energy) also provides information regarding other energy/cost saving opportunities available to the City. In addition to information about a possible retail electric contract extension, the consultants will provide information about the potential for an LED streetlight conversion project as well as possible future participation in a demand response program.

**RECOMMENDATION**

At this time, no formal Council action is being requested. It is anticipated that formal action will be requested at the June 2019 City Council meeting. City Council can ask any questions or request additional information from the consultant or Staff in anticipation of action in June.



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CITY OF FULSHEAR

# ELECTRICITY DECISIONS: Renewal Pricing / Streetlight Updates / Demand Response



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ENERGY GROUP

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## Discussion Points

- I. Electricity supply contract renewal – pricing and options**
- II. Streetlight Updates**
- III. Demand Response Optionality**
- IV. What's next?**

## Electricity Supply -- Current

### City of Fulshear's Current Conditions

<b>Contract Expiration Date:</b>	7/6/2020
<b>Contract Signed Date:</b>	7/7/2017
<b>Supplier:</b>	MP2 Energy, a Shell Energy Co
<b>MP2 Rate:</b>	\$0.038/kWh (\$0.03795)
<b>Product Type:</b>	Fixed-Rate
<b>2018 Annual Total Consumption:</b>	5,981,835 kWh
<b>Total # of Meters:</b>	200+ (incl streetlights)
<b>Total Annual Electricity Costs (MP2 + CNP):</b>	\$720,190.98
<b>Approx. Total Annual Costs - MP2:</b>	\$239,273.40
<b>Approx Total Costs - Centerpoint:</b>	\$480,917.58



*This graph demonstrates that retail prices move around a lot, especially last summer and winter. However, we're in a good spot right now with limited likelihood for prices to go down much more.*

## Electricity Supply -- Renewal

### City of Fulshear's --Renewal Conditions

Contract Options:	1	2	3	4
<b>Start Date:</b>	7/2020	7/2020	7/2020	7/2020
<b>Rate (\$/kWh):</b>	\$0.043	\$0.041	\$0.041	\$0.040
<b>Rate w/ RECs (\$/kWh):</b>	\$0.044	\$0.042	\$0.042	\$0.041
<b>Product Type:</b>	Fixed	Fixed	Fixed	Fixed
<b>Term (months):</b>	36	65	84	120
<b>Forecasted Annual Fixed Costs, no RECs:</b>	\$257,000	\$245,000	\$245,000	\$239,000
<b>Forecasted Annual Fixed Costs, w RECs:</b>	\$263,000	\$251,000	\$251,000	\$245,000
<b>Demand Response Option?</b>	Yes	Yes	Yes	Yes



## Streetlight – Options to convert to LED

### Why convert existing streetlights to LEDs?

Because it results in a 40-50% reduction in energy consumption

#### EXAMPLE:

- A 100W HPS street light costs \$12.92/month to maintain and consumes 38KWH per month @ \$0.038/kWh (current MP2 rate) = \$14.36/mo/light
- A 45W LED street light costs \$12.92/month to maintain, but only consumes 17KWH per month @ \$0.038/kWh (current MP2 rate)= \$13.57/mo/light
- **City of Fulshear has over 3,000 streetlights therefore this can be ~ \$30,000/year savings**

\*Decorative options for a specific area (e.g. Downtown) can be purchased for an additional charge for the cost of the decorative fixture.



## Demand Response

### Why consider a Demand Response program?

#### What is it?

- What is demand response? The ability to lower electricity consumption (or shift the time of day when you use it) to reduce the demand on the area electric supply during peak usage periods

#### Why do it?

- Solution to reducing expensive Centerpoint charges
- As City of Fulshear infrastructure expands, provides new opportunities for cost-savings
- Up to \$50,000/year payment if City of Fulshear can curtail 50% of their load

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<b>AGENDA OF:</b>	May 28, 2019	<b>AGENDA ITEM:</b>	B
<b>DATE SUBMITTED:</b>	May 28, 2019	<b>DEPARTMENT:</b>	Development Services
<b>PREPARED BY:</b>	Zach Goodlander, Dir. of Dev. Services; Brant Gary, Assistant City Manager	<b>PRESENTER:</b>	Zach Goodlander, Dir. of Dev. Services; Brant Gary, Assistant City Manager
<b>SUBJECT:</b>	<b>Consideration and Possible Action on Ordinance 2019-1298 to Amend Chapter 10, Article IV of the City’s Code, regarding Itinerant Vendors</b>		
<b>ATTACHMENTS:</b>	1. Ordinance 2019-1298		
<b>EXPENDITURE REQUIRED:</b>	N/A		
<b>AMOUNT BUDGETED:</b>	-		
<b>ACCOUNT NO.:</b>			
<b>ADDITIONAL APPROPRIATION REQUIRED:</b>	N/A		
<b>ACCOUNT NO.:</b>	N/A		

**EXECUTIVE SUMMARY**

This ordinance amends the City’s “Solicitation Ordinance” found in Chapter 10, Article IV of the City’s Code, regarding itinerant vendors. The proposed ordinance will change hours allowed for solicitation from 9:00 am - 9:00 pm to 9:00 am - 7:00 pm. This ordinance will also allow for administrative approval of the permit application with the City Manager or his designee being authorized to sign and issue the permit upon confirmation of the applicant’s compliance with the ordinance. This ordinance also eliminates the bond requirement for permit issuance. Additional items regarding the permit process and related requirements can also be discussed at this time.

**RECOMMENDATION**

City Staff recommends the City Council approve Ordinance 2019-1298 as presented, regarding Itinerant Vendors.

ORDINANCE NO. 2019-1298

**AN ORDINANCE OF THE CITY OF FULSHEAR, TEXAS, AMENDING CHAPTER 10, ARTICLE IV OF THE CITY'S CODE, REGARDING ITINERANT VENDORS; PROVIDING FOR SEVERABILITY; PROVIDING FOR REPEAL AND PROVIDING FOR AN EFFECTIVE DATE.**

\* \* \* \* \*

**WHEREAS**, the City Council of the City of Fulshear, Texas ("City"), recognizes the constitutional rights of free exercise of religion, free speech, freedom of the press, and of equal protection of the laws; and

**WHEREAS**, the City Council finds that regulation of peddlers, solicitors, and canvassers is necessary to protect the privacy and property rights of the City's residents and to prevent criminal and fraudulent activity within the City, which the City finds is a legitimate governmental interest; and

**WHEREAS**, the City Council finds that the regulations set forth herein are content neutral, are narrowly tailored, and are reasonable time, place, and manner regulations which leave ample alternative channels for exercising the constitutional rights hereinabove described; and

**WHEREAS**, the City Council finds that such regulations substantially advance one or more legitimate governmental interests, including those hereinabove described;

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

**Section 1.** All of the facts recited in the preamble to this Ordinance are hereby found by the City Council to be true and correct and are incorporated by reference herein and expressly made a part hereof, as if copied herein verbatim.

**Section 2.** Section 10-100 of the Fulshear Code is hereby amended to read as follows:

**"Sec. 10-100. - Permit application required.**

Any peddler, itinerant vendor or solicitor desiring to engage in activities as a peddler or solicitor within the city must file a written application for permit with the city, which application shall provide the following information:

- (1) Applicant's name, telephone number, address, birth date, physical description, full face photograph and either:
  - a. Driver's license number and listing of the state issuing said number; or

- b. Tax identification number and an official, government issued picture identification card;
- (2) If the applicant is peddling or making solicitations for any commercial, charitable or political organization, the name, telephone number, address of such organizations and contact person;
- (3) Full and complete list of goods to be sold and services to be delivered;
- (4) For each individual involved in the peddling or solicitation of a campaign contribution: name, telephone number, address, birth date, physical description, full face photograph and either:
  - a. Driver's license number and listing of the state issuing said number; or
  - b. An official, government issued picture identification card;
- (5) Description (year, make, type) and license plate number and state of all vehicles to be used in soliciting and peddling;
- (6) Authorization to conduct criminal and civil background checks on the applicant and all individuals involved in the peddling or soliciting and peddling;
- (7) The names of any cities where applicant has worked in the previous 180 days; and
- (8) Applicant must provide original identifying documents to the city upon request."

**Section 3.** Section 10-101 of the Fulshear Code is hereby repealed.

**Section 4.** Section 10-102 of the Fulshear Code is hereby repealed.

**Section 5.** Section 10-108(a) of the Fulshear Code is hereby amended to read as follows:

- “(a) If the city manager or his designee finds that the application is completed in conformance with sections 10-100 through 10-106, then the city manager or designee shall sign and issue a certified permit exhibiting the city seal. Each permit will be valid for 120 days from date of issue.”

**Section 6.** Section 10-112(a) of the Fulshear Code is hereby amended to read as follows:

“(a) No peddler, itinerant vendor or solicitor may conduct door to door activities defined in section 10-97 except between the hours of 9:00 a.m. and 7:00 p.m.”

**Section 7.** **Severability.** In the event any clause, phrase, provision, sentence or part of this Ordinance or the application of the same to any person or circumstances shall for any reason be adjudged invalid or held unconstitutional by a court of competent jurisdiction, it shall not affect, impair or invalidate this Ordinance as a whole or any part or provision hereof other than the part declared to be invalid or unconstitutional; and the City Council of the City of Fulshear, Texas declares that it would have passed each and every part of the same notwithstanding the omission of any part thus declared to be invalid or unconstitutional, or whether there be one or more parts.

**Section 8.** **Repeal.** All other ordinances or parts of ordinances inconsistent or in conflict herewith are, to the extent of such inconsistency or conflict, hereby repealed.

**Section 9.** **Effective date.** This Ordinance shall be effective and in full force when published as required by law.

**PASSED, APPROVED, and ADOPTED** this, the 28th day of May, 2019.

\_\_\_\_\_  
Aaron Groff, Mayor

**ATTEST:**

\_\_\_\_\_  
Kimberly Kopecky, City Secretary



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<b>AGENDA OF:</b>	May 28, 2019	<b>AGENDA ITEM:</b>	C
<b>DATE SUBMITTED:</b>	May 28, 2019	<b>DEPARTMENT:</b>	Development Services
<b>PREPARED BY:</b>	Zach Goodlander, Dir. of Dev. Services; Brant Gary, Assistant City Manager	<b>PRESENTER:</b>	Zach Goodlander, Dir. of Dev. Services; Brant Gary, Assistant City Manager
<b>SUBJECT:</b>	<b>Consideration and possible action on Ordinance No. 2019-1299, an Ordinance of the City of Fulshear, to permit staff to set fees generally in line with current rates in a matter consistent with state law requirements</b>		
<b>ATTACHMENTS:</b>	<ol style="list-style-type: none"> <li>1. Ordinance 2019-1299</li> <li>2. ICC Building Valuation Data Information (Feb 2019)</li> </ol>		
<b>EXPENDITURE REQUIRED:</b>	N/A		
<b>AMOUNT BUDGETED:</b>	-		
<b>ACCOUNT NO.:</b>			
<b>ADDITIONAL APPROPRIATION REQUIRED:</b>	N/A		
<b>ACCOUNT NO.:</b>	N/A		

**EXECUTIVE SUMMARY**

H.B. 852 is a bill recently signed into law that affects how residential building permit fees are calculated. Many cities, including Fulshear, currently base their building permit fees on the cost of a proposed structure or improvement.

Specifically, the new law provides that: (1) in determining the amount of a building permit or inspection fee required in connection with the construction or improvement of a residential dwelling, a city may not consider: (a) the value of the dwelling; or (b) the cost of constructing or improving the dwelling; and (2) a city may not require the disclosure of information related to the value of or cost of constructing or improving a residential dwelling as a condition of obtaining a building permit except as required by the Federal Emergency Management Agency for participation in the National Flood Insurance Program.

The bill was signed by the governor on May 21, and it is effective immediately. No grace period applies, so the City needs to change how residential permit fees are calculated immediately. Options include square footage-based fees, a flat fee schedule, or any other non-cost-based and reasonable calculation.

The proposed ordinance will allow staff to modify the fee structure on an interim basis to be in line with these new state law requirements. Staff proposes to formalize a final approach during the budget process. The interim approach is anticipated to be tied to the International Code Council’s (ICC) estimated average square footage construction costs or a similar industry-standard approach. The ICC approach accounts for different “Occupancy Types” and “Construction Types” per the ICC. If approved, Staff will issue a memo finalizing the interim approach.

**RECOMMENDATION**

City Staff recommends the City Council approve Ordinance 2019-1299 as presented, regarding permit fees.

ORDINANCE NO. 2019-1299

**AN ORDINANCE OF THE CITY OF FULSHEAR, TEXAS, AUTHORIZING CITY STAFF TO ADMINISTRATIVELY DETERMINE THE AMOUNT OF BUILDING PERMIT AND INSPECTION FEES REQUIRED IN CONNECTION WITH THE CONSTRUCTION OR IMPROVEMENT OF A RESIDENTIAL DWELLING OR COMMERCIAL BUILDING OR STRUCTURE; PROVIDING FOR SEVERABILITY; PROVIDING FOR REPEAL AND PROVIDING FOR AN EFFECTIVE DATE.**

\* \* \* \* \*

**WHEREAS**, the City Council of the City of Fulshear, Texas ("City"), recognizes new legislation of the State of Texas which prohibits certain value-based building permit and inspection fees, being Tex. H.B. 852, 86th Leg., R.S. (2019), enacting Section 214.907 of the Texas Local Government Code; and

**WHEREAS**, the City Council desires to determine building permit and inspection fees for residential dwellings in accordance with Section 214.907, and to determine building permit and inspection fees for commercial buildings and structures consistently therewith; and

**WHEREAS**, certain sections of the Fulshear Code provide for certain building permit and inspection fees to be adopted by the City Council, including but not limited to sections 8-727, 8-728, and 8-729; and

**WHEREAS**, the City Council desires to temporarily authorize City staff to administratively determine the amount of such fees on its behalf, in accordance with Section 214.907 and in a manner consistent with any one or more fee determination methods utilized by other Texas municipalities, which may include fees determined on the basis of Building Valuation Data promulgated by the International Code Council, as may be updated from time to time; and

**WHEREAS**, the City recognizes that certain existing development agreements may provide specific criteria for the determination of applicable building permit and inspection fees, and the City intends for the terms of such agreements to continue in effect to the extent allowed by law;

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

**Section 1.** All of the facts recited in the preamble to this Ordinance are hereby found by the City Council to be true and correct and are incorporated by reference herein and expressly made a part hereof, as if copied herein verbatim.

**Section 2.** The City Council hereby authorizes the City Manager or their designee, be there one or more, to determine on behalf of the City Council the amount of building permit and inspection fees for residential dwellings and commercial buildings and structures, provided such fee determinations are consistent with any one or more fee determination methods utilized by other Texas municipalities and provided such fee determination is not prohibited by Section 214.907 of the Local Government Code.

**Section 3.** For purposes of the Fulshear Code, any and all fees determined in accordance with the authority granted by this Ordinance shall be considered adopted by the City Council.

**Section 4. Severability.** In the event any clause, phrase, provision, sentence or part of this Ordinance or the application of the same to any person or circumstances shall for any reason be adjudged invalid or held unconstitutional by a court of competent jurisdiction, it shall not affect, impair or invalidate this Ordinance as a whole or any part or provision hereof other than the part declared to be invalid or unconstitutional; and the City Council of the City of Fulshear, Texas declares that it would have passed each and every part of the same notwithstanding the omission of any part thus declared to be invalid or unconstitutional, or whether there be one or more parts.

**Section 5. Repeal.** All other ordinances or parts of ordinances inconsistent or in conflict herewith are, to the extent of such inconsistency or conflict, hereby repealed.

**Section 6. Effective date.** This Ordinance shall be effective and in full force immediately upon its adoption.

**PASSED, APPROVED, and ADOPTED** this, the 28th day of May, 2019.

\_\_\_\_\_  
Aaron Groff, Mayor

**ATTEST:**

\_\_\_\_\_  
Kimberly Kopecky, City Secretary

## Building Valuation Data – FEBRUARY 2019

The International Code Council is pleased to provide the following Building Valuation Data (BVD) for its members. The BVD will be updated at six-month intervals, with the next update in August 2019. ICC strongly recommends that all jurisdictions and other interested parties actively evaluate and assess the impact of this BVD table before utilizing it in their current code enforcement related activities.

The BVD table provides the “average” construction costs per square foot, which can be used in determining permit fees for a jurisdiction. Permit fee schedules are addressed in Section 109.2 of the 2018 *International Building Code* (IBC) whereas Section 109.3 addresses building permit valuations. The permit fees can be established by using the BVD table and a Permit Fee Multiplier, which is based on the total construction value within the jurisdiction for the past year. The Square Foot Construction Cost table presents factors that reflect relative value of one construction classification/occupancy group to another so that more expensive construction is assessed greater permit fees than less expensive construction.

ICC has developed this data to aid jurisdictions in determining permit fees. It is important to note that while this BVD table does determine an estimated value of a building (i.e., Gross Area x Square Foot Construction Cost), this data is only intended to assist jurisdictions in determining their permit fees. This data table is not intended to be used as an estimating guide because the data only reflects average costs and is not representative of specific construction.

This degree of precision is sufficient for the intended purpose, which is to help establish permit fees so as to fund code compliance activities. This BVD table provides jurisdictions with a simplified way to determine the estimated value of a building that does not rely on the permit applicant to determine the cost of construction. Therefore, the bidding process for a particular job and other associated factors do not affect the value of a building for determining the permit fee. Whether a specific project is bid at a cost above or below the computed value of construction does not affect the permit fee because the cost of related code enforcement activities is not directly affected by the bid process and results.

### Building Valuation

The following building valuation data represents average valuations for most buildings. In conjunction with IBC Section 109.3, this data is offered as an aid for the building official to determine if the permit valuation is underestimated. Again it should be noted that, when using this data, these are “average” costs based on typical construction methods for each occupancy group and type of construction. The average costs include foundation work, structural and nonstructural

building components, electrical, plumbing, mechanical and interior finish material. The data is a national average and does not take into account any regional cost differences. As such, the use of Regional Cost Modifiers is subject to the authority having jurisdiction.

### Permit Fee Multiplier

Determine the Permit Fee Multiplier:

1. Based on historical records, determine the total annual construction value which has occurred within the jurisdiction for the past year.
2. Determine the percentage (%) of the building department budget expected to be provided by building permit revenue.
- 3.

$$\text{Permit Fee Multiplier} = \frac{\text{Bldg. Dept. Budget} \times (\%)}{\text{Total Annual Construction Value}}$$

### Example

The building department operates on a \$300,000 budget, and it expects to cover 75 percent of that from building permit fees. The total annual construction value which occurred within the jurisdiction in the previous year is \$30,000,000.

$$\text{Permit Fee Multiplier} = \frac{\$300,000 \times 75\%}{\$30,000,000} = 0.0075$$

### Permit Fee

The permit fee is determined using the building gross area, the Square Foot Construction Cost and the Permit Fee Multiplier.

$$\text{Permit Fee} = \text{Gross Area} \times \text{Square Foot Construction Cost} \times \text{Permit Fee Multiplier}$$

### Example

Type of Construction: IIB

Area: 1st story = 8,000 sq. ft.  
2nd story = 8,000 sq. ft.

Height: 2 stories

Permit Fee Multiplier = 0.0075

Use Group: B

1. Gross area:  
Business = 2 stories x 8,000 sq. ft. = 16,000 sq. ft.
2. Square Foot Construction Cost:  
B/IIB = \$175.70/sq. ft.
3. Permit Fee:  
Business = 16,000 sq. ft. x \$175.70/sq. ft x 0.0075  
= \$21,084

## Important Points

- The BVD is not intended to apply to alterations or repairs to existing buildings. Because the scope of alterations or repairs to an existing building varies so greatly, the Square Foot Construction Costs table does not reflect accurate values for that purpose. However, the Square Foot Construction Costs table can be used to determine the cost of an addition that is basically a stand-alone building which happens to be attached to an existing building. In the case of such additions, the only alterations to the existing building would involve the attachment of the addition to the existing building and the openings between the addition and the existing building.
- For purposes of establishing the Permit Fee Multiplier, the estimated total annual construction value for a given time period (1 year) is the sum of each building's value (Gross Area x Square Foot Construction Cost) for that time period (e.g., 1 year).
- The Square Foot Construction Cost does not include the price of the land on which the building is built. The Square Foot Construction Cost takes into account everything from foundation work to the roof structure and coverings but does not include the price of the land. The cost of the land does not affect the cost of related code enforcement activities and is not included in the Square Foot Construction Cost.

### Square Foot Construction Costs <sup>a, b, c</sup>

Group (2018 International Building Code)	IA	IB	IIA	IIB	IIIA	IIIB	IV	VA	VB
A-1 Assembly, theaters, with stage	246.61	238.50	232.82	223.18	209.86	203.80	216.12	191.69	184.50
A-1 Assembly, theaters, without stage	225.65	217.54	211.85	202.22	189.15	183.09	195.16	170.98	163.79
A-2 Assembly, nightclubs	191.96	186.56	182.12	174.70	164.94	160.39	168.64	149.29	144.33
A-2 Assembly, restaurants, bars, banquet halls	190.96	185.56	180.12	173.70	162.94	159.39	167.64	147.29	143.33
A-3 Assembly, churches	226.69	218.58	212.89	203.26	191.60	185.54	196.20	173.43	166.24
A-3 Assembly, general, community halls, libraries, museums	190.63	182.52	175.84	167.20	153.09	148.07	160.14	134.97	128.78
A-4 Assembly, arenas	224.65	216.54	209.85	201.22	187.15	182.09	194.16	168.98	162.79
B Business	197.81	190.62	184.70	175.70	160.65	154.63	168.95	141.15	134.99
E Educational	209.43	202.23	196.97	188.01	175.28	166.43	181.55	153.08	148.70
F-1 Factory and industrial, moderate hazard	117.60	112.19	105.97	101.84	91.54	87.26	97.61	75.29	70.95
F-2 Factory and industrial, low hazard	116.60	111.19	105.97	100.84	91.54	86.26	96.61	75.29	69.95
H-1 High Hazard, explosives	109.99	104.58	99.35	94.22	85.14	79.87	89.99	68.89	N.P.
H234 High Hazard	109.99	104.58	99.35	94.22	85.14	79.87	89.99	68.89	63.56
H-5 HPM	197.81	190.62	184.70	175.70	160.65	154.63	168.95	141.15	134.99
I-1 Institutional, supervised environment	197.83	191.05	185.12	177.91	163.28	158.81	178.06	146.98	142.33
I-2 Institutional, hospitals	330.92	323.73	317.81	308.81	292.72	N.P.	302.06	273.22	N.P.
I-2 Institutional, nursing homes	229.68	222.49	216.58	207.57	193.53	N.P.	200.83	174.02	N.P.
I-3 Institutional, restrained	224.86	217.67	211.75	202.75	188.96	181.94	196.00	169.45	161.29
I-4 Institutional, day care facilities	197.83	191.05	185.12	177.91	163.28	158.81	178.06	146.98	142.33
M Mercantile	142.95	137.54	132.11	125.68	115.38	111.83	119.62	99.73	95.77
R-1 Residential, hotels	199.70	192.92	186.99	179.78	164.90	160.43	179.93	148.60	143.96
R-2 Residential, multiple family	167.27	160.49	154.56	147.35	133.71	129.23	147.50	117.40	112.76
R-3 Residential, one- and two-family <sup>d</sup>	155.84	151.61	147.83	144.09	138.94	135.27	141.72	130.04	122.46
R-4 Residential, care/assisted living facilities	197.83	191.05	185.12	177.91	163.28	158.81	178.06	146.98	142.33
S-1 Storage, moderate hazard	108.99	103.58	97.35	93.22	83.14	78.87	88.99	66.89	62.56
S-2 Storage, low hazard	107.99	102.58	97.35	92.22	83.14	77.87	87.99	66.89	61.56
U Utility, miscellaneous	85.30	80.55	75.51	71.75	64.72	60.49	68.56	51.18	48.73

- Private Garages use Utility, miscellaneous
- For shell only buildings deduct 20 percent
- N.P. = not permitted
- Unfinished basements (Group R-3) = \$22.45 per sq. ft.

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<b>AGENDA OF:</b>	May 28, 2019	<b>AGENDA ITEM:</b>	D
<b>DATE SUBMITTED:</b>	May 28, 2019	<b>DEPARTMENT:</b>	Administration
<b>PREPARED BY:</b>	Brant Gary, Assistant City Manager; Sharon Valiante, Dir. of Public Works	<b>PRESENTER:</b>	Brant Gary, Assistant City Manager; Sharon Valiante, Dir. of Public Works
<b>SUBJECT:</b>	<b>Update on FM 359 Utility Extension Project</b>		
<b>ATTACHMENTS:</b>	1. Presentation by Freese and Nichols regarding the project		
<b>EXPENDITURE REQUIRED:</b>	N/A		
<b>AMOUNT BUDGETED:</b>	-		
<b>ACCOUNT NO.:</b>			
<b>ADDITIONAL APPROPRIATION REQUIRED:</b>	N/A		
<b>ACCOUNT NO.:</b>	N/A		

**EXECUTIVE SUMMARY**

As a part of the City’s Capital Improvement Program, the City has a project in progress to extend water and wastewater services north along FM 359 to serve future development along that corridor. The City hired Freese and Nichols (FNI) to design these utility extensions in this area. FNI has developed alternatives for the City to meet commitments to provide water and wastewater service while maintaining budget requirements. FNI will provide an overall project status update as well as the service alternatives for discussion.

**RECOMMENDATION**

At this time, Staff is requesting that the City Council provide direction regarding the scope of the project. City Council can ask any questions or request additional information from the consultant and/or Staff regarding this project and in anticipation of future budget/CIP discussions.



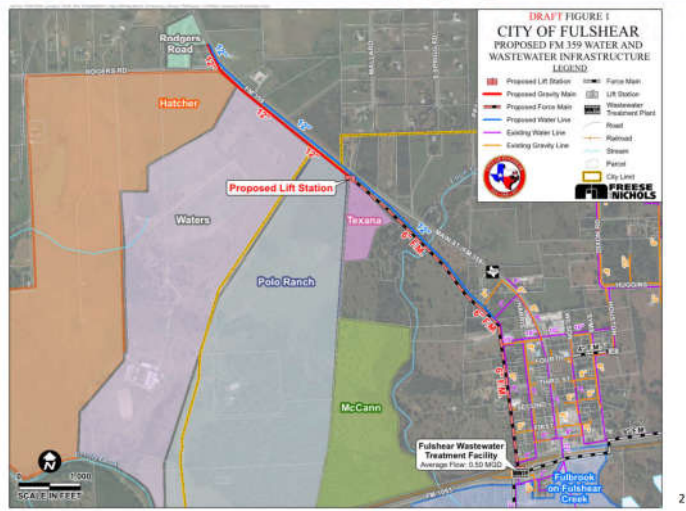
# City of Fulshear

## FM 359 WATER AND WASTEWATER EXTENSION PROJECT UPDATE

May 28, 2019



### Overview of Project



### Overview of Project

- Developments to be Served
  - Texana
  - Rogers Road
  - Polo Ranch
  - Waters Tract

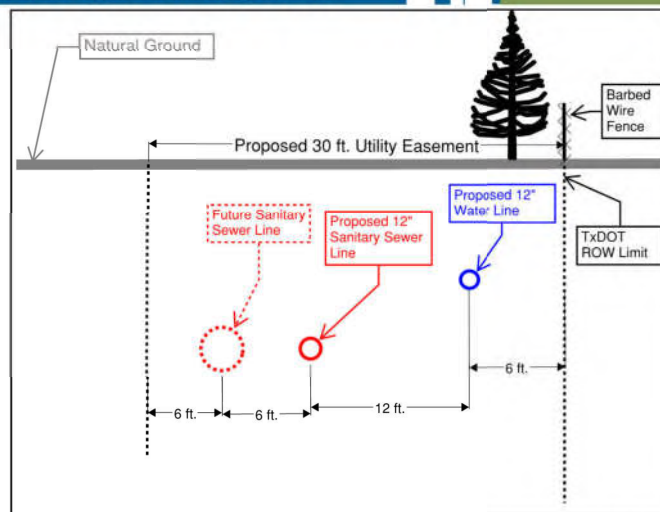




## Proposed Lift Station Site



## Planning for the Future: Proposed Alignment Along FM 359

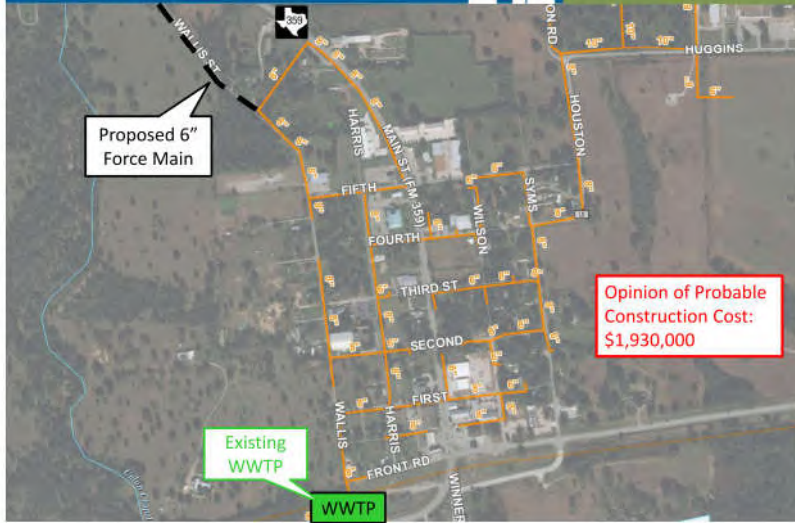


## Overview of W/WW Infrastructure

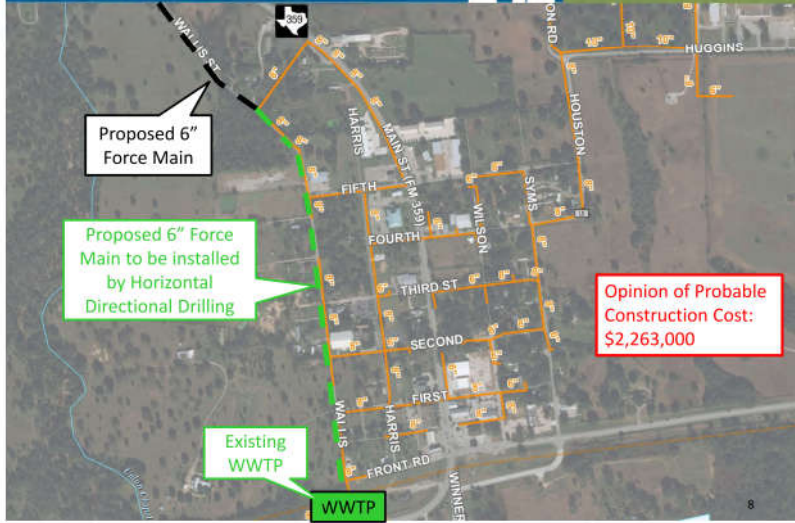
- **12-inch Water Line**
  - Designed to convey peak hour demands and over 1,000 gpm fire flow
  - ~ 6,100 linear feet
  - Tie in at existing 6-inch water lines along Wallis
- **12-inch Gravity Line**
  - Designed to convey peak wet weather flow to proposed Lift Station
  - ~ 3,500 linear feet
- **530 gpm Lift Station and 6-inch Force Main**
  - Designed to convey peak wet weather flow to existing collection system
  - ~ 2,200 linear feet of force main
  - **Base Bid:** force main ends where existing collection system begins (north of Wallis/5<sup>th</sup> Street intersection)
  - **Alternate Bid:** force main pumps directly into Fulshear WWTP (additional 3,100 LF of force main)



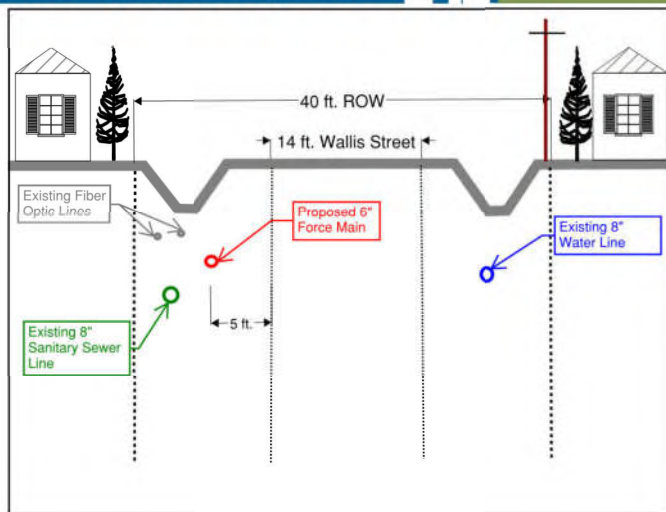
### Base Bid: Wallis Tie In



### Alternate Bid: WWTP Tie In



### Proposed Alignment Along Wallis





- Design Complete —————> July 2019
- Advertisement/Bidding —————> July/August 2019
- Construction Start —————> September 2019
- Construction Complete —————> Spring 2020

**AGENDA MEMO**  
**BUSINESS OF THE CITY COUNCIL**  
**CITY OF FULSHEAR, TEXAS**

<b>AGENDA OF:</b>	May 28, 2019	<b>AGENDA ITEM:</b>	E
<b>DATE SUBMITTED:</b>	May 28, 2019	<b>DEPARTMENT:</b>	Administration
<b>PREPARED BY:</b>	Brant Gary, Assistant City Manager; Sharon Valiante, Dir.of Public Works	<b>PRESENTER:</b>	Brant Gary, Assistant City Manager; Sharon Valiante, Dir.of Public Works
<b>SUBJECT:</b>	<b>Update on Downtown Drainage Study</b>		
<b>ATTACHMENTS:</b>	<ol style="list-style-type: none"> <li>1. Presentation by ARKK Engineers</li> <li>2. Final Report – Downtown Drainage Study</li> </ol>		
<b>EXPENDITURE REQUIRED:</b>	N/A		
<b>AMOUNT BUDGETED:</b>	-		
<b>ACCOUNT NO.:</b>			
<b>ADDITIONAL APPROPRIATION REQUIRED:</b>	N/A		
<b>ACCOUNT NO.:</b>	N/A		

**EXECUTIVE SUMMARY**

As a part of the City’s Capital Improvement Program, the City has requested various studies and reviews regarding drainage conditions and potential needs in different parts of the City. Most recently, the City has had ARKK Engineers review the drainage in the downtown area. This area includes the main areas of focus included in the recently completed Livable Center Study.

ARKK Engineers will submit a presentation summarizing the information gathered from site visits to the project areas and previous drainage reports. The presentation summarizes the work performed and includes recommendations and cost estimates for proposed drainage improvements.

As shown in the presentation, ARKK Engineers is recommending four total projects to improve drainage in the downtown area:

- A. West Side FM 359 Storm Sewer Improvements
- B. East Side FM 359 Storm Sewer Improvements
- C. West Side FM 359 Ditch Regrading and Culvert Improvements
- D. East Side FM 359 Ditch and Trail Improvements

**RECOMMENDATION**

At this time, Staff is requesting that the City Council formally accept the report from ARKK Engineers. City Council can ask any questions or request additional information from the consultant and/or Staff in anticipation of future budget/CIP discussions.



# DOWNTOWN DRAINAGE PLANNING STUDY

May 28, 2019



ARKK ENGINEERS

## Purpose of the Drainage Study:

- GOALS:
  - Improve Drainage Conditions in the Downtown Fulshear Area; and
  - Develop a Plan for drainage improvements needed to accommodate future growth in the Downtown area

ARKK ENGINEERS

## Major Tasks of the Drainage Study:

1. Evaluate the existing drainage system in the Downtown area; and:
2. Recommend drainage system improvements when needed

ARKK ENGINEERS

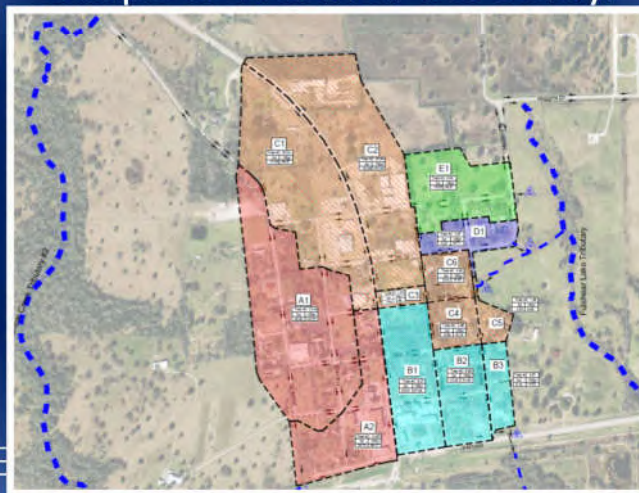


## Scope of Work for the Study:

1. Research and Prepare a map that Identifies the existing drainage divides and flow direction.
  - Reviewed previous drainage reports previously prepared for the study area and surroundings.
  - Reviewed LIDAR-based topographical mapping of the study area.
  - Observed the drainage patterns on-the-ground during several rainfall events



## Scope of Work for the Study:



## Scope of Work for the Study:

2. Calculate the rate of stormwater runoff from both the “existing” land use and from the estimated “future” and use.



## Scope of Work for the Study:

3. Identify “bottlenecks” in the drainage system for both existing conditions and future conditions.



## Scope of Work for the Study:

4. Provide recommendations for drainage system improvements to address existing drainage issues, and sized to also accommodate future needs.

- Maps
- Calculations
- Cost Estimates



## SUMMARY OF RECOMMENDATIONS

- **PROJECT A – “West Side FM 359 Storm Sewer Improvements”**
- Estimated Project Cost \$820,700
- Establishes a new dedicated drainage outfall from Downtown directly to Fulshear Creek Tributary Number 2
- Requires New Easements

## SUMMARY OF RECOMMENDATIONS



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## SUMMARY OF RECOMMENDATIONS

- **PROJECT B – “East Side FM 359 Storm Sewer Improvements”**
- Estimated Project Cost \$928,000
- New dedicated storm sewers from Downtown connecting to Fulshear Lake Tributary
- New Easements are recommended

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## SUMMARY OF RECOMMENDATIONS



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## SUMMARY OF RECOMMENDATIONS

- **PROJECT C – “West Side Downtown Ditch Regrading and Culvert Improvements”**
- Estimated Project Cost \$465,000
- Roadside ditch cleaning, ditch regrading, driveway culvert replacements, street culvert replacements

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## SUMMARY OF RECOMMENDATIONS



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## SUMMARY OF RECOMMENDATIONS

- **PROJECT D – “East Side Downtown Tributary Ditch and Trail Improvements”**
- Estimated Project Cost \$1,320,000
- Capacity Improvements to the Fulshear Lake Tributary Ditch
- Paved Trail on both sides of the improved ditch

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## SUMMARY OF RECOMMENDATIONS



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## SUMMARY OF RECOMMENDATIONS

### SUMMARY OF COSTS:

PROJECT A -	\$ 820,700
PROJECT B-	\$ 928,000
PROJECT C-	\$ 465,000
PROCECT D –	<u>\$1,320,000</u>
TOTAL:	\$3,533,700

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## DOWNTOWN DRAINAGE PLANNING STUDY

May 28, 2019



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