

**HILLS OF TOWN CREEK SECTION 5
FEASIBILITY STUDY
(Dev. No. 2102)**

FOR

THE CITY OF MONTGOMERY

WGA PROJECT NO. 00574-107

OCTOBER 2021

PREPARED BY

WGA

CONSULTING ENGINEERS

OVERVIEW

- 1 Executive Summary
- 2 Introduction
- 3 Analysis

Exhibits:

A: Overall Exhibit – Boundary, Zoning & Thoroughfare

B: Preliminary Site Plan

C: Updated Development Acreages & Service Demands

D: Excerpt From Impact Fee Analysis

E: Escrow Calculation

1 EXECUTIVE SUMMARY

Chris Cheatham of Cheatham Management (the “Developer”) has requested the City of Montgomery (the “City”) to perform a feasibility study for the City to serve future single-family development on a 16.45-acre tract north of SH-105 and east of Lone Star Parkway (the “Tract”). The Tract is located entirely within the City’s boundary and will not require annexation to provide service.

This development would consist of seventy-two single family tracts. The analysis shows that the City will have the wastewater capacity to serve the development, and existing developments, for the next few years but will need additional wastewater treatment plant capacity to serve all existing and proposed developments at full build out.

The analysis also shows that after the completion of the City’s Water Plant No. 3 Improvements project currently in construction the City will have the water capacity to serve the development, and existing developments, for the next few years but will need additional water plant capacity to serve all existing and proposed developments at full build out.

The estimated total costs that will be associated with the development are:

• Escrow Account	\$ 48,000
• Water Impact Fee	\$ 81,000
• <u>Wastewater Impact Fee</u>	<u>\$ 181,000</u>
Total Estimated Costs	\$ 310,000

The Developer has estimated a total assessed valuation for the development to be approximately \$18,000,000 at full build out. Based on the City’s current tax rate (\$0.1412 debt service and \$0.2588 for operations and maintenance) financially, the development will bring in approximate tax revenues as shown below:

• Operations and Maintenance	\$ 44,300
• <u>Debt Service</u>	<u>\$ 24,100</u>
Total Estimated Annual Tax Revenue	\$ 68,400

2 INTRODUCTION

This undeveloped Tract is located within the City limits, north of SH-105 and east of Lone Star Parkway. The Tract will not require annexation into the City. An exhibit showing the Tract's boundary in relation to the City's boundary, as well as the Tract's existing zoning and relation to the City's most current thoroughfare plan is enclosed as **Exhibit A**. A preliminary site plan is enclosed as **Exhibit B** and indicates the Developer intends to subdivide the Tract into seventy-two 50' wide single-family lots. The tract is currently zoned as Commercial (B) and will need to be rezoned to Residential (R-1).

A preliminary land plan showing the proposed public utilities and paving is enclosed as **Exhibit B**. Based on information from the developer, construction of the development is planned to be complete in late 2022. The estimates included in this feasibility are based on the anticipated land use provided by the developer at the time of the study. The final land plan may affect the estimated costs and revenues associated with the development.

Based on the land plan provided by the Developer, the following variances to the City's current ordinances will need to be requested and considered. This is not an all-encompassing list and is subject to change based on the final land plan of the site:

- Lot Requirements
 - o The Development's proposed lot width is 50'. This is not in compliance with the City's 75' minimum requirement. (Sec. 98-122(b)(2))
 - o The Development's proposed lot depth is 100'. This is not in compliance with the City's 120' minimum requirement. (Sec. 98-122(b)(3))
 - o The Development's proposed lot area is 5,000 square feet (sf). This is not in compliance with the City's 9,000 sf minimum. (Sec. 98-122(b)(1))

3 ANALYSIS

Water Production and Distribution

The Tract is located within City limits and plans to receive service from the City. The City has three (3) active water wells and two existing water plants with a capacity of 568,000 gallons per day (“gpd”) per Texas Commission on Environmental Quality (“TCEQ”) requirements. The City is currently under construction of a water plant improvements project at the existing Water Plant No. 3 to increase the capacity of the City’s water system to 2,500 connections while holding the same average daily flow capacity.

The current average daily flow (“ADF”) in the City is approximately 365,000 gpd. Inclusive of existing connections, ultimate future projected connections within current platted developments, and developments that are currently in design, the City has committed approximately 632,100 gpd and 1,695 connections. A copy of the updated water usage projections is included as **Exhibit C**. Once the Water Plant No. 3 Improvements Project is complete, the City will have committed approximately 111% of the total ADF capacity and 68% of the connection capacity. The City is not expected to hit these numbers or exceed the current average daily flow capacity until beyond 2025.

Based on information from the Developer, the Tract’s estimated water capacity requirement is approximately 18,000 gpd. Inclusive of existing connections, platted developments, developments currently underway, other developments in feasibility, and this development, the City will have committed approximately 813,000 gpd or 143% of the total ADF capacity and 97% of the connection capacity. Based on the projections shown in Exhibit C, the City would need additional water plant capacity around 2024.

Upon completion of the proposed improvements and based on the projected ADF, including this Tract, the City is projected to have sufficient water production capacity to meet the demand of the development within the City for the next few years. As the existing and upcoming developments build out, the City should be prepared to expand their water production and distribution capacity.

The Developer will need to construct an extension to the existing 12-inch waterline along Emma’s Way, to Lone Star Parkway. Additionally, the Developer will be required to construct an additional 12-inch waterline from the proposed Water Plant No. 4 site, north through the Tract to the northern end of the Tract along Lone Star Parkway, as shown in **Exhibit A**. This waterline will facilitate the ability for the City to complete an additional waterline loop in the future. The Developer will be responsible for all costs associated with the waterline extension and required easements.

The ultimate alignment of waterlines interior to the Tract will depend on the final land plan of the proposed development. These waterlines will need to be placed in public utility easements located along the public ROW or placed within public ROW interior to the development and constructed per all applicable City and TCEQ design criteria. The developer is responsible for all costs associated with easement acquisition and recordation.

The Developer is responsible for providing engineered plans and specifications for the water distribution system interior to the development and the previously mentioned public 12-inch waterlines to the City

Engineer for review and approval prior to commencing construction, and to obtain all required Planning and Zoning Commission, City Council and development approvals and permits.

Sanitary Sewer Collection and Treatment

The District's existing wastewater facilities include of 18 public lift stations and two (2) wastewater treatment plants (one of which is currently decommissioned). The Stewart Creek Wastewater Treatment Plant (TPDES Permit No. WQ0011521001) has a permitted capacity of 400,000 gpd. The current ADF at the Stewart Creek Wastewater Treatment Plant is 183,000 gpd or 46%.

Inclusive of existing connections, platted developments, and developments which are in design or under construction, the City has committed approximately 427,000 gpd or 107% of existing permitted capacity at full build out. A copy of the wastewater usage projections is included as **Exhibit C**.

Based on the City's historical usage for similar types of development and information from the Developer, the Tract's estimated sanitary sewer capacity requirement is approximately 14,400 gpd (432,000 gallons per month). Inclusive of existing connections, platted developments, developments currently underway, other developments in feasibility, and this development, the City will have committed approximately 572,000 gpd or 143% of existing permitted capacity.

The TCEQ requires the City to initiate design of a wastewater treatment capacity expansion when the ADF exceeds 75% of the City's 400,000 gpd permitted capacity for 3 consecutive months. The ADF for the City, including this Tract and other treats under design/feasibility, is not expected to exceed 75% of the permitted capacity (300,000 gpd) until around 2023. Additionally, the TCEQ requires the commencement of the construction phase of the expansion after 3 consecutive months of ADF exceeding 90% of the permitted capacity (360,000 gpd). This is expected to occur around 2024.

The Tract will be served by extending an 8-inch public sanitary sewer line from the existing 8-inch sanitary sewer line located along the western ROW of Emma's Way. The proposed sanitary sewer line will be extended north and west along the ROW of Emma's Way to the proposed entrance of the Development. The Developer will be responsible for delivery of sanitary sewer service from the Tract to this location by the means of a gravity sanitary sewer line, as shown in **Exhibit A**. The Developer will be responsible for all costs associated with this sanitary sewer line extension and required easements.

The ultimate alignment of sanitary sewer lines interior to the Tract will depend on the final land plan of the proposed development. These sanitary sewer lines will need to be placed within public utility easements located along the public ROW or placed within the public ROW interior to the development and constructed per all applicable City and TCEQ design criteria.

The Developer is responsible for providing engineering plans and specifications for the sanitary sewer conveyance system interior to the development to the City engineer for review and approval prior to commencing construction. The Developer is also responsible for obtaining all Planning and Zoning Commission, City Council, and development approvals and required permits. The Developer will need to coordinate the installation of sanitary sewer tap(s) into the public system with the City's department of Public Works and will be responsible for all costs associated with said work.

Drainage

The onsite storm sewer system will be designated public and accepted by the City upon completion of the development. All drainage and detention improvements must be designed per the city's Code of Ordinances requiring compliance with the City's floodplain regulations and all applicable Montgomery County Drainage Criteria Manual Standards. Failure to design and construct the drainage facilities per Montgomery County Criteria potentially jeopardizes eligibility for acceptance by the City. The Developer will also be required to perform and submit a drainage study showing the development's impact on the drainage downstream of the Tract and on adjacent properties. The drainage study must be submitted to the City for review and approval prior to approval of the construction plans.

The Developer is responsible for providing engineering plans and specifications for the drainage and detention system interior to the development to the City engineer for review and approval prior to commencing construction, and to obtain all required Planning and Zoning Commission, City Council, and development approvals and permits.

Paving and Traffic

Per the preliminary land plan submitted by the Developer, Emma's Way is proposed to be extended through the development and connect to Lone Star Parkway within a proposed 80-foot ROW. Additionally, there is an unnamed minor residential street with a proposed 50-foot ROW to serve the proposed lots. The Emma's Way extension and the unnamed street are proposed to be public and accepted by the City. The Developer is responsible for providing engineered plans and specifications for the roads interior to the development to the City Engineer for review and approval prior to commencing construction, and to obtain all required Planning and Zoning Commission, City Council, and development approvals and permits.

Currently, the preliminary land, combined with existing infrastructure, provides for two (2) points of access for the seventy-two-lot development from Emma's Way from SH 105 (existing) and Lone Star Parkway (proposed). Per the City's most recent thoroughfare plan, two proposed major collector roads are proposed to run through the Tract, as shown on **Exhibit A**. The Developer will need to coordinate with the City and Montgomery County to confirm that the needs of the thoroughfare plan will be met with the Development.

Development Costs

The Developer will need to engineer and construct the on-site and off-site water, sanitary sewer, paving, and drainage facilities to serve the proposed tract.

The Developer will also need to pay water and wastewater impact fees to the City. The impact fees will be assessed at the time of recordation of the final plat and collected prior to receiving water and sanitary sewer taps. Enclosed as **Exhibit D** is Table 1.1 of the 2017 Revisions to the Montgomery Impact Fee analysis Report. The estimated ADF provided by the developer requires the equivalent use of 72 5/8-inch water meters per the table.

An escrow agreement has been entered into between the Developer and the City and funds have been deposited to cover the cost of this feasibility study. An estimated additional \$48,000 will be required to cover the City's remaining expenses for the development, which includes administrative costs, legal fees,

plan reviews, developer and construction coordination, construction inspection, and one-year warranty expenses. The fees calculation can be seen in **Exhibit E**. These additional funds must be deposited into the escrow prior to any work being completed by the City.

Below is a summary of the estimated costs associated with the development:

Estimated Costs:

- Escrow Account	\$ 48,000
- Water Impact Fee	\$ 81,000
- Wastewater Impact Fee	<u>\$181,000</u>
Total	\$310,000

These estimates are based on the projected water and wastewater usage provided by the developer. The actual costs will depend on the final land plan, final design, and actual construction costs.

Financial Feasibility

The Developer projects the home sale prices to be \$250,000. The Developer estimates the total assessed value (A.V.) at full development to be approximately \$18,000,000. Based on the estimated total A.V. and assuming 95% collection, the development would generate approximately \$24,100 per year in debt service revenue based on the City's \$0.1412/\$100 valuation debt service tax rate, and approximately \$44,300 per year in operations and maintenance revenue based on the City's \$0.2588/\$100 valuation Operations & Maintenance (O&M) tax rate.

This report is our engineering evaluation of the funds required to complete the anticipated future capital improvement for this Tract and of the potential increase in tax revenue to the City. This report is not intended to be used for the issuance of municipal financial products or the issuance of municipal securities. The City's Financial Advisor(s) can address potential recommendations related to the issuance of municipal financial products and securities.

Thank you for the opportunity to complete this feasibility study and offer our recommendations. Please contact me or Ms. Katherine Vu should you have any questions.



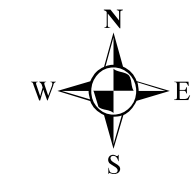
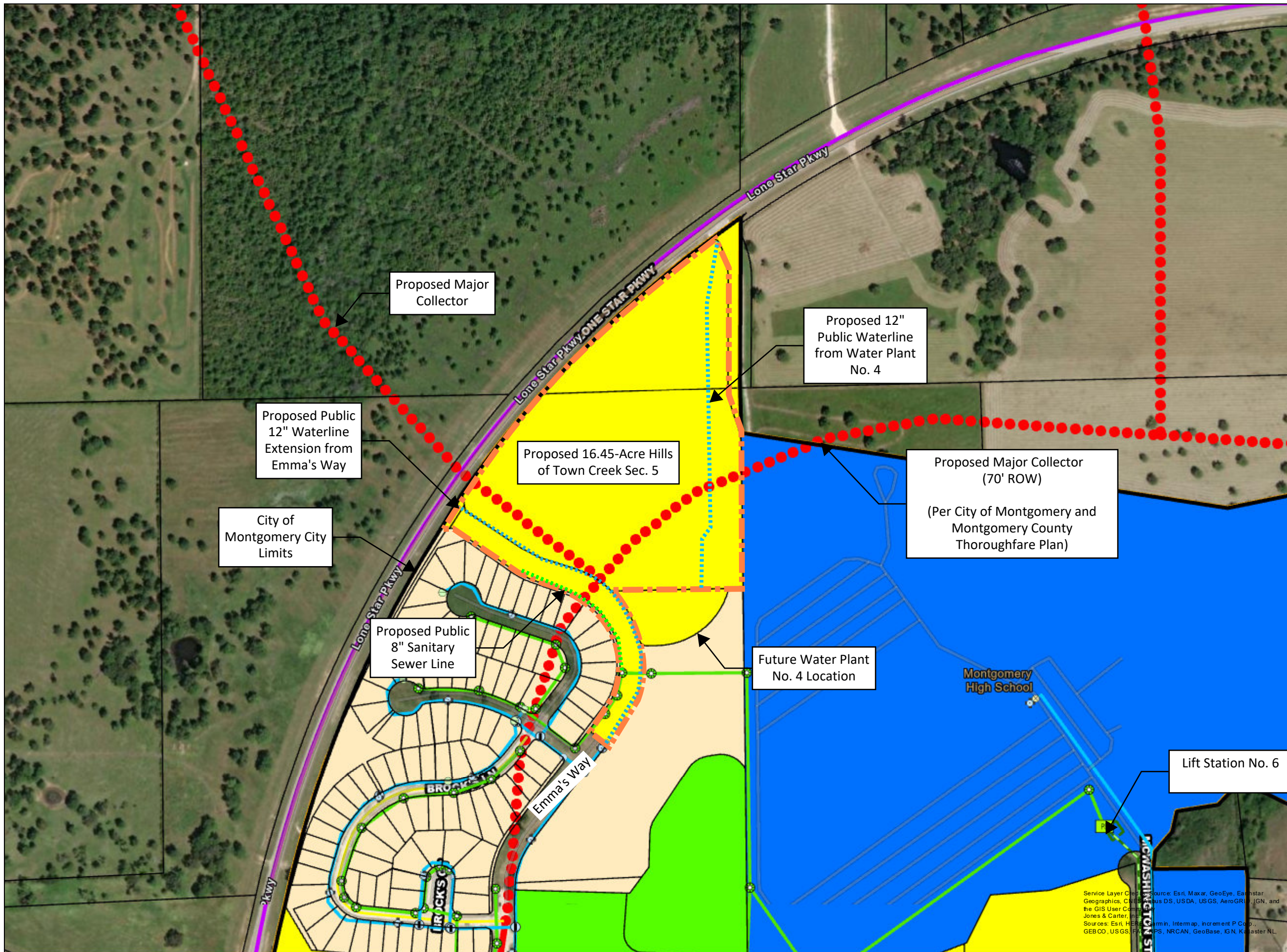
Sincerely,

Chris Roznovsky, PE
Engineer for the City

CVR/ser

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Exhibit A - Hills of Town Creek Section 5

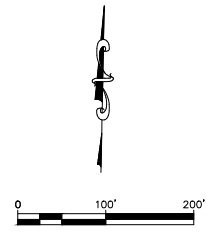


LEGEND

- Commercial (B)
- Multi-Family (R-2)
- Institutional (I)
- Residential (R-1)
- Existing Sanitary Sewer Line
- Proposed Sanitary Sewer Line
- Existing Water Main
- Proposed Water Main

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
 Jones & Carter, Inc.
 Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, Swisstopo, NRCAN, GeoBase, IGN, Kartestor NL

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±0.13 AC. LOTS
 TOTAL 72 LOTS
 16.45 ACRE SITE
 ±3,500 LF PAVEMENT



L SQUARED ENGINEERING
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HILLS OF TOWN CREEK
 NEW SITE EXHIBIT

3/19/2021

DRAWING INFORMATION			
PROJECT	10600	TDLR	**
DRAWN	MCV	CHECKED	JTW
SCALE	1" = 100' (24x36)	SHEET	1
	1" = 200' (11x17)		

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF:
 E. LEVI LOVE, PE #99340
 OR
 JONATHAN WHITE, PE #127058
 FOR REVIEW PURPOSES ONLY
 NOT FOR CONSTRUCTION

	Development Info & Capacities																						
	Current Connections	Ultimate Connections	Water		Wastewater		2021			2022			2023			2024			2025				
			Current Actual	Ultimate	Current	Ultimate	Connections	GPD Water	GPD Sanitary	Connections	GPD Water	GPD Sanitary	Connections	GPD Water	GPD Sanitary	Connections	GPD Water	GPD Sanitary	Connections	GPD Water	GPD Sanitary		
Single Family																							
Buffalo Crossing	1	13	235	3,250	150	2,600				1	235	150	1	235	150	2	470	300	2	470	300		
Buffalo Springs, Section 1	24	24	5,640	6,000	3,600	4,800																	
Buffalo Springs, Section 2	60	64	14,100	16,000	9,000	12,800																	
Estates of Mia Lago, Section 1	4	27	940	6,750			1	235	150	1	235	150	1	235	150	1	235	150	3	705	150		
FM 149 Corridor	21	25	4,935	6,250	3,150	5,000				1	235		1	235	150	1	235	150	1	235	150		
Simonton and Lawson	13	23	3,055	5,750	1,950	4,600							1	235	150								
Martin Luther King	47	55	11,045	13,750	7,050	11,000							1	235	150								
Baja Road	7	11	1,645	2,750	1,050	2,200				1	235	150						1	235	150	1	235	150
Community Center Drive	3	3	705	750	450	600																	
Community Center Drive (Water Only)	8	10	1,880	2,500	-	-							1	235	150								
Lake Creek Landing	15	15	3,525	3,750	2,250	3,000																	
Gulf Coast Estates, Section 2	-	4	-	1,000	-	800	2	470	300	2	470	300											
Lake Creek Village, Section 1	36	37	8,460	9,250	5,400	7,400																	
Lake Creek Village, Section 2	39	45	9,165	11,250	5,850	9,000				1	235	150											
Estates of Lake Creek Village	16	22	3,760	5,500	2,400	4,400				6	1,410	900											
Lone Star Estates	10	10	2,350	2,500	1,500	2,000																	
Hills of Town Creek, Section 2	51	51	11,985	12,750	7,650	10,200																	
Hills of Town Creek, Section 3	49	49	11,515	12,250	7,350	9,800																	
Hills of Town Creek Sec. 4	10	30	3,600	7,500	1,500	6,000	6	1,500	1,200	14	3,500	2,800											
Historic/Downtown	129	150	30,315	37,500	19,350	30,000				2	470	300	2	470	300	2	470	300	2	470	300		
Terra Vista Section 1	58	61	13,630	15,250	8,700	12,200	3	705	450														
Town Creek Crossing Section 1		101	-	30,300	-	20,200				40	12,000	8,000	40	12,000	8,000	20	6,000	4,000					
Villas of Mia Lago Section 1	14	14	3,290	3,500	2,100	2,800																	
Villas of Mia Lago Section 2	42	42	9,870	10,500	6,300	8,400																	
Waterstone, Section 1	43	53	10,105	13,250	6,450	10,600				3	705	450	3	705	450								
Waterstone, Section 2	5	89	1,175	22,250	750	17,800				10	2,350	1,500	10	2,350	1,500	10	2,350	1,500	10	2,350	1,500		
Gary Hammons	1	1	235	250	150	200																	
Mobile Home Park (connection)	29	29	4,000	4,000	3,300	3,300																	
City Hall	1	1	1,070	1,070	890	890																	
Community Center	1	1	200	200	150	150																	
Buffalo Spring Plant	1	1	360	360	250	250																	
Cedar Brake Park Restrooms	1	1	200	200	150	150																	
Fernland Park	1	1	200	200	150	150																	
Homecoming Park Restrooms	1	1	200	200	150	150																	
Water Plant No. 3	1	1	4,000	4,000	2,000	2,000																	
West Side at the Park	8	11	1,880	2,750	1,200	2,200							1	235	150								
Subtotal	750	1,076	179,270	275,280	112,340	207,640	12	2,910	2,100	82	22,080	14,850	63	17,405	11,300	40	10,700	6,550	19	4,465	2,400		
Commercial Platted and Existing																							
Buffalo Run, Section 1	1	6	1,000	10,000	650	6,500				1	1,800	1,170	1	3,300	2,700								
Longview Greens Miniature Golf	1	1	1,400	1,400	910	910																	
Summit Business Park, Phase 1	3	6	1,300	6,000	845	3,900				1	1,567	1,018				1	1,567	1,018					
Prestige Storage (SBP Res. D)	1	1	225	360	146	234																	
McCoy's	1	1	750	750	488	488																	
AutoZone	1	1	360	360	234	234																	
McCoy's Reserves B & D	-	2	-	5,000	-	3,250							1	2,500	1,625				1	2,500	1,625		
Pizza Shack	1	1	4,900	4,000	3,185	2,600																	
CareNow & Other Suites	3	3	1,200	1,500	780	975																	
KenRoc (Montgomery First)	-	3	-	12,000	-	7,800				1	4,000	2,600	1	4,000	2,600	1	4,000	2,600					
Wendy's	-	1	-	900	-	585				1	900	585											
Dusty's Car Wash	1	1	17,000	17,000	11,050	11,050																	
ProCore Developments	1	1	1,500	1,500	975	975																	
Christian Brother	1	1	225	225	146	146																	
Madsen and Richards	1	1	225	405	146	263																	
Kroger	2	2	4,500	5,000	2,925	3,250																	
Burger King	1	1	1,450	1,450	943	943																	
Buffalo Springs Shopping, Ph. I (Reserve B)	1	1	6,300	6,300	4,095	4,095																	
Buffalo Springs Shopping, Ph. I (Reserve A2)	-	1	-	360	-	234																	
Buffalo Springs Shopping, Ph. I (Reserve E)	-	1	-	3,000	-	1,950																	
Buffalo Springs Shopping, Ph. I (Reserve D)	-	1	-	6,000	-	3,900				1	6,000	3,900											
Spirit of Texas Bank	1	1	2,100	2,100	1,365	1,365																	
Heritage Place	1	1	360	1,200	234	780																	
Buffalo Springs Shopping, Ph. 2	-	3	-	20,000	-	13,000				1	6,667	4,333	1	7,500	6,250								
Buffalo Springs Phase II (Reserve I2)	-	1	-	225	-	146				1	225	146											
BlueWave Car Wash	1	1	7,000	7,000	4,550	4,550																	
Brookshire Brothers	2	2	1,500	1,500	975	975																	
Ransoms	1	1	1,500	1,500	975	975																	
Heritage Medical Center	1	1	600	1,200	390	780																	
Lone Star Pkwy Office Building	2	2	400	720	260	468																	
Old Iron Work	1	1	225	225	146	146																	
Apache Machine Shop	1	1	225	225	146	146																	
Montgomery Community Center (lone Star)	1	1	850	850	553	553																	
Jim's Hardware	1	1	225	225	146	146																	
Town Creek Storage	1	1	225	225	146	146																	
Lake Creek Village 3 Commercial	-	5	-	30,000	-	19,500				1	6,000	3,900	1	6,000	4,800	1	6,000	4,800	1	6,000	4,800		
Waterstone Commercial Reserve A	1	10	650	16,000	423	10,400				1	1,706	1,109	1	1,500	1,250	1	1,500	1,250	1	1,500	1,250		

Table 1.1 September 2017 ESFC Table for Commonly Used Meters

Meter Size	Maximum Continuous Operating Capacity (GPM)	Equivalent Single Family Home (ESFC)	Maximum Assessable Water Fee (\$)	Maximum Assessable Waste Water Fee (\$)	Maximum Assessable Fee (\$)
5/8"	15	1.00	1,126	\$2,513	\$3,639
3/4"	25	1.67	1,881	\$4,198	\$6,079
1"	40	2.67	3,001	\$6,711	\$9,712
1 1/2"	120	8.00	9,006	\$20,103	\$29,112
2"	170	11.33	12,755	\$28,471	\$41,226
3"	350	23.33	26,264	\$58,626	\$84,890
4"	600	40.00	44,942	\$100,517	\$145,429
6"	1,200	80.00	90,064	\$201,035	\$291,099
8"	1,800	120.00	135,096	\$301,552	\$436,648

ESCROW AGREEMENT, SECTION 2.03 ATTACHMENT

BY AND BETWEEN

THE CITY OF MONTGOMERY, TEXAS,

AND

Ceetham Management

Dev. No. 2102

THE STATE OF TEXAS ⊃

COUNTY OF MONTGOMERY ⊃

As per section 2.03, the Feasibility Study completed an estimate of the additional escrow amount, which was determined for administration costs, legal fees, plan reviews, developer coordination, construction coordination, construction inspection, and warranty of services. The required additional amount is below:

Administration	\$ 3,000
City Attorney	\$ 3,000
City Engineer	\$ 42,000
<hr/>	
TOTAL	\$ 48,000