

**NANTUCKET HOUSING FEASIBILITY STUDY  
(Dev. No. 2204)**

**FOR**

**THE CITY OF MONTGOMERY**

**WGA PROJECT NO. 00574-113**

**MAY 2022**

**PREPARED BY**

**WGA**

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CONSULTING ENGINEERS

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## OVERVIEW

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- 1 Executive Summary
- 2 Introduction
- 3 Analysis

**Exhibits:**

A: Tract Boundary

B: Preliminary Site Plan

C: Water and Wastewater Usage Projection

D: Excerpt From Impact Fee Analysis

E: Escrow Calculation

F: Preliminary Cost Estimate

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## 1 EXECUTIVE SUMMARY

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Matt Fuqua of HCR Ventures, Ltd., (the “Developer”) has requested the City of Montgomery (the “City”) to perform a feasibility study for the City to serve a future multi-family and senior-living development on a 33.01-acre tract along Stewart Creek Road, north of SH-105. The tract is located outside the City limits and completely within the City’s extra territorial jurisdiction (“ETJ”). As part of the development process, the Developer has requested annexation into the City limits prior to receiving service.

This development would consist of approximately twenty multi-unit apartment buildings containing approximately 220 apartment units, in addition to an amenity center building and two swimming pools. 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	\$ 20,000
• Waterline Extension	\$ 107,000
• Water Impact Fee	\$ 26,200
• <u>Wastewater Impact Fee</u>	<u>\$ 58,600</u>
<b>Total Estimated Costs</b>	<b>\$ 211,800</b>

The Developer has estimated a total assessed valuation for the development to be approximately \$32,000,000 at full build out. Based on the City’s estimated 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	\$ 82,816
• <u>Debt Service</u>	<u>\$ 45,184</u>
<b>Total Estimated Annual Tax Revenue</b>	<b>\$ 128,000</b>

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## 2 INTRODUCTION

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This undeveloped 33.01-Acre Tract is located north of SH-105 and west of Stewart Creek Road. The entirety of the Tract is currently located within the City's ETJ. The Tract will require annexation into the City limits prior to receiving service. An exhibit showing the Tract's boundary in relation to the City's boundary, as well as the Tract's proposed utility improvements is enclosed as **Exhibit A**. A preliminary site plan is enclosed as **Exhibit B** and indicates the Developer's intentions to build a multi-family and senior-living residential development. Upon completion of annexation of the Tract, the area will need to be zoned as Multi-Family Residential (R-2).

Based on information from the developer, construction of the development is planned to be complete in the beginning of 2024. 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.

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### 3 ANALYSIS

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#### **Water Production and Distribution**

The Tract is located within City's ETJ and plans to be annexed into the City's limits before receiving service. The City has three (3) active water wells and two existing water plants with a capacity of 875 connections or 568,000 gallons per day 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 368,000 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 583,365 gpd and 1,696 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 103% 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. The addition of a booster pump would increase the ADF capacity to approximately 730,000 gpd.

Based on information from the Developer, the Tract's estimated water capacity requirement is approximately 60,000 gpd and is used throughout this feasibility study. However, based on historical water usage of similar developments in the City, we anticipate the capacity requirement to be approximately 25,000 gpd. Inclusive of existing connections, platted developments, developments currently underway, other developments in feasibility, and this development, the City will have committed approximately 869,490 gpd or 153% of the total ADF capacity and 117% 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 couple of years. As the existing and upcoming developments build out, the City should be prepared to expand their water production and distribution capacity.

There is an existing 12-inch waterline located along SH-105, plugged at the western Right-of-Way of Stewart Creek Road, that will need to be extended to within the Tract's boundary to provide water service to the Tract. Additionally, the Developer will also be required to provide a utility easement spanning the Stewart Creek Road frontage, to allow future developments to access City facilities, as shown in **Exhibit A**. The Developer will be responsible for all costs associated with the waterline extension and required easements. An estimated cost of the required waterline extension is enclosed as **Exhibit F**.

The ultimate alignment of waterlines interior to the Tract will depend on the final land plan of the proposed development. The developer is responsible for all design decisions and placement of waterlines interior to the proposed development.

The Developer is responsible for providing engineered plans and specifications for the water distribution system interior to the development and the public offsite 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 City's existing wastewater facilities include 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 194,700 gpd or 48%.

Inclusive of existing connections, platted developments, and developments which are in design or under construction, the City has committed approximately 343,000 gpd or 86% 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 we anticipate the capacity requirement to be approximately 25,000 gpd. However, using information from the Developer, the Tract's estimated sanitary sewer capacity requirement is approximately 50,000 gpd (1,500,000 gallons per month) and is used throughout this study. Inclusive of existing connections, platted developments, developments currently underway, other developments in feasibility, and this development, the City will have committed approximately 523,527 gpd or 131% 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.

There is an existing public sanitary sewer line along the northern right-of-way of SH-105, which terminates in front of the existing Pizza Shack. Due to the topography of the site, a gravity sanitary sewer line is unable to be extended to provide service to the entire Tract. With these considerations, the Developer will be responsible for constructing a private lift station and force main to direct flow into the existing sewer facilities near the previously referenced existing Pizza Shack, as shown in **Exhibit A**. The Developer will be responsible for all costs associated with the private lift station, force main, 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 remain private and must be constructed per all applicable 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 private and will remain the responsibility of the Developer. Any detention ponds will remain the responsibility of the Developer. 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. 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, there are internal private roads that will connect to Stewart Creek Road in three locations. The Developer is responsible for providing engineered plans and specifications for the roads interior to the development to the City Engineer and Montgomery County for review and approval prior to commencing construction, and to obtain all required Planning and Zoning Commission, City Council, and development approvals and permits.

Per the Montgomery County's most recently adopted thoroughfare plan, there are no conflicts with the current land plan.

### **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 a 3-inch water meter per the table, but impact fee is subject to change with field verification of size of installed water meter.

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 \$20,000 will be required to cover the City's remaining expenses for the development, which includes administrative costs, legal fees, plan reviews, inspection of the public waterline extension, and developer and construction coordination. 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	\$ 20,000
- Waterline Extension	\$ 107,000
- Water Impact Fee	\$ 26,200
- Wastewater Impact Fee	<u>\$ 58,600</u>
<b>Total</b>	<b>\$ 211,800</b>

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 estimates the total assessed value (A.V.) at full development to be approximately \$32,000,000. Based on the estimated total A.V. and assuming 95% collection, the development would generate approximately \$45,184 per year in debt service revenue based on the City's \$0.1412/\$100 valuation debt service tax rate, and approximately \$82,816 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 Mr. Austin Gee should you have any questions.



Sincerely,

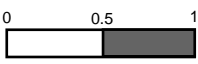
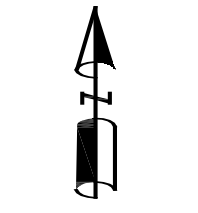
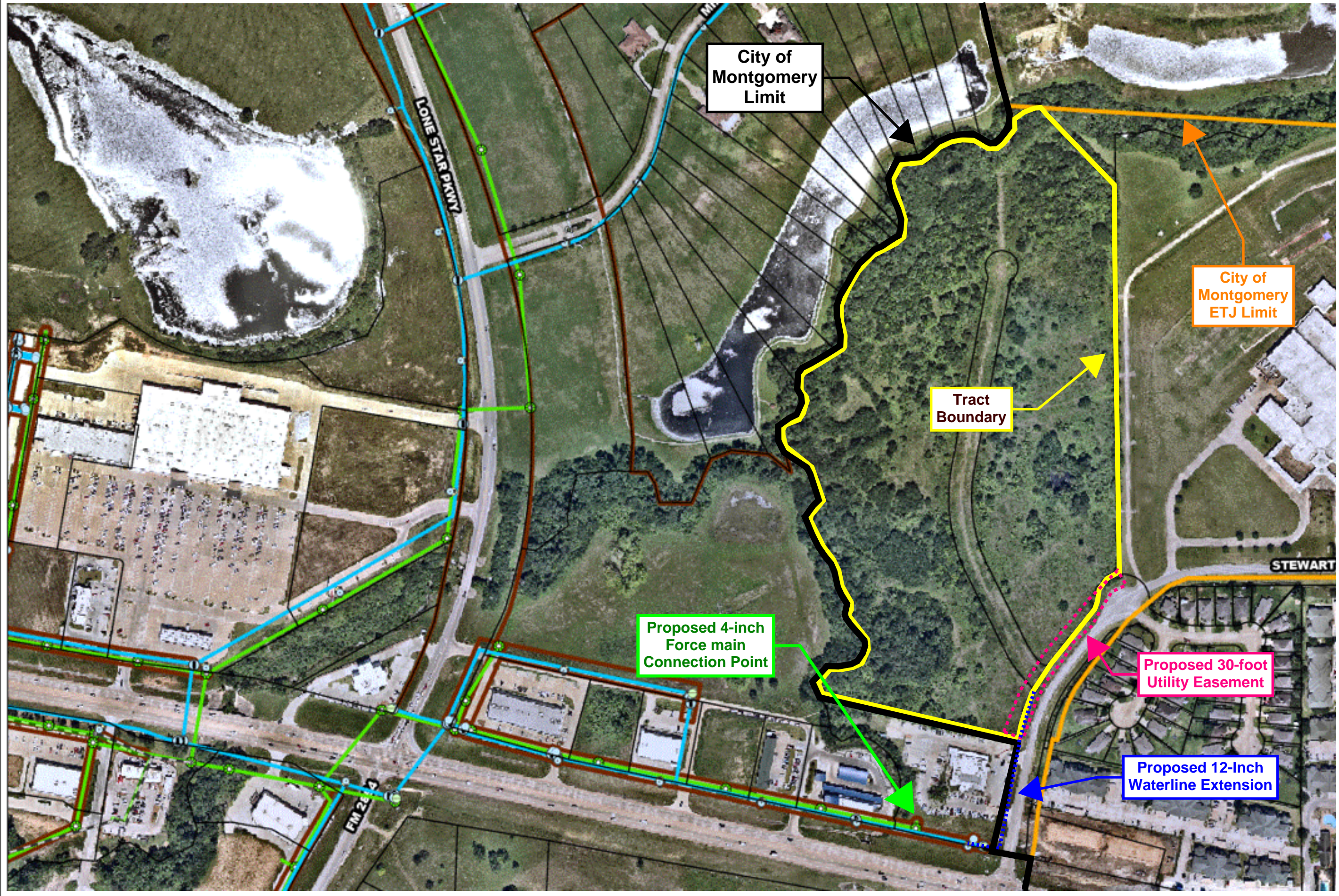
A handwritten signature in blue ink that reads "Chris Roznovsky". The signature is written in a cursive style and is contained within a thin black rectangular border.

Chris Roznovsky, PE  
Engineer for the City

CVR/akg

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SCALE: 1" = 285'



**PROJECT SUMMARY:**

**Senior Living Phase:**

Type	Description	Qty.	Area
A1	One Bedroom, 1 Bath	28	700 s.f.
A2	One Bedroom, 1 Bath	34	777 s.f.
A3	One Bedroom, 1 Bath	8	790 s.f.
A4	One Bedroom / Den, 1 Bath	27	948 s.f.
A5	One Bedroom / Den, 1 Bath	6	995 s.f.

Total One Bedroom Units		103 Units	
B1	Two Bedroom, 2 Bath	19	943 s.f.
B2	Two Bedroom, 2 Bath	9	1,014 s.f.
B3	Two Bedroom, 2 Bath	12	1,082 s.f.
B4	Two Bedroom, 2 Bath	4	1,120 s.f.
B5	Two Bedroom / Den, 2 Bath	18	1,120 s.f.

Total Two Bedroom Units		62 Units	
Project Total		165 Units	149,093 s.f.

**Multi - Family Phase:**

Type	Description	Qty.	Area
A1	One Bedroom, 1 Bath	58	689 s.f.
A2	One Bedroom, 1 Bath	60	776 s.f.

Total One Bedroom Units		118 Units	
B1	Two Bedroom, 2 Bath	54	968 s.f.
B2	Two Bedroom, 2 Bath	30	1,004 s.f.

Total Two Bedroom Units		84 Units	
C1	Three Bedroom, 2 Bath	18	1,175 s.f.

Total Three Bedroom Units		18 Units	
Project Total		220 Units	190,064 s.f.

# STEWART CREEK MASTER PLAN

Mucasey & Associates, Architects

March 28, 2022







**Table 1.1 September 2017 ESFC Table for Commonly Used Meters**

<b>Meter Size</b>	<b>Maximum Continuous Operating Capacity (GPM)</b>	<b>Equivalent Single Family Home (ESFC)</b>	<b>Maximum Assessable Water Fee (\$)</b>	<b>Maximum Assessable Waste Water Fee (\$)</b>	<b>Maximum Assessable Fee (\$)</b>
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**

**Nantucket Housing**

**Dev. No. 2204**

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	\$ 5,000
City Attorney	\$ 5,000
City Engineer	\$ 10,000
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TOTAL	\$ 20,000



**City of Montgomery  
Engineer's Cost Estimate**

**Waterline Extension  
Stewart Creek Farms**

5/20/2022

Item No.	Description	Quantity	Unit	Unit Price	Cost
<u>General</u>					
1	Contractor Mobilization, Bonds, & Insurance	1	LS	\$ 5,000	\$ 5,000
2	Trench Safety	220	LF	1	1,000
3	Stormwater Pollution Prevention Plan	1	LS	2,000	2,000
4	Site Restoration	1	LS	5,000	5,000
5	Traffic Control	1	LS	2,500	3,000
<u>Water</u>					
6	12" Waterline (Open Cut)	220	LF	55	13,000
7	12" Waterline (Trenchless)	340	LF	115	40,000
8	Fire Hydrant	2	EA	4,500	9,000
9	12" Wet Connect	1	EA	3,000	3,000
10	12" Plug and Clamp	1	EA	1,500	2,000
11	12" Gate Valve & Box	2	EA	3,000	6,000
12	2" Blow-off Valve & Box	1	EA	2,000	2,000
				<b>Subtotal</b>	\$ 89,000
				<b>Contingencies (20%)</b>	\$ 18,000
				<b>Total</b>	\$ <b>107,000</b>

Notes:

- 1 All values rounded up to the nearest thousand.
- 2 This estimate is based on my best judgement as a design professional familiar with the construction industry. We cannot and do not guarantee that bids will not vary from this cost estimate.