

**SUMMER WIND
FEASIBILITY STUDY
(Dev. No. 2211)**

FOR

THE CITY OF MONTGOMERY

WGA PROJECT NO. 00574-121

OCTOBER 2022

PREPARED BY

WGA

CONSULTING ENGINEERS

OVERVIEW

- 1 Executive Summary
- 2 Introduction
- 3 Analysis

Exhibits:

- A: Tract Boundary
- B: Preliminary Site Plan
- C: Water and Wastewater Usage Projection
- D: Escrow Calculation
- E: Preliminary Cost Estimate

1 EXECUTIVE SUMMARY

Montage Partners, LLC (the “Developer”) has requested the City of Montgomery (the “City”) to perform a feasibility study for the City to serve a future single family development on a 56.7 acre tract along Lone Star Parkway, also referred to as the Summer Wind tract. The tract is located within City limits.

The development falls with Montgomery County Municipal Utility District No. 179. MUD No. 179 does not provide its own water or wastewater so the development would receive water and wastewater services from the City.

This development would consist of approximately 211 single family lots for in-city service at full build out. The final land plan may affect the estimated costs of and revenues associated with the development.

The analysis 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 analysis shows that based on sanitary sewer capacity of Lift Station No. 10, the lift station will need additional capacity to serve all existing and proposed developments at full build out. There is an opportunity of some cost sharing for Lift Station No. 10 improvements with the Developer of the Mabry Tract. All coordination on any potential cost sharing is the responsibility of the Developer. The analysis also shows that the City will have the wastewater treatment plant capacity to serve the development and existing developments for the next couple of years but will need additional sanitary sewer 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	\$33,000
Lift Station No. 10 Improvements*	\$379,000
Total Estimated Costs	\$412,000

**total cost to of improvements to serve this development and the Pulte development*

Based on information provided by the Developer the estimated a total assessed valuation for the development would be approximately \$82,875,000 at full build out. Based on the City’s estimated current tax rate (\$0.1050 debt service and \$0.2950 for operations and maintenance) financially, the development will bring in approximate tax revenues as shown below:

Operations and Maintenance	\$244,481.25
Debt Service	\$ 87,018.75
Total Estimated Annual Tax Revenue	\$331,500.00

2 INTRODUCTION

This undeveloped tract is located along Lone Star Parkway just east of Buffalo Springs Drive, and falls completely within the City Limits. An exhibit showing the Tract's boundary in relation to the City's boundary is enclosed as **Exhibit A**. A preliminary site plan is enclosed as **Exhibit B** and indicates the Developer's intentions to subdivide the Tract into approximately 211 – 45' wide single family lots.

The Tract is currently zoned as Planned Development as part of the LeFevre Development Agreement. The Planned Development zoning allows for a mixed use of the development which includes single family as proposed in this development.

Based on information from the Developer, construction of the development is planned to be complete in 2026. 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. The Tract is currently located within the boundary of Montgomery County MUD No. 179.

3 ANALYSIS

Water Production and Distribution

The Tract is located within the City and would not need to be annexed into the City 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 nearing completion 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 434,400 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 2024. The addition of a booster pump would increase the ADF capacity to approximately 730,000 gpd.

The proposed development falls within Montgomery County Municipal Utility District No. 179 (“MUD No. 179”). MUD No. 179 does not intend to provide separate water service so the Development will receive water from the City. Based on information provided by the Developer the Tract is estimated water usage is 79,560 gpd. However, based on historical data from similar developments in the City, the Tract’s estimated water capacity requirement is approximately 47,475 gpd. Inclusive of existing connections, platted developments, developments currently underway, other developments in feasibility, and this development, the City will have committed approximately 934,170 gpd or 164% of the total ADF capacity and 136% of the connection capacity at full build out. 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.

City records indicate that there is an existing 8-inch waterline that stubs at the frontage of the Tract, which will be able to serve the development as shown in **Exhibit A**. This will need to be verified by the Developer. The Developer should also connect to the existing 8-inch waterline that stubs at the end of Peel Point Dr. to provide a looped waterline system throughout the development. 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 acquisitions and recordation.

The Developer is responsible for providing engineered plans and specifications for the water distribution 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.

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 184,330 gpd or 46%.

Inclusive of existing connections, platted developments, and developments which are in design or under construction, the City has committed approximately 342,900 gpd or 86% of existing permitted capacity at full build out. A copy of the wastewater usage projections is included as **Exhibit C**.

The proposed development falls within Montgomery County Municipal Utility District No. 179 ("MUD No. 179"). MUD No. 179 does not intend to provide separate sanitary sewer service so the Development will receive sanitary sewer service from the City. Based on information from the Developer the Tract's estimated sanitary sewer usage is 55,250. However, 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 27,430 gpd (822,900 gallons per month) at full build out. Inclusive of existing connections, platted developments, developments currently underway, other developments in feasibility, and this development, the City will have committed 564,467 gpd or 141% 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 these Tracts and other tracts under design/feasibility, is not expected to exceed 75% of the permitted capacity (300,000 gpd) until around the first quarter of 2024. 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 third quarter of 2024. (Note: We are expecting the construction of Nantucket Apartments, consisting of 385 units. The development will account for 50,000 gpd at full build out. We are not anticipating all units to be filled within 2024 but are accounting for it in these calculations.)

There is an existing public sanitary sewer manhole at the end of Peel Point Dr. that can serve as the point of connection for the proposed development. This is based on as-built information for the existing sanitary sewer line and LIDAR elevations for the Tract, and should be verified by the Developer after a topographic survey is completed. The Developer will be responsible for constructing a gravity line to serve the development, as shown in **Exhibit A**. The Developer will be responsible for all costs associated with the sanitary sewer gravity line, and required easements. The final land plan, and grading plan may affect the estimated costs and design associated with the development.

The proposed sanitary sewer capacity of the Development will cause the City's Lift Station No. 10 to exceed capacity at full buildout and will need to be upsized from approximately 350 gpm to 550 gpm. There is an opportunity for cost sharing of these expenses with the Mabry Tract development. The estimated preliminary cost for the improvements is approximately \$379,000 as shown in **Exhibit E**. However, an additional inspection and analysis of Lift Station No. 10 will need to be performed to prepare a final estimated cost of improvements.

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. 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. 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 ultimately has no 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, the streets 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 plan, combined with existing infrastructure, provides for one (1) proposed access point along Lone Star Parkway to provide access to the entire 211-home subdivision. The Developer Per the City and Montgomery County’s most recently adopted thoroughfare plan, there are no conflicts with the current land plan. The Developer is responsible for Montgomery County approval for the proposed access point onto Lonestar Parkway. The Developer will need to add a stub-out street adjacent to the western boundary to allow for future access through the adjacent property.

Development Costs

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

The Developer will not need to pay water and wastewater impact fees to the City. Tap fees will be based on cost of the tap plus 200%, and will be determined by Public Works at the time the tap is requested.

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 \$33,000 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 D**. 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:

Escrow Account	\$33,000
Lift Station No. 10 Improvements*	\$379,000
Total Estimated Costs	\$412,000

**total cost of improvements to serve this development and the Pulte development*

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.

This report is our engineering evaluation of the funds required to complete the anticipated future capital improvement for this Tracts 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.

Financial Feasibility

The Developer estimates the total assessed value (A.V.) at full development to be approximately \$82,875,000.00. Based on the estimated total A.V., the in-city development would generate approximately \$87,018.75 per year in debt service revenue, and approximately \$244,481.25 per year in operations and

maintenance revenue. These estimates are based on the City's \$0.1050/\$100 valuation debt service tax rate and the \$0.2950/\$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.

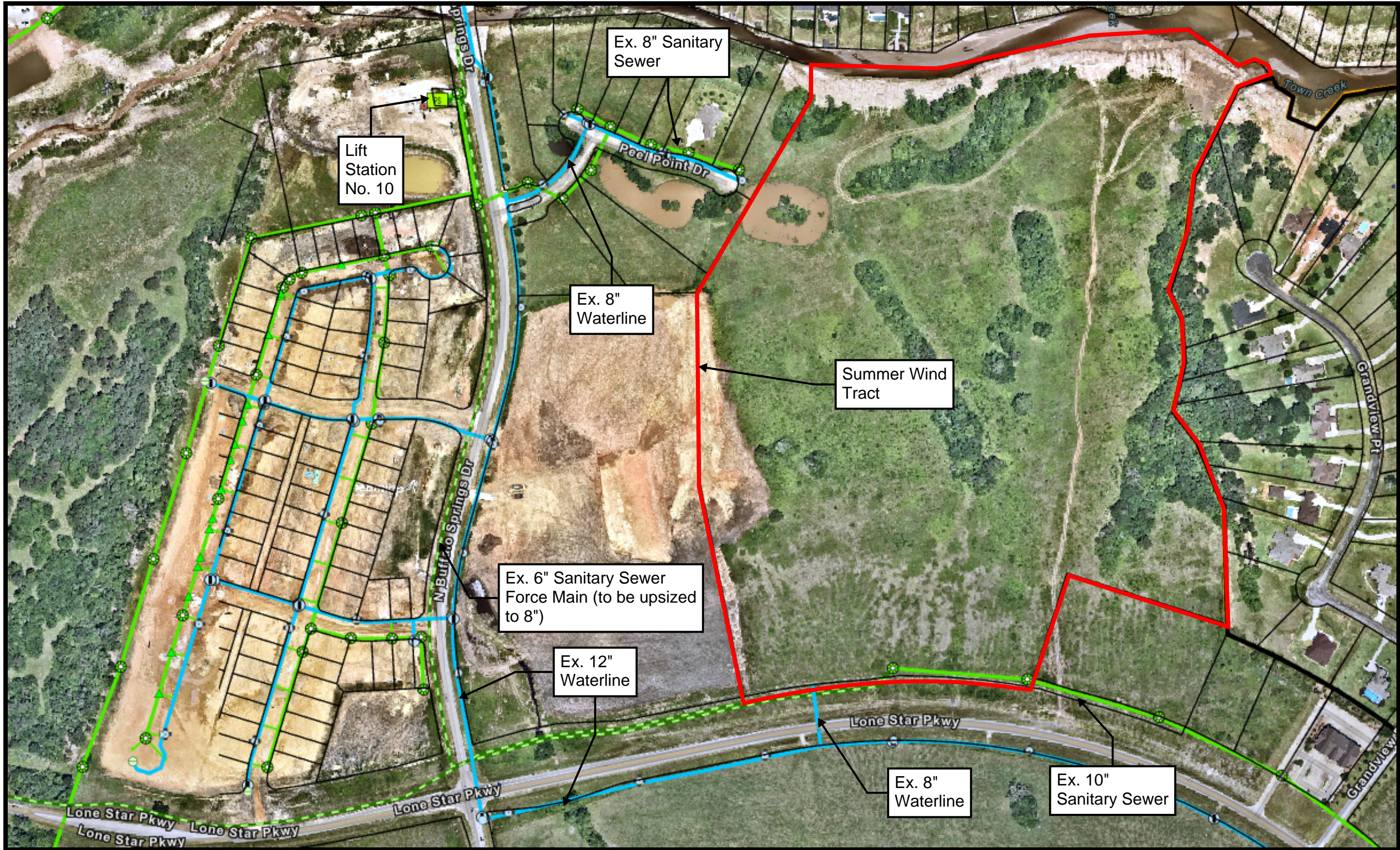


Sincerely,

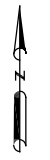
Chris Roznovsky, PE

Engineer for the City

CVR/kv:zlg




TRACT BOUNDARY
 SUMMER WIND FEASIBILITY STUDY





a schematic development plan for
LONESTAR PKWY
 ± 56.7 ACRES OF LAND
 prepared for
CORPORATE STRATEGIES LLC

LOT SUMMARY

	45'x120'	211 LOTS	100 %
TOTAL		211 LOTS	

META
 24275 Katy Freeway, Ste. 200
 Katy, Texas 77494
 Tel: 281-810-1422

SCALE: 0 100 200 400
 MTA-1-763
 JULY 26, 2022

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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

Summer Wind

Dev. No. 2211

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 and drainage report 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	\$ 27,000
<hr/>	
TOTAL	\$ 33,000



Preliminary Cost Estimate
FOR
LIFT STATION NO. 10 IMPROVEMENTS
Summer Wind
9/28/2022

<u>Item No.</u>	<u>Description</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
1	Mobilization, Bonds & Insurance	1	LS	\$ 25,000	\$ 25,000
2	Submersible Pumps & Accessories	1	LS	89,700	90,000
3	Piping, Valves, Supports, etc.	1	LS	66,671	67,000
4	Lift Station Electrical & Controls	1	LS	71,563	72,000
5	Bypass Pumping	1	LS	25,000	25,000
6	Stormwater Pollution Protection Plan	1	LS	1,000	1,000
7	Misc. Metals	1	LS	8,000	8,000
				Construction Subtotal	\$ 288,000
				Contingencies (15%)	\$ 44,000
				Engineering	\$ 28,000
				Construction Phase Services	\$ 19,000
				Total	\$ 379,000

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.
- 3 This includes geotechnical investigation, construction materials testing, review fees, reproduction, advertising expenses, and other miscellaneous reimbursable costs.