Land Use Analysis

CONSTRAINTS	**±63.4 Ac.**
Roadways	±5.7 Ac.
Open Space	±0.1 Ac.
Detention	±57.6 Ac.
COMMERCIAL	**±65.3 Ac.**
Commercial	±13.7 Ac.
Light Industrial	±51.6 Ac.
RESIDENTIAL	**±14.1 Ac.**
Multi-Family	±14.1 Ac.
TOTAL	**±142.8 Ac.**

SCENARIO 2 = 776 ESFC

an Industrial concept plan for

GENE CAMPBELL

prepared for

CENTRAL TREE DEVELOPMENT

PLANNER:

LJA Planning + Landscape Architecture

Land & Master Planning
Land Use/Feasibility Studies
Sustainable Design
Urban Design
Landscape Architecture

3600 W Sam Houston Pkwy S
Suite 600
Houston, Texas 77042
713.953.5200 - 713.953.5026

NORTH

0 100 200 400

LJA# 3300-0001

06.30.2023

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Engineer's Estimate
Gene Campbell Tract_Scenario 1
Overall Summary
9/14/2023

PROJECT		COSTS		W/CONTINGENCY		TOTAL[1]
Gene Campbell Detention Pond	$	4,052,946.33	$	4,458,240.97	$	5,349,889.16
Collector Road North - WSD	$	2,017,398.00	$	2,219,137.80	$	2,662,965.36
Collector Road North - Paving	$	852,587.00	$	937,845.70	$	1,125,414.84
Collector Road South - WSD	$	682,566.15	$	750,822.77	$	900,987.32
Collector Road South - Paving	$	327,154.27	$	359,869.69	$	431,843.63
Lift Station (678 ESFC)	$	1,132,500.00	$	1,245,750.00	$	1,245,750.00
TOTAL	**$**	**9,065,151.75**	**$**	**9,971,666.93**	**$**	**11,716,850.31**

Notes:

(1) Grand Total include contingency of 10%, 18% for Engineering & Geotech, & 2% for SWPPP.

(2) Unit prices for the sections were determined by average of the recent bids within Montgomery County.

(3) Cost Estimates do not include any necessary improvements along Gene Campbell Road and Rolling Hills Drive. Additionally, these cost estimates do not include any necessary improvements to the MCMUD No. 3 WWTP. Those will be provided with an estimate at a later date.

(4) Since the engineer has no control over the cost of labor, materials, or equipment, or over contractor(s) methods of determining prices, or over competitive bidding or market conditions, his opinions of project cost or construction cost provided for herein are to be made on the basis of his experience and qualifications and represents his best judgement as a design professional familiar with the construction industry, but engineer cannot and does not gaurantee that proposals, bids or the construction cost will not vary from opinions of probable cost prepared by him.

Engineer's Estimate
Gene Campbell Detention Pond
Preliminary Cost Estimates
9/14/2023

Job No.

Description	Quantity		Cost	Total
A. Pond Detention Items				
Detention Excavation	218,796	CY	$ 2.00	$ 437,592.00
Detention Embankment	218,796	CY	$ 2.00	$ 437,592.00
Dry Application Seeding of Side Slopes	2	AC	$ 2,300.00	$ 4,600.00
Hydromulch Seeding	7	AC	$ 2,500.00	$ 17,500.00
Dewatering	49	AC	$ 1,500.00	$ 73,500.00
Backslope Interceptor Swale	9,552	LF	$ 3.00	$ 28,656.00
Backslope Interceptor Structures	12	EA	$ 14,550.00	$ 174,600.00
Slope Paving	454	SY	$ 80.00	$ 36,320.00
48" RCP Storm Sewer	250	LF	$ 250.00	$ 62,500.00
72" RCP Storm Sewer	42	LF	$ 505.00	$ 21,210.00
6'X6' RCB Storm Sewer	42	LF	$ 550.00	$ 23,100.00
Precast Manhole - 48" & Larger	3	EA	$ 9,000.00	$ 27,000.00
Precast Manhole - 48" & Larger w/ Type E Inlet Top	4	EA	$ 9,800.00	$ 39,200.00
Junction Box (6' X 6' RCB And Larger) w/ Type E Inlet Top	1	EA	$ 16,500.00	$ 16,500.00
Subtotal Pond Detention Items				**$ 1,399,870.00**
B. Pond Amenity Items				
Amenity Excavation	438,252	CY	$ 2.00	$ 876,504.00
Amenity Embankment	438,252	CY	$ 2.00	$ 876,504.00
Clay Liner	243,388	SY	$ 2.00	$ 486,776.00
Overexcavation For Clay Liner	162,259	CY	$ 2.00	$ 324,517.33
Subtotal Pond 2B1 Amenity Items				**$ 2,564,301.33**
C. Miscellaneous Items				
Surface Water Control	1	LS	$ 35,000.00	$ 35,000.00
Broadcast Seeding of Fill Area	80	AC	$ 650.00	$ 52,000.00
Stabilized Construction Exit	1	EA	$ 1,775.00	$ 1,775.00
Subtotal Miscellaneous Items				**$ 88,775.00**
Subtotal Pond Detention Items				**$ 1,399,870.00**
Subtotal Pond Amenity Items				**$ 2,564,301.33**
Subtotal Miscellaneous Items				**$ 88,775.00**
Total				**$ 4,052,946.33**
Contingency 10%				**$ 405,294.63**
Total w/ Contingency				**$ 4,458,240.97**
Engineering and Geotech				**$ 802,483.37**
SWPPP				**$ 89,164.82**
				$ 5,349,889.16

Engineer's Estimate
Collector Road North
Preliminary Cost Estimates
9/14/2023

Job No.

Description	Quantity	Unit	Cost	Total
Water Items				
8" Water Line	92	LF	$ 45.00	$ 4,140.00
8" Gate Valve and Box	3	EA	$ 2,250.00	$ 6,750.00
12" Water Line	1,953	LF	$ 77.00	$ 150,381.00
12" Gate Valve and Box	5	EA	$ 4,000.00	$ 20,000.00
Plug & Clamp w/ BOV (All Sizes)	5	EA	$ 1,300.00	$ 6,500.00
Trench Safety	2,045	LF	$ 1.00	$ 2,045.00
Fire Hydrant (Incl. Tee, 6" Valve & Box, 6" Lead)	6	EA	$ 5,500.00	$ 33,000.00
Subtotal Water Items				**$ 222,816.00**
Water Items (Offsite)				
8" Water Line	50	LF	$ 45.00	$ 2,250.00
8" Gate Valve and Box	3	EA	$ 2,250.00	$ 6,750.00
12" Water Line	2,376	LF	$ 77.00	$ 182,952.00
12" Gate Valve and Box	5	EA	$ 4,000.00	$ 20,000.00
Plug & Clamp w/ BOV (All Sizes)	2	EA	$ 1,300.00	$ 2,600.00
Trench Safety	2,426	LF	$ 1.00	$ 2,426.00
Fire Hydrant (Incl. Tee, 6" Valve & Box, 6" Lead)	6	EA	$ 5,500.00	$ 33,000.00
Subtotal Water Items				**$ 249,978.00**
Sanitary Sewer Items				
8" Sanitary D-2241 SDR 26	1,698	LF	$ 50.00	$ 84,891.00
Trench Safety	1,698	LF	$ 1.00	$ 1,697.82
Precast Manhole (Incl Stainless Steel Inflow Protector)	10	EA	$ 3,500.00	$ 35,000.00
Post Construction Cleaning and Video	1,698	LF	$ 2.50	$ 4,244.55
Subtotal Sanitary Sewer Items				**$ 125,833.37**
Sanitary Sewer Items (Offsite)				
8" Sanitary D-2241 SDR 26	716	LF	$ 50.00	$ 35,779.00
12" Sanitary D-2241 SDR 26	1,855	LF	$ 75.00	$ 139,098.38
15" Sanitary D-2241 SDR 26	14	LF	$ 95.00	$ 1,321.45
8" Force Main	3,936	LF	$ 45.00	$ 177,115.95
Plug & Clamp w/ BOV (All Sizes)	1	EA	$ 1,300.00	$ 1,300.00
Trench Safety	6,520	LF	$ 1.00	$ 6,520.05
Precast Manhole (Incl Stainless Steel Inflow Protector)	8	EA	$ 3,500.00	$ 28,000.00
Post Construction Cleaning and Video	2,584	LF	$ 2.50	$ 6,460.34
Subtotal Sanitary Sewer Items				**$ 395,595.16**
Drainage Items				
24" RCP	1,149	LF	$ 85.00	$ 97,665.00
36" RCP	803	LF	$ 150.00	$ 120,450.00
54" RCP	63	LF	$ 315.00	$ 19,687.50
Precast Manhole - 42" & Smaller	17	EA	$ 2,500.00	$ 42,500.00
Precast Manhole - 48" & Larger	2	EA	$ 3,500.00	$ 7,000.00
Type 'C' Inlet (5') - Stage I	8	EA	$ 1,250.00	$ 10,000.00
Type 'C' Inlet (5') - Stage II	8	EA	$ 1,700.00	$ 13,600.00
Trench Safety	2,015	LF	$ 1.00	$ 2,014.50
Subtotal Drainage Items				**$ 312,917.00**
Drainage Items (Offsite)				
36" RCP	510	LF	$ 150.00	$ 76,425.00
60" RCP	42	LF	$ 375.00	$ 15,750.00
66" RCP	678	LF	$ 425.00	$ 288,150.00
6'X6' RCB	91	LF	$ 550.00	$ 50,050.00
Precast Manhole - 42" & Smaller	2	EA	$ 2,500.00	$ 5,000.00
Precast Manhole - 48" & Larger	1	EA	$ 3,500.00	$ 3,500.00
Junction Box (6' X 6' RCB And Larger)	2	EA	$ 14,500.00	$ 29,000.00
Break Into Exist. Stm. Junction Box and Connect Stm.	1	EA	$ 3,750.00	$ 3,750.00
Trench Safety	1,321	LF	$ 1.00	$ 1,320.50
Subtotal Drainage Items				**$ 472,945.50**
Miscellaneous Items				
Dewatering	4,282	LF	$ 20.00	$ 85,639.10
Select Backfill For Dewatering	4,282	LF	$ 25.00	$ 107,048.88
Surface Water Control	1	LS	$ 2,200.00	$ 2,200.00
Utility Spoils	1	LS	$ 20,000.00	$ 20,000.00
Stabilized Construction Exit	1	EA	$ 1,775.00	$ 1,775.00
Construction Staking	1	LS	$ 17,500.00	$ 17,500.00
Hydromulch Seeding	2	AC	$ 1,575.00	$ 3,150.00
Subtotal Miscellaneous Items				**$ 237,312.98**
Subtotal Water Items				$ 222,816.00
Subtotal Water Items (Offsite)				$ 249,978.00
Subtotal Sanitary Sewer Items				$ 125,833.37
Subtotal Sanitary Sewer Items (Offsite)				$ 395,595.16
Subtotal Drainage Items				$ 312,917.00
Subtotal Drainage Items (Offsite)				$ 472,945.50
Subtotal Miscellaneous Items				$ 237,312.98
Total				**$ 2,017,398.00**
Contingency 10%				**$ 201,739.80**
Total w/ Contingency				**$ 2,219,137.80**
Engineering and Geotech				**$ 399,444.80**
SWPPP				**$ 44,382.76**
				$ 2,662,965.36

Engineer's Estimate
Collector Road North
Preliminary Cost Estimates
9/14/2023

Job No.

Description	Quantity		Cost	Total
Paving				
7" Concrete Pavement	8,820	SY	$ 70.00	$ 617,400.00
6" Concrete Curb	3,903	LF	$ 5.00	$ 19,515.00
8" Lime Stabilized Subgrade (Manipulation)	14,630	SY	$ 5.00	$ 73,150.00
Lime for Subgrade (50 LBS/SY)	366	TON	$ 250.00	$ 91,437.50
Fly Ash for Subgrade (20 LBS/SY)	146	TON	$ 115.00	$ 16,824.50
Excavation	2,940	CY	$ 2.00	$ 5,880.00
Embankment	2,940	CY	$ 2.00	$ 5,880.00
Temporary Traffic Control Devices	1	LS	$ 4,500.00	$ 4,500.00
Permanent Traffic Control Devices	1	LS	$ 7,500.00	$ 7,500.00
Wheelchair Ramps	4	EA	$ 2,000.00	$ 8,000.00
Connection to Exist Pavement	2	EA	$ 1,250.00	$ 2,500.00
Subtotal Paving Construction				**$ 852,587.00**
Contingency 10%				**$ 85,258.70**
Total w/ Contingency				**$ 937,845.70**
Engineering and Geotech				**$ 168,812.23**
SWPPP				**$ 18,756.91**
				$ 1,125,414.84

Engineer's Estimate
Collector Road South
Preliminary Cost Estimates
9/14/2023

Job No.

Description	Quantity	Unit	Cost	Total
Water Items				
8" Water Line	81	LF	$ 45.00	$ 3,645.00
8" Gate Valve and Box	2	EA	$ 2,250.00	$ 4,500.00
12" Water Line	751	LF	$ 77.00	$ 57,827.00
12" Gate Valve and Box	2	EA	$ 4,000.00	$ 8,000.00
Plug & Clamp w/ BOV (All Sizes)	3	EA	$ 1,300.00	$ 3,900.00
Trench Safety	751	LF	$ 1.00	$ 751.00
Fire Hydrant (Incl. Tee, 6" Valve & Box, 6" Lead)	2	EA	$ 5,500.00	$ 11,000.00
Subtotal Water Items				**$ 89,623.00**
Sanitary Sewer Items				
8" Sanitary D-2241 SDR 26	175	LF	$ 50.00	$ 8,747.50
Trench Safety	175	LF	$ 1.00	$ 174.95
Precast Manhole (Incl Stainless Steel Inflow Protector)	3	EA	$ 3,500.00	$ 10,500.00
Core Into Existing San. Manhole & Connect Sanitary Sewer	1	EA	$ 1,250.00	$ 1,250.00
Post Construction Cleaning and Video	175	LF	$ 2.00	$ 349.90
Subtotal Sanitary Sewer Items				**$ 21,022.35**
Drainage Items				
24" RCP	663	LF	$ 85.00	$ 56,355.00
54" RCP	862	LF	$ 315.00	$ 271,467.00
72" RCP	208	LF	$ 505.00	$ 105,040.00
Precast Manhole - 42" & Smaller	4	EA	$ 2,500.00	$ 10,000.00
Precast Manhole - 48" & Larger	4	EA	$ 3,500.00	$ 14,000.00
Type 'C' Inlet (5') - Stage I	4	EA	$ 1,250.00	$ 5,000.00
Type 'C' Inlet (5') - Stage II	4	EA	$ 1,700.00	$ 6,800.00
Trench Safety	1,733	LF	$ 1.00	$ 1,732.80
Subtotal Drainage Items				**$ 470,394.80**
Miscellaneous Items				
Dewatering	1,733	LF	$ 20.00	$ 34,656.00
Select Backfill For Dewatering	1,733	LF	$ 25.00	$ 43,320.00
Surface Water Control	1	LS	$ 2,200.00	$ 2,200.00
Utility Spoils	1	LS	$ 8,000.00	$ 8,000.00
Stabilized Construction Exit	1	EA	$ 1,775.00	$ 1,775.00
Construction Staking	1	LS	$ 10,000.00	$ 10,000.00
Hydromulch Seeding	1	AC	$ 1,575.00	$ 1,575.00
Subtotal Miscellaneous Items				**$ 101,526.00**
Subtotal Water Items				$ 89,623.00
Subtotal Sanitary Sewer Items				$ 21,022.35
Subtotal Drainage Items				$ 470,394.80
Subtotal Miscellaneous Items				$ 101,526.00
Total				**$ 682,566.15**
Contingency 10%				**$ 68,256.62**
Total w/ Contingency				**$ 750,822.77**
Engineering and Geotech				**$ 135,148.10**
SWPPP				**$ 15,016.46**
				$ 900,987.32

Engineer's Estimate
Collector Road South
Preliminary Cost Estimates
9/14/2023

Job No.

Description	Quantity		Cost	Total
Paving				
7" Concrete Pavement	3,560	SY	$ 70.00	$ 249,200.00
6" Concrete Curb	1,522	LF	$ 5.00	$ 7,610.00
8" Lime Stabilized Subgrade (Manipulation)	3,899	SY	$ 5.00	$ 19,495.00
Lime for Subgrade (50 LBS/SY)	97	TON	$ 250.00	$ 24,368.75
Fly Ash for Subgrade (20 LBS/SY)	39	TON	$ 115.00	$ 4,483.85
Excavation	1,187	CY	$ 2.00	$ 2,373.33
Embankment	1,187	CY	$ 2.00	$ 2,373.33
Temporary Traffic Control Devices	1	LS	$ 4,500.00	$ 4,500.00
Permanent Traffic Control Devices	1	LS	$ 7,500.00	$ 7,500.00
Wheelchair Ramps	2	EA	$ 2,000.00	$ 4,000.00
Connection to Exist Pavement	1	EA	$ 1,250.00	$ 1,250.00
Subtotal Paving Construction				**$ 327,154.27**
Contingency 10%				**$ 32,715.43**
Total w/ Contingency				**$ 359,869.69**
Engineering and Geotech				**$ 64,776.54**
SWPPP				**$ 7,197.39**
				$ 431,843.63

LJA ENGINEERING, INC.

PRELIMINARY ESTIMATE OF PROPOSED CONSTRUCTION COST
GENE CAMPELL TRACT
LIFT STATION
MONTGOMERY COUNTY

STATE OF TEXAS
MARGARET SLEDGE GILLENTINE
111202
LICENSED
PROFESSIONAL ENGINEER

Margaret S. Gillentine
9/14/2023

ULTIMATE - 678 ESFC @ 300 gpd/ESFC

ITEM	QUANTITY	UNIT	UNIT COST	TOTAL
SITE WORK	1	LS	$55,000	$55,000
WET WELL AND VALVE PAD STRUCTURE	1	LS	$385,000	$385,000
WET WELL AND VALVE PAD PIPING	1	LS	$110,000	$110,000
PUMPS	2	EA	$90,000	$180,000
SANITARY MANHOLE	1	EA	$9,000	$9,000
SANITARY SEWER	50	LF	$550	$27,500
FORCEMAIN	50	LF	$165	$8,250
STORM INLET	1	EA	$5,500	$5,500
STORM SEWER	50	LF	$275	$13,750
DRIVEWAY	300	SY	$165	$49,500
SITE COVER	250	SY	$50	$12,500
FENCE	300	LF	$95	$28,500
ELECTRICAL AND CONTROLS	1	LS	$138,000	$138,000
GENERATOR	1	LS	$110,000	$110,000
			SUB-TOTAL	$1,132,500
		10%	CONTINGENCY	$113,250
			TOTAL COST	$1,245,750

1. Assumes lift station is being built in one phase.
2. Assumes the force main will outfall into a manhole and is approximately 20,830 ft long.

*Since the ENGINEER has no control over the cost of labor, materials, or equipment, or over contractor(s) methods of determining prices, or over competitive bidding or market conditions, his opinions of Project cost or Construction Cost provided for herein are to be made on the basis of his experience and qualifications and represents his best judgement as a design professional familiar with the construction industry, but ENGINEER cannot and does not guarantee that proposals, bids or the Construction Cost will not vary from opinions of probable cost prepared by him.

REVISED 9/14/2023

LJA Engineering, Inc.
FRN-F-1386