

**PRELIMINARY ENGINEERING REPORT
FOR THE CREATION OF
LAKEHAVEN
MUNICIPAL UTILITY DISTRICT
COLLIN COUNTY, TEXAS**

Prepared By

Petitt Barraza, LLC
300 Municipal Drive
Richardson, TX 75080

February 2011

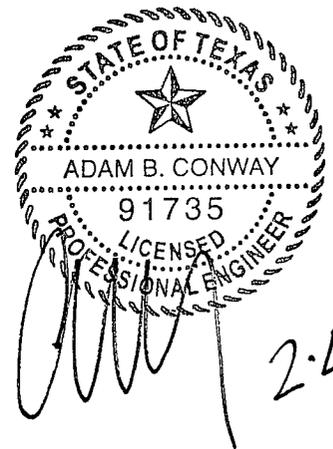


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SECTION I – INTRODUCTION

PURPOSE AND SCOPE

This report presents the results of a preliminary engineering study to determine the engineering and economic feasibility of creating Lakehaven Municipal Utility District (District). The purpose of the study is to present economic and engineering data for the use of the Texas Commission on Environmental Quality (TCEQ) in considering the District's creation.

This report provides evidence that the projects which will be undertaken by the proposed District are feasible, practicable, necessary, and benefit all of the land to be included in the District. The projects are required to ensure orderly development of the land and for the protection of public health and safety. The effects of the creation of the proposed District on the land to be within the District are described and the economic feasibility of the proposed District is demonstrated. Together, this information provides justification for the creation of the proposed District.

SECTION II – PROJECT DESCRIPTION (30 TAC 293.11 (d)(5)(A) – (D))

EXISTING AREA, CONDITIONS, & TOPOGRAPHY

The District is located in Collin County, Texas and is not within the corporate limits or Extraterritorial Jurisdiction (ETJ) of any city. The District encompasses approximately 376 acres located west of State Highway 78 and north of County Road 550. The District can be accessed directly from County Road 551. A location map of the District can be seen on Exhibit 1. A legal description and District boundary map are shown on Exhibits 2 and 3, respectively.

The District is located within the Farmersville Independent School District (FISD).

The District is located east of Lake Lavon. The topography of the land within the District has moderate to steep slopes. A ridge divides the District into two drainage areas. The land generally slopes from the ridge towards northeast and southwest to two unnamed tributaries which discharge to Lake Lavon. Elevations range from 560 feet to 510 feet above mean sea level.

The "Soil Survey of Collin County, Texas", as prepared by the United States Department of Agriculture, Natural Resources Conservation Service, in cooperation with Texas Agricultural Experiment Station indicates five individual particular subsurface stratigraphies: Burleson Clay, Heiden Clay, Houston Black Clay, Lewisville Silty Clay, and Wilson Clay Loam.

LAND USE PLAN

The District has been planned as a single-family residential development. The proposed development plan for the District is shown with proposed land uses as Exhibit 4.

PROPOSED IMPROVEMENTS

General

The District is planned to serve single-family residential development. It is anticipated that the District will provide water, sewer and drainage facilities to the entire development. The construction of water, sanitary sewer and drainage facilities for the District will be keyed to the overall rate of development; therefore, the improvements will be constructed in phases. The financing of the improvements will be accomplished by a series of separate bond issues, each of which will be adequate to construct a logical increment of the total development. The proposed development plan can be seen on Exhibit 4.

The current Water Certificate of Convenience and Necessity (CCN) holder within the District boundary is Copeville Special Utility District (SUD) (CCN No. 11376). It is intended that Copeville SUD will be the retail water provider to the land within the District.

No sewer CCN currently exists for the area.

The District will construct the internal water distribution system, sanitary sewer collection system, and storm sewer facilities within its boundaries. All utilities will be designed according to applicable criteria established by TCEQ, Collin County and Copeville SUD.

Water Supply and Distribution System

It is intended that Copeville SUD will provide retail water service to the District. The District is located in the north pressure plane of Copeville SUD system. The District will coordinate water supply facilities with Copeville SUD. It is anticipated that once constructed, the Copeville SUD will own, operate and maintain such facilities.

Water will be distributed within the District by transmission and distribution lines constructed by the District and these lines will be conveyed to the Copeville SUD upon the District's acceptance. The preliminary onsite and offsite layouts are shown on Exhibits 5 and 6, respectively. The facilities will meet or exceed the TCEQ minimum requirements. Following is a more detailed discussion of these facilities.

Design Criteria

The water distribution and supply system improvements will be designed in accordance with applicable design criteria as established by the TCEQ and Copeville SUD.

The distribution system is sized according to the following design standards:

1. Equivalent Single Family Connection ("ESFC")	360 gallons/day
2. Average Daily Demand	0.25 gpm/ESFC
3. Peak Daily Demand	0.60 gpm/ESFC
4. Peak Hourly Demand	1.50 gpm/ESFC
5. Ground Storage Capacity	288 gallons/ESFC
6. Pumping Capacity	0.75 gpm/ESFC
7. Elevated Storage Capacity	100 gallons/ESFC
8. Fire Flow Storage Capacity	120,000 gallons (1,000 gpm for 2 hours)

During final design, the system will be modeled to verify that (i) a minimum pressure of 35 psi is maintained at all points within the distribution network at flow rates of 1.5

gpm/connection and (ii) a minimum pressure of 20 psi is maintained under combined fire and peak day water flow conditions.

Water Supply

When fully developed, the total number of connections of the District is estimated to be 1,646 single-family connections. The ultimate average daily demand is estimated to be 0.59 MGD with a max day and peak hour demand of 1.42 MGD and 3.56 MGD, respectively. Copeville SUD will supply water to the area within the District through its distribution system. Copeville SUD will require the District to contribute the pro rata costs of constructing offsite waterlines, pumping and storage facilities.

Water Distribution

The water distribution system for full development of the District will consist of approximately 66,000 linear feet of onsite waterline, 8 and 12 inches in diameter along with all related appurtenances. These facilities are shown on Exhibit 5.

The internal water distribution system will be looped where feasible to provide alternate service routes during emergencies and maintenance periods, and to equalize pressure in the system. Valves, fire hydrants and flushing valves will be provided at intervals as required by TCEQ and Copeville SUD.

Sanitary Sewer Collection and Treatment Systems

General

The District will provide retail wastewater service to the area within the District. There are two sewer drainage basins in the District. The northern portion drains to the northwest corner of the District. The southern portion drains to the southeast corner of the District. The wastewater generated by the development within the District will flow partially by gravity and partially by force main through internal sanitary sewer lines to a proposed lift station located southeast of the District. The lift station will pump flows to an interim wastewater treatment plant to be leased/constructed by the District until the future North Texas Municipal Water District (NTMWD) Regional Wastewater Treatment Plant is constructed. The regional plant will be located along a tributary of Lake Lavon and will be built and financed by NTMWD. After completion of the regional plant, it is intended that NTMWD will provide wholesale wastewater treatment service to the area within the District.

A preliminary layout showing the proposed main sanitary sewer lines for the District is shown on Exhibit 7. These facilities are discussed in greater detail below.

Design Criteria

All facilities will be designed in accordance with applicable criteria established by the TCEQ.

The sanitary sewer collection system is sized according to the following design standards:

- | | |
|---|------------------------|
| 1. Equivalent Single Family Connection ("ESFC") | 315 gallons/day |
| 2. Average Daily Flow | 315 gallons/day/ESFC |
| 3. Peak Hour Flow | 1,260 gallons/day/ESFC |

Minimum velocities in the system for design flows will be 2 feet per second.

The wastewater treatment facilities will be designed to have capacity to accommodate the average daily flow of 315 gallons per single-family equivalent connection. The collection system and lift station facilities will be designed to accommodate peak hour flows.

Wastewater Treatment

As discussed earlier, the wastewater will be treated at the future NTMWD Regional Treatment Plant. For the interim, flows from the area within the District will be treated at an interim wastewater treatment plant to be leased/constructed by the District. At full development, the ultimate number of connections of the District is projected to be 1,646 single-family connections. The wastewater load from the District is an average flow of 0.52 MGD, and peak flow of 2.07 MGD.

Sanitary Sewer Collection System

The onsite sanitary sewer collection system for full development of the District will consist of approximately 65,000 linear feet of 8, 10, 12 and 15 inches diameter gravity flow sewer line. The sewer line is sized to accommodate the wastewater flow from the District only, no over sizing for offsite flows was considered. If over sizing of the sewer line is required by other entities, the District's cost of the over sized pipe will be on a pro rata basis. The preliminary layout showing the sanitary sewer lines is shown on Exhibit 7.

Storm Drainage System

General

The storm water runoff within the District will be directed along a curb and gutter street system to collector lines provided by the District. The storm water collection system will be designed to convey the 100-year storm within the pipe system to existing drainage courses. The storm drainage system will outfall into unnamed tributaries which discharge to Lake Lavon. The preliminary layout showing the collector storm lines is shown on Exhibit 8. The following is a more detailed discussion of these facilities.

Design Criteria

All storm drainage improvements will be designed in accordance with the applicable design criteria established by Collin County and the City of Farmersville. All internal storm sewer collection systems will be designed, using the rational method, to carry the runoff from a 100-year storm, including the low points and culvert crossings.

Storm Water Collection

The storm drainage collection system for full development of the District will consist of a combination of curbs and gutters with inlets, outfall structures, and approximately 35,000 linear feet of reinforced concrete storm pipe ranging in size from 18-inches in diameter to 8'x6' box.

Other Utilities

Franchise utilities will be provided by others. The Developer is currently negotiating with franchise utilities to provide gas, electric, phone and cable services.

100 YEAR FLOODPLAIN

A portion of the proposed District lies within the 100-year floodplain as demarcated by the current Flood Insurance Rate Maps ("FIRMs") for Collin County published by the Federal Emergency Management Agency ("FEMA") (Community Panel No. 48085C0435J dated June 2, 2009). According to the map, a small section of the proposed District lies within Zone A, as seen in Exhibit 9. Zone A is defined as special flood hazard areas inundated by the 100-year flood, no base flood elevations determined. There will be no homes or other improvements constructed within the floodplain.

EXISTING AND PROJECTED POPULATION WITHIN THE DISTRICT

Presently, the District is undeveloped and has no permanent residents. At full development, the District will have approximately 1,646 single-family residential dwellings with a projected population of approximately 4,938 residents. Projections of future population are shown in Table 1.

SECTION III – FINANCIAL INFORMATION (30 TAC 293.11 (d)(5)(E) – (F))

COST SUMMARY

A summary of the estimated costs to fully develop the District is contained in Table 2. The individual cost breakdown for the water system, sanitary sewer system, storm drainage system, clearing, grubbing and excavation are contained in Tables 3 through 8.

Construction quantities are based on the main utility lines, shown on Exhibits 5 through 8, and utility lines within the residential streets for retail service. Engineering fees include the costs incurred in preparing construction plans, preliminary engineering and bond reports, right-of-way and easement documents, District administration, surveying, testing, soils investigations, etc.

Legal fees include the costs incurred for legal counsel for the creation of the District and issuance of the bonds.

ASSESSED VALUATION AND PROJECTED TAX RATE

The District is planned for single-family. The projected assessed value of all property within the District is \$222,230,000 at full development. Table 9 shows the estimated assessed valuation at full development based on present day land and improvement values.

The total estimated bond issue requirement for financing construction costs for the water, wastewater, and drainage projects proposed to serve the area within the District is \$28,725,000 assuming the District qualifies for waiver of the 30% developer contribution rule. The total estimated bond issue requirement is \$22,584,000 assuming 70% reimbursement. See Table 11 for a projected cost summary under both scenarios.

Revenue to retire the bonds will be generated by ad valorem taxes. Based on the projected assessed values and bond issue requirement, debt service tax equal to \$1.0898 per \$100 of assessed value (100% reimbursement) and \$0.8568 per \$100 of assessed value (70% reimbursement) would satisfy the average annual debt service requirement at full development conditions. The tax rate calculations assume bonds will be sold at a 6.25% interest rate over a 25-year period and a 95% collection rate (see Table 10). Water and wastewater revenue projections were not used in determining funds available for debt retirement, as the District does not intend to issue revenue-backed debt.

PROJECTED WATER AND WASTEWATER RATES

Copeville SUD is intended to be the retail water provider and charge rates equivalent to its existing customers. The current Copeville SUD rates for a 5/8" x 3/4" residential meter are as follows;

<u>Gallons use per month (Water)</u>	<u>Cost per 1,000 gallons</u>
0	\$ 18.50 base rate
0 - 2,000	\$3.17
2,001 – 10,000	\$4.49
10,001 – 20,000	\$4.76
Over 20,001	\$5.02

The projected average water bill for a typical home will be \$60.76 based on 10,000 gallons of water use.

The District will be the retail sewer provider. The following projected rates are based on the current rates of the City of Farmersville:

<u>Gallons use per month (Water Usage)</u>	<u>Cost per 1,000 gallons</u>
0 – 1,000	\$11.04 base rate
Over 1,001	\$3.44

The projected average sewer bill for a typical home will be \$42.00 based on 10,000 gallons of water use.

SECTION IV – AVAILABILITY OF COMPARABLE SERVICES (30 TAC 293.11
(d)(5)(G))

Copeville SUD is the best alternative for providing retail water service since the entire District is located within their existing Water CCN area. Copeville SUD also has access to adequate wholesale treated water supplies from NTMWD.

There are no wastewater providers in close vicinity of the District which have capacity to provide service to the land within the District; therefore the District is the best option at this time for retail wastewater service. As discussed in Section II, it is intended that the wholesale wastewater service will be ultimately provided by NTMWD when its regional wastewater treatment plant is constructed.

SECTION V - EVALUATION OF THE EFFECT OF THE DISTRICT (30 TAC 293.11
(d)(5)(H))

An evaluation of the effects of the District, its systems and subsequent development within the District on various existing conditions is discussed below.

A. **Effect of District Activity on Land Elevation** – The fill and/or excavation associated with the development of the District's systems will not cause any changes in land elevation other than that normally associated with the construction of the underground utility systems, drainage facilities and paving.

B. **Effect of District Activity on Subsidence** - The District is intended to receive its water service from Copeville SUD, a wholesale customer of North Texas Municipal Water District which uses exclusively surface water for its source of water supply; therefore there will be negligible effect on subsidence.

C. **Effect of District Activity on Groundwater Level in the Region** – As stated above, the District intends to use exclusively surface water for water supply. Therefore, the creation of the District will have little to no effect on ground water levels in the region.

D. **Effect of District Activity on Recharge Capability of Groundwater Source** – The District is not located in a recharge zone of an aquifer, so will have no effect on ground water recharge.

E. **Effect of District Activity on Natural Runoff Rates and Drainage** – The District is located on a gradually increasing sloping site and existing drainage is through overland flow into Lake Lavon. The increased flow from the development will be alleviated by the proposed detention ponds in the District. The proposed internal drainage system and ultimate major drainage improvements will provide adequate drainage for the developed property without adversely affecting adjacent landowners.

F. **Effect of District Activity on Water Quality** - No adverse effect on the water quality of ground or surface water is anticipated since the treatment and disposal of wastewater flows from the District will be by means of the wastewater treatment facility previously discussed. The wastewater treatment plant will be operated pursuant to the terms of a waste discharge permit obtained from the TCEQ.

SECTION VI – OVERLAPPING TAXES (30 TAC 293.11 (d)(5)(I))

The total estimated tax assessment against the properties in the District is as follows:

Assuming 100% Reimbursement

<u>Taxing Entity</u>	<u>Rates/\$100 AV</u>
1. Farmersville Independent School District ¹	\$1.310000
2. Collin County ¹	\$0.240000
3. Collin County Community College ¹	\$0.086300
4. Lakehaven MUD ²	<u>\$1.189800</u>
Total Projected Tax	\$2.826100

1 Based on 2010 tax rates
2 Projected based on a debt service tax rate of \$1.0898 (See Table 10) and an operations and maintenance tax rate of \$0.10

Assuming 70% Reimbursement

<u>Taxing Entity</u>	<u>Rates/\$100 AV</u>
1. Farmersville Independent School District ¹	\$1.310000
2. Collin County ¹	\$0.240000
3. Collin County Community College ¹	\$0.086300
4. Lakehaven MUD ²	<u>\$0.956800</u>
Total Projected Tax	\$2.593100

1 Based on 2010 tax rates
2 Projected based on a debt service tax rate of \$0.8568 (See Table 10) and an operations and maintenance tax rate of \$0.10

SECTION VII – JUSTIFICATION FOR CREATION (30 TAC 293.11 (d)(5)(J))

As discussed in the previous sections of this report, the development of the District, with the proposed improvements, should not have an adverse effect on land elevation, subsidence, groundwater levels, recharge capability of groundwater sources, natural runoff rates, drainage and water quality. Assuming 100% reimbursement, the total tax rate of \$2.8261 per \$100 of assessed valuation is considered reasonable and acceptable for a development of this type. The District should be considered feasible from both an economic and engineering standpoint.

Therefore, the District will be a benefit to the land and future residents by providing a safe and sufficient water supply, providing a sanitary means for disposing of wastes, controlling harmful excesses of water and providing for the orderly development of the land within its boundaries.

TABLE NO. 1
LAND USE SUMMARY
LAKEHAVEN MUD

	No. of Lots	Acreage
1 Single Family	1,646	344
2 Open Space/Parks/Floodplain	N/A	16
3 Collector Right-of-way	N/A	16
4 Emergency Services	N/A	N/A
5 Utility	N/A	N/A
TOTAL	1,646	376

Buildout Schedule and Population Projections

Year	Homes Added	Cumulative Homes	Cumulative Population
2013	60	60	180
2014	74	134	402
2015	93	227	681
2016	114	341	1023
2017	118	459	1377
2018	120	579	1737
2019	120	699	2097
2020	120	819	2457
2021	120	939	2817
2022	120	1059	3177
2023	120	1179	3537
2024	120	1299	3897
2025	120	1419	4257
2026	120	1539	4617
2027	107	1646	4938

TABLE NO. 2
COST SUMMARY
LAKEHAVEN MUD

SUMMARY OF LAKEHAVEN MUD COST

ONSITE COST SUMMARY

A. WATER DISTRIBUTION SYSTEM	\$3,871,169
B. SANITARY SEWER SYSTEM	\$4,184,998
C. STORM SEWER SYSTEM	\$5,503,637
D. CLEARING GRUBING AND SITE EXCAVATION	\$982,089
<i>SUBTOTAL ONSITE COST</i>	\$14,541,893

OFFSITE COST SUMMARY

A. OFFSITE WATER DISTRIBUTION SYSTEM AND SUPPLY	\$3,555,885
B. OFFSITE WASTEWATER TREATMENT	\$1,653,125
<i>SUBTOTAL OFFSITE COST</i>	\$5,209,010

TOTAL FARMERSVILLE MUD COST \$19,750,903

TABLE NO. 3
 WATER DISTRIBUTION SYSTEM
 COST SUMMARY
 LAKEHAVEN MUD

WATER DISTRIBUTION SYSTEM				
DESCRIPTION	UNIT	APPROXIMATE QUANTITY	UNIT PRICE	TOTAL AMOUNT
12" P.V.C. WATERLINE	LF	16,660	\$30.00	\$499,800.00
12" GATE VALVE & BOX	EA	37	\$1,600.00	\$59,200.00
8" P.V.C. WATERLINE	LF	49,220	\$20.00	\$984,400.00
8" GATE VALVE & BOX	EA	145	\$900.00	\$130,500.00
1" SINGLE WATER SERVICE	ESFC*	1,646	\$450.00	\$740,700.00
FIRE HYDRANT ASSEMBLY	EA	136	\$2,800.00	\$380,800.00
TRENCH SAFETY	LF	65,880	\$1.00	\$65,880.00
TESTING (EXCLUDING GEOTECH)	LF	65,880	\$1.00	\$65,880.00
CONTINGENCY	%	15.00%	\$2,927,160.00	\$439,074.00
ENGINEERING AND SURVEYING	%	15.00%	\$3,366,234.00	\$504,935.00
SUB - TOTAL WATER DISTRIBUTION SYSTEM				\$3,871,169.00

*ESFC - EQUIVALENT SINGLE FAMILY CONNECTION

TABLE NO. 4
SANITARY SEWER SYSTEM
COST SUMMARY
LAKEHAVEN MUD

SANITARY SEWER SYSTEM				
DESCRIPTION	UNIT	APPROXIMATE QUANTITY	UNIT PRICE	TOTAL AMOUNT
8" P.V.C. PIPE	LF	56,180	\$20.00	\$1,123,600.00
10" P.V.C. PIPE	LF	1,110	\$30.00	\$33,300.00
12" P.V.C. PIPE	LF	550	\$35.00	\$19,250.00
15" P.V.C. PIPE	LF	4,030	\$40.00	\$161,200.00
NORTH LIFT STATION (1.25 MGD)	LS	1	\$400,000.00	\$400,000.00
8" FORCE MAIN FOR NORTH LIFT STATION	LF	2,700	\$30.00	\$81,000.00
CLEANOUTS	EA	20	\$450.00	\$9,000.00
4" SERVICE LINES	ESFC*	1,646	\$400.00	\$658,400.00
4' DIAMETER MANHOLE	EA	162	\$2,500.00	\$405,000.00
CONCRETE ENCASMENT AT CROSSINGS	LF	2,000	\$40.00	\$80,000.00
TRENCH SAFETY	LF	64,570	\$1.00	\$64,570.00
TESTING (EXCLUDING GEOTECH)	LF	64,570	\$2.00	\$129,140.00
CONTINGENCY	%	15.00%	\$3,164,460.00	\$474,669.00
ENGINEERING AND SURVEYING	%	15.00%	\$3,639,129.00	\$545,869.00
SUB - TOTAL SANITARY SEWER SYSTEM				\$4,184,998.00

*ESFC - EQUIVALENT SINGLE FAMILY CONNECTION

TABLE NO. 5
STORM DRAINAGE SYSTEM
COST SUMMARY
LAKEHAVEN MUD

STORM SEWER SYSTEM				
DESCRIPTION	UNIT	APPROXIMATE QUANTITY	UNIT PRICE	TOTAL AMOUNT
18" R.C.P.	LF	6,190	\$35.00	\$216,650.00
21" R.C.P.	LF	4,160	\$42.00	\$174,720.00
24" R.C.P.	LF	2,970	\$46.00	\$136,620.00
27" R.C.P.	LF	3,800	\$50.00	\$190,000.00
30" R.C.P.	LF	2,520	\$55.00	\$138,600.00
33" R.C.P.	LF	1,360	\$64.00	\$87,040.00
36" R.C.P.	LF	1,480	\$73.00	\$108,040.00
39" R.C.P.	LF	1,370	\$85.00	\$116,450.00
42" R.C.P.	LF	1,060	\$99.00	\$104,940.00
48" R.C.P.	LF	3,140	\$118.00	\$370,520.00
54" R.C.P.	LF	1,920	\$160.00	\$307,200.00
60" R.C.P.	LF	930	\$175.00	\$162,750.00
5'x4' BOX	LF	360	\$200.00	\$72,000.00
6'x4' BOX	LF	830	\$240.00	\$199,200.00
8'x4' BOX	LF	2,350	\$280.00	\$658,000.00
8'x6' BOX	LF	220	\$320.00	\$70,400.00
10' INLET	EA	194	\$2,750.00	\$533,500.00
2'x2' Y-INLET	EA	1	\$1,500.00	\$1,500.00
INLET PROTECTION	EA	202	\$250.00	\$50,500.00
24" HEADWALL	EA	1	\$2,100.00	\$2,100.00
54" HEADWALL	EA	3	\$4,500.00	\$13,500.00
60" HEADWALL	EA	1	\$5,250.00	\$5,250.00
8'x6' HEADWALL	EA	2	\$6,500.00	\$13,000.00
2-5'x4' HEADWALL	EA	2	\$6,000.00	\$12,000.00
ROCK RIP RAP	SY	350	\$60.00	\$21,000.00
DETENTION POND EXCAVATION	CY	17,600	\$4.00	\$70,400.00
SPILLWAY STRUCTURE	EA	2	\$10,000.00	\$20,000.00
DEBRIS SEPARATOR	EA	7	\$15,000.00	\$105,000.00
TRENCH SAFETY	LF	34,660	\$1.00	\$34,660.00
SWPPP	LS	1	\$100,000.00	\$100,000.00
SILT FENCE (PRIOR TO CONSTRUCTION)	LF	60,000	\$1.10	\$66,000.00
CONTINGENCY	%	15.00%	\$4,161,540.00	\$624,231.00
ENGINEERING AND SURVEYING	%	15.00%	\$4,785,771.00	\$717,866.00
SUB - TOTAL STORM SEWER SYSTEM				\$5,503,637.00

TABLE NO. 6
 CLEARING GRUBBING AND EXCAVATION
 COST SUMMARY
 LAKEHAVEN MUD

CLEARING, GRUBBING AND SITE EXCAVATION					
DESCRIPTION	UNIT	APPROXIMATE QUANTITY	QUANTITY ATTRIBUTABLE TO WSD IMPROVEMENTS (50%)	UNIT PRICE	TOTAL AMOUNT
CLEARING AND GRUBBING	ACRE	376	188	\$750.00	\$141,000.00
SITE EXCAVATION	CY	752,000	376,000	\$1.60	\$601,600.00
CONTINGENCY	%		15%	\$742,600.00	\$111,390.00
ENGINEERING AND SURVEYING	%		15%	\$853,990.00	\$128,098.50
SUB - TOTAL					\$982,088.50

TABLE NO. 7
OFFSITE WATER SYSTEM
COST SUMMARY
LAKEHAVEN MUD

OFFSITE WATER COST				
DESCRIPTION	UNIT	APPROXIMATE QUANTITY	UNIT PRICE	TOTAL AMOUNT
ELEVATED STORAGE TANK	GAL	284,600	\$2.50	\$711,500.00
GROUND STORAGE TANK	GAL	474,048	\$1.50	\$711,072.00
PUMP STATION	GPD	1,777,680	\$0.35	\$622,188.00
12" OFFSITE P.V.C. WATERLINE	LF	13,400	\$40.00	\$536,000.00
20" STEEL CASING BY BORE	LF	200	\$350.00	\$70,000.00
12" GATE VALVE & BOX	EA	8	\$1,400.00	\$11,200.00
TRENCH SAFETY	LF	13,400	\$1.00	\$13,400.00
TESTING (EXCLUDING GEOTECH)	LF	13,400	\$1.00	\$13,400.00
CONTINGENCY	%	15%	\$2,688,760.00	\$403,314.00
ENGINEERING AND SURVEYING	%	15%	\$3,092,074.00	\$463,811.10
SUB - TOTAL				\$3,555,885.10

TABLE NO. 8
OFFSITE SEWER SYSTEM
COST SUMMARY
LAKEHAVEN MUD

OFFSITE SEWER COST				
DESCRIPTION	UNIT	APPROXIMATE QUANTITY	UNIT PRICE	TOTAL AMOUNT
100,000 INTERIM WWTP (DELIVERY, ASSEMBLY & SITE WORK)	LS	1	\$125,000.00	\$125,000.00
INTERIM PHASE 1 WWTP LEASING (INCLUDING REMOVAL)	MO	48	\$10,000.00	\$480,000.00
LIFT STATION AT WWTP	LS	1	\$540,000.00	\$540,000.00
15" P.V.C. PIPE	LF	2,500	\$40.00	\$100,000.00
TRENCH SAFETY	LF	2,500	\$1.00	\$2,500.00
TESTING (EXCLUDING GEOTECH)	LF	2,500	\$1.00	\$2,500.00
CONTINGENCY	%	15%	\$1,250,000.00	\$187,500.00
ENGINEERING, SURVEYING, TESTING AND INSPECTION	%	15%	\$1,437,500.00	\$215,625.00
SUB - TOTAL				\$1,653,125.00

TABLE NO. 9
SUMMARY OF ASSESSED VALUATIONS
LAKEHAVEN MUD

RESIDENTIAL

<u>LOT SIZE</u>	<u># OF LOTS</u>	<u>VALUE PER HOME ⁽¹⁾</u>	<u>TOTAL HOME VALUE</u>
50' x 110'	822	\$125,000	\$ 102,750,000
60' x 115'	824	\$145,000	\$ 119,480,000
TOTAL	1,646		
TOTAL ASSESSED VALUE AT BUILDOUT			\$ 222,230,000

Notes:

(1) UNIT VALUES BASED ON MARKET STUDY PREPARED BY RESIDENTIAL STRATEGIES, INC.

TABLE NO. 10
PROJECTED DEBT TAX RATE
LAKEHAVEN MUD

Assuming 100% Reimbursement:

1 Projected Assessed Value (AV)	\$222,230,000
2 Projected Bond Issue Requirement (BIR)	\$28,725,000
3 Average Annual Debt Service Requirement (DSR) (25 year amortization @ 6.25%)	\$2,300,718
4 Debt Tax Rate Required for 100% Reimbursement ((DSR / (AV x 95% Collection Rate)) x 100)	\$1.0898

Assuming 70% Reimbursement:

1 Projected Assessed Value (AV)	\$222,230,000
2 Projected Bond Issue Requirement (BIR)	\$22,584,000
3 Average Annual Debt Service Requirement (DSR) (25 year amortization @ 6.25%)	\$1,808,857
4 Debt Tax Rate Required for 70% Reimbursement ((DSR / (AV x 95% Collection Rate)) x 100)	\$0.8568

TABLE NO. 11
DISTRICT BOND ISSUE REQUIREMENT
LAKEHAVEN MUD

CONSTRUCTION COST	AMOUNT	DISTRICT SHARE (70%)	DISTRICT SHARE (100%)
A. Proposed Improvements			
1. Water Distribution	\$3,871,169	\$2,709,818	\$3,871,169
2. Wastewater Collection	\$4,184,998	\$2,929,499	\$4,184,998
3. Storm Drainage System	\$5,503,637	\$3,852,546	\$5,503,637
4. Clearing Grubbing and Site Excavation (1)	\$982,089	\$687,462	\$982,089
5. Offsite Water Supply System (2)	\$3,555,885	\$3,555,885	\$3,555,885
6. Offsite Wastewater Treatment System (2)	\$1,653,125	\$1,653,125	\$1,653,125
TOTAL CONSTRUCTION COSTS	\$19,750,903	\$15,388,335	\$19,750,903
NON-CONSTRUCTION COSTS			
NON-CONSTRUCTION COSTS			
A. Bond Counsel Fees (2.5%)		\$564,600	\$718,125
B. Fiscal Agent Fees (2.0%)		\$451,680	\$574,500
C. Interest Costs			
1. Capitalized Interest (2.0 yrs. @ 6.0%)		\$2,710,080	\$3,447,000
2. Developer Interest (2 yrs. @ 6.0% on CC)		\$1,846,600	\$2,370,108
D. Underwriter's Discount (3.0%)		\$677,520	\$861,750
E. Bond Issuance Expense		\$155,541	\$191,476
F. Bond Engineering Report (6 @ \$30,000)		\$180,000	\$180,000
G. TCEQ Fee (0.25% BIR + \$600)		\$57,060	\$72,413
H. Attorney General Approval Fee (0.1%)		\$22,584	\$28,725
I. Land Acquisition		\$30,000	\$30,000
J. Creation, Organizational & Operational		\$500,000	\$500,000
TOTAL NON-CONSTRUCTION COSTS		\$7,195,665	\$8,974,097
TOTAL BOND ISSUE REQUIREMENT		\$22,584,000	\$28,725,000

Note:

(1) Based on quantities attributable to water, sewer and drainage improvements (50 percent). See Table No. 6.

(2) 100% Developer reimbursable item

EXHIBIT "2"

BEING a 375.9 acre tract of land situated in the ELIJAH B. REED SURVEY, ABSTRACT NO. 739, in Collin County, Texas, said tract being a portion of a called 471.016 acre tract of land described in a deed to Farmersville Investors, LP, recorded as Document No. 20060324000384140, Deed Records, Collin County, Texas, and being more particularly described as follows:

BEGINNING at the northwest corner of said 471.016 acre tract;

THENCE North 89 degrees 48 minutes 12 seconds East, along the north boundary of said 471.016 acre tract, a distance of 3,426.86 feet to a point;

THENCE South 00 degrees 09 minutes 36 seconds West, over and across said 471.016 acre tract, parallel to and 10.00 west of an east boundary of said 471.016 acre tract, a distance of 2,465.00 feet to a point;

THENCE South 89 degrees 48 minutes 46 seconds West, along a south boundary of said 471.016 acre tract, a distance of 212.48 feet to an interior ell corner of said 471.016 acre tract;

THENCE South 00 degrees 04 minutes 27 seconds West, along an east boundary of said 471.016 acre tract, passing an interior ell corner of said 471.016 acre tract at 2,193.22 feet and continuing for a total distance of 3,037.01 feet to a point for corner;

THENCE North 88 degrees 49 minutes 13 seconds West, passing an interior ell corner of said 471.016 acre tract at 484.77 feet and continuing for a total distance of 1,552.01 feet to a point on the south boundary of said 471.016 acre tract;

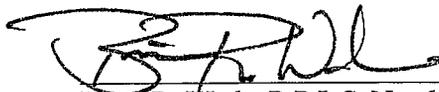
THENCE North 89 degrees 13 minutes 34 seconds West, along a south boundary of said 471.016 acre tract, a distance of 1,092.63 feet to an exterior ell corner of said 471.016 acre tract;

THENCE North 00 degrees 15 minutes 03 seconds East, along a west boundary of said 471.016 acre tract, a distance of 2,981.00 feet to an interior ell corner of said 471.016 acre tract;

THENCE South 89 degrees 53 minutes 05 seconds West, along a south boundary of said 471.016, a distance of 570.39 feet to the most westerly southwest corner of said 471.016 acre tract;

THENCE North 00 degrees 02 minutes 46 seconds West, along the west boundary of said 471.016 acre tract, a distance of 2,464.40 feet to the **POINT OF BEGINNING** and containing 375.9 acres of land, more or less.

This document was prepared under 22 TAC §663.21, does not reflect the results of an on the ground survey, and is not to be used to convey or establish interests in real property except those rights and interests implied or established by the creation or reconfiguration of the boundary of the political subdivision for which it was prepared.

 2/3/11

Brian R. Wade, R.P.L.S. No. 6098

