ENGINEER'S REPORT

BOND ISSUE REQUIREMENTS

FOR

SENNA HILLS MUNICIPAL UTILITY DISTRICT

PREPARED FOR:

SENNA HILLS MUNICIPAL UTILITY DISTRICT

AUSTIN, TEXAS

DECEMBER 1994

GEBHARD & SARMA GROUP, INC.
Engineers, Planners, and Regulatory Consultants
511 West 7th Street
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I. INTRODUCTION

Senna Hills Municipal Utility District (hereafter referred to as the "District") was created in 1988 to provide water, wastewater and drainage facility improvements for a 398.8-acre residential development. In 1992 approximately 76 acres of land within the District were de-annexed at the request of the property owners.

This report addresses the technical and economic feasibility of the District providing water, wastewater and drainage services to the remaining 322.68 acres within the District. The proposed land uses within the District are presented in Table 1 of this report. The report is prepared in accordance with the rules of the Texas Natural Resource Conservation Commission pertaining to the creation of Municipal Utility Districts (31 TAX 311.11), as authorized by Sections 5.131 and 5.132 of the Texas Water Code.

Included in this report is a physical description of the area, a land use plan, existing and projected population information, preliminary engineering information on water, wastewater and drainage improvements required to serve the District, as well as cost estimates of the proposed improvements and analysis of the economic feasibility of the District. Potential effects of the proposed District on the area were also evaluated including environmental and economic impacts.

The City of Austin granted consent to the creation of the District by ordinance on January 15, 1987. In 1992 the City of Austin, the District and Senna Hills, Ltd., a Texas limited partnership, as the holder of legal title to a majority in value of the land comprising the District, modified the Agreement concerning creation and operation of the District. A copy of the amended and restated Agreement is included in Appendix A.

II. LOCATION AND ACREAGE

The District is located on RM 2244 approximately 5.0 miles west of the intersection of RM 2244 and Loop 360 and 2.5 miles east of the intersection of RM 2244 and State Highway 71 and encompasses 322.68 acres north of RM 2244 (See Figure 1). The District is located within the Barton Creek and Lake Austin watersheds. Field notes describing the boundary of the District are presented in Appendix B.

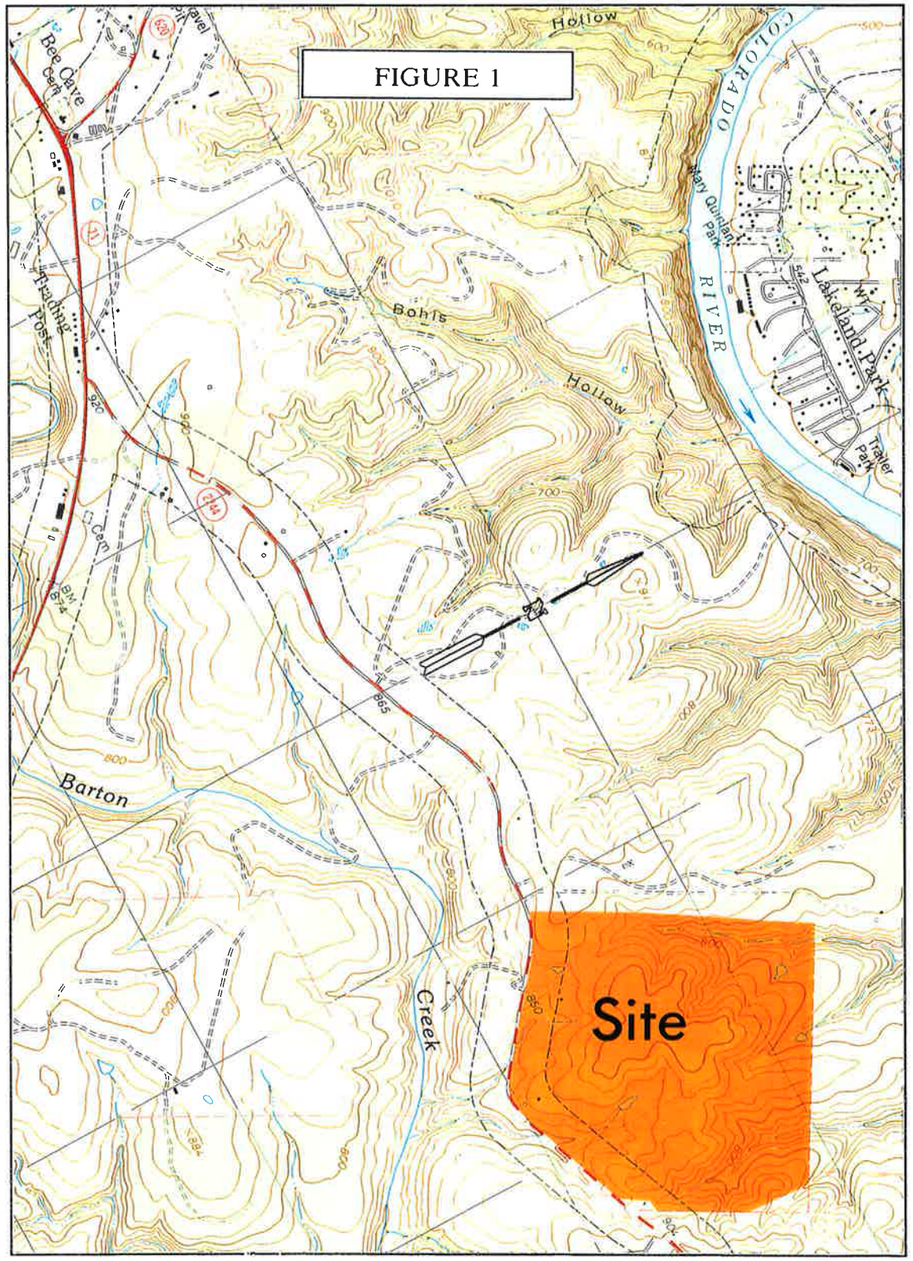


FIGURE 1
Hollow
COLORADO
RIVER
Lakeland Park
Trailer Park
Bohls
Hollow
Reading Post
Bee Cave
Barton
Creek
Site

III. LAND USE

3.1 Existing Development

The infrastructure for two sections of Senna Hills is complete and homes are under construction. The balance of the District is under construction or undeveloped. The surrounding area is generally undeveloped except for two adjacent residential subdivisions, Barton Creek West and Dominion Hill.

3.2 Proposed Development

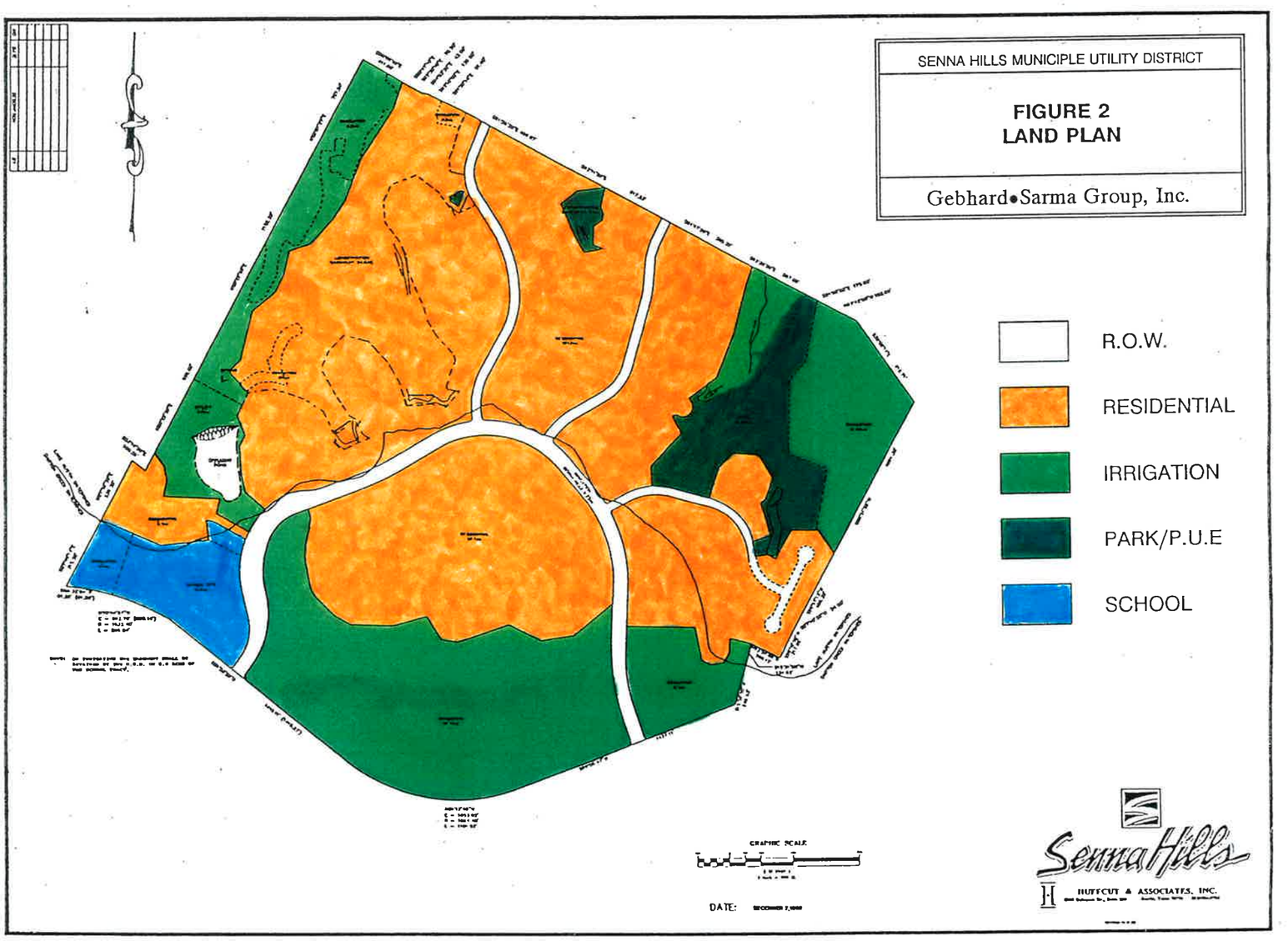
At build-out the District will comprise of approximately 484 single family homes on 322.68 acres. Homes will be clustered on approximately 199 acres with the remainder of the tract left as open space for effluent irrigation, parks and conservation areas. A ten-acre tract adjacent to FM 2244 is currently designated as a possible site for a school. The land plan is shown in Figure 2. The overall density of the development is 1.5 units per acre. The land use summary for the District is presented in Table 1.

TABLE 1

PROPOSED LAND USE

Land Use	Acreage
Right-of-way	6
Residential	199
Irrigation	66
Park/PUE/Irrigation	41
School	11
Total	323

The market analysis for the development indicates the project will have a 9-year build-out starting in 1995 with completion projected by 2003.


SENNA HILLS MUNICIPLE UTILITY DISTRICT
FIGURE 2
LAND PLAN
Gebhard•Sarma Group, Inc.
R.O.W.
RESIDENTIAL
IRRIGATION
PARK/P.U.E
SCHOOL
GRAPHIC SCALE
DATE:
Senna Hills
HUFFCUT & ASSOCIATES, INC.

IV. EXISTING AND PROJECTED POPULATION

The District currently has two residents. The population of the District at build-out is estimated to be 1,700. The projected number of units to be developed each year and the resultant populations are shown in Table 2. The total build-out for the District is projected in the year 2003 with a total of 484 units. The overall density for the District is 1.5 units per acre.

TABLE 2

POPULATION PROJECTIONS

Year	Units Completed	Cumulative Units	Population Estimate
1995	15	15	50
1996	60	75	260
1997	60	135	470
1998	60	195	680
1999	60	255	890
2000	60	315	1100
2001	60	375	1310
2002	60	435	1522
2003	49	484	1700

V. ENVIRONMENTAL CONDITIONS

5.1 General Considerations

The District is located in the Barton Creek and Lake Austin watersheds. Development within the District is subject to the City of Austin "Barton Creek Watershed" Ordinance #810430-C of 1981 and the "Lake Austin Watershed" Ordinance #840301-G of 1984. All development activities will be permitted under the requirements of these ordinances. In addition, the District's contract for raw water with the Lower Colorado River Authority (LCRA) provides provisions for a water conservation plan and a nonpoint source pollution abatement plan. A copy of the District's raw water contract is provided in Appendix C.

5.2 Topography and Geology

The District is located within the Edwards Plateau physiographic region. The District straddles two watersheds, Barton Creek to the south and Lake Austin (Colorado River) to the north. The elevations within the District vary from approximately 910 MSL at the Barton Creek/Lake Austin watershed boundary to 710 MSL in the most northwestern canyon. The District contains rolling hills and steep canyons. The slopes range from 0 percent to over 35 percent, with a majority of the tract being in the 0 to 15 percent slope category.

The U.S. Department of Agriculture Soil Conservation Service identifies two soil series within the proposed District. The majority of the tract is occupied by soils in the Brackett series with some Volente complex soils occurring in the draws.

Brackett soils are mostly found on benched outcroppings of the Glen Rose Formation. They occupy large areas of gently undulating to steep topography and are separated by outcrops of the underlying limestone and marl. Soils are typically not greater than 10 inches in depth. Permeability of these soils is moderately low, and they exhibit a low shrink-swell potential due to their low clay content.

Soils of the volente complex are mainly found in draws that drain the tract with slopes of 1 to 8 percent. These silty clay loam soils have a moderate to high shrink-swell potential and high water capacity. Permeability of the Volente complex soils is low.

A detailed study of the surface soils within the proposed effluent irrigation areas was performed by Fugro McClelland in May 1994. A copy of that report is include in Appendix D.

5.3 100-Year Flood Plain

The 100-year flood plain will be contained within easements throughout the District. Storm flows within the District will be conveyed by the internal drainage systems. Drainage structures will be designed in accordance with City of Austin criteria.

Detention ponds will be provided as required by the City of Austin to compensate for limited conveyance capacity of the existing draws and canyons. Existing stock tanks will be incorporated into the facilities whenever possible to minimize disturbance.

Construction within the designated 100-year flood plain will be limited to the greatest extent possible. Alteration of any water ways will be restored to existing conditions.

The limits of the 100-year flood plain are shown on the City of Austin approved Preliminary Plan included in Appendix E.

VI. UTILITY SERVICE

6.1 Water Supply and Facilities

The District will be served with adequate potable water from the LCRA Upland Water Treatment Plant located near State Highway 71 on FM 2244. The District currently receives limited water service (maximum of 115 L.U.E.) via a "connecting line" to the Barton Creek West water distribution system. The District will receive full water service (907,000 G.P.D.) through a series of 24-inch and 16-inch water transmission lines ("Loop Line") to be built from the water treatment plant to the western boundary of the District generally along RM 2244. Once the "Loop Line" is complete, the minimum delivery pressure for non-emergency operating conditions will be 35 P.S.I. at a rate of 630 G.P.M. The District will pay the LCRA for their capital improvements through a connection fee of approximately $1,950 for each L.U.E. Additional details of the agreement for LCRA treated water are contained in Appendix F. The "connecting line" and the internal distribution lines and appurtenances will be funded as District improvements. All water improvements will be designed and permitted in accordance with applicable governmental and design codes and criteria. Table 3 contains an estimate of construction costs for District funded water facilities.

6.2 Wastewater Facilities

The District will be served by onsite wastewater treatment facilities. The District is currently served by a package wastewater treatment plant, an effluent holding pond and effluent irrigation fields. The current facilities will provide a treatment level of 85,000 G.P.D. The treatment capacity at build-out is expected to be 170,000 G.P.D. The District is required to operate the wastewater treatment facilities in accordance with the Agreement Concerning Creation and Operation, Appendix A, and TNRCC Permit No. 13238-001, Appendix G. The collection system, lift stations, effluent holding pond and effluent irrigation fields will be funded as District improvements. The District currently leases the existing treatment plant, but they may at their option purchase the existing facility and its planned expansion. Appendix H contains the lease agreement for the existing wastewater treatment plant. The lease agreement specifies the purchase price of the existing facility and its proposed improvements. All wastewater improvements will be designed and permitted in accordance with applicable governmental and design codes and criteria. Table 4 contains an estimate of construction costs for District funded wastewater facilities.

6.3 Drainage Facilities

The District will be served by a series of onsite storm sewers, detention ponds and water quality facilities. All drainage facilities will be constructed in accordance with governmental and design codes and criteria. Table 5 contains an estimate of construction costs for District funded drainage facilities.

TABLE 3

ESTIMATED CONSTRUCTION COST FOR WATER FACILITIES

Description	Cost Estimate
16" PVC Waterline	$99,000
16" Gate Valve & Box	$7,200
12" PVC Waterline	$101,353
12" Gate Valve & Box	$6,650
8" PVC Waterline	$322,860
8" Gate Valve & Box	$24,600
6" PVC Waterrline	$42,700
6" Gate Valve & Box	$11,000
5-1/4" Fire Hydrant, 6" Gate Valve & Box	$93,800
2" Air Release Valve & Box	$9,000
Water Service	$215,220
DBL Meter Box	$7,500
SGL Meter Box	$37,950
Miscellaneous	$103,093
TOTAL WATER	$1,081,926

TABLE 4

ESTIMATED CONSTRUCTION COST FOR
WASTEWATER FACILITIES

Description Estimate	Cost
8" PVC SDR 35 0'-8'	$372,500
8" PVC SDR 35 8'-10'	$57,435
8" PVC SDR 35 10'-12'	$61,935
8" PVC SDR 35 12'-14'	$36,540
8" PVC SDR 35 14'-16'	$23,200
8" PVC SDR 35 16'-18'	$8,400
4" DIP All Depths	$100,225
5" DIP All Depths	$97,508
Lift Stations	$329,000
4' Manhole 0'-8'	$125,500
WW Service	$170,000
Concrete Retards	$6,100
Trench Safety Systems	$28,725
Treatment Plant Site work	$130,428
Treatment Plant Purchase	$194,345
Treatment Plant Expansion	$63,500
Effluent Holding Pond	$611,524
Effluent Irrigation Fields	$510,424
Miscellaneous	$247,000
TOTAL WATER	$3,174,289

TABLE 5

ESTIMATED CONSTRUCTION COST FOR
DRAINAGE FACILITIES

Description	Cost Estimate
18" CL III RCP	$167,547
24" CL III RCP	$166,850
30" CL III RCP	$75,180
36" CL III RCP	$51,600
42" CL III RCP	$31,200
48" CL III RCP	$34,222
10' Type 1 Inlet	$106,300
15' Type 1 Inlet	$50,000
20' Type 1 Inlet	$34,000
Manhole	$48,600
Std. COA Headwall	$38,600
TxDOT 6:1 Headwall	$5,600
Detention Pond	$250,000
Water Quality Control	$292,100
Street Excavation	$1,479,954
Miscellaneous	$121,415
DRAINAGE TOTAL	$2,953,168

6.4 Fire Protection

The District is located within the boundary of the Travis County Emergency and Fire District No. 10 and will be served by the CE-Bar Volunteer Fire Department.

6.5 Utility Rates

The District proposes to establish the water and wastewater rates proposed in Appendix I.

VII. BOND ISSUE REQUIREMENTS AND TAX RATE TO PROVIDE WATER, WASTEWATER AND DRAINAGE TO DISTRICT

7.1 Total Bond Issue Requirements to Provide Water, Wastewater and Storm Drainage to District

Projected construction costs for water, wastewater and drainage improvements for the District are presented in Table 6. All major water and wastewater facilities are eligible for 100 percent bonding by the District while the internal water distribution, wastewater collection lines and drainage facilities are eligible for 70 percent bonding by the district with 30 percent of the cost to be borne by the developer.

7.2 Total Tax Assessment on all Land Within the District

The tax rate projected for the District is proposed to be set initially at $0.75. Tabel 7 shows the estimated assessed value for the District for years 1995 through 2005. Table 8 shows the estimated District tax rate pro forma. It is anticipated that the tax rate for the District will vary through time with a low of $0.05 and a high of $1.10. The anticipated total tax rate within the District for 1995 is as follows:

Travis County	$ 0.5554
Travis County Emergency & Fire Dist. #10	0.0550
Eanes I.S.D. (including C.E.D.)	1.6300
Senna Hills M.U.D.	0.7500
Anticipated Total Tax Rate	$ 2.9904

This tax rate is comparable to other stand-alone districts in the area.

TABLE 6

ESTIMATED BOND ISSUE REQUIREMENTS

DESCRIPTION	
WATER	$1,081,926
WASTEWATER INFRASTRUCTURE	$1,664,068
WASTEWATER TREATMENT FACILITIES	
TREATMENT PLANT SITE WORK	$130,428
TREATMENT PLANT PURCHASE	$194,345
TREATMENT PLANT EXPANSION	$63,500
EFFLUENT HOLDING POND	$611,524
EFFLUENT IRRIGATION FIELDS	$510,424
DRAINAGE	$ 2,953,168
SUBTOTAL	$ 7,209,383
CONTIGENCIES (10%)	$ 720,938
SUBTOTAL	$ 7,930,321
ENGINEERING & GOVERNMENTAL FEES (21%)	$ 1,665,367
TOTAL	$ 9,595,689
NON-CONSTRUCTION COSTS	
LEGAL FEES (3%)	$480,000
FISCAL AGENT FEES (3%)	$480,000
BOND DISCOUNT (3%)	$480,000
CAPITALIZED INTEREST (2YRS @ 9%)	$2,880,000
DEVELOPER INTEREST (2YRS @ 9%)	$1,727,224
ADMINISTRATIVE & BOND ISSUANCE EXPENSES	$132,087
LAND ACQUISITION COSTS	$ 225,000
TOTAL BOND ISSUE REQUIREMENTS	$16,000,000

Table 7

Senna Hills Municipal Utility District
Assessed Value Worksheet
November 30, 1994

	Jan 1, 1995	Jan 1, 1996	Jan 1, 1997	Jan 1, 1998	Jan 1, 1999	Jan 1, 2000	Jan 1, 2001	Jan 1, 2002	Jan 1, 2003	Jan 1, 2004	Jan 1, 2005
Single Family											
# of Homes	15	75	135	195	255	315	375	435	484	484	484
Home Value	$4,500,000	$22,500,000	$40,500,000	$58,500,000	$76,500,000	$94,500,000	$112,500,000	$130,500,000	$145,200,000	$149,556,000	$154,042,680
# of Lots											
Developed/Unsold	101	41	56	46	46	46	46	49			
Undeveloped	368	368	293	243	183	123	63				
Value of Lots											
Developed/Unsold	$3,030,000	$1,230,000	$1,680,000	$1,380,000	$1,380,000	$1,380,000	$1,380,000	$1,470,000			
Undeveloped	$2,944,000	$2,944,000	$2,344,000	$1,944,000	$1,464,000	$984,000	$504,000				
Total Assessed Value	$10,474,000	$26,674,000	$44,524,000	$61,824,000	$79,344,000	$96,864,000	$114,384,000	$131,970,000	$145,200,000	$149,556,000	$154,042,680

Valuation in 2004 and 2005 assumes a 3% annual increase in assessed value

Table 8

Senna Hills Municipal Utility District
Tax Rate Pro Forma
December 1, 1994

Fiscal Year Ended (12/31)	Assessed Valuation [1]	Debt Service Tax Rate Per $100.00	Tax Collection at 90%	Capitalized Interest [2]	District Funds Available	Debt Service Requirement Series 1997 $4,000,000.00	Debt Service Requirement Series 1999 $4,000,000.00	Debt Service Requirement Series 2002 $4,000,000.00	Debt Service Requirement Series 2004 $4,000,000.00	Total Debt Service Required	Total Funds After Debt Service	Accumulated Fund Balance
1995	$10,474,000	$0.75	$70,700		$70,700					$0	$70,700	$70,700
1996	$26,574,000	$0.75	$160,050		$160,050					$0	$160,050	$230,749
1997	$44,524,000	$0.75	$300,537	$720,000	$1,020,537	$360,000				$360,000	$660,537	$911,286
1998	$61,824,000	$0.75	$417,312		$417,312	$360,000				$360,000	$57,312	$968,598
1999	$76,344,000	$0.75	$515,572	$720,000	$1,235,572	$456,850	$360,000			$816,850	$418,722	$1,407,320
2000	$98,864,000	$0.75	$653,832		$653,832	$456,850	$360,000			$816,850	($163,018)	$1,244,302
2001	$114,364,000	$0.85	$875,038		$875,038	$456,850	$456,850			$913,700	($38,662)	$1,205,640
2002	$131,970,000	$0.85	$1,008,571	$720,000	$1,728,571	$456,850	$456,850	$360,000		$1,273,700	$455,871	$1,661,510
2003	$145,200,000	$0.85	$1,110,780		$1,110,780	$456,850	$456,850	$360,000		$1,273,700	($162,920)	$1,498,590
2004	$148,558,000	$0.85	$1,278,704	$720,000	$1,998,704	$456,850	$456,850	$456,850	$360,000	$1,730,550	$268,154	$1,766,744
2005	$154,042,680	$0.85	$1,317,065		$1,317,065	$456,850	$456,850	$456,850	$360,000	$1,730,550	($413,485)	$1,353,259
2006	$159,863,980	$1.10	$1,570,773		$1,570,773	$456,850	$456,850	$456,850	$456,850	$1,827,400	($256,627)	$1,096,632
2007	$163,423,879	$1.10	$1,617,896		$1,617,896	$456,850	$456,850	$456,850	$456,850	$1,827,400	($209,504)	$887,128
2008	$168,328,596	$1.10	$1,666,433		$1,666,433	$456,850	$456,850	$456,850	$456,850	$1,827,400	($160,967)	$726,162
2009	$173,378,393	$1.10	$1,716,426		$1,716,426	$456,850	$456,850	$456,850	$456,850	$1,827,400	($110,974)	$615,188
2010	$178,577,685	$1.10	$1,767,818		$1,767,818	$456,850	$456,850	$456,850	$456,850	$1,827,400	($59,481)	$555,707
2011	$183,935,016	$1.10	$1,820,957		$1,820,957	$456,850	$456,850	$456,850	$456,850	$1,827,400	($6,443)	$549,264
2012	$189,453,066	$1.10	$1,875,586		$1,875,586	$456,850	$456,850	$456,850	$456,850	$1,827,400	$48,186	$597,449
2013	$195,136,658	$1.00	$1,756,230		$1,756,230	$456,850	$456,850	$456,850	$456,850	$1,827,400	($71,170)	$526,279
2014	$200,990,758	$1.00	$1,808,917		$1,808,917	$456,850	$456,850	$456,850	$456,850	$1,827,400	($18,483)	$507,796
2015	$207,020,481	$0.80	$1,576,866		$1,576,866	$456,850	$456,850	$456,850	$456,850	$1,827,400	($160,534)	$357,262
2016	$213,231,095	$0.80	$1,727,172		$1,727,172	$456,850	$456,850	$456,850	$456,850	$1,827,400	($100,226)	$257,034
2017	$219,628,028	$0.70	$1,383,857		$1,383,857		$456,850	$456,850	$456,850	$1,370,550	$13,107	$270,140
2018	$226,216,868	$0.70	$1,425,166		$1,425,166		$456,850	$456,850	$456,850	$1,370,550	$54,616	$324,756
2019	$233,003,375	$0.70	$1,467,921		$1,467,921			$456,850	$456,850	$913,700	$554,221	$878,978
2020	$239,993,476	$0.80	$1,078,971		$1,078,971			$456,850	$456,850	$913,700	$166,271	$1,045,248
2021	$247,193,280	$0.20	$444,948		$444,948			$456,850	$456,850	$913,700	($468,752)	$576,496
2022	$254,609,079	$0.10	$229,148		$229,148				$456,850	$456,850	($227,702)	$348,794
2023	$262,247,351	$0.05	$118,011		$118,011				$456,850	$456,850	($338,839)	$9,956
2024	$262,247,351	$0.02	$47,205		$47,205					$0	$47,205	$57,160

1] Assessed Values are as of the current tax year

2] The District will capitalize two years of interest for each bond issue at a rate of 9% per annum

3] Interest on the Bonds has been calculated at 9% per annum/20 year issue/2 years interest only/18 year amortization of principal

X. RECOMMENDATIONS AND CONCLUSIONS

As outlined in this report, the plan for development of the District should not create any adverse impact on land elevation, subsidence, ground water levels and recharge capabilities, natural runoff rates, drainage or water quality. All development will be in accordance with design standards and criteria set by the City of Austin, Travis County and the State of Texas.

The proposed District tax rate of $0.75 per $100 of assessed valuation and total tax rate of $2.9904 per $100 of assessed valuation is considered acceptable for developments of this type and location.

The bonding requirements for the District are feasible, practical and necessary to provide water, wastewater and drainage facilities required to benefit all land within the District.

APPENDICES

Appendix A -	First Amended and Restated Agreement Concerning Creation and Operation of Senna Hills Municipal Utility District
Appendix B -	Field Notes for 322.68 Tract (The District)
Appendix C -	Water Sale Contract for Municipal Uses
Appendix D -	Irrigation Area Topsoil Assessment, Senna Hills Municipal Utility District, Travis County, Texas
Appendix E -	Preliminary Plan for Senna Hills
Appendix F -	Water Service Agreement Between Lower Colorado River Authority and Senna Hills Municipal Utility District
Appendix G -	Permit No. 13238-001 for Wastewater Treatment Facility
Appendix H -	Equipment Lease Agreement for Wastewater Treatment Plant
Appendix I -	Order Establishing Water and Wastewater Service Rates, Charges and Tap Fees, and Adopting General Policies with Respect to the District's Water, Wastewater and Drainage Systems (August 1, 1994).

FIRST AMENDED AND RESTATED
AGREEMENT CONCERNING CREATION AND OPERATION
OF
SENNA HILLS MUNICIPAL UTILITY DISTRICT

THE STATE OF TEXAS §
§ KNOW ALL MEN BY THESE PRESENTS:
COUNTY OF TRAVIS §

THIS FIRST AMENDED AND RESTATED AGREEMENT CONCERNING CREATION AND OPERATION OF SENNA HILLS MUNICIPAL UTILITY DISTRICT (this "Agreement"), dated effective as of October 1, 1992, is made and entered into by and among the City of Austin, Texas (hereinafter referred to as the "City"), a Home Rule City situated in Travis County, Texas, acting herein by and through its undersigned duly authorized City Manager, as authorized by specific action of its City Council; Senna Hills Municipal Utility District (hereinafter the "District"), a municipal utility district created on the 6th day of April, 1988, by order of the Texas Water Commission, and operating pursuant to Chapter 54 of the Texas Water Code; and Senna Hills, Ltd., a Texas limited partnership (hereinafter "Senna Hills"), successor in interest to Senna Hills, Ltd., a Texas limited partnership, as the holder of legal title to a majority in value of the land comprising the District, which land is more particularly described in Exhibit "A" (the "Property"), attached hereto and incorporated herein by reference, consisting of approximately 316.695 contiguous acres situated wholly in Travis County, Texas, and lying wholly within the extraterritorial jurisdiction of the City.

The City, the District, and Senna Hills, Ltd. previously entered into that certain Agreement Concerning Creation and Operation of Senna Hills Municipal Utility District (the "Original Agreement") which details the terms and conditions upon which the property within the District is to be developed and the District is to be operated. The property in the District covered by the Original Agreement included the Property and an additional 76.10 acres of land (the "76 Acre Tract") out of the Chris Parker Survey No. 80, the Chris Parker Survey No. 400, the J.R. Watson Survey No. 646, the E.C. Gaines Survey No. 76, and the John Mustain Survey No. 40, all in Travis County, Texas, located on the south side of FM 2244. Title to the 76 Acre Tract has been acquired by Charles E. Ball and Troylyn W. Ball (collectively the "Balls"). The Balls submitted a request to the Board of Directors of the District to have the 76 Acre Tract de-annexed from the District. This request was approved by the Board of Directors of the District, subject to the City's approval of the deletion of the 76 Acre Tract from the coverage of the Original Agreement. The City is willing to delete the 76 Acre Tract from the coverage of the Original Agreement in accordance with the terms and provisions hereof. The City, the District, and Senna Hills also wish to make other modifications and amendments to the Original Agreement and to restate the Original Agreement, as so modified and amended, in its entirety.

Therefore, for and in consideration of the mutual agreements, covenants, and conditions hereinafter set forth, the parties hereto hereby contract and agree as follows:

ARTICLE 1

COMPLIANCE WITH CITY'S WATER DISTRICT ORDINANCE

Section 1.1 General Statement. Except as otherwise expressly provided herein, the consent to the creation of the District hereby granted by the City is subject to, and the creation and operation of the District shall be in accordance with, the Water District Ordinance adopted by the City Council of the City of Austin on August 19, 1981, by Ordinance Number 81O819-E, as amended, a true and correct copy of which is attached hereto as Exhibit "B" and incorporated herein by reference ("Water District Ordinance"). The terms and conditions of the Water District Ordinance are made a part of this Agreement for all purposes to the extent permitted by law.

Section 1.2. Exemptions. Notwithstanding any provision in the Water District Ordinance to the contrary, the City has granted exemptions and/or variances to the District from certain sections of the Water District Ordinance as follows: (a) Sections II A. and III.: Granting the District the authority to issue bonds for all water, wastewater and drainage facilities of the District to the extent permitted by the Texas Water Commission, and (b) Section IV: Granting the District the authority to make surcharge calculations based on the bonding authority permitted by this Section 1.2.

ARTICLE 2

ISSUANCE OF BONDS BY THE DISTRICT

Section 2.1. General Statement. The District agrees that it shall only issue bonds and notes, including bond anticipation notes, for the purposes and in the manner provided by the rules and requirements of the Texas Water Commission and the Water District Ordinance. All bonds and notes of the District (the "District Bonds") and the terms and provisions thereof shall be approved by the City Council of the City in accordance with Section 9-13-1, et. seq. of the 1981 Code of the City of Austin, as amended ("Water District Procedure Ordinance"), prior to the issuance thereof, which approval shall not be unreasonably withheld; provided, however, that any authorization which may be granted hereunder by the City of a principal amount of District bonds (plus interest) proposed to be issued by the District shall be deemed to include the approval of bond anticipation notes in a principal amount not to exceed the amount of principal and interest of the District Bonds so authorized. It is specifically agreed that the District Bonds, when issued, shall be secured by a pledge of the District's taxes and revenues.

Section 2.2 Use of Bonds and Other Funds. The parties hereto acknowledge and agree that this Agreement and the Water District Ordinance have the effect of restricting the general statutory purposes for which the District may issue bonds and notes. The parties further recognize and agree that neither this Agreement nor the Water District Ordinance

otherwise restrict or limit the powers and authority of the District to acquire, own, operate and maintain water or wastewater systems, drainage facilities, recreational facilities, or any other systems, facilities, assets or properties of or serving the District. The District may use funds and assets from any other available, lawful source to provide for such acquisition, ownership, maintenance and operation, as well as to accomplish any purpose or to exercise any function, act, power or right authorized by law. Such funds and assets shall include, without limiting the generality of the foregoing, revenues from any of the systems, facilities, properties and assets of the District not otherwise committed for the payment of indebtedness of the District; maintenance taxes; loans, gifts, grants and donations from public or private sources; and revenues from any other source lawfully available to the District. The District bonds and notes may be issued by the District for any purpose not specifically prohibited by this Agreement or the Water District Ordinance.

ARTICLE 3

DISTRICT FACILITIES

Section 3.1. General Statement. It is understood and acknowledged that the District may provide water service to the Property by acquisition and/or construction of a District water treatment facility and distribution system; shall provide wastewater service by acquisition and/or construction of a District collection, treatment and irrigation system; shall provide drainage facilities, as necessary, within the District; and shall own and maintain certain parkland and associated recreational facilities within the District (collectively referred to as "District Facilities"); provided, however, notwithstanding the above, the District may purchase treated water from another political subdivision of the State of Texas through the use of said political subdivision's water treatment system if an agreement relating to water purchase is reached between such a political subdivision and Senna Hills and/or the District. Senna Hills shall file a copy of any such executed agreement with the Law Department of the City. Subject to the consent of the District, Senna Hills may serve as the project manager for the construction of all or a portion of the District Facilities to be constructed or acquired by the District. Senna Hills and/or the District shall cause the District Facilities to be designed and constructed in accordance with the plans prepared by the engineer for Senna Hills and/or the District. Construction of any District Facility shall not commence unless the plans and specifications therefor have been approved by the City and all other governmental entities having jurisdiction; provided, however, the District and/or Senna Hills shall have the right to impose specifications and requirements for construction and installation which exceed or are more restrictive than those established by the governmental agencies.

Section 3.2. Water and Wastewater Lines. The routing and design of District water and wastewater lines crossing any draws (100 year floodplain) shall be subject to the review and approval of the City's Environmental and Conservation Services Department ("ECSD"). The following mitigative measures shall be utilized during water and wastewater line

construction, as appropriate: Crossing points shall be chosen to minimize the impact on the environment to the extent feasible, work space and areas of disturbance shall be reasonably restricted, erosion and sedimentation controls as required by the City's Environmental Criteria Manual shall be utilized, and any disturbed area shall be immediately and properly restored with native vegetation. Restoration shall be subject to review of ECSD. Installation of all District water and wastewater lines shall comply with the applicable watershed ordinances and other applicable ordinances.

Section 3.3. No-discharge Permit. The parties acknowledge that Senna Hills has received a no-discharge wastewater disposal permit No. 13238-01 ("Permit") from the Texas Water Commission. Senna Hills shall file and diligently pursue an application with the Texas Water Commission to amend the Permit to require parameters of five (5) milligram per liter limit on five day biological oxygen demand (BOD5), five (5) milligram per liter limit on total suspended solids (TSS), and two (2) milligram per liter limit on ammonia nitrogen (N). In any case, Senna Hills shall operate the wastewater treatment facilities at the parameters stated in this Section. Senna Hills shall initiate proceedings before the Texas Water Commission to transfer the Permit to the District at or near the time the wastewater treatment facilities are acquired or constructed by the District. The orders of the Texas Water Commission amending the Permit and transferring the Permit shall be promptly filed with the City Attorney's office of the City.

Section 3.4. Use of Irrigation Land. Senna Hills and/or the District, as said permittee, shall utilize irrigation land having slopes of 0%-15%. Senna Hills and/or the District shall augment areas of existing vegetation with seeding of grasses through a seeding program. General guidelines for said program are shown in the attached Exhibit "C", made a part hereof for all purposes, which guidelines are subject to refinement by Senna Hills and/or the District in conjunction with ECSD. No irrigation shall be Permitted in the one hundred (100) year flood plain or during wet weather conditions.

Section 3.5. Tailwater Control Facilities. Tail water control facilities, such as berms, shall be provided in a manner consistent with sound engineering principles within the area of effluent irrigation, if necessary. ECSD and the Water and Wastewater Utility shall have the right of prior approval of the proposed design and location of the facilities. The location and design of tailwater control facilities shall be shown on site development permits.

Section 3.6. Water and Soils Monitoring Program. Senna Hills and/or the District shall implement and comply with the water quality and soils monitoring program as generally described in Exhibit "D", attached hereto and incorporated herein by reference. Any potential for significant water quality or soils degradation revealed by the program shall be addressed by any mechanisms agreed upon by ECSD and Senna Hills and/or the District, including, but not limited to, the mitigative measures shown on Exhibit "D". If said entities are not able to agree upon a mechanism(s), any of said entities may request that the City Council make a recommendation as to said mechanism(s).

Section 3.7. Effluent Pond. The parties agree that the effluent storage pond shall be constructed in the Lake Austin Watershed and will be of sufficient size so as to provide up to one hundred (100) days of effluent storage, in accordance with the then current standards of the Texas Water Commission. Senna Hills shall line the holding pond with an impermeable liner which meets the specifications and requirements of the Texas Water Commission.

Section 3.8. Lift Stations. Senna Hills and/or the District shall design and install lift stations in accordance with City of Austin specifications and regulations. The City shall have the right to review and approve the design of the lift stations and overflow containment facilities.

Section 3.9. Acquisition by District. The District may reimburse Senna Hills for the cost of construction of any District Facilities constructed by Senna Hills to the extent authorized by the Texas Water Commission. To the extent the District is not permitted by the Texas Water Commission to pay Senna Hills for any facility, Senna Hills shall dedicate such facility to the District without compensation.

ARTICLE 4

OPERATION AND MAINTENANCE

Section 4.1. District Facilities. The District shall operate and maintain the District Facilities, unless the City and the District enter into a contract for the City to operate the District Facilities in such manner and for such compensation as may be mutually agreeable. The District shall have the obligation to inspect all water and wastewater connections made in the District for compliance with the requirements of the Uniform Plumbing Code, the City's local amendments thereto, the water and wastewater service detail Promulgated by the Water and Wastewater Utility of the City, as hereinafter amended from time to time, and the rules and regulations of the Texas Water Commission.

Section 4.2. Living Unit Equivalents The City acknowledges that the District's overall water and wastewater capacity demand, as expressed in living unit equivalents ("LUEs"), to fully develop the District is 494 LUEs of water service and 494 LUEs of wastewater service, based on a maximum of 484 LUEs for residential use and 10 LUEs for school use. LUEs per land use category are calculated based on City criteria.

Additional water and wastewater requirements shall be determined if (a) the District annexes land in accordance with Article V, (b) the land use plan for the Property is amended in accordance with Article 9 or (c) zoning, platting or replatting of property within the District affects the capacity demand.

Nothing herein shall be construed as a prohibition against the District or Senna Hills petitioning for any water or wastewater capacity which may become available to the District or Senna Hills by the extension or addition of City facilities; provided, however, that nothing herein guarantees the District or Senna Hills any capacity in any facilities.

Section 4.3. Park. The District shall operate and maintain the District Park described in Section 9.4 herein and the recreational facilities located within said District Park to the extent permitted by law and the rules and regulations of the Texas Water Commission. Upon annexation and dissolution of the District by the City, said District Park shall be conveyed to and operated and maintained by the City.

Section 4.4. Audit. The District shall file a copy of its annual audit, and a copy of its proposed budget for the following year showing expenses, income and revenue sources with the City Clerk, the Director of Financial Services and City Manager of the City. The annual audit shall be filed within one hundred thirty-five (135) days after the end of the District's fiscal year.

Section 4.5. Filings with State Agencies. The District and/or Senna Hills shall notify the City of any filings made with the Texas Water Commission, other than routine reports required by state law, in advance of said filings and shall provide copies of said filings to the Law Department of the City simultaneously with the filing at the respective agency.

Section 4.6. Operations Manual. Senna Hills and/or the District shall develop an operations manual relating to the proper operation of the wastewater treatment plant and the irrigation system and a copy of said manual shall be filed with the Law Department of the City.

ARTICLE 5

AREA OF AND LIMITATIONS ON SERVICE

Section 5.1. General Statement. Unless the prior approval of the City Council of the City is obtained, which approval shall not be unreasonably withheld, the District shall not: (1) construct or install water or wastewater lines or facilities to serve areas outside the District; (2) sell or deliver water or wastewater service to areas outside the District; or (3) annex any additional lands to the District.

Section 5.2. Procedure. With respect to all land for which approval for annexation to or out-of-district service from the District is hereafter requested, the petitioner shall comply with the Water District Procedure Ordinance and shall submit a land use plan covering the land for which annexation or out-of-district service is sought at the time such approval is requested. Any land for which annexation or out-of-district service is requested shall be developed in accordance with the approved land use plan in the same manner set forth in Article 9 for land originally included within the District.

ARTICLE 6

ANNEXATION BY CITY

Section 6.1. General Statement. The parties hereto acknowledge and agree that the land comprising the District lies within the extraterritorial jurisdiction of the City and is not bordered by another city, town, or village. The parties further acknowledge that the creation of the District, and the City's consent thereto, are for the purpose of promoting the orderly development of services to the Property.

Section 6.2. Incorporation. In furtherance of the purposes of this Agreement, the District and Senna Hills covenant and agree to the extent allowed by law that, except upon written consent of the City Council of the City they will not: (1) seek or support any attempt to incorporate any land within the District, or any part thereof; or (2) sign, join in, associate with, or direct to be signed any petition seeking to incorporate any land in the District or to include any of such land within the boundaries of the City or any other incorporated entity. Senna Hills shall notify each person or entity purchasing property within the District from Senna Hills of the annexation provisions of this Agreement and that any attempt to incorporate all or any part of the District would be contrary to the intent and purpose of this Agreement.

Section 6.3. Annexation Generally. All parties to this Agreement respectively agree that one of the purposes of this Agreement is to effectuate the provisions of Section 54.016(f) of the Texas Water Code regarding annexation of all of a district pursuant to the terms and conditions of a contract between the district and a city. It is further understood that, by enacting the ordinance granting consent to the creation of the District and by executing this Agreement, the City has begun to provide for the legal process of annexation of the District, and it is mutually agreed that all parties hereto shall use their best efforts to bring about the conclusion of that process in accordance with the terms hereof.

Section 6.4. Timing. It is expressly understood and agreed that the City may annex the District's lands and dissolve the District upon the following terms and conditions:

a. The District agrees that at least ninety percent (90%) by dollar amount of the total District Facilities to be constructed for which District bonds are authorized ("requisite percentage of District Facilities") will be installed within fifteen years from the date of confirmation of the creation of the District. At any time following the installation of the requisite percentage of District Facilities, such land may be included in the corporate boundaries of the City in accordance with applicable law. If the installation of the requisite percentage of District Facilities has not been accomplished within said fifteen years, the City, at its option, may annex land within the District in accordance with applicable law.

b. Notwithstanding the provisions of Section 6.4.a. of this Agreement, if prior to the installation of the requisite percentage of District Facilities, the City is presented with a valid petition for annexation of lands within the District in aid of incorporation which complies with the provision of the Municipal Annexation Act (Article 970a, V.T.C.S.) and all other statutes, ordinances and charter provisions relating to incorporation, or if the City finds annexation to be feasible, the City shall be authorized to annex such land into the corporate boundaries of the City.

c. Notwithstanding the above, if the installation of any item of authorized District Facilities financed with the proceeds of District bonds has commenced in good faith in compliance with and in reliance upon the provisions of this Agreement and is in progress at the time the City finds annexation of the District to be feasible, the City shall give written notice of its intent to proceed to annex the District, by registered or certified mail, return receipt requested, to the address of the District designated in the registration statement on file with the Texas Water Commission, with a copy to the District's attorney of record, and annexation of the District shall be postponed until: (i) the installation of the items has been completed; or (ii) the expiration of one (1) year, whichever occurs first.

Section 6.5. Allocation Agreement. Upon the annexation and dissolution of the District, the City shall immediately succeed to all properties, powers, duties, assets, debts, liabilities, and obligations of the District; provided, however, in the event the District and the City agree that the District shall continue to exist following the effective date of such annexation, such existence shall be subject to the following terms and conditions:

a. The provisions of this Agreement shall remain in full force and effect until the District is dissolved in accordance with the provisions of Section 6.5.d. herein.

b. The total ad valorem taxes collected by the City and the District on taxable property within the District during any year between annexation of the District and dissolution of the District shall not exceed an amount greater than the City's ad valorem tax upon property located outside the District. As between the City and the District, the District shall be entitled to levy and collect an ad valorem tax which, when added to the projected revenues of the District for the next year, will yield an amount sufficient to meet all financial obligations of the District and provide a ten percent (10%) contingency fund. The City shall be entitled to levy and collect an ad valorem tax which, when added to that which the District is entitled to levy and collect, shall not cause the total ad valorem taxes on taxable property within the District to exceed the limitation set forth above. It is provided, however, that if the foregoing limitation upon the total amount of ad valorem taxes shall be declared invalid by a court of competent jurisdiction and no appeal is or can be taken from that decision or if the statutory limitation should be repealed by the state legislature, then such limitation shall not apply and the City and District may each levy such ad valorem taxes as may be authorized by law.

c. During the period following annexation but preceding dissolution of the District, the District shall, to the extent permitted by law, be responsible for providing water and wastewater service to the residents of the District. The City shall be responsible for the provision of all other governmental services, including maintenance of public parks and recreational areas, to residents of the District until dissolution of the District, at which time the City shall become responsible for the provision of all governmental services to residents of the District.

d. The District shall be dissolved and the City shall succeed to all the remaining properties, powers, duties, assets, debts, liabilities, and obligations of the District upon: (1) the retirement of the District's bonded indebtedness or (2) the expiration of forty (40) years from the date this Agreement is executed by the District, whichever occurs first, unless the City and the District agree otherwise.

Section 6.6. City Surcharge. After annexation of the District by the City and dissolution of the District, the City may charge and collect a special surcharge for the purpose of wholly or partially compensating the City for the assumption of the obligations of the District, as provided by Texas Water Code, Section 54.016(h). The surcharge shall be calculated pursuant to the criteria and formula provided for in Exhibit "E" attached hereto and incorporated herein by reference. The surcharge may be charged by the City in addition to the City's normal water and sewer rates to customers within the boundaries of the dissolved District until the bonded indebtedness of the District has been retired or for thirty (30) years after the initial District debt issue, whichever occurs last, but in no case for a longer period of time than is necessary to wholly compensate the City for its assumption of the bonded indebtedness of the District. It is understood and acknowledged that the formula and criteria contained in Exhibit "E" base such charge upon compensation of only a portion of the obligations to be assumed by the City. The City shall have the right to recalculate the amount of the surcharge so that such surcharge would compensate the City for additional outstanding obligations of the District. If the variables used to calculate the surcharge should change from the numbers used in Exhibit "E", the City may recalculate the surcharge accordingly, and such recalculated surcharge may be charged and collected as provided herein. The provisions of this Section 6.6 shall be disclosed at closing to each purchaser of a tract of land in the District in accordance with the Texas Water Code, Section 54.O16(h)(4).

ARTICLE 7

OBLIGATIONS AFTER ANNEXATION

Except as otherwise provided herein, when the land within the District is annexed to the City and the District is dissolved, Senna Hills shall incur no further contractual obligations and responsibilities pursuant to this Agreement; provided, however, that any such

obligations or responsibilities which may have been incurred by Senna Hills prior to annexation and dissolution of the District shall not terminate unless and until the City and Senna Hills agree otherwise.

ARTICLE 8

LAND AND EASEMENT COSTS

All easements and rights-of-way needed for District purposes within the District shall be dedicated to the District by Senna Hills, its successors or assigns. The District may acquire land outside the District for District purposes from Senna Hills or other landowners in accordance with the rules of the Texas Water Commission. Land, easements, and rights-of-way outside the District required by the District shall be acquired by the District in accordance with the usual and customary public purchasing standards and procedures applicable to the District.

ARTICLE 9

LAND USE AND DEVELOPMENT

Section 9.1 Restrictive Covenants. Senna Hills, its successors and assigns, covenant and agree that, at the time the creation of the District is confirmed by the qualified voters in the District or prior to development of the Property, whichever occurs first, the following restrictive covenants, lettered a. through k., shall be placed of record in the Real Property Records of Travis County, Texas, in a form approved by the City Attorney, which covenants and restrictions shall run with the land and be binding upon Senna Hills, and its successors and assigns:

a. Senna Hills, its successors and assigns, shall develop and maintain the Property in accordance with the Land Plan, attached hereto as Exhibit "F" and made a part hereof for all purposes ("Land Plan"), including all notations thereon, as the same may be amended from time to time with the concurrence of a majority of the members of the City Council of the City and Senna Hills, its successors and assigns, in accordance with the Water District Procedure Ordinance, except as otherwise hereinafter provided. The District's overall gross residential density shall be limited to no more than 1.53 units per acre based on a maximum of four hundred eighty-four (484) residential units on 316.695 acres.

b. The Property shall be developed and maintained in a manner which meets or exceeds the standards for landscaping set out in the City's Landscape Ordinance, as codified in Chapter 13-2A of the 1981 Code of the City of Austin (the "Code"), as

amended from time to time, and the standards of the Tree Ordinance, as codified in Chapter 9-12 of the Code, as amended from time to time.

c. The Property is located partially within the Barton Creek Watershed and partially within the Lake Austin Watershed. Development of the Property specifically shall comply with the Comprehensive Watersheds Ordinance No. 860508-V, unless the Property is exempt from said Ordinance pursuant to the terms of said Ordinance in which case the Property shall be developed pursuant to the following standards: Development and maintenance of that portion of the Property which lies within the Barton Creek Watershed shall meet or exceed the standards set forth in the Barton Creek Watershed Ordinance, as codified in Article VII, Division 2 of Chapter 13-3 of the Code, pertaining to subdivision of property, and in Article V, Division 4 of Chapter 9-10 of the Code, pertaining to site development of property, as such may be amended from time to time. Development and maintenance of that portion of the Property which lies within the Lake Austin Watershed shall meet or exceed standards set forth in the Lake Austin Watershed Ordinance, as codified in Article VII, Division 5 of Chapter 13-3 of the Code, pertaining to subdivision of property, and in Article V, Division 5 of Chapter 9-10 of the Code, as such may be amended from time to time. That portion of the Property which lies within the Lake Austin Watershed is hereby granted a waiver from Sections 9-10-421 and 13-3-663 of the Code as follows: Senna Hills shall provide eight thousand (8000) square feet per living unit equivalent of irrigation land on slopes up to 15%, provided, however, that Senna Hills may utilize seven thousand (7000) square feet per living unit equivalent of irrigation land on slopes of 0-15%, so long as said 7000 square feet contains not less than six inches of effective depth of soil as determined by Senna Hills and ECSD; and further provided, however, if in the best judgment of ECSD, the addition of soil to reach a level of six inches of effective depth of soil would be ineffective or adverse to the environment, ECSD may waive said requirement.

d. The standards for construction and maintenance on the Property shall be in compliance with the City's Building Code, including, but not limited to any provisions thereof relating to construction in flood plains (including floodplain modification standards of the Waterway Development Ordinance in effect at the time each subdivision is developed), the City's Plumbing Code, the City's Electrical Code, the City's Mechanical Code and the City's Fire Protection Code, as the same may be amended from time to time, as if the Property were within the City's corporate limits.

e. The subdivision of the Property shall require approval of subdivision plats by the City Planning Commission as provided by Art. 974a V.T.C.S,, as amended; by applicable provisions of Chapter 13-3 of the Code, as amended from time to time; and by any variances, exemptions, or waivers from applicable ordinances granted by the City.

f. The erection and maintenance of billboards and signs in the District shall be consistent with the standards of Chapter 13-13 of the Code, as amended from time to time.

g. Development shall be prohibited within the Irrigation Lands as shown on the Land Plan; provided, however, said irrigation land may be utilized for recreational purposes and facilities which do not conflict with the use of said land for irrigation purposes. This restriction shall continue to be in effect following the time that irrigation may cease on said areas.

h. The following setbacks and easements shall be required and shall be indicated on required preliminary plans and final plats:

(1) An irrigation setback of one hundred fifty feet (150') from the centerline of the two (2) major draws within the District; and

(2) An irrigation setback of one hundred feet (100') from the seasonal seep as shown on the Land Plan; and

(3) An irrigation setback of twenty-five feet (25') from the centerline of the swale located in the ephemeral seepage zone as shown on the Land Plan; and

(4) A lot line or building setback of twenty-five feet (25') from the downslope limits of the 0% to 15% slope category, where this category occurs adjacent to the 35% or greater slope category at three locations as shown on the Land Plan.

(5) Erosion and sedimentation controls shall be maintained adjacent to and outside of said setbacks in compliance with applicable City ordinances.

i. Compliance with the applicable terms of the City's FM 2244 Ordinance shall be required.

j. Compliance with all applicable City environmental ordinances and any variances, exemptions or waivers granted by the City from said ordinances shall be required.

k. All City reviews, permits, approvals, or inspections required by these covenants and restrictions shall require the payment to the City of the standard fees charged for said reviews, permits, approvals or inspections, which fees shall not be included as bondable items. It is specifically understood and agreed that inspection fees for bondable water, sewer and drainage facilities are not addressed in this section and bonding of such fees is not prohibited. Failure to procure the required permits, (variances, waivers,) reviews, approvals or inspections, whether conducted by the City or an authorized outside agency, shall subject Senna Hills, its successors and assigns, or the permit holder, as appropriate, to stop work orders issued by the appropriate agents of

the City as authorized by the applicable ordinance or a court of competent jurisdiction requiring the cessation of any further construction or related operations until such permits, (variances, waivers,) reviews, approvals or inspections are acquired.

Section 9.2 Land Plan Changes. It is acknowledged and agreed that the densities and land use intensities reflected on the Land Plan and in Section 9.1a above are not guaranteed levels of development, but rather are subject to changes thereof necessitated by compliance with the requirements of applicable ordinances and applicable provisions of the City's Comprehensive Plan, as such may be amended from time to time, and the aforementioned gross density limit. Senna Hills may request variances from applicable ordinances in accordance with the provisions of said ordinances but variances are not guaranteed except as stated in this Agreement. Senna Hills may also request variances, exceptions, and waivers from the requirements of Section 9.1, however, variances, exceptions, and waivers are not guaranteed except as stated in this Agreement. Any increase in the overall residential density within the District, any increase in the number of LUEs, any increase in the intensity of the land uses, or any change in the land uses shown on the Land Plan may only be made with the concurrence of a majority of the members of the City Council of the City and Senna Hills, its successors and assigns, in accordance with the Water District Procedure Ordinance; provided, however, other changes may be approved administratively by the City' s Director of Planning and Development.

Section 9.3. Subdivision Plats. All of the Property shall be developed consistent with the City's Subdivision Ordinance, Chapter 13-3 of the Code, as such may be amended from time to time, except as stated in this Agreement, and with the Land Plan, which shall be updated as each section of the Property is platted, and shall further comply with any applicable provisions of the City's Comprehensive Plan, as such may be adopted and amended from time to time. Senna Hills agrees to supply the City with density and LUE analysis as each site plan, preliminary subdivision plan, and final plat for any portion of the Property is submitted to the City, for the purpose of monitoring compliance with the aforementioned density and LUE limits. The Director of the Department of Planning and Development shall determine whether a plat is in substantial compliance with the Land Plan. Any person aggrieved by the decision of said Director may appeal such decision by filing a written notice thereof with the City Clerk within ten (10) days of the date of such decision. The City Council shall then hold a public hearing and render a decision either affirming or reversing such decision within fifteen (15) days of the date of such notice of appeal.

Section 9.4. Public Park. Senna Hills agrees and covenants to dedicate, as public parkland, and by these presents does hereby express its intention to dedicate at approximately 14 acres of public parkland to the District, with approximately 500 feet of roadway frontage, as such acreage is shown on the Land Plan, within seven (7) years of the creation of the District. Senna Hills shall finance the design and installation of at least $98,000.00 worth of park and recreational facility improvements on the dedicated

parkland (the "Recreational Facilities"), with such installation to be completed within two years of the dedication of the public parkland to the District. Senna Hills agrees to allow the City to review and approve the plans and specifications for the Recreational Facilities prior to installation, using the same criteria as if the site were located within the City limits. The park and Recreational Facilities shall be constructed to City specifications and shall be dedicated to the District at no cost to the District.

Section 9.5. Irrigation Land. Senna Hills shall dedicate the Irrigation Land indicated on the Land Plan and required by Section 9.1 herein to the District. The Irrigation Land may be dedicated in portions as final plats for the Property are approved; provided, however, each preliminary subdivision plan, final plat or previously approved preliminary plan or final plat shall show a sufficient amount of Irrigation Land at the time of any final plat approval as needed to provide sufficient Irrigation Land for the lots on said final plat and all previously approved final plats for the Property. Senna Hills shall have the right to use such acreage under the provisions of the City's Subdivision Ordinance during the platting process, including but not limited to the use thereof for density and impervious cover calculations, to the extent permitted under applicable City ordinances.

Section 9.6. Conservation Easements. Conservation easements shall be created and executed and recorded to protect all of the Conservation Easement Areas shown on the Land Plan. All conservation easements shall permit Senna Hills, its successors and assigns, to utilize said easements for utilities as reasonably necessary subject to the review and approval of ECSD; provided, however, this section is not intended to waive any requirement relating to the obtaining of site development permits contained in applicable ordinances of the City or this Agreement. All other construction site disturbance shall be prohibited. A copy of all conservation easements shall be filed with the City Attorney's Office.

Section 9.7. Drainage. Energy dissipation and filtration shall be provided on all storm sewer drainage outfalls within one hundred fifty feet (150') of all canyon heads and major ravines in accordance with the applicable City watershed ordinance. Energy dissipation and filtration may be accomplished through the use of grassed swale or other acceptable method.

Section 9.8. Springs. All groundwater discharge areas defined as "springs" by the City's Comprehensive Watershed Ordinance, Chapter 13-15 of the Code, shall be identified on all required site plans, preliminary plans, final plats and site development permit applications.

Section 9.9. Transportation.

a. Senna Hills shall provide traffic signals when warranted at the intersections of any access roads to the Property from FM 2244. Traffic warrants will be

determined by the Texas Department of Transportation ("TxDOT") and the City's Department of Public Works and Transportation ("DPWT").

b. Senna Hills shall provide right turn lanes on FM 2244 at the intersections of any access roads to the Property, with FM 2244 at the discretion of the TxDOT.:

c. Senna Hills shall evidence its ability to fully fund the requirements of Section 9.9, a and b by posting fiscal arrangements prior to the recording of any final subdivision plat on the Property unless:

(1) The TxDOT approves a lesser amount in consequence of its FM 2244 budgeting and construction through TxDOT's financing of all or a part of said requirements or,

(2) Additional roadway access through the Property to the adjacent Wolf tract is proposed prior to the Provision of any of the above referenced roadway improvements. In that case the fiscal participation of Senna Hills would be based on a pro-rata share as determined by a Traffic Impact Analysis ("TIA"). If the proposed Wolf tract development is not required to perform a TIA by City ordinances, then Senna Hills would be required to submit a new TIA to support its reduced percentage of participation.

TxDOT must deliver or have delivered to the City Manager, or his or her designee, a written release from this Section 9.9.c. prior to any such reduction by the City of Senna Hills' fiscal responsibility.

d. Senna Hills shall post fiscal arrangements to fully fund all internal roadway construction and traffic control signs or devices for each phase of development of the Property prior to the recording of any final plat for such phase.

ARTICLE 10

ASSIGNMENT OF AGREEMENT

Section 10.1. General Statement. Senna Hills, its successors and assigns may, from time to time, transfer, convey or assign all or any part of its rights and obligations under this Agreement with respect to all or any part of the land within the District owned by it. Upon approval by the City of the assignee or assignees, which approval shall not be unreasonably withheld, provided that the assignee or assignees assume the liabilities, responsibilities and obligations of the assignor under this

Agreement, the party assigning its rights and obligations under this Agreement shall be released from the liabilities, responsibilities and obligations hereof to the extent of the land involved in such assignment or assignments or to the extent otherwise approved by the City. The Purchaser of an undeveloped tract of land within the District shall agree to accept an assignment of the land use and development rights and obligations of this Agreement with respect to the tract being Purchased. The seller of said tract shall agree to make such an assignment. Purchasers of a developed - but unimproved lot shall be required at the time of purchase to sign a statement acknowledging and agreeing to abide by the land use and development requirements herein. Neither the District nor the City shall assign this Agreement without written consent of each of the other parties hereto, which consent shall not be unreasonably withheld. Senna Hills may pledge or assign any of its rights hereunder to a lending institution as security for development financing of the Property. Senna Hills is specifically authorized to assign this Agreement to the District upon its creation; provided, however, that such assignment shall not relieve Senna Hills or its successors or assigns from the obligation to comply with the land use requirements and the other provisions contained herein affecting the use and conditions of sale of property within the District.

ARTICLE 11

TERM OF AGREEMENT

Section 11.1. General Statement. This Agreement shall be effective from the date of execution hereof by the City and Senna Hills and shall continue in effect for a period of forty (40) years from the date of the creation of the District.

ARTICLE 12

JOINT CONTRACTING

Section 12.1. General Statement. The District shall be and is hereby authorized to contract with any entity, individual, governmental authority or political subdivision for the construction, operation and maintenance of any water, wastewater or other facilities which are within the power of the District to construct, operate or maintain in accordance with the Texas Water Code, Section 54.218.

ARTICLE 13

SEVERABILITY AND ENFORCEABILITY

Section 13.1. Severability. The provisions of this Agreement are severable and, in the event any word, phrase, clause, sentence, paragraph, section or other provision of this Agreement, or the application thereof to any person or circumstance, shall ever be held or determined to be invalid, illegal or unenforceable for any reason, the remainder of this Agreement shall remain in full force and effect and the application thereof to any other person or circumstance shall not be affected thereby.

Section 13.2. Enforceability. In the event that the Texas Water Commission or any court of competent Jurisdiction determines that any provision of this Agreement is beyond the scope of the Texas Water Code; the City, Senna Hills and the District agree to immediately amend this Agreement to conform to any final ruling or decision.

ARTICLE 14

BENEFITS OF AGREEMENT

Section 14.1. General Statement. This Agreement is for the benefit of the City, the District, and Senna Hills, and their respective successors and assigns, and shall not be construed to confer any benefit on any other party except as expressly provided herein.

This Agreement may be executed by the City and Senna Hills prior to creation of the District and shall be binding upon the City and Senna Hills for a period of eighteen (18) months following such' execution by the City, pending creation and confirmation of the creation of the District and approval and execution of this Agreement by the Board of Directors of the District.

IN WITNESS WHEREOF, each of the parties hereto has caused this Agreement to be executed by its undersigned duly authorized representative, in multiple copies, each of equal dignity, effective as of the date first written above.

APPROVED AS TO FORM:

City Attorney Asst.

CITY OF AUSTIN, TEXAS

By: Asst City Manager, City of Austin

ATTEST:

Deputy City Clerk

SENNA HILLS MUNICIPAL UTILITY DISTRICT

By: _____
Charles A. Brown,
President,
Board of Directors

Attest: _____
Tom Ball,
Secretary,
Board of Directors

SENNA HILLS, LTD.,
a Texas limited partnership
By: SH DEVELOPMENT, L.C.,
a Texas limited liability company

By: _____
Don P Miller, II, President

THE STATE OF TEXAS §
§
COUNTY OF TRAVIS §

This instrument was ACKNOWLEDGED before me on Feb 4, 1993, by Joseph L. Lessard, Asst. City Manager of the City of Austin, Texas, on behalf of said city.

[S E A L]

NOTARY PUBLIC STATE OF TEXAS
LUCILE MOKRY
Notary Public, State of Texas
My Commission Expires April 19, 1993

_____
Notary Public - State of Texas

My Commission Expires: _____

THE STATE OF TEXAS §
§
COUNTY OF TRAVIS §

This instrument was ACKNOWLEDGED before me on JANUARY 11, 1993, by Charles A. Brown, President of the Board of Directors of Senna Hills Municipal Utility District, on behalf of said District.

[S E A L]

Notary Public - State of Texas

My Commission Expires: 9/11/93

THE STATE OF TEXAS §
§
COUNTY OF TRAVIS §

This instrument was ACKNOWLEDGED before me on January 11, 1993, by DON P MILLER, II, President of SH DEVELOPMENT, L.C., a Texas limited liability company, acting in its capacity as general partner of SENNA HILLS, LTD., a Texas limited partnership, on behalf of said limited partnership.

[S E A L]

Notary Public - State of Texas

My Commission Expires:_____

CATHERINE B. RIPPENHAGEN
MY COMMISSION EXPIRES
August 19, 1995

The Resolution Trust Corporation, as Conservator for Sunbelt Federal Savings, FSB is the beneficiary of a Deed of Trust With Security Agreement and Assignment of Rental which creates a first lien against the Property, and hereby executes this Agreement solely to evidence its consent to the provisions hereof.

The Resolution Trust Corporation, as
Conservator for Sunbelt Federal Savings, FSB

By: _____
Its: Irving A. Adler, Authorized Signatory for RT

THE STATE OF FLORIDA §
§
COUNTY OF BROWARD §

This instrument was ACKNOWLEDGED before me on January 20, 1993, by Irving A. Adler, Authorized Signatory for of the Resolution Trust Corporation, as Conservator for Sunbelt Federal Savings, FSB, a Federal corporation, on behalf of said corporation.

[S E A L]

Rita A. Ockopers
Notary Public - State of Florida

My Commission Expires:_____

NOTARY PUBLIC, STATE OF FLORIDA.
MY COMMISSION EXPIRES: DEC. 18, 1993.
BONDED THRU NOTARY PUBLIC UNDERWRITERS.

The undersigned are each owners of one acre tracts out of the Property as more particularly described on Exhibits G-1 through G-5 attached hereto, and hereby execute this Agreement to evidence our intent to have our properties be bound by and our consent to the provisions hereof.

Bill Sullivan

Brian Dabbs

Tom Ball

Larry Richardson

Charles Andrew Brown

THE STATE OF TEXAS §
§
COUNTY OF TRAVIS §

This instrument was ACKNOWLEDGED before me on January 12, 1993, by BILL SULLIVAN.

[S E A L]

Belinda Lee Brod
Notary Public - State of Texas

BELINDA LEE BROD
Notary Public, State of Texas
My Commission Expires 12-05-94

My Commission Expires: 12-05-94

THE STATE OF TEXAS §
§
COUNTY OF TRAVIS §

This instrument was ACKNOWLEDGED before me on January 11, 1993, by BRIAN DABBS.

BED

[S E A L]

BARBARA SHARP
NOTARY PUBLIC
State of Texas
Comm. Exp. 02-11-95

Barbara Sharp
Notary Public - State of Texas

My Commission Expires: 2-11-95

THE STATE OF TEXAS §
§
COUNTY OF TRAVIS §

This instrument was ACKNOWLEDGED before me on Jan 31, 1993, by TOM BALL.

[S E A L]

Carol Bell Mitchell
Notary Public - State of Texas

My Commission Expires:_____

THE STATE OF TEXAS §
§
COUNTY OF TRAVIS §

This instrument was ACKNOWLEDGED before me on January 11, 1993, by LARRY RICHARDSON.

[S E A L]

CATHERINE B. RIPPENHAGEN
MY COMMISSION EXPIRES
August 19, 1995

Catherine B Rippenhagen
Notary Public - State of Texas

My Commission Expires:_____

THE STATE OF TEXAS §
§
COUNTY OF TRAVIS §

This instrument was ACKNOWLEDGED before me on JANUARY 11, 1993, by CHARLES ANDREW BROWN.

[S E A L]

Notary Public - State of Texas

My Commission Expires: 9/11/93

EXHIBIT A

EXHIBIT "A"

PROPERTY DESCRIPTION

ALL OF THAT CERTAIN TRACT OR PARCEL OF LAND OUT OF THE JOHN G. MUSTAIN SURVEY NO. 40, THE J.M. TEAGUE SURVEY NO. 40, THE E.C. GAINES SURVEY NO 76 AND THE J.R. WATSON SURVEY NO. 646 IN TRAVIS COUNTY, TEXAS, BEING A PORTION OF THAT CERTAIN TRACT OF LAND DESIGNATED AS TRACT 2, CONTAINING 322.68 ACRES OF LAND AS CONVEYED TO CUNNINGHAM & ASSOCIATES NUMBER III, BY DEED RECORDED IN VOLUME 8467, PAGE 4 OF THE REAL PROPERTY RECORDS OF TRAVIS COUNTY, TEXAS, ALSO BEING ALL OF LOTS 1 & 2 AND A PORTION OF LOT 3, SENNA HILLS SECTION ONE P.U.D., A SUBDIVISION IN TRAVIS COUNTY, TEXAS, AS RECORDED IN PLAT BOOK 86, PAGES 121A AND 121B OF THE PLAT RECORDS OF TRAVIS COUNTY, TEXAS, ALSO BEING ALL OF SENNA HILLS DRIVE, A PUBLIC RIGHT-OF-WAY DEDICATED BY PLAT RECORDED IN BOOK 86, PAGES 121A AND 121B OF THE PLAT RECORDS OF TRAVIS COUNTY, TEXAS, THE HEREIN DESCRIBED TRACT BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING at a 1/2 inch iron pin set at the intersection of the East line of the said 322.68 acre tract and the new North r.o.w. line of F.M. Hwy No. 2244, being in the West line of that certain tract of land as conveyed to Rex D. Bible by deed recorded in Volume 7322, Page 148 of the Deed Records of Travis County, Texas, for the Southeast corner hereof;

THENCE along the new North r.o.w. line of F.M. Hwy. No. 2244 (fence varies along r.o.w. line) for the following courses:

S 69° 06' 47" w for a distance of 1427.11 feet to a highway monument found (brass disc in concrete) at a point of curve

Along a curve to the right whose radius is 1064.40 feet, whose arc is 1101.52 feet and whose chord bears N 81° 12' 49" W for a distance of 1053.02 feet to a 1/2 inch iron pin set

N 51° 33' 20" W for a distance of 1418.11 feet to a highway monument found at a point of curve

Along a curve to the left whose radius is 1532.40 feet, whose arc is 596.54 feet and whose chord bears N 70° 44' 57" W for a distance of 592.78 feet to a highway monument found

N 86° 32' 4" W for a distance of 61.26 feet to a 1/2 inch iron pin set at the intersection of the West line of the said 322.68 acre tract and the new North r.o.w. line of F.M. Hwy No. 2244, for the southwest corner hereof;

THENCE along the west line of the said 322.68 acre tract as fenced upon the ground for the following courses:

N 27° 49' 14" E for a distance of 315.50 feet to a 1/2 inch iron pin found

N 27° 56' 30" E for a distance of 539.35 feet to a 1/2 inch iron pin found

S 52° 19' 20" E for a distance of 100.26 feet to a 1/2 inch. iron pin found

N 28° 22' 39" E for a distance of 932.65 feet to a 1/2 inch iron pin found

N 28° 22' 50" E for a distance of 1152.29 feet to a 1/2 inch iron pin found

N 28° 01' 27" E for a distance of 757.54 feet to a 60-d nail found in a cedar tree at the Northwest corner of the said 322.68 acre tract for the Northwest corner hereof;

THENCE along the North line of the said 322.68 acre tract as fenced upon the ground for the following courses:

S 60° 09' 10" E for a distance of 411.60 feet to a 1/2 inch iron pin found

S 80° 47' 10" E for a distance of 35.84 feet to a 1/2 inch iron pin found

S 62° 30' 10" E for a distance of 78.20 feet to a 60-d nail found in a cedar tree

S 64° 03' 36" E for a distance of 43.66 feet to a 60-d nail found in a cedar tree

S 63° 18' 05" E for a distance of 139.88 feet to a 60-d nail found in a cedar tree

S 61° 56' 14" E for a distance of 91.40 feet to a 60-d nail found.

S 61° 26' 20" E for a distance of 469.07 feet to a 1/2 inch iron pin found

S 62° 11' 20" E for a distance of 917.23 feet to a 1/2 inch iron pin found

S 61° 47' 20" E for a distance of 385.36 feet to a 1/2 inch iron pin found

S 62° 38' 20" E for a distance of 587.05 feet to a 1/2 inch iron pin found

S 61° 06' 09" E for a distance of 175.60 feet to a 1/2 inch iron pin found

S 62° 42' E for a distance of 103.60 feet to a 1/2 inch iron pin found

S 35° 02' 11" E for a distance of 615.71 feet to a 1/2 inch iron pin found at the Northeast corner of the said 322.68 acre tract, for the Northeast corner hereof;

THENCE along the East line of the said 322.68 acre tract as fenced upon the ground for the following courses:

S 28° 51' 25" W for a distance of 1094.38 feet to a 1/2 inch iron pin found

S 28° 07' 13" W for a distance of 408.38 feet to a 1/2 inch iron pin found

S 27° 10' 38" W for a distance of 24.90 feet to a 1/2 inch iron pin found

S 26° 10' W for a distance of 217.65 feet to a 1/2 inch iron pin set at the Northeast corner of a 0.50 acre tract;

THENCE along the North line of the said 0.50 acre tract, N 63° 50' W for a distance of 200.12 feet to a 1/2 inch iron pin set for the Northwest corner of the said 0.50 acre tract;

THENCE along the West line of the said 0.50 acre tract, S 15° 31' W for a distance of 134.62 feet to a 1/2 inch iron pin found at the Northwest corner of the said Bible Tract, being in the East line of the said 322.68 acre tract;

THENCE along the East line of the said 322.68 acre tract, being the West line of the said Bible Tract as fenced upon the ground, S 15° 38' W for a distance of 249.63 feet to the PLACE OF BEGINNING and containing 316.695 acres of land, more or less.

EXHIBIT B

ORDINANCE NO. 81 0819-E

AN ORDINANCE REPEALING ORDINANCE NO. 800320-E; ESTABLISHING A POLICY RELATING TO POLITICAL SUBDIVISIONS CREATED PURSUANT TO ARTICLE III, SECTION 52 OF THE TEXAS CONSTITUTION OR ARTICLE XVI, SECTION 59 OF THE TEXAS CONSTITUTION FOR THE CITY OF AUSTIN; ESTABLISHING THEREIN BASIC QUALIFICATIONS FOR CONSENT TO THE CREATION OF A WATER DISTRICT; PROVIDING PERCENTAGES ALLOWED FOR BOND FINANCING; ESTABLISHING THE PROVISIONS OF THE BONDING PACKAGE; PROVIDING FOR THE PROVISION OF SPECIAL WATER AND SEWER RATES WITHIN THE CONSENT AGREEMENT AS AUTHORIZED BY SECTION 54.016(h) OF THE TEXAS WATER CODE; ESTABLISHING VARIOUS REQUIREMENTS; DECLARING A POLICY STATEMENT; SUSPENDING THE RULE REQUIRING THE READING OF ORDINANCES ON THREE SEPARATE DAYS; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, The City Council, of the City of Austin, Texas, wishes to allow the prudent utilization of Water Districts to encourage development in accordance with its Growth Management Plan, and

WHEREAS, The City Council wishes to develop policies to curtail the rising costs of housing and the size of purchase-money mortgages, and

WHEREAS, The City Council wishes to develop a policy for creation of Water Districts in a manner that will not burden the citizens of Austin with future debt, and

WHEREAS, The City Council wishes to develop a policy for the creation of Water Districts in a manner that will discourage urban sprawl; Now, Therefore,

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF AUSTIN:

PART 1. That Ordinance No. 800320-E, as amended, be and it is hereby repealed.

PART 2. That this policy relating to the political subdivisions created pursuant to Article III, Section 52 of the Texas Constitution or Article XVI, Section 59 of the Texas Constitution, be adopted pursuant to the applicable provisions of the Texas Water Code and the Texas Municipal Annexation Act of the State of Texas, to be equitably applied to all petitioners for new Water Districts within the City's Extra-Territorial Jurisdiction.

I. BASIC QUALIFICATIONS FOR CONSENT TO THE CREATION OF A WATER DISTRICT INCLUDING BUT NOT LIMITED TO MUNICIPAL UTILITY DISTRICTS (MUD), WATER CONTROL AND IMPROVEMENT DISTRICTS (WCID), AND FRESH WATER SUPPLY DISTRICTS (FWSD).

A. The Water District shall contain acreage necessary to assure the economic viability of the District, but in no event shall a Water District contain less than 100 acres.

B. The land to be included within the Water District must lie entirely outside the City limits; provided however, that land within the City by virtue of strip-annexation along major thoroughfares may be included with the Water District if such land within the City, constitutes no more than 5% of the total acreage of the Water District.

C. The economic viability of the district must be shown in the same manner as required by the State.

D. The consent resolution and agreement must reflect, and conform to, all the applicable stipulations of this policy.

E. The City Council must determine that the district is not likely to be annexed by the City within three (3) years. Such determination shall not be binding on the City, however.

F. When the City Council receives a petition for creation of a Water District within the City's Extra-Territorial Jurisdiction, it shall be evaluated in accordance with the policy set forth herein.

II. PERCENTAGES ALLOWED FOR BOND FINANCING.

A. A Municipal Utility District will be allowed to issue bonds equal in amount to the bonding package outlined in Section III. hereof, times the appropriate percentage determined in Exhibit "A", attached hereto. All other forms of Water Districts including Water Control and Improvement Districts and Fresh Water Supply Districts in Growth Management Areas III and IV will be allowed bonding authority equal to one half the percentages for the following items only listed in Exhibit "A" Municipal Utility Districts: 1) internal water lines, 2) regional drainage, 3) water approach mains, and 4) water facilities. All such other forms of Water Districts located in Growth Management Area V will be allowed bonding authority equal to three quarters of the percentages for the items listed. Exceptions to the percentage limitations in Exhibit "A" may be granted by the City Council only where a proposed Water District will serve established residential areas and is not being created primarily to serve undeveloped land. Further, when a petition is received for creation of a Municipal Utility

District in Area V which in the estimation of the City Council will not have a deletorious effect on the urban planning decisions including annexation, extension of utility service, protection of the environment, the fiscal integrity of the City of Austin and other goals delineated in the Austin Tomorrow Comprehensive Plan, it shall be evaluated on a case by case basis and considered individually on its merits and not necessarily subject to the provisions of this policy.

B. Where a Water District overlaps any of the boundary lines in Exhibit "A", the percentage shall be apportioned according to the number of living unit equivalents in each area. The percentage shall be determined with respect to area designation and City limits at the date the consent agreement is approved by the City Council.

C. The following definitions shall apply when used in Exhibit "A":

1. "Growth management area" refers to an area as described within the Master Plan of the City of Austin.

2. "Extra-territorial jurisdiction area" refers to that area between the City limits and 5 miles beyond that as defined in appropriate state enabling legislation.

3. "Internal water lines" or "Internal wastewater lines" means those lines, constructed within the Water District, including any oversize required which will not be recovered under the City's oversize policy since that policy shall be applicable to the developer.

4. "Storm sewer/drainage" is limited to the cost of storm sewer pipe and open channels and their installation where impervious channel surfaces are required.

5. "Regional drainage" means regional type storm water retention/detention features designed and constructed to control and/or manage storm water, a substantial portion of which issues from one or more watersheds outside the Water District, and provided such construction is approved by the Engineering Department of the City of Austin.

6. "Wastewater facilities" means treatment plants, storage facilities and other items not included in 3 or 9 of this section.

7. "Water facilities" means treatment plants, storage facilities, wells and other items not included in 3 or 10 of this section.

8. "Water Facilities Using Ground Water from Edward's Acquifer" means all such facilities listed in definition 7 above which, in this case, derive their raw water source from the Edward's Acquifer.

9. "Irrigation land" means land irrigated in connection with a sewage treatment plant. The bonds allowed for this land are to be determined by the raw land cost. When land or irrigation is no longer used for that purpose, and it is sold, the proceeds from the sale shall be placed in the Debt Retirement Fund of the district. If annexation has occurred, such proceeds shall be placed in the Utility Enterprise Debt Retirement Fund of the City of Austin.

10. Approach mains are defined as those water and/or wastewater lines which lead up to but not within the property to be served and as further defined, by the Cost Participation Ordinance of the City of Austin.

III. BONDING PACKAGE.

A. WATER, WASTEWATER AND DRAINAGE

A Water District shall be permitted the bonding permitted under the State law and the rules of the Texas Water Development Board for 1) construction, and for 2) land and easement costs for water, sewer, and drainage improvements (in accordance with Exhibit "A"). Further, the "30% rule" instituted by the Texas Water Commission shall apply in determining the bonding allowed for Water, Wastewater and Drainage. The percentages in Exhibit "A" shall apply after limits imposed by that rule and the delineation between types of districts and allowable bonding percentages established in Section II.A. of this Ordinance. The developer must pay 30% of the cost of internal lines and drainage. Additionally, that oversize portion of a water or wastewater approach main which the City of Austin has required to be constructed to serve areas outside of the

boundaries of the Water District may be financed with bonds. In such cases, the City shall repay the Water District annually for the City's pro rata share of the debt retirement cost of such facility. The City shall retain the right to allocate its pro rata share of the facility and collect subsequent users fees as defined in the Cost Participation Ordinance of the City of Austin. Provided, however, that the following items shall not be allowed to be financed by the issuance of bonds, and therefore, shall not be included in the bonding package:

1. Land or easements within the Water District, or any property owned by the developers of the Water District, dedicated for any water or wastewater line or facility, including treatment plants for any function related to drainage. Provided, however, that bonds may be authorized for the purchase of land for irrigation purposes connected with a package treatment plant (in accordance with the chart in Exhibit "A"). Provided further that irrigation land purchased from the developers of the Water District must be purchased at book value.

2. Curbs, gutters, inlets, culverts, and bridges.

3. Drainage improvement, except storm sewers and regional facilities, in accordance with Exhibit "A".

B. INTANGIBLES

1. A contingency factor of 10% shall be allowed on all water, wastewater and drainage costs.

2. Construction costs shall include 10% for engineering, and shall include all fees.

3. Interest during construction and capitalized interest shall be allowed to the full extent of the State law for all costs that qualify for bond financing.

4. Other non-construction costs allowed for bond financing are: fiscal agent fees, legal fees and administration organizational expense and printing the bonds, as allowed by State law.

C. BONDED AMENITIES

Additional bonding authority may be used as the City Council specifies for any of the following items. The City Council must approve the need for each item, the

site location and design. The aggregate of the City requirements shall be limited by the economic viability of the District. Bonded authority for any land under this section shall be based on raw land cost and carrying expenses.

1. Solid waste disposal sites.

2. Fire station sites.

3. Park lands, nature preserves, creek preservation easements, hike and bike trails, lakes and greenbelts in addition to those required by City ordinance.

4. Water quality monitoring stations, holding ponds and storm water treatment facilities.

5. Other items which might be mutually agreed upon by the City Council and the petitioners, and are permitted by the State.

D. NON-BONDED AMENITIES

The following amenities are required and shall not be financed by the issuance of bonds or by the incurrence of debt by the district.

1. Traffic control signs and devices constructed within the Water District.

2. Street signs.

3. Street lights.

4. Sidewalks, installed in accordance with Chapter 41 of the Austin City Code (Subdivision Ordinance), when developing by urban standards.

5. Recreational facilities on park land equal to 10% of the value assigned to the park land.

IV. Consent agreements for Municipal Utility Districts shall provide, in adequate detail as required by Section 54.016(h) of the Texas Water Code that the water and sewer rates for properties within the MUD be specifically set so as to compensate the City of Austin for assuming the district's indebtedness after annexation. These special rates shall be in effect until the bonded indebtedness of the MUD is fully retired. If the bonds are called, these special rates shall nevertheless be in effect for the full projected life of the original bonds. These special rates shall consist of a component calculated to retire all or part of the bonded indebtedness incurred by the MUD as set out in "A" below. The component shall be determined by calculating the monthly debt retirement

payment for the appropriate bonded indebtedness and dividing the monthly payment by the number of planned living unit equivalents within the district. After annexation, this special rate shall be charged in addition to the water and sewer rates paid by other city consumers of similar customer classification.

If the Municipal Utility District requests City Council approval of subsequent, additional bonding authority beyond that agreed to in the original consent agreement, the special rates agreed to in this section will be recalculated as determined above to reflect the additional bonded indebtedness.

In addition, if it becomes evident via the subdivision approval process or otherwise, that the number of planned living unit equivalents within the district will exceed or be less than the figure originally used as the basis for computing the surcharge then the district and the City agree to adjust the special charges accordingly.

A. The bonded indebtedness used to calculate the special rate shall be:

1) Area III: the total amount of bonded indebtedness for construction, land and easement costs for water and wastewater internal lines, and all drainage as set out in Exhibit "A";

2) Area IV: the total amount of bonded indebtedness for construction, land and easement costs for water and wastewater internal lines, all drainage as set out in Exhibit "A"; and fifty percent of the total bonded indebtedness for construction, land and easement costs for water and wastewater approach mains and facilities and irrigation land as set out in Exhibit "A".

3) Area V: the toal amount of bonded indebtedness for construction, land and easement costs for regional drainage, water and wastewater approach mains, water and wastewater facilities and irrigation land.

B. Since Section 54.016(h) of the Texas Water Code which permits the special rates used in this policy contains a provision which says that the City of Austin cannot annex the district prior to the installation of 90% of the facilities for which district bonds were authorized, the consent agreement must also contain a provision containing

a date for 90% installation beyond which authorization for all unissued bonds may be terminated at the option of the City Council. If the City Council elects to so terminate, it must concurrently annex the district. To facilitate this requirement the consent agreement must require that bonds be issued to finance only completed and approved facilities and existing items.

C. Any water and sewer customer within the boundaries of the City may enforce the special rates required to be included in a contract authorized by this policy.

D. Prior to annexation, the special rate calculated in Section IV shall be charged in addition to the regular rate which shall not be less than that charged by the City within the City limits for consumers of similar customer classification. The revenue from the special rate shall be deposited in the debt retirement fund of the district.

V. The revenue and ad valorem taxing authority of the district shall be pledged on all bonds as the City's ad valorem taxing authority shall be after annexation has occurred.

VI. ADDITIONAL REQUIREMENTS AND POLICY STATEMENT.

The City shall require the following of all Water Districts, and these requirements shall be stipulated by the appropriate set of consent resolutions and agreements.

A. All development activities within the district shall conform to all existing City of Austin ordinance re-requirements.

B. Underground utilities may be required by the City Council.

C. All development construction by the district or the developers must be done in accordance with the City of Austin standards for similar facilities and copies of plans and specifications must be approved by the City before construction begins.

D. All planning, designs, and construction of drainage facilities and other facilities and/or features pertinent to drainage shall be done in accordance with the "Drainage

Criterial Manual" of the City of Austin. Drainage plans must be approved by the Director of Public Works prior to land development.

E. The City shall have the right to inspect all facilities of the district at any time during construction, and final approval is required. In addition, the City shall have the right to charge inspection fees for review of facilities the cost of which is not covered by other appropriate charges.

F. Bonds shall be issued only for those purposes specifically authorized by the consent agreement, and bonds authorized for one purpose shall not be used for another.

G. Before the Water District issues bid invitations for its bonds, the City Council shall have the right of approval of all bond issues and sales, including bond prices, interest rates, and redemption premiums, and copies of all documents submitted to State agencies shall be concurrently submitted to the City.

H. All records, files, books, information, etc., of the district shall be a matter of public record, and available for City inspection at all times.

I. The district shall prepare annual reports for the City on the status of construction and bond sales.

J. All bonds issued by the district shall have a call provision which allows the option to redeem the bonds at par.

K. The district shall not furnish water or wastewater service to any tract of land unless the Planning Commission of the City of Austin has approved a subdivision plat covering such tract of land and such plat has been recorded in the deed records. The Planning Commission of the City of Austin will not be required to approve any subdivision within a Water District which does not conform to the provisions of the consent agreement.

L. The district shall not provide service outside its boundaries unless approval is obtained from the City Council. If such permission is granted, no bond funds shall be expended or indebtedness incurred to provide such service without approval of the City Council.

M. The City shall review and approve the adequacy, type and construction of all roadways in the Water District.

N. The City may require the construction of facilities or improvements for the purpose of mitigating the impacts of storm water runoff.

O. No land within the Water District shall be allowed, at any time in the future, to incorporate, join in an incorporation, or be annexed into any incorporated city other than the City of Austin.

P. No land may be annexed to a district without the approval of the City Council.

Q. Right-of-way, public park land, utility and drainage easements and all other appropriate lands and easements shall be properly dedicated to the public, the district and its ultimate successor.

R. The net effective interest rate will not exceed 2% above the highest average interest rate reported by the Daily Bond Buyer in its weekly "20 Bond Index" during the one-month period preceding the date notice of sale is given.

S. Any wastewater treatment plant constructed in whole or in part with bond proceeds under this policy, shall not discharge over the Edward's Acquifer recharge zone or in the Barton Creek Watershed but must instead irrigate. Any wastewater treatment plant constructed in whole or in part with bond proceeds under this policy must be reviewed and approved by the City Council prior to the issuance of the State permit or any amendment thereto if it is to discharge instead of irrigate.

T. Water Districts that are not charging a special rate as described in this Ordinance Part I, IV. shall charge a regular rate for service not less than that charged by the City for service to customers outside of the City as shall be established by the City Council from time to time.

U. Water service in a WCID, FWSD or any other type of Water District with the exception of a Municipal Utility District will only be provided to lots one (1) acre minimum in size to insure the capability to install and operate an on-site wastewater disposal system over the life of the property.

PART 3. That all ordinances, resolutions and orders heretofore passed, adopted and made, or any part of the same, affecting approach mains, which

are in conflict with this Ordinance, shall be and the same are hereby in all things repealed.

PART 4. Whereas, an emergency is apparent for the immediate preservation of order, health, safety and general welfare of the public, which emergency requires the suspension of the rule providing for the reading of an ordinance on three separate days, and requires that this ordinance become effective immediately upon its passage; therefore, the rule requiring the reading on three separate days is hereby suspended and this ordiance shall become effective immediately upon its passage as provided by the Charter of the City of Austin.

PASSED AND APPROVED

August 19, 1981

Carole Keeton McClellan
Mayor

APPROVED: Albert De La Rosa
Acting City Attorney

ATTEST: Grace Monroe
City Clerk

EXHIBIT C

PROPOSED

SENNA HILLS MUD

IRRIGATION FIELDS

PLANT SEEDING & MAINTENANCE PROGRAM

Introduction

To insure maximum consumption of irrigated effluent a plant seeding and maintenance program has been defined for the Senna Hills irrigation fields. Four grasses were chosen for the different soil types and topography found on the fields. Each cover type will be maintained to maximize water and nutrient uptake. Proposed plant covers and their consumptive rates are shown in the attached table. A brief description of each type of grass and it properties follows:

Planting Program

1. Eastern Gamma Grass

Eastern Gamma grass is a high yielding hay grass producing as much as 12,000 lb of hay per acre per year. This grass requires at least 84 inches of water per year and grows well in Volente soils. Since the Volente soils on the Senna Hills site are located on flat areas, these grasses will be amenable to intensive harvesting. Unlike other native grasses, Eastern Gamma grass is metabolicly active year round especially in the spring and fall. Approximately 37 acres of this grass will be planted.

2. Wild Rye and Fescue Tall Bunch Grass Meadows

Fescue and Wild Rye will be planted in the well developed Brackett soils. These grasses require approximately 68 inches of water per year and produce about 6,000 pounds of hay per acre. These grasses are metabolicly most active in the cool seasons and will

require harvesting once a year. Approximately 40 acres of this grass will be planted.

3. Bahia Grass

This grass is well suited to sloped areas susceptible to erosion. Bahia grass grows well in Brackett soils, with a higher percentage of limestone cobble. It is metabolicly most active in the summer and requires about 50 inches of water annually. Bahia grass will be overseeded with Gulf Annual Rye grass which is metabolicly most active in the winter. Approximately 30 acres of this grass will be planted.

4. Indiangrass

Indiangrass will be planted with a winter overseeding of Gulf Annual Rye. Indiangrass grows well in Brackett soils with a high percentage of rocks but is shorter than Bahia grass and requires little or no harvesting. The water requirement of this grass is approximately 50 inches per year with additional water consumption expected from the overseeding of Gulf Annual Rye in the winter. Approximately 19 acres of this type of cover will be planted.

SUMMARY

Using City criteria the projected flows from the Senna Hills Wastewater Treatment Plant are 286 acre-ft per year. The total water consumption from the proposed planting program is approximately 333 acre-ft per year providing a 16% safety factor. Including evaporation losses from the sprinkler heads and the holding pond, the safety factor is increased to more than 50%.

SENNA HILLS

Plant Cover for Irrigation Areas

Irrigation Field	Type Cover	Acres	Water Required	Average Rainfall	Net Deficit	Net Acre-Ft of Effluent Consumption Capacity (Acre Ft Per Year)	Acti Seas
1	Eastern Gamma Grass	32	84	32	52	139	Year drawd
2	Wild Rye & Fescue (mixed tall grass)	40	68	32	36	120	Year especi
3	Bahia Grass (easily erodable areas)	30	50	32	18	45	Summe
4	Indian grass Switchgrass, Mixed tall Bunch grass	19	50	32	18	29	Summer
Total Grass Consumption						333	
Sprinkler Evaporation						71.5	
Pond Evaporation		8.9	79*	35	50	32.6	
Total Available Consumption						436.6 Acre-Ft	
Total Effluent to be Irrigated						286.0 Acre-Ft	
Excess Consumption Capacity Available						150.6 Acre-Ft	

* PAN Evaporation Rate

Report E

POLICY FOR USE OF NATURAL AREA MAINTENANCE CHEMICALS WITHIN PROPOSED SENNA HILLS DEVELOPMENT

Pesticide Use Restrictions

1. No State or Federal Restricted Use pesticides may be used.
2. No use of any pesticide within 50 feet of a waterway.
3. No use of any pesticide within 150 feet of any sensitive environmental feature such as a cave, sinkhole, spring, wetland, rimrock or fault.
4. No pesticides should be applied during wet weather or when rainfall is imminent.

Use	Approved Pesticide
Post-emergent weed control	glyphosate (Round-up*)
Fire ant control	amidinohydrazone (Amdro*) fenoxycarb (Logic*)
Broad spectrum insecticide	Safer soap*, synthetic pyrethrins
Caterpillar control	Bacillus thuringensis (B.t.) (Thuricide*, Dipel*)

* Registered trade-mark of commonly used product.

Use of biological pest controls (such as introductions of lady-bugs, lace-wings, or Bacillus) and cultural pest controls (such as mulching for weed control in beds) are highly recommended over chemical applications in sensitive watersheds. Other pesticides may be approved by the Environmental and Conservation Services Department (499-2550) in consultation with the City's Integrated Pest Management Committee. Any pesticide must be applied in strict accordance with label instructions and manufacturer's recommendations.

Fertilizer Use

Use of chemical fertilizer is discouraged in areas of shallow soils and karst topography. Nutrient loading due to contamination by fertilizers of surfacewaters or groundwater and springs may result in algal blooms, growth of filamentous algae and excessive aquatic plant growth. Nitrates from chemical fertilizers may be a significant human health threat if groundwater is contaminated in areas where domestic wells are in use. Organic slow release fertilizers such as manure, compost, or seaweed concentrates are readily available, should not contaminate area water

supplies, and will serve to improve the soil as well as add nutrients.

EXHIBIT D

MONITORING PROGRAM
SONA HILLS MUD (rev. 10-8-86)

1. Areas of natural groundwater discharge (springs and seepage zones) will be monitored to assess lateral movement of effluent in the subsurface, and to monitor for discharge of effluent to surface drainages via shallow groundwater systems. The District will work in conjunction with the Department of Environmental Protection (DEP) to locate springs and seeps directly recharged from the irrigation areas that are suitable for sampling. A minimum of three springs and/or seeps will be monitored.

2. If an insufficient number of springs or seeps are found, shallow groundwater monitoring wells will be located along the downslope areas of the irrigation fields.

3. Monitoring will occur at the underdrain of the lined effluent holding pond, to detect any possible leakage.

4. A surface water monitoring station, with a flow meter, automatic sampler, and permanent control section, will be operated to monitor an area which receives runoff from the irrigation fields. The Department of Environmental Protection shall review and approve the site with DEP's Water Quality Management Division approving the design of the monitoring station.

5. A soil water percolate (unsaturated zone) monitoring program shall be established in conjunction with the soil monitoring program, and surface water monitoring and spring/seepage zone monitoring programs within one of the irrigation fields for the purpose of monitoring vertical movement of various wastewater effluent constituents.

6. A soil monitoring program shall be established in conjunction with the unsaturated zone monitoring and surface water monitoring stations to provide information on the potential loading impacts to the irrigated lands and associated surface water and groundwater systems.

PARAMETERS

The following parameters will be analyzed, to provide data for the surface water, groundwater discharge, unsaturated zone water, and soil monitoring programs. Soil and water samples will be tested for by an independent testing laboratory.

Surface Water and Groundwater Discharge Monitoring Program

A complete nitrogen series (NO_3-N + NO_2-N, TKN, NH_3-N), total phosphorus, BOD, chloride, fecal coliform and fecal streptococci.

Soil Water Percolate (Unsaturated Zone) Monitoring Program

A complete nitrogen series (NO_3-N + NO_2-N, TKN, NH_3-N), total phosphorus, BOD, specific conductivity, chloride, fecal coliform and fecal streptococci.

Soil Monitoring Program

A complete nitrogen series (NO_3-N + NO_2-N, TKN, NH_3-N), total phosphorus, chloride, percent moisture, depth of soil and soil texture (Soil texture may be determined in the field by qualified personnel.)

SCHEDULE

Surface water and groundwater discharge will be conducted quarterly. Soils and unsaturated zone water may be sampled twice a year, in mid-March and mid-August. It may be advisable to do monthly monitoring for one year to establish baseline conditions. The sampling and analyses program and the sampling locations acceptable to both the District and the City shall be finalized no later than 120 days from confirmation of the District. Sampling for surface water, groundwater discharge, unsaturated zone water, and soils baseline conditions should commence no later than one year prior to the projected start-up date of the irrigation system. Results of the various monitoring programs will be sent to the Department of Environmental Protection on a quarterly basis.

TRIGGER MECHANISM

Trigger values for each parameter shall be agreed upon by the District and the City staff of the Department of Environmental Protection, after collection of baseline data. If the trigger values are exceeded by the average of the three most recent test results for any analyte being sampled, appropriate mitigative measures shall then be considered by the District and the City staff and the agreed upon measures shall be implemented by the District.

MITIGATIVE MEASURES

Mitigative measures could include: 1) modification of the irrigation system design, 2) modification of application rates and schedules and other operating guidelines, 3) rotation of applications on various tracts to allow for resting periods, 4) implementation of water conservation within the development to reduce inflow volumes, 5) physical modification of the irrigation areas to include topsoil additions and planting of high-yield grass and forb cover, and 6) enhanced pond evaporation, and other mitigative measures.

DESCRIPTIONS OF MONITORING PROGRAMS

PURPOSE AND OBJECTIVES

This monitoring approach should be used to identify the major contaminant pools, fluxes and pathways in the soil-water continuum. It will be valuable in making future management recommendations for operation of the irrigation system.

This monitoring strategy should be required under the MUD's consent agreement in order to provide information on pollutant loading effects on the irrigated lands and potential impacts to the underlying groundwater aquifer and surface waters. The monitoring strategy should be related to the specific trigger mechanisms referenced in the consent agreement.

SURFACE WATER MONITORING PROGRAM

A. SAMPLING SITES

A permanent control section should be established at an appropriate downslope location on Tract 8. The site will be agreed to by the District and DEP Water Quality Division.

B. SAMPLING METHODOLOGY

At the permanent control section, flowrate shall be monitored with a recording flowmeter at a frequency sufficient to adequately depict a hydrograph (as determined during the baseline data collection period). Recalibration of the flowmeter will be conducted quarterly. Samples will be flow proportional as controlled by the flowmeter. Samples may be either discrete or composite, but there must be at least four discrete or four composite subsamples per storm. EPA approved sample containers, preservation techniques, and laboratory methods must be used.

GROUNDWATER DISCHARGE MONITORING PROGRAM

A. SAMPLING SITES

At least one natural spring or seepage zone will be monitored in each of the three major ravines on the project. One of these sites will be the spring in the Barton Creek tributary on Tract 9.

B. SAMPLING METHODOLOGY

The groundwater discharge areas will be grab sampled. The sampling will be from natural discharge points where possible. Where necessary or preferable, a flume or other controlled flow section will be constructed for the purposes of discharge sampling. EPA-approved containers and methods will be used.

UNSATURATED ZONE MONITORING PROGRAM

A. SAMPLING SITE

Soil samples shall be collected in order to monitor the unsaturated (soil-water percolate) zone in the vicinity of the permanent surface water runoff station and in conjunction with soil samples collected for the soil monitoring program.

B. SAMPLING METHODOLOGY

Duplicate soil samples shall be collected, one set for the soil monitoring program, and one set to collect soil water percolate for the unsaturated zone monitoring program. The sampling methodology shall be the same as and in conjunction with the soil monitoring program methodology, as follows. An acid/water leach procedure shall be performed on the soil sample in order to determine the parameters previously enumerated for the soil water percolate.

SOIL MONITORING PROGRAM

A. SAMPLING SITE

A soil sampling area of sufficient size and soil depth shall be selected in the vicinity of the surface water monitoring station and the groundwater seep/spring monitoring area. The soil sampling area should be representative of average soil conditions throughout the irrigation fields. The sampling location will be subject to the review and approval of the DEP.

B. SAMPLING METHODOLOGY

B. SAMPLING METHODOLOGY

Stratified soil sampling will be conducted at the approved site. Soil analyses should be completed on a composite basis, with soils collected from 4 representative sites, and mixed thoroughly. The first composite sample is for shallow soils: the samples should be represenative of the upper 6 inches of the area to be monitored. Two composite samples are to be taken for deeper soils: the first sample should be represenative of the upper 6 inches for the surficial composite sample and the second sample should be represenative of the 6 to 12 inch interval for the deeper composite sample. Sampling should occur in mid-August and mid-March. Duplicate soil samples should be taken, one set for the soil monitoring program and one set to collect soil water percolate for the unsaturated zone monitoring program. A total digestion procedure shall be performed on the soil sample in order to determine the parameters previously enumerated for the soil monitoring program.

C. ESTIMATES ON NITROGEN CYCLING

After two years of system operation and monitoring and every two years thereafter, a report should be submitted, indicating an estimation of: nitrogen inputs to the system from irrigation water and soil nitrogen mineralization; soil nitrogen losses to the atmosphere from volatilization and denitrification; and nitrogen pools and fluxes found in the various species of soil nitrogen and the surface organic matter, if any.

Due to the relative inaccuracy of quantifying nitrogen cycles or a nitrogen mass balance in the field, all the above monitoring studies are required in order to make a rough attempt at estimating nitrogen cycling's inputs, outputs, pools and fluxes.

BASELINE MONITORING

SURFACE WATER MONITORING PROGRAM

In order to determine baseline conditions, surface water samples will be collected for 8 storm events, using the above mentioned surface water monitoring site and methodologies.

GROUNDWATER DISCHARGE MONITORING PROGRAM

Groundwater discharge samples, for collecting data on baseline conditions, will occur 8 separate times at various springs and seeps.

UNSATURATED ZONE MONITORING PROGRAM

Soil water percolate will be sampled 4 times, in conjunction with the soil baseline data sampling.

SOIL MONITORING PROGRAM

Baseline conditions data will be collected 4 times, using the sampling sites and methodolgies to be used in the regular soil monitoring program.

EXHIBIT E

MUNICIPAL UTILITY DISTRICT
SURCHARGE CALCULATION

The post-annexation surcharge shall be calculated such that the present value of the surcharges collected, through a uniform surcharge per LUE, shall equal the present value of the debt service on outstanding district bonds (issued for internals) less applicable credits as provided in ARTICLE VI, E. of the Consent Agreement.

The calculation of such a levelized monthly surcharge is made using the following formula:

$$\frac{\text{Present Value of (District Debt Service - Annual Credit Amortization)}}{\text{Adjusted Living Unit Equivalents}} \div 12 = \text{Monthly Surcharge}$$

where:

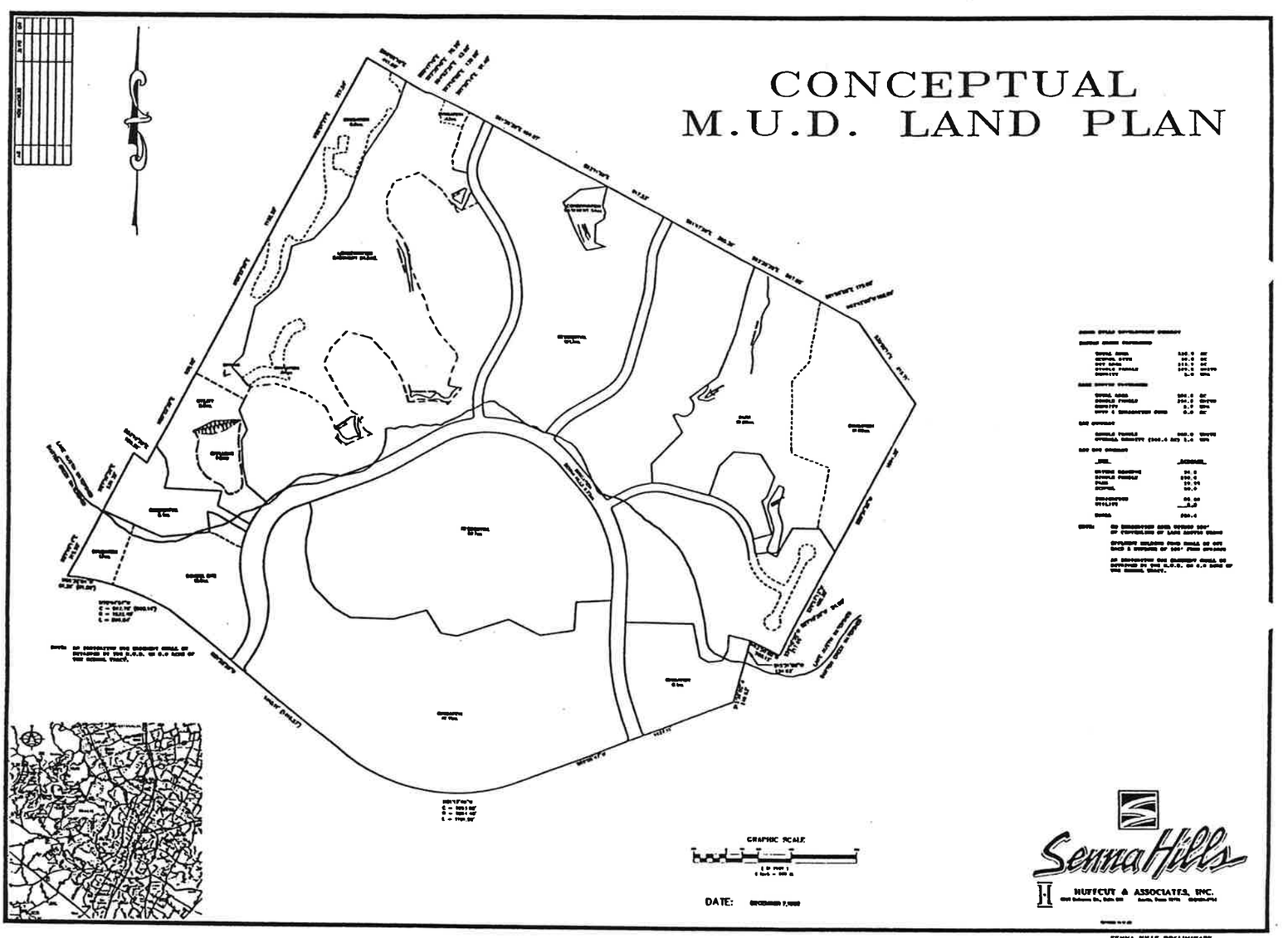
1. The present value of district debt service is calculated using a discount rate equal to the average effective interest rate on the last three (3) City of Austin Combined Utility System revenue bond issues.

2. Credits, as provided for in Article VI, E. are amortized such that credits against debt service are applied in equal amounts. The credits that are provided over the debt service period equal the total credit granted under Article VI, E. plus interest earned on unamortized credit balances.

3. Adjusted Living Unit Equivalents is the number of Living Unit Equivalents such that the calculated levelized surcharge, when multiplied by cumulative LUEs connected to the District's water and wastewater system in each year of the remaining District debt service period, will yield a surcharge revenue stream whose present value equals the present value of applicable District debt.

   (This value may be approximated by calculating "discounted" LUEs through a procedure similar to calculation of present values but applied to build-out.)

EXHIBIT F



SENNA HILLS PRELIMINARY

EXHIBIT G

EXHIBIT G-1

1.00 Acres of Land
Tract A

DESCRIPTION

DESCRIPTION OF 1.00 ACRES OF LAND OUT OF THE J.M. TEAGUE SURVEY NO. 40, SAME BEING A PORTION OF THAT CERTAIN TRACT OF LAND DESCRIBED AS 322.68 ACRES OF LAND IN A DEED TO CUNNINGHAM & ASSOCIATES NO. III, OF RECORD IN VOLUME 8467, PAGE 4, DEED RECORDS OF WILLIAMSON COUNTY, TEXAS; SAID 1.00 ACRE OF LAND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING at the northwest corner of this tract, same being the northwest corner of said 322.68 acre tract;

THENCE, with the north line of this tract, same being the north line of said 322.68 acre tract, S57°19'43"E 200.00 feet to the northeast corner of this tract;

THENCE, with the east and south lines of this tract and crossing said 322.68 acre tract, the following two (2) courses:

1) S30°50'35"W 217.91 feet to the southeast corner of this tract; and
2) N57°19'43"W 200.00 feet to the southwest corner of this tract, said point being in the west line of said 322.68 acre tract;

THENCE, with the west line of this tract same being the west line of said 322.68 acre tract, N30°50'35"E 217.91 feet to the POINT OF BEGINNING and containing 1.00 acres of land within these metes and bounds.

PREPARED FROM RECORD INFORMATION BY:

McGRAY & McGRAY LAND SURVEYORS, INC.
3301 Hancock Drive, Suite 6
Austin, Texas 78731 512-451-8591
November 2, 1987

870526AT

FILED

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TRAVIS COUNTY, TEXAS

NOV 17 1987

COUNTY CLERK
TRAVIS COUNTY, TEXAS

REAL PROPERTY RECORDS
TRAVIS COUNTY, TEXAS

11666 1797

EXHIBIT G-2

1.00 Acres of Land
Tract B

DESCRIPTION

DESCRIPTION OF 1.00 ACRES OF LAND OUT OF THE J.M. TEAGUE SURVEY NO. 40, SAME BEING A PORTION OF THAT CERTAIN TRACT OF LAND DESCRIBED AS 322.68 ACRES OF LAND IN A DEED TO CUNNINGHAM & ASSOCIATE NO. III, OF RECORD IN VOLUME 8467, PAGE 4, DEED RECORDS OF WILLIAMSON COUNTY, TEXAS; SAID 1.00 ACRE OF LAND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING at the northwest corner of this tract, said point being in the west line of said 322.68 acre tract, and from which point, for reference, the northwest corner of said 322.68 acre tract bears N30°50'35"E 217.91 feet;

THENCE, with the north, east and south lines of this tract and crossing said 322.68 acre tract, the following three (3) courses:

1) S57°19'43"E 200.00 feet to the northeast corner of this tract;
2) S30°50'35"W 217.91 feet to the southeast corner of this tract; and
3) N57°19'43"W 200.00 feet to the southwest corner of this tract, said point being in the west line of said 322.68 acre tract;

THENCE, with the west line of this tract, same being the west line of said 322.68 acre tract, N30°50'35"E 217.91 feet to the POINT OF BEGINNING and containing 1.00 acres of land within these metes and bounds.

PREPARED FROM RECORD INFORMATION BY:

McGRAY & McGRAY LAND SURVEYORS, INC.
3301 Hancock Drive, Suite 6
Austin, Texas 78731 512-451-8591
November 2, 1987

870526BT

EDITED

FILED
1987 NOV 17 PM 2 52
DANA DEBEAUVOIR
COUNTY CLERK
TRAVIS COUNTY, TEXAS

STATE OF TEXAS
COUNTY OF TRAVIS
I hereby certify that this instrument was FILED on the date and at the time stamped hereon by me; and was duly RECORDED in the Volume and Page of the named RECORDS of Travis County, Texas, as stamped hereon by me.

NOV 17 1987

DANA DEBEAUVOIR
COUNTY CLERK
TRAVIS COUNTY, TEXAS

REAL PROPERTY RECORDS
TRAVIS COUNTY, TEXAS
11666 1792

EXHIBIT = G-3

1.00 Acres of Land
Tract C

DESCRIPTION

DESCRIPTION OF 1.00 ACRES OF LAND OUT OF THE J.M. TEAGUE SURVEY NO. 40, SAME BEING A PORTION OF THAT CERTAIN TRACT OF LAND DESCRIBED AS 322 68 ACRES OF LAND IN A DEED TO CUNNINGHAM & ASSOCIATES NO. III, OF RECORD IN VOLUME 8467, PAGE 4, DEED RECORDS OF WILLIAMSON COUNTY, TEXAS; SAID 1.00 ACRE OF LAND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING at the northwest corner of this tract, said point being in the west line of said 322.68 acre tract, and from which point, for reference, the northwest corner of said 322.68 acre tract bears N30°50'35"E 435.82 feet;

THENCE, with the north, east and south lines of this tract and crossing said 322.68 acre tract, the following three (3) courses:

1) S57°19'43"E 200.00 feet to the northeast corner of this tract;
2) S30°50'35"W 217.91 feet to the southeast corner of this tract; and
3) N57°19'43"W 200.00 feet to the southwest corner of this tract, said point being in the west line of said 322.68 acre tract;

THENCE, with the west line of this tract, same being the west line of said 322.68 acre tract, N30°50'35"E 217.91 feet to the POINT OF BEGINNING and containing 1.00 acres of land within these metes and bounds.

PREPARED FROM RECORD INFORMATION BY:

McGRAY & McGRAY LAND SURVEYORS, INC.
3301 Hancock Drive, Suite 6
Austin, Texas 78731 512-451-8591
November 2, 1987

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STATE OF TEXAS
COUNTY OF TRAVIS
NOV 17 1987
COUNTY CLERK
TRAVIS COUNTY, TEXAS

REAL PROPERTY RECORDS
TRAVIS COUNTY, TEXAS
11666 1802

EXHIBIT G-4

1.00 Acres of Land
Tract D

DESCRIPTION

DESCRIPTION OF 1.00 ACRES OF LAND OUT OF THE J.M. TEAGUE SURVEY NO. 40, SAME BEING A PORTION OF THAT CERTAIN TRACT OF LAND DESCRIBED AS 322.68 ACRES OF LAND IN A DEED TO CUNNINGHAM & ASSOCIATES NO. III, OF RECORD IN VOLUME 8467, PAGE 4, DEED RECORDS OF WILLIAMSON COUNTY, TEXAS; SAID 1.00 ACRE OF LAND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING at the northwest corner of this tract, said point being in the west line of 322.68 acre tract, and from which point, for reference, the northwest corner of said 322.68 acre tract bears N30°50'35"E 653.73 feet;

THENCE, with the north, east and south lines of this tract and crossing said 322.68 acre tract, the following four (4) courses:

1) S57°19'43"E 200.00 feet to the northeast corner of this tract;
2) S30°50'35"W 103.79 feet to an angle point in the east line of this tract;
3) S31°11'54"W 114.10 feet to the southeast corner of this tract; and
4) N57°19'43"W 200.00 feet to the southwest corner of this tract, said point being in the west line of said 322.68 acre tract;

THENCE, with the west line of this tract, same being the west line of said 322.68 acre tract, the following two (2) courses:

1) N31°11'54"E 114.10 feet to an angle point; and
2) N30°50'35"E 103.79 feet to the POINT OF BEGINNING and containing 1.00 acres of land within these metes and bounds.

PREPARED FROM RECORD INFORMATION BY:

McGRAY & McGRAY LAND SURVEYORS, INC.
3301 Hancock Drive, Suite 6
Austin, Texas 78731 512-451-8591
November 2, 1987

870526DT

FILED

STATE OF TEXAS COUNTY OF TRAVIS

NOV 17 1987

COUNTY CLERK
TRAVIS COUNTY, TEXAS

REAL PROPERTY RECORDS
TRAVIS COUNTY, TEXAS

EXHIBIT G-5

1.00 Acres of Land
Tract E

DESCRIPTION

DESCRIPTION OF 1.00 ACRES OF LAND OUT OF THE J.M. TEAGUE SURVEY NO. 40, SAME BEING A PORTION OF THAT CERTAIN TRACT OF LAND DESCRIBED AS 322.68 ACRES OF LAND IN A DEED TO CUNNINGHAM & ASSOCIATES NO. III, OF RECORD IN VOLUME 8467, PAGE 4, DEED RECORDS OF WILLIAMSON COUNTY, TEXAS; SAID 1.00 ACRE OF LAND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING at the northwest corner of this tract, said point being in the west line of said 322.68 acre tract, and from which point, for reference, the northwest corner of said 322.68 acre tract bears N31°11'54"E 114.10 feet and N30°50'35"E 757.52 feet;

THENCE, with the north, east and south lines of this tract and crossing said 322.68 acre tract, the following three (3) courses:

1) S57°19'43"E 200.00 feet to the northeast corner of this tract;
2) S31°11'54"W 217.87 feet to the southeast corner of this tract; and
3) N57°19'43"W 200.00 feet to the southwest corner of this tract, said point being in the west line of said 322.68 acre tract;

THENCE, with the west line of this tract, same being the west line of said 322.68 acre tract, N31°11'54"E 217.87 feet to the POINT OF BEGINNING and containing 1.00 acres of land within these metes and bounds.

PREPARED FROM RECORD INFORMATION BY:

McGRAY & McGRAY LAND SURVEYORS, INC.
3301 Hancock Drive, Suite 6
Austin, Texas 78731 512-451-8591
November 2, 1987

870526ET

FILED

NOV 17 1987

COUNTY CLERK
TRAVIS COUNTY, TEXAS

REAL PROPERTY RECORDS
TRAVIS COUNTY, TEXAS

11686 1807

EXHIBIT "A"

PROPERTY DESCRIPTION

ALL OF THAT CERTAIN TRACT OR PARCEL OF LAND OUT OF THE JOHN G. MUSTAIN SURVEY NO. 40, THE J.M. TEAGUE SURVEY NO. 40, THE E.C. GAINES SURVEY NO 76 AND THE J.R. WATSON SURVEY NO. 646 IN TRAVIS COUNTY, TEXAS, BEING A PORTION OF THAT CERTAIN TRACT OF LAND DESIGNATED AS TRACT 2, CONTAINING 322.68 ACRES OF LAND AS CONVEYED TO CUNNINGHAM & ASSOCIATES NUMBER III, BY DEED RECORDED IN VOLUME 8467, PAGE 4 OF THE REAL PROPERTY RECORDS OF TRAVIS COUNTY, TEXAS, ALSO BEING ALL OF LOTS 1 & 2 AND A PORTION OF LOT 3, SENNA HILLS SECTION ONE P.U.D., A SUBDIVISION IN TRAVIS COUNTY, TEXAS, AS RECORDED IN PLAT BOOK 86, PAGES 121A AND 121B OF THE PLAT RECORDS OF TRAVIS COUNTY, TEXAS, ALSO BEING ALL OF SENNA HILLS DRIVE, A PUBLIC RIGHT-OF-WAY DEDICATED BY PLAT RECORDED IN BOOK 86, PAGES 121A AND 121B OF THE PLAT RECORDS OF TRAVIS COUNTY, TEXAS, THE HEREIN DESCRIBED TRACT BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING at a 1/2 inch iron pin set at the intersection of the East line of the said 322.68 acre tract and the new North r.o.w. line of F.M. Hwy No. 2244, being in the West line of that certain tract of land as conveyed to Rex D. Bible by deed recorded in Volume 7322, Page 148 of the Deed Records of Travis County, Texas, for the Southeast corner hereof;

THENCE along the new North r.o.w. line of F.M. Hwy. No. 2244 (fence varies along r.o.w. line) for the following courses:

S 69° 06' 47" w for a distance of 1427.11 feet to a highway monument found (brass disc in concrete) at a point of curve

Along a curve to the right whose radius is 1064.40 feet, whose arc is 1101.52 feet and whose chord bears N 81° 12' 49" W for a distance of 1053.02 feet to a 1/2 inch iron pin set

N 51° 33' 20" W for a distance of 1418.11 feet to a highway monument found at a point of curve

Along a curve to the left whose radius is 1532.40 feet, whose arc is 596.54 feet and whose chord bears N 70° 44' 57" W for a distance of 592.78 feet to a highway monument found

N 86° 32' 4" W for a distance of 61.26 feet to a 1/2 inch iron pin set at the intersection of the West line of the said 322.68 acre tract and the new North r.o.w. line of F.M. Hwy No. 2244, for the southwest corner hereof;

THENCE along the west line of the said 322.68 acre tract as fenced upon the ground for the following courses:

N 27° 49' 14" E for a distance of 315.50 feet to a 1/2 inch iron pin found

N 27° 56' 30" E for a distance of 539.35 feet to a 1/2 inch iron pin found

S 52° 19' 20" E for a distance of 100.26 feet to a 1/2 inch. iron pin found

N 28° 22' 39" E for a distance of 932.65 feet to a 1/2 inch iron pin found

N 28° 22' 50" E for a distance of 1152.29 feet to a 1/2 inch iron pin found

N 28° 01' 27" E for a distance of 757.54 feet to a 60-d nail found in a cedar tree at the Northwest corner of the said 322.68 acre tract for the Northwest corner hereof;

THENCE along the North line of the said 322.68 acre tract as fenced upon the ground for the following courses:

S 60° 09' 10" E for a distance of 411.60 feet to a 1/2 inch iron pin found

S 80° 47' 10" E for a distance of 35.84 feet to a 1/2 inch iron pin found

S 62° 30' 10" E for a distance of 78.20 feet to a 60-d nail found in a cedar tree

S 64° 03' 36" E for a distance of 43.66 feet to a 60-d nail found in a cedar tree

S 63° 18' 05" E for a distance of 139.88 feet to a 60-d nail found in a cedar tree

S 61° 56' 14" E for a distance of 91.40 feet to a 60-d nail found.

S 61° 26' 20" E for a distance of 469.07 feet to a 1/2 inch iron pin found

S 62° 11' 20" E for a distance of 917.23 feet to a 1/2 inch iron pin found

S 61° 47' 20" E for a distance of 385.36 feet to a 1/2 inch iron pin found

S 62° 38' 20" E for a distance of 587.05 feet to a 1/2 inch iron pin found

S 61° 06' 09" E for a distance of 175.60 feet to a 1/2 inch iron pin found

S 62° 42' E for a distance of 103.60 feet to a 1/2 inch iron pin found

S 35° 02' 11" E for a distance of 615.71 feet to a 1/2 inch iron pin found at the Northeast corner of the said 322.68 acre tract, for the Northeast corner hereof;

THENCE along the East line of the said 322.68 acre tract as fenced upon the ground for the following courses:

S 28° 51' 25" W for a distance of 1094.38 feet to a 1/2 inch iron pin found

S 28° 07' 13" W for a distance of 408.38 feet to a 1/2 inch iron pin found

S 27° 10' 38" W for a distance of 24.90 feet to a 1/2 inch iron pin found

S 26° 10' W for a distance of 217.65 feet to a 1/2 inch iron pin set at the Northeast corner of a 0.50 acre tract;

THENCE along the North line of the said 0.50 acre tract, N 63° 50' W for a distance of 200.12 feet to a 1/2 inch iron pin set for the Northwest corner of the said 0.50 acre tract;

THENCE along the West line of the said 0.50 acre tract, S 15° 31' W for a distance of 134.62 feet to a 1/2 inch iron pin found at the Northwest corner of the said Bible Tract, being in the East line of the said 322.68 acre tract;

THENCE along the East line of the said 322.68 acre tract, being the West line of the said Bible Tract as fenced upon the ground, S 15° 38' W for a distance of 249.63 feet to the PLACE OF BEGINNING and containing 316.695 acres of land, more or less.

WATER SALE CONTRACT FOR MUNICIPAL USES

The Lower Colorado River Authority, hereinafter "LCRA" and Senna Hills Municipal Utility District #1, hereinafter "Purchaser," in mutual consideration of the provisions herein contained agree as follows:

I

WATER SUPPLY

A. MAXIMUM ANNUAL QUANTITY - From and after the effective date hereof, Purchaser shall have the right to divert up to a maximum of 75 acre-feet (24.439 million gallons) of raw water per annum (the "Maximum Annual Quantity") from the Colorado River (Lake Austin) in Travis County, Texas, at a point of diversion bordering on (Lake Austin) described as the Uplands Raw Water Intake and depicted in Exhibit "A" attached hereto (the "Point of Diversion"), said Exhibit depicting the point by reference to a corner of an original land survey and/or other survey point, giving both course and distance.

B. SOURCE OF WATER SUPPLY - The water supplied under this contract shall be water provided from storage in Lakes Buchanan and/or Travis in accordance with water rights held by LCRA as set forth in Certificates of Adjudication No. 14-5478, as amended, and 14-5482, as amended.

C. MUNICIPAL USE ONLY - Purchaser represents to LCRA and LCRA relies on such representation that all water supplied under this contract will be utilized for municipal uses only, as such term is defined by 31 Tex. Adm. Code §297.1.

D. AREA OF USE - Water supplied under this contract shall only be used within that certain area consisting of a total of 317 acres, as described in Exhibit "B" attached hereto and depicted in Exhibit "C", attached hereto, together hereinafter called the "Property".

E. WATER CONSERVATION - Purchaser agrees to implement the water conservation program in accordance with the water conservation plan (the "Conservation Plan") described in Exhibit "D" attached hereto and that the water diverted by Purchaser pursuant to this contract will be used in accordance with such Conservation Plan. Purchaser agrees that, in the event that Purchaser furnishes water or water services to a third party that in turn will furnish the water or services to the ultimate consumer, the requirements of this contract relative to water conservation shall be met through contractual agreements between the Purchaser and the third party, providing for the establishment and implementation of a water conservation program consistent with Purchaser's Conservation Plan. LCRA, in accordance with applicable law, may from time to time adopt reasonable rules and regulations relating to water conservation. Purchaser agrees to amend its Conservation Plan, as necessary, to reflect such water conservation rules and regulations.

F. DELIVERY OF WATER - LCRA shall provide or cause to be provided water from storage in Lakes Buchanan and/or Travis and deliver such water to the Points of Diversion in the necessary amounts and at the necessary times to allow Purchaser to divert water at the Points of Diversion in such amounts and at such times as needed by Purchaser, up to a total diversion of the Maximum Annual Quantity.

LCRA shall bear all transportation and evapotranspiration losses in the delivery of water to the Points of Diversion. Purchaser shall furnish and bear expenses of pumping facilities and metering equipment.

G. AVAILABILITY OF WATER - Water supplied under this contract will be made available on a firm, uninterruptible basis, except LCRA may interrupt or curtail the water supplied under this contract in accordance with LCRA's Drought Management Plan, as such Plan and any amendments thereto have been approved by the Texas Water Commission.

LCRA makes no guarantee that the water supplied under this contract will be available at any particular time or place or that any LCRA owned/operated reservoir will be retained at any specific level at any particular time. Purchaser fully understands that the level of said reservoirs will vary as a result of LCRA's operation of its dams on the Colorado River.

H. OPERATION OF DAMS AND RESERVOIRS - The right of LCRA to maintain and operate its several dams and their appurtenances on the Colorado River and at any and all times in the future to impound and release waters thereby in any lawful manner and to any lawful extent LCRA may see fit is recognized by Purchaser; and, except as otherwise provided herein, there shall be no obligation hereunder upon LCRA to release or not to release any impounded waters at any time or to maintain any waters at any specified level.

I. INTERBASIN TRANSFER - Water supplied under this contract may not be transferred or used outside of the Colorado River Basin unless such transfer or use is within the ten-county statutory district of LCRA and Purchaser obtains express written authorization for such transfer from the Texas Water Commission. In the event Purchaser obtains written authorization for such transfer, Purchaser shall provide a copy of said written authorization to LCRA.

II

CONTRACT ADMINISTRATION

A. TERM OF CONTRACT - This contract shall be for a term of twenty-five (25) years commencing on the "Effective Date," and ending on the last day of December, 2017. The Effective Date of this contract shall be the date that this contract has been fully executed by Purchaser and LCRA.

B. PAYMENT - Purchaser hereby covenants to pay LCRA on a monthly basis beginning with the first month after the effective date of this contract an amount of money equal to the rate determined by the Board of Directors of LCRA to then be in effect for all sales of water for municipal purposes ("Water Rate") times the amount of water diverted by Purchaser during the previous month ("Monthly Diversion"). Purchaser covenants to pay LCRA, on a calendar year basis, an amount of money equal to the Water Rate times fifty percent (50%) of the Reserved Water ("Reserved Water Charge"). The Reserved Water shall be the difference between the Maximum Annual Quantity and the amount of water diverted by Purchaser during the previous calendar

year ("Annual Diversion"). Purchaser further covenants to pay LCRA, on a calendar year basis, an amount of money equal to the rate determined by the Board of Directors of LCRA to then be in effect for diversion of water in amounts in excess of the Maximum Annual Quantity ("Inverted Block Rate"). The Water Rate presently in effect is $105.00 per acre-foot ($0.32 cents per 1,000 gallons) of water. The Inverted Block Rate presently in effect is $200.00 per acre-foot.

LCRA reserves all rights that it may have under law to modify from time to time the Water Rate applicable to all diversions of water for municipal use from Lakes Buchanan and Travis, and the Inverted Block Rate applicable to all diversions of water in excess of the Maximum Annual Quantity. LCRA also reserves all rights that it may have under law to impose and thereafter modify from time to time a charge applicable to all such water which is reserved but not diverted. Purchaser understands and acknowledges that the Water Rate, Reserved Water Charge, and the Inverted Block Rate set forth in this contract are in accordance with the water tariff for water reserved and/or used for municipal purposes approved by LCRA's Board of Directors.

Within five (5) days after the first day of each month, LCRA will mail a statement to Purchaser showing the Monthly Diversion. Such statement shall also show the amount of money owed by Purchaser to LCRA in accordance with the Water Rate and late payment charge specified herein.

The statement mailed by LCRA to Purchaser in the month of January each year, in addition to showing the amount of water diverted by Purchaser during the previous month and the amount of money owed by Purchaser to LCRA for such water, shall also show the amount of water remaining during the previous calendar year ("Reserved Water") that Purchaser was authorized to divert under this contract but failed to do so, as well as the amount of money owed by Purchaser to LCRA in accordance with the Reserved Water Charge and late payment charge specified herein. If Purchaser diverts water in excess of the Maximum Annual Quantity, then such statement shall show the amount of water diverted in excess of said amount, as well as the amount of money owed by Purchaser to LCRA in accordance with the Inverted Block Rate specified herein.

Each statement submitted to Purchaser shall be paid to LCRA at its office in Austin, Texas by check or bankwire on or before thirty (30) days from the date of mailing of the statement to Purchaser. In the event Purchaser fails to make payment of that statement within said thirty (30) day period, Purchaser shall then pay a late payment charge of five percent (5%) of the amount of the statement. For each calendar month or fraction thereof that the statement remains unpaid, Purchaser shall pay interest at the rate of two percent (2%) of the amount of the statement. If the statement has not been paid in the prescribed period, Purchaser further agrees to pay all costs of collection and reasonable attorney's fees, regardless of whether suit is filed.

C. METERING OF DIVERTED WATER - To measure the amount of water withdrawn from the Colorado River (Lake Austin), Purchaser agrees at Purchaser's expense to install such flow meters and recording devices as are approved by LCRA, (the "Meters") such meters to permit, within five percent (5%) accuracy, determination of quantities of raw water withdrawn hereunder in units of 1,000 gallons. Purchaser shall provide LCRA with reasonable access to the Meters for the purpose of making meter readings and/or periodic inspections. LCRA shall have the right to make a reading of the Meters installed by Purchaser on a monthly basis. Purchaser agrees that the Meters shall be tested for accuracy by qualified personnel as approved by LCRA and at the expense of Purchaser once each calendar year at intervals of approximately twelve (12) months. Purchaser shall furnish to LCRA a report of such test results. Readings within five percent (5%) of accuracy shall be considered correct.

The Meters may be tested at any reasonable time by either party to this contract, provided that the party making the test shall notify the other party at least two (2) weeks in advance and allow the other party to witness the test. LCRA may install, at its expense, check meters in or to any of Purchaser's metering equipment at any time and may leave such check meters installed for such periods as is reasonably necessary to determine the accuracy of Purchaser's metering equipment. Purchaser shall be required to take necessary steps to correct any meter inaccuracy discovered during any test.

In the event any question arises at any time as to the accuracy of any meter, such meter shall be tested by Purchaser promptly upon the demand of LCRA, the expense of such test to be borne by LCRA if the meter is found to be correct and by Purchaser if it is found to be incorrect. If, as a result of any test, any meter is found to be registering inaccurately (i.e., in excess of five percent (5%) of accuracy), the readings of such meter shall be corrected at the rate of its inaccuracy for any period which is definitely known and agreed upon or, if no such period is known and agreed upon, the shorter of the following periods shall be used as the basis for correction:

(1) a period extended back either sixty (60) days from the date of demand for the test or, if no demand for the test was made, sixty (60) days from the test; and

(2) a period extending back half of the time elapsed since the last previous test;

and the records of readings shall be adjusted accordingly.

D. TERMINATION OF CONTRACT - This contract may be terminated by the parties hereto as follows:

(1) Purchaser may at any time terminate this contract by giving LCRA thirty (30) days prior written notice of such termination.

(2) If Purchaser should fail to commence diversion of at least ten percent (10%) of the Maximum Annual Quantity of water committed to Purchaser under the terms of this contract within two (2) years from the effective date of this contract, LCRA may give Purchaser written notice of LCRA's intent to terminate this contract. If Purchaser fails to divert water, in accordance with the terms of this contract, within one (1) year from the date of receipt of such notice, LCRA may, at its sole option, terminate this contract without recourse after giving written notice to Purchaser.

(3) LCRA, in accordance with the terms and conditions set forth in Paragraph II.E., "NON-PAYMENT", may also terminate this contract should Purchaser fail to comply with the terms and conditions of this contract for the payment of moneys owed to LCRA pursuant to Paragraph II.B., "Payment."

(4) If Purchaser fails to comply with its Conservation Plan or its Non-Point Source Water Pollution Abatement Plan, LCRA may, at its sole option, after providing Purchaser with at least thirty (30) days written notice and Purchaser fails to cure such noncompliance within said thirty (30) day period, terminate this contract without recourse.

(5) If Purchaser fails to comply with the requirements of Paragraph III.D., LCRA may, at its sole option, after providing Purchaser with at least thirty (30) days written notice and Purchaser fails to cure

such noncompliance within said thirty (30) day period, terminate this contract without recourse.

(6) If Purchaser fails to comply with other requirements of this contract not specifically stated above, LCRA may, at its sole option, after providing Purchaser with at least thirty (30) days written notice and Purchaser fails to cure such noncompliance within said thirty (30) day period, terminate this contract without recourse.

E. NON-PAYMENT - If LCRA determines that Purchaser has not paid the full amount owed for any payment due under Paragraph II.B., "PAYMENT", hereof within the time provided therefore, LCRA shall give written notice to Purchaser stating the amount LCRA has determined is due and unpaid. If LCRA gives notice as provided herein and Purchaser fails to pay within thirty (30) days the amounts claimed in such notice to be due and unpaid, LCRA may, at its sole option, upon giving ten (10) days written notice to Purchaser, terminate this contract without recourse. If Purchaser should dispute their obligation to pay all or any part of the amount stated in any statement or notice, Purchaser may, in addition to all other rights that Purchaser may have under law, pay such amount under protest, in which case such amount shall be deposited by LCRA in an interest bearing account mutually acceptable to both LCRA and Purchaser pending final resolution of such dispute. LCRA may not terminate this contract for failure to pay the amount stated in any statement or notice if Purchaser pays such amount under protest.

F. NOTICE - Each notice under this contract shall be transmitted by certified mail, return receipt requested, and shall be effective on the date actually received. All notices and statements to Purchaser shall be addressed to:

Senna Hills Municipal Utility District #1
P.O. Box 161507
Austin, TX 78716-1507

and all notices and payment to LCRA shall be addressed to:

Lower Colorado River Authority
P.O. Box 220
Austin, TX 78767

Either party may change its address by giving written notice of such change to the other party.

G. ASSIGNMENT OF CONTRACT - Except as otherwise provided below, no assignment of this contract in whole or in part for any purpose shall be made or granted. With prior written consent of LCRA, Purchaser may assign this contract in whole or in part for any purpose to a "public agency" with authority or jurisdiction to supply water to the Property. LCRA and Purchaser agree that "public agency" means any city, the United States, the State of Texas, and any district or authority created under Article XVI, Section 59 or Article III, Section 52 of the Texas Constitution, including any river authority, or any other political subdivision or governmental agency of the United States or the State of Texas. Purchaser agrees that any assignment of this contract in whole or in part by Purchaser without the prior written consent of LCRA, shall be null and void.

H. COMPLIANCE WITH FILING REQUIREMENTS - LCRA agrees to file a copy of this contract with the Executive Director of the Texas Water Commission, P. O. Box 13087, Capitol Station, Austin, Texas 78711, it being fully recognized by the Purchaser hereunder that the effectiveness of this contract is dependent upon compliance with 31 Tex. Adm. Code §295.101 and §297.101.

III

ENVIRONMENTAL

A. NON-POINT SOURCE WATER POLLUTION ABATEMENT - Purchaser agrees to implement a non-point source water pollution abatement program in accordance with the non-point source water pollution abatement plan (the "NPS Plan") described in Exhibit "E," attached hereto. LCRA, in accordance with applicable law, may from time to time adopt reasonable rules and regulations relating to the abatement of non-point source water pollution. Purchaser agrees to amend its NPS Plan, as necessary to reflect such non-point source water pollution abatement rules and regulations.

B. QUALITY OF WATER - LCRA makes no representation as to the quality of the water in the Colorado River (Lake Austin) and Purchaser hereby releases LCRA and agrees to hold it harmless from any and all claims that Purchaser or Purchaser's customers or users have or may have against LCRA for any diminution in or impairment of the quality of water in Colorado River (Lake Austin) caused by lawful acts or failures to act of LCRA.

C. SEWAGE EFFLUENT REQUIREMENTS - Purchaser agrees to obtain or cause to be obtained all approvals required by all applicable local, state or federal agencies for any sanitary sewage system or systems which collect sewage derived from water provided herein or any sanitary sewage system whose effluent is discharged in the Colorado River watershed. Purchaser shall make copies of such approvals available to LCRA. Failure of Purchaser to meet any standards imposed by such agencies shall subject Purchaser under this contract to all remedies allowed by law including, without limitation, termination or suspension of this contract by LCRA. Purchaser further agrees that if a sewage treatment plant is located within the Property, LCRA shall have reasonable access to such plant for the purpose of taking samples of sewage effluent from such plant for testing by LCRA to determine whether Purchaser is in compliance with such standards imposed by such agencies.

D. DEVELOPMENT REGULATIONS Prior to actual diversion of water, Purchaser agrees to provide LCRA written verification that all plans and designs of improvements to be constructed, operated and/or maintained by Purchaser upon the Property or applicable portion thereof as described in Exhibit "B" and depicted in Exhibit "C" are in compliance with any applicable regulations regarding municipal, county or other governmental requirements for use of said property or applicable portion thereof.

IV

GENERAL PROVISIONS

A. INDEMNIFICATION - Purchaser will indemnify and save LCRA harmless from any and all claims or demands whatsoever to which LCRA may be subjected by reason of any injury to any person or damage to any property resulting from or in any way connected with any and all actions and activities (or failure to act) of Purchaser under this contract. Purchaser's pumping and related facilities shall be installed, operated and maintained by Purchaser at Purchaser's sole risk. Nothing in this contract shall be construed as authorizing Purchaser, or recognizing that Purchaser has any right, to install any equipment or improvements on property owned by LCRA or third parties.

B. FORCE MAJEURE. The term "Force Majeure" as used herein, shall mean those situations or conditions which are beyond the control of LCRA and which, after the exercise of due diligence to remedy such situation or condition, render LCRA unable, wholly or in part to carry out the covenants contained herein. Such force majeure includes but is not limited to acts of God, strikes, lockouts, acts of the public enemy, orders of any of kind of the government of the United States or of the State of Texas or any civil or military authority, insurrections, riots, epidemics, landslide, lightning, earthquakes, fires, hurricanes, storms, floods, washouts, droughts, civil disturbances, explosions, breakage or accidents to machinery, pipelines, canals, or dams, partial, or entire failure of water supply. LCRA shall not be held liable or responsible for any damage that may be caused by its inability, after the exercise of due diligence to make the supply of water

from the Colorado River available to Purchaser due to any force majeure. LCRA shall use reasonable diligence to repair or recondition the machinery, canals, or dams in event said machinery, canals or dams are damaged or made unserviceable from any force majeure.

C. NO THIRD-PARTY BENEFICIARY - The parties hereto are entering into this contract solely for the benefit of themselves and agree that nothing herein shall be construed to confer any right, privilege or benefit on any person or entity other than the parties hereto.

EXECUTED this 14th day of JAN, 1993

LOWER COLORADO RIVER AUTHORITY

By: _____
W. E. West, Jr.,
Executive Director
Office of Natural Resources

LCRA BEW LEGAL

SENNA HILLS MUNICIPAL UTILITY DISTRICT #1

By: _____
Charles Andrew Brown,
President

THE STATE OF TEXAS §
§
COUNTY OF TRAVIS §

BEFORE ME, the undersigned authority, on this day personally appeared W. E. West, Jr.,Executive Director, Office of Natural Resources, Lower Colorado River Authority, a conservation and reclamation district, a body politic and corporate and a governmental agency of the State of Texas, known to me to be the person and officer whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity therein stated, and as the act and deed of said Authority.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the 11 day of January, 1993.

(seal)

Anne Atkinson
Notary Public
Travis County, Texas

6-30-96
Date Commission Expires

ANNE ATKINSON
Printed Name

THE STATE OF TEXAS §
§
COUNTY OF _____ §

BEFORE ME, the undersigned authority, on this day personally appeared Charles Andrew Brown, President for Senna Hills Municipal Utility District #1 known to me to be the person and officer whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the 8th day of December 1992

(seal)

CATHERINE B. RIPPENHAGEN
NOTARY PUBLIC
STATE OF TEXAS
MY COMMISSION EXPIRES
August 19, 1995

Catherine B. Rippenhagen
Notary Public

August 19, 1995
Date Commission Expires

Catherine B. Rippenhagen
Printed Name

Exhibit A
page 1 of –

FIELD NOTES
FOR

316.695 ACRE TRACT

ALL OF THAT CERTAIN TRACT OR PARCEL OF LAND OUT OF THE JOHN G. MUSTAIN SURVEY NO. 40, THE J.M. TEAGUE SURVEY NO. 40, THE E.C. GAINES SURVEY NO. 76 AND THE J.R. WATSON SURVEY NO. 646 IN TRAVIS COUNTY, TEXAS, BEING A PORTION OF THAT CERTAIN TRACT OF LAND DESIGNATED AS TRACT 2, CONTAINING 322.68 ACRES OF LAND AS CONVEYED TO CUNNINGHAM & ASSOCIATES NUMBER III, BY DEED RECORDED IN VOLUME 8467, PAGE 4 OF THE REAL PROPERTY RECORDS OF TRAVIS COUNTY, TEXAS, ALSO BEING ALL OF LOTS 1 & 2 AND A PORTION OF LOT 3, SENNA HILLS SECTION ONE P.U.D., A SUBDIVISION IN TRAVIS COUNTY, TEXAS, AS RECORDED IN PLAT BOOK 86, PAGES 121A AND 121B OF THE PLAT RECORDS OF TRAVIS COUNTY, TEXAS, ALSO BEING ALL OF SENNA HILLS DRIVE, A PUBLIC RIGHT-OF-WAY DEDICATED BY PLAT BOOK 86, PAGES 121A AND 121B OF THE PLAT RECORDS OF TRAVIS COUNTY, TEXAS, THE HEREIN DESCRIBED TRACT BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING at a 1/2 inch iron pin set at the intersection of the East line of the said 322.68 acre tract and the new North r.o.w. line of F.M. Hwy No. 2244, being in the West line of that certain tract of land as conveyed to Rex D. Bible by deed recorded in Volume 7322, Page 148 of the Deed Records of Travis County, Texas, for the Southeast corner hereof;

THENCE along the new North r.o.w. line of F.M. Hwy No. 2244 (fence varies along r.o.w. line) for the following courses:

S 69° 06' 47" W for a distance of 1427.11 feet to a highway monument found (brass disc in concrete) at a point of curve

Along a curve to the right whose radius is 1064.40 feet, whose arc is 1101.52 feet and whose chord bears N 81° 12' 49" W for a distance of 1053.02 feet to a 1/2 inch iron pin set

N 51° 33' 20" W for a distance of 1418.11 feet to a highway monument found at a point of curve

Along a curve to the left whose radius is 1532.40 feet, whose arc is 596.54 feet and whose chord bears N 70° 44' 57" W for a distance of 592.78 feet to a highway monument found

N 86° 32' 04" W for a distance of 61.26 feet to a 1/2 inch iron pin set at the intersection of the West line of the said 322.68 acre tract and the new North r.o.w. line of F.M. Hwy No. 2244, for the Southwest corner hereof;

THENCE along the West line of the said 322.68 acre tract as fenced upon the ground for the following courses:

N 27° 49' 14" E for a distance of 315.50 feet to a 1/2 inch iron pin found

N 27° 56' 30" E for a distance of 539.35 feet to a 1/2 inch iron pin found

S 52° 19' 20" E for a distance of 100.26 feet to a 1/2 inch iron pin found

N 28° 22' 39" E for a distance of 932.65 feet to a 1/2 inch iron pin found

FIELD NOTES
FOR

316.695 ACRE TRACT - Page Two

N 28° 22' 50" E for a distance of 1152.29 feet to a 1/2 inch iron pin found

N 28° 01' 27" E for a distance of 757.54 feet to a 60-d nail found in a cedar tree at the Northwest corner of the said 322.68 acre tract for the Northwest corner hereof;

THENCE along the North line of the said 322.68 acre tract as fenced upon the ground for the following courses:

S 60° 09' 10" E for a distance of 411.60 feet to a 1/2 inch iron pin found

S 80° 47' 10" E for a distance of 35.84 feet to a 1/2 inch iron pin found

S 62° 30' 10" E for a distance of 78.20 feet to a 60-d nail found in a cedar tree

S 64° 03' 36" E for a distance of 43.66 feet to a 60-d nail found in a cedar tree

S 63° 18' 05" E for a distance of 139.88 feet to a 60-d nail found in a cedar tree

S 61° 56' 14" E for a distance of 91.40 feet to a 60-d nail found

S 61° 26' 20" E for a distance of 469.07 feet to a 1/2 inch iron pin found

S 62° 11' 20" E for a distance of 917.23 feet to a 1/2 inch iron pin found

S 61° 47' 20" E for a distance of 385.36 feet to a 1/2 inch iron pin found

S 62° 38' 20" E for a distance of 587.05 feet to a 1/2 inch iron pin found

S 61° 06' 09' E for a distance of 175.60 feet to a 1/2 inch iron pin found

S 62° 42' E for a distance of 103.60 feet to a 1/2 inch iron pin found

S 35° 02' 11" E for a distance of 615.71 feet to a 1/2 inch iron pin found at the Northeast corner of the said 322.68 acre tract, for the Northeast corner hereof;

THENCE along the East line of the said 322.68 acre tract as fenced upon the ground for the followng courses:

FIELD NOTES
FOR

316.695 ACRE TRACT - Page Three

S 28° 51' 25" W for a distance of 1094.38 feet to a 1/2 inch iron pin found

S 28° 07' 13" W for a distance of 408.38 feet to a 1/2 inch iron pin found

S 27° 10' 38" W for a distance of 24.90 feet to a 1/2 inch iron pin found

S 26° 10' W for a distance of 217.65 feet to a 1/2 inch iron pin set at the Northeast corner of a 0.50 acre tract;

THENCE along the North line of the said 0.50 acre tract, N 63° 50' W for a distance of 200.12 feet to a 1/2 inch iron pin set for the Northwest corner of the said 0.50 acre tract;

THENCE along the West line of the said 0.50 acre tract, S 15° 31' W for a distance of 134.62 feet to a 1/2 inch iron pin found at the Northwest cornr of the said Bible Tract, being in the East line of the said 322.68 acre tract;

THENCE along the East line of the said 322.68 acre tract, being the West line of the said Bible Tract as fenced upon the ground, S 15° 38' W for a distance of 249.63 feet to the PLACE OF BEGINNING and containing 316.695 acres of land, more or less.

SAVE AND EXCEPT THEREFROM all of that certain tract or parcel of land dedicated as Senna Hills Drive shown on the plat of Senna Hills Section One P.U.D., recorded in Volume 86, Pages 121A-121B of the Plat Records of Travis County, Texas.

AS SURVEYED BY:
W. HARVEY SMITH SURVEYOR, INC.

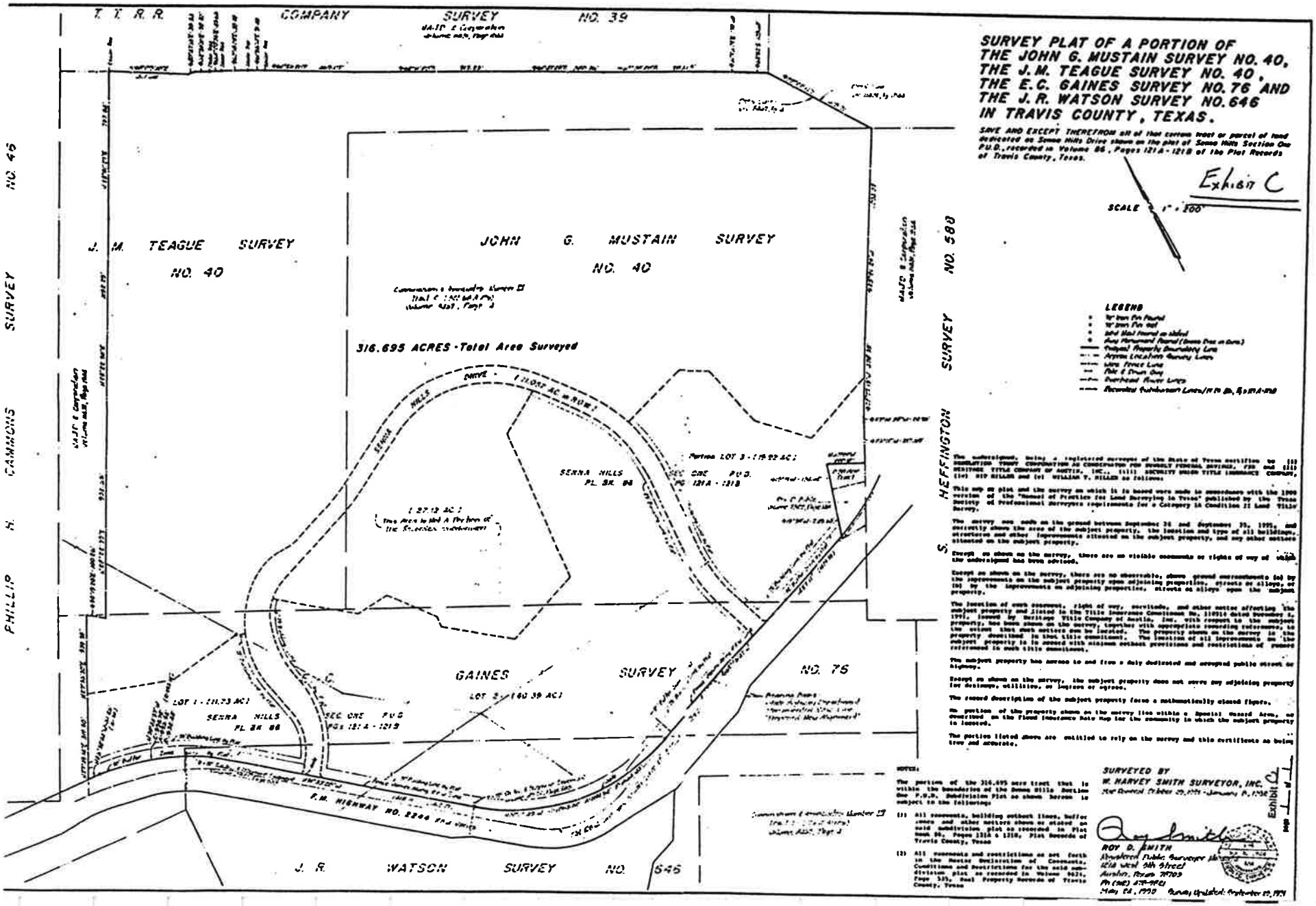
Roy Smith

ROY D. SMITH
REGISTERED PUBLIC SURVEYOR NO. 4094
May 24, 1990 Job No. 36655-48

Survey Updated: September 25, 1991

Field Notes Revised: January 8, 1992

Exhibit B
page 3 of 3



SURVEY PLAT OF A PORTION OF THE JOHN G. MUSTAIN SURVEY NO. 40, THE J. M. TEAGUE SURVEY NO. 40, THE E.C. GAINES SURVEY NO. 76 AND THE J. R. WATSON SURVEY NO. 646 IN TRAVIS COUNTY, TEXAS.

SAVE AND EXCEPT THEREFROM all of that certain tract or parcel of land dedicated on Serra Hills Drive shown on the plat of Serra Hills Section One P.U.D., recorded in Volume 86, Pages 121A - 121B of the Plat Records of Travis County, Texas.

Exhibit C

SCALE 1" = 200'

LEGEND

- 1/2" Iron Pin Found
- 1/2" Iron Pin Set
- Solid Steel Found or Noted
- Any Monument Found (Corner Post or Cairn)
- Subject Property Boundary Line
- Approx. Location Survey Lines
- Lots, Tracts Lines
- Fence
- Overhead Power Lines
- Recorded Subdivision Lines/R.O.W.

The undersigned, being a registered surveyor of the State of Texas certifies to: (i) [illegible] CORPORATION AS CONSERVATOR FOR [illegible] FEDERAL SAVINGS, FSB and its ASSIGNEE; TITLE COMPANY OF AUSTIN, INC., and (iii) SECURITY UNION TITLE INSURANCE COMPANY, (iv) HIP MILLER and (v) WILLIAM T. MILLER as follows:

This map or plat and the survey on which it is based were made in accordance with the 1999 revision of the "Manual of Practice for Land Surveying in Texas" published by the Texas Society of Professional Surveyors requirements for a Category 1A Condition II Land Title Survey.

The survey was made on the ground between September 24 and September 25, 1999, and correctly shows the area of the subject property, the location and type of all buildings, structures and other improvements situated on the subject property, and any other matters situated on the subject property.

Except as shown on the survey, there are no visible easements or rights of way of which the undersigned has been advised.

Except as shown on the survey, there are no observable, above ground encroachments (a) by the improvements on the subject property upon adjoining properties, streets or alleys, or (b) by the improvements on adjoining properties, streets or alleys upon the subject property.

The location of each easement, right of way, servitude, and other matter affecting the subject property and listed in the Title Insurance Commitment No. 319916 dated December 6, 1999, issued by Heritage Title Company of Austin, Inc., with respect to the subject property, has been shown on the survey, together with appropriate recording references to the extent that such matters can be located. The property shown on the survey is the property described in that title commitment. The location of all improvements on the subject property is in accord with minimum setback provisions and restrictions of record referenced in such title commitment.

The subject property has access to and from a duly dedicated and accepted public street or highway.

Except as shown on the survey, the subject property does not serve any adjoining property for drainage, utilities, or ingress or egress.

The record description of the subject property forms a mathematically closed figure.

No portion of the property shown on the survey lies within a Special Hazard Area, as described on the Flood Insurance Rate Map for the community in which the subject property is located.

The parties listed above are entitled to rely on the survey and this certificate as being true and accurate.

NOTES:

The portion of the 316.695 acre tract that is within the boundaries of the Serra Hills Section One P.U.D. Subdivision Plat as shown hereon is subject to the following:

(1) All easements, building setback lines, buffer zones and other matters shown or stated on said subdivision plat as recorded in Plat Book 86, Pages 121A & 121B, Plat Records of Travis County, Texas.

(2) All easements and restrictions as set forth in the Master Declaration of Covenants, Conditions and Restrictions for the said subdivision plat as recorded in Volume 9631, Page 535, Real Property Records of Travis County, Texas.

SURVEYED BY
W. HARVEY SMITH SURVEYOR, INC.
Field Surveyed October 25, 1999 - January 8, 1998

ROY D. SMITH
Registered Public Surveyor
1016 West 9th Street
Austin, Texas 78703
Ph (512) 478-9801

Map Date: October 24, 1999 Survey Updated: September 22, 1999

Exhibit C
Page 1 of 1

WATER CONSERVATION PLAN
FOR
SENNA HILLS

PREPARED FOR:

SENNA HILLS MUNICIPAL UTILITY DISTRICT #1

PREPARED BY:
MILLER CONSULTING GROUP
P.O. BOX 161507
AUSTIN, TEXAS 78716-1507

August, 1992

Exhibit D
page 1 of 5

I. INTRODUCTION

A. Utility Service Area

The Senna Hills development is located approximately two miles east of the intersection of FM 2244 and Hwy 71 in Travis County on Hwy 2244 in the Lake Austin/Barton Creek Watershed. The total area of Senna Hills is approximately 317 acres. The development is within the 2-mile ETJ limits of the City of Austin.

Development of Senna Hills as a residential subdivision will begin in early 1992. The developer's projected growth rate is approximately 75 residential connections per year.

The developer anticipates that up to 485 living unit equivalents (LUE's) will be utilized in the Senna Hills Develpment once final buildout is complete.

B. Water Utility System Profile

We anticipate that water service for the Senna Hills development will be provided by the Uplands Water Treatment Plant. The existing facilities include the water treatment plant with a capacity of 1.8 MGD, an intake structure and pump station, a pump station at the treatment plant, transmission mains, and a 750,000 gallon ground storage tank.

Anticipated monthly water rates for the MUD will be $2.25 to $2.30 per 1000 gallons.

C. Wastewater Utility System Profile

The project will be served by a package plant and approximately 90+ acres of spray irrigation under a permit issued by the Texas Water Commission - Permit #13238-01. We anticipate that all of the wastewater facilities will be located within the boundaries of the MUD.

D. Goals and Objectives of the Water Conservation Program

The proposed water conservation program is designed to address the following three goals:

1. A long-term reduction in overall water demand;
2. A reduction in the magnitude of seasonal peak demands; and
3. A reduction in wastewater flow volume.

Exhibit D
page 2 of 5

The potential reductions in average and peak demands can result in cost savings in operations and also better levels of service. In addision, capital expenditures for new facilities can be reduced and deferred. Individual water customers can realize direct savings in costs for water, wastewater, and energy by using conservation methods and water saving devices.

II. WATER CONSERVATION PLAN

The following elements are recommended to be considered for inclusion in the water conservation plan:

1. Education and Information
2. Plumbing Codes
3. Retrofit Program
4. Water Rate Structure
5. Universal Metering and Meter Maintenance
6. Water Conservation Landscaping
7. Reuse and Recycling
8. Leak Detection and Repair

The proposed water conservation plan for the District is described in the following sections.

1. Education and information

The District will distribute educational materials with an information packet for new customers and through periodic billing inserts. Water conservation brochures, pamphlets, and fact sheets which are available from the City of Austin, Texas Water Development Board, and LCRA will be made available to the District's customers.

2. Plumbing Codes

The District will incorporate in their rate orders a plumbing code which requires the use of water saving fixtures and appliances for all new construction and for replacements in existing structures. The following standards represent readily available products and technology and are consistent with City of Austin requirements:

Tank-type toilets	-	Maximum 1.6 gallons per flush
Flush valve toilets	-	Maximum 1.6 gallons per flush
Tank-type urinals	-	Maximum 3.0 gallons per flush
Flush valve urinals	-	Maximum 1.0 gallons per flush
Showerheads	-	Maximum 3.0 gallons per minute
Lavatory and kitchen faucets	-	Maximum 2.75 gallons per minute
Hot water lines	-	Insulated
Swimming pools	-	Recirculating filter equipment

Exhibit D
page 3 of 5

3. Retrofit Program

Housing construction will begin in 1993, accordingly there are no older houses or businesses in the District which will need retrofits of water conserving devices. Therefore, a retrofit program is not considered appropriate for inclusion in this plan.

4. Water Rate Structure

Water rates for Districts' customers are anticipated as follows:

Per 1,000 gallons	$2.25 to $2.30

This uniform rate structure is considered sufficient for conservation purposes.

5. Universal Metering and Meter Maintenance

All utility customers are to be metered in accordance with City of Austin regulations.

A meter maintenance program will include regular inspections and testing and repair or replacement of meters as necessary. The recommended regular testing schedule is as follows:

Production (master) meters	-	once a year
Meters larger than 1"	-	once a year
Meters 1" or smaller	-	once every ten years

6. Water Conservation Landscaping

The education program will include pamphlets which contain information on the methods and benefits of water conserving landscaping. Homeowners, home builders, business owners, landscapers, and irrigation contractors will be encouraged to promote and use adapted low water using plants and grasses, drip irrigation systems, mulches, efficient sprinklers with proper layout, and ornamental fountains that recycle water.

7. Reuse and Recycling

The potential for reuse and recycling effluent will be promoted at every opportunity. Although these plans are not complete at this time, the MUD anticipates that, at a minimum, all common areas will be watered with effluent produced by the sewage treatment package plant.

8. Leak detection and Repair

The education program will inform residents of the need to repair leaking fixtures in order to minimize waste of water and reduce water bills. The District will regularly monitor the water distribution system and fire hydrants for apparent leaks and make repairs when necessary. The District will also investigate for illegal hook-ups and unauthorized use of fire hydrants to minimize water losses.

III. DROUGHT CONTINGENT PLAN

The District will follow the City of Austin's Emergency Water Management Plan.

Exhibit D
page 5 of 5

NONPOINT SOURCE POLLUTION

ABATEMENT PLAN

FOR

SENNA HILLS SUBDIVISION

Exhibit E

page 1 of 8

1. INTRODUCTION

This Nonpoint Source Pollution ("NPS") Abatement Plan is intended to meet the requirements of the Lower Colorado River Authority's ("LCRA") water sale contract program. Guidelines for the formulation of an NPS Abatement Plan are outlined in LCRA document, "Rules for Water Sales Contracts."

The proposed Senna Hills development ("Senna Hills") is located on F.M. 2244 approximately 2 miles east of the intersection of State Highway 71 and F.M. 2244 in Travis County. Senna Hills encompasses a total of 318 acres, of which approximately 193 acres is located within the Lake Austin watershed and approximately 125 acres is located within the Barton Creek watershed. The site is located in the Edwards Plateau physiographic region, and is traversed by 3 drainage ravines. Slopes in Senna Hills range up to 35 percent, and elevations at the site range from 760 ft above msl at the bottom of the drainage ravines to 900 ft above mean sea level (msl) in the central portion of the tract.

The proposed site lies entirely within the 2 mile Extra Territorial Jurisdiction ("ETJ") of the City of Austin. Consequently, its development is subject to the rigorous environmental restrictions of the City's Lake Austin Watershed Ordinance and Barton Creek Watersheds Ordinance. Both Ordinances include stringent provisions for protection of downstream receiving waters from nonpoint source water quality threats. The City of Austin's Environmental Criteria Manual will apply to the design and construction of the structural controls for runoff quality for Senna Hills.

At this time, Senna Hills is part of an existing Municipal Utility District (MUD) with 740 approved living unit equivalents in its land use plan. The project developer has submitted a development proposal to the City of Austin which calls for a reduction in density to 484 single family detached residential units, together with 10 living unit equivalents being allocated to a proposed elementary school site. That density equates to approximately 1.5 units per acre. Construction of the development has not yet commenced.

Section 2 of this report will present a compilation of the specific Best Management Practices ("BMP's") currently either employed or being proposed for the development. BMP selection and application for the project generally represents the level and type of standard NPS protection of similar subdivisions with the following exceptions:

> The filtration ponds proposed for the development areas will be required to employ a pretreating

Exhibit E
page 2 of 8

sediment basin as currently required by City of Austin technical staff.

Section 3 of this report will present site maps and descriptions of significant drainageways, floodplains, and soil types.

Section 4, 5 and 6 provide information of reporting requirements, contacts, and compliance.

2 THE ABATEMENT PLAN

Both the Lake Austin Watershed and Barton Creek Watershed Ordinance, as applied at Senna Hills, require a multicomponent nonpoint source protection strategy including:

A. impervious cover (density) limitations;

B. provision for greenbelt and undisturbed natural areas;

C. compliance with erosion controls, slope stabilization techniques, and site restoration guidelines presented in the City of Austin Erosion and Sedimentation Control Manual; and

D. water quality control basins for direct treatment of stormwater runoff.

2.1 EXISTING EROSION PROBLEMS

There are no known existing erosion problems on the proposed Senna Hills site.

2.2 ABATEMENT OF EROSION RELATED NONPOINT SOURCE THREATS

Development of a drainage basin generally yields increases in runoff volume and drainage efficiency, which tend to result in increased runoff discharge rates for any given rainfall event. The result of this phenomenon is usually an initiation or acceleration of erosion along drainageways leading to local receiving waters.

A major source of such erosion is construction-related washoff of unprotected soils. During all of the site-grading, roadway installation, and other development-related construction activity at Senna Hills, construction contractors will be required to provide adequate sediment control measures including filter dikes, brush berms, and rock berms. These erosion control measures are required to remain in place until City of Austin inspectors are satisfied that final site

restoration is complete. All road construction and site grading activities associated with the development of the project will be required to meet stringent City of Austin standards for erosion protection, and compliance will be insured by the posting of fiscal surety with the City of Austin. This will assure total restoration of any construction related damage which may occur.

2.3 ABATEMENT OF CONSTITUENT WASH-OFF NONPOINT SOURCE THREATS

An increase in the presence of human activity in a previously undeveloped area can lead to degradation of local receiving waters. Much of this phenomenon is attributable to the washoff of constituents such as fertilizers from lawns or oil and grease from roads. In order to ameliorate the effects of these processes at Senna Hills, three BMP strategies are being proposed to minimize the impact of nonpoint source urban runoff.

First, it is generally accepted that event mean constituent concentrations evidenced in stormwater runoff tend to correlate directly with development density. For this reason, limitations on impervious cover or dwelling unit density generally serve as a means of limiting event mean constituent concentrations in stormwater runoff. As a result of the Purchaser's proposed voluntary reduction in development density for this site, impervious cover densities will limited to less than 20% on slopes with grades from 0-15% and less than 10% on slopes with grades greater than 15%. All development will meet applicable impervious cover restrictions of the governing ordinances.

Second, it is generally accepted that the passage of stormwater runoff through a vegetated zone at moderate discharge rates and velocities will improve the quality of the runoff. Toward this end, approximately 135 acres of greenbelt, irrigation land, and undisturbed natural areas have been set aside. This means that for the entire 318 acre Senna Hills development over 42% percent of the total site area has been set aside for use as parks or open space and irrigation acres to reduce density and runoff velocity. Another advantage of these areas are that they are generally located downslope of the developed areas.

Third, in a voluntary effort to enhance water quality, several proposed water features are being considered as possible candidates for water quality wet ponds. These structures are proposed to be designed to the City of Austin standards for water quality EMPs to further enhance runoff quality from developed areas.

Once completed, Senna Hills will be a first class subdivision with excellent suburban watershed "housekeeping" features. In other words, the kinds of poor housekeeping features characteristic of older urban neighborhoods (i.e. poor trash removal, accumulation of debris, deteriorating housing stock, high traffic volumes, and poor upkeep of lawns) will not be evident at Senna Hills. The Purchaser is confident that any nonpoint source water quality concerns associated with Senna Hills have been responsibly addressed, and Senna Hills will have a minimal impact on Lake Austin and other downstream receiving waters.

2.4 EDUCATION

2.4.1 General

Senna Hills agrees to provide nonpoint source pollution educational material to its customers and employees at least twice per calendar year. These materials are available from the LCRA, Texas Water Commission, City of Austin, and other sources and will also be provided for distribution to the public at the sales office for the Senna Hills Development.

2.4.2 Personnel Education

Senna Hills will conduct an annual educational seminar for employees, construction contractors, and other interested individuals.

2.4.3 Coordination with LCRA

Senna Hills will coordinate its educational activities with the LCRA and will request assistance in the form of educational literature and participation in seminars.

3. SITE MAPS

Figure 3-1 (in map pocket) presents the "Development Plan" for the Senna Hills property. The proposed site area is served by a Municipal Utility District with the major infrastructure components as shown on Figure 3-1.

3.1 SOILS

The following information, which was obtained from the U.S. Soil Conservation Service Soil Survey of Travis County, provides general descriptions of the major soil types which exist within the project area.

Brackett Soils - These soils develop over interbedded limestone and marl bedrock on slopes of 1 to 12 percent. The texture of the surface layer is gravelly clay loam, gravelly loam, loam or clay loam. Broken limestone fragments make up a major portion of the surface. These soils are shallow and well drained and have developed under a prairie vegetation of mid- and tall grasses and some trees. Thickness of the solum layer ranges from 10 to 20 inches.

Tarrant Soils - This series consists of shallow to very shallow, well-drained, stony, clayey soils overlying limestone. Large limestone rocks and fragments cover a large portion of the soil surface. This soil occupies complex slopes ranging from nearly level to 40 percent, but mostly exists on slopes from 5 to 12 percent. These soils have developed under tall grass and an open canopy of trees. The solum ranges in thickness from 4 to 14 inches. The soil has a moderately slow permeability, and a low available water capacity.

Tarrant and Speck Soils - This undifferentiated group occupies irregular areas along ridges. It consists of about 63 percent Tarrant soils, 32 percent Speck soils, 4 percent dark-gray clay about 18 inches thick, a small amount of Crawford clay, and rock outcrop. Tarrant soils have a surface layer about 10 inches thick consisting of dark grayish-brown clay overlying limestone. It is made up of about 45 percent fragments of gravel. Speck soils have a surface layer of reddish-brown clay loam about 14 inches thick, underlain by 4 inches of dark reddish-brown gravelly clay.

Volente Series - This series consists of deep, well-drained soils which developed in slope alluvium under a cover of mid- to tall grasses and scattered trees. these soils occupy mostly long, narrow valleys on slopes ranging from 1 to 8 percent. They are thick, moderately slowly permeable, and have a high available water capacity. This complex, as mapped in the project area, also contains small percentages of Altoga, Lewisville, Frio, San Saba, Tarrant, Purves, and Brackett soils. The Lewisville, Altoga and Brackett soils occur on upper slopes, and the San Saba, Purves and Tarrant soils are in the drainageways.

The Senna Hills site area sits generally in the headwaters of 3 small drainage sub-areas for Lake Austin. As such, it experiences peak flood discharge rates significantly less than those evidenced along the main reach of Lake Austin. The 100-year flood boundaries are generally centered within the natural area and drainage easements at all locations. Figure 2-1 (in map pocket) shows the approximate boundary on the 100-

year floodplain as being contained within the undeveloped natural areas.

4. REPORTING REQUIREMENTS

The records and reporting will include a maintenance plan, utilization records, and a biennial report to LCRA.

4.1 UTILIZATION RECORDS

Senna Hills will keep and/or require its landscaper to keep monthly reports recording all applications of pesticides or fertilizers.

4.2 BIENNIAL REPORT TO LCRA

Senna Hills will submit to LCRA, no later than January 31 of each odd-numbered year, a report reflecting all activities of the preceding two years related to nonpoint source pollution control, including the pesticide and fertilizer utilization records.

5 CONTACTS

The following persons will serve as contacts for the plan:

Lisa A. Hatzenbuehler
Lower Colorado River Authority
P.O. Box 220
Austin, Texas 78767
(512) 473-3200, ext. 2051

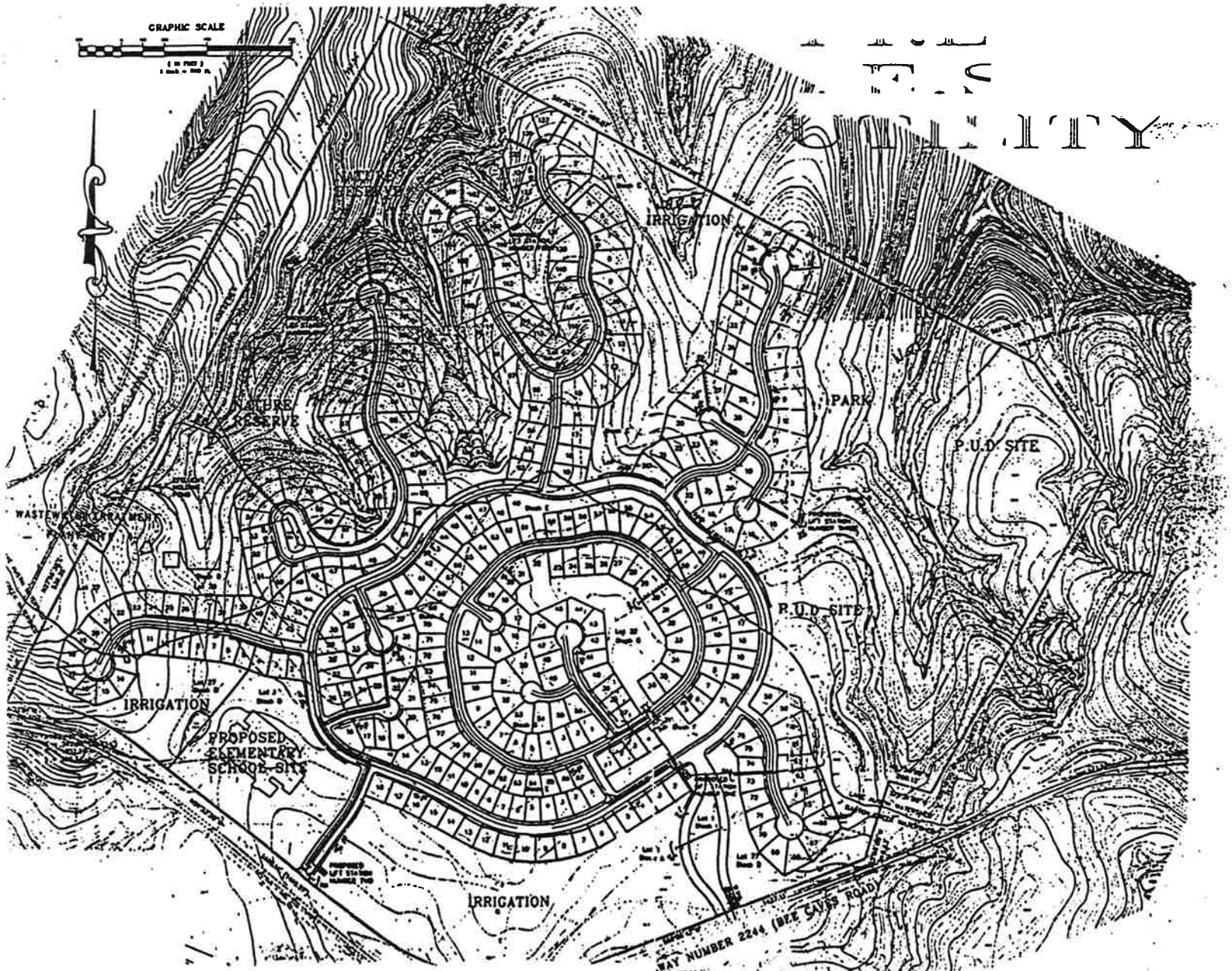
Mr. Rip Miller
Miller Consulting Group
P.O. Box 161507
Austin, Texas 78716
(512) 329-6655

6. COMPLIANCE

Senna Hills agrees to commence implementation of the educational programs at the start of construction on the project and agrees to continue those programs for the duration of the water sale contract or any extensions thereof.

Senna Hills agrees to allow the Water Surface and Shoreline Program Manager of the LCRA, or a designated representative, to inspect the site for compliance with the nonpoint source pollution abatement plan within the period of time which constitutes the term of this contract. The LCRA will notify the Purchaser at least 48 hours prior to the site visit(s) taking place.

Exhibit E



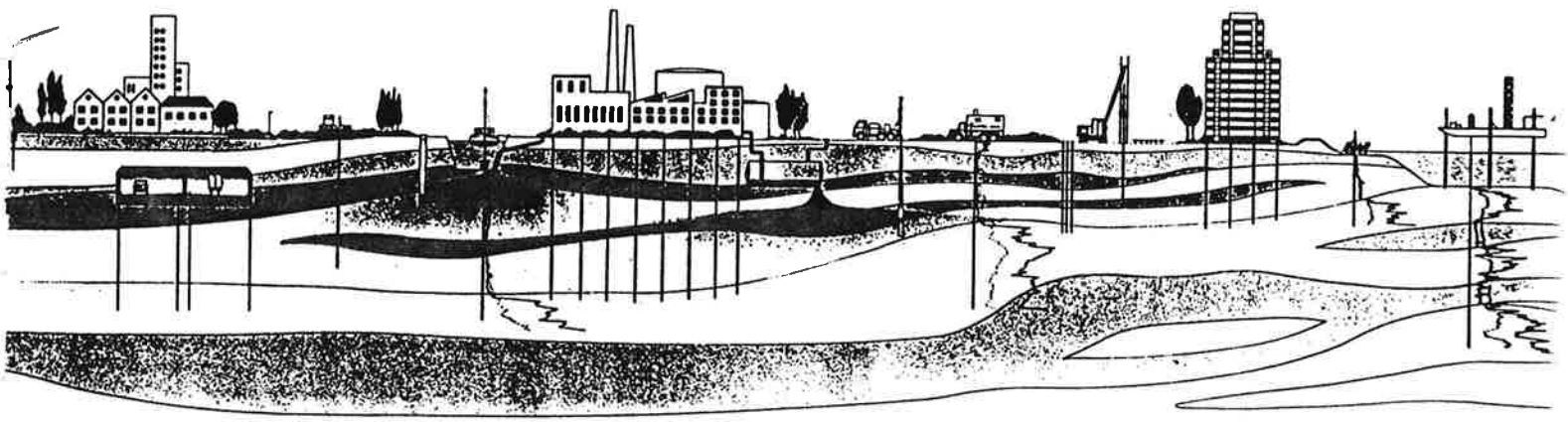
LITY PLAN

Common Hills

FUGRO McClelland

IRRIGATION AREA TOPSOIL ASSESSMENT
SENNA HILLS MUNICIPAL UTILITY DISTRICT
TRAVIS COUNTY, TEXAS

Patton Construction Company, L.C.
Austin, Texas



FUGRO-McCLELLAND (SOUTHWEST), INC.

1107 West Gibson Street
Austin, Texas 78704
Tel: (512) 444-3233
Fax: (512) 444-3996

Job No. 1001-1808
May 3, 1994

Mr. Dan Patton
Patton Construction Company, L.C.
2505 Spring Lane
Austin, Texas 78703

Irrigation Area Topsoil Assessment
Senna Hills Municipal Utility District
Travis County, Texas

Fugro-McClelland (Southwest), Inc. is pleased to submit this Irrigation Area Topsoil Assessment report for the above referenced property in Travis County, Texas. This study was performed in general accordance with requirements set forth by the City of Austin Environmental and Conservation Services Department. This study was authorized by Mr. Dan Patton of Patton Construction.

This study presents our evaluation of the effective thickness of the topsoil in the proposed waste water effluent irrigation areas at the Senna Hills Development in western Travis County, Texas. This report contains the study findings. Illustrations follow the text and contain a vicinity map, and a sample location plan. Field and laboratory data are presented in tabular form following the Illustrations.

Fugro-McClelland appreciates the opportunity to work with Patton Construction on this study. Please call if we can be of any additional assistance.

Sincerely,

FUGRO-McCLELLAND
(SOUTHWEST), INC.

David R. Mason
Project Manager

John A. Wooley, P.E.
Vice President

STATE OF TEXAS
JOHN A. WOOLEY
42819
REGISTERED
PROFESSIONAL ENGINEER

DRM/drm(rpt1808.DOC)
Copies Submitted: 4

IRRIGATION AREA TOPSOIL ASSESSMENT

SENNA HILLS MUNICIPAL UTILITY DISTRICT
TRAVIS COUNTY, TEXAS

* * *

Report

to

PATTON CONSTRUCTION COMPANY, L.C.
Austin, Texas

* * *

by

FUGRO-McCLELLAND (SOUTHWEST), INC.
1107 West Gibson Street
Austin, Texas

May 3, 1994

CONTENTS

FUGRO

ILLUSTRATIONS

TABLES

SUMMARY

This report presents the results of an Irrigation Area Topsoil Assessment on approximately 84 acres of undeveloped land in Travis County located in the confines of the Senna Hills Municipal Utility District. The purpose of this study was to provide an evaluation of the effective topsoil thickness of proposed waste water effluent irrigation areas. This study was performed in general accordance with requirements set forth by the City of Austin Environmental and Conservations Services Department. This study was authorized by Mr. Dan Patton of Patton Construction.

Fugro-McClelland personnel measured the soil thickness at 74 various locations throughout the proposed waste water effluent irrigations areas. Thirty-two soil samples were collected for laboratory analysis to determine natural moisture content, Atterberg limits, and grain size distribution. Soil Conservation System classifications were performed on representative soil horizons. Field and laboratory data were calculated and tabulated. Effective soil thickness was calculated as a function of the in-situ soil thickness proportional to the amount of soil finer than a 2 millimeter sieve. The results of these analyses are presented in tabular and map format.

Based on the work documented herein, it is our opinion that the effective topsoil thickness over most of the proposed irrigation areas is at least six inches. Fugro-McClelland has not performed any areal calculations; however, based on the frequency of sampling locations and the fact that only 10 of the 74 sampling locations indicate inadequate effective topsoil; we estimate that approximately 86% of the total proposed irrigation area has at least 6 inches of effective topsoil. Much of the proposed area has well in excess of 6 inches effective thickness. The areas with less than 6 inches of effective topsoil thickness are shown on Plate 2.

INTRODUCTION

Purpose and Scope of Services

The purpose of this study is to provide an evaluation of the effective topsoil thickness of proposed waste water effluent irrigation areas at the Senna Hills Development in western Travis County, Texas. The location of this project is shown on Plate 1. This study was performed in general accordance with requirements set forth by the City of Austin Environmental and Conservations Services Department (COA ECSD). This study was authorized by Mr. Dan Patton of Patton Construction.

The COA ECSD guidelines for determining the depth of effective soil are as follows:

General Survey. A generalized soil field survey map and report should include a topographic map of the proposed irrigation areas showing sampling points and a delineation of the United States Department of Agriculture Soil Conservation Service (USDA SCS) soil series, and a report presenting the field observations and physical properties including depth of the soil to the first semi-permeable or impermeable horizon, identification of master and subordinate soil horizons, and generally, the percent of surface stoniness and the percent of coarse fragments (greater than 2 millimeters (mm) diameter) within the soil matrix. The compiled information should be utilized to identify areas on the irrigation tract(s) that: a) have greater than six inches of effective soil, b) areas that may not have six inches of effective soil, and c) areas that have less than six inches of effective soil. Generalized information should be obtained by using shovel pits or similar techniques at regular intervals along transects throughout the irrigation areas at a frequency of one in every two to five acres in highly dissected landscapes.

Detailed Survey. Utilizing the information generated from the generalized soil survey, detailed soil descriptions for representative areas and landforms shall be completed with special emphasis placed on areas with less than six inches of effective soil or areas which may not have six inches of effective soil. Detailed information is to be obtained, in part, by opening test pits, six feet long by three feet deep, concentrated in areas where effective soil is less than, or may be less than, six inches thick. A detailed survey map and report should include a topographic map showing a breakdown of areas with greater than, and less than 6 inches of effective soil depths, and a report identifying the physical and chemical properties of each soil horizon and a calculation of effective soil thickness based on percent of soil finer than a 2 mm (No. 10) sieve.

Report Organization

Report organization is based on a format established by Fugro-McClelland (Southwest), Inc. This report combines the requirements set by the COA ECSD for the "general" and "detailed" surveys into one report. Illustrations follow the text and consist of a vicinity map, and a sample

location plan which also provides final topsoil effective thickness interpretations. Field and laboratory data are presented on tables following the Illustrations.

This report identifies the three areas proposed to be utilized for waste water effluent irrigation. The three areas are depicted on Plate 2. Throughout this report the areas will be identified generally as the northwestern irrigation area, the northeastern irrigation area, and the southern irrigation area.

ENVIRONMENTAL SETTING

Location

The subject property is located north of FM 2244 approximately 2.25 miles east of State Highway 71 in Travis County, Texas (Plate 1). The subject property is geographically centered at approximately latitude 30° 18' 37" north and longitude 97° 54' 0" west.[1]

Surface Water Drainage

The elevation of the subject property ranges from approximately 820 to 900 feet above mean sea level (Plates 1 and 2). Surface water drainage from the northern half of the subject property (which includes the northwestern and northeastern irrigation areas) which is situated in the Lake Austin Watershed generally flows in a northerly direction toward Lake Austin.

The southern half of the subject property (which includes the southern irrigation area) is situated in the Barton Creek Watershed. Surface water drainage from this area generally flows in a southerly direction toward Barton Creek.

Surficial Soils

Surficial soils on the subject property are mapped by the USDA SCS, and confirmed by Fugro-McClelland, as being Brackett soils and rock outcrops, steep (BoF) on the northwestern and northeastern irrigation areas and as Brackett soils, rolling (BlD) and Volente complex, 1 to 8 percent slopes, (VoD) on the southern irrigation areas[2].

Brackett series soils on the subject property are classified by the USDA SCS as: Order - Inceptisols; Subgroup - Typic Ustochrepts; Family - Loamy, carbonatic, thermic shallow. The parent material for the Bracket series soils is the underlying Glen Rose limestone.

---

1 United States Geological Survey, "Bee Cave Quadrangle, Texas," 7.5 Minute Series (Topographic) Map, 1986.

2 United States Department of Agriculture Soil Conservation Service, *Soil Survey of Travis County, Texas*, 1974, Sheet 51.

Volente series soils on the subject property are classified by the USDA SCS as: Order - Mollisols; Subgroup - Pachic Haplustolls; Family - Fine, mixed, thermic. The parent material for the Volente series soils is colluvium from Brackett soils on the subject property[3].

Site specific details concerning these mapped soil series are provided in the following sections of this report.

INVESTIGATION

A field survey was performed by Fugro-McClelland personnel between March 21 and April 12, 1994 to measure actual soil thickness and to collect soil samples for laboratory analysis. The results of these activities are presented in the following paragraphs of this section.

Field Investigation

In order to precisely locate sample collection and soil thickness measurement locations, six "base lines" were established across the irrigation areas by Roy D. Smith Surveyors. These base lines are shown on Plate 2. Soil thickness measurements and descriptions (Tables 1 and 2) were collected from 74 locations (Plate 2) across the irrigation areas, as required for the general survey. On the average, sample locations are spaced at approximately 200 ft intervals along and either side of the established base lines. A hand-operated bucket auger, a shovel, and a pick were used to collect soil samples for description, thickness measurements, and laboratory analysis. Samples were collected to a depth of three feet, or until auger refusal was met. Sample locations investigated with the hand auger technique are designated with the prefix "G" on the tables and plates.

Soil samples and more detailed descriptions, as required for the detailed survey, were also collected from an open four ft deep trench extending approximately 800 linear feet across the eastern portion of the southern irrigation area. This trench cross-cut Brackett soils (BlD) and Volente complex soils (VoD) and was used as an inspection trench. Sample collection locations and observation points depicted on the tables and plates with the prefix "IT" are "inspection trench" locations.

Laboratory Analysis

Thirty two soil samples from twenty separate locations were collected for laboratory analysis and detailed classification. Analyses included: natural water content by ASTM D2216; Atterberg limits by ASTM D4318; sieve analysis by ASTM D422; and unified soil classification by ASTM D2478. Soil textures were determined for the collected samples by USDA SCS textural classification methods. The results of these analyses are shown on Tables 1 and 2. Table 1 contains laboratory test results along with ASTM soil classifications; Table 2 contains SCS descriptions,

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3 ibid, pgs 113 - 115, Table 8.

identification of soil horizons, and total effective soil thickness calculations.

Effective Soil Thickness

Based on the results of field observations and laboratory analyses, the effective soil thickness was calculated for each sample location. The effective soil is defined by the COA ECSD as that fraction of the total volume of soil that passes the 2mm (No. 10) sieve. For soil horizons on which actual gradation analyses were performed, the effective soil thickness was calculated based on the results of laboratory analysis for the respective sample. For horizons on which no gradation analysis was performed, it was assumed that the percent soil passing the 2mm sieve was 75%. This assumption is reasoned in the following paragraph.

Representative soil horizons from the 74 test locations were sampled by obtaining 32 discrete soil samples. These samples were submitted for grain size analysis and soil classification. The results showed: a total of 15 samples were classified as sandy loams; 10 samples were classified as sandy clay loams; 5 samples were classified as sandy clays; 1 sample was classified as a loamy sand; and 1 sample was classified as a silty clay. Therefore, 25 of the 32 samples analyzed were classified as sandy loam or sandy clay loam. The average percent passing the 2mm sieve for the combined categories of sandy loam and sandy clay loam is 75%. The average percent passing the 2mm sieve for all 32 samples is 77%. Because most of the soil classified was either a sandy loam, or a sandy clay loam, it is conservatively assumed that 75% of the material classified as soil passes the 2mm sieve.

Using this conservative assumption, and actual test results where appropriate, effective soil thickness was calculated for the 74 sampling locations. Results of these calculations are presented in tabular form on Table 2, and are shown in plan on Plate 2.

CONCLUSIONS

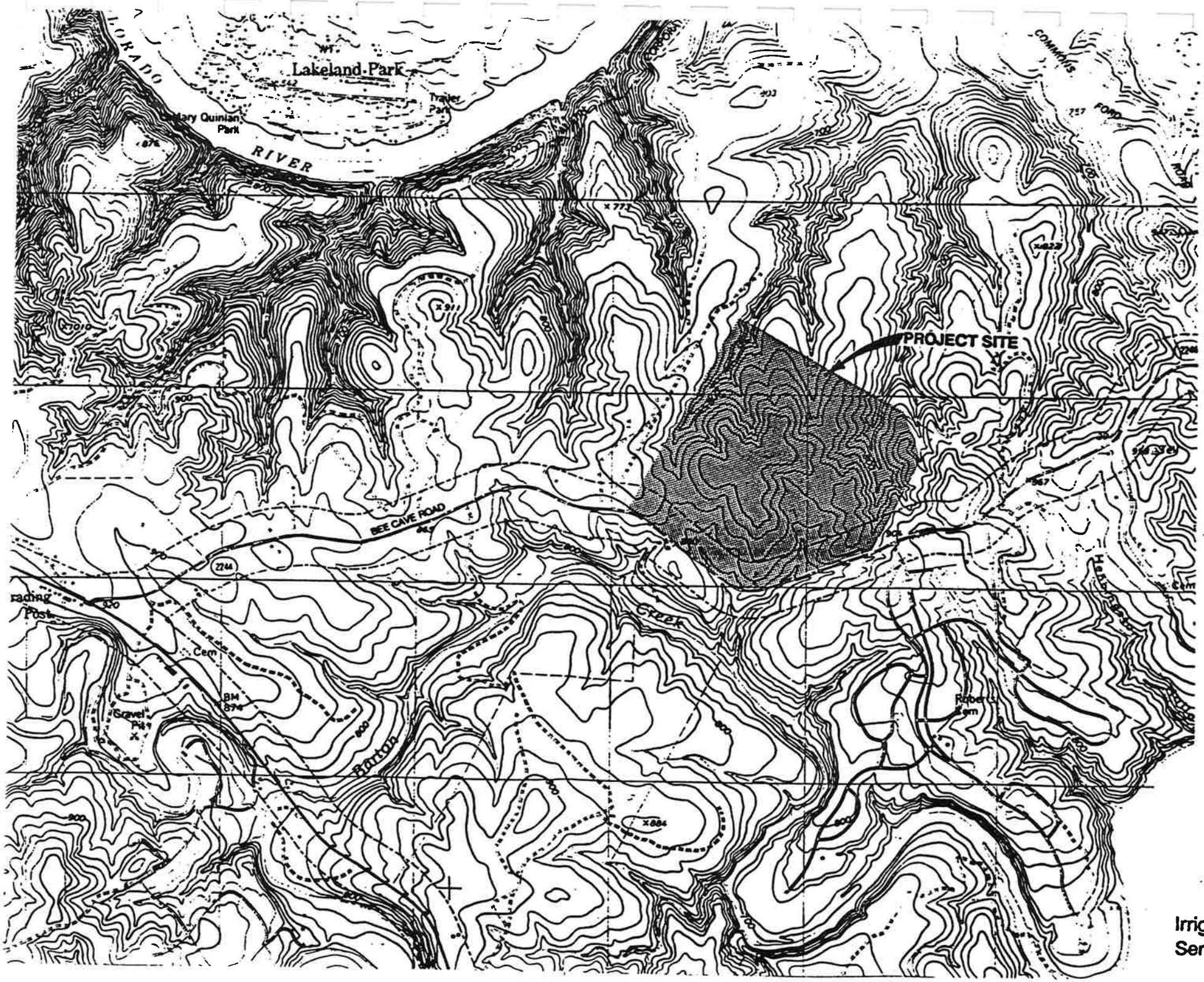
Effective soil thickness was calculated, according to ECSD definition, as a function of the in-situ soil thickness proportional to the amount of soil finer than a 2mm sieve. Plate 2 presents our interpretation of areas having at least 6 inches of effective topsoil according to ECSD definition.

Based on the work documented herein, it is our opinion that the effective topsoil thickness over most of the proposed irrigation areas is at least six inches. Fugro-McClelland has not performed specific areal calculations; however, based on the frequency of sampling locations and the fact that only 10 of the 74 sampling locations indicate inadequate effective topsoil; we estimate that approximately 86% of the total proposed irrigation area has at least 6 inches of effective topsoil. Much of the irrigation areas have well in excess of 6 inches of effective topsoil.

CONDITIONS AND LIMITATIONS

This study has been performed for the client for use in evaluating effective topsoil thickness on the proposed irrigation areas on the subject property. The professional services that form the basis for this report have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable professionals practicing in the same locality. No other warranty, expressed or implied, is made as to the professional advice set forth.

The results, conclusions, and recommendations contained in this report are directed at, and intended to be utilized within, the scope of work contained in the contract executed by Fugro-McClelland and client. This report is not intended to be used for any other purposes. Fugro-McClelland makes no claim or representation concerning any activity or condition falling outside the specified purposes to which this report is directed, said purposes being specifically limited to the scope of work as defined in said agreement. Inquiries as to said scope of work or concerning any activity or condition not specifically contained therein should be directed to Fugro-McClelland for a determination and, if necessary, further investigation.



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TABLES

TABLE 1

SUMMARY OF LABORATORY TEST RESULTS

FUGRO McClelland

1107 West Gibson; Austin, Texas 78704
Ph: (512) 444-3233; FAX: (512) 444-3996

Project: Senna Hills M.U.D. Topsoil Study
Job No. 1001–1808

Client: Patton Construction

Sample Location No.	Depth inches	Water Content % dry wt	Atterberg Limits			% Finer Than				ASTM Classification	
			LL	PL	PI	#4	2mm	#40	#200	Symbol	Group Name
G-33	0 – 4	14.5	48	30	18	94	74	58	35	SM	silty sand
G-33	4 – 9	8.3	31	22	9	84	76	51	32	SC	clayey sand w/gravel
G-34	0 – 12	13.5	53	34	19	61	52	40	26	GM	silty gravel w/sand
G-35	0 – 6	11.2	34	19	15	92	87	70	50	CL	gravelly lean clay w/sand
G-36	0 – 6	7.8	37	22	15	72	68	59	39	SC	clayey sand w/gravel
G-37	0 – 6	15.2	34	19	15	99	96	80	52	CL	sandy lean clay
G-38	0 – 6	15.8	43	25	18	99	95	78	51	CL	sandy lean clay
G-38	9 – 11	11.0	37	24	13	69	58	45	30	SC	clayey sand w/gravel
G-39	0 – 3	17.7	62	35	27	88	80	59	45	SM	silty sand
G-40	0 – 2	21.6	72	34	38	76	74	69	62	CH	gravelly fat clay
G-40	2 – 6	16.1	42	25	17	90	81	59	37	SC	clayey sand
G-41	0 – 6	9.3	40	27	13	22	17	13	8	GP-GM	poorly graded gravel w/silty
G-44	0 – 11	1.5	41	23	18	23	17	12	8	GP-GC	poorly graded gravel w/clay and sand
G-48	0 – 5	14.8	55	24	31	97	96	81	60	CH	sandy fat clay
G-48	5 – 38	13.0	59	21	38	98	94	80	66	CH	sandy fat clay
G-48	38 – 48	11.0	37	15	22	95	92	80	65	CL	sandy lean clay
G-52	0 – 5	11.7	41	26	15	76	67	45	30	SM	silty sand w/gravel
G-52	10 – 15	10.3	30	17	13	76	70	46	30	SC	clayey sand w/gravel
G-55	0 – 5	11.2	44	26	18	95	89	66	43	SC	clayey sand
G-55	18 – 24	9.1	23	15	8	91	85	62	36	SC	clayey sand
G-60	0 – 4	14.9	41	20	21	99	96	80	55	CL	sandy lean clay
G-60	26 – 30	14.0	44	18	26	94	86	76	61	CL	sandy lean clay
G-64	0 – 4	10.2	35	9	26	91	86	75	46	SC	clayey sand

TABLE 1

SUMMARY OF LABORATORY TEST RESULTS

FUGRO McClelland

1107 West Gibson; Austin, Texas 78704
Ph: (512) 444-3233; FAX: (512) 444-3996

Project: Senna Hills M.U.D. Topsoil Study
Job No. 1001 – 1808

Client: Patton Construction

Sample Location No.	Depth inches	Water Content % dry wt	Atterberg Limits			% Finer Than				ASTM Classification	
			LL	PL	PI	#4	2mm	#40	#200	Symbol	Group Name
G-66	0 – 3	27.3	89	30	59	100	100	100	98	CH	fat clay
G-67	0 – 3	9.2	36	22	14	99	96	93	64	CL	sandy lean clay
G-67	18 – 22	10.2	26	22	4	86	81	69	60	ML	sandy silt
G-69	0 – 5	6.9	31	20	11	83	71	51	28	SC	clayey sand w/gravel
G-69	9 – 13	7.7	29	14	15	46	41	31	19	GC	clayey gravel w/sand
G-69	17 – 20	11.6	29	15	14	94	91	88	60	CL	sandy lean clay
G-71	0 – 3	11.7	34	22	12	97	88	71	48	SC	clayey sand
G-71	5 – 8	11.4	32	22	10	98	89	59	44	SC	clayey sand
G-73	0 – 6	8.6	42	27	15	84	76	54	33	SM	silty sand w/clay

Test Methods:
Water Content: ASTM D2216
Atterberg Limits: ASTM D4318
Sieve Analysis: ASTM D422
Classification: ASTM D2487

TABLE 2

EFFECTIVE SOIL THICKNESS

FUGRO ◘ McClelland

1107 West Gibson; Austin, Texas 78704
Ph: (512) 444-3233; FAX: (512) 444-3996

Project: Senna Hills M.U.D. Topsoil Study
Job No. 1001 – 1808

Client: Patton Construction

Sample Location No.	Soil Horizon	Depth (inches)	Horizon Thickness (inches)	Effective Thickness (inches)	%Passing 2mm sieve	% Surface Stoniness (estimate)	USDA SCS Soil Series	Description (USDA SCS Texture)
G-1	A	0 – 4	4.0	3.0		5	BID	Brownish grey silty clay
	R	4 – ?	?					Slightly weathered limestone
G-2	A	0 – 5	5	3.8		10	BID	Brown sandy clay w/roots
	R	5 – ?	?					Slightly weathered limestone
G-3	A	0 – 7	7	5.3			VoD	Brown silty clay w/limestone gravel
	B	7 – 23	16	12.0				Reddish brown silty clay
	R	23 – ?	?					Slightly weathered limestone
G-4	A	0 – 11	11	8.3			BID	Brownish grey silty clay w/worms
	R	11 – ?	?					Slightly weathered limestone
G-5	A	0 – 3.5	3.5	2.6			BID	Brownish grey silty clay w/numerous roots
	B	3.5 – 8	4.5	3.4		<5		Brownish grey silty clay w/LS gravel common
	R	8 – ?	?					Slightly weathered limestone
G-6	A	0 – 2	2	1.5		80	BID	Greyish brown silty clay w/roots
	C	2 – 26	24	18.0				Tan completely weathered limestone w/num dist mott
	R	26 – ?	?					Slightly weathered limestone
G-7	A	0 – 21	21	15.8		0	BID	Greyish brown silty clay
	R	21 – ?	?					Slightly weathered limestone
G-8	A	0 –23	23	17.3		0	BID	Greyish brown silty clay
	R	23 – ?	?					Slightly weathered limestone
G-9	A	0 – 5	5	3.8		1	BID	Brownish grey sandy clay
	B	5 – 11	6	4.5				Brownish grey sandy clay w/num ls gravel
	R	11 – ?	?					Slightly weathered limestone
G-10	A	0 – 13.5	13.5	10.2		1	BID	Brownish grey sandy clay w/roots
	R	13.5 – ?	?					Slightly weathered limestone

TABLE 2

EFFECTIVE SOIL THICKNESS

FUGRO ◘ McClelland

1107 West Gibson; Austin, Texas 78704
Ph: (512) 444-3233; FAX: (512) 444-3996

Project: Senna Hills M.U.D. Topsoil Study
Job No. 1001–1808

Client: Patton Construction

Sample Location No.	Soil Horizon	Depth (inches)	Horizon Thickness (inches)	Effective Thickness (inches)	%Passing 2mm sieve	% Surface Stoniness (estimate)	USDA SCS Soil Series	Description (USDA SCS Texture)
G–11	A	0 – 14	14	10.5		0	VoD	Brown sandy clay
	R	14 – ?	?					Sligtly weathered limestone
G–12	A	0 – 27	27	20.3		0	VoD	Brown sandy clay
	R	27 – ?	?					Slightly weathered limestone
G–13	A	0 – 27	27	20.3		0	VoD	Brown sandy clay w/worms
	R	27 – ?	?					Slightly weathered limestone
G–14	A	0 – 10	10	7.5		0	BID	Brown sandy clay w/few calc nodules
	R	10 – ?	?					Slightly weathered limestone
G–15	A	0 – 10	10	7.5		0	BID	Brown sandy clay w/few calc nodules
	R	10 – ?	?					Slightly weathered limestone
G–16	A	0 – 14	14	10.5			BID	Brown sandy clay w/few calc nodules
	R	14 – ?	?					Slightly weathered limestone
G–17	A	0 – 3	3	2.3		25	BID	Reddish brown sandy clay w/roots and ls gravel
	R	3 – ?	?					Slightly weathered limestone
G–18	A	0 – 3.5	3.5	2.6		25	BID	Reddish brown sandy clay w/roots
	R	3.5 – ?	?					Slightly weathered limestone
G–19	A	0 – 12	12	9.0		5	BID	Brown sandy clay w/roots, worms, and few ls gravels
	R	12 – ?	?					Slightly weathered limestone
G–20	A	0 – 11	11	8.3		50	BID	Brown sandy clay w/roots and rock fragments
	C	11 – ?	?					Highly weathered limestone
G–21	A	0 – 6.5	6.5	4.9		50	BID	Brown sandy clay w/roots and numerous ls gravels
	R	6.5 – ?	?					Slightly weathered limestone
G–22	A	0 – 18.8	18.5	13.9		20	BID	Reddish brown sandy clay
	R	18.5 – ?	?					Slightly weathered limestone

TABLE 2

EFFECTIVE SOIL THICKNESS

FUGRO ◘ McClelland

1107 West Gibson; Austin, Texas 78704
Ph: (512) 444-3233; FAX: (512) 444-3996

Project: Senna Hills M.U.D. Topsoil Study
Job No. 1001–1808

Client: Patton Construction

Sample Location No.	Soil Horizon	Depth (inches)	Horizon Thickness (inches)	Effective Thickness (inches)	%Passing 2mm sieve	% Surface Stoniness (estimate)	USDA SCS Soil Series	Description (USDA SCS Texture)
G–23	A	0 – 16	16	12.0		0	VoD	Brown sandy clay, firm, crumbly, w/roots
	B	16 – 36+	20	15.0				Reddish tan silty clay, stiff
G–24	A	0 – 9	9	6.8			BID	Grey sandy clay w/numerous limestone gravel
	R	9 – ?	?					Tan weathered limestone
G–25	A	0 – 14	14	10.5		40	BID	Grey sandy clay w/roots
	C	14 – ?	?					Tan completely weathered limestone w/num dist yl mott
G–26	A	0– 5	5	3.8		40	BID	Brownish grey sandy clay w/ls frags and roots
	B	5 – 15	10	7.5				Brown sandy clay
	C	15 – ?	?					Highly weathered limestone
G–27	A	0 – 3	3	2.3		60	BID	Brownish grey sandy clay w/roots
	B	3 – 7	4	3.0				Brownish grey sandy clay w/ls fragments and roots
	C	7 – ?	?					Highly weathered limestone
G–28	A	0 – 11	11	8.3		0	VoD	Brown sandy clay w/roots
	C	11 – ?						Highly weathered limestone
G–29	A	0 – 36+	36	27.0		0	VoD	Reddish brown sandy clay w/roots
G–30	A	0 – 16	16	12.0		0	VoD	Reddish brown sandy clay w/roots
	B	16 – 23	7	5.3				Brownish grey sandy clay
	R	23 – ?	?					Slightly weathered limestone
G–31	A	0 – 3	3	2.3		60	BID	Grey sandy clay w/roots
	B	3 – 12	9	6.8				Grey sandy caly
	C	12 – 14	2	1.5				Tan completely weathered limestone
	R	14 – ?	?					Tan slightly weathered limestone
G–32	A	0 – 15	15	11.3		50	BID	Grey sandy clay
	C	15 – 23	8	6.0				Tan completely weathered limestone

TABLE 2

EFFECTIVE SOIL THICKNESS

FUGRO ◘ McClelland

1107 West Gibson; Austin, Texas 78704
Ph: (512) 444-3233; FAX: (512) 444-3996

Project: Senna Hills M.U.D. Topsoil Study
Job No. 1001–1808

Client: Patton Construction

Sample Location No.	Soil Horizon	Depth (inches)	Horizon Thickness (inches)	Effective Thickness (inches)	%Passing 2mm sieve	% Surface Stoniness (estimate)	USDA SCS Soil Series	Description (USDA SCS Texture)
	R	23 – ?	?					Tan slightly weathered limestone
G–33	A	0 – 4.5	14.5	10.7	74	5	BID	Brown silty sand w/roots (sandy loam)
	C	4.5 – 9	4.5	3.4	76			Tan and grey clayey sand w/gravel (sandy loam)
	R	9 – ?	?					Tan slightly weathered limestone
G–34	A	0 – 12	12.0	6.2	52	40	BID	Brown silty gravel w/sand and roots (loamy sand)
	R	12 – ?						Tan slightly weathered limestone
G–35	A	0 – 8.5	8.5	7.4	87	0	BID	Brownish grey gravelly lean clay w/sand (sandy clay loam)
	R	8.5 – ?	?					Tan slightly weathered limestone
G–36	A	0 – 9	9.0	6.1	68	15	BID	Bronwish grey clayey sand w/gravel (sandy loam)
	R	9 – ?	?					Tan slightly weathered limestone
G–37	A	0 – 9.5	9.5	9.1	96	5	BID	Brownish grey sandy lean clay w/roots (sandy clay loam)
	R	9.5 – ?						Tan slightly weathered limestone
G–38	A	0 – 9	9.0	8.6	95	5	BID	Brown sandy lean clay w/roots (sandy clay loam)
	B	9 – 11.5	2.5	1.5	58			Brownish grey clayey sand w/gravel
	R	11.5 – ?	?					Tan slightly weathered limestone
G–39	A	0 – 9	9.0	7.2	80	5	BID	Brown silty sand w/roots (sandy clay loam)
	R	9 – ?	?					Tan slightly weathred limestone
G–40	A	0 – 2	2.0	1.5	74	5	BID	Dark brown gravelly fat clay w/roots (sandy clay)
	C	2 – 11	9.0	7.3	81			Tan clayey sand (sandy clay)
	R	11 – ?	?					Tan slightly weathered limestone
G–41	A	0 – 6.5	6.5	1.1	17	5	BID	Brownish grey poorly graded gravel w/silt and roots (sandy loam)
	C	6.5 – 16	9.5	7.1				Tan completely weathred limestone
	R	16 – ?	?					Tan slightly weathered limestone
IT–42	A	0 – 6	6	4.5			BID	Brown sandy clay w/roots & scattered ls gravel

TABLE 2

EFFECTIVE SOIL THICKNESS

FUGRO ◘ McClelland

1107 West Gibson; Austin, Texas 78704
Ph: (512) 444-3233; FAX: (512) 444-3996

Project: Senna Hills M.U.D. Topsoil Study
Job No. 1001–1808

Client: Patton Construction

Sample Location No.	Soil Horizon	Depth (inches)	Horizon Thickness (inches)	Effective Thickness (inches)	%Passing 2mm sieve	% Surface Stoniness (estimate)	USDA SCS Soil Series	Description (USDA SCS Texture)
	B	6 – 11	5	3.8				Brown sandy clay w/roots & numerous ls fragments
	R	11 – 36+	25					Tan moderately weathered massive limestone w/chert nodules
IT–43	A	0 – 12	12	9.0			BID	Brown sandy clay w/roots & numerous ls fragments
	C	12 – 36+	24	18.0				Tan highly weathered massive limestone w/occasional roots
IT–44	A	0 – 11	1.5	0.3	17		BID	Grey poorly graded gravel w/clay and sand and roots (sandy loam)
	C	11 – 36	24	18.0				Tan highly weathered ls w/few dist yl mott and chert nodules
	R	36 – ?	?					Tan slightly weathered masive limestone
IT–45	A	0 – 18	18	13.5			BID	Brown sandy clay w/roots and numerous ls fragments
	C	18 – 56	38	28.3				Tan highly weathered ls w/occasional roots
IT–46	A	0 – 10	10	7.5			BID	Brown sandy clay w/roots and numerous ls fragments
	C	10 – 45	35	26.3				Tan highly weathered ls w/occasional roots
IT–47	A	0 – 21	21	15.8			VoD	Brown sandy clay w/roots and numerous chert and ls fragments
	C	21 – 56	35	26.3				Tan completely weathered limestone w/clay seams and layers
	R	56 – ?	?					Tan moderately weathered limestone w/clay seams and layers
IT–48	A	0 – 5	5.0	4.8	96		VoD	Dark brown sandy fat clay w/roots (sandy clay loam)
	B	5 – 38	33.0	31.0	94			Reddish brown sandy fat clay w/roots and numerous calc nodules (sandy clay)
	C	38 – ?	?		92			Tan sandy lean clay w/numerous distinct yl mottles (sandy clay)
G–49	A	0 – 8	8	6.0		0	VoD	Brown sandy clay w/roots
	B	8 – 36+	28	21.0				Reddish brown sandy clay w/roots and numerous calc nodules
G–50	A	0 – 14	14	10.5		5	BID	Brownish grey sandy clay w/ls scattered ls fragssss and roots
	R	14 – ?	?					Tan slightly weathered limestone
G–51	A	0 – 7	7	5.3			BID	Brownish grey sandy clay w/ls fragments
	C	7 – 23	16	12.0				Tan completely weathered limestone
	R	23 – ?	?					Tan slightly weathered limestone

TABLE 2

EFFECTIVE SOIL THICKNESS

FUGRO ◘ McClelland

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Ph: (512) 444-3233; FAX: (512) 444-3996

Project: Senna Hills M.U.D. Topsoil Study
Job No. 1001–1808

Client: Patton Construction

Sample Location No.	Soil Horizon	Depth (inches)	Horizon Thickness (inches)	Effective Thickness (inches)	%Passing 2mm sieve	% Surface Stoniness (estimate)	USDA SCS Soil Series	Description (USDA SCS Texture)
G–52	A	0 – 10	11.7	7.8	67	5	BID	Brownish grey silty sand w/gravel and roots (sandy loam)
	C	10 – 20	10.3	7.2	70			Tan clayey sand w/gravel (sandy clay loam)
	R	20 – ?	?					Tan slightly weathered limestone
G–53	A	0 – 10.5	10.5	7.8		5	BID	Brownish grey sandy clay w/scattered ls frags and roots
	R	10.5 – ?	?					Tan slightly weathered limestone
G–54	A	0 – 14	14	10.5		10	BID	Brownish grey sandy clay w/scattered ls frags and roots
	C	14 – 22	8	6.0				Tan completely weathered limestone
	R	22 – ?	?					Tan slightly weathered limestone
G–55	A	0 – 10	10.0	8.9	89	5	BID	Brownish grey clayey sand (sandy loam)
	C	10 – 36+	26.0	22.1	85			Tan clayey sand (sandy loam)
G–56	A	0 – 7.5	7.5	5.6			BID	Brown sandy clay w/scattered limestone fragments
	R	7.5 – ?	?					Tan slightly weathered limestone
G–57	A	0 – 9.5	9.5	7.1		50	BID	Brownish grey sandy clay w/ls fragments
	R	9.5 – ?	?					Tan slightly weathered limestone
G–58	A	0 – 10	10	7.5		50	BID	Brown sandy clay w/scattered ls gravel and roots
	R	10 – ?	?					Tan slightly weathered limestone
G–59	A	0 – 7.5	7.5	5.6		80	BID	Brownish grey sandy clay w/roots
	R	7.5 – ?	?					Tan slightly weathered limestone
G–60	A	0 – 26	26.0	25.0	96	0	VoD	Brown sandy lean clay w/roots (sandy clay)
	C	26 – 36+	10.0	8.6	86			Tan sandy lean clay w/numerous calc nodules and few roots (sandy clay)
G–61	A	0 – 6	6	4.5		70	BID	Brown sandy clay w/scattered ls gravel and roots
	R	6 – ?	?					Tan highly weathered limestone
G–62	A	0 – 6	6	4.5		0	BID	Brown sandy clay w/roots
	R	6 – ?	?					Tan highly weathered limestone

TABLE 2

EFFECTIVE SOIL THICKNESS

FUGRO ◘ McClelland

1107 West Gibson; Austin, Texas 78704
Ph: (512) 444-3233; FAX: (512) 444-3996

Project: Senna Hills M.U.D. Topsoil Study
Job No. 1001–1808

Client: Patton Construction

Sample Location No.	Soil Horizon	Depth (inches)	Horizon Thickness (inches)	Effective Thickness (inches)	%Passing 2mm sieve	% Surface Stoniness (estimate)	USDA SCS Soil Series	Description (USDA SCS Texture)
G–63	A	0 – 8	8	6.0		0	VoD	Brown sandy clay w/roots
	B	8 – 26	18	13.5				Reddish brown sandy caly w/roots and scattered ls nodules
	R	26 – ?	?					Tan highly weathered limestone
G–64	A	0 – 4	4.0	3.4	86		BoF	Brown clayey sand w/scattered roots (sandy loam)
	C	4 – 10	6	4.5				Tan completely weathered limestone w/numerous dist yl mottles
	R	10 – ?	?					Tan slightly weathered limestone
G–65	A	0 – 4.5	4.5	3.4		5	BoF	Greyish brown sandy clay w/scattered roots
	B	4.5 – 12	7.5	5.6				Greyish brown sandy clay w/numerous ls fragmenst
	R	12 – ?	?					Tan slightly weathered limestone
G–66	A	0 – 18	27.3	27.3	100	20	BoF	Dark reddish brown fat clay, very stiff (silty clay)
	R	18 – ?	?					Tan slightly weathered limestone
G–67	A	0 – 10	10.0	9.6	96	1	BoF	Light brown sandy lean clay w/scattered roots (sandy clay loam)
	B	10 – 24	14.0	11.3	81			Grey sandy silt w/numerous distinct calc mottles (sandy loam)
	R	24 – ?	?					Tan slightly weathred limestone
G–68	A	0 – 13	13	9.8		0	BoF	Reddish brown silty clay w/scattered roots, stiff
	R	13 – ?	?					Tan slightly weathered limestone
G–69	A	0 – 8	8.0	5.7	71	20	BoF	Brownish grey clayey sand w/gravel and roots (sandy loam)
	B	8 – 14	6.0	2.5	41			Brownish grey clayey gravel w/sand and roots (sandy loam)
	C	14 – 25	11.0	10.0	91			Tan sandy lean clay w/numerous distinct yl mottles (sandy clay loam)
	R	25 – ?	?					Tan moderately weathered limestone
G–70	A	0 – 4.5	4.5	3.4		50	BoF	Brownish grey sandy clay w/scattered ls gravel and roots
	C	4.5 – 20	15.5	11.6				Tan completely weathered limestone w/numerous distinct yl mottles
	R	20 – ?	?					Tan slightly weathered limestone
G–71	A	0 – 4	4.0	3.5	88	50	BoF	Brownish grey clayey sand w/few ls gravel and roots (sandy clay loam)

TABLE 2

EFFECTIVE SOIL THICKNESS

FUGRO McClelland

1107 West Gibson; Austin, Texas 78704
Ph: (512) 444-3233; FAX: (512) 444-3996

Project: Senna Hills M.U.D. Topsoil Study
Job No. 1001 – 1808

Client: Patton Construction

Sample Location No.	Soil Horizon	Depth (inches)	Horizon Thickness (inches)	Effective Thickness (inches)	%Passing 2mm sieve	% Surface Stoniness (estimate)	USDA SCS Soil Series	Description (USDA SCS Texture)
	C	4 – 9	5.0	4.5	89			Tan and grey clayey sand w/few is gravel (sandy clay loam)
	R	9 – ?	?					Tan moderately weathered limestone
G–72	A	0 – 4.5	4.5	3.4		5	BoF	Brownish grey silty clay w/scattered is gravel and roots
	R	4.5 – ?	?					Tan moderately weathered limestone
G–73	A	0 – 9.5	8.6	6.5	76	50	BoF	Brownish grey silty sand w/clay and roots (sandy loam)
	R	9.5 – ?						Tan slightly weathered limestone
G–74	A	0 – 4.5	4.5	3.4		50	BoF	Brownish grey sandy clay w/scattered is gravel and roots
	C	4.5 – 11	6.5	4.9				Tan highly weathered limestone w/roots
	R	11 – ?	?					Tan slightly weathered limestone

Test Methods:
Sieve Analysis: ASTM D422

Soil series abbreviations:
BID: Brackett soils, rolling
BoF: Brackett soils and rock outcrop, steep
VoF: Volente complex, 1 to 8% slopes

Notes:
For soil horizons for which a specific sieve analysis was not performed, the effective soil thickness was calculated assuming an average of 75% passing the 2mm sieve.

PRELIMINARY PLAN

GRAPHIC SCALE

(IN FEET)
1 inch = 200 ft

RKLAND TO SHOW TWO LOTS
ACREAGE TO REMAIN 19.55 ACRES
ON PREVIOUS PRELIMINARY

DATE: DECEMBER 7, 1992
DATE OF REVISION: JANUARY 12, 1993

SENNA HILLS PRELIMINARY PLAN
December 08, 1992

DEVELOPMENT SUMMARY

Barton Creek Watershed

Total Area: 125.87 acres
Units 125.5
Density 1.0 units/acre

Impervious Cover
Residential (125.5 x 2570) 7.23 ac
Roadways 7.67 ac
TOTAL 14.87 ac (11.81%)

Lake Austin Watershed

Total Area: 192.57 acres
Units: 325.5
Density 1.69 units/acre

Impervious Cover

Slope Category	0-15%	15-25%	25-35%	over 35%
Total Area	106.66ac	51.80ac	18.42ac	15.69ac
Actual Impervious Cover: Roadways	6.57ac	1.08ac	.1218ac	
Residential	13.46ac	4.6 ac	0.66ac	
	20.03ac (18.80%)	5.68ac (10.97%)	0.78ac (4.98%)	
Allowable Impervious Cover	19.55ac (35%) (45% with transfers)	5.18ac (15%)	9.2ac (5%)	

SENNA HILLS PRELIMINARY PLAN
COMPARISON OF 85 PLAN TO 92 PLAN
(West of 2244)
December 08, 1992

BARTON CREEK		85 - PLAN	92 - PLAN
Total Area	:	131.87 acres	125.87 acres
Total Units	:	154	125.5
Density	:	1.17units/acre	1.0 units/acre
Impervious Cover	:	13.17ac (10%)	14.87ac (11.81%)
LAKE AUSTIN			
Total Area	:	192.57 acres	192.57 acres
Total Units	:	587 units	325.5 units
Density	:	3.05 units/acres	1.69 units/acre
Impervious Cover 0-15%	:	36.67ac (34%)	20.03ac (18.80%)
15-25%	:	4.33ac (8.4%)	5.68ac (10.97%)
25-35%	:	0.41ac (2.4%)	.78ac (4.98%)
35+ %	:		
TOTAL	:	41.41ac	26.49 ac
OVERALL SUMMARY:			
Total Area		324.44 Acres	318.44 Acres *
Total Units		741	451
Imp. Cover		54.58 Acres	41.36 Acres
Density		2.28 Units/Acre	1.42 Units/Acre

* 6.00 Acres Dedicated as R.O.W. for F.M. 2244

2ND REVISION
LAND USE SUMMARY

SINGLE FAMILY	450
DSBZ	4
PARKLAND	2
P.U.E.	4
D.E.	1
LOT TOTAL	461

LEGEND

P.U.E. - PUBLIC UTILITY EASEMENT
DSBZ - DOWN STREAM BUFFER ZONE
.... - SIDEWALK LOCATION
W.Q.P. - WATER QUALITY POND
D.E. - DRAINAGE EASEMENT

REVISED
SENNA HILLS PRELIMINARY PLAN
January 12, 1993

DEVELOPMENT SUMMARY

Barton Creek Watershed

Total Area: 125.87 acres
Units 125.5
Density 1.0 units/acre

Impervious Cover
Residential (125.5 x 2500) 7.20 ac
Roadways 7.67 ac
TOTAL 14.87 ac (11.81%)

Lake Austin Watershed

Total Area: 192.57 acres
Units: 325.5
Density 1.69 units/acre

Impervious Cover

Slope Category	0-15%	15-25%	25-35%	over 35%
Total Area	106.66ac	51.80ac	18.42ac	15.69ac
ACTUAL Impervious Cover: Roadways	6.57ac	1.08ac	.1218ac	
Residential	13.46ac	4.6 ac	0.66ac	
	20.03ac (18.80%)	5.68ac (10.97%)	0.78ac (4.98%)	
ALLOWABLE Impervious Cover	39.55ac (35%) (45% with transfers)	5.18ac (15%)	9.2ac (5%)	

SENNA HILLS PRELIMINARY PLAN
COMPARISON OF 85 PLAN TO 93 PLAN
(West of 2244)
January 12, 1993

BARTON CREEK		85 - PLAN	93 - PLAN
Total Area	:	131.87 acres	125.87 acres
Total Units	:	154	125.5
Density	:	1.17units/acre	1.0 units/acre
Impervious Cover	:	13.17ac (10%)	14.87ac (11.81%)
LAKE AUSTIN			
Total Area	:	192.57 acres	192.57 acres
Total Units	:	587 units	325.5 units
Density	:	3.05 units/acres	1.69 units/acre
Impervious Cover 0-15%	:	36.67ac (34%)	20.03ac (18.80%)
15-25%	:	4.33ac (8.4%)	5.68ac (10.97%)
25-35%	:	0.41ac (2.4%)	.78ac (4.98%)
35+ %	:		
TOTAL	:	41.41ac	26.49 ac
OVERALL SUMMARY:			
Total Area		324.44 Acres	318.44 Acres *
Total Units		741	451
Imp. Cover		54.58 Acres	41.36 Acres
Density		2.28 Units/Acre	1.41 Units/Acre

* 6.00 Acres Dedicated as R.O.W. for F.M. 2244

REVISED LAND USE SUMMARY

SINGLE FAMILY	451
DSBZ	3
PARKLAND	2
P.U.E.	1
D.E.	1
LOT TOTAL	458

SUBDIVISION OWNER: SENNA HILLS, LTD.
RIP MILLER
PO BOX 161507
AUSTIN, TEXAS 78716-1507

PRELIMINARY PLAN NOTES

1. ROADWAYS:

STREET NAME	RIGHT OF WAY WIDTH (FT)	PAVEMENT WIDTH (FT)	PAVEMENT DESCRIPTION	SIDEWALK WIDTH, LOCATION
PHLOX STEM COVE	54	34	C&G	4'/EACH SIDE
FRESIA COURT	50	28	C&G	4'/EACH SIDE
BIVINA DRIVE	50	28	C&G	4'/EACH SIDE
PEONIA COURT	50	28	C&G	4'/EACH SIDE
VERVAIN COURT	50	28	C&G	4'/EACH SIDE
PLUCHEA COVE	50	28	C&G	4'/EACH SIDE
COREOPSIS DRIVE	50	28	C&G	4'/EACH SIDE
STRAW FLOWER DRIVE	50	28	C&G	4'/EACH SIDE
HELIOTROPE COURT	50	28	C&G	4'/EACH SIDE
LEMON MINT COURT	50	28	C&G	4'/EACH SIDE
BIDENS COVE	50	28	C&G	4' NORTH SIDE
SENNA HILLS DRIVE	70	[illegible]	C&G	4'/EACH SIDE
MUDDLER COURT	50	28	C&G	4'/EACH SIDE
MILAGRO DRIVE	60	40	C&G	4'/EACH SIDE
PRICKLY POPPY COVE	50	28	C&G	4'/EACH SIDE
PURSLANE COVE	50	28	C&G	4'/EACH SIDE
DATURA COURT	50	28	C&G	4'/EACH SIDE
SPIDERLING COVE	50	28	C&G	4'/EACH SIDE
TRILLIUM COVE	50	28	C&G	4'/EACH SIDE
ALLIUM DRIVE	50	28	C&G	4'/EACH SIDE
GAILLARDIA COURT	50	28	C&G	4'/EACH SIDE
ACACIA BUD DRIVE	60	40	C&G	4'/EACH SIDE
CEVALLIA COVE	50	28	C&G	4'/EACH SIDE
INDIGO BROOM LOOP	50	28	C&G	4'/EACH SIDE
YARROW COURT	50	28	C&G	4'/EACH SIDE
RM 2244	VARIES	VARIES		NONE REQUIRED

2. PROPERTY OWNER SHALL PROVIDE FOR ACCESS TO DRAINAGE EASEMENTS AS MAY BE NECESSARY AND SHALL NOT PROHIBIT ACCESS BY GOVERNMENTAL AUTHORITIES FOR INSPECTION.

3. THIS PROJECT IS LOCATED IN BOTH THE LAKE AUSTIN AND BARTON CREEK WATERSHEDS.

4. THIS PROJECT IS EXEMPT FROM THE COMPREHENSIVE WATERSHED ORDINANCE DUE TO MUD AND PLAN APPROVALS PRIOR TO THE ORDINANCE.

5. CONTOUR DATUM: CITY OF AUSTIN

6. PRIOR TO THE RECORDING OF ANY FINAL PLAT OF ALL OR A PORTION OF THIS PRELIMINARY PLAN, FISCAL SECURITY SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 13-1-32(b) OF THE AUSTIN CITY CODE OF 1981 FOR THE FOLLOWING SUBDIVISION IMPROVEMENTS:

ALL STREET CONSTRUCTION AND RELATED INFRASTRUCTURE, INCLUDING PAVING, DRAINAGE, SIDEWALKS, WATER SUPPLY AND WASTEWATER COLLECTION AS WELL AS ENVIRONMENTAL AND SAFETY CONTROLS AND OTHER RELATED ITEMS (i.e., EROSION AND SEDIMENTATION CONTROLS, RESTORATION, CHANNEL WORK, PIPE IN EASEMENTS, DETENTION, WATER QUALITY PONDS, ETC.) AS DETERMINED PRIOR TO FINAL PLAT APPROVAL. THE RESTORATION COST ESTIMATE WILL BE BASED ON DISTURBED AREAS INCLUDING THE FOLLOWING STREETS: SENNA HILLS DRIVE, PLUCHEA COVE, STRAW FLOWER DRIVE, YARROW COURT, BIDENS COVE, INDIGO BROOM LOOP, DATURA COURT, PEONIA COURT, FRESIA DRIVE, HELIOTROPE COURT, BIVINA DRIVE, TRILLIUM COVE, VERVAIN COURT, PRICKLY POPPY COURT, ALLIUM DRIVE, MILAGRO DRIVE, GAILLARDIA COURT, PURSLANE COVE, LEMON MINT COURT, COREOPSIS DRIVE, SPIDERLING COVE, MUDDLER COURT, ACACIA BUD DRIVE, CEVALLIA COVE, PHLOX STEM COVE.

7. PARKLAND REQUIREMENTS WILL BE SATISFIED AS PER THE APPROVED LAND PLAN AND CONSENT AGREEMENT OF THE SENNA HILLS MUNICIPAL UTILITY DISTRICT #1.

8. ALL WATER AND WASTEWATER SYSTEM IMPROVEMENTS MUST BE IN ACCORDANCE TO CITY OF AUSTIN WATER AND WASTEWATER SYSTEM DESIGN CRITERIA AND SPECIFICATIONS. ALL WATER AND WASTEWATER PLANS MUST BE PRESENTED TO THE CITY OF AUSTIN WATER AND WASTEWATER UTILITY FOR REVIEW AND APPROVAL. ALL WATER AND WASTEWATER CONSTRUCTION MUST BE INSPECTED BY THE CITY OF AUSTIN.

9. THE LOTS WILL BE SERVED BY THE SENNA HILLS MUNICIPAL UTILITY DISTRICT. NO BUILDING WILL BE BUILT OR OCCUPIED UNTIL THE BUILDING IS CONNECTED TO THE SENNA HILLS MUNICIPAL UTILITY DISTRICT WATER AND WASTEWATER SYSTEM.

10. DETENTION NOTE: PRIOR TO DEVELOPMENT OF THIS SUBDIVISION, RUNOFF SHALL BE HELD TO THE AMOUNT OF THE APPROVED REGIONAL DETENTION PLAN EXCEPT THAT RUNOFF IN EXCESS OF THAT AMOUNT SHALL BE CONTROLLED BY THE USE OF PONDING OR OTHER APPROVED METHODS.

11. THIS SUBDIVISION WILL BE DEVELOPED TO MEET THE REQUIREMENTS AS DEFINED BY THE SUBDIVISION ORDINANCE CHAPTER 13-1.

12. FLOOD PLAIN NOTE: THE 100 YEAR FLOOD PLAIN IS CONTAINED WITHIN THE OPEN SPACE, GREENBELT, DRAINAGE EASEMENTS AS SHOWN HEREON. NO PORTION OF THIS TRACT IS WITHIN THE BOUNDARIES OF ANY WATERWAY THAT IS WITHIN THE LIMITS OF STUDY OF THE FEDERAL FLOOD INSURANCE ADMINISTRATION FIRM PANEL #[illegible] DATED APRIL 1, 1981 FOR TRAVIS COUNTY, TEXAS.

13. PUBLIC SIDEWALKS, BUILT TO CITY OF AUSTIN STANDARDS, ARE REQUIRED ALONG ALL STREETS AS SHOWN BY A DOTTED LINE ON THE FACE OF THE PLAT. THESE SIDEWALKS SHALL BE IN PLACE PRIOR TO THE LOT BEING OCCUPIED. FAILURE TO CONSTRUCT THE REQUIRED SIDEWALKS MAY RESULT IN THE WITHHOLDING OF CERTIFICATES OF OCCUPANCY, BUILDING PERMITS, OR UTILITY CONNECTIONS BY THE GOVERNING BODY BY UTILITY COMPANY.

14. PRIOR TO THE RECORDING OF ANY FINAL PLAT ON THIS PROPERTY, SENNA HILLS MUD SHALL MAKE FISCAL ARRANGEMENTS FOR TRAFFIC SIGNALS AND RIGHT-TURN LANES AT BOTH INTERSECTIONS OF SENNA HILLS DRIVE AND FM 2244, SUBJECT TO APPROVAL BY THE TEXAS DEPARTMENT OF TRANSPORTATION.

15. VEHICULAR ACCESS IS PROHIBITED TO SENNA HILLS DRIVE FROM:
BLOCK A - LOTS 1-4, 20, 21, 81, 82, 85
BLOCK C - LOTS 28, 32
BLOCK D - LOTS 50, 53, 72, 76, 93, 94, 101
BLOCK E - LOTS 1, 18, 19, 30
BLOCK F - 1-3, 38
BLOCK G - 1, 30-32, 36

16. NO WATERWAYS WITHIN THE BARTON CREEK WATERSHED PORTION OF THE PRELIMINARY PLAN ARE CLASSIFIED (GREATER THAN 64 ACRES).

17. THIS PROJECT HAS BEEN AND WILL BE DESIGNED TO MEET OR EXCEED THE REQUIREMENTS OF THE "BARTON CREEK WATERSHED" ORDINANCE #810430-C AND THE "LAKE AUSTIN WATERSHED" ORDINANCE #[illegible].

I, JAMES A. HUFFCUT, JR., AN AUTHORIZED UNDER THE LAWS OF THE STATE OF TEXAS TO PRACTICE THE PROFESSION OF ENGINEERING, AND HEREBY CERTIFY THAT THIS PLAT IS FEASIBLE FROM AN ENGINEERING STANDPOINT AND COMPLIES WITH THE ENGINEERING RELATED PORTIONS OF TITLE 13 OF THE AUSTIN CITY CODE 1981, AS AMENDED, IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

WITNESS MY HAND THIS THE 3rd DAY OF November, 1992.

JAMES A. HUFFCUT, JR., P.E. #55253

DSBZ CALCULATIONS

125.87 AC. BARTON CREEK WATERSHED
X 40%
50.35 AC. DSBZ REQUIRED
66.54 AC. DSBZ PROVIDED

REQUIRED SETBACKS FOR ENVIRONMENTAL FEATURES

1. 150' FROM CENTER LINE OF DRAW
2. 100' FROM SEASONAL SEEP
3. 25' FROM CENTERLINE OF SWALE IN THE EPHEMERAL ZONE
4. 25' LOT LINE OR BUILDING SETBACK

EROSION AND SEDIMENTATION CONTROLS SHALL BE MAINTAINED ADJACENT TO AND OUTSIDE OF SAID SETBACKS IN COMPLIANCE WITH APPLICABLE CITY ORDINANCES.

NOTE:
CUT AND FILL WILL BE CONTAINED WITHIN THE RIGHT-OF-WAY BY STRUCTURAL CONCRETE WALLS OR OTHER APPROVED METHODS.

APPLICANT WILL WORK WITH STAFF TO DEVELOP WATER QUALITY CONTROLS WHICH WILL ENHANCE CRITICAL ENVIRONMENTAL FEATURES.

EFFLUENT HOLDING POND SHALL BE SET BACK A MINIMUM OF 100 FEET FROM SPRINGS.

LOTS 40-47 BLOCK A WILL HAVE REAR DRIVEWAY ACCESS.

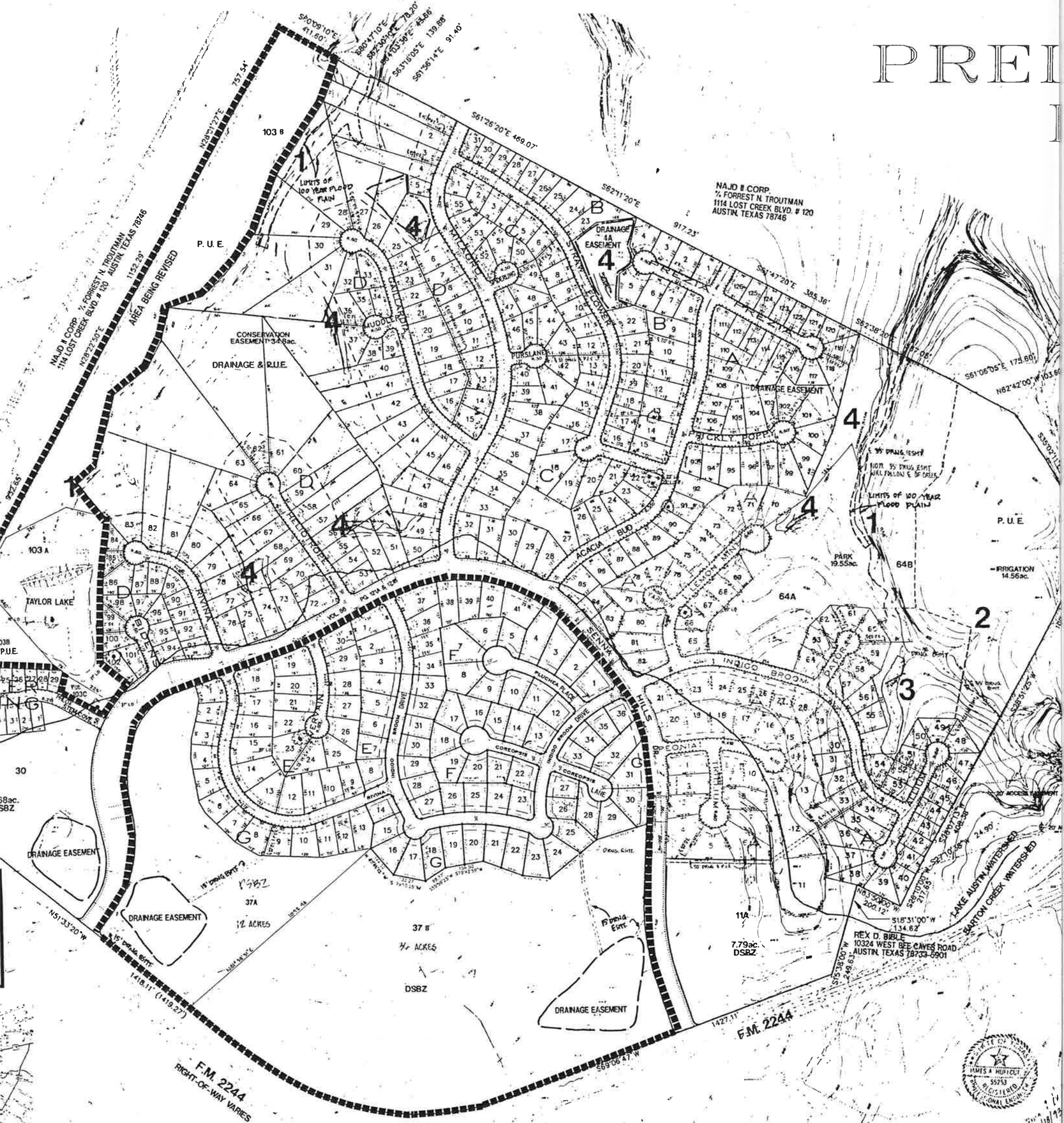
ALL STREETS IN THIS SUBDIVISION SHALL BE BUILT TO ALTERNATE URBAN STANDARDS.

A VARIANCE TO THE REQUIREMENT FOR INSTALLATION OF SIDEWALKS ALONG FM 2244 WAS GRANTED WITH THE SENNA HILLS SECTION ONE P.U.D. FINAL PLAT. AT THE TIME OF THE VACATION OF THAT PLAT A VARIANCE WILL BE REQUESTED TO SECTION 13-5-81 OF THE LDC FOR SIDEWALKS ALONG FM 2244.

Senna Hills

HUFFCUT & ASSOCIATES, INC.
6010 Balcones Dr., Suite 100 Austin, Texas 78731 512/454-8711

SENNA HILLS PRELIMINARY
C8-92-0080.02



SEPTEMBER 17, 1993
SENNA HILLS PRELIMINARY PLAN

DEVELOPMENT SUMMARY

Barton Creek Subzone

Total Area:	131.93 acres	
Gross	128.5	
Density	98 units/acre	ac
Impervious Cover		
Residential	(1124.5 x 2500)	5.15 ac
Roadway		11.46
TOTAL		17.78 ac (13.79%)

REVISION # 2:
REVISE DOWNSTREAM BUFFER ZONE IN BLOCK G INTO 2 LOTS. REVISE LOT 103 BLOCK D INTO 3 LOTS TO FACILITATE THE PLATTING OF THE EFFLUENT POND. REVISE BLOCK F AND BLOCK G TO SHOW THE REALIGNMENT OF LOT LINES AND REDUCE NUMBER OF LOTS IN BLOCK F BY 1 LOT.

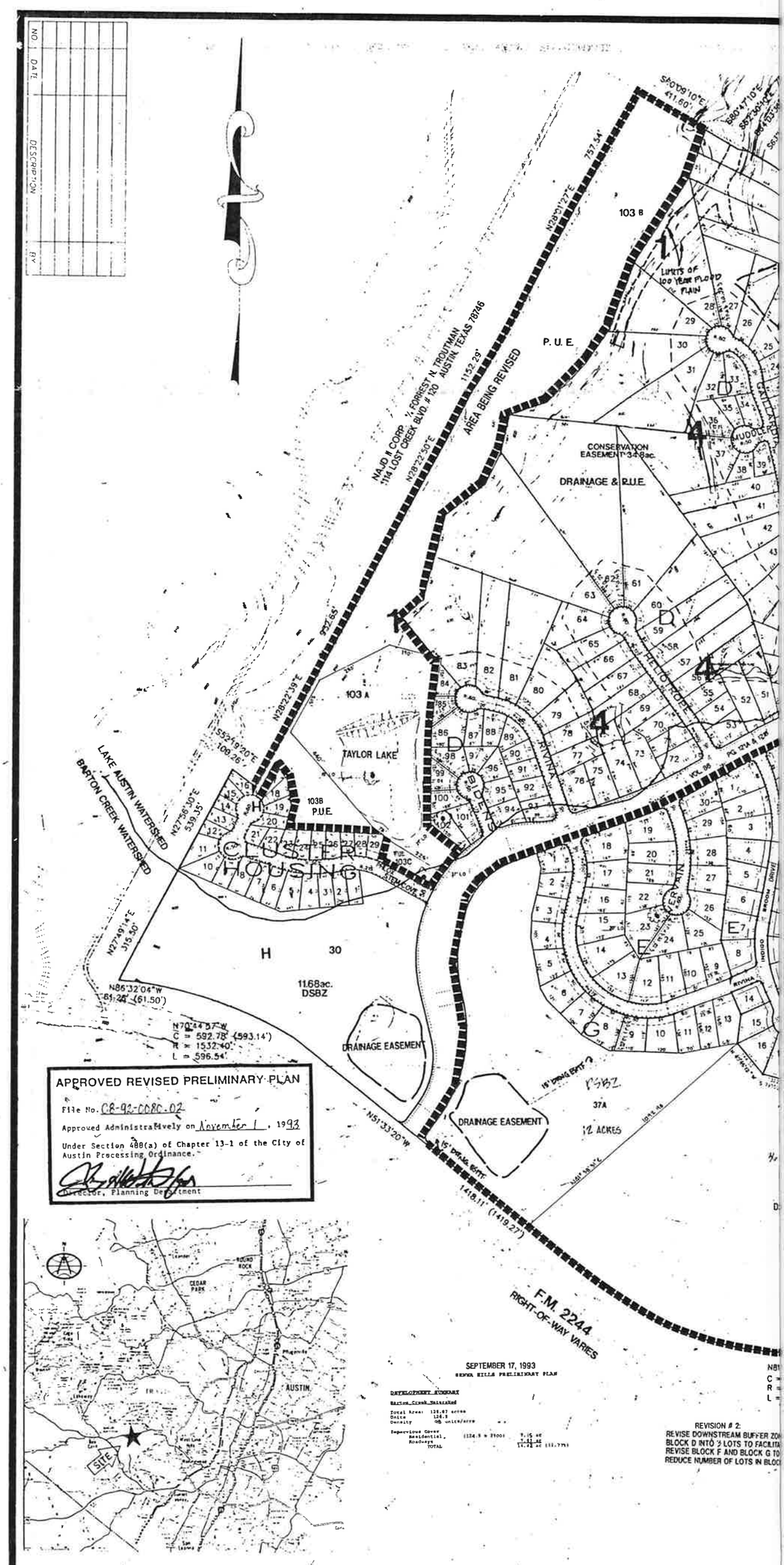
REVISION: REVISE PARKLAND TO SHOW TWO LOTS
PARKLAND ACREAGE TO REMAIN 19.55 ACRES
AS APPROVED ON PREVIOUS PRELIMINARY

GRAPHIC SCALE
200 0 100 200 400 800
(IN FEET)
1 inch = 200 ft

DATE: DECEMBER 7,1992
DATE OF REVISION: JANUARY 12, 1993

REVISED L

SUBDIVISION


LIMITS OF 100 YEAR FLOOD PLAIN
P. U. E.
AREA BEING REVISED
CONSERVATION EASEMENT 3.4 ac.
DRAINAGE & P.U.E.
HELLFORD DRIVE
TAYLOR LAKE
LAKE AUSTIN WATERSHED
BARTON CREEK WATERSHED
CLUSTER HOUSING
11.68ac. DSBZ
DRAINAGE EASEMENT
DRAINAGE EASEMENT
12 ACRES
F.M. 2244
RIGHT-OF-WAY VARIES
APPROVED REVISED PRELIMINARY PLAN
File No. CR-92-CORC-02
Approved Administratively on November 1, 1993
Under Section 48B(a) of Chapter 13-1 of the City of Austin Processing Ordinance.
Director, Planning Department
SEPTEMBER 17, 1993
SEWER HILLS PRELIMINARY PLAN
DEVELOPMENT SUMMARY
REVISION # 2:
AUSTIN
SITE

9/3/94

WATER SERVICES AGREEMENT

BETWEEN

LOWER COLORADO RIVER AUTHORITY AND

SENNA HILLS MUNICIPAL UTILITY DISTRICT

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WATER SERVICES AGREEMENT
BETWEEN
LOWER COLORADO RIVER AUTHORITY AND
SENNA HILLS MUNICIPAL UTILITY DISTRICT

THIS WATER SERVICES AGREEMENT (this "Agreement") is made and entered into by and between **LOWER COLORADO RIVER AUTHORITY**, a conservation and reclamation district and a political subdivision of the State of Texas ("LCRA") and **SENNA HILLS MUNICIPAL UTILITY DISTRICT**, a conservation and reclamation district and a political subdivision of the State of Texas (the "District").

RECITALS

1. LCRA has acquired the water supply system of The Uplands Company consisting of a 1.8 MGD (million gallons per day) raw water intake and pumping system, two 1,250 GPM (gallons per minute) raw water pumps, a 30 inch diameter raw water transmission main, a 1.8 MGD water treatment plant, treated water storage facilities and treated water transmission and distribution facilities to serve the needs of its customers (collectively, the "LCRA System"). In connection with its acquisition of the LCRA System from The Uplands Company, LCRA acquired all rights and assumed all obligations of The Uplands Company under that certain "Water Services Agreement Between The Uplands Company, Senna Hills Municipal Utility District and Senna Hills, Ltd." dated March 3, 1993 as amended by that certain letter amendment thereto dated April 29, 1994, by and among the same parties (collectively, the "Prior Agreements"). The parties now desire to enter into this Agreement which will modify, amend, reconstitute and continue the Prior Agreements. Senna Hills, Ltd., owner of land in the District and a party to the Prior Agreements, has indicated its consent to this Agreement by instrument of even date herewith.

2. Senna Hills, Ltd., and Arcadia Land Partners 8, Ltd., another landowner in the District, intend to develop approximately 451 single family residential lots and possibly an elementary school site in the District's boundaries in Travis County, Texas (the "District's Service Area") more particularly described on Exhibit "A" attached hereto.

3. The District heretofore has entered into a raw water purchase contract (the "District's Raw Water Contract") with LCRA to purchase raw water from Lake Austin which can be treated to meet the needs of the District's customers but is not sufficient to meet the District's ultimate needs.

4. The District is responsible for supplying potable water to the District's customers in its service area, but currently has no facilities to divert or treat the raw water which it purchases from the LCRA or to transport the water to the District's System and is desirous of obtaining such diversion, treatment and transportation services (hereafter, "Water Services") from LCRA.

5. The District intends to install a potable water distribution system and related facilities (collectively, the "District's System") to receive the water delivered by LCRA to the

District under this Agreement and to supply potable water service to the future customers within the District's Service Area.

6. Subject to compliance with the provisions of this Agreement by all parties hereto, and to the extent indicated hereafter, the LCRA System is capable of providing Water Services to the District, and LCRA intends to expand and improve its System at its cost in order to continue to provide adequate Water Services to the District under this Agreement and to the other customers of the LCRA System under other agreements, with all costs of the System (hereafter, the "Costs of the System") to be recovered through the rates and charges of LCRA to the customers of the LCRA System.

7. The District has also entered into a "Water Throughput Agreement" (the "Throughput Agreement") dated December 16, 1992, with the Barton Creek West Water Supply Corporation ("BCWWSC") to allow the District to transport on an interim basis a limited amount of treated water from a point connected to the LCRA System, through the BCWWSC water distribution system (the "BCWWSC System"), to the District's System.

8. LCRA and the District now wish to execute this Agreement to modify, amend, reconstitute and continue the Prior Agreements and henceforth to evidence the agreement of LCRA to provide Water Services to the District under the conditions described in this Agreement and the agreement of the District to pay LCRA for such Water Services and to perform certain other actions as detailed herein.

AGREEMENTS

NOW, THEREFORE, for and in consideration of the mutual covenants and agreements set forth herein and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, LCRA and the District agree as follows:

ARTICLE I

Section 1.01. Definitions of Terms. As used in this Agreement, except as otherwise provided herein, the following terms have the meanings ascribed in this section.

"Agreement" means this agreement.

"BCWWSC" means Barton Creek West Water Supply Corporation.

"BCWWSC Meter" means the meter presently utilized by LCRA to measure the amount of water delivered by the LCRA System at the point at which the LCRA System connects to the BCWWSC System.

"BCWWSC System" means the Barton Creek West Water Supply Corporation water distribution and delivery system.

"Connecting Line" means that certain twelve (12) inch diameter waterline presently in the process of being constructed by the District in order to connect the BCWWSC System to the District's System.

"Connection Fee" means the charge described in Section 4.01.a. of this Agreement.

"Costs of the System" means all costs of acquiring, constructing, developing, permitting, implementing, expanding, improving, enlarging, bettering, extending, replacing, repairing, maintaining and operating the System, including, without limiting the generality of the foregoing, the costs of property, interests in property, capitalized interest, land, easements and rights-of-way, damages to land and property, leases, facilities, equipment, machinery, pumps, pipes, tanks, valves, fittings, mechanical devices, office equipment, assets, contract rights, wages and salaries, employee benefits, chemicals, stores, material, supplies, power, supervision, engineering, testing, auditing, franchises, charges, assessments, claims, insurance, engineering, financing, consultants, administrative expenses, auditing expenses, legal expenses and other similar or dissimilar expenses and costs required for the System. The Costs of the System shall include reasonable amounts for an operation and maintenance reserve fund, debt service reserve fund, required coverage of debt service, working capital and appropriate general and administrative costs.

"Customer Advisory Committee" means the customer advisory committee established pursuant to Section 7.01 of this Agreement.

"Delivery Point(s)" means the point(s) at which LCRA is obligated to deliver treated water to the District under this Agreement.

"District" means Senna Hills Municipal Utility District.

"District's Raw Water Contract" means that certain LCRA Water Sale Contract No. 12823 between the District and LCRA dated January 11, 1993.

"District's Service Area" means the area presently included within the boundaries of Senna Hills Municipal Utility District as described on Exhibit "A" hereto.

"District's System" means the District's water distribution and delivery system.

"Emergency" means a sudden unexpected happening; an unforeseen occurrence of condition; exigency; pressing necessity; or a relatively permanent condition of insufficiency of service or of facilities resulting in social distress. The term includes Force Majeure and act of third parties which cause the LCRA System to be unable to provide the Water Services agreed to be provided herein.

"Force Majeure" means acts of God, strikes, lockouts, or other industrial disturbances, acts of the public enemy, orders of any kind of any governmental entity or any civil or military authority, acts, orders or delays thereof of any regulatory authorities with jurisdiction over the parties, insurrections, riots, epidemics, landslides, lightning, earthquakes, fires, hurricanes, floods, washouts, droughts, arrests, restraint of government and people, civil disturbances,

explosions, breakage or accidents to machinery, pipelines or canals, or any other conditions which are not within the control of such party.

"LCRA" means Lower Colorado River Authority.

"LCRA Service Area" means that area described in Exhibit "B" hereto together with such other areas as may be added by LCRA in the future upon a determination by LCRA that it is feasible and practicable to serve such other areas from the System and provided that such other areas are served by facilities which are physically connected to the System.

"LCRA System" means the facilities acquired by LCRA as described in Recital No. 1 above together with all extensions, expansions, improvements, enlargements, betterments and replacements thereof to provide water or Water Services to LCRA's customers in the LCRA Service Area.

"Loop Line" means that waterline of at least 12 inches in diameter (and currently being designed to be 24 inches in diameter) proposed to be constructed by LCRA as part of the LCRA System in order to connect the LCRA water treatment plant to the District's System and to other customers of the LCRA System.

"LUE" means an amount of Water Services sufficient for one living unit equivalent which is defined as being 1,872 gallons per day of Water Services at a peak flow rate of 1.3 gallons per minute. The parties agree that the table attached as Exhibit "C" hereto represents the number of equivalent LUEs for meter sizes of the District's retail customers.

"Meter No. 1" means the inflow meter installed by the District at the point at which the Connecting Line connects to the District System together with any future outflow meter which may be installed by the District in the future under certain circumstances at or about the same point.

"Meter No. 2" means the inflow and outflow meters which may be installed by the District in the future at or about the point at which the Loop Line will connect to the District System.

"Meters" means Meter No. 1 and Meter No. 2.

"Monthly Charge" means the charge described in Section 4.01.b. of this Agreement.

"Prior Agreements" means that certain "Water Services Agreement between the Uplands Company, Senna Hills Municipal Utility District and Senna Hills, Ltd." dated March 3, 1993, and that certain letter amendment thereto (commonly known as the "Forbearance Agreement") dated April 29, 1994, by and among the same parties.

"Volume Rate" means the charge described in Section 4.01.c. of this Agreement.

"Water Services" means the diversion of raw water from Lake Austin pursuant to the District's Raw Water Contract; the transmission of the raw water to a place or places of

treatment; the treatment of the water into potable form; and the transmission of the potable water through the LCRA System and to the District at the Delivery Point(s).

Section 1.02. Captions. The captions appearing at the first of each numbered section or paragraph in this Agreement are inserted and included solely for convenience and shall never be considered or given any effect in construing this Agreement.

Section 1.03. Effect on Prior Agreements. The parties agree that the Prior Agreements are completely modified, amended, reconstituted and continued by this Agreement. Henceforth, this Agreement represents the sole and complete agreement between the parties relating to the subject matter hereof except for the District's Raw Water Agreement and that certain "Temporary and Interim Construction Water Agreement" dated March 28, 1994, between The Uplands Company and the District which latter agreement was assigned to and assumed by LCRA in connection with its acquisition of the LCRA System from The Uplands Company.

Section 1.04. Water Services. LCRA agrees to provide Water Services to the District under this Agreement all as hereafter specified.

ARTICLE II
CONSTRUCTION MATTERS

Section 2.01. Connecting Line. In order to facilitate the development of the initial phases of the Senna Hills Subdivision, the District has obtained an easement or other appropriate right of use from the Texas Department of Transportation and is in the process of installing a waterline (the "Connecting Line"), along and across F.M. 2244 to connect the BCWWSC System to the District's System in order to convey a limited amount of water, as hereafter indicated, from the LCRA System to the District's System. The District has installed back-flow preventers or similar devices reasonably designed to limit the flow of water to the District as hereinafter provided and to prevent contamination of the BCWWSC System and the LCRA System, in the event of a line failure in the District's System. The District shall promptly dedicate and convey the Connecting Line (together with associated easements, rights-of-way, permits, licenses or appurtenances) to LCRA free and clear of any liens, claims and encumbrances and agrees to execute the document attached as Exhibit "D" hereto evidencing the dedication and conveyance. Thereafter, the Connecting Line shall be part of the LCRA System.

Section 2.02. Loop Line. LCRA will install, own, and operate the Loop Line which will connect the existing LCRA water treatment plant to the District's System at the proposed location of Meter No. 2 and which shall be a part of the LCRA System. The District agrees that it will not allow more than one hundred fifteen (115) LUEs to be connected to the District's System and that LCRA will not be obligated to supply the District any more than one hundred fifty (150) gallons per minute (maximum instantaneous rate of delivery) or two hundred sixteen thousand (216,000) gallons per day (maximum day amount) of Water Services until LCRA has installed the Loop Line. LCRA will use diligent efforts to complete the Loop Line within one year from the effective date of this Agreement.

Section 2.03. Water Meter(s). a. The District has heretofore installed an inflow water meter ("Meter No. 1") near the point of connection of the Connecting Line with the Barton

Creek West System. The District agrees to promptly dedicate and convey Meter No. 1 (together with associated easements, rights-of-way, permits, licenses or appurtenances) to LCRA free and clear of any liens, claims and encumbrances and agrees to execute the document attached as Exhibit "E" hereto evidencing the dedication and conveyance. Thereafter, Meter No. 1 shall be part of the LCRA System.

b. The parties recognize that if the Loop Line is constructed at a diameter of 24 inches or larger, the installation of Meter No. 2 by the District at the Delivery Point(s) would be expensive and require much time to complete. The parties also recognize that there are alternative ways of determining the amount of water delivered by LCRA to the District without installation of the Meter No. 2 at the Delivery Point(s). Therefore, the parties agree that the amount of water delivered by LCRA to the District will be determined as provided in Section 2.05 below, subject to the provisions of subsection (c) below.

c. The parties agree that should either LCRA or the District in good faith determine that the methodology provided in Section 2.05 below to determine the amounts of water delivered by LCRA to the District is inadequate, inaccurate or unfair, then, in either event, LCRA and the District shall cooperate to attempt to revise or change the methodology for determining water deliveries to the District to more accurately reflect actual water deliveries to the District. If the parties cannot agree on an appropriate revision or change, the District shall install Meter No. 2 at or near the point(s) of connection of the LCRA System with the District's System. Design, location and installation of the Meter No. 2 is subject to prior review and approval by LCRA, which approval shall not be unreasonably withheld or delayed. After completion of installation of the Meter No. 2, the District shall dedicate and convey the Meter No. 2 (together with associated easements, rights-of-way, permits, licenses or appurtenances) to LCRA free and clear of any liens, claims and encumbrances and execute an appropriate document in form and substance acceptable to LCRA evidencing the dedication and conveyance. Thereafter, the Meter No. 2 shall be part of the LCRA System.

d. Meter No. 1 and Meter No. 2 (collectively, the "Meters") shall be capable of measuring flows passing in either direction through the metering points. It is contemplated by LCRA that once the Loop Line is constructed and operational, LCRA may obtain a right to flow water through the BCWWSC System and, therefore, that water may flow in either direction through the points measured by the Meters. In such event, the District shall be billed for Water Services on the basis of the net amount of water delivered to the District as measured by the Meters, which net amount shall be the gross amount metered as entering the District's System at the Delivery Point(s) less the amount metered as leaving the District's System at the Delivery Point(s).

Section 2.04. Meter Accuracy; Calibration. a. The Meter(s) may be calibrated at any reasonable time by either party to this Agreement, provided that the party making the calibration shall notify the other party at least two (2) weeks in advance and allow the other party to witness the calibration. Further, the Meter(s) shall be tested for accuracy by, and at the expense of, LCRA, at least once each calendar year, at intervals of approximately twelve (12) months, and a report of such test shall be furnished to the District. In the event any question arises at any time as to the accuracy of the Meter(s), then the Meter(s) shall be tested promptly upon demand

of the District. The expense of such test shall be borne by the District if the tested meter is found to be within 5% accuracy and by LCRA if the tested meter is found to not be within 5% of accuracy.

b. If, as a result of any test, the Meter(s) are found to be registering inaccurately (in excess of 5% of accuracy), the readings of the Meter(s) shall be corrected at the rate of their inaccuracy for any period which is definitely known or agreed upon or, if no such period is known or agreed upon, the shorter of:

(1) a period extending back either sixty (60) days from the date of demand for the test or, if no demand for the test was made, sixty (60) days from the date of the test; or

(2) a period extending back one half of the time elapsed since the last previous test;

and the records of the readings, and all payments which have been made on the basis of such readings, shall be adjusted accordingly.

Section 2.05. Determining Water Deliveries. Notwithstanding anything herein to the contrary, it is specifically provided that unless and until the District has installed Meter(s) at the Delivery Point(s), all amounts of water delivered to the District by LCRA pursuant to this Agreement during any given period shall be determined by adding the amounts of all metered deliveries of water by the District to its users and adding thereto ten (10) percent of that amount to account for reasonably expected losses of water in the District's System prior to the District's metering points for its users. The parties agree to cooperate in the future to review data to determine whether the estimated ten (10) percent loss factor is accurate and, if not accurate, to agree to make an appropriate adjustment to the loss factor.

Further, the District covenants that, except as otherwise approved by LCRA, which approval shall not be unreasonably withheld or delayed:

a. the District will require all users from its System to have installed a metering device capable of measuring the amount of water provided by the District to such users;

b. the District will use proper diligence in installing, maintaining and repairing said retail meters;

c. the District will permit LCRA to inspect the construction and installation of the District's System and in that regard will provide one week prior written notice to LCRA of the commencement of such construction; and

d. the District will coordinate with LCRA in regard to timely providing to LCRA a list of the meter readings for the District's retail customers each month, together with a total of the estimated amounts of water usage by the District's retail customers resulting from said readings so that LCRA may promptly provide the District with a bill, including the Volume Rate charge provided herein.

ARTICLE III
CONDITIONS REGARDING PROVISION OF WATER SERVICES

Section 3.01. Diversion of Water. a. LCRA agrees to provide Water Services to the District for raw water which the District will purchase pursuant to the District's Raw Water Contract. The District acknowledges that currently the District's Raw Water Contract provides for the purchase of a specific quantity of raw water by the District. It shall be the District's sole responsibility to secure amendments to the District's Raw Water Contract as necessary from time to time in order to enable the District to purchase the raw water required for full development of the District's Service Area.

b. The District is solely responsible for securing, maintaining and increasing its right to divert and use water under the District's Raw Water Contract, and for complying with all its terms and conditions. The District shall make all payments thereunder directly to LCRA. It is specifically agreed however, that LCRA shall divert, treat and transport the water to the District in accordance with the terms and conditions of this Agreement.

c. LCRA shall never be liable for any payment on behalf of the District under the District's Raw Water Contract, but all such obligations shall remain exclusively those of the District. LCRA shall be under no obligation to divert for the District's benefit any raw water in excess of, or in violation of, the rights of the District as they exist from time to time under the District's Raw Water Contract or any amendments thereto. The District understands and agrees that LCRA, by entering into this Agreement with the District, does not confer upon the District, and the District shall never have or claim, any interest in raw water owned or controlled by LCRA except to the extent of the District's rights under its Raw Water Contract. In no event will LCRA be obligated to divert on the District's behalf or supply to the District (1) any water in excess of the specific amount stated in the District's Raw Water Contract or (2) any water LCRA is entitled to otherwise divert or use.

d. LCRA also diverts raw water from Lake Austin for the other customers on the LCRA System. In order to determine the quantity of water purchased and reported by the District under the District's Raw Water Contract, LCRA shall determine the volume of water delivered to all customers of the LCRA System, including the District, and shall multiply that amount by a fraction, the numerator of which is the amount of water delivered to the District and the denominator of which is the total amount of water delivered to all customers on the LCRA System during the applicable period.

Section 3.02. Title to and Responsibility for Water; Delivery Point(s). a. Title to the water diverted, treated and transported to the District by LCRA under this Agreement shall remain with the District at all times, even when that water is commingled with water belonging to other customers of the LCRA System, but the District shall have no right of control or dominion over its water until it reaches the Delivery Point(s).

b. Water delivered by LCRA shall be delivered at the Delivery Point(s) and at no other points. The District shall be solely responsible for conveying its water from these Delivery

Point(s) to the District's intended place of use for the water as described in the District's Raw Water Contract.

c. The BCWWSC Meter is the initial Delivery Point under this Agreement. The parties recognize that it is the District's responsibility to maintain the right to transport the water from that initial Delivery Point through the BCWWSC System to the District's System by virtue of the Throughput Agreement between the District and BCWWSC.

d. Once the Loop Line is constructed, the Throughput Agreement is terminated by its present terms and, therefore, the Delivery Point under this Agreement shall be at the proposed location for Meter No. 2 thereafter. LCRA and the District agree, however, that they will use reasonable efforts to obtain a permanent right to pass water through the BCWWSC System for the benefit of the District under this Agreement, and if successful in obtaining such an agreement, then in addition to the proposed location for Meter No. 2, Meter No. 1 shall also be a Delivery Point under this Agreement.

Section 3.03. Quantity and Pressure. a. Notwithstanding the provisions set forth in subsection b. below, initially, LCRA will provide Water Services to the District by diverting, treating, transporting and delivering water owned by the District through the LCRA System to the BCWWSC Meter at or near the point of connection of the LCRA System to the BCWWSC System. The District has the right under the Throughput Agreement to transport potable water through the BCWWSC System at a rate of up to one hundred fifty (150) gallons per minute. LCRA agrees to divert, transport, and treat for the District up to (i) the lesser of one hundred fifty (150) gallons per minute or two hundred sixteen thousand (216,000) gallons per day or (ii) such lesser amount as LCRA may be able to supply in the event of an emergency or shortage of water supply, production, treatment, storage, or transportation capability in the LCRA System. The District acknowledges and agrees that the 150 gallon per minute limitation on the Throughput Right will limit future development in the District to 115 residential lots, unless and until the Loop Line is installed and operational. Further, LCRA shall not be obligated to provide the water at the BCWWSC Meter at any particular pressure and LCRA hereby disclaims any warranties or representations regarding the pressure at which the water will be delivered prior to installation of the Loop Line.

b. Notwithstanding anything in the Agreement to the contrary, it is specifically recognized and understood by the parties that, until the Loop Line is installed and operational, the District will be unable to provide sufficient water into the District's System in order for it to be utilized adequately for firefighting purposes within the District. Accordingly, in order to apprise potential property owners and homeowners within the District of this fact, the District will cause the District and Arcadia Land Partners 8, Ltd., the current owner of the land in the first phase of development in the District's Service Area, to jointly execute and record in the Real Property Records of Travis County, Texas, that certain notice attached hereto as Exhibit "F".

c. After the installation of the Loop Line, but subject to the limitations set forth herein, LCRA agrees to divert, transport and treat for the District all water needed and requested by the District, up to, but not in excess of nine hundred seven thousand (907,000) gallons per

day at a peak rate of six hundred thirty (630) gallons per minute or such lesser amount as LCRA may be able to supply in the event of an Emergency and shall make the water available at the Delivery Point(s) at a minimum pressure of 35 p.s.i. under non-Emergency operating conditions.

d. LCRA reserves the right to require the District, at its expense, to install flow restriction devices, at such locations as LCRA may hereafter specify, in order to restrict the flow of water to the District to the levels agreed to herein. If the demands of the District for Water Services ever exceed the amount LCRA is able to supply, then the District shall immediately notify LCRA of such shortage and the amount of water needed by the District. LCRA and the District shall consider undertaking all reasonable conservation efforts to allow LCRA to meet said demand subject to the other provisions of this Agreement, LCRA's and the District's agreements with other parties and applicable law.

e. The District acknowledges that the amount of Water Services agreed to be provided in Section 3.03.c. is sufficient for the full build out of 485 LUEs in the District's Service Area described in Exhibit "A".

f. The parties specifically acknowledge and understand that the definition of "LUE" herein is the best estimate by the parties of future use patterns in the LCRA Service Area. The parties assume that future use patterns within the District will be in accordance with these use patterns.

If, however, future patterns of use within the District show that a greater amount of water is being used than the parties anticipated pursuant to this Agreement, then, the parties will attempt to amend this Agreement to (i) provide for the construction at the District's expense of facilities necessary to meet the District's demand or (ii) provide for the District to implement appropriate conservation or other measures to bring the District's use patterns within the defined criteria. In the event no such agreement is made, LCRA may (i) institute higher Connection Fees, Monthly Charges or Volume Rates under this Agreement in order to compensate LCRA for the increased use of its facilities by the District, or (ii) restrict Water Services to the District to the amount (per LUE) agreed upon herein.

If future patterns of use with the District show that a lesser amount of water is being used that the parties anticipated pursuant to this Agreement, then LCRA agrees to cooperate to find additional customers for the System to replace the demand on the System not being utilized by the District, and in such event, to negotiate in good faith with the District an amendment to this Agreement which would reflect a reduced amount of Water Services to be provided by LCRA to the District pursuant to the reduced demand of the District with possible corresponding reductions, as appropriate, in the Connection Fee, the Monthly Charge and the Volume Rate for the District.

Section 3.04. Quality of Water Delivery to District. The water delivered by LCRA hereunder at the Delivery Point(s) shall be potable water of a quality conforming to the requirements of any applicable federal or state laws, rules, regulations or orders, including requirements of the Texas Natural Resource Conservation Commission, or its successors, for human consumption and other domestic use. The District agrees that it will not, without the

written consent of LCRA, provide or sell such water to any entity, private or public, except retail customers of the District within the District's Service Area described in Exhibit "A". The District further represents that it has acquired or will acquire in a timely fashion all necessary governmental approvals required to provide potable water to customers in the District's Service Area described in Exhibit "A".

Section 3.05. Maintenance and Operation; Future Construction. LCRA shall be responsible for operating, maintaining, repairing, replacing, extending, improving and enlarging the LCRA System and shall promptly repair any leaks or breaks in LCRA's System. The District shall be responsible for operating, maintaining, repairing, replacing, extending, improving and enlarging the District's System in good working condition and shall promptly repair any leaks or breaks in the District's System.

Section 3.06. Rights and Responsibilities in Event of Leaks or Breaks. a. The District shall be responsible for paying for all water delivered to it under this Agreement at the Delivery Point(s) regardless of the fact that such water passed through the Delivery Point(s) as a result of leaks or breaks in the District's System. In the event a leak, break, rupture or other defect occurs within the District's System which could either endanger or contaminate the LCRA System or prejudice LCRA's ability to provide water service to its other customers, LCRA, after providing reasonable notice to the District and opportunity for consultation, shall have the right to take whatever actions LCRA reasonably considers appropriate to protect the public health or welfare or the LCRA System or the water systems of LCRA's customers including, without limitation, the right to restrict, valve off or discontinue service to the District until such leak, break, rupture or other defect has been repaired.

b. The District further understands that LCRA delivers water at other points to other customers and has rights under its contracts with those customers which are similar to its rights under Section 3.06.a. of this Agreement. Nothing in this Agreement shall be construed as impairing any of LCRA's rights under its contracts with those other customers. LCRA may exercise any of said rights, including those rights similar to its rights under Section 3.06.a. of this Agreement, and in such event, the District shall have the same obligations to LCRA as the District would have had LCRA exercised it rights under Section 3.06.a. of this Agreement.

ARTICLE IV
CHARGES, BILLING AND FINANCIAL MATTERS

Section 4.01. Connection Fee; Rates. a. The District shall be obligated to pay LCRA, a connection fee (the "Connection Fee"), presently in the amount of $1,500 as provided in the Prior Agreements and now in the process of being revised and currently estimated to be one thousand nine hundred fifty dollars ($1,950) per LUE for each new retail water connection which is served by the District. The Connection Fee for each new retail water connection shall be due and payable to LCRA within fifteen (15) days after the end of the calendar month in which the District connects a new retail water connection to the District's System. The District shall remit with its payment a list of the new customer(s)' name(s), service address(es), meter size(s) and number of equivalent LUE(s) for which payment of a Connection Fee is made by the District. The Connection Fee shall be designed primarily to fund or recover all or a part of the

Costs of the LCRA System for capital improvement or facility expansion intended to serve new development in the LCRA Service Area. LCRA shall use diligent efforts to comply with Chapter 395, Texas Local Gov't Code, to implement the initial Connection Fee within six months after execution of this Agreement.

b. The District also shall pay LCRA a monthly charge (the "Monthly Charge") for each month during which this Agreement is in effect regardless of whether or how much Water Services are provided by LCRA during that month. The Monthly Charge shall initially be three thousand dollars ($3,000) per month. The Monthly Charge shall be designed primarily to recover the District's allocable share of the initial acquisition and organizational related Costs of the LCRA System together with any future capital related Costs of the System not recovered in the Connection Fee.

c. The District also shall pay LCRA a volumetric rate (the "Volume Rate") for diversion, transportation, treatment and delivery of the net amount of water delivered to the District through the Delivery Point(s), including all water used or lost due to leakage or for any other reason. The Volume Rate is presently one and 80/100ths dollars ($1.80) per one thousand (1,000) gallons. The Volume Rate shall be designed primarily to recover the operation and maintenance related Costs of the System together with any other costs of the System not recovered through the Connection Fee or the Monthly Charge.

d. At any time while this Agreement is in effect, LCRA, subject to applicable law, may modify the Connection Fee, the Monthly Charge and the Volume Rate as appropriate to recover the Costs of the System in a just and reasonable manner from the District and the other customers of the System.

e. In addition to the Connection Fee, the Monthly Charge and the Volume Rate owed under this Agreement, the District shall remain liable for payment of any charges for raw water due to LCRA under the District's Raw Water Contract in accordance with the terms thereof.

Section 4.02. Billing and Payment. LCRA shall bill the District one time each month for the amount owed for the Monthly Charge and the Volume Rate. The Volume Rate shall be multiplied by the amount of water delivered by LCRA to the District for the previous billing cycle determined, as appropriate, either by the readings by LCRA at the Meter(s) or pursuant to the methodology described in Section 2.05 of this Agreement. Each bill submitted to the District shall be paid to LCRA at its office in Austin, Texas, by check or bank wire on or before thirty (30) days from the date of mailing of the bill to the District. In the event the District fails to make payment of a bill within said thirty (30) day period, the District shall then pay a late payment penalty of five percent (5%) of the amount of the bill. For each day after the due date that the bill remains unpaid, the District shall pay interest at a rate equal to the lesser of the maximum allowed by law or fifteen percent (15%) per annum. If the bill has not been paid by the due date, the District further agrees to pay all costs of collection, including reasonable attorney's fees.

Section 4.03. LCRA System to be Self-Sufficient. The LCRA System shall be comprised of the facilities purchased from The Uplands Company as described in Recital No. 1 hereof,

together with such improvements, extensions, enlargements, betterments, additions, improvements and replacements thereto as are considered reasonable and necessary by LCRA to provide water or Water Services to the LCRA Service Area. The parties agree that the Cost of the LCRA System shall be borne by all of the customers of the LCRA System, including the District, in a fair and equitable manner and so that the LCRA System is self-sufficient. Without limiting the foregoing, the parties further agree that LCRA is authorized to issue such indebtedness as it may deem appropriate to pay for any Costs of the LCRA System or, in lieu of issuing indebtedness, to provide for the borrowing of internal LCRA funds from LCRA resources other than the LCRA System and, in such events, the Costs of the LCRA System borne by the customers, including the District, shall include debt service, paying agent/registrar fees and reasonable coverage on any indebtedness issued by LCRA or the recovery (amortized over a reasonable period) of any internal LCRA funds utilized together with reasonable interest and coverage thereon to be established in accordance with LCRA policy as now or hereafter implemented.

ARTICLE V
DISTRICT FINANCIAL COMMITMENTS

Section 5.01. District's System to Include Sanitary Sewer and Drainage Facilities. For purposes of this Article V only, the term "District's System" shall include the District's water, sanitary sewer and drainage facilities.

Section 5.02. District's Taxes, Rates and Charges. a. The District shall be solely responsible for implementing taxes and water sewer or other rates, charges and fees, and for billing and collecting same, from its own System customers in accordance with applicable law. Failure to collect from its customers will not affect the District's obligation to make all payments due to LCRA. LCRA agrees, however, not to demand payment under this Agreement out of any funds raised or to be raised by taxation, other than taxes otherwise pledged by the District in accordance with law to make payments under this Agreement.

b. The parties agree and the District represents and covenants that all moneys required to be paid by the District under this Agreement shall constitute an operating expense of the District's System as authorized by the Constitution and laws of the State of Texas, including Chapter 54, Texas Water Code, as amended.

c. The District covenants and agrees to compute, ascertain, fix, levy and collect such rates and charges for the facilities and services provided by its System which, together with any lawfully available tax revenue, will be adequate to permit the District to make prompt and complete payments under this Agreement.

Section 5.03. Contract Tax Election. The parties acknowledge that, as of the effective date of this Agreement, no elections have been held within the District confirming creation of the District, electing permanent directors, authorizing the District to levy an operation and maintenance tax or other tax or authorizing the issuance of bonds and the levy of a debt service tax to repay such bonds. The District shall use its best efforts to hold a confirmation election at the earliest legally permissible time and in connection therewith to submit, pursuant to

§ 54.219, Texas Water Code, a proposition to approve this Agreement and authorize the levy and collection of a tax sufficient in amount and pledged to make the payments due to the LCRA under this Agreement. If approved by the voters, the District shall be authorized and obligated to compute, ascertain, levy and collect a tax sufficient in amount, when combined with any lawfully available revenues from the District's System, to pay the Connection Fees, Monthly Charges and Volume Rate and any other amounts due under this Agreement in a timely and complete manner. In the event the creation of the District is not confirmed, then the District agrees to immediately cause to be formed a non-profit, member-owned water supply corporation which shall assume and perform the obligations (other than the levy and collection of a tax) of the District under this Agreement.

Section 5.04. Consequences of Unsuccessful Contract Tax Election. In the event the contract tax election is unsuccessful, then the District agrees to provide LCRA within ten (10) days after the failure of the election with an irrevocable unconditional letter of credit (or other surety acceptable to the parties) payable to LCRA in an amount equal to the District's pro rata share of the Loop Line (based on the ratio of the 485 LUEs of Water Services agreed to be provided to the District under this Agreement as compared to the total number of LUEs of capacity in the Loop Line). The letter of credit (or other surety acceptable to the parties) shall be in form and substance acceptable to LCRA and its counsel in their sole discretion, and shall remain effective, or be timely replaced, until such time as the District has been able to hold another election to consider approving this Agreement and the tax provided herein. In the event the District is unable to have a successful election to approve this Agreement and the tax within one year from the effective date of this Agreement, then LCRA may restrict or limit the amount of Water Services to be provided to the District under this Agreement to such amount as LCRA determines in good faith it can provide to the District without constructing any additional capital improvements unless the District is able to make other suitable arrangements with LCRA to pay for the costs of said improvements and any other Costs of the System.

ARTICLE VI
EMERGENCY OR SHORTAGE OF WATER SERVICE CAPABILITY; TERM; DEFAULT; REMEDIES

Section 6.01. Termination, Discontinuance and Curtailment of Service; Modification of Agreement. Notwithstanding any other provision herein to the contrary, it is specifically understood and agreed between the parties that the obligation of LCRA to provide Water Services to the District during the term of this Agreement is neither superior nor inferior to the obligation of LCRA to provide similarly situated customers with water or Water Services within LCRA's Service Area and to its other presently committed customers or any future customers of the LCRA System. Pursuant to such understanding, the parties hereby agree that if it is ever reasonably determined by LCRA during the term of this Agreement that it is unable to adequately provide water or Water Services to the LCRA Service Area or its existing committed customers because of an Emergency or shortage of water supply, production, treatment, storage or transportation capability in the LCRA System, or if LCRA needs to cause repairs to be made to the LCRA System to repair, replace or improve the level of Water Service to its customers, then LCRA shall have the right, after reasonable notice to the District and opportunity for consultation, to curtail or limit service to the District and all other customers of LCRA on a

reasonable, non-discriminatory basis so that all similarly situated customers are treated equally, fairly and uniformly. The District further agrees, in times of such Emergency or shortage or the need for repair, replacement or improvement of the LCRA System, to take appropriate action to curtail or limit all usage in the District's Service Area so that all users of the water in both entities' service areas will be equally and uniformly restricted and protected. Any such measures taken by the District will be at least as stringent as those adopted by LCRA for the LCRA's Service Area. The parties agree that domestic uses of water shall have priority in times of Emergency or shortage over uses of water for construction or commercial uses and that construction or commercial uses shall have priority over irrigation uses from the LCRA System. Further, both parties agree that use of water for irrigation of lawns shall have the lowest priority in times of Emergency or shortage. Notwithstanding anything herein to the contrary, if it is ever determined by any governmental or regulatory authority that provision of Water Services by LCRA under this Agreement or curtailment or limitation of water or Water Services by LCRA to any of its customers is in violation of applicable law, regulation or order, then LCRA, after reasonable notice to the District and opportunity for consultation, may take such action as will best effectuate this Agreement and comply with applicable law.

Section 6.02. Plumbing Regulations. To the extent LCRA and the District have the authority, both covenant and agree to adopt and enforce adequate plumbing regulations with provisions for the proper enforcement thereof, to ensure that neither cross-connection or other undesirable plumbing practices are permitted, including an agreement with each of their respective water customers that allows the retail provider to said customer to inspect individual water facilities prior to providing service to ensure that no substandard materials are used and to prevent cross-connection and other undesirable plumbing practices.

Section 6.03. Default. a. In the event the District shall default in the payment of any amounts due LCRA under this Agreement, or in the performance of any material obligation to be performed by the District under this Agreement, then LCRA, after having given the District thirty (30) days written notice of such default and the opportunity to cure same, shall have the right to temporarily limit Water Services to the District under this Agreement, pending cure of such default by the District. In the event such default remains uncured for a period of (i) ninety (90) days in the event of a monetary default or (ii) three hundred sixty-five (365) days in the event of a non-monetary default, then LCRA shall have the right to permanently restrict service to the District under this Agreement or to require the District to stop making new retail connections to the District's System after giving the District thirty (30) days notice of its intent to do so and opportunity to cure.

b. In the event LCRA shall default in the performance of any material obligation to be performed by LCRA under this Agreement, then the District, after having given LCRA thirty (30) days written notice of such default and the opportunity to cure same, shall have the right to pursue any remedy available at law or in equity, pending cure of such default by LCRA. In the event such default remains uncured for a period of (i) one hundred eighty (180) days in the event of a default which causes the District to be unable to provide service to new retail connections to the District's System or (ii) three hundred sixty-five (365) days in the event of any other type of material default, then the District shall have the right to notify LCRA that the District intends to take a more limited amount of Water Services from LCRA (which shall be

at least the amount LCRA is then able to provide to the District) and the District may then obtain other water or Water Services from another provider or may take appropriate action to supply itself with additional water or Water Services after giving LCRA thirty (30) days notice of its intent to do so and opportunity to cure; otherwise, the District shall obtain all its water and Water Services from LCRA during the term of this Agreement.

Section 6.04. Additional Remedies Upon Default. It is not intended hereby to specify (and this Agreement shall not be considered as specifying) an exclusive remedy for any default, but all such other remedies existing at law or in equity may be availed of by any party hereto and shall be cumulative of the remedies provided herein. Recognizing however, that LCRA's undertaking to provide and maintain the services of the LCRA System is an obligation, failure in the performance of which cannot be adequately compensated in money damages alone, LCRA agrees, in the event of any default on its part, that the District shall have available to it the equitable remedies of mandamus and specific performance in addition to any other legal or equitable remedies (other than termination of this Agreement) which may also be available. Recognizing that failure in the performance of the District's obligations hereunder could not be adequately compensated in money damages alone, the District agrees in the event of any default on its part that LCRA shall have available to it the equitable remedies of mandamus and specific performance in addition to any other legal or equitable remedies (other than termination of this Agreement) which may also be available to LCRA including, without limitation, the right of LCRA to obtain a writ of mandamus or an injunction against the District (i) requiring the Board of Directors of the District to levy and collect rates, charges and taxes sufficient to pay the amounts owed to LCRA by the District under this Agreement and (ii) enjoining the District from making additional retail water connections as specified in Section 6.03.a.

ARTICLE VII
MISCELLANEOUS PROVISIONS

Section 7.01. Customer Advisory Committee. a. LCRA agrees to create a customer advisory committee (the "Customer Advisory Committee") which shall be comprised of one representative from each of the wholesale water customers of the LCRA System. The District shall be entitled to appoint one representative (to serve at the pleasure of the District) to be a member of the Customer Advisory Committee. A majority of the members of the Customer Advisory Committee shall constitute a quorum for conducting business.

b. The Customer Advisory Committee shall have the opportunity to meet as necessary or appropriate with LCRA staff to review the operations of the System. Further, the Customer Advisory Committee shall be provided with a draft of any annual budget for the LCRA System at least sixty (60) days prior to consideration of the budget for approval by LCRA. During the sixty (60) days prior to submission of the budget, the Customer Advisory Committee shall endeavor to meet in order to discuss and comment upon the proposed budget.

c. The Customer Advisory Committee shall also be provided with a draft of any studies prepared by LCRA proposing to change the Connection Fee, the Monthly Charge or the Volume Rate at least thirty (30) days prior to submission of any such study to the appropriate LCRA officials for approval of any such increase. The Customer Advisory Committee shall

endeavor to meet to consider any such draft studies and provide comments thereon within the thirty (30) day period prior to submission of the report for action by LCRA.

Section 7.02. Contracts. LCRA shall have the right to enter into other water supply or Water Services contracts so long as LCRA's performance of its obligations under such contracts does not prevent LCRA from being able to perform its obligations hereunder. This section shall not be construed as limiting LCRA's rights to temporarily curtail service in times of shortage or emergency as otherwise provided herein.

Section 7.03. Records. LCRA and the District each agree to preserve, for a period of at least two years from their respective origins, all books, records, test data, charts and other records pertaining to this Agreement. LCRA and the District shall each, respectively, have the right at all reasonable business hours to inspect such records to the extent necessary to verify the accuracy of any statement, charge or computation made pursuant to any provisions of this Agreement.

Section 7.04. State Approval. Each party represents and warrants that the plans and specifications for its System have been or will be approved by the Texas Natural Resource Conservation Commission or its successors.

Section 7.05. Force Majeure. If any party is rendered unable, wholly or in part, by Force Majeure to carry out any of its obligations under this Agreement other than an obligation to pay or provide money, then such obligations of that party to the extent affected by such Force Majeure and to the extent that due diligence is being used to resume performance at the earliest practicable time, shall be suspended during the continuance of any inability so caused to the extent provided but for no longer period. Such cause, as far as possible, shall be remedied with all reasonable diligence. It is understood and agreed that the settlement of strikes and lockouts shall be entirely within, the discretion of either party hereto, and that the above requirements that any Force Majeure shall be remedied with all reasonable dispatch shall not require the settlement of strikes and lockouts by acceding to the demand of the opposing party or parties when such settlement is unfavorable to it in the judgment of either party hereto.

Section 7.06. Severability. The provisions of this Agreement are severable, and if any provision or part of this Agreement or the application thereof to any person or circumstance shall ever be held by any agency or court of competent jurisdiction to be unenforceable, invalid or unlawful for any reason, the remainder of this Agreement and the application of such provision or part of this Agreement to other persons or circumstances shall not be affected thereby; provided, however, in such event the parties mutually covenant and agree to attempt to implement the unenforceable, invalid or unlawful provision in a manner which is enforceable, valid or lawful.

Section 7.07. No Oral Agreements; Modification. There are no oral agreements between the parties hereto with respect to the subject matter hereof. This Agreement shall be subject to change or modification only with the mutual written consent of LCRA and the District.

Section 7.08. Addresses and Notices. Unless otherwise notified in writing by the other, the addresses of LCRA and the District are and shall remain as follows:

LCRA:

Lower Colorado River Authority
Attn: Executive Director, Office of Water Resources
3701 Lake Austin Boulevard
Austin, Texas 78703

The District:

Senna Hills Municipal Utility District
c/o Steven M. Bowers
P.O. Box 5035
Austin, Texas 78763

Section 7.09. Assignability. This Agreement shall be assignable by LCRA to any affiliate of LCRA without the necessity of obtaining the consent of the District if written notice is provided to the District. Otherwise, this Agreement may be assigned by either party to any other entity with the express written consent of either party, which consent shall not be unreasonably withheld or delayed.

Section 7.10. Counterparts. This Agreement may be executed in as many counterparts as may be convenient or required. All counterparts shall collectively constitute a single instrument, and it shall not be necessary in making proof of this Agreement to produce or account for more than a single counterpart.

Section 7.11. Governing Law. The terms and provisions hereof shall be governed by and construed in accordance with the laws of the State of Texas and the United States of America from time to time in effect. Travis County, Texas shall be a proper place of venue for suit hereon, and the Parties hereby agree that any and all legal proceedings in respect of this Agreement shall be brought in the District Courts of Travis County, Texas, or the United States District Court for the Western District of Texas, Austin Division.

Section 7.12. Time of the Essence. Time is of the essence with respect to all matters covered by this Agreement.

Section 7.13. Authority of Parties Executing Agreement. By their execution hereof, each of the undersigned parties represents and warrants to the parties to this document that he or she has the authority to execute the document in the capacity shown on this document.

Section 7.14. Term. The term of this Agreement is forty (40) years from the effective date set forth below. After the expiration of the term, the parties shall cooperate in good faith to consider renewing this Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement in multiple copies, each of which shall be deemed to be an original and of equal force and effect, this 2nd day of September, 1994.

LOWER COLORADO RIVER AUTHORITY

BY: _____

Gene Richardson
Executive Director, Office of Water Resources

SENNA HILLS MUNICIPAL UTILITY DISTRICT

BY: _____

Charles Brown, President
Board of Directors

LCRA\WaterSvc.Ag3

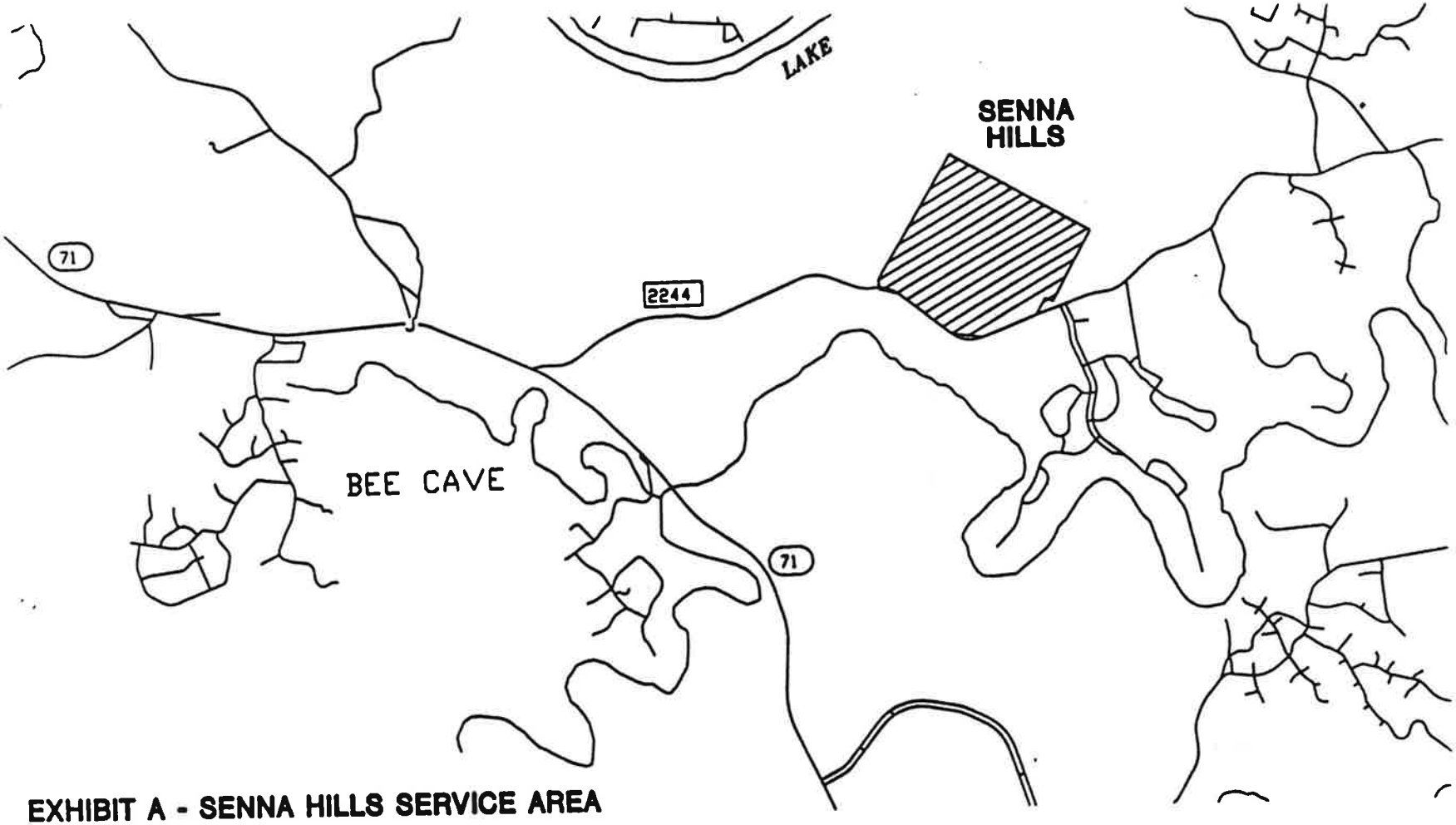


EXHIBIT A - SENNA HILLS SERVICE AREA

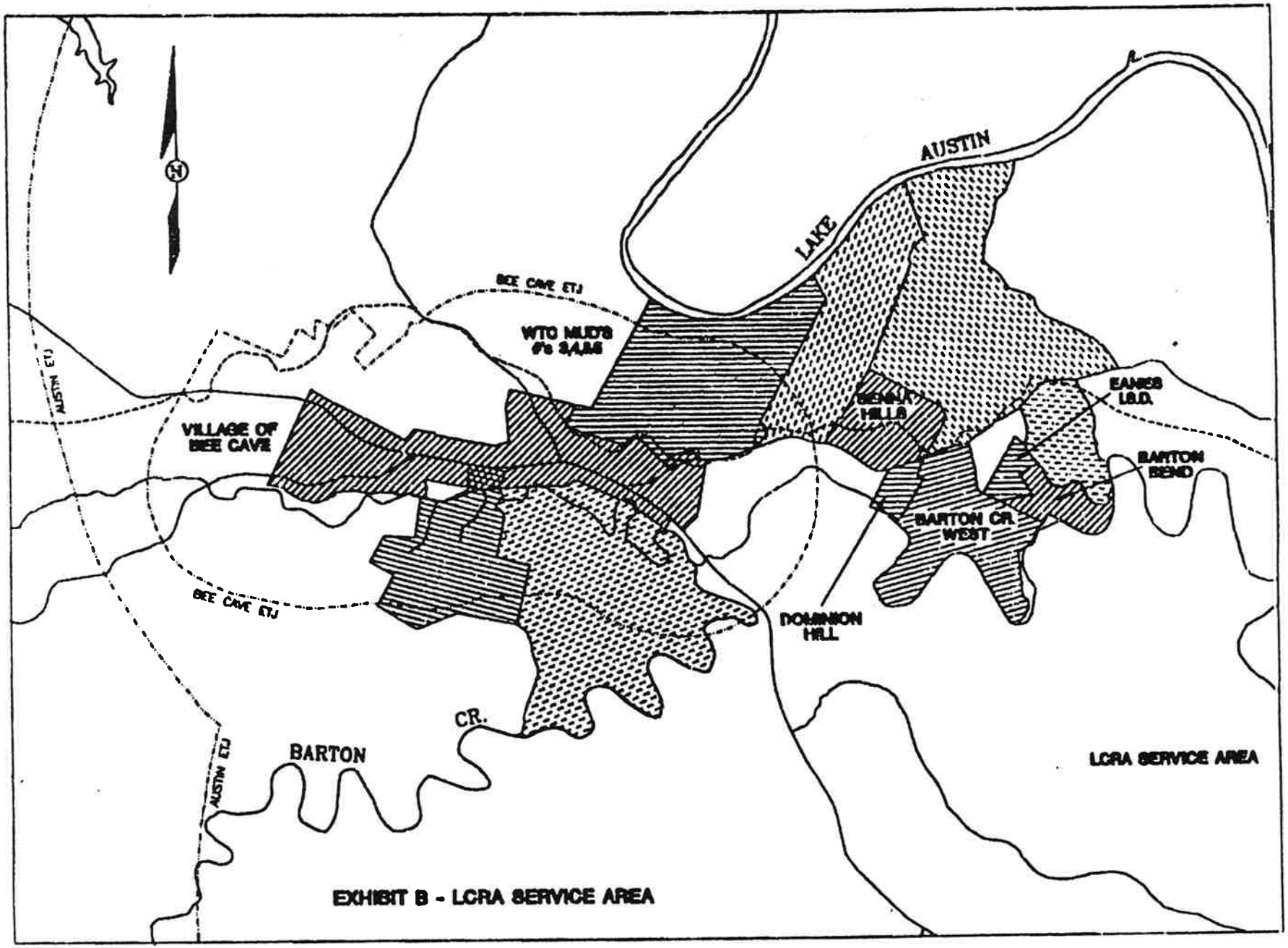


EXHIBIT B - LCRA SERVICE AREA

EXHIBIT "C"

METER SIZE AND EQUIVALENT LUES

METER SIZE AND TYPE	FEE UNITS
5/8" simple	1
3/4" simple	1.5
1" simple	2.5
1 1/2" simple	5
2" simple	8
2" compound	8
2" turbine	10
3" compound	16
3" turbine	24
4" compound	25
4" turbine	42
6" compound	50
8" compound	80
6" turbine	92
10" compound	115
8" turbine	160
10" turbine	250
12" turbine	330

DRAFT

EXHIBIT "D"

DEED, BILL OF SALE AND ASSIGNMENT
WITH GENERAL WARRANTY

THE STATE OF TEXAS §
§ KNOW ALL BY THESE PRESENTS:
COUNTY OF TRAVIS §

THAT, Senna Hills Municipal Utility District, a political subdivision of the State of Texas (hereinafter called "Grantor"), for and in consideration of Ten Dollars ($10.00) and other good and valuable consideration in hand paid to Grantor by Lower Colorado River Authority, a conservation and reclamation district and a political subdivision of the State of Texas (hereinafter called "Grantee"), the receipt and sufficiency of which is hereby acknowledged, and for which no lien express or implied is retained, has GRANTED, SOLD, CONVEYED and ASSIGNED, and by these presents does hereby GRANT, SELL, CONVEY and ASSIGN unto Grantee the following:

1. all property, real, personal or mixed, comprising that certain water transmission line constructed pursuant to that certain "[Construction Contract]" dated _____, and consisting of a twelve (12) inch diameter water pipe installed in the vicinity of and under Bee Cave Road as shown on Exhibit "A" attached hereto and made a part hereof for all purposes (the "Water Main") and as more particularly described in the files, plans and specifications for the Water Main on file in the offices of Grantor, together with all easements and appurtenances thereto as shown on Exhibit "A"; and

2. all rights of the Grantor appertaining to the Water Main, including without limitation, all rights, options, privileges, and entitlements including, without limitation, warranties, bonds or guarantees of performance, arising, directly or indirectly, from or by virtue of that certain "[Construction Contract]" dated _____

TO HAVE AND TO HOLD the above-described property, together with all and singular all easements, rights, privileges, options, entitlements and appurtenances thereto in anywise belonging unto Grantee, its successors and assigns forever; and Grantor does hereby bind itself, its successors and assigns to WARRANT AND FOREVER DEFEND, all and singular, the foregoing unto Grantee, its successors and assigns against every person whomsoever lawfully claiming or to claim the same or any part thereof.

EXECUTED, this _____ day of _____, 1994.

SENNA HILLS MUNICIPAL UTILITY DISTRICT

By: _____
Name: _____
Title: _____

THE STATE OF TEXAS §
§
COUNTY OF TRAVIS §

THIS INSTRUMENT was acknowledged before me on this _____ day of _____, 1994, by _____ as _____ of Senna Hills Municipal Utility District, a political subdivision of the State of Texas, on behalf of said political subdivision.

_____
Notary Public, State of Texas
Printed Name:_____
My Commission Expires:_____

LCRA\SennaExD.bos

DRAFT

EXHIBIT "E"

DEED, BILL OF SALE AND ASSIGNMENT
WITH GENERAL WARRANTY

THE STATE OF TEXAS §
§ KNOW ALL BY THESE PRESENTS:
COUNTY OF TRAVIS §

THAT, Senna Hills Municipal Utility District, a political subdivision of the State of Texas (hereinafter called "Grantor"), for and in consideration of Ten Dollars ($10.00) and other good and valuable consideration in hand paid to Grantor by Lower Colorado River Authority, a conservation and reclamation district and a political subdivision of the State of Texas (hereinafter called "Grantee"), the receipt and sufficiency of which is hereby acknowledged, and for which no lien express or implied is retained, has SOLD and ASSIGNED, and by these presents does hereby SELL and ASSIGN unto Grantee the following:

1. all property, real, personal or mixed, comprising that certain ____ inch water meter constructed pursuant to that certain "[Construction Contract]" dated _____, and installed in the vicinity of Bee Caves Road as shown on Exhibit "A" attached hereto and made a part hereof for all purposes (the "Meter") and as more particularly described in the files, plans and specifications for the Meter on file in the offices of Grantor, together with all easements and appurtenances thereto as shown on Exhibit "A"; and

2. all rights of the Grantor appertaining to the Meter, including without limitation, all rights, options, privileges, and entitlements including, without limitation, warranties, bonds or guarantees of performance, arising, directly or indirectly, from or by virtue of that certain "[Construction Contract]" dated _____,

and Grantor does hereby bind itself, its successors and assigns to WARRANT AND FOREVER DEFEND, all and singular, the foregoing unto Grantee, its successors and assigns against every person whomsoever lawfully claiming or to claim the same or any part thereof.

EXECUTED, this ____ day of _____, 1994.

SENNA HILLS MUNICIPAL UTILITY DISTRICT

By: _____
Name: _____
Title: _____

THE STATE OF TEXAS §
§
COUNTY OF TRAVIS §

THIS INSTRUMENT was acknowledged before me on this _____ day of _____, 1994, by _____ as _____ of Senna Hills Municipal Utility District, a political subdivision of the State of Texas, on behalf of said political subdivision.

_____
Notary Public, State of Texas
Printed Name:_____
My Commission Expires:_____

LCRA\SennaExE.bos

TEXAS WATER COMMISSION

PROTECTING TEXANS' HEALTH AND SAFETY BY PREVENTING AND REDUCING POLLUTION

May 12, 1993

Don P. Miller & William T. Miller
1015 Bee Cave Woods Drive, Ste. 207
Austin, Texas 78746

RE: MILLER DON P AND WILLIAM T
MINOR AMDMENT; Permit 13238-01

Enclosed is a copy of:

(✓) a Permit for a wastewater treatment facility issued pursuant to Chapter 26 of the Texas Water Code.

In order that you may comply with monitoring requirements for your waste discharge permit, self-reporting forms and instructions will be forwarded to you from the Watershed Management Division. Please discontinue the use of any old self-reporting forms that you may have and wait to fill out forms until you receive new ones from the TWC which reflect your new monitoring requirements. For further information, please contact Mary Taylor at (512) 463-8244.

When your facility is placed in operation or goes into a new phase, please use the attached "Report of Progress of Construction of Wastewater Treatment Facilities" form. This form will advise this agency and our district office of the completion or placement in operation of proposed facilities in accordance with the special provision incorporated into the permit.

( ) a Permit for a hazardous or solid waste facility issued pursuant to Art. 4477-7, Texas Revised Civil Statutes. Your attention is directed to Commission Rule 335.5 which may be applicable to your facility.

( ) a Permit for a waste disposal well or an injection well issued pursuant to Chapter 27 of the Texas Water Code. In accordance with the Texas Water Code, you must file a copy of the permit with the city and county health authorities.

( ) a Permit for a municipal solid waste site.

Sincerely,

Gloria A. Vasquez

Gloria A. Vasquez, Chief Clerk
GAV:de

cc: TWC District Office 14
Don Sansom, P.E.; Murfee Eng. Co.; 1101 Capital of Texas Hwy., South D-110; Austin, Texas 78746
Steven M. Bowers; P.O. Box 5035; Austin, Texas 78763

PERMIT NO. 13238-001

TEXAS WATER COMMISSION
Stephen F. Austin State Office Building
Austin, Texas

This minor amendment supersedes and replaces Permit No. 13238-001 approved February 21, 1992 and is reissued pursuant to 31 TAC 305.96(b).

PERMIT TO DISPOSE OF WASTES
under provisions of Chapter 26
of the Texas Water Code

I. Name of Permittee:

A. Name Don P. (Rip) Miller & William T. Miller

B. Address 2106 Stamford Lane
Austin, Texas 78703

II. Type of Permit: Regular _____ Amended xx

III. Nature of Business Producing Waste: SIC No. 4952, Domestic Wastewater Treatment Operation

IV. General Description and Location of Waste Disposal System:

Description: The wastewater treatment facility is an activated sludge plant operated in the extended aeration mode. Treated effluent is stored in an effluent holding pond with a total volume of at least 56 acre-feet. Treated effluent is disposed by evaporation and irrigation of a minimum of 70.3 acres of coastal bermuda grass over-seeded annually with winter rye.

Location: The wastewater treatment facility is located approximately 700 feet north of Farm-to-Market Road 2244, approximately two miles east of the intersection of Farm-to-Market Road 2244 and State Highway 71 in Travis County, Texas. (See Attachment "A")

This permit and the authorization contained herein shall expire at midnight February 21, 1997.

ISSUED DATE: MAY 06 1993

ATTEST: Maria A. Vasquez John Hall
For the Commission

2. These public sewerage facilities shall be operated and maintained by a sewage plant operator holding a valid certificate of competency issued pursuant to state law.

3. The permittee shall comply with the following sludge requirements:

   A. The permittee is authorized to dispose of sludge at a landfill permitted by the Texas Department of Health. <u>The disposal of the sludge at the plant site is a violation of the permit</u>.

   B. The permittee shall use only those sewage sludge disposal practices that comply with the federal regulations for landfills and solid waste disposal established at 40 CFR Part 257 and in accordance with all the applicable rules of the Texas Department of Health and Texas Water Commission.

   C. The permittee shall handle and dispose of sewage sludge in accordance with all applicable state and federal regulations to protect public health and the environment from any reasonable anticipated adverse effects due to any toxic pollutants which may be present.

   D. If an applicable "acceptable management practice" or numerical limitation for pollutants in sewage sludge promulgated under Section 405(d)(2) of the Clean Water Act is more stringent than the sludge pollutant limit or acceptable management practice in this permit, or controls a pollutant not listed in this permit, this permit may be modified or revoked and reissued to conform to the requirements promulgated under Section 405(d)(2). In accordance with 40 CFR 122.41, one year following promulgation of the technical sludge regulations (40 CFR 503), the facility must be in compliance with all requirements regardless of whether the permit is modified to incorporate these standards.

   E. Sewage Sludge Management Practices

      i. Disposal of sewage sludge shall not cause a discharge to waters in the State, including ground water or cause non-point source pollution of waters in the State. Sludge shall not be applied closer than 200 feet to any natural or artificial body of water.

      ii. Disposal of sewage sludge shall not cause or contribute to the taking of any endangered or threatened species of plant, fish or wildlife.

      iii Disposal of sewage sludge shall not result in the destruction or adverse modification of the critical habitat of endangered or threatened species.

      iv. Sludge shall not be applied under provisions of this section on land within a designated 100 year flood plain.

   F. The permittee shall give 180 days prior notice to the Executive Director of any change planned in the sewage sludge disposal practice.

G. Reporting Requirements

The permittee shall keep records of all sludge disposal activities. Such records will include the following information:

i. Amount of sludge disposal dry weight (lbs/acre) at each disposal site.
ii. Date(s) of disposal.
iii. Identity of hauler(s).
iv. Location of disposal site(s).
v. Method of final disposal.
vi. Owner of disposal site.
vii. Texas Water Commission registration number, if applicable.

The above records shall be maintained on a monthly basis and shall be reported to the Austin Office, Watershed Management Division, Municipal Permits Unit and the District Office in May of each year. The permittee shall maintain the above records for five years and shall be made available to the Texas Water Commission upon request.

4. The permittee shall maintain and operate the treatment facility in order to achieve optimum efficiency of treatment capability. This shall include required monitoring of effluent flow and quality as well as appropriate grounds and building maintenance.

5. Irrigation practices shall be designed and managed so as to prevent ponding of effluent or contamination of ground and surface waters and to prevent the occurrence of nuisance conditions in the area. Tailwater control facilities shall be provided as necessary to prevent the discharge of any wastewater from the irrigated land.

6. Application rates for the irrigated land shall not exceed 2.7 acre-feet/acre/year. The permittee is responsible for providing equipment to determine application rates and maintaining accurate records of the volume of effluent applied as irrigation water. These records shall be made available for review by the Texas Water Commission and shall be maintained for at least three years.

7. Holding ponds shall conform to the Texas Water Commission "Design Criteria for Sewerage Systems" requirements for stabilization ponds with regard to construction and levee design, and a minimum of 2 feet of freeboard shall be maintained.

8. The plans and specifications for the waste collection and treatment works and disposal system authorized by this permit must be approved pursuant to state law, and failure to secure approval before commencing construction of such works or making a discharge therefrom is a violation of this permit, and each day of discharge is an additional violation until approval has been secured.

9. Monitoring requirements contained in the permit are suspended from the effective date of the permit until plant startup. The permittee shall provide written notice to the Austin Office, Watershed Management Division, Applications Unit and the District 14 Office of the Commission forty-five (45) days prior to plant startup.

19. Facilities for the retention of treated or untreated wastewater shall be adequately lined to control seepage. The following methods of pond lining are acceptable.

    a. In-situ clay soils or placed and compacted clay soils meeting the following requirements:
        1) More than 30% passing a No. 200 mesh sieve
        2) Liquid limit greater than 30%
        3) Plasticity index greater than 15
        4) A minimum thickness of 2 feet
        5) Permeability equal to or less than $1X10^{-7}$ cm/sec
        6) Soil compaction shall be 95% standard proctor at optimum Moisture content

    b. Membrane lining with a minimum thickness of 20 mils, and an underdrain leak detection system.

    c. An alternate method of pond lining may be utilized with prior approval from the Executive Director.

    The permittee shall furnish certification by a Texas Registered Professional Engineer that the completed pond lining meets the appropriate criteria above prior to utilization of the facilities. The certification shall be sent to the District Office and Enforcement Section, Watershed Management Division of the Texas Water Commission.

20. Irrigation of treated effluent on land with a slope of 10% or greater is prohibited. Irrigation of treated effluent is prohibited during rainfall events. Irrigation of treated effluent shall be limited to those tracts designated on Attachment A of this permit. Irrigation is not authorized within any part of Irrigation Areas 4 and 5 which is within 150 feet, measured horizontally, from the centerline of adjacent streambeds or ravines as shown on Attachment A.

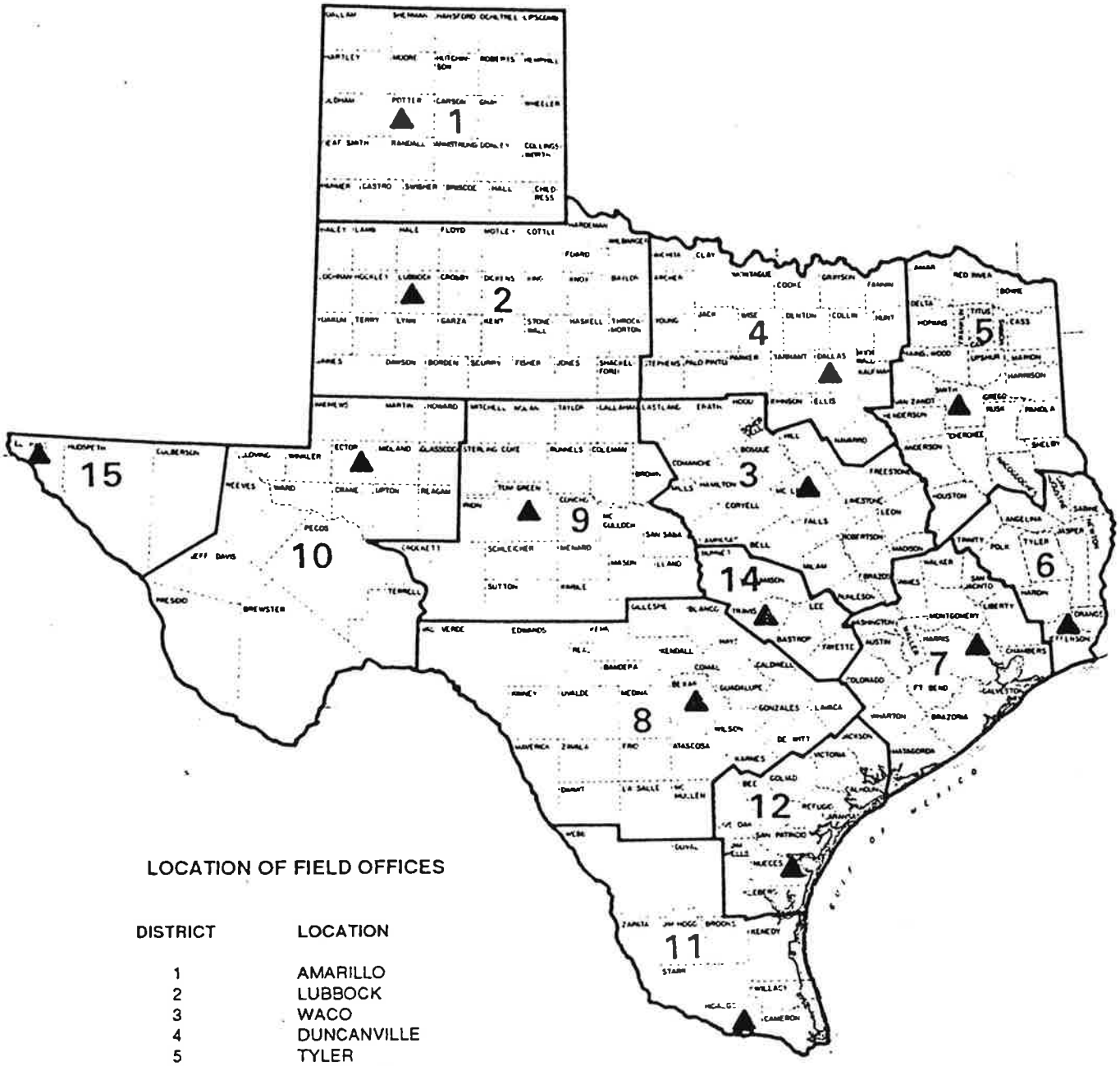
21. An emergency alternate power source sufficient to operated the treatment plant and all lift stations shall be available at all times at the plant site. The effluent holding pond shall be kept dewatered to the maximum extent possible.

22. An automatic alarm system shall be installed which will sound an alarm at the plant site, and also alert the permittee, the plant operator, and anyone else who can effectuate repairs, when a treatment plant component or a lift station has malfunctioned or has ceased operating.

23. A vegetative cover shall be maintained year-round on all irrigation areas. The cover crop shall be harvested/mowed/removed as required by Commission regulations or whenever the vegetation grows to a height of six inches, whichever occurs first.

7. Whenever flow measurements for any sewage treatment facility in the state reaches 75 percent of the permitted average daily flow for three consecutive months, the permittee must initiate engineering and financial planning for expansion and/or upgrading of the wastewater treatment and/or collection facilities. Whenever, the average daily flow reaches 90 percent of the permitted average daily flow for three consecutive months, the permittee shall obtain necessary authorization from the Texas Water Commission to commence construction of the necessary additional treatment and/or collection facilities. In the case of a wastewater treatment facility which reaches 75 percent of the permitted average flow for three consecutive months, and the planned population to be served or the quantity of waste produced is not expected to exceed the design limitations of the treatment facility, the permittee will submit an engineering report supporting this claim to the executive director. If in the judgment of the executive director the population to be served will not cause permit noncompliance, then the requirements of this section may be waived. To be effective, any waiver must be in writing and signed by the director of the Watershed Management Division of the Texas Water Commission, and such waiver of these requirements will be reviewed upon expiration of the existing permit. However, any such waiver shall not be interpreted as condoning or excusing any violation of any permit parameter.

8. The permittee shall remit an annual waste treatment inspection fee to the Commission as required by 31 TAC Chapter 305 (Subchapter M). Failure to pay this fee may result in revocation of this permit.



LOCATION OF FIELD OFFICES

DISTRICT	LOCATION
1	AMARILLO
2	LUBBOCK
3	WACO
4	DUNCANVILLE
5	TYLER
6	BEAUMONT
7	HOUSTON
8	SAN ANTONIO
9	SAN ANGELO
10	ODESSA
11	WESLACO
12	CORPUS CHRISTI
14	AUSTIN
15	EL PASO
TWC LAB	HOUSTON

Texas Water Commission
Attn: Enforcement Support Unit, Watershed Management

REPORT OF PROGRESS OF CONSTRUCTION
OF WASTEWATER TREATMENT FACILITIES

_____
Today's Date

_____ WQ _____-_____
Name of Permittee Permit No.

Responsible Official: _____
Name

_____
Title

_____
Phone Number

Facilities are operational/are estimated to be operational

_____
Date (month/day/year)

The volume and phase in operation (Interim/Final)_____
(million gallons per day)

Operator of this facility will be _____
Name

Class of Certificate _____ Social Security Number _____-_____-_____

Employed by (if applicable) _____
(Name of Operations Company)

_____
Signature

TWC Enforcement Support Unit/Watershed Management/P.O. Box 13087/Austin, Texas 78711-3087/Area Code 512 463-8244

EQUIPMENT LEASE AGREEMENT

This Equipment Lease Agreement (this "Agreement") is executed to be effective as of the 30th day of June, 1994, by and between MALCOLM BAILEY, d/b/a SKYLINE PROPERTIES, with his principal place of business located in Houston, Harris County, Texas, hereinafter called "Lessor", and SENNA HILLS MUNICIPAL UTILITY DISTRICT, a Texas municipal utility district, with its principal place of business located in Austin, Travis County, Texas, hereinafter called "Lessee".

1. LEASE AGREEMENT

Subject to the terms and conditions hereinafter set forth, Lessor hereby leases to Lessee, and Lessee hereby leases from Lessor one (1) Eighty-Five Thousand (85,000) Gallon Per Day, Pre-Packaged Sewage Treatment Plant with Tertiary Sand Filter (hereafter sometimes referred to as the "Plant" or as the "Leased Property"), designed to expand to 170,000 gallons per day, and constructed to the design criteria and standards of the Texas Natural Resources Conservation Commission ("TNRCC") (for domestic sewage) to produce effluent with the following properties: (i) a maximum of 5 milligrams per liter, five day biological oxygen demand; (ii) a maximum five milligrams per liter total suspended solids; and (iii) a maximum of two milligrams per liter limit on ammonia nitrogen. Schedule "A," which is attached hereto and made a part hereof, contains a list of the equipment which constitutes the Leased Property. Lessor and Lessee acknowledge that Lessee's Non-Discharge Permit (the "Permit") as issued by the TNRCC, which permits Lessee to operate its wastewater treatment system, is a "phased" permit providing for a first phase treatment level of 57,000 gallons per day, a second phase treatment level of 114,000 gallons per day, and a third phase treatment level of 170,000 gallons per day. Notwithstanding the fact that the potential physical treatment capacity of the Plant may exceed the treatment level allowed by the Permit, the Plant's actual treatment capacity shall be limited at any time to the maximum treatment level allowed at that time under the Permit, given the available spray irrigation acreage which is being utilized in accordance with the Permit.

2. DELIVERY AND ASSEMBLY

a. The Leased Property shall be transported and delivered to the job site at Lessor's expense and risk. Lessor's representatives shall be on hand to receive, unload, and fully assemble the equipment per the specifications set forth on Schedule "A." Lessee shall provide Lessor with completed foundations at the Plant site, installed to Lessor's specifications. All necessary external connections shall be in place and ready to connect Lessee's wastewater collection system to the Plant. Lessee shall also be responsible for providing (i) the lines and equipment necessary to extend electrical power service to the electrical junction box or panel which Lessor will install next to the Plant (with Lessee's electrical contractor being responsible for connecting the panel to the Lessee's external source of electric power and Lessor being responsible for

the actual connection of the various Plant components to the panel, (ii) the lines and connections necessary to transfer treated effluent from the Plant to Lessee's effluent holding pond, and any additional site construction or preparation items which may be required by any applicable governmental authority having jurisdiction over the installation of the Plant or its future operation (collectively the "Governmental Authorities").

b. Lessor agrees that it will complete the installation of the Plant within thirty (30) days of the date on which it receives written notice to proceed with installation from Lessee.

3. TERM

Unless terminated earlier by Lessor pursuant to the provisions of Section 16 hereof or by Lessee's election to purchase the Plant as hereinafter provided, this Agreement shall remain in effect for a term of sixty (60) months, commencing on the date the Plant is delivered to Lessee and certified by Lessee's District Engineer as operational and in compliance with any applicable rules and regulations of the Governmental Authorities.

4. RIGHTS OF LESSEE

Lessee is, and shall be, entitled to use, operate, possess and control the Leased Property during the term of this Agreement, provided Lessee is not in default under any provision hereof, and subject to any security interest which Lessor may have given or may give in the future to any third party during the term of this Agreement. Lessee shall employ and have absolute control over, supervision over, and responsibility for any operators or users of the Leased Property.

5. RENTAL PAYMENTS

Lessee agrees to pay Lessor, as rental for the use of the Leased Property, rent in the amount of FOUR THOUSAND EIGHTY-ONE DOLLARS ($4,081.00) per month to be paid on the first (1st) day of each calendar month during the term of this Agreement, in advance. All rent payments shall be made at the office of the Lessor in Houston, Texas or at such other address within the continental United States as Lessor may hereafter specify in writing. The first and last month's rental payments shall be due and payable upon the full execution of this Agreement by Lessor and Lessee.

6. TITLE TO LEASED PROPERTY

a. The Leased Property shall at all times be and remain the sole and exclusive property of Lessor, and Lessee shall have no property rights therein, but only the right to use the Leased Property upon the terms and conditions herein contained. This Agreement constitutes a lease of the Leased Property. It is

not a sale of the Leased Property or the creation of a security interest in the Leased Property.

b. It is further expressly agreed that the Leased Property shall be considered and remain personal property, even though it may be attached or affixed to real estate. If the Leased Property is attached or affixed to real estate which is owned by a party other than Lessee or which is subject to a mortgage, Lessee shall obtain and deliver to Lessor a consent and waiver from the Landlord or Mortgagee, as the case may be, in a form acceptable to Lessor, which shall permit Lessor to remove the Leased Property from said real estate at any time during the term of, or after the expiration of, this Agreement. Lessor may display notice of its ownership of the Leased Property by affixing to each item of equipment an identifying stencil or plate or other indicia of ownership and Lessee agrees that it will not remove, deface or obliterate any such notice.

c. At any time during the term of this Agreement, Lessee shall have the right to purchase the Leased Property by paying Lessor the "Balance" which is due at that time as shown on Schedule A which is attached hereto. Upon payment of the Balance indicated, Lessor shall convey good and marketable title to the Leased Property to Lessee, free and clear of any adverse claims, liens, or encumbrances.

7. LESSOR'S WARRANTIES

Lessor covenants and agrees as follows:

a. Lessor has, or will have by the date of installation of the equipment, clear and good title to the Leased Property, free and clear of all liens and encumbrances, excepting only liens for current taxes not yet due or payable and the lien or liens securing any purchase money mortgage for the equipment or financing secured by this Agreement.

b. The Leased Property will be operational and in good working condition at the time it is installed. Should any component of the Leased Property fail, become disabled or otherwise cease to perform the function for which it is designed within ninety (90) days of the date on which it first becomes operational, then Lessor will repair or replace that component, at Lessor's expense.

c. The Leased Property when installed shall equal or exceed State of Texas Department of Health Design Criteria and as specified in Section 1.

d. Lessor shall undertake any reasonable action requested by Lessee to enforce any and all warranties or guarantees to which Lessor is entitled on the equipment, or assign such warranties or guarantees to Lessee.

e. Except as otherwise expressly provided herein, Lessee agrees that Lessor shall not be liable to Lessee for any liability, claim, loss, damage or expense of any kind or nature caused directly or indirectly, by the Leased Property or by any inadequacy thereof for any purpose, or any deficiency or defect therein, or the use of maintenance thereof, or any repairs, servicing or adjustments thereto, or any interruption or loss of service or use thereof, or any loss of business, or any other damages whatsoever or howsoever caused.

8. EXPENSES.

Lessee shall be responsible for paying all expenses of operating the Plant, including, but not limited to electricity, chemicals, management and operator fees, and other customary expenses of operation. Lessee also agrees to pay any license fees, registration fees, permit fees or other fees as may be required for the lawful operation of the Plant.

9. REMOVAL, INSPECTION AND RETURN

The Leased Property shall not be removed from the place of its initial installation without the prior written consent of Lessor. Lessee shall, at all reasonable times and from time to time, allow Lessor, by or through any of its officers, agents or attorneys, to examine and inspect the Leased Property. Upon the termination of this Agreement, if Lessee has not otherwise exercised its option to purchase the Leased Property, Lessor shall, at its expense, remove the Leased Property from the site within thirty (30) days from the time the Leased Property is no longer in service. The Lessee shall be responsible for dewatering the Leased Property and shall deliver it to the Lessor in reasonably clean condition.

10. OPERATION, MAINTENANCE AND REPAIR

Lessee shall comply with and conform to all municipal, state and federal laws relating to the operation of the Leased Property. Lessee shall maintain the Leased Property in good condition and running order at all times during the term of this Agreement, but shall not be responsible for normal wear and tear or depreciation. All additions, attachments, accessories and repair parts at any time placed in or on the Leased Property shall be purchased by Lessee from Lessor and shall become a part of the Leased Property and shall be the property of the Lessor. Except as otherwise expressly set forth herein, Lessor shall have no responsibility for the maintenance of the Leased Property after it is delivered to and accepted by Lessee and before it is redelivered to Lessor as herein provided.

11. RISK OF LOSS AND INSURANCE

All risk of loss or damage of the Leased Property shall be borne by Lessee. Lessee shall have and maintain insurance at all times with respect to the Leased Property against risks of fire (including so-called "extended coverage"), theft and such other risks and in such

amounts as Lessor may reasonably require. All such insurance policies shall name the Lessor as an additional insured. Lessee shall deliver to Lessor copies of the insurance policies which provide the coverages required by this Section.

12. DAMAGE, DESTRUCTION OR THEFT

Notwithstanding any damage to the Leased Property, the rental shall continue to be paid by Lessee and shall not abate. Except as otherwise expressly provided herein, Lessee shall have the responsibility for the repair of the damaged Leased Property, and Lessee shall repair or cause such Leased Property to be repaired promptly after any such damage. In every such instance, Lessor will reimburse Lessee for the cost of repair to the extent of the insurance proceeds actually received by Lessor because of such damage. In the event the Leased Property is destroyed, stolen or damaged beyond repair, Lessee shall forthwith pay to Lessor the "Balance" immediately prior to such destruction, theft or damage as shown on Schedule A attached hereto. This Agreement shall terminate upon the payment of the Balance by the Lessee, the Lessee shall thereafter be entitled to the Leased Property on an as-is basis, without warranty by Lessor, either express or implied, for any matter concerning the Leased Property.

13. INDEMNITY

With the exception of matters which are expressly made the responsibility of Lessor hereunder, Lessee shall indemnify, protect, and save and keep harmless Lessor, its agents, servants, successors and assigns, from and against all losses, damages, injuries, claims, demands and expenses, including legal expenses, of whatsoever nature, arising out of the use, condition, or operation of the Leased Property. Lessee shall have control over and assume the defense of any suit or suits or other legal proceedings brought to enforce all such losses, damages, injuries, claims, demands and expenses and shall pay all judgements entered in any such suit or other legal proceedings. The indemnities and assumptions of liabilities and obligations herein provided for shall continue with full force and effect notwithstanding the termination of this Agreement, whether by expiration of time, by operation of law, or otherwise.

14. ASSIGNMENT AND SUBLEASE BY LESSEE

Lessee may freely, and without the consent of Lessor, assign this Agreement to any entity which hereafter becomes responsible for providing wastewater treatment services to the Senna Hills Subdivision or any other area which is at any time incorporated within the Lessee's service area. Upon such assignee's written assumption of this Agreement and acceptance of Lessee's responsibilities and obligations hereunder, Lessee shall be discharged from any further liability or obligation with respect thereto. With the foregoing exception, Lessee may not assign this Agreement or sublease the Leased Property without the prior written consent of Lessor.

15. ASSIGNMENT BY LESSOR/RIGHTS OF ASSIGNEE

The Lessor shall have the right to sell or assign this Agreement, including its right, title and interest to the Leased Property and the rent reserved herein. In the event of any such assignment by the Lessor, the assignee shall thereupon acquire all of the rights and remedies possessed by or available to the Lessor. Upon receiving proper written notice of any such assignment, the Lessee shall thereafter make rental payments as therein directed.

16. EVENTS OF DEFAULT

The following events shall be deemed to be events of default by Lessee under this Agreement:

a. Lessee shall fail to pay any installment of the rent hereby reserved and such failure shall continue for a period of thirty (30) days.

b. Lessee shall fail to comply with any other term, provision or covenant of this Agreement and does not cure such failure within thirty (30) days after written notice thereof by the Lessor to Lessee.

Upon the occurrence of an event of default, Lessor may exercise any one or more of the following remedies: (1) the right to terminate this Agreement and Lessee's rights under this Agreement as to all items of Leased Property; (2) the right to declare the balance of the rental called for by this Agreement to be immediately due and payable in full; and (3) the right to retake and retain the Leased Property, without legal process, free of all rights of Lessee in and to the Leased Property. Pursuant to this provision, Lessee expressly authorizes Lessor and its agents to enter any premises owned or controlled by Lessee where the Leased Property is located, for the purposes of repossessing and removing the Leased Property. Notwithstanding the foregoing, Lessor agrees that under no circumstances shall Lessor be entitled, by judicial process or otherwise, to seek or obtain a monetary judgment against any party other than Lessee for any amount which may become payable or obligation which may become due under this Agreement, and Lessor hereby waives any right or remedy which it may have now, or any time in the future, against any officer, director, employee, or agent for Lessee.

17. LESSOR'S DEFAULT

Lessor covenants and agrees to make all payments which become due and to otherwise perform all of its obligations with respect to any purchase money financing which it may utilize to acquire the Leased Property (the "Purchase Money Financing"). Lessor will provide Lessee with copies of all notes, security agreements and other documents and instruments executed in connection with the Purchase Money Financing or as security therefor. With the exception of the Purchase Money Financing, Lessor covenants and agrees to keep the Leased Property free of any other lien or encumbrance arising by, through, or

under Lessor. Lessor hereby authorizes Lessee, at any time and from time to time, to contact the lender providing the Purchase Money Financing to verify that Lessor is not in default with any payment or other obligation with respect thereto. In the event the Lessor receives any notice of default with respect to its Purchase Money Financing or any other item which might become a lien on the Leased Property, Lessor shall immediately provide Lessee with a copy thereof. Additionally, Lessor agrees to furnish Lessee, on demand, satisfactory evidence of payment of each installment due on the Purchase Money Financing and of any other items which might otherwise become a lien or encumbrance on the Leased Property. For the purpose of this Agreement, satisfactory evidence of payment shall be deemed to be a copy of the check sent to the proper party. If Lessor fails to make such payments, together with any interest or penalty required to be paid in connection therewith, the Lessee shall have the right to make such payments which may be deducted by the Lessee from any rent thereafter becoming due hereunder; provided, however, that the Lessee shall not be authorized and empowered to make any payment under the terms of this Paragraph unless the item paid shall be superior to the Lessee's interest hereunder.

18. SUCCESSORS AND ASSIGNS

Subject to the restrictions on assignment which are otherwise set forth in this Agreement, this Agreement shall be binding upon and inure to the benefit of Lessee and Lessor and their respective heirs, successors, and assigns.

19. ATTORNEY'S FEES

If either party to this Agreement is the prevailing party in any legal proceeding brought under or in relation to this Agreement or the transactions contemplated hereby, such party shall additionally be entitled to recover court costs, reasonable attorney's fees, and all other reasonable litigation expenses from the non-prevailing party.

20. NOTICES

All notices and other communications provided for in this Agreement shall be given or made by telex, telegraph, telecopy, cable, or in writing and telexed, telecopied, telegraphed, cabled, mailed by certified mail return receipt requested, or delivered to the intended recipient at the "Address for Notices" specified below its name on the signature pages hereof; or, as to any party at such other address as shall be designated by such party in a notice to the other party given in accordance with this Section. Except as otherwise provided in this Agreement, all such communications shall be deemed to have been duly given when transmitted by telex or telecopy, subject to telephone confirmation of receipt, or delivered to the telegraph or cable office, subject to telephone confirmation of receipt, or when personally delivered or, in the case of a mailed notice, when duly deposited in the mails, in each case given or addressed as aforesaid.

21. APPLICABLE LAW; VENUE; SERVICE OF PROCESS

This Agreement shall be governed by and construed in accordance with the laws of the State of Texas and the applicable laws of the United States of America. This Agreement has been entered into in Travis County, Texas, and it shall be performable for all purposes in Travis County, Texas. Any action or proceeding under or in connection with this Agreement may be brought in any state or federal court in Travis County, Texas. The parties hereto hereby irrevocably (i) submit to the nonexclusive jurisdiction of such courts, and (ii) waives any objection they may now or hereafter have as to the venue of any such action or proceeding brought in such court or that such court is an inconvenient forum.

22. HEADINGS.

The headings, captions, and arrangements used in this Agreement are for convenience only and shall not affect the interpretation of this Agreement.

23. SURVIVAL OF REPRESENTATIONS AND WARRANTIES.

All representations and warranties made in this Agreement or in any certificate delivered pursuant hereto shall survive the execution and delivery of this Agreement, and no investigation by Lessor or Lessee shall affect the representations and warranties made by the other party or the right of Lessor or Lessee, as the case may be, to rely upon them.

24. COUNTERPARTS

This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

25. SEVERABILITY.

Any provision of this Agreement which is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions of this Agreement, and any such prohibition or unenforceability in any jurisdiction shall not invalidate or render unenforceable such provision in any other jurisdiction.

26. Construction.

Lessee and Lessor acknowledge that each of them has had the benefit of legal counsel of its own choice and has been afforded an opportunity to review this Agreement with its legal counsel and that this Agreement shall be construed as if jointly drafted by Lessee and Lessor.

27. AMENDMENT; ENTIRE AGREEMENT.

THIS AGREEMENT EMBODIES THE FINAL, ENTIRE AGREEMENT AMONG THE PARTIES HERETO AND SUPERSEDES ANY AND ALL PRIOR COMMITMENTS, AGREEMENTS, REPRESENTATIONS, AND UNDERSTANDINGS, WHETHER WRITTEN OR ORAL, RELATING TO THE SUBJECT MATTER HEREOF AND MAY NOT BE CONTRADICTED OR VARIED BY EVIDENCE OF PRIOR, CONTEMPORANEOUS OR SUBSEQUENT ORAL AGREEMENTS OR DISCUSSIONS OF THE PARTIES HERETO. THERE ARE NO ORAL AGREEMENTS AMONG THE PARTIES HERETO. The provisions of this Agreement may be amended or waived only by an instrument in writing signed by the parties hereto.

IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement as of the day and year first written above.

LESSOR

Malcolm Bailey d/b/a Skyline Properties

Address for Notices
6319 Skyline Drive
Houston, Texas 77057
713/783-6611 (Telephone)
713/782-2877 (Telecopy)

LESSEE
Senna Hills Municipal Utility District

By: _____
Charles A. Brown, President

Address for Notices
c/o Steven M. Bowers
Attorney at Law
P.O. Box 5035
Austin, Texas 78763
512/458-2151 (Telephone)
512/458-2153 (Telecopy)

C:\WP\MILLER\PLANT.L#2

CONSENT AND WAIVER OF MORTGAGEE

THE STATE OF TEXAS §
§
COUNTY OF TRAVIS §

KNOW ALL MEN BY THESE PRESENTS:

THAT _____ whose address is _____ hereinafter called "MORTGAGEE" herein grants TO Skyline Properties, whose address is 6319 Skyline Drive, Houston, Harris County, Texas, hereinafter called "Lessor" consent and waiver of any and all interest in the following described personal property now located and situated at the sewage treatment plant site at:

SAID consent and waiver is granted in accordance with that certain lease between LESSOR and the Senna Hills Municipal Utility District, dated effective June ___, 1994.

SAID personal property hereinafter called "Leased Property" is wholly or partly affixed to real estate, a description of which real estate is as follows:

The above-described real estate is under mortgage to Mortgagee.

Upon the expiration or termination of said lease, Lessor shall retain the right to remove the Leased Property from the above-described real estate.

AGREED to effective the ___ day of _____, 1994.

SCHEDULE "A"

Equipment

a) Aeration Tank - One (1) Section, 28' x 12' x 11' (3192 c.f.)
b) Digestor Tank - One (1) Section, 24' x 12' x 11' (2880 c.f.)
c) Clarifier - 28' dia. x 8' S.W.D., mechanical
d) Tertiary Filter with Integral Chlorine Contact Chamber, Effluent Pump Chamber, Backwash Chamber & Backwash Return Pumps
e) Blowers - Duplex, 450 scfm, with controls
f) Chlorinator - Fischer-Porter Model #17C1700 or equal
g) Chlorinator Scales - Wallace & Tiernan #50-345 or equal
h) Chlorinator Cabinet - TEC Fiberchlor with miscellaneous items
i) Flow Meter - Fischer-Porter #10F1272 or equal
j) Miscellaneous interconnect pipe, valves and fittings

Total Items A-J - $152,354.00

k) Effluent Pump Station - For installation in (d) complete with Duplex Pumps, 413 gpm, 43' TDH, 10 HP

Total This Item - $ 12,000.00

l) Treatment Plant Assembly Including Receiving & Setting of Equipment, Interconnect Piping & Walkways, Field Painting, Installation of Blowers, Chlorination Equipment, Setting of Panel, Wiring of Blowers & Drive and Grouting of Clarifier

m) Washdown Water Pumps with connections to Chlorine Contact Chamber

Total These Items - $ 30,000.00

Options

1. Equipment to increase capacity to 170,000 GPD, supplied during the lease period.

   a) Aeration Tank No. 2 - 28 ft. section
   b) Digestor No. 2 - 24 ft. section
   c) Flow Division Box
   d) Blower with controls, one (1) 450 scfm

   Total Monthly Price For Above (58 months) - $ 935.00

   Replacement Value - $ 43,500.00

2. Equipment to replace the Chlorine Contact Tank with a filter/CCT Unit.

   Total Monthly Price For Above (39 months) - $ 600.00

   Replacement Value - $ 20,000.00

3. Purchase Option

   The equipment may be purchased at any time off the attached amortization schedule.

NOTE: Refer to our letter of July 21, 1993 for additional items and estimates such as de-chlorination and pace-feed to chlorination and general site and off-site construction items.

0/27/1993 **Loan Amortization** Page 1

ANNA HILLS

Date	Type	Balance	# Payments	Interest Rate
)/1/1993	Monthly	$194,345.00	60	9.000%

mt #	Date	Int. Rate	Payment	Principal	Interest	Balance Due
0	10/1/1993					$194,345.00
1	11/1/1993	9.000%	$4,081.00	$2,623.41	$1,457.59	$191,721.59
2	12/1/1993	9.000%	$4,081.00	$2,643.09	$1,437.91	$189,078.50
otals for 1993:				$5,266.50	$2,895.50	
3	1/1/1994	9.000%	$4,081.00	$2,662.91	$1,418.09	$186,415.59
4	2/1/1994	9.000%	$4,081.00	$2,682.88	$1,398.12	$183,732.71
5	3/1/1994	9.000%	$4,081.00	$2,703.00	$1,378.00	$181,029.70
6	4/1/1994	9.000%	$4,081.00	$2,723.28	$1,357.72	$178,306.42
7	5/1/1994	9.000%	$4,081.00	$2,743.70	$1,337.30	$175,562.72
8	6/1/1994	9.000%	$4,081.00	$2,764.28	$1,316.72	$172,798.44
9	7/1/1994	9.000%	$4,081.00	$2,785.01	$1,295.99	$170,013.43
10	8/1/1994	9.000%	$4,081.00	$2,805.90	$1,275.10	$167,207.53
11	9/1/1994	9.000%	$4,081.00	$2,826.94	$1,254.06	$164,380.59
12	10/1/1994	9.000%	$4,081.00	$2,848.15	$1,232.85	$161,532.44
13	11/1/1994	9.000%	$4,081.00	$2,869.51	$1,211.49	$158,662.93
14	12/1/1994	9.000%	$4,081.00	$2,891.03	$1,189.97	$155,771.91
otals for 1994:				$33,306.59	$15,665.41	
15	1/1/1995	9.000%	$4,081.00	$2,912.71	$1,168.29	$152,859.20
16	2/1/1995	9.000%	$4,081.00	$2,934.56	$1,146.44	$149,924.64
17	3/1/1995	9.000%	$4,081.00	$2,956.57	$1,124.43	$146,968.08
18	4/1/1995	9.000%	$4,081.00	$2,978.74	$1,102.26	$143,989.34
19	5/1/1995	9.000%	$4,081.00	$3,001.08	$1,079.92	$140,988.26
20	6/1/1995	9.000%	$4,081.00	$3,023.59	$1,057.41	$137,964.67
21	7/1/1995	9.000%	$4,081.00	$3,046.26	$1,034.74	$134,918.40
22	8/1/1995	9.000%	$4,081.00	$3,069.11	$1,011.89	$131,849.29
23	9/1/1995	9.000%	$4,081.00	$3,092.13	$988.87	$128,757.16
24	10/1/1995	9.000%	$4,081.00	$3,115.32	$965.68	$125,641.84
25	11/1/1995	9.000%	$4,081.00	$3,138.69	$942.31	$122,503.15
26	12/1/1995	9.000%	$4,081.00	$3,162.23	$918.77	$119,340.93
otals for 1995:				$36,430.98	$12,541.02	
27	1/1/1996	9.000%	$4,081.00	$3,185.94	$895.06	$116,154.98
28	2/1/1996	9.000%	$4,081.00	$3,209.84	$871.16	$112,945.15
29	3/1/1996	9.000%	$4,081.00	$3,233.91	$847.09	$109,711.23
30	4/1/1996	9.000%	$4,081.00	$3,258.17	$822.83	$106,453.07
31	5/1/1996	9.000%	$4,081.00	$3,282.60	$798.40	$103,170.47
32	6/1/1996	9.000%	$4,081.00	$3,307.22	$773.78	$99,863.25
33	7/1/1996	9.000%	$4,081.00	$3,332.03	$748.97	$96,531.22
34	8/1/1996	9.000%	$4,081.00	$3,357.02	$723.98	$93,174.20
35	9/1/1996	9.000%	$4,081.00	$3,382.19	$698.81	$89,792.01
36	10/1/1996	9.000%	$4,081.00	$3,407.56	$673.44	$86,384.45
37	11/1/1996	9.000%	$4,081.00	$3,433.12	$647.88	$82,951.33
38	12/1/1996	9.000%	$4,081.00	$3,458.86	$622.14	$79,492.47
otals for 1996:				$39,848.46	$9,123.54	
39	1/1/1997	9.000%	$4,081.00	$3,484.81	$596.19	$76,007.66
40	2/1/1997	9.000%	$4,081.00	$3,510.94	$570.06	$72,496.72
41	3/1/1997	9.000%	$4,081.00	$3,537.27	$543.73	$68,959.44
42	4/1/1997	9.000%	$4,081.00	$3,563.80	$517.20	$65,395.64

43	5/1/1997	9.000%	$4,081.00	$3,590.53	$490.47	$61,805.11
44	6/1/1997	9.000%	$4,081.00	$3,617.46	$463.54	$58,187.65
45	7/1/1997	9.000%	$4,081.00	$3,644.59	$436.41	$54,543.05
46	8/1/1997	9.000%	$4,081.00	$3,671.93	$409.07	$50,871.13
47	9/1/1997	9.000%	$4,081.00	$3,699.47	$381.53	$47,171.66
48	10/1/1997	9.000%	$4,081.00	$3,727.21	$353.79	$43,444.45
49	11/1/1997	9.000%	$4,081.00	$3,755.17	$325.83	$39,689.28
50	12/1/1997	9.000%	$4,081.00	$3,783.33	$297.67	$35,905.95
otals for 1997:				$43,586.52	$5,385.48	
51	1/1/1998	9.000%	$4,081.00	$3,811.71	$269.29	$32,094.25
52	2/1/1998	9.000%	$4,081.00	$3,840.29	$240.71	$28,253.95
53	3/1/1998	9.000%	$4,081.00	$3,869.10	$211.90	$24,384.86
54	4/1/1998	9.000%	$4,081.00	$3,898.11	$182.89	$20,486.74
55	5/1/1998	9.000%	$4,081.00	$3,927.35	$153.65	$16,559.39
56	6/1/1998	9.000%	$4,081.00	$3,956.80	$124.20	$12,602.59
57	7/1/1998	9.000%	$4,081.00	$3,986.48	$94.52	$8,616.11
58	8/1/1998	9.000%	$4,081.00	$4,016.38	$64.62	$4,599.73
59	9/1/1998	9.000%	$4,081.00	$4,046.50	$34.50	$553.23
60	10/1/1998	9.000%	$557.38	$553.23	$4.15	$0.00
otals for 1998:				$35,905.95	$1,380.43	

otals over the life of the loan:
rincipal: $194,345.00 Interest: $46,991.38

Final

ORDER ESTABLISHING WATER AND WASTEWATER SERVICE RATES, CHARGES AND TAP FEES, AND ADOPTING GENERAL POLICIES WITH RESPECT TO THE DISTRICT'S WATER, WASTEWATER AND DRAINAGE SYSTEMS (August 1, 1994)

THE STATE OF TEXAS

COUNTY OF TRAVIS

WHEREAS, pursuant to Section 54.204, Texas Water Code, the Board of Directors (the "Board") of Senna Hills Municipal Utility District (the "District") is authorized to adopt and enforce all necessary rates, charges, fees and deposits for providing District facilities or services;

IT IS, THEREFORE, ORDERED BY THE BOARD OF DIRECTORS OF Senna Hills Municipal Utility District as follows:

I. GENERAL POLICIES

A. Definitions. For purposes of this Order, the following terms shall have the meanings indicated:

1. "Connection" shall mean and refer to each residential unit other than apartment facilities containing multiple residential units with a single connection, and each business unit.

2. "District's representative" shall mean and refer to the general manager of the District or another representative or employee of the District acting pursuant to the direction of the general manager or the Board of Directors of the District.

3. "Rules" shall mean and refer to such rules and regulations as the District may adopt pursuant to Section 54.205, Texas Water Code.

4. "Systems" shall mean and refer to the District's water, wastewater and drainage systems.

B. All Services Required. Except as otherwise expressly authorized in the Rules, no service shall be provided by and through the District's Systems unless the applicant agrees to take both water and wastewater service. Construction or temporary meters will be allowed on an as needed and approved basis.

C. All Services Charged. At no time shall the District render water and/or sewer services without charge to any person, firm, corporation, organization or entity.

D. Other Utilities. Prior to installing underground cables in the area of District water supply and sanitary sewer collection

lines, representatives of utility companies shall meet with the District's representative to file such companies construction plans and schedules and to review the engineering plans illustrating the location of the District's lines.

II. CONNECTIONS TO THE DISTRICT'S SYSTEMS.

A. Applications for Connections.

1. Any party desiring to make a connection to the District's Systems shall first make an application to the District's representative in the form approved by the Board of Directors of the District. The applicant shall, upon request, furnish the District's representative with evidence that the party who will actually install the tap and connecting line has comprehensive general liability insurance in the minimum amounts of $300,000 bodily injury and $50,000 property damage, with an underground rider and a completed operations rider.

2. The District's representative shall review all applications for connections to the District's Systems. In the event that the District's representative finds that the materials to be used and the procedures and methods to be followed in laying the line and making the connection are equal to or better than the standards established by the Uniform Plumbing Ordinance and the water and wastewater standard service details promulgated by the City of Austin Water and Wastewater Department, as amended from time to time, and are in compliance with all terms and conditions of the Rules, the District's representative may approve the application and the proposed connection, subject to such terms or conditions as the District's representative deems necessary or convenient to accomplish the purpose and objectives of the Rules.

B. Payment of Fees

1. Any party desiring to make a connection to the District's water and wastewater system shall pay the connection fee required by the Lower Colorado River Authority under the Water Services Agreement which the District has with the LCRA. No connection shall be made until such fees are paid.

C. Tap and Inspection Fees.

1. The District's water and sanitary sewer tap fee shall be as follows:

$150.00 plus cost of water meter.

Sewer tap installation involving excavation of the sewer main shall be performed by the District at cost plus 10% in addition to the above sewer tap fee.

If more than one (1) inspection is required before a tap is approved by the District the fee for each additional inspection shall be $25.00 (residential) and $75.00 (commercial).

2. Security Deposit - Customer. A security deposit per connection shall be paid prior to service to the District's representative by each customer in the following amounts:

Meter Size	Security Deposit
5/8"	$100.00
3/4"	$125.00
1"	$150.00
1-1/2"	$250.00
2"	$350.00
over 2"	3 times estimated monthly usage, not to exceed $1,000.00

Security deposits shall not be transferable and shall be held by the District to assure the prompt payment of all bills for water and wastewater services to the customer. Following eight (8) months of prompt payment, when due, of the District bills, a customer who owns and occupies a residence within the District shall, upon written request to the District's representative, be entitled to a refund of its security deposit; provided however, that the district may require the customer to replace the security deposit in the event the customer thereafter makes late payments for two (2) or more consecutive months. At its option, the district may apply all of any part of a customer's security deposit against any delinquent bill of the customer. Upon discontinuation of service the deposit shall be applied against amounts due, including any disconnection fees, whether because of the customer's delinquency or upon the customer's request. Any portion of the deposit remaining after deduction of such amounts shall be refunded to the customer. In no event shall the security deposit bear interest for the benefit of the customer.

3. Security Deposit - Builder. The builder shall make a one-time $1,000.00 deposit covering all houses he is building or intends to build within the District. The District's Representative shall carefully monitor the building of all houses covered by such $1,000.00 deposit to make sure that the sanitary sewer and water service connection at each such house has been inspected and approved prior to its being covered. In any instance in which this procedure is not followed, the District's Representative shall require the builder to uncover the sanitary sewer or water service connection so that it may be inspected. Any cost to the District for additional inspections or other work resulting from a violation of this requirement shall be deducted from the $1,000.00 security deposit and the builder shall be billed for such amount as necessary to fully restore the $1,000.00. The District's

Representative will not approve a water tap for any such builder until such builder's security deposit has been reestablished at the full $1,000.00 amount. A connection permit will be granted after inspection confirms that all requirements of these Rules and Regulations have been met. The $1,000.00 security deposit will be refunded when the builder finishes his building program within the District. In no event shall the security deposit bear interest for the benefit of the builder.

D. Additional Charges. Any non-routine charges incurred by the District in connection with any water tap, sewer tap and/or inspection shall be the responsibility of the applicant for such connection and shall be payable to the District upon demand.

III. WATER AND WASTEWATER SERVICES.

A. Applications for Service. Any party desiring to receive service from the District's water or wastewater systems shall make an application for such service to the District's representative in the form approved by the Board of Directors of the District. All applications shall be made by the record owner of the property for which service is being requested. Proof of ownership shall be furnished to the District's representative upon request.

B. In-District Water and Sewer Service Rates. The following rates and charges for the sale of water and the collection and disposal of sewage shall be in effect for residential customers, including multifamily and apartment, and commercial customers within the District from the effective date of this Order, in addition to the monthly water and sewer surcharge described above:

1. General Provisions

a. Bills for sewer service shall be computed: (i) on the basis of the average amount of water used by the customer during the winter season based upon the average of the monthly readings of the customer's water meter for the preceding December, January, and February; or (ii) on the basis of the customer's current monthly water bill, whichever is less.

b. If a residential customer does not have an acceptable history of water usage during the preceding December, January, and February the customer's monthly sewer bill will be calculated based upon: (i) the customer's current monthly water usage; or (ii) on the basis of 9,000 gallons water usage per month, whichever is less.

c. If a nonresidential customer does not have an acceptable history of water usage during the preceding December, January, February, the customer's monthly sewer bill shall: (i) be calculated based upon the customer's current monthly water usage; or (ii) be calculated by measuring actual sewage volume, on a basis acceptable to

the District, at the expense of the customer, and correlating such volume to the schedule set forth below.

d. There shall be no sewer charge for separate irrigation meters.

2. Monthly Water Rates Per Connection.

Usage charge per connection:

Meter Size	Base Fee
5/8"	$22.00
3/4"	1.5 times Base Fee
1"	2.5 times Base Fee
1-1/2"	5.0 times Base Fee
2"	8.0 times Base Fee
Gallonage Charge	$ 2.75 per 1000 gallons

3. Monthly Wastewater Rates Per Connection.

Usage Charge per Connection Base Fee	$35.00
Gallonage Charge	$ 1.80 per 1000 gallons

4. Fire Hydrant Meter Fees

Sale of water on a temporary basis from fire hydrants within the District shall be applied for to the District's Representative. There shall be charged and collected for each fire hydrant meter a fire hydrant meter fee in the mount of $75.00 per month of any part of a month plus $3.00 per 1,000 gallons usage. A security deposit shall be paid to the District's Representative at the time application is paid for a fire hydrant meter in the amount of $750.00. Such security deposit shall be refunded to the applicant at the time the meter is returned in good working order less any amounts due for damage to the meter. A violation of this metering requirement shall result in the offending party being subject to a fine in the amount of $200.00 per violation. The District may deduct the amount of any fines imposed as a result of a builder's or contractor's violation of this requirement from the builder's meter deposit and may further require that the builder replenish the deposit by an amount equivalent to the total deducted.

IV. DELINQUENT ACCOUNTS.

A. The District shall bill each customer monthly for all services rendered in the preceding month, in substantial compliance with the procedures established in the City of Austin Utility Service Regulations. All bills shall be due when rendered and shall become delinquent if not paid by the date specified in the bill.

B. A late charge of ten percent (10%) of the amount of the bill shall be added for each monthly billing date to be delinquent amount remains unpaid. If a bill remains delinquent for thirty (30) days, or is paid with a check which is dishonored, water service shall be discontinued in accordance with this paragraph. Prior to termination, the customer shall be notified of amount due by letter sent certified mail, return receipt requested. The notice shall state the date upon which water service shall be terminated, which date shall not be less than ten (10) days from the date such notice is sent. Such notice shall state the time and place at which the account may be paid and that any errors in the bill may be corrected by contacting the District's representative, whose telephone number shall also be given in such notice. Provided, however, that in the event the customer contacts the District's representative within such ten (10) day period, the District's representative may, at its opinion, allow the customer to make arrangements to pay the delinquent amount in installments to be approved by the District's Representative.

C. The District reserves the right to institute suit for the collection of any amounts due and unpaid, together with interest thereon at the maximum legal rate and reasonable attorney's fees.

D. The District further reserves the right to charge a customer paying a bill with a check which is dishonored a fee of $25.00.

V. DISCONTINUATION OF SERVICE.

Charge for Reconnection. In the event of any discontinuation of service, whether because of customer's delinquency or upon a customer's request, the District shall charge the following charge per connection prior to reconnecting such customers:

A. Water System

1. When meter removed	$100.00
2. When meter not removed	$ 40.00

B. Wastewater System - 2 times the cost to the District.

VI. TRANSFER OF SERVICE

In the event service at an address is to be transferred from one customer name to another customer name there shall be assessed the following charge:

Transfer Fee: $ 5.00

VII. The Secretary of the Board is hereby directed to file a copy of this Order in the principal office of the District.

PASSED AND APPROVED this _____ day of _____, 1994.

_____
President, Board of Directors

ATTEST: _____
Secretary, Board of Directors

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