

RESPONSE TO REQUEST NO. 15



City of Austin

Founded by Congress, Republic of Texas, 1839
Municipal Building, Eighth at Colorado, P.O. BOX 1088, Austin, Texas 78767 Telephone 512-400-2000

*File with Wells Branch MUD
Water Pressure Problem #1*

May 1, 1996

Ms. Sharlene N. Collins
North Austin Municipal Utility District
600 Congress Avenue #2600
Austin, Texas 76701-3288

Subject: City Water Service to North Austin Municipal Utility District No. 1

Dear Ms. Collins:

A copy of your letter dated April 19, 1996 to City Manager Jesus Garza, concerning a developing water pressure problem in the District has been forwarded to my office for a response.

In regard to the concern that the Martin Hill Reservoir would have its operating level lowered to 980 feet which in turn would lower water pressure to North Austin Municipal Utility District (MUD), that information is not correct. Reservoir and Pumping operations are under the direction of Mr. George Greene, P.E., Water and Wastewater Utility, and he has confirmed that no one from the District's Management Company or the District's Engineering firm had contacted him for information on the operating ranges for Martin Hill Reservoir.

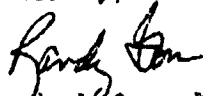
In order to share information with the MUD Engineer on reservoir operations and for the Utility to learn what problems are occurring inside the MUD boundary, a meeting was held April 30, 1996. This meeting resulted in an agreement that both sides needed additional information, which will be obtained by the MUD Engineer on the water pressure problems that are occurring inside the District, when they started, what is the pressure drop, and how does that correspond to Utility Reservoir levels. The Utility will be sharing information with the District Engineer regarding a major engineering study of the Northwest "A" water pressure zone by the firm of Espey Huston and Associates. This study which is just beginning will assist the Utility in determining what are the needs of this water service area and how service levels can be maintained or improved as the area continues to grow. The District Engineer and the Utility staff will continue to work on identifying the specifics of the problem and solutions for both the District and City customers in this area.

The results of this study which will provide the answers to long term water pressure and service issues will be shared with the North Austin MUD and the other districts in this water service zone as the study is completed. We will

Ms. Sharlene N. Collins
May 1, 1996
Page 2

continue to work with your District Engineer in the meantime to ensure that the Utility is meeting the provisions of the Consent Agreement and providing a quality level of water service for North Austin MUD. If you have further questions, please call Mr. Mike Erdmann at 322-2876.

Sincerely,



Randy J. Goss, P.E., Director
Water and Wastewater Utility

RJG:me

xc: Jesus Garza, City Manager
Jim Smith, Assistant City Manager
Mike Erdmann, Wholesale Services Manager
John Tresnicky, Assistant City Attorney
George Greene, P.E., Pumping Division Manager



Murfee Engineering Company

91070155

March 3, 1998

*File
W.B. Booster
Station*

Mr. Tom Ellison
City of Austin
Water and Wastewater Utilities
P. O. Box 1088
Austin, Texas 78767

RE: Wells Branch MUD Inline Booster Pump Station Serving the Willow Run Subdivision
MECI # 91070.155

Dear Tom:

Attached to this letter, please find a blueline print of the construction drawings for the inline booster pump station in Wells Branch MUD. I have also included the report which was submitted to the TNRCC for their review and approval.

Please call Mr. David Malish, P.E. or me at 327-9204 if you have any questions or if you need additional information. Also, we would like to receive a copy of the engineering report on the pressure study for this area, when it is available. We understand that Espey Huston & Associates has studied the issue and prepared a report.

Sincerely,

Robert Ferguson
Robert Ferguson, P.E.

cc Chuck Walters - President Wells Branch MUD
Sue Littlefield - Armbrust Brown & Davis
Don Williams - District Manager Wells Branch MUD
David Malish, P. E. - MECI

Attachments

Robert\wellsbra\inline booster-COA

1101 Capital of Texas Highway South • Building D, Suite 110 • Austin, Texas 78746 • 512/327-9204

P-NA00702

152

RESPONSE TO REQUEST NO. 16

EXTENSION AND RENEWAL AGREEMENT

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

This Extension and Renewal Agreement is being entered into by and between **NORTH AUSTIN MUNICIPAL UTILITY DISTRICT NO. 1** ("District"), a municipal utility district created and operating pursuant to Chapters 49 and 54 of the Texas Water Code, **MILWOOD JOINT VENTURE, II** ("Joint Venture"), a Texas joint venture and **MILBURN INVESTMENTS, INC.** ("MII"), a Texas corporation to set forth the parties' agreement to renew and extend that certain Utility Construction Agreement between North Austin Municipal Utility District No. 1 and Milwood Joint Venture II ("UCA") dated March 8, 1984 and as amended on March 23, 1994.

R E C I T A L S:

WHEREAS, the District and the Joint Venture executed that certain UCA for the financing, construction, ownership, operation and maintenance of water, wastewater and storm drainage facilities; and

WHEREAS, the UCA was amended by the parties on March 23, 1994 to add MII as a party in its individual capacity; and

WHEREAS, the UCA was to terminate by its terms on March 7, 1996; and

WHEREAS, some of the projects set forth in the UCA are not yet constructed and are necessary for the full build-out of the single family sections within the District; and

WHEREAS, the parties extended the UCA for an additional thirty (30) day period to terminate on April 6, 1996; and

WHEREAS, the parties desire to extend and renew the UCA, as amended;

NOW, THEREFORE, in consideration of the mutual promises and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the District, the Joint Venture and MII hereby agree as follows:

1. The UCA, as amended, is hereby extended and renewed for a period of five (5) years and shall terminate on April 5, 2001.

2. Article I, Section 1 shall be amended to read as follows:

Section 1. The Project. The Project shall consist of the water, sanitary sewer and drainage facilities generally described in Exhibit "A", attached hereto and incorporated herein by reference. Provided, however, the parties agree that the Project shall be limited to those facilities described in Exhibit "A" that are located within the real property within the District owned by the Developers as of March 20, 1996 and that approximately 3 to 5 acre tract, both which are generally depicted on Exhibit "B" attached hereto and incorporated herein for all purposes. The parties agree that facilities to serve the 3 to 5 acre tract shall only be a part of the Project if and when such tract is annexed into the boundaries of the District.

3. Article II, Section 1 shall be amended to read as follows:

Section 1. Time and Amount of Reimbursement. Within thirty (30) days of the District's receipt of the proceeds of the sale of Bonds to finance the acquisition or construction of the Project, the District shall reimburse the Developer for those Project costs which have been advanced by the Developer pursuant to Article I, Section 4 hereof and have been approved for reimbursement by the Texas Department of Water Resources, including any amounts advanced by the Developer for the purpose of oversizing any facilities in order to serve areas within the District owned by persons or entities other than the Developer together with interest thereon to be calculated from the respective dates of advancement of such funds to the date of reimbursement or the expiration of two (2) years, whichever is less, at an annual interest rate equal to the net effective interest rate on such Bonds or the borrowing rate of the Developer on the Project, whichever is less. The "costs of the Developer", as used herein, shall include seventy percent (70%) of the construction contract amounts attributable to those portions of the Project for which the Developer is required to make a thirty percent (30%) contribution pursuant to Rule 156.09.30.006 of the Texas Department of Water Resources, except for stormwater drainage which shall be reimbursed at fifty-two and one-half percent (52.5%) and shall include all costs expended by the Developer on other portions of the Project not subject to such Rule.

It is understood and agreed by the parties that the percentage of reimbursements for water, wastewater and stormwater drainage facilities that has been allowed pursuant to the Agreement Concerning Creation and Operation of North Austin Municipal Utility District No. 1 are the percentages that will be reimbursed in the future. Developer agrees not to sell any higher percentage of cost reimbursement than has been allowed to date.

4. Article III, Section 5 is amended in its entirety to read as follows:

Section 5. Use of Improvements. The Developer and the District agree that if the District is unable to purchase the improvements or its pro rata share of capacity resulting from the construction thereof at such time as the construction of the improvements is certified to be complete by the District's Engineers, the District shall be entitled to utilize the Improvements for a period of two (2) years from the date of this Agreement without charge to provide service to users within the District on the same terms and conditions as service is provided to other similar users within the District. In the event the District is unable to sell bonds to purchase the Improvements at the end of such two (2) year period, the District shall have the right to use the Improvements without charge from year to year until the District can meet the conditions set forth in Article II, Section 2 above. In consideration for such use and the right to retain all fees and charges accruing therefrom, the District agrees to perform all routine maintenance on the Improvements at its sole expense. The Developer shall, however, be responsible for the cost of correcting any construction or engineering defects during such period.

5. All references in the UCA to the Texas Department of Water Resources shall be amended to read "Texas Natural Resource Conservation Commission".

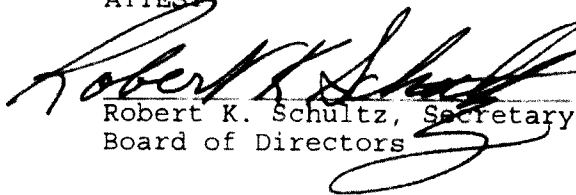
6. It is understood and agreed by the parties that Milwood, Section 36 recorded in Cabinet L, Slide 320-323 of the Subdivision Plats of Williamson County, Texas, and Milwood, Section 37A recorded in Cabinet L, Slide 54 of the Subdivision Plats of Williamson County, Texas shall be constructed, financed and acquired under the terms and conditions set forth in the UCA dated March 8, 1984 and as amended on March 8, 1994. All subdivisions planned subsequent to the above subdivisions shall be constructed, financed and acquired pursuant to this Extension and Renewal Agreement.


7. Except as expressly modified and amended hereby, the terms, conditions and provisions of the UCA are ratified and shall remain in full force and effect for the period set forth in Paragraph 1 above.

EXECUTED this the 17 day of April, 1996.

**NORTH AUSTIN MUNICIPAL
UTILITY DISTRICT NO. 1**

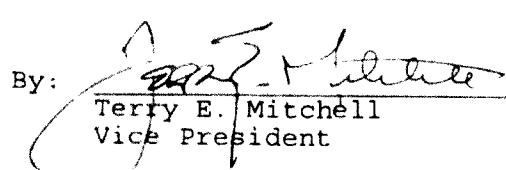
ATTEST


Robert K. Schultz, Secretary
Board of Directors



Steve D. Pena, President
Board of Directors


MILWOOD JOINT VENTURE, II
a Texas joint venture

By: MILBURN INVESTMENTS, INC.,
a Texas corporation, acting
as a joint venturer

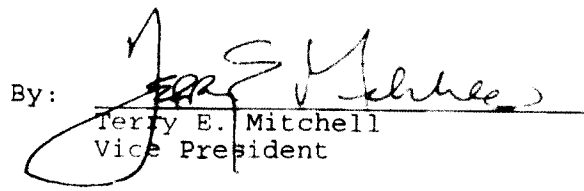
By: 
Terry E. Mitchell
Vice President

By: PALMAR ASSOCIATES, LTD.,
a Texas limited partnership,
acting as a joint venturer

By: 
A. H. Robinson, III
General Partner

By: 
John Oscar Robinson
General Partner

MILBURN INVESTMENTS, INC.,
a Texas corporation

By: 
Terry E. Mitchell
Vice President

STATE OF TEXAS

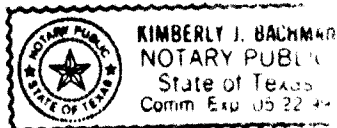
§

§

COUNTY OF Travis

§

This instrument was acknowledged before me on the 17 day of April, 1996, by Steve D. Pena, President of North Austin Municipal Utility District No. 1, on behalf of said District.



Kimberly J. Bachman
Notary Public Signature

STATE OF TEXAS

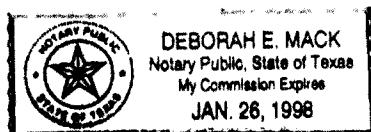
§

§

COUNTY OF Travis

§

This instrument was acknowledged before me on the 25th day of June, 1996, by Terry E. Mitchell, Vice President of Milburn Investments, Inc., a Texas Corporation, joint venture partner of Milwood Joint Venture, II, a Texas joint venture, on behalf of said venture.



Deborah E. Mack
Notary Public Signature

STATE OF TEXAS

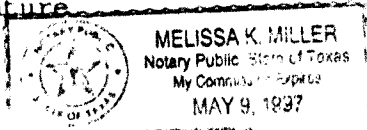
§

§

COUNTY OF Travis

§

This instrument was acknowledged before me on the 19th day of June, 1996, by A. H. Robinson, III, General Partner of Palmar Associates, Ltd., a Texas partnership, joint venture partner of Milwood Joint Venture, II, as Texas joint venture, on behalf of said venture.



Melissa K. Miller
Notary Public Signature

STATE OF TEXAS

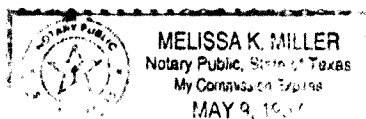
§

§

COUNTY OF Travis

§

This instrument was acknowledged before me on the 19th day of June, 1996, by John Oscar Robinson, General Partner of Palmar Associates, Ltd., a Texas partnership, joint venture partner of Milwood Joint Venture, II, as Texas joint venture, on behalf of said venture.



Melissa K. Miller
Notary Public Signature

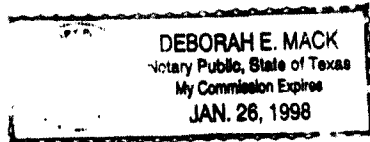
STATE OF TEXAS

COUNTY OF TRAVIS

§
§
§

This instrument was acknowledged before me on the 25th day of June, 1996, by Terry E. Mitchell, Vice President of Milburn Investments, Inc., a Texas corporation, on behalf of said corporation.

Deborah E. Mack
Notary Public Signature



PRELIMINARY ENGINEERING REPORT
on
NORTH AUSTIN MUNICIPAL UTILITY DISTRICT
NUMBER ONE

February, 1983

Prepared by:
CARLSON & DIPPEL, INC.
Consulting Engineers and Planners
2499 Capital of Texas Highway
Suite 204
Austin, Texas 78746
(512) 327-7730

EXHIBIT A

CARLSON & DIPPEL, INC.

CONSULTING ENGINEERS AND PLANNERS

February 14, 1983

Gentlemen:

Submitted herewith is our "Preliminary Engineering Report on the North Austin Municipal Utility District Number One" as per your request.

This report contains pertinent information as required by the Texas Department of Water Resources for the creation of a Municipal Utility District. We express our appreciation to Mr. Ken Schroeder and his staff at the Texas Department of Water Resources and to Mr. Carl Schwing and his staff at the City of Austin Water and Wastewater Department for their prompt assistance and cooperation with our firm. Any additional information that might be necessary will be made available upon request.

We appreciate the opportunity to work with you in preparing this report. If we can be of any further service in the future, please feel free to call.

Sincerely,

CARLSON & DIPPEL, INC.

Keith E. Young
Keith E. Young, P.E.

KEY/dlw

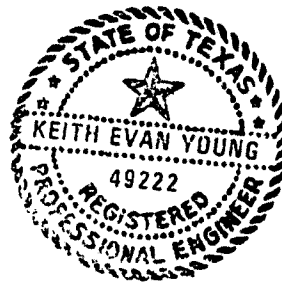


EXHIBIT A

PRELIMINARY ENGINEERING REPORT

<u>INDEX</u>	<u>PAGE</u>
Location	1
History and Land Use	1
Existing Topography	2
Environmental Impact of Development	3
Economic Impact of District	4
Land Use Summary and Population Growth	6
Utility Service Alternatives	7
Proposed Improvements and Cost Estimates	7
Total Bonding Authority	20
Justification for Creation	21 -
<u>APPENDICES</u>	
Property Value Projections	22
Municipal Utility District Debt Amortization Schedule	26
Proposed Bond Issue Schedules	28
Additional Information	32
Field Notes	33
CARLSON, DIPPEL & MARX SURVEYING COMPANY	
<u>EXHIBITS</u>	
A Master Plan	
B Orientation Map	
C Proposed Off-Site Utilities	
D Out-Boundary and Survey	

EXHIBIT A

LOCATION

The proposed North Austin Municipal Utility District Number One consists of 997.7 acres located north of Austin, Texas in Williamson County, and Travis County, approximately 1.3 miles east of U.S. Highway 183. The District is bordered by County Highway 620 on the north and abuts McNeil Road on the south. The North Austin Municipal District Number One is located 11.4 miles north of downtown Austin, 7.3 miles east of Lake Travis, and 4.6 miles west of I.H. 35. Primary east-west access is provided by County Highways 620 and 171 (McNeil Road); primary north-south access is provided by I.H. 35 and U.S. Highway 183.

HISTORY AND LAND USE

The area has traditionally been used for ranching and farming; however, Austin's growth patterns place the proposed District in the path of future residential and industrial development. Texas Instruments has a plant located just south of the District; also, the land along the Pacific Railroad corridor, $\frac{1}{2}$ mile southeast of the District, is considered prime land for a major industrial expansion or relocation. Additionally, IBM and Abbott Laboratories, Inc. are both located within 3.5 miles of the District.

The existence of these employment centers, along with the general appeal of the area, has spurred residential growth. Springwoods M.U.D., Indian Oaks, Forest North Estates, Village Oaks, several existing Milwood sections and Jolly Oaks are all successful subdivisions located in the immediate vicinity of the proposed District.

EXISTING TOPOGRAPHY

The site is flat to gently rolling with slopes of generally less than 5%. Elevations range from approximately 920 to 845 feet above mean sea level. The site is mostly comprised of oak savannah and small patches of cultivated fields.

According to the publication Environmental Geology of the Austin Area: An Aid to Urban Planning by the University of Texas Bureau of Economic Geology, the site is located within the Edwards and Jollyville Plateaus. The surficial soils are underlain by dolomite and dolomitic limestone which is exposed in some areas but it is mostly covered by a layer of dark brown to reddish-brown calcareous clays, clay loams and stony clays, less than 20 inches deep. As a result, the entire area has a very low shrink-swell ratio, a high degree of foundation strength, and a high level of slope stability. These conditions do not pose any limits to development suitability.

The majority of the District falls within the Lake Creek and Rattan Creek Drainage Basins. Both these creeks flow to the Brazos River. The 100 year floodplains for each of these creeks, along with a small floodplain located in a northwest corner of the District, will be contained within dedicated drainage and public utility easements. The largest of these easements, a 40 acre tract along Lake Creek, will be used as an open space visual and recreational amenity. Approximately 90 acres within the District flows into the Walnut Creek drainage basin and eventually into the Colorado River.

EXHIBIT A

ENVIRONMENTAL IMPACT OF DEVELOPMENT

Because the site consists of flat to gently rolling terrain, the amount of cut and fill required for streets and building foundations will be minimal. Additional excavation for utilities will not be required, since utilities will be placed in the street right-of-way. The savannah-like clusters of trees present on the site are viewed as positive aesthetic features which greatly enhance the rural, pastoral atmosphere of the area; therefore, the natural tree cover will be preserved to the greatest extent possible.

The District should have no impact on stormwater runoff rates. The City of Austin requires all subdivisions to provide whatever drainage facilities are necessary to insure that the 100 year flood plain is not adversely affected either up or downstream. The 100 year flood elevations will be determined through the use of the Army Corp. of Engineers HEC II Hydraulics Program using developed conditions to compute water surface profiles. All drainage structures will be designed in accordance with the City of Austin Drainage Criteria Manual and will accommodate the 25 year storm flow. All 100 year storms will be contained in easements, and all foundations will be constructed at least one foot above the 100 year flood plain.

The District will use city of Austin water which is drawn from Lake Austin on the Colorado River. This lake is the last in a chain of six on the Colorado River. The effects of the District on the water level of the Lake will be negligible.

The site is over the recharge zone for the northern portion of the Edwards hydrological formation. Water which enters the system in this area flows towards the East and North, due to the location of a groundwater divide just south of the District. This groundwater divide in effect creates two separate groundwater basins; an Austin area basin and a southern Williamson County basin. The depth to groundwater in the southern Williamson county area basin is quite shallow, with nearby well depth levels averaging 35-45 feet below ground level. Although very little hard data exists in this region of the recharge zone, it is suspected that the majority of the groundwater recharge in the area occurs in the immediate vicinity of surficial waters. The fact that the depth to the water table is significantly shallower below surficial waters supports this conclusion. Based on this information, it is felt that the additional impervious surfaces which will result from the creation of the District will have no major effect on the efficiency or operation of the Edwards Formation's recharge zone.

ECONOMIC IMPACT OF DISTRICT

The creation of the North Austin M.U.D. No. One will have an impact on the taxes within the District. A combined I.N.S. and O. & M. property tax rate of \$0.95/\$100 will be assessed on 100% of the appraised value of all property within the District. This tax rate compares to the City of Austin's tax rate of \$.62/\$100 on 100% of the appraised value (1982 figure).

In addition to the tax rate, an \$18.20 per month surcharge will be billed to each living unit or living unit equivalent connected to the utility system in compliance with the City of Austin's ordinance regulating Municipal Utility Districts in their E.T.J. This surcharge

EXHIBIT A

will be paid to retire the debt on the District's share of the water and wastewater internal lines and drainage. In effect, the District's surcharge and tax rate equate to a \$1.45/\$100 tax rate.

Property in the District will also pay property taxes to the following entities (1982 figures):

State of Texas	Currently, none (subject to change)
Williamson County	\$0.61/\$100 on 100% of value
Travis County	\$0.3795/\$100 on 100% of value
Round Rock I.S.D.	\$0.90/\$100 on 100% of value

The District will purchase water service from the City of Austin at the outside the city rates. Initially, the District will charge its customers a rate equivalent to Austin's out-of-city rate structure. Because the District purchases its water at the bulk rate and sells to its customers at an individual rate, the costs of operation and maintenance of the utility can be absorbed. The City of Austin's out-of-city monthly rates for water and wastewater applicable to a district are:

Water

First 2,000 Gal.	\$111.21/Month (For 8" meter & larger)
Over 2,000 Gal.	\$1.34/1,000 Gal.

Wastewater

First 2,000 Gal.	\$5.57/Month
Over 2,000 Gal.	\$1.56/1,000 Gal.

EXHIBIT A

LAND USE SUMMARY AND POPULATION GROWTH

The following land usages are planned:

<u>Land Use</u>	<u>Acreage</u>	<u>Dwelling Units</u>
1. Retail	57	
2. Industrial	95	
3. Multi-Family	95 @ 10u/Ac	950
4. Multi-Family	58 @ 30.5u/Ac	1,796
5. Single Family	574.4 @ 7u/Ac	4,018
6. School	11	
7. Parks	64	
8. Fire Station	3	
9. Right-of-Way	40.3	
	<hr/>	<hr/>
	997.7 Acres	6,737 Units

The following population growth is predicted:

	<u>Net Population Growth</u>	<u>Total Population for District</u>
83*	420	420
84	912	1,332
85	1,066	2,398
86	1,209	3,607
87	1,492	5,099
88	1,933	7,032
89	1,860	8,892
90	2,791	11,683
91	2,539	14,222
92	1,680	15,902
93	1,680	17,582
94	343	17,925

*First occupancies will occur September of 1983.

UTILITY SERVICE ALTERNATIVES
PROPOSED WATER IMPROVEMENTS AND COST ESTIMATE

The proposed North Austin Municipal Utility District No. One contains 997.7 Acres of land which is within Williamson and Travis Counties. This tract of land can ultimately be served by the Austin Municipal Water System through the Northwest A or 1015 elevation pressure zone system

WATER REQUIREMENTS

Flows Required:

Equivalent LUE's	= 8,333	(997.7 Acres including
Peak Hour	= 8,333 x 2.2 GPM = 18,333 GPM	Retail, School and
Maximum Day	= 8,333 x 1.3 GPM = 10,833 GPM	Industrial)
Average Day	= 8,333 x 0.5 GPM = 4,167 GPM	

The difference between Maximum Day Flow and Peak Hour Flow is 7500 GPM. This flow over a 6 hour period would equal a total storage requirement of 2,700,000 gallons. Following the City of Austin Water System Study dated December 4, 1981, equalizing storage required is based on a six hour period during which the storage must supply the difference between the peak demand and the maximum day demand. This storage requirement is approximately equal to 325 gallons per LUE. Emergency and fire storage is approximately equal to 280 gallons per LUE.

Equalizing Storage Requirements

325 gal./LUE x 8,333 LUE's = 2,708,825 gallons

280 gal./LUE x 8,333 LUE's = 2,333,240 gallons

Total Storage Required = 5,041,465 gallons

However, emergency and fire storage will be supplied with existing and proposed reservoirs within the City of Austin system. Therefore, total additional storage required for Northwest "A" will be 2,700,000 gallons of effective storage. The construction of an elevated storage facility for the Northwest "A" pressure system would provide peak hour flow during maximum day conditions and provide additional storage for the overall system. Refill of the reservoir for equalization storage requires approximately 5,640 GPM over an eight hour period. Since the district will use the Jollyville system as a primary feed, system improvements at Spicewood Springs Pump Station which feed Jollyville and a transmission main from the Spicewood Springs Pump Station are proposed.

In order to maximize the effectiveness of these improvements the District and the City of Austin will oversize the improvements and will share the cost of the discharge piping at Spicewood Springs Pump Station and 48-inch transmission main from Spicewood Springs Pump Station to the 48-inch main in U.S. Highway 183. In addition to these improvements, the District proposes to oversize a proposed 36-inch transmission main approved in the last City bond election to provide the district a secondary feed. This line is needed to finish an alternate source of water for the district in the event that a major transmission main is damaged or out of service for an extended period of time. Again, to maximize the effectiveness of the project, the line will be sized to supply service to the City and the District.

The construction cost estimates and cost sharing are provided in the following tables:

EXHIBIT A

Approach Mains and Internal Network

Presently, water service is not available at the boundary of the District. The Transmission Lines needed to bring water to the land within the district and provide the necessary looping consist of a 36 inch transmission line from the Jollyville Reservoir to the intersection of McNeil Road and Parmer Lane, a 24 inch Transmission Line from and existing 24 inch line south east of the district to the McNeil-Parmer Lane line, and a 36 inch transmission line Northwesterly along Parmer Lane to the proposed reservoir and a 24 inch main from the reservoir to FM 620.

The construction cost of the facilities is estimated to be:

1.) 36 inch Jollyville Transmission Line	\$1,165,600.00	-
2.) 24 inch Parmer Lane Transmission Line	490,650.00	
3.) 36 inch McNeil to Reservoir Transmission Line	250,000.00	
4.) 24 inch reservoir to FM 620 Transmission Line	862,500.00	

The interior water system network will consist of 4 through 16 inch water mains, service, fire hydrants, and all other necessary appurtenances. The system will be designed to meet City of Austin and State Health Department standards and specifications. The internal system is estimated at \$3,290,697.00

Proposed Wastewater System

Wastewater service for North Austin Municipal Utility District Number One can be achieved on a temporary and permanent basis to the City of Austin wastewater system. The temporary facility would be constructed immediately to allow District development. The permanent system would provide ultimate service to the entire District and the areas generally defined as Anderson Mill (Williamson County M.U.D. Number One) and Forest North Subdivisions. These subdivisions are in the 2 mile E.T.J. of Austin in Williamson County.

The temporary wastewater system would consist of two lift stations and a force main system to transport the wastewater from the proposed district to the City of Austin 24 inch gravity wastewater interceptor known as Bull Creek Lateral "A". One lift station would be located in the Walnut Creek basin to provide service for the 89.4 acres within Walnut Creek basin at McNeil Road. The other station would be located to serve the Rattan Creek portion of North Austin M.U.D. No. One.

The permanent wastewater system would require an additional lift station in the Lake Creek Basin and renovation of the Rattan Creek Lift Station. Also, an additional force main will be installed from the M.U.D. to the existing City of Austin 60 inch Bull Creek Interceptor. The permanent facility and gravity system to Anderson Mill (Williamson County M.U.D. Number One) will provide a method for relieving the existing treatment plant which discharges into Lake Creek.

The interior wastewater system will consist of 6 inch through 12 inch mains, manholes, and all other necessary appurtenances required to meet City of Austin and State Health Department standards and specifications.

EXHIBIT A

NORTH AUSTIN MUD NO. ONE

Wastewater Improvements

<u>Land Use</u>	<u>Acreage</u>	<u>Units</u>
1. Retail	57	
2. Industrial	95	
3. Multi-Family	95 @ 10u/Ac	950
4. Multi-Family	58 @ 30.5u/Ac	1,769
5. Single Family	574.4 @ 7u/Ac	4,018
6. School	11	
7. Parks	64	
8. Fire Station	3	
9. Right-of-Way	40.3	

WASTEWATER USE

L.U.E. Calculation

<u>Land Use</u>	<u>Acreage</u>	<u>L.U.E.'s</u>
1. Retail	57 @ 10.5u/Ac	598.5
2. Industrial	95 @ 10.5u/Ac	997.5
3. Multi-Family	95 @ 10u/Ac	950
4. Multi-Family	58 @ 30.5u/Ac	1769
5. Single-Family	574.4 @ 7u/Ac	4018
6. School	11	
7. Park	64	
8. Fire Station	3	
9. Right-of-Way	40.3	
	<u>997.7 Acres</u>	<u>8,333 LUE's</u>

EXHIBIT A

NORTH AUSTIN MUNICIPAL UTILITY DISTRICT
NUMBER ONE

PERMANENT PUMP OVER ALTERNATIVE
(Revised)

1. Cost of a Lift Station at Rattan Creek and System to Bull Creek Interceptor.

M.U.D. NO. 2 & ANDERSON MILL

Lift Station	\$ 900,000.00
32,800 LF of FM	3,217,050.00
Bore Across McNeill Rd.	\$ 39,000.00
Asphalt Repair	121,700.00
Gravity Main to Bull Creek	<u>948,000.00</u>
TOTAL.....	\$ 5,225,750.00

Total Demand for North Austin M.U.D. #1 is estimated at 5,030 GPM or 33% of total flow of approximately 15,300 GPM.
M.U.D. #1 share of total lift Station and force main would be \$1,716,000 or 33% of \$5,225,750.00.

2. Cost of oversize through M.U.D. Number 1 to serve Anderson Mill.

Gravity Main Oversize to L.S.	\$334,250.00
Lake Creek Lift Station Oversize	175,000.00
FM & Gravity Main Oversize to Rattan Creek	<u>180,000.00</u>
TOTAL.....	\$689,250.00

3. Cost of a Gravity System from M.U.D. Number one to Anderson Mill.

11,000 LF of Gravity Main	\$546,000.00
Bore under 183 @ 620	<u>39,000.00</u>
TOTAL.....	\$585,000.00

TOTAL OF ITEMS 1, 2, & 3 Construction Only.....\$6,500,000.00

TOTAL NORTH AUSTIN M.U.D. #1 SHARE OR 26.4% OF TOTAL COST \$1,716,000.00

NORTH AUSTIN M.U.D. # 1
Bull Creek Pumpover (Wastewater)
Contract Bond Calculation

1. Cost of a lift station at Rattan Creek and System to Bull Creek Interceptor.		
Lift Station	\$	900,000.00
32,500 LF of FM		3,217,050.00
Bore across McNeil Road		39,000.00
Asphalt Repair		121,000.00
Gravity Main to Bull Creek		<u>948,000.00</u>
TOTAL.....	\$5,225,750.00	
2. District Share and City Share.		
Total Demand	15,300.00 GPM =	100%
Less M.U.D. #1 Demand	-5,030.00 GPM =	32%
City Demand	<u>10,270.00 GPM =</u>	<u>68%</u>
District Share:	33% x \$5,225,750.00 =	1,716,000.00
City Share:	67% x 5,225,750.00 =	3,509,750.00
3. Cost of oversize through M.U.D. #1 and serve Anderson Mill.		
Gravity Main Oversize to Lift Station		\$324,250.00
Lake Creek Lift Station oversize		175,000.00
FM and Gravity Main		<u>180,000.00</u>
TOTAL.....	689,250.00	
4. Cost of a Gravity System from Anderson Mill to M.U.D. #1		
11,000 LF of Gravity Main		\$546,000.00
Bore under 183 at FM 620		<u>39,000.00</u>
TOTAL.....	\$585,000.00	
TOTAL OF ITEMS 1, 2, 3 and 4		<u>\$6,500,000.00</u>
10% Contingency	\$	650,000.00
10% Engineering		<u>650,000.00</u>
TOTAL COST.....	\$7,800,000.00	

Construction Costs

	<u>District Share</u>	<u>City Share</u>
Permanent Interceptor	\$2,059,200.00	\$5,740,800.00
TOTAL BOND ISSUE (Including Soft Costs, See Page 31 for more information)		\$12,200,000.00
District Share		\$ 3,220,800.00
City Share		\$ 8,979,200.00

Estimated Costs

Recent experience of sealed bid openings for wastewater facilities construction in the immediate area indicates the interior wastewater system will cost approximately \$4,500 per acre.

<u>Improvements</u>	<u>Estimated Cost</u>	<u>District Share</u>
Wastewater System	\$4,461,300	\$3,122,910.00
Temporary Lift Station & Force Main	\$ 924,000	\$ 766,920
Permanent Wastewater System	\$6,500,000	\$1,716,000

Proposed Drainage Facility Improvements

The drainage improvements in North Austin Municipal Utility District No. 1 will consist of 18 inch through 48 inch storm sewer pipe, concrete inlets, and road crossing structures designed according to City of Austin Standards and Specifications. These storm sewer pipes will be directed to discharge into the existing Lake Creek, Rattan Creek and Walnut Creek channels. The overall drainage network will be designed to carry the projected 25 year storm and all house slabs within the District will be a minimum of one foot above the projected 100 year storm flow. The 100 year storm will be contained within dedicated drainage easements.

Estimated Costs For Proposed Drainage Improvements

Again, recent construction bidding on similar drainage projects in the area indicates that these interior drainage improvements will cost approximately \$2,000.00 per acre at today's prices. Projected over the entire project, the total estimated cost for drainage improvements is \$1,982,800.

NORTH AUSTIN MUNICIPAL UTILITY DISTRICT
NUMBER ONE

<u>Year</u>	<u>Single Family Acres</u>	<u>Duplex Acres</u>	<u>Multi Family Acres</u>	<u>Retail Acres</u>
83	48.2			
84	69.9			
85	42.9			
86	45.3	8.0		11
87	46.7	5.4	1.5	17
88	71.3	14.2	2.5	20
89	92.7	22.4	5.9	
90	92.3	16.6	12.0	
91	65.1	18.0	15.3	9
92	0.0	10.4	20.8	

<u>Year</u>	<u>Total Acres Developed</u>
83	48.2
84	69.9
85	42.9
86	64.3
87	70.6
88	108.0
89	121.0
90	120.9
91	107.4
92	31.2

NORTH AUSTIN MUNICIPAL UTILITY DISTRICT
NUMBER ONE

On-Site Construction

Water @ \$3,000/Ac.
Wastewater @ \$4,500/Ac.
Drainage @ \$2,000/Ac.

<u>Year</u>	<u>Acres</u>	<u>Water</u>	<u>Wastewater</u>	<u>Drainage</u>	<u>Total</u>
83	48.2	\$141,600	\$216,900	\$ 96,400	\$ 454,900
84	69.9	209,700	314,550	139,800	664,050
85	42.9	128,700	193,050	85,800	407,550
86	64.3	192,900	289,350	128,600	610,850
87	70.6	211,800	317,700	141,200	670,700
88	110.0	330,000	495,000	220,000	1,045,000 -
89	123.0	369,000	553,500	246,000	1,168,500
90	122.9	368,700	553,050	245,800	1,167,550
91	109.4	328,200	492,300	218,800	1,039,300
92	23.2	69,600	104,400	46,400	220,400

Surcharge Calculations

1983

Water	\$ 101,220
Wastewater	151,830
Drainage	50,610
Engineering	30,360
Contingency	<u>30,360</u>
	\$ 364,392

1984

Water	\$ 146,790
Wastewater	220,185
Drainage	73,395
Engineering	44,037
Contingency	<u>44,037</u>
	\$ 528,444

1985

Water	\$ 90,090
Wastewater	135,135
Drainage	45,045
Engineering	27,027
Contingency	<u>27,027</u>
	\$ 324,324

1986

Water	\$ 135,030
Wastewater	202,545
Drainage	67,515
Engineering	40,509
Contingency	<u>40,509</u>
	\$ 486,108

*1987

Water	\$ 201,634
Wastewater	302,450
Drainage	100,817
Engineering	60,490
Contingency	<u>60,490</u>
	\$ 725,881

1988

Water	\$ 335,664
Wastewater	503,496
Drainage	167,832
Engineering	100,699
Contingency	<u>100,699</u>
	\$1,208,390

Surcharge Calculations
Page Two

1989
Water \$ 387,804
Wastewater 581,706
Drainage 258,536
Engineering 122,805
Contingency 122,805
\$1,473,656

1990
Water \$ 416,345
Wastewater 624,517
Drainage 277,563
Engineering 131,843
Contingency 131,843
\$1,582,111

1991
Water \$ 395,794
Wastewater 593,691
Drainage 263,862
Engineering 125,335
Contingency 125,335
\$1,504,017

1992
Water \$ 93,107
Wastewater 139,661
Drainage 62,071
Engineering 29,484
Contingency 29,484
\$ 353,807

$\$8,551,130 : .58 = 14,743,328 \times .0102861$

$= 151,651 : 8,333$

Surcharge = \$18.20

*Beginning in 1987, prices were inflated at the rate of 1% per month.

Note: For purposes of calculating the surcharge and the District bonding authority, it was assumed that the District would be placed in the City of Austin Growth Corridor Area III, and the District's share percentages for Area III will apply.

NORTH AUSTIN M.U.D. NO. ONE

TOTAL BONDING AUTHORITY

CONSTRUCTION COSTS

<u>A. Developer Contribution</u>	<u>Amount</u>	<u>District</u>	<u>% of C.C.</u>
1. Wastewater	\$ 4,936,023.00	\$ 3,455,216.00	13%
2. Water	3,290,697.00	2,303,488.00	8%
3. Drainage	2,604,278.00	1,367,246.00	4%
4. Contingency	1,083,100.00	712,590.00	
5. Engineering	1,083,100.00	712,590.00	
	<u>\$12,997,198.00</u>	<u>\$ 8,551,130.00</u>	

B. District Items

1. Temporary Wastewater to Lateral A	\$ 766,920.00	
2. 36" Jollyville Water Transmission Main	1,165,600.00	
3. 24" Parmer Lane to Existing 24 inch Main	490,650.00	
4. 36" Parmer Lane to Reservoir	250,000.00	
5. 24" Reservoir to FM 620	862,500.00	
6. Contingency	353,567.00	
7. Engineering	353,567.00	
	<u>\$ 4,242,804.00</u>	

Total M.U.D. Construction

\$12,793,934.00

NON CONSTRUCTION COST

Legal (3%)	\$ 678,750.00
Fiscal (2%)	452,500.00
Bond Discount (2%)	452,500.00
Capitalized Interest	5,430,000.00
Developer Interest	2,559,228.00
Organizational Expense	100,000.00
Cost of Issuance	158,088.00
	<u>158,088.00</u>

Total Non Construction Cost

\$ 9,831,066.00

Total Bonding Authority

\$22,625,000.00

JUSTIFICATION FOR CREATION

The North Austin Municipal Utility District Number One is viable from an engineering and economic viewpoint. The topography does not limit development, utilities are available, and the projected construction costs are not prohibitive.

Based on housing market projections for the District and the general growth and economic development of the area, it is the opinion of the engineer for the project that the District should be created, thereby providing water and wastewater service to this expanding area.

February 25, 1983

MO. #1

NORTH AUSTIN MUNICIPAL UTILITY DISTRICT NO. 1

	1-1-84	1-1-85	1-1-86	1-1-87	1-1-88	1-1-89	1-1-90	1-1-91	1-1-92	1-1-93
Section 1										
210 Tot/30 ac.	210 2,520	210 12,600	210 12,600	210 12,600	210 12,600	210 12,600	210 12,600	210 12,600	210 12,600	210 12,600
Avg. lot value \$12,000										
Avg. home value \$60,000										
Avg. ac. value \$3,000										
Section 2										
210 Tot/30 ac.	82 984	128 1,536	210 12,600	210 12,600	210 12,600	210 12,600	210 12,600	210 12,600	210 12,600	210 12,600
Avg. lot value \$12,000		82 4,920								
Avg. home value \$60,000										
Avg. ac. value \$3,000	0 384									
Section 3										
210 Tot/30 ac.		172 2,064	38 456	210 12,600	210 12,600	210 12,600	210 12,600	210 12,600	210 12,600	210 12,600
Avg. lot value \$12,000			172 10,320							
Avg. home value \$60,000										
Avg. ac. value \$3,000	0 90	0 17								
Section 4										
210 Tot/30 ac.			210 2,520	210 12,600	210 12,600	210 12,600	210 12,600	210 12,600	210 12,600	210 12,600
Avg. lot value \$12,000										
Avg. home value \$60,000										
Avg. ac. value \$3,000	0 90	0 90								
Section 5										
210 Tot/30 ac.			69 828	141 1,692	210 12,600	210 12,600	210 12,600	210 12,600	210 12,600	210 12,600
Avg. lot value \$12,000				69 4,140						
Avg. home value \$60,000										
Avg. ac. value \$3,000	0 90	0 90	0 60							
Section 6										
210 Tot/30 ac.			186 2,232	14 168	210 12,600	210 12,600	210 12,600	210 12,600	210 12,600	210 12,600
Avg. lot value \$12,000				186 11,160						
Avg. home value \$60,000										
Avg. ac. value \$3,000	0 90	0 90	0 90	0 12						

EXHIBIT A

	1-1-84	1-1-85	1-1-86	1-1-87	1-1-88	1-1-89	1-1-90	1-1-91	1-1-92	1-1-93
Section 7 210 lots/30 ac. Avg. lot value \$12,000 Avg. home value \$60,000 Avg. ac. value \$3,000	0	90	0	90	0	90	0	90	0	90
				210 2,520	14 166	210 12,600	210 12,600	210 12,600	210 12,600	210 12,600
Section 8 210 lots/30 ac. Avg. lot value \$12,000 Avg. home value \$60,000 Avg. ac. value \$3,000	0	90	0	90	0	90	210 2,520	210 12,600	210 12,600	210 12,600
Section 9 210 lots/30 ac. Avg. lot value \$12,000 Avg. home value \$60,000 Avg. ac. value \$3,000	0	90	0	90	0	90	55 660	155 1,860	210 12,600	210 12,600
							55 3,300	55 3,300	210 12,600	210 12,600
Section 10 210 lots/30 ac. Avg. lot value \$12,000 Avg. home value \$60,000 Avg. ac. value \$3,000	0	90	0	90	0	90	0	66	210 2,520	210 12,600
									210 12,600	210 12,600
Section 11 210 lots/30 ac. Avg. lot value \$12,000 Avg. home value \$60,000 Avg. ac. value \$3,000	0	90	0	90	0	90	0	90	210 2,520	210 12,600
									210 12,600	210 12,600
Section 12 210 lots/30 ac. Avg. lot value \$12,000 Avg. home value \$60,000 Avg. ac. value \$3,000	0	90	0	90	0	90	0	90	74 888	136 1,632
									74 4,440	210 12,600
									210 12,600	210 12,600
									210 12,600	210 12,600
									210 12,600	210 12,600

	1-1-84	1-1-85	1-1-86	1-1-87	1-1-88	1-1-89	1-1-90	1-1-91	1-1-92	1-1-93
Section 13 210 lots/30 ac. Avg. lot value \$12,000 Avg. home value \$60,000 Avg. ac. value \$3,000	0	0	0	0	0	0	210 2,520	210 12,600	210 12,600	210 12,600
Section 14 210 lots/30 ac. Avg. lot value \$12,000 Avg. home value \$60,000 Avg. ac. value \$3,000	0	0	0	0	0	0	210 2,520	210 12,600	210 12,600	210 12,600
Section 15 210 lots/30 ac. Avg. lot value \$12,000 Avg. home value \$60,000 Avg. ac. value \$3,000	0	0	0	0	0	0	132 1,584 0 33	78 936 132 7,920	210 12,600	210 12,600
Section 16 210 lots/30 ac. Avg. lot value \$12,000 Avg. home value \$60,000 Avg. ac. value \$3,000	0	0	0	0	0	0	0 90	210 2,520	210 12,600	210 12,600
Section 17 231 lots/33 ac. Avg. lot value \$12,000 Avg. home value \$60,000 Avg. ac. value \$3,000	0	0	0	0	0	0	0 99	231 2,772	231 13,860	231 13,860
Section 18 532 lots/6.4 ac. Avg. lot value \$12,000 Avg. home value \$60,000 Avg. ac. value \$3,000	50 3,000	100 6,000	250 15,000	400 24,000	532 31,920	532 31,920	532 31,920	532 31,920	532 31,920	532 31,920

EXHIBIT A

MUD #1 (Page 4)	1-1-84	1-1-85	1-1-86	1-1-87	1-1-88	1-1-89	1-1-90	1-1-91	1-1-92	1-1-93
MULTIFAMILY/DUPLEX 475 lots/950 units/95 ac. Avg. lot value \$15,000 Avg. unit value \$42,000 Avg. ac. value \$3,000		40 600	27 405	71 1,065	112 1,680	83 1,245	90 1,350	52 780	950 39,900	950 39,900
MULTIFAMILY/APT. TOWNHOME/CONDO 20 units/acre 1760 units/44 ac. Avg. unit value \$40,000 Avg. ac. value \$3,000	285	273	265	243	210	188	161	846 35,532		
RETAIL 78 acres/\$3,000 32 ft./developed	0 132	0 132	0 132	46 1,840	96 3,840	292 11,680	544 21,760	1054 42,160	1640 65,560	1760 70,400
INDUSTRIAL 120 acres/\$3,000	144	144	144	0 93	0 33	0 33	48 4,181	48 4,181	48 4,181	48 4,181
FIRE STATION & TREATMENT FACILITY 2 acres	0	0	0	17 1,481	37 3,223	37 3,223	360	360	360	360
PARKS & SCHOOLS 75 acres	0	0	0	360	360	360	0	0	0	0
UTILITIES @ \$500	50 25	392 196	922 461	1489 745	2326 1,163	3059 1,530	4126 2,063	5504 2,752	6713 3,357	6833 3,417
	\$9,193	\$30,111	\$60,600	\$97,492	\$143,762	\$183,665	\$241,321	\$308,248	\$360,738	\$365,638

EXHIBIT A

NORTH AUSTIN MUNICIPAL UTILITY DISTRICT NO. 1
District Bonds

Fiscal Year	Assessed Value (000s)	165 Tax Rate	Tax Collection at 90%	Capitalized Interest (1)	Surcharge Revenues (Surplus)	Total Revenue	Series 1985 (\$4,900,000/12)	Series 1987 (\$4,800,000/12)	Series 1988 (\$3,150,000/12)	Series 1989 (\$5,325,000/12)	Series 1991 (\$450,000/12)	Total Debt Service	Net Revenues After Debt Service	Accumulated Net Revenues
1986	\$30,111	\$5.55	\$149,049	\$1,176,000	\$	\$1,125,049	\$588,000	\$	\$	\$	\$	\$588,000	\$737,049	\$737,049
1987	60,400	.55	299,970	1,152,000	0	299,970	588,000	0	0	0	0	588,000	<280,010>	449,019
1988	97,492	.55	482,585	756,000	0	1,634,585	588,000	576,000	0	0	0	1,164,000	470,585	919,604
1989	141,762	.55	711,622	1,278,000	0	1,467,622	588,000	576,000	0	0	0	1,542,000	<74,778>	865,226
1990	181,655	.75	1,239,739	1,068,000	0	2,517,739	711,000	576,000	378,000	639,000	0	2,306,000	211,739	1,056,965
1991	241,321	.93	2,019,857	1,068,000	0	3,648,036	723,000	576,000	378,000	639,000	0	2,316,000	<296,143>	760,822
1992	308,248	.93	2,580,036	1,068,000	0	3,648,036	730,000	576,000	378,000	639,000	0	2,316,000	666,036	1,426,858
1993	368,738	.92	2,986,911	1,068,000	286,413	3,273,324	709,000	701,000	451,000	639,000	534,000	2,982,000	1,955,784	1,955,784
1994	365,638	.92	3,027,483	1,068,000	309,290	3,336,773	711,000	693,000	451,000	639,000	534,000	3,198,000	227,324	1,792,955
1995	365,638	.92	3,027,483	1,068,000	302,057	3,329,540	714,000	700,000	451,000	639,000	534,000	3,176,000	138,773	1,946,485
1996	365,638	.92	3,027,483	1,068,000	304,806	3,332,289	712,000	704,000	470,000	639,000	534,000	3,323,000	9,789	1,968,912
1997	365,638	.92	3,027,483	1,068,000	303,645	3,331,128	722,000	705,000	465,000	639,000	534,000	3,326,000	13,128	1,976,260
1998	365,638	.92	3,027,483	1,068,000	305,865	3,333,348	721,000	703,000	465,000	639,000	534,000	3,319,000	9,926	1,971,211
1999	365,638	.92	3,027,483	1,068,000	301,443	3,328,926	712,000	715,000	451,000	639,000	534,000	3,319,000	32,868	2,014,005
2000	365,638	.92	3,027,483	1,068,000	308,513	3,336,888	714,000	701,000	455,000	639,000	534,000	3,296,000	40,116	2,053,121
2001	365,638	.92	3,027,483	1,068,000	308,513	3,336,888	710,000	709,000	454,000	639,000	534,000	3,342,000	<14,278>	2,039,843
2002	365,638	.92	3,027,483	1,068,000	305,209	3,332,692	711,000	707,000	454,000	639,000	534,000	3,383,000	<50,308>	1,989,535
2003	365,638	.69	2,270,612	1,068,000	301,845	2,572,457	756,000	697,000	463,000	789,000	657,000	2,591,000	<10,738>	1,978,797
2004	365,638	.69	2,270,612	1,068,000	296,201	2,572,457	756,000	697,000	463,000	789,000	657,000	2,591,000	<89,543>	1,889,254
2005	365,638	.17	559,426	1,068,000	681,416	681,416	0	0	0	784,000	654,000	1,445,000	<12,751>	1,876,503
2006	365,638	0	0	1,492,327	641,249	641,249	0	0	0	784,000	654,000	1,445,000	896,873	20,546
2007	365,638	0	0	1,492,327	641,249	641,249	0	0	0	784,000	654,000	1,445,000	896,873	20,546
2008	365,638	0	0	1,492,327	641,249	641,249	0	0	0	784,000	654,000	1,445,000	896,873	20,546
2009	365,638	0	0	1,492,327	641,249	641,249	0	0	0	784,000	654,000	1,445,000	896,873	20,546
2010	365,638	0	0	1,492,327	641,249	641,249	0	0	0	784,000	654,000	1,445,000	896,873	20,546

1) The District will capitalize two years interest on each issue of bonds.
2) The interest rate for the District Bonds has been estimated at a rate of 12% for illustrative purposes.

EXHIBIT A

NORTH ALSTIN MUNICIPAL UTILITY DISTRICT NO. 1
Contract Bonds

Fiscal Year	Assessed Valuation (000s)	Tax Rate	Tax Collection at 90%	Capitalized Interest	Surcharge Revenue (18.20)	City's Share	Total Revenue	Series 1984	Series 1987	Total Debt Service	Net Revenue After Debt Service	Accumulated Net Revenue
1985	\$ 9,193	\$.40	\$ 33,095	\$2,562,000(1)	\$ 10,920	\$ 0	\$2,606,015	\$1,281,000	\$ 0	\$1,281,000	\$1,325,015	\$1,325,015
1986	30,111	.40	108,400	155,400(2)	85,613	0	349,413	1,281,000	0	1,281,000	<911,587>	391,428
1987	60,600	.40	218,160	155,400	362,954	632,016	1,268,530	1,281,000	0	1,281,000	<12,470>	380,958
1988	97,492	.40	350,971	2,276,400	574,316	574,316	3,555,743	1,281,000	1,060,500	2,341,500	1,214,243	1,595,201
1989	143,762	.40	517,543	281,400	507,998	1,199,598	2,506,539	1,481,000	1,060,500	2,541,500	<34,961>	1,560,240
1990	183,665	.20	330,597	281,400	688,086	1,402,492	2,486,022	1,485,000	1,060,500	2,545,500	<63,925>	1,497,315
1991	241,321	0	0	281,400	901,118	1,203,504	2,386,022	1,485,000	1,060,500	2,546,875	<160,852>	1,336,462
1992	308,248	0	0	281,400	1,202,074	1,244,514	2,777,988	1,485,125	1,235,500	2,720,625	7,363	1,333,825
1993	360,738	0	0	281,400	1,466,119	1,237,259	2,984,778	1,481,250	1,235,500	2,698,500	286,403(4)	1,343,825
1994	365,638	0	0	281,400	1,492,327	1,234,063	3,007,790	1,474,750	1,221,750	2,698,500	309,290	1,343,825
1995	365,638	0	0	281,400	1,492,327	1,246,705	3,010,181	1,490,625	1,227,750	2,718,375	302,057	1,343,825
1996	365,638	0	0	281,400	1,492,327	1,243,138	3,015,770	1,484,550	1,227,875	2,712,125	304,806	1,343,825
1997	365,638	0	0	281,400	1,492,327	1,243,138	3,016,865	1,484,000	1,227,875	2,712,125	303,645	1,343,825
1998	365,638	0	0	281,400	1,492,327	1,239,741	3,011,568	1,476,750	1,217,500	2,702,000	303,443	1,343,825
1999	365,638	0	0	281,400	1,492,327	1,237,841	3,017,135	1,488,150	1,219,000	2,707,750	309,303	1,343,825
2000	365,638	0	0	281,400	1,492,327	1,243,408	3,021,508	1,491,750	1,227,000	2,694,875	308,633	1,343,825
2001	365,638	0	0	281,400	1,492,327	1,248,012	3,012,584	1,480,125	1,227,250	2,707,125	305,209	1,343,825
2002	365,638	0	0	281,400	1,492,327	1,238,857	3,014,775	1,485,625	1,231,500	2,705,125	309,650	1,343,825
2003	365,638	0	0	281,400	1,492,327	1,241,048	3,013,970	1,490,125	1,231,625	2,712,125	296,201	1,343,825
2004	365,638	0	0	281,400	1,492,327	1,248,224	3,031,951	1,490,125	1,231,875	2,668,375	683,416	1,343,825
2005	365,638	0	0	281,400	1,492,327	1,248,224	3,031,951	1,490,125	1,231,875	2,668,375	683,416	1,343,825
2006	365,638	0	0	281,400	1,492,327	1,248,224	3,031,951	1,490,125	1,231,875	2,668,375	683,416	1,343,825
2007	365,638	0	0	281,400	1,492,327	1,248,224	3,031,951	1,490,125	1,231,875	2,668,375	683,416	1,343,825
2008	365,638	0	0	281,400	1,492,327	1,248,224	3,031,951	1,490,125	1,231,875	2,668,375	683,416	1,343,825
2009	365,638	0	0	281,400	1,492,327	1,248,224	3,031,951	1,490,125	1,231,875	2,668,375	683,416	1,343,825
2010	365,638	0	0	281,400	1,492,327	1,248,224	3,031,951	1,490,125	1,231,875	2,668,375	683,416	1,343,825
2011	365,638	0	0	281,400	1,492,327	1,248,224	3,031,951	1,490,125	1,231,875	2,668,375	683,416	1,343,825

- (1) The District will capitalize two years interest on each issue of bonds.
- (2) The District will capitalize a Reserve Fund on each issue of Contract Bonds estimated to equal the principal and interest on each issue. Interest earnings on the Reserve Fund are estimated at 10.5% for illustrative purposes.
- (3) The interest rate for the Contract Bonds has been estimated at a rate of 10.5% for illustrative purposes.
- (4) At which time total revenues pledged to the Contract Bonds exceed the debt service, any excess revenues will be transferred to pay on District Tax Bonds.
- (5) The District is estimated to begin reducing the accumulated net revenues in fiscal year ending 2009 as well as the reserve fund for fiscal year ending 2011.

EXHIBIT A

PROPOSED DISTRICT IMPROVEMENTS
COST ESTIMATES AND SCHEDULED BOND ISSUES

1985

Construction Costs	
External Temporary Pumper to Bull Creek Lateral A	\$ 766,920.00
External Jollyville 36" Water Transmission Main (First Portion)	944,750.00
Contingency & Engineering	342,334.00
Internals from 1983	364,392.00
Internals from 1984 (First Portion)	275,184.00
TOTAL CONSTRUCTION COSTS.....	<u>\$2,693,580.00</u>

Non Construction Costs	
Legal	\$ 147,000.00
Fiscal	98,000.00
Bond Discount	98,000.00
Capitalized Interest	1,176,000.00
Developer Interest	538,716.00
Organizational Expense	100,000.00
Cost of Issuance	48,704.00
TOTAL NON CONSTRUCTION COSTS.....	<u>\$2,206,420.00</u>

TOTAL BOND ISSUE.....\$4,900,000.00

1986

Construction Costs	
External Jollyville Water Transmission Main (Remainder)	\$ 220,850.00
External 24" Parmer Lane to Existing Water	490,650.00
External Parmer Lane to Reservoir	250,000.00
External Parmer Lane from Reservoir to FM 620 (First Portion)	363,000.00
Engineering & Contingencies	264,900.00
84 Internals (Remainder)	253,260.00
85 Internals	324,324.00
86 Internals	486,108.00
87 Internals (First Portion)	83,566.00
TOTAL CONSTRUCTION COSTS.....	<u>\$2,736,658.00</u>

Non Construction Costs	
Legal	144,000.00
Fiscal	96,000.00
Bond Discount	96,000.00
Capitalized Interest	1,152,000.00
Developer Interest	543,661.00
Cost of Issuance	31,681.00
TOTAL NON CONSTRUCTION COSTS.....	<u>\$2,063,342.00</u>

TOTAL BOND ISSUE.....\$4,800,000.00

1987

Construction Costs

External Parmer Lane from Reservoir to FM 620 (Remainder)	\$ 499,500.00
Engineering & Contingencies	99,900.00
87 Internals (Remainder)	642,315.00
88 Internals (First Portion)	531,057.00

TOTAL CONSTRUCTION COSTS.....\$1,772,772.00

Non Construction Costs

Legal	94,500.00
Fiscal	63,000.00
Bond Discount	63,000.00
Capitalized Interest	756,000.00
Developer Interest	359,895.00
Cost of Issuance	40,833.00

TOTAL NON CONSTRUCTION.....\$1,377,228.00

TOTAL BOND ISSUE.....\$3,150,000.00

1988

Construction Costs

88 Internals (Remainder)	677,333.00
89 Internals	1,473,656.00
90 Internals (1 st Portion)	891,055.00

TOTAL CONSTRUCTION COSTS.....\$3,042,044.00

Non Construction Costs

Legal	159,750.00
Fiscal	106,500.00
Bond Discount	106,500.00
Capitalized Interest	1,278,000.00
Developer Interest	607,140.00
Cost of Issuance	25,066.00

TOTAL NON CONSTRUCTION COSTS.....\$2,282,956.00

TOTAL BOND ISSUE.....\$5,325,000.00

1989

Construction Costs

90 Internals (Remainder)	\$ 691,056.00
91 Internals	1,504,017.00
92 Internals	353,807.00

TOTAL CONSTRUCTION COSTS.....\$2,548,880.00

Non Construction Costs

Legal	133,500.00
Fiscal	89,000.00
Bond Discount	89,000.00
Capitalized interest	1,068,000.00
Developer Interest	509,815.00
Cost of Issuance	11,805.00

TOTAL NON CONSTRUCTION COSTS.....\$1,901,120.00

TOTAL BOND ISSUE.....\$4,450,000.00

PROPOSED CONTRACT BOND IMPROVEMENTS
COST ESTIMATES AND SCHEDULED BOND ISSUES

1984

Construction Costs

Permanent Sewer Interceptor,	
Lift Station & Force Main to Bull Creek Interceptor	\$ 6,500,000.00
Contingencies	650,000.00
Engineering	650,000.00

TOTAL CONSTRUCTION COSTS.....\$ 7,800,000.00

Non Construction Costs

Legal	\$ 172,000.00
Fiscal	97,200.00
Capitalized Interest	2,562,000.00
Reserve Fund	1,480,000.00
Cost of Issuance	88,800.00

TOTAL NON CONSTRUCTION COSTS.....\$ 4,400,000.00

TOTAL BOND ISSUE.....\$ 12,200,000.00 -

1987

1. Equalizing Storage for Northwest "A" System	\$ 3,105,000.00
2. Oversize Research Blvd. Transmission Main	465,750.00
3. 48" Spicewood Springs Discharge Piping and	
Transmission Main to U.S. 183	1,809,500.00
Contingencies	538,025.00
Engineering	538,025.00

TOTAL CONSTRUCTION COSTS.....\$ 6,456,300.00

Non Construction Costs

Legal	\$ 151,000.00
Fiscal	95,100.00
Capitalized Interest	2,121,000.00
Reserve Fund	1,200,000.00
Cost of Issuance	76,600.00

TOTAL NON CONSTRUCTION COSTS.....\$ 3,643,700.00

TOTAL BOND ISSUE.....\$ 10,100,000.00

ADDITIONAL INFORMATION

Developer

Milwood Joint Venture
P.O. Box 14448
Austin, Texas 78761

Consultants for the District

Engineer:

CARLSON & DIPPEL, INC.
2499 Capital of Texas Highway
Suite 204
Austin, Texas

Attorneys:

BROWN, MARONEY, ROSE, BAKER, & BARKER
David Armbrust
American Bank Tower
Austin, Texas

MAURO, SARRETT AND WENDLER
Suite 1519
United Bank Tower
Austin, Texas

Financial Research and Analysis:

UPDATE, INC.
300 E. Huntland Drive
Austin, Texas

Fiscal Agent:

TEXAS CAPITAL MARKETS GROUP
Barry Adair
512 Scarborough Building
Austin, Texas

CARLSON, DIPPEL & MARX

SURVEYING COMPANY

FIELD NOTES

BEING ALL THAT CERTAIN TRACT OR PARCEL OF LAND OUT OF AND A PART OF THE W.J. BAKER SURVEY NO. 64, THE THOMAS P. DAVEY SURVEY NO. 169, THE M.M. HORNSBY SURVEY NO. 280, THE H. RHODES SURVEY NO. 522, AND THE ELISHA ALLEN LEAGUE, SITUATED IN WILLIAMSON COUNTY, TEXAS, MORE PARTICULARLY DESCRIBED AS BEING OUT OF AND A PART OF TRACT TWO AS DESCRIBED IN A DEED TO AUSTIN WHITE LIME COMPANY IN VOLUME 442, PAGE 51; A 347.13 ACRE TRACT DESCRIBED IN A DEED TO AUSTIN WHITE LIME, LTD. IN VOLUME 682, PAGE 907; A 507.60 ACRE TRACT DESCRIBED IN A DEED TO AUSTIN WHITE LIME, CO., LTD. IN VOLUME 489, PAGE 193; A 255.80 ACRE TRACT AS DESCRIBED IN A DEED TO AUSTIN WHITE LIME COMPANY LTD., IN VOLUME 517, PAGE 439; OF THE WILLIAMSON COUNTY, TEXAS DEED RECORDS; AND A 230.84 ACRE TRACT DESCRIBED IN A DEED TO A.H. ROBINSON JR., ET. AL. IN VOLUME 7042, PAGE 1201 OF THE TRAVIS COUNTY, TEXAS DEED RECORDS, SAID TRACT BEING 730.907 ACRES OF LAND MORE FULLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING at a point at the northwest corner of said Tract Two, same being the northeast corner of a tract of land conveyed to Emile Jamail, et. al. in Volume 850, Page 808 of the Williamson County, Texas Deed Records, same being in the curving southerly R.O.W. line of R.M. 620 for the northwest corner of the herein described tract,

THENCE, with said curve to the left, whose radius equals 3869.83 feet, an arc distance of 541.37 feet and whose chord bears N $74^{\circ}07'30''$ E, 540.93 feet,

THENCE, N $70^{\circ}03'50''$ E, 982.94 feet to a point for the northeast corner of the herein described tract,

THENCE, along the easterly line of the herein described tract, the following nine (9) courses and distances, numbered 1 through 9,

1. S $19^{\circ}57'E$, 3441.03 feet,
2. With a curve to the left, whose radius equals 2394.21 feet, an arc distance of 1429.80 feet and whose chord bears S $37^{\circ}03'30''E$, 1408.65 feet,
3. S $54^{\circ}10'E$, 390.31 feet,
4. With a curve to the right, whose radius equals 2195.14 feet, an arc distance of 1375.41 feet and whose chord bears S $36^{\circ}13'E$, 1353.02 feet,
5. S $18^{\circ}16'E$, 2069.39 feet,
6. With a curve to the left, whose radius equals 2776.71 feet, an arc distance of 1624.31 feet and whose chord bears S $35^{\circ}01'30''E$, 1601.24 feet,
7. S $51^{\circ}47'E$, 476.03 feet,
8. With a curve to the right, whose radius equals 3711.59 feet, an arc distance of 387.14 feet and whose chord bears S $48^{\circ}48'E$, 386.96 feet,
9. S $45^{\circ}49'E$, 424.63 feet to a point found at an angle point in the Williamson and Travis County Line for the southeast corner of the herein described tract,

THENCE, along the common line of said Travis and Williamson Counties, the following two (2) courses and distances, numbered 1 and 2.

1. S $56^{\circ}07'15''W$, 1011.52 feet,
2. S $32^{\circ}29'45''W$, 1229.31 feet to a point in the southerly line of said 230.84 acre tract,

33

2499 CAPITAL OF TEXAS HWY. SUITE 204 • AUSTIN, TEXAS 78746 • (512) 327-8290

EXHIBIT A

P-NA00743

5. S $69^{\circ}44'15''$ W, 63.28 feet,
6. N $17^{\circ}24'40''$ W, 1163.33 feet,
7. N $19^{\circ}22'25''$ W, 1743.62 feet to the POINT OF BEGINNING, containing 730.907 Acres of Land, as fenced and used upon the ground.

TOGETHER WITH:

BEGINNING at a point at the southwest corner of said 230.84 acre tract, same being the southeast corner of a tract of land conveyed to E.A. Edey in Volume 417, Page 485 of the Travis County, Texas Deed Records, same being in the northerly R.O.W. line of McNeil Road, for the southwest corner of the herein described tract,

THENCE, N $20^{\circ}44'45''$ W, along the east line of said Edey tract, 1458.48 feet to a point at the northeast corner of said Edey tract, for an ell corner,

THENCE, S $65^{\circ}48'15''$ W, along the north line of said Edey tract, 593.51 feet to a point in the division line of Travis and Williamson Counties, for the northwest corner of the herein described tract,

THENCE, along the division line of said Travis and Williamson Counties, the following two (2) courses and distances, numbered 1 and 2,

1. N $32^{\circ}29'45''$ E, 1229.31 feet,
2. N $56^{\circ}07'15''$ E, 1011.52 feet to a point for the northeast corner of the herein described tract,

THENCE, along the easterly line of the herein described tract, the following three (3) courses and distances, numbered 1 through 3,


1. S $45^{\circ}49'$ E, 188.77 feet,
2. With a curve to the right, whose radius equals 3871.52 feet, an arc distance of 1531.60 feet, and whose chord bears S $34^{\circ}29'$ E, 1521.63 feet,
3. S $23^{\circ}09'$ E, 672.93 feet to a point in the northerly R.O.W. line of McNeil Road, for the southeast corner of the herein described tract,

THENCE, along the northerly R.O.W. line of McNeil Road, the following four (4) courses and distances, numbered 1 through 4,

1. S $66^{\circ}27'15''$ W, 295.47 feet,
2. S $67^{\circ}46'15''$ W, 317.24 feet,
3. S $67^{\circ}25'30''$ W, 848.98 feet,
4. S $66^{\circ}43'15''$ W, 386.65 feet to the POINT OF BEGINNING, containing 89.385 Acres of Land, as fenced and used upon the ground.

These two tracts have a combined total acreage of 820.292 Acres.

Surveyed By:


Wiley E. Marx, R.P.S. #1931
Carlson, Dippel & Marx Surveying Company
-2499 Capital of Texas Highway, Suite 105
Austin, Texas 78746

Date 2-9-83



EXHIBIT A

P-NA00744

CARLSON, DIPPEL & MARX
SURVEYING COMPANY

FIELD NOTES

BEING ALL THAT CERTAIN TRACT OR PARCEL OF LAND OUT OF AND A PART OF THE THOMAS P. DAVY SURVEY ABSTRACT NO. 169, SITUATED IN WILLIAMSON COUNTY, TEXAS, MORE PARTICULARLY DESCRIBED AS BEING OUT OF AND A PART OF THAT CERTAIN TRACT CONVEYED TO THELMA PINK WALDEN LEE, ESTATE OF LEE JAMES WALDEN, DECEASED C/O WOODROW LEE, INDEPENDENT EXECUTOR, ET. AL., BY DEED RECORDED IN VOLUME 696, PAGE 654 OF THE WILLIAMSON COUNTY, TEXAS DEED RECORDS, SAID TRACT BEING 177.398 ACRES OF LAND MORE FULLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING at an iron stake in the southerly R.O.W. line of R.M. 620, at the northeast corner of said Lee, et. al. tract for the northeast corner of the herein described tract,

THENCE, along the east line of said Lee, et. al. tract, the following two (2) courses and distances,

1. S 19°48'15"E, 1743.62 feet,
2. S 17°50'30"E, 1163.33 feet to an iron stake at the southeast corner of said Lee, et. al. tract for the southeast corner of the herein described tract,

THENCE, along the south line of the herein described tract, the following three (3) courses and distances, numbered 1 through 3,

1. S 71°42'30"W, 605.10 feet,
2. S 71°38'W, 1227.65 feet,
3. S 70°14'W, 587.82 feet to a concrete monument for the southwest corner of the herein described tract,

THENCE, along the west line of the herein described tract, the following three (3) courses and distances, numbered 1 through 3,

1. N 19°14'15"W, 1151.96 feet,
2. N 19°08'30"W, 1164.56 feet,
3. N 19°29'15"W, 1085.77 feet to an iron stake in the southerly R.O.W. line of said R.M. 620 for the northwest corner of the herein described tract,

THENCE along the southerly R.O.W. line of said R.M. 620, the following three (3) courses and distances, numbered 1 through 3,

1. With curve to the right, whose radius equals 2814.93 feet, an arc distance of 744.16 feet, and whose chord bears N 78°23'45"E, 741.99 feet to a concrete monument
2. N 86°01'45"E, 1185.29 feet to a concrete monument at the beginning of a curve,
3. With curve to the left whose radius equals 3869.83 feet, an arc distance of 566.37 feet, and whose chord bears N 81°48'15"E, 565.86 feet to the PLACE OF BEGINNING, containing 177.398 Acres of Land.

Surveyed By: 

Date: 7-27-82

CARLSON, DIPPEL & MARX SURVEYING COMPANY
4806 North Interregional Highway
Austin, Texas 78751

AUSTIN METROPOLITAN AREA MAP

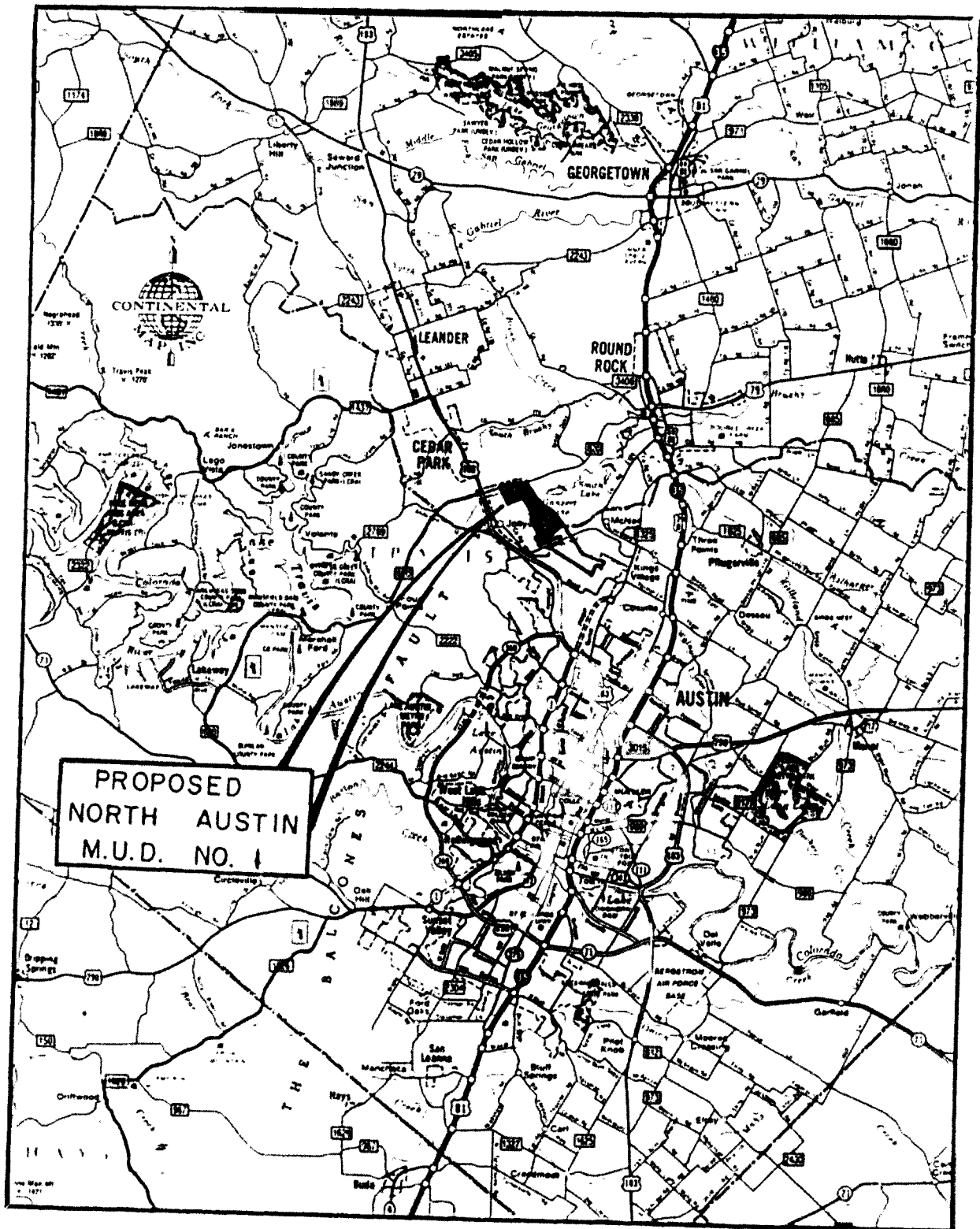
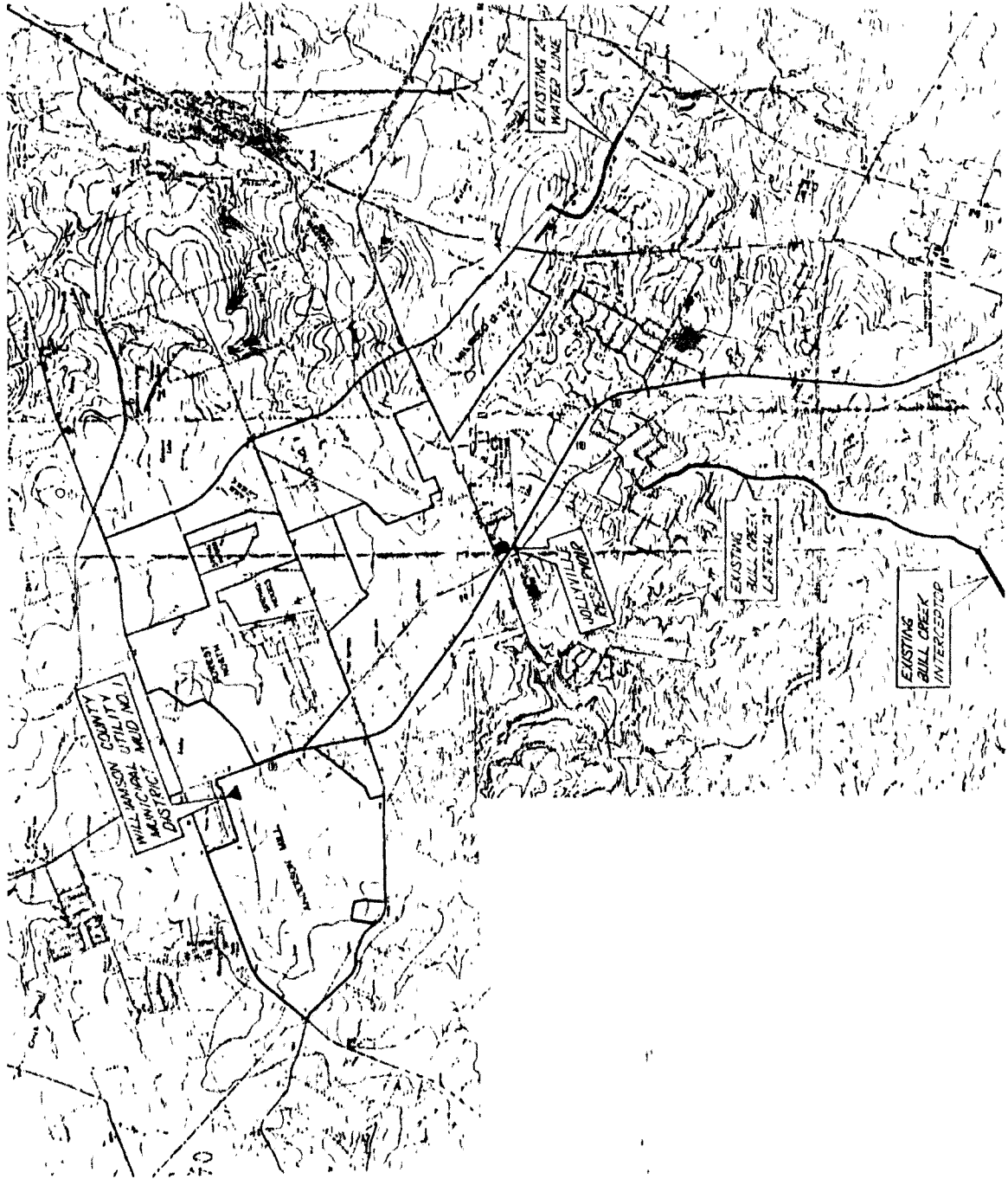


EXHIBIT A

P-NA00746

NORTH AUSTIN M.U.D. NO. ONE



DESIGNED BY
CARLSON & DIPPEL, INC.
 CONSULTING ENGINEERS AND PLANNERS