

- LEGEND**
- Existing Water Main
 - Existing Sewer Main
 - Existing Water Service
 - Existing Sewer Service
 - Proposed Water Service
 - Proposed Sewer Service
 - Existing Manhole
 - Existing Fire Hydrant
 - └ Existing Bullhead Tee
 - Existing Cleanout

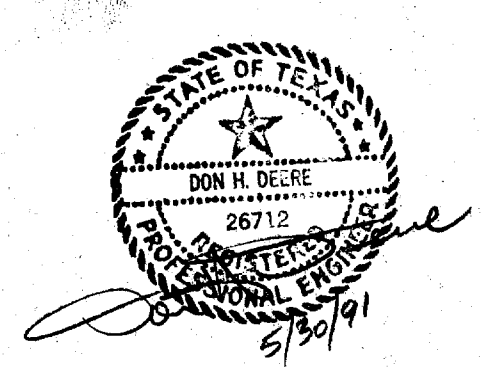
- LEGEND**
- BID ITEM NUMBER**
- 1 (A) Install 3/4" water tap and service with concrete meter box.
 - 2 (B) Install 3/4" water tap and service with concrete meter box including boring underneath existing pavement.
 - 3 (C) Install 1" water tap with 3/4" bullhead services and concrete meter boxes including boring underneath existing pavement.
 - 4,5,6 (E) Verify water service exist to lot. If water service is located and no meter box exist, install concrete meter box. If service does not exist, do Item A.
 - 4,5,7 (F) Verify water service exist to lot. If water service is located and no meter box exist, install concrete meter box. If service does not exist, do Item B.
 - 4,5,8 (G) Verify water services exist to lots. If water services are located and no meter boxes exist, install concrete meter boxes. If services do not exist, do Item C.
 - 9 (I) Relocate existing fire hydrant to property line.
 - 10 (K) Install 4" sanitary sewer service including boring underneath existing pavement.

- GENERAL NOTES**
1. All existing water mains are PVC Class 200.
 2. All existing sanitary sewer mains are SDR-35 PVC.
 3. All existing sanitary sewer taps and services are 4".
 4. The exact location of all existing water and sanitary sewer mains, taps and services; storm sewer mains, laterals and inlets; and other utilities shall be determined by the Contractor in the field.
 5. All utility trenches shall be backfilled and compacted to 95% Standard Proctor Density.
 6. All work and materials shall be in accordance with the City of Addison Standard Specifications and the Contract Documents.
 7. The Contractor shall paint a "W" for water service and "S" for sanitary service on the curb at the service location for each lot.
 8. The Contractor shall contact the following utility companies 48 hours prior to construction for underground utility location:
 - Bell Telephone 247-6688
 - Lone Star Gas 487-3864
 - Texas Power & Light 323-8810
 - Starer T.V. 840-2288
 - Planned Cable 434-2202

TYPICAL UTILITY LOCATIONS
SCALE 1"=10'

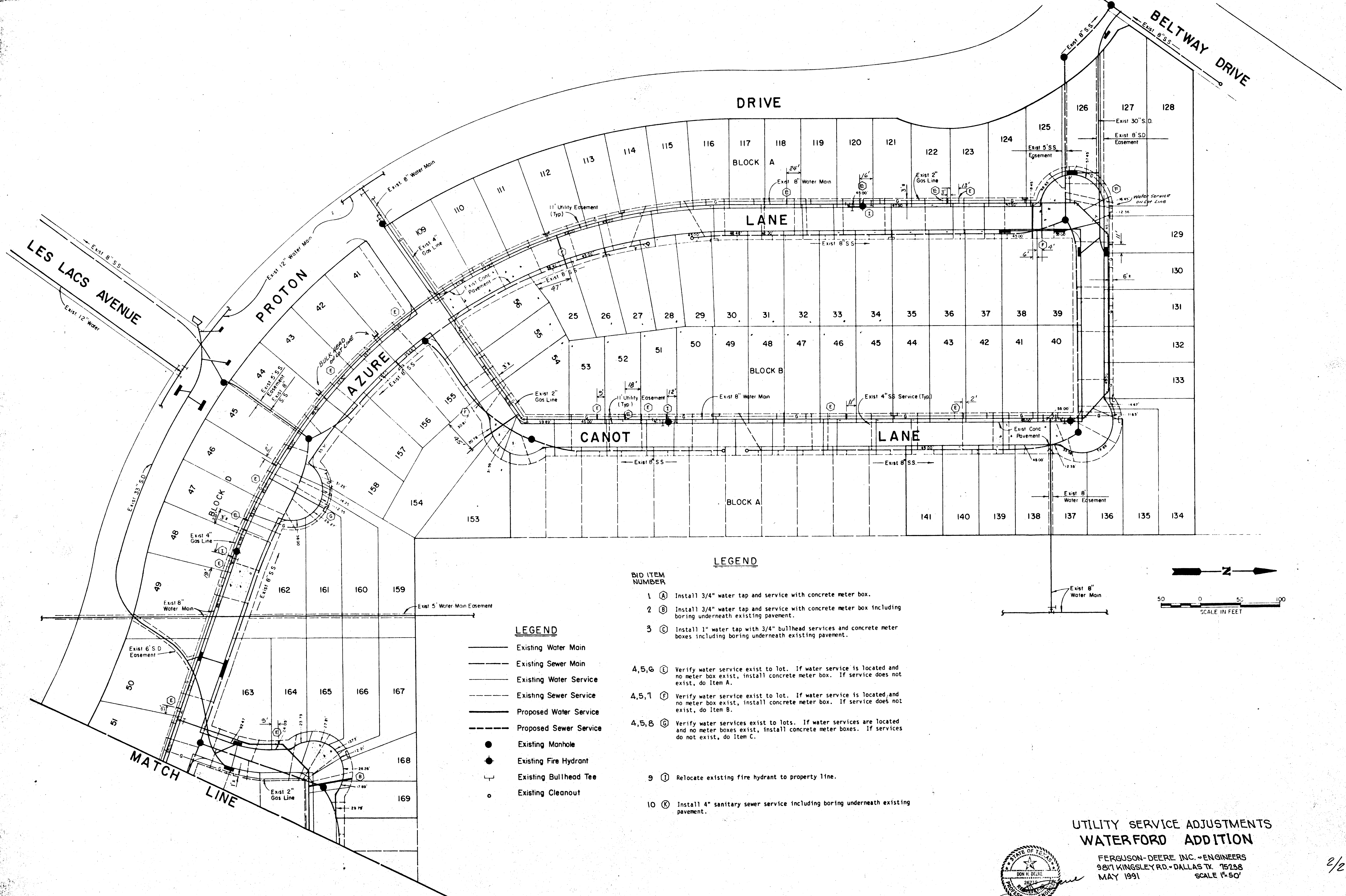
- GENERAL NOTES**
1. Water Service is to be Type "K" soft copper attached to the Main Line by a Mueller double strap saddle (CC threads). Additionally, both the corporation stop and the curb stop are to be Mueller brass.
 2. Water lines bores under existing pavement shall be a minimum of 1 1/2 feet below the bottom portion of the existing pavement. If possible, it should be located directly under an existing street joint.
 3. Meters and double check valves shall be installed in like

- boxes (no plastic, submit material sheet to the Town of Addison for approval) and shall not be boared in the sidewalk.
4. When relocating fire hydrant, all nuts and bolts at flanges shall be replaced with new nuts and bolts.
5. All bores shall be grouted.
6. All sanitary sewer taps shall be installed at a 45 degree angle into the main.



AS BUILT WATER SERVICES JUNE 26, 1991
UTILITY SERVICE ADJUSTMENTS
WATERFORD ADDITION

FERGUSON-DEERE, INC. - ENGINEERS
9817 KINGSLEY RD., DALLAS TX. 75238
MAY 1991 SCALE 1"=50'

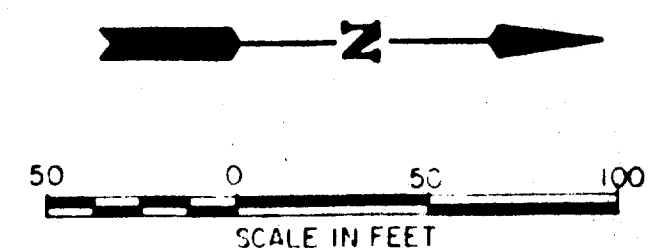


LEGEND

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- └ Existing Bullhead Tee
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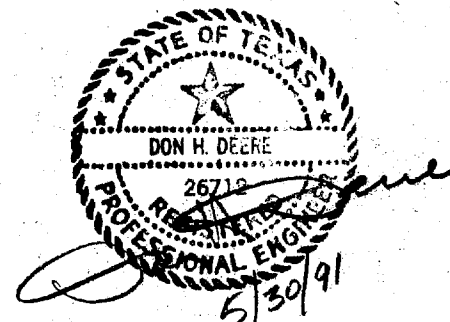
LEGEND

- BID ITEM NUMBER**
- 1 (A) Install 3/4" water tap and service with concrete meter box.
 - 2 (B) Install 3/4" water tap and service with concrete meter box including boring underneath existing pavement.
 - 3 (C) Install 1" water tap with 3/4" bullhead services and concrete meter boxes including boring underneath existing pavement.
 - 4,5,6 (D) Verify water service exist to lot. If water service is located and no meter box exist, install concrete meter box. If service does not exist, do Item A.
 - 4,5,7 (F) Verify water service exist to lot. If water service is located, and no meter box exist, install concrete meter box. If service does not exist, do Item B.
 - 4,5,8 (G) Verify water services exist to lots. If water services are located and no meter boxes exist, install concrete meter boxes. If services do not exist, do Item C.
 - 9 (I) Relocate existing fire hydrant to property line.
 - 10 (K) Install 4" sanitary sewer service including boring underneath existing pavement.



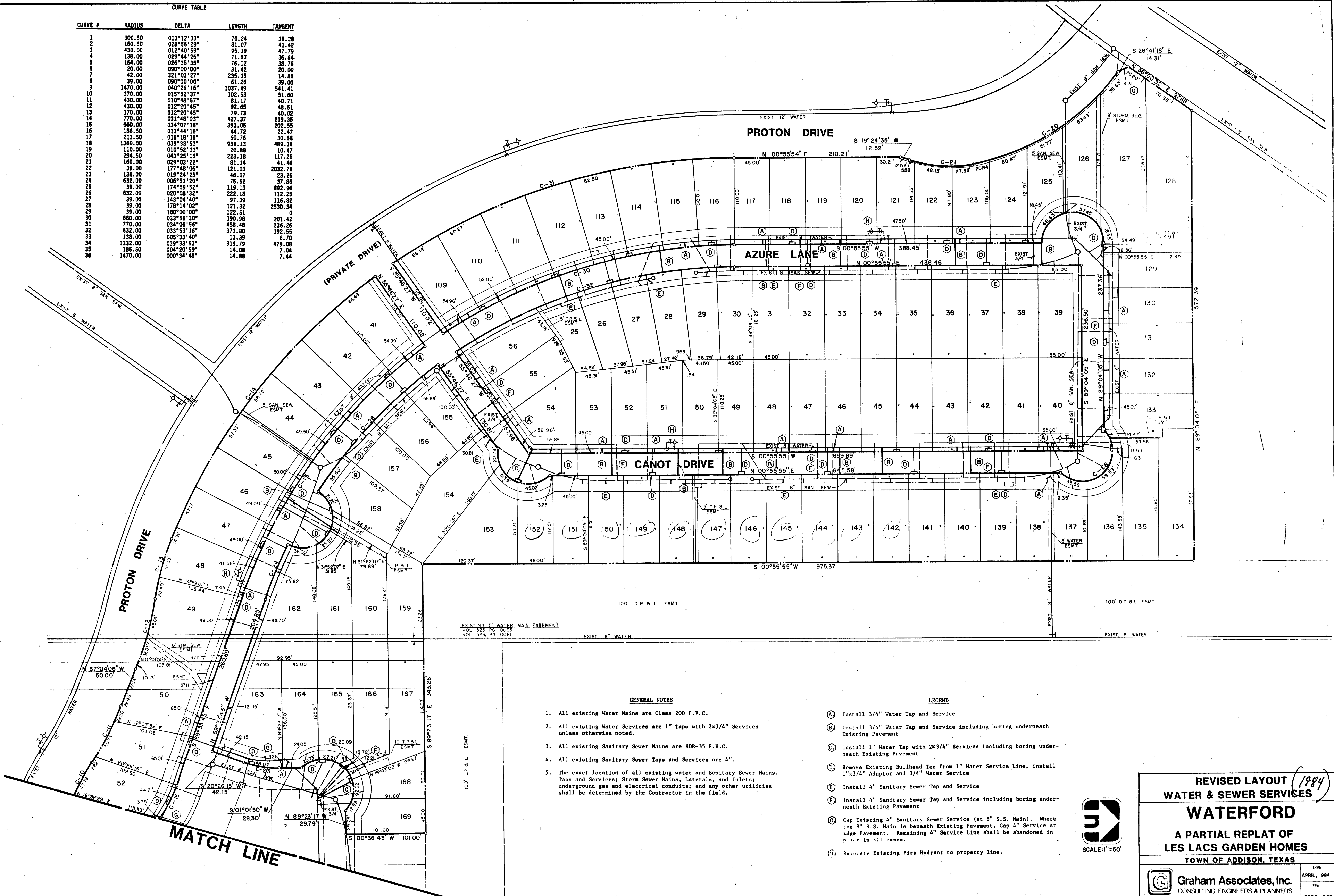
**UTILITY SERVICE ADJUSTMENTS
WATERFORD ADDITION**

FERGUSON-DEERE INC. - ENGINEERS
9817 KINGSLEY RD. - DALLAS TX. 75238
MAY 1991 SCALE 1"=50'



CURVE TABLE

CURVE #	RADIUS	DELTA	LENGTH	TANGENT
1	300.80	013°12'33"	70.24	35.28
2	150.50	028°56'29"	81.07	41.42
3	430.00	012°40'59"	95.19	47.79
4	138.00	029°44'26"	71.63	36.64
5	164.00	026°35'35"	76.12	38.76
6	20.00	090°00'00"	31.42	20.00
7	42.00	321°03'27"	235.35	14.85
8	39.00	090°00'00"	61.26	39.00
9	1470.00	040°26'16"	1037.49	541.41
10	370.00	015°52'37"	102.53	51.60
11	430.00	010°48'57"	81.17	40.71
12	430.00	012°20'45"	92.65	48.51
13	370.00	012°20'45"	79.73	40.02
14	770.00	031°48'03"	427.37	219.35
15	660.00	034°07'16"	393.06	202.55
16	186.50	013°44'15"	44.72	22.47
17	213.50	016°18'16"	60.76	30.58
18	1360.00	039°33'53"	939.13	489.16
19	110.00	010°52'33"	20.88	10.47
20	294.50	043°25'15"	223.18	117.26
21	100.00	028°03'22"	81.14	41.46
22	39.00	177°48'06"	121.03	2032.76
23	136.00	019°24'25"	46.07	23.26
24	632.00	006°51'20"	75.62	37.86
25	39.00	174°59'52"	119.13	892.96
26	632.00	020°08'32"	222.18	112.25
27	39.00	143°04'40"	97.39	116.82
28	39.00	178°14'02"	121.32	2530.34
29	39.00	180°00'00"	122.51	0
30	660.00	033°56'30"	390.98	201.42
31	770.00	034°06'56"	458.48	236.26
32	632.00	033°53'16"	373.80	192.55
33	138.00	008°33'40"	13.39	6.70
34	1332.00	039°33'53"	919.79	479.08
35	185.50	004°20'59"	14.08	7.04
36	1470.00	000°34'48"	14.88	7.44

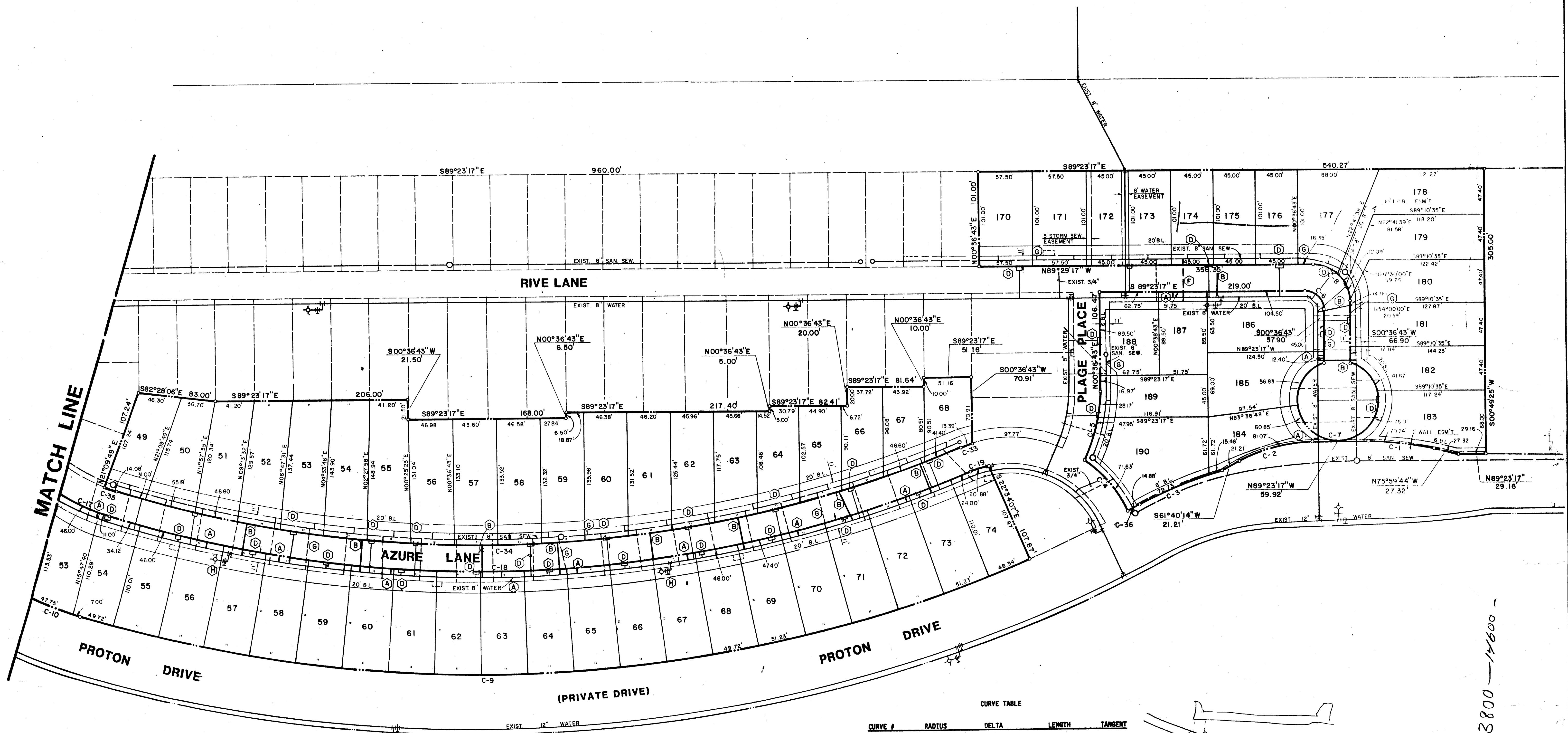


- GENERAL NOTES**
1. All existing Water Mains are Class 200 P.V.C.
 2. All existing Water Services are 1" Taps with 2x3/4" Services unless otherwise noted.
 3. All existing Sanitary Sewer Mains are SDR-35 P.V.C.
 4. All existing Sanitary Sewer Taps and Services are 4".
 5. The exact location of all existing water and Sanitary Sewer Mains, Taps and Services; Storm Sewer Mains, Laterals, and Inlets; underground gas and electrical conduits; and any other utilities shall be determined by the Contractor in the field.

- LEGEND**
- (A) Install 3/4" Water Tap and Service
 - (B) Install 3/4" Water Tap and Service including boring underneath Existing Pavement
 - (C) Install 1" Water Tap with 2x3/4" Services including boring underneath Existing Pavement
 - (D) Remove Existing Bullhead Tee from 1" Water Service Line, install 1"x3/4" Adaptor and 3/4" Water Service
 - (E) Install 4" Sanitary Sewer Tap and Service
 - (F) Install 4" Sanitary Sewer Tap and Service including boring underneath Existing Pavement
 - (G) Cap Existing 4" Sanitary Sewer Service (at 8" S.S. Main). Where the 8" S.S. Main is beneath Existing Pavement, Cap 4" Service at Edge Pavement. Remaining 4" Service Line shall be abandoned in place in all cases.
 - (H) Relocate Existing Fire Hydrant to property line.



REVISED LAYOUT (1984)
WATER & SEWER SERVICES
WATERFORD
 A PARTIAL REPLAT OF
 LES LACS GARDEN HOMES
 TOWN OF ADDISON, TEXAS



MATCH LINE

RIVE LANE

AZURE LANE

PROTON DRIVE

PROTON PLACE

(PRIVATE DRIVE)

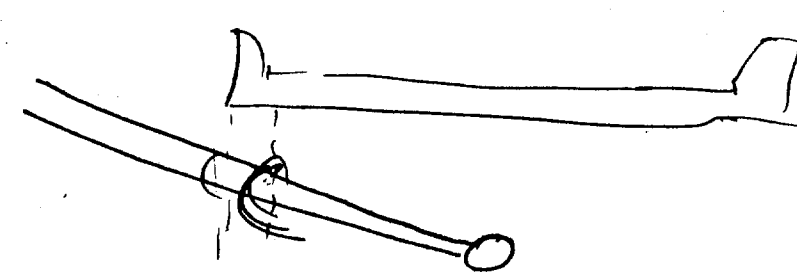
PROTON 3800-14600

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 - (D) Remove Existing Bullhead Tee from 1" Water Service Line, install 1"x3/4" Adaptor and 3/4" Water Service
 - (E) Install 4" Sanitary Sewer Tap and Service
 - (F) Install 4" Sanitary Sewer Tap and Service including boring underneath Existing Pavement
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 - (H) Relocate Existing Fire Hydrant to property line.


CURVE TABLE

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REVISED LAYOUT
WATER & SEWER SERVICES

WATERFORD
A PARTIAL REPLAT OF
LES LACS GARDEN HOMES
TOWN OF ADDISON, TEXAS



SCALE: 1"=50'

DATE
APRIL, 1984

FILE
9500-1000

Graham Associates, Inc.
CONSULTING ENGINEERS & PLANNERS

Drawn By: G.A.I. Sheet 2 Of 2