

TOWN OF
ADDISON
DALLAS COUNTY, TEXAS

CONSTRUCTION PLANS FOR

GREENHAVEN APTS

8" WATERLINE REPLACEMENT

MAYOR :

LYNN SPRUILL

COUNCIL MEMBERS :

RICHARD RODER
JIM DUFFY
JOHN NOLAN
JOHN BRANCH
RILEY REINKER

CITY MANAGER :

RON WHITEHEAD

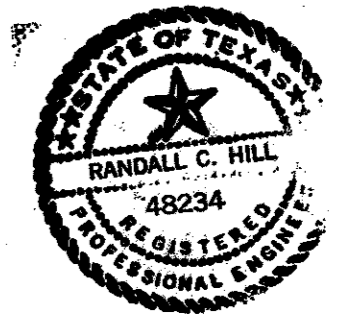
DIRECTOR OF UTILITIES :

DON PREECE

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- 3. STA. 3+25 TO STA. 7+60 LINE "A"
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BID SET

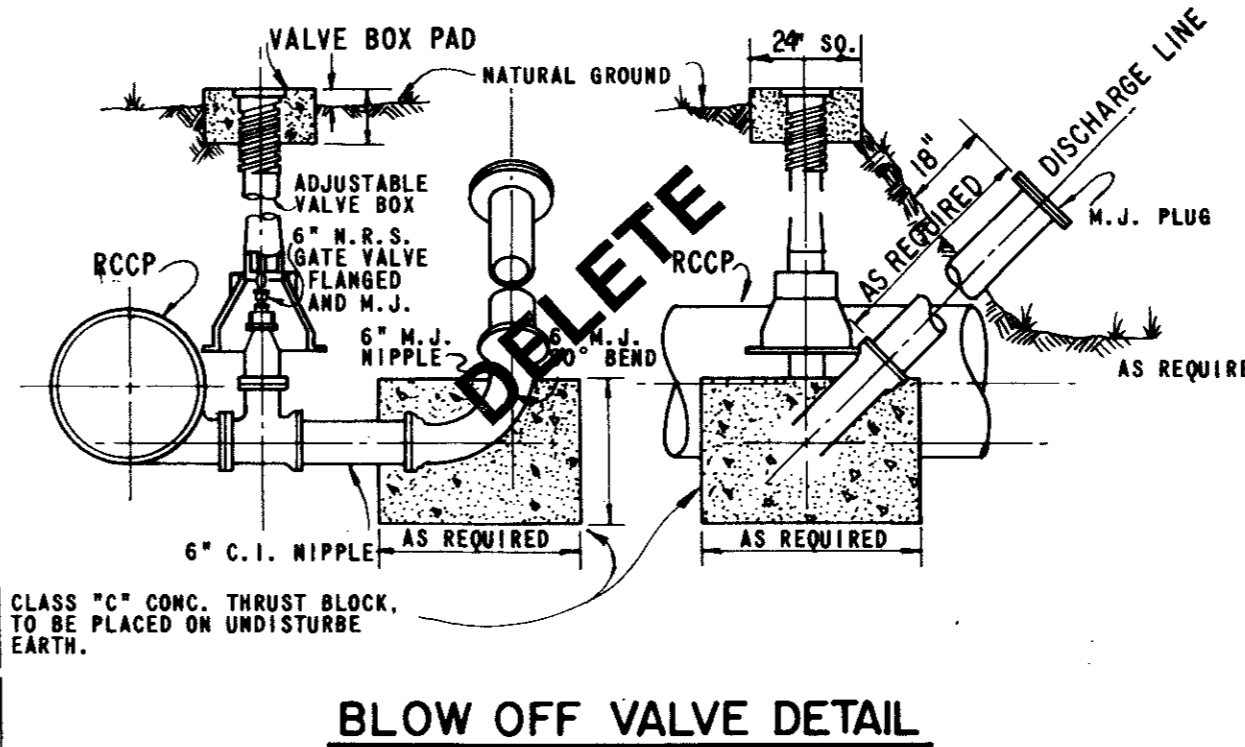
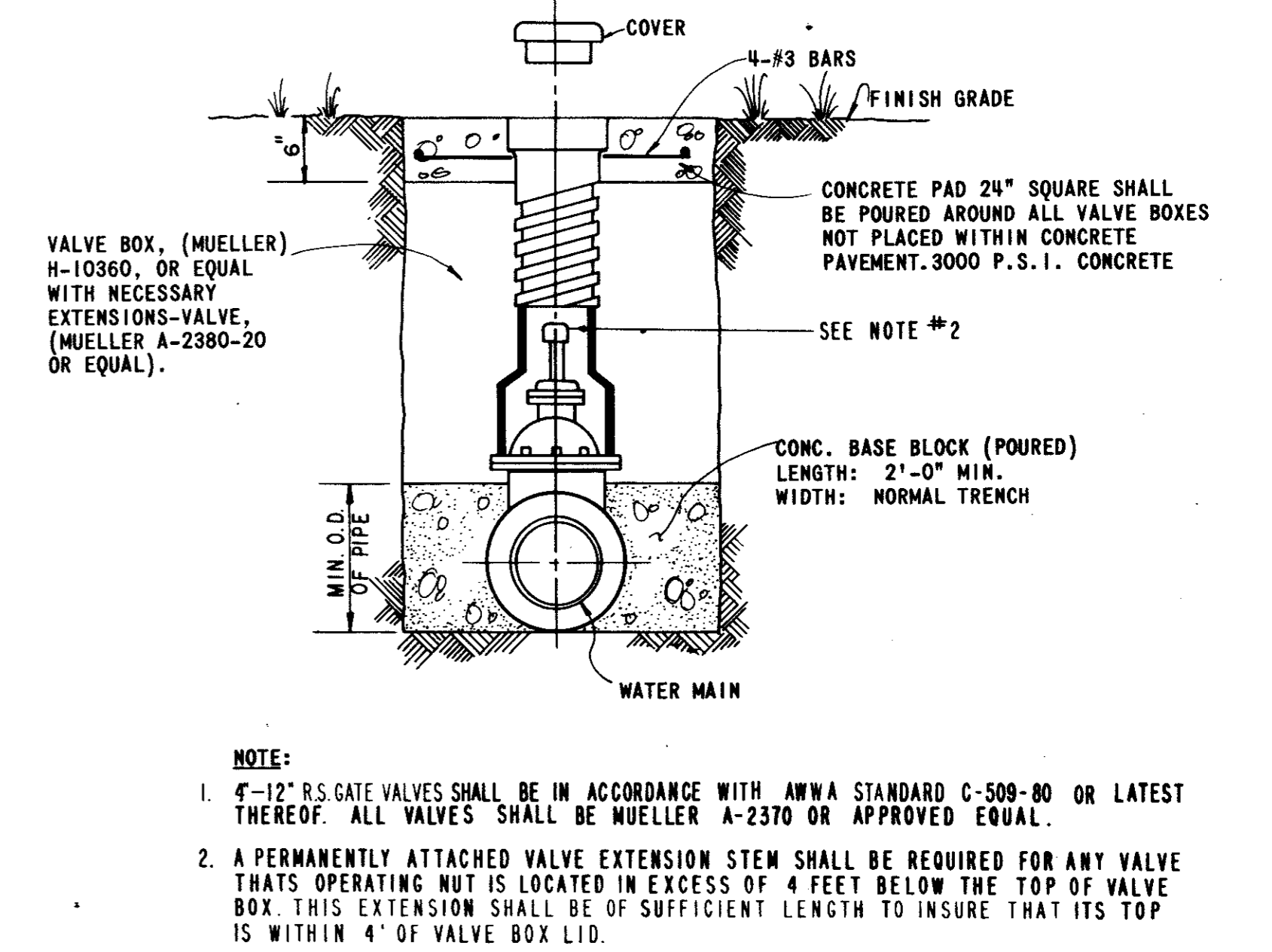
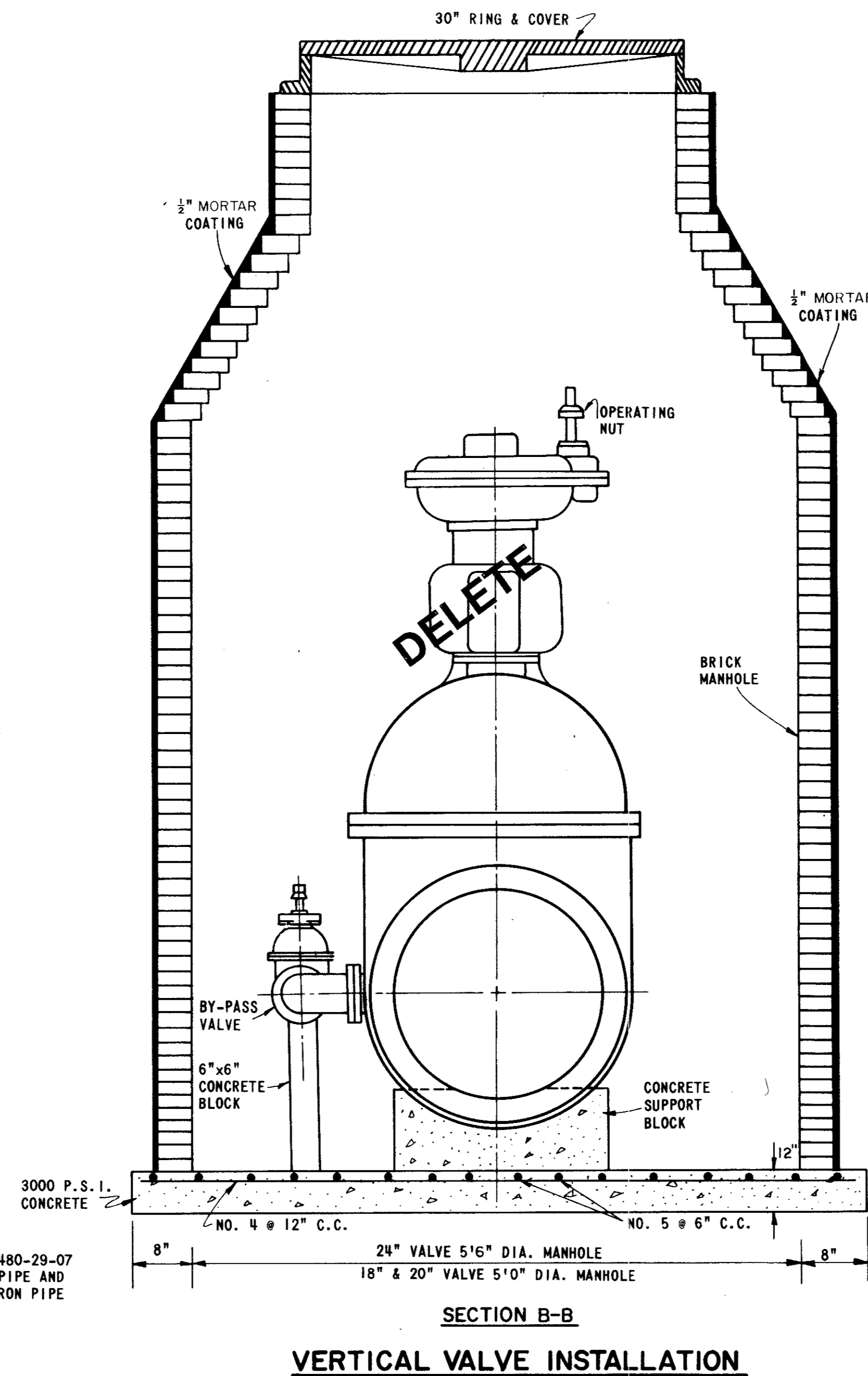
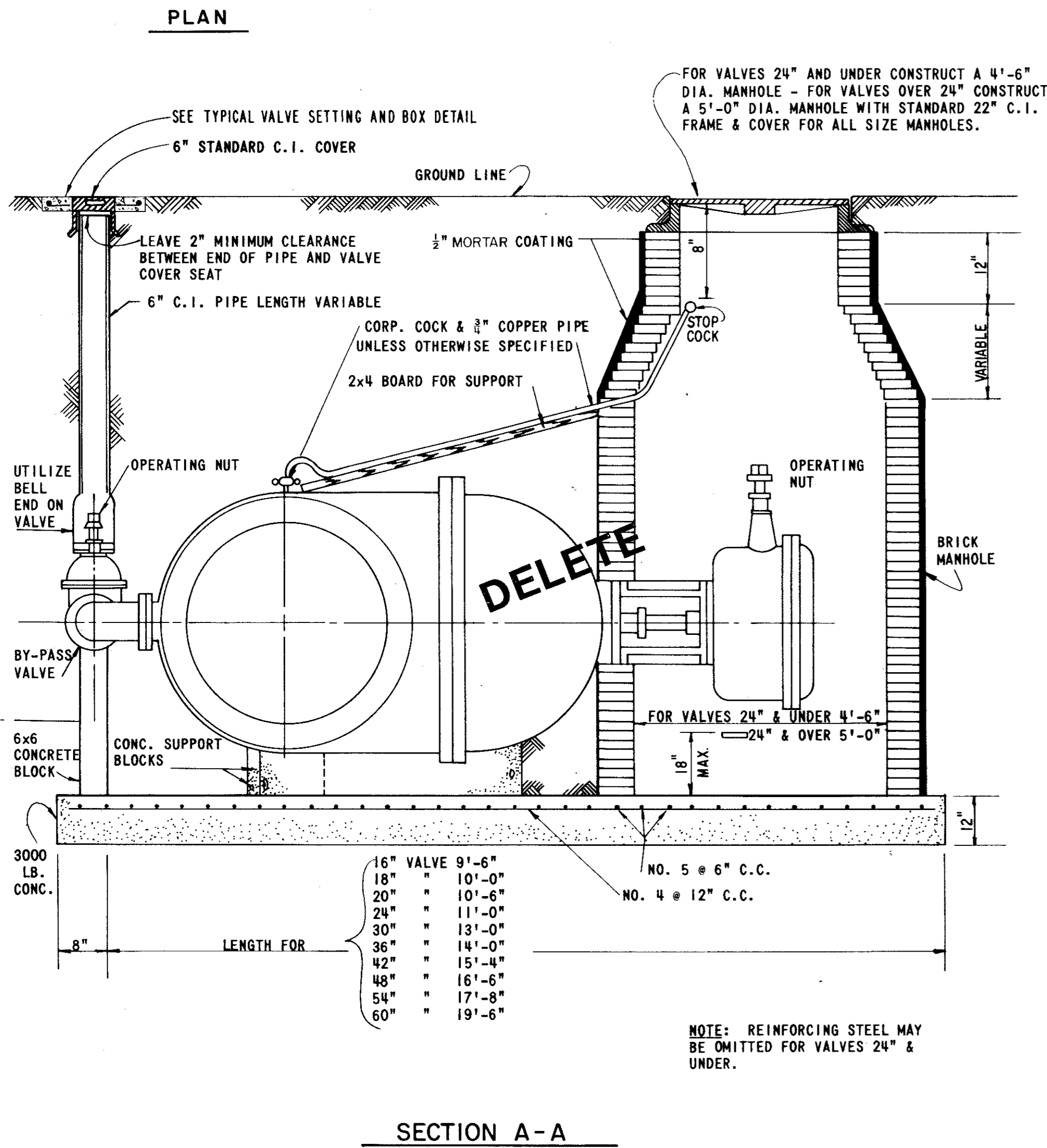
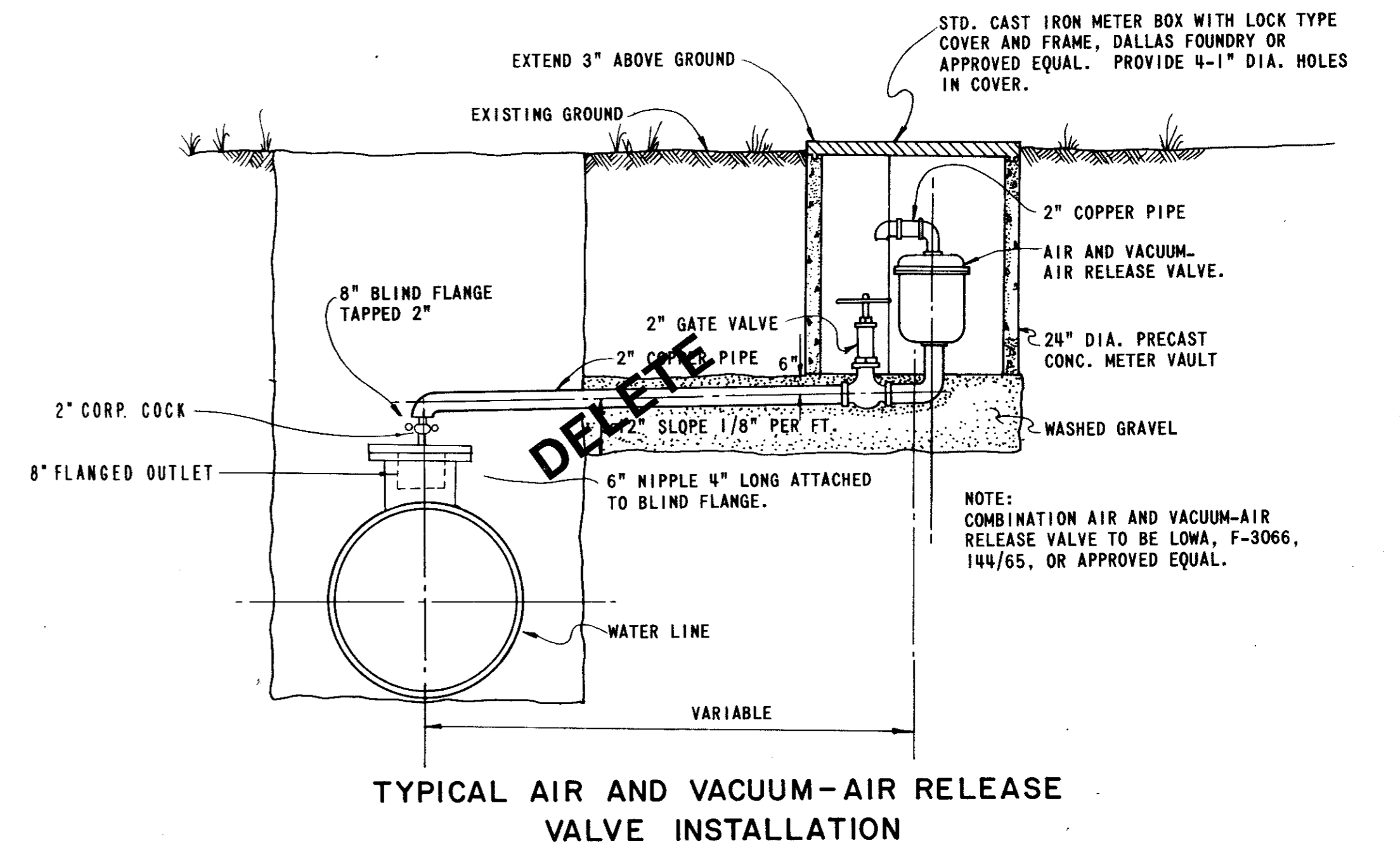
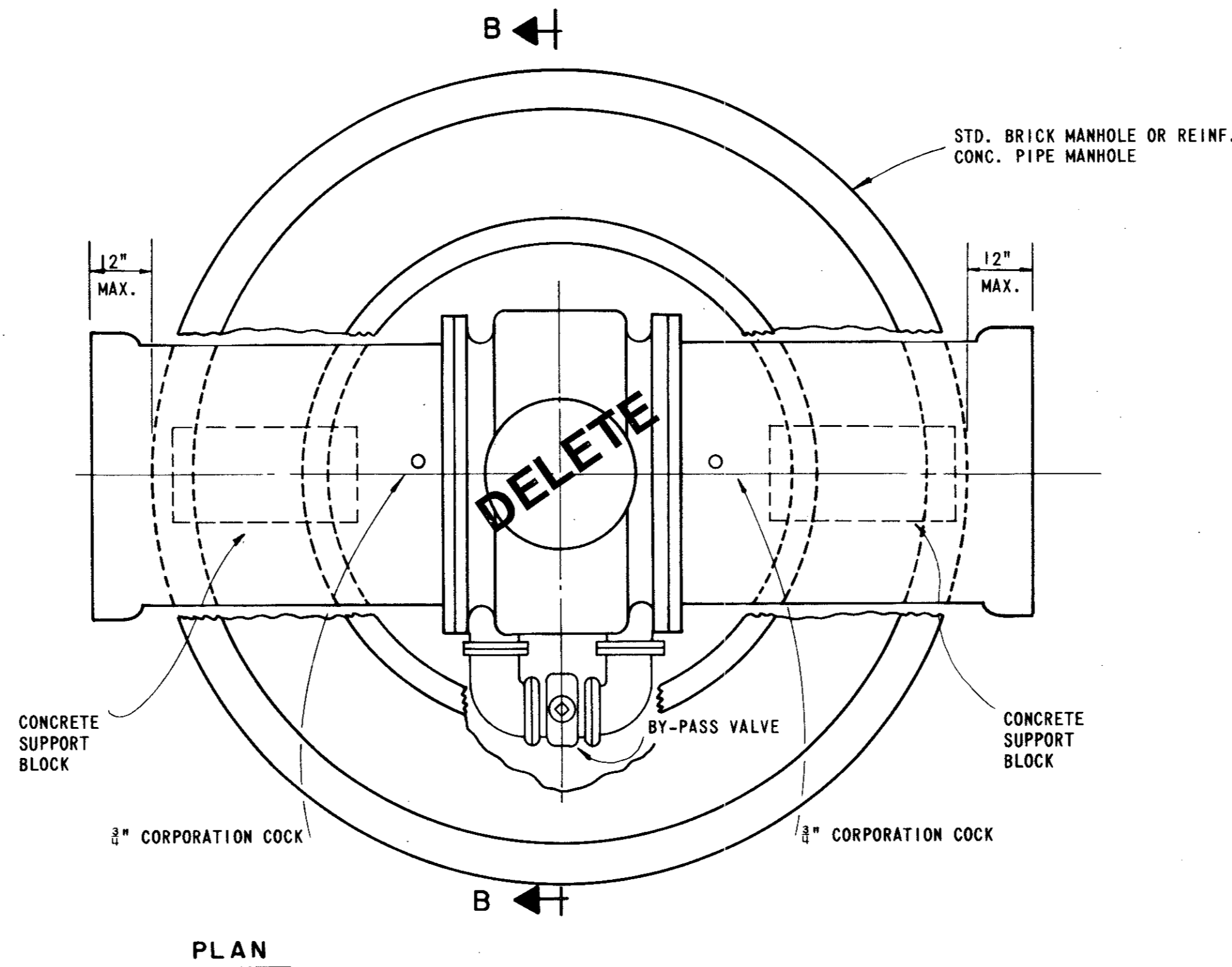
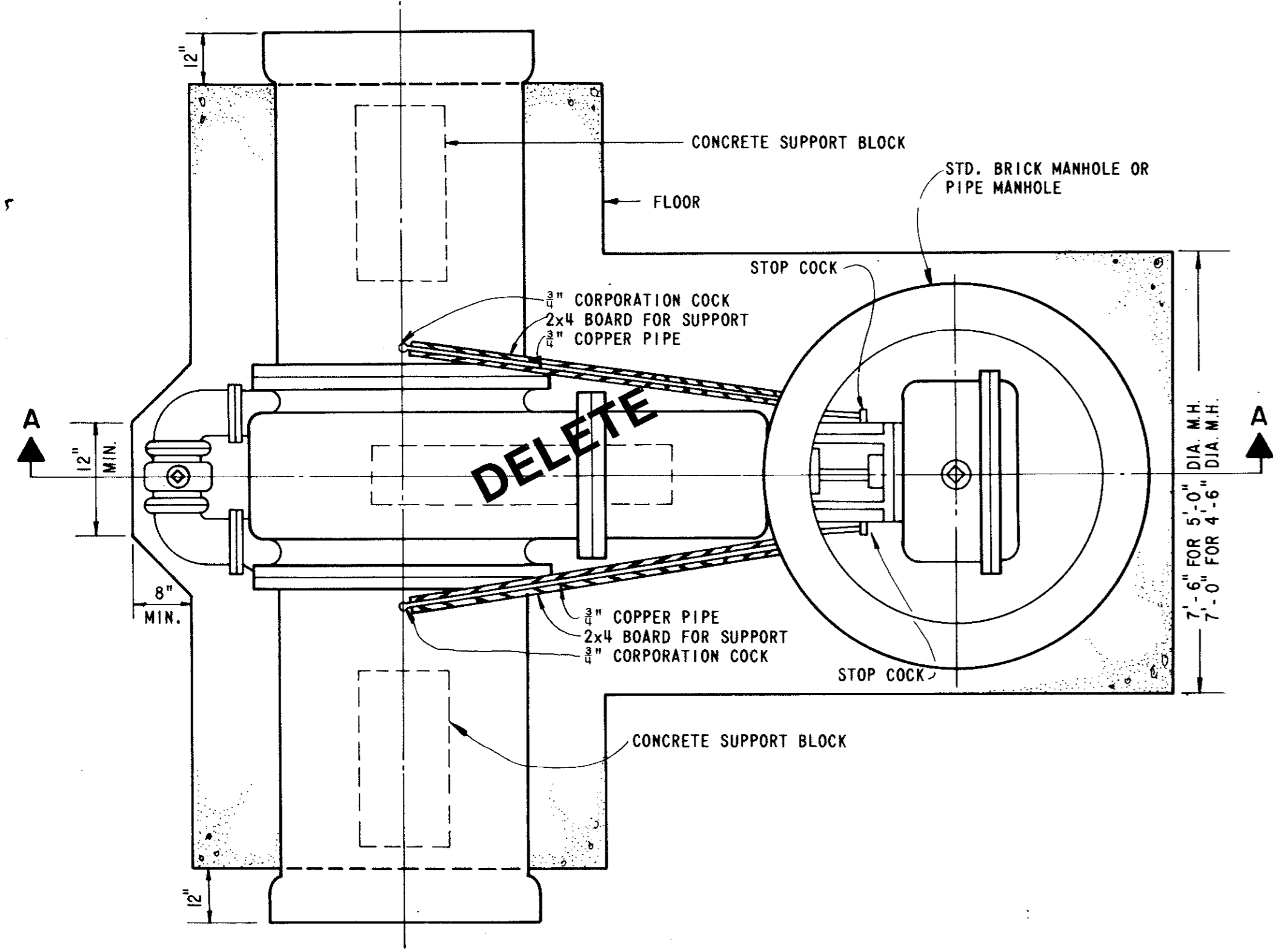


APPROVED BY: _____ DATE: _____
LYNN SPRUILL, MAYOR

GINN, INC.
Consulting Engineers Dallas, Texas

7B4-2

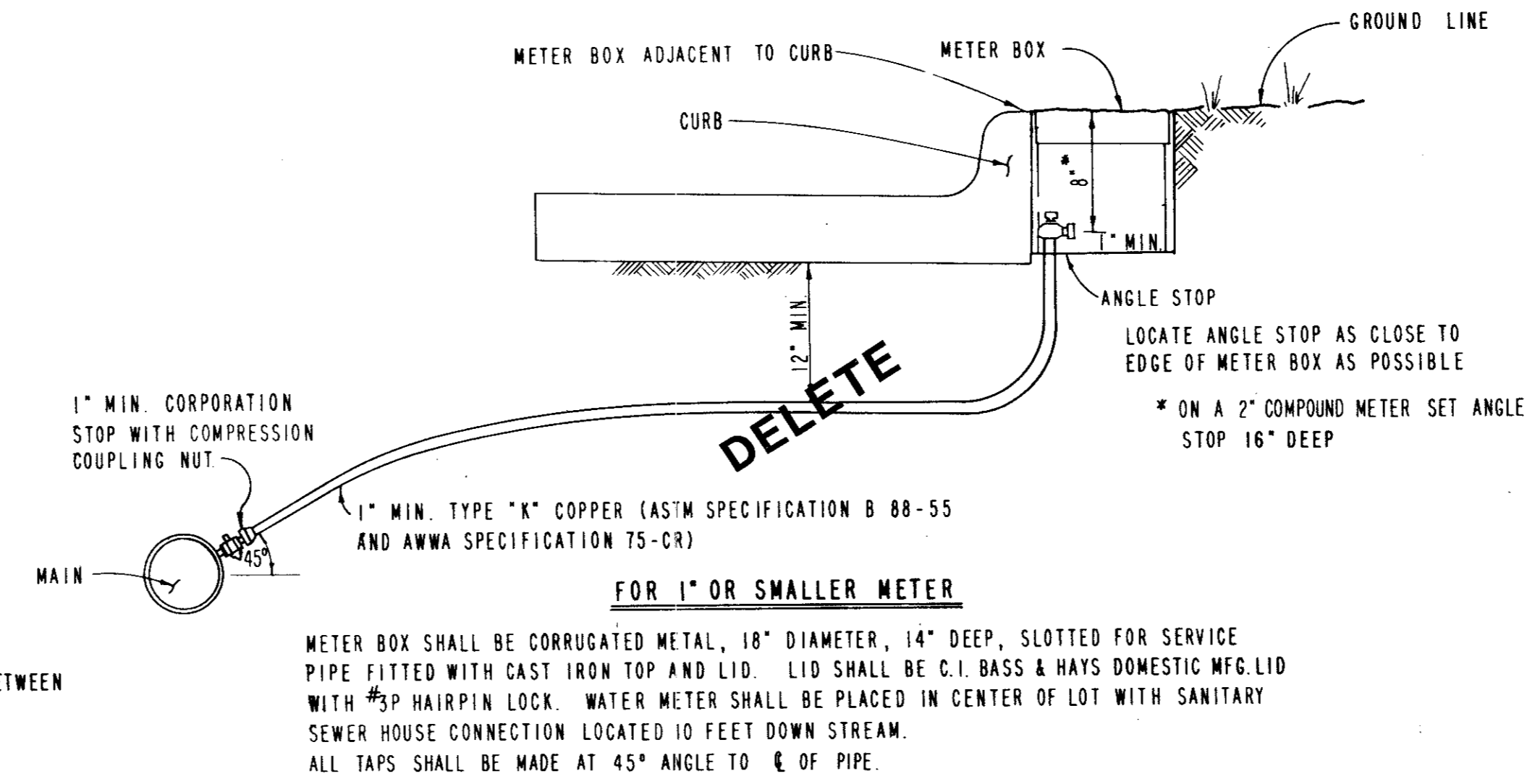
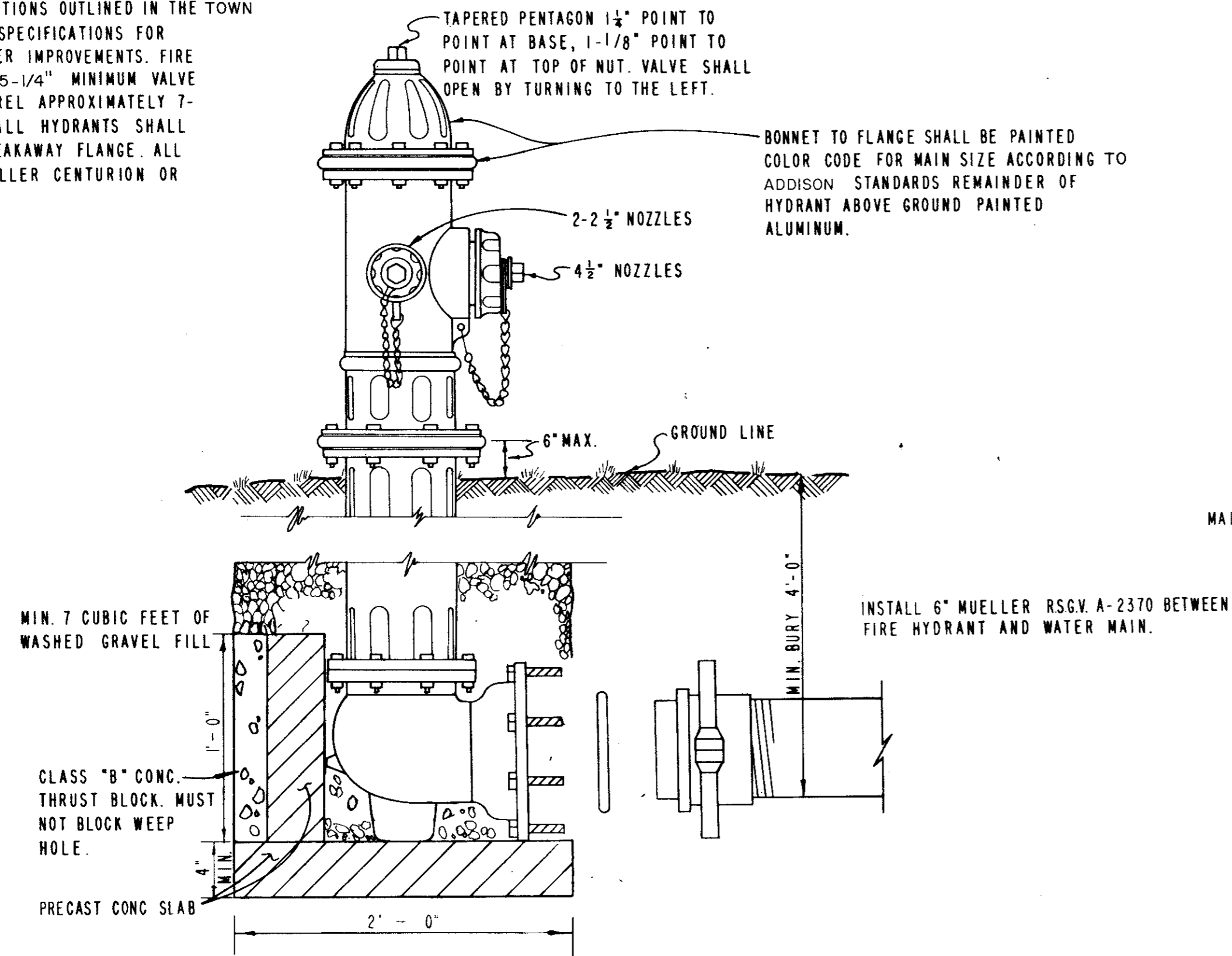
B4-2
8" WA line Replacement 988
Bidset GREENHAVEN APTS.



NO.	REVISION	BY	DATE
TOWN OF ADDISON, TEXAS DEPARTMENT OF ENGINEERING			
STANDARD CONSTRUCTION DETAILS WATER			
VALVES			
APPROVED _____		H. WAYNE GINN, P.E.	
DATE MARCH, 1984		SHEET SD-15	

NOTE:

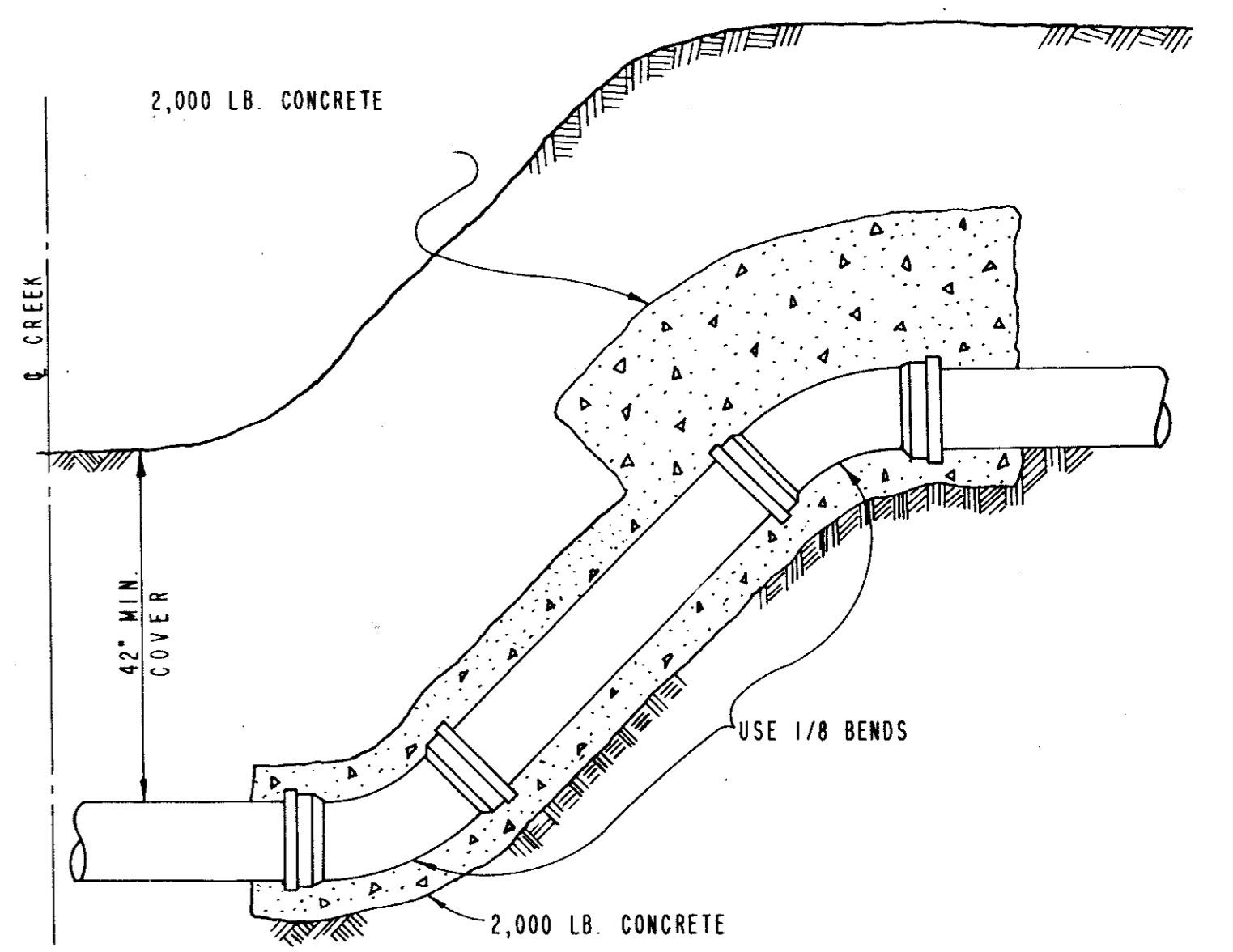
IN GENERAL, ALL FIRE HYDRANTS SHALL CONFORM TO AWWA STANDARD SPECIFICATIONS FOR FIRE HYDRANTS FOR ORDINARY WATER WORKS SERVICE, C-502-73, EXCEPT FOR CHANGES OR ADDITIONS OUTLINED IN THE TOWN OF ADDISON STANDARD SPECIFICATIONS FOR WATER AND SANITARY SEWER IMPROVEMENTS. FIRE HYDRANTS SHALL HAVE A 5-1/4" MINIMUM VALVE OPENING AND WITH A BARREL APPROXIMATELY 7-INCH INSIDE DIAMETER. ALL HYDRANTS SHALL BE EQUIPPED WITH A BREAKAWAY FLANGE. ALL HYDRANTS SHALL BE MUELLER CENTURION OR APPROVED EQUAL.



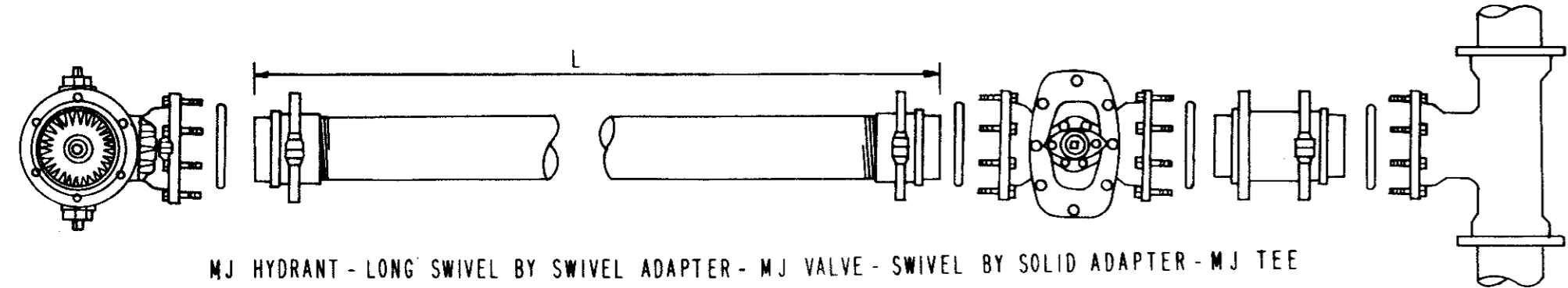
TYPICAL SERVICE CONNECTION WITH METER BOX

MUELLER TYPE K COPPER SERVICE PIPE SOFT ANNEALED	DOUBLE STRAP BRONZE SERVICE SADDLE WITH C.C. THREADS	MUELLER CORPORATION STOP	MUELLER ANGLE STOP	BASS & HAYS SLOTTED METER BOX
1 INCH	1 1/2 INCH	H-15008	H-14258	34 AS
1 1/2 INCH	2 INCH	H-15013	H-14286	55 A
2 INCH		H-15013	H-14286	55 A

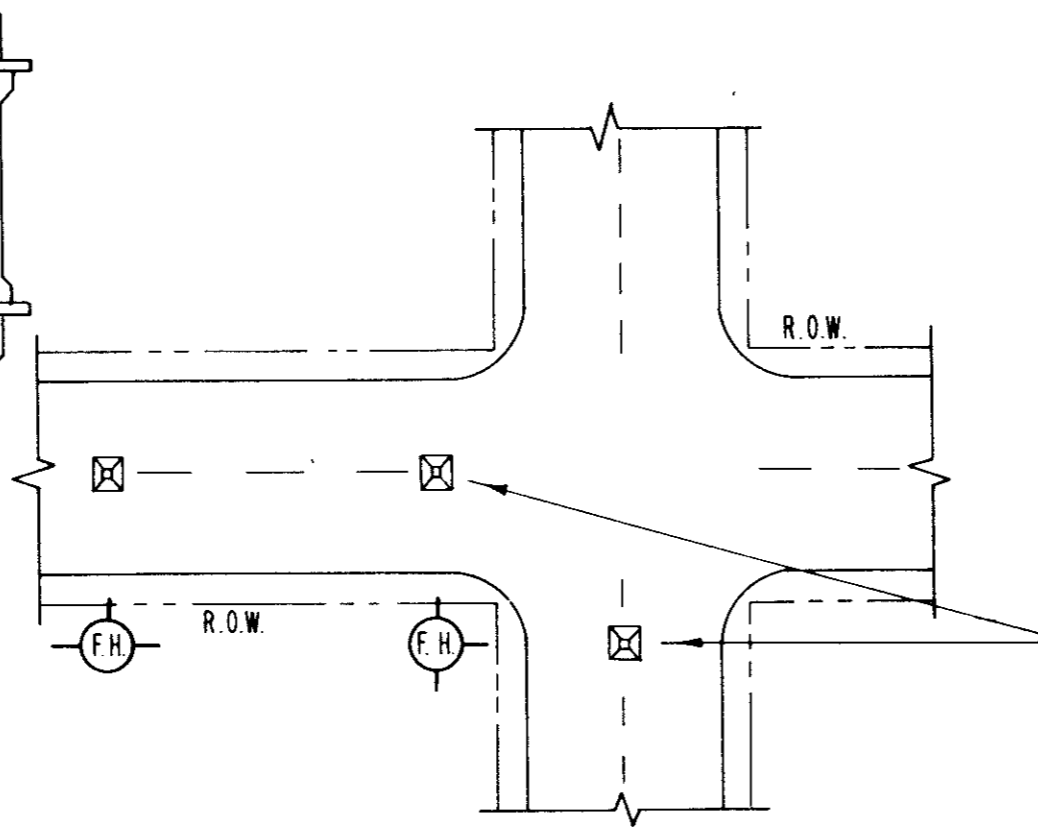
W / H 15428 COUPLING



HALF-SECTION TYPICAL CREEK CROSSING

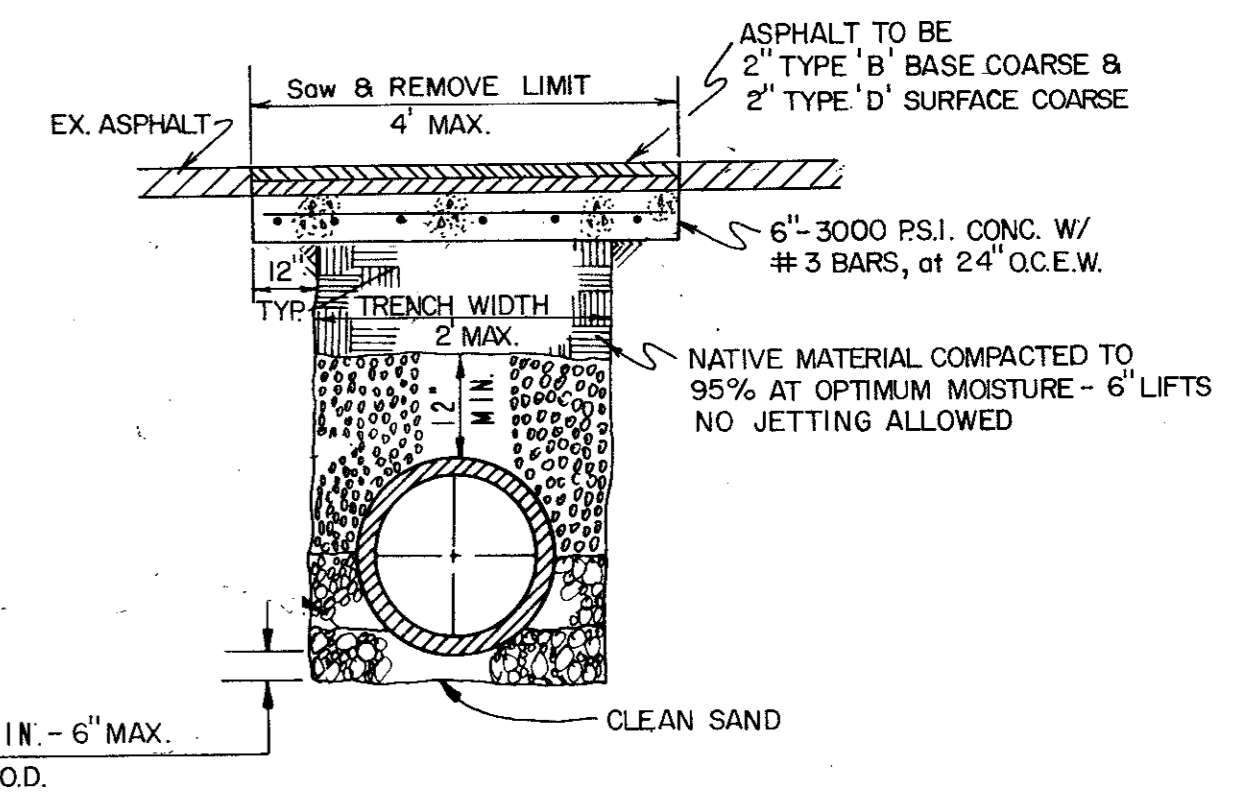
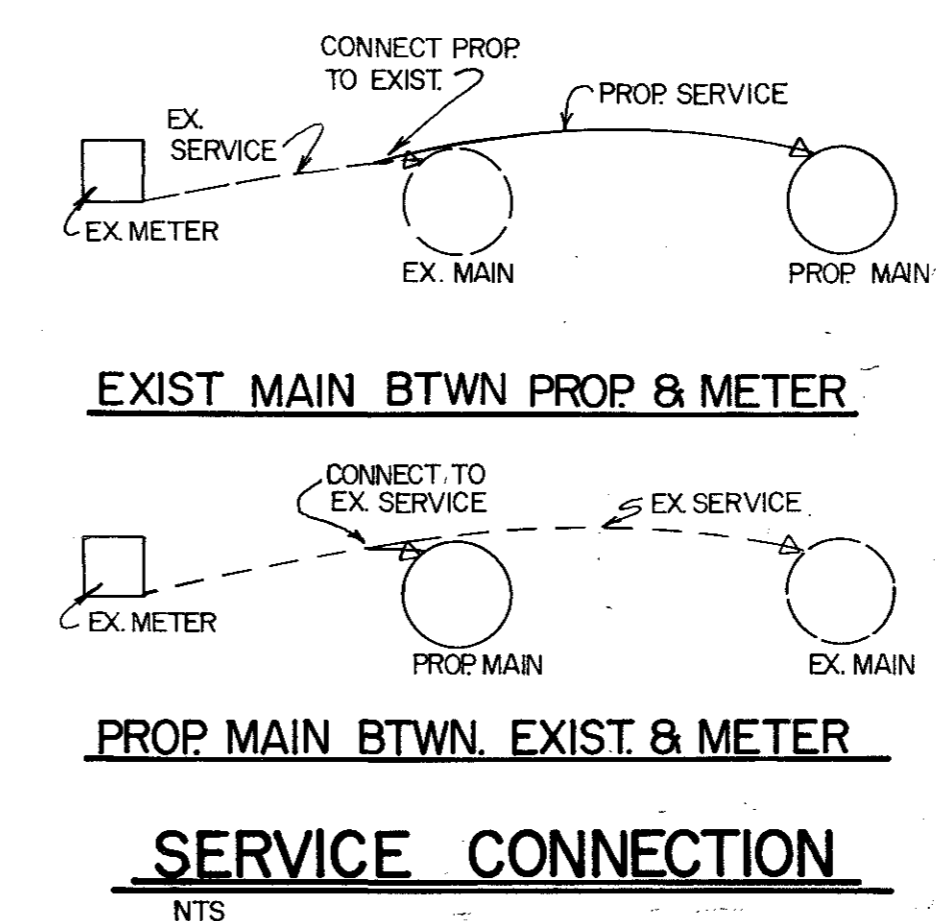


TYPICAL FIRE HYDRANT INSTALLATION



A BLUE STIMSONITE FIRE-LITE REFLECTOR (OR APPROVED EQUAL) TO BE PLACED IN THE CENTER OF STREET OPPOSITE FIRE HYDRANTS. THE INSTALLATION OF THIS REFLECTOR SHALL BE AS PRESCRIBED BY THE MANUFACTURER.

TYPICAL FIRE HYDRANT REFLECTOR INSTALLATION (NO SCALE)



TYPICAL BACKFILL WATER MAIN

THRUST IN TONS FOR VERTICAL BENDS

I. D. IN INCHES	Δ							
	11.25°	15°	22.50°	30°	45°	60°	75°	90°
12								
14								
16	2.94	3.90	5.78	7.54	10.66	13.06	14.56	15.08
18	3.72	4.94	7.30	9.54	13.50	16.52	18.42	19.08
20	4.60	6.10	9.02	11.78	16.66	20.40	22.76	23.56
24	6.62	8.78	12.98	16.96	23.98	29.38	32.76	33.92
30	10.34	13.72	20.28	26.52	37.50	45.92	51.22	53.02

GENERAL NOTES:

ALL CALCULATIONS ARE BASED ON TOTAL INTERNAL PRESSURE OF 150 P.S.I.

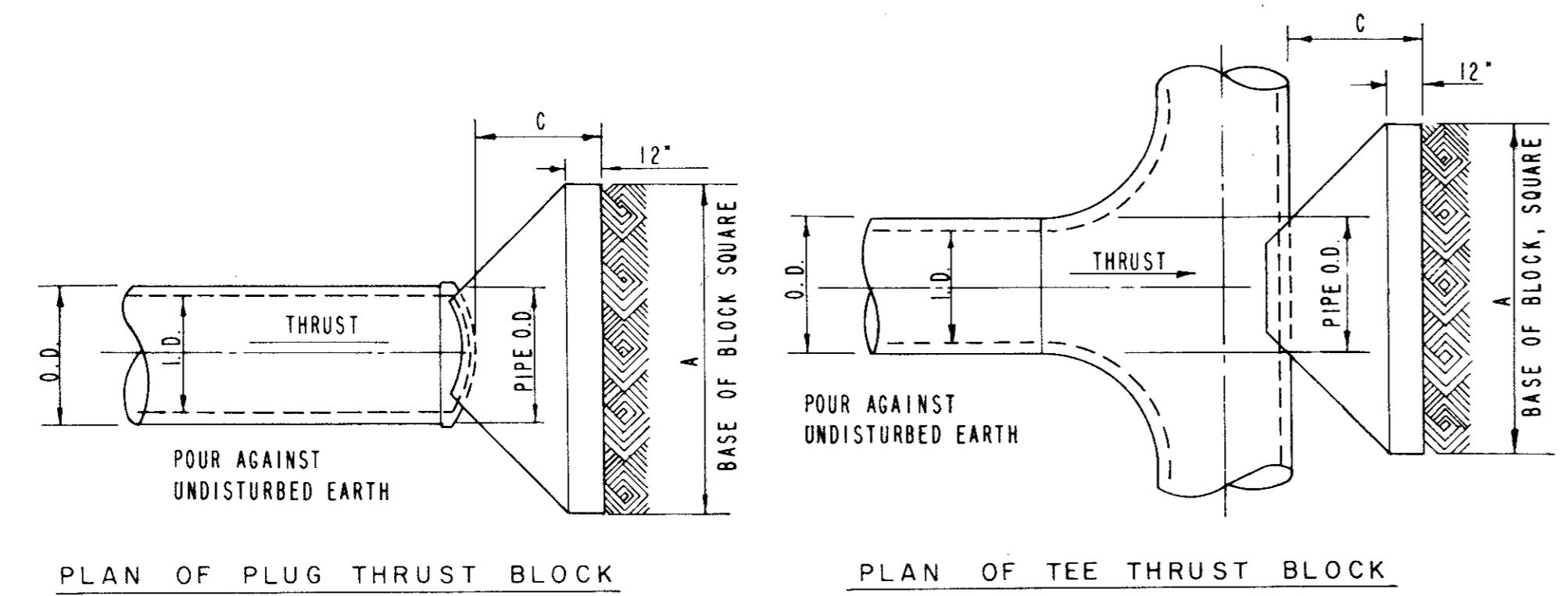
ALLOWABLE SOIL BEARING PRESSURES MUST BE AT LEAST ONE TON PER SQUARE FOOT FOR THE THRUST BLOCKS SHOWN. IN SOILS OF LESSER CAPACITY, INCREASE SIZE AND BEARING AREA PROPORTIONATELY. VOLUMES OF VERTICAL BEND THRUST BLOCKS ARE NET VOLUMES OF CONCRETE TO BE FURNISHED, AND THE CORRESPONDING WEIGHT OF THE CONCRETE (AT 4,000#/C.Y.) EQUALS THE VERTICAL COMPONENT OF THRUST ON THE VERTICAL BEND. ALL BEARING SURFACES OF THRUST BLOCKS SHALL BE POURED AGAINST UNDISTURBED EARTH.

CONCRETE FOR BLOCKING SHALL BE 2,000 CONCRETE.

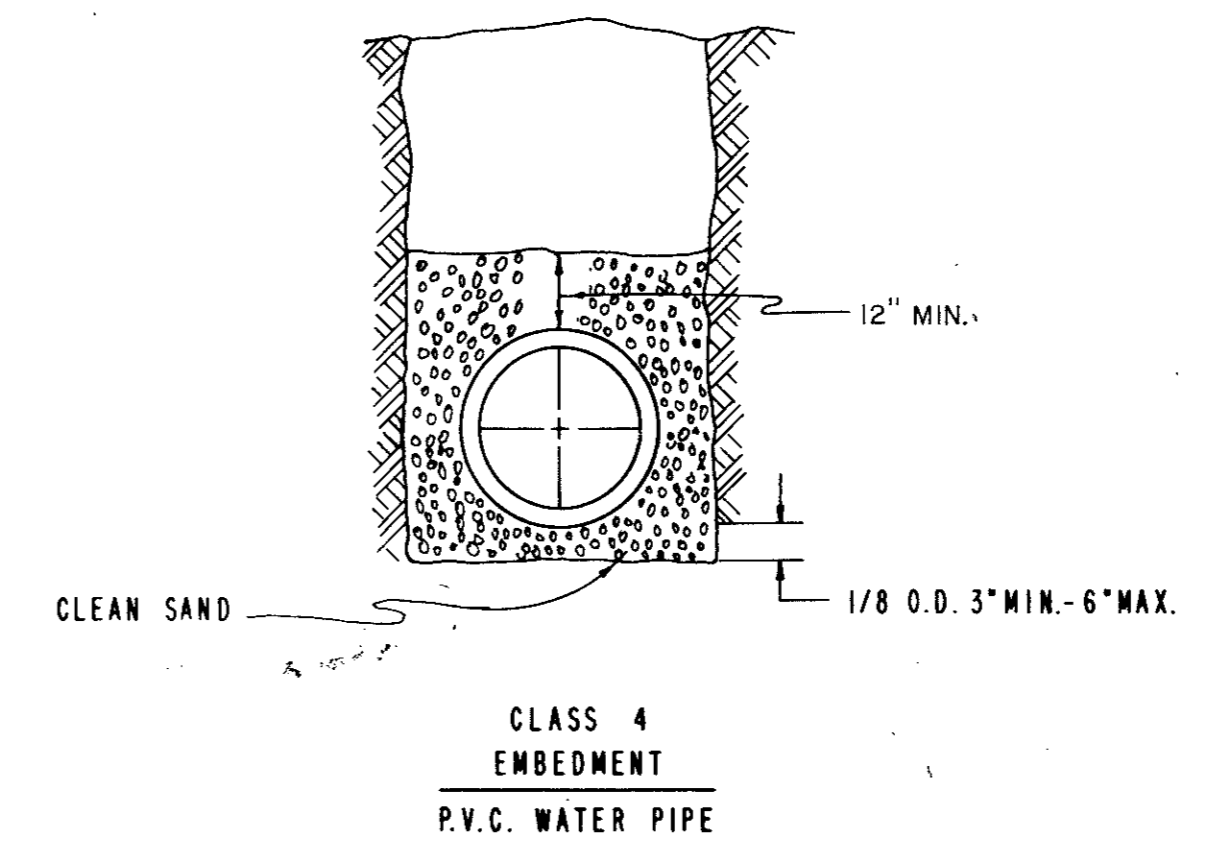
DIMENSIONS MAY BE VARIED AS REQUIRED BY FIELD CONDITIONS WHERE AND AS DIRECTED BY THE ENGINEER, BUT SHALL NOT BE LESS THAN THE DIMENSIONS SHOWN HERE.

TEES & PLUGS

I. D. UNIT	A FT.	C FT.	THRUST TONS
12"			
14"			
16"	3.87	1.57	15.08
18"	4.37	1.77	19.09
20"	4.86	1.97	23.56
24"	5.82	2.36	33.93
30"	7.28	2.95	53.01



TYPICAL PLUG & TEE THRUST BLOCKS



NO.	REVISION	BY	DATE
TOWN OF ADDISON, TEXAS DEPARTMENT OF ENGINEERING			
STANDARD CONSTRUCTION DETAILS WATER			
FIRE HYDRANT - SERVICE CONNECTION			
APPROVED _____ H. WAYNE GINN, P.E.			
DATE: MARCH, 1984		SHEET SD-16	

NOTE:

PROVIDE 1" MINIMUM THICKNESS CONCRETE OR CEMENT MORTAR COATING IN THE FIELD FOR THE PROTECTION OF ALL EXPOSED STEEL SUCH AS FLANGES, CAULKED JOINTS, THREADED OUTLETS, CLOSURES, ETC. THE CEMENT MORTAR USED SHALL CONSIST OF ONE PART PORTLAND CEMENT TO TWO AND ONE-HALF PARTS OF FINE, SHARP (PLASTER) SAND. WHERE SHOWN, COATING IS TO BE REINFORCED WITH WIRE MESH.

STEEL STRAP THREADED THROUGH HEM OF BURLAP WRAPPER, DRAWN TIGHT AND FASTENED.



CEMENT MORTAR, MIXED TO A CONSISTENCY OF THICK CREAM, TO BE POURED IN FIELD.

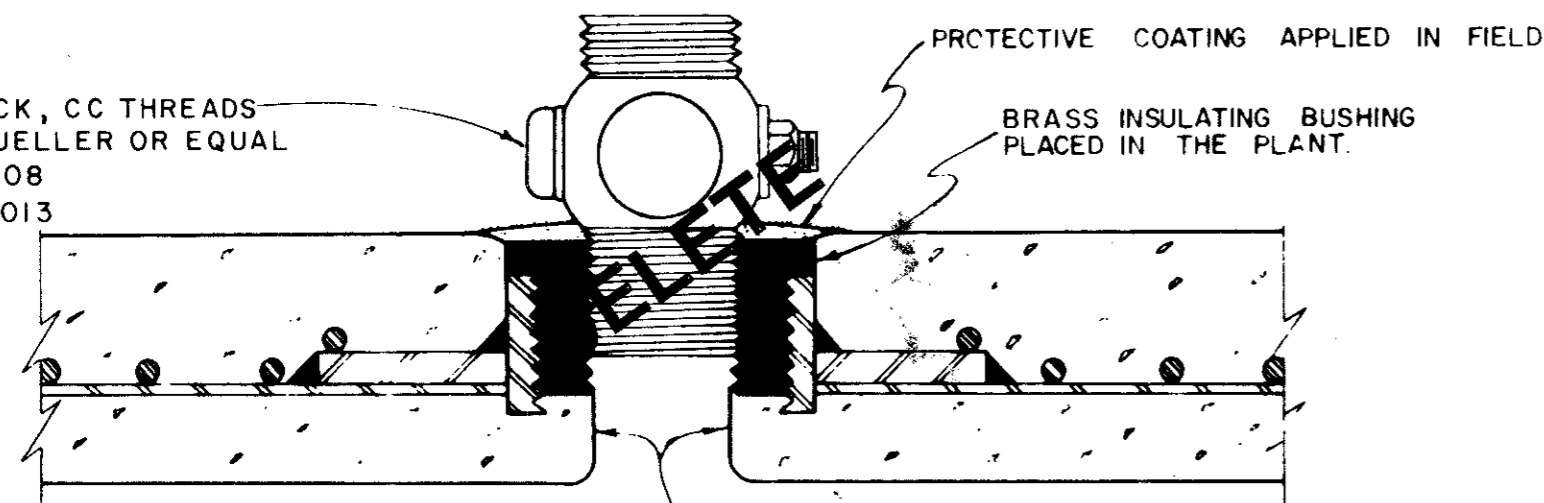
BURLAP WRAPPER AS MANUFACTURED BY MAR-MAC CORP. OR EQUAL. WIDTH OF WRAPPER TO BE 9" FOR 36" PIPE AND LARGER, 7" FOR 33" AND SMALLER.

CEMENT MORTAR OF STIFF CONSISTENCY PLACED IN THE FIELD.

STANDARD RUBBER GASKET JOINT

NOTE: ALL CLOSURE SECTIONS SHALL BE FABRICATED WITH HAND HOLES TO ALLOW WIPING INSIDE OF JOINTS AFTER CLOSURE IS IN PLACE.

CORPORATION COCK, CC THREADS ON INLET END MUELLER OR EQUAL 3/4" - 1" = H 1500B 1 1/2" - 2" = H 15013

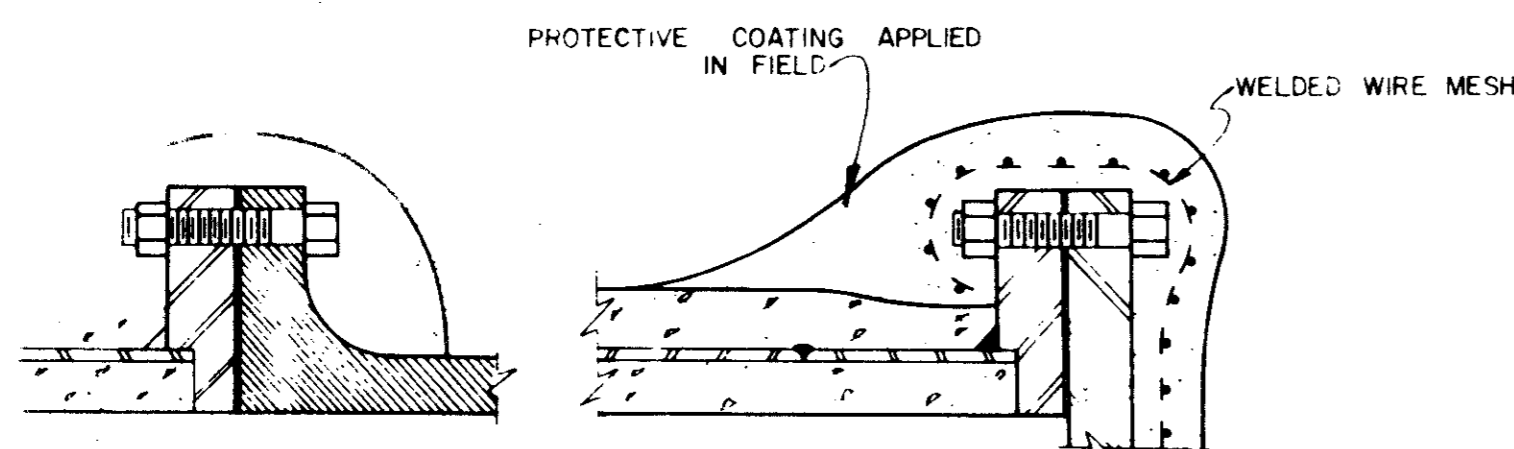


NOTE:

IF CORPORATION COCK IS NOT PROVIDED IN FIELD, THEN STEEL FLUG SHALL BE COVERED WITH CEMENT MORTAR.

LINE IN PLANT TO COVER ALL EXPOSED STEEL.

THREADED CONNECTION

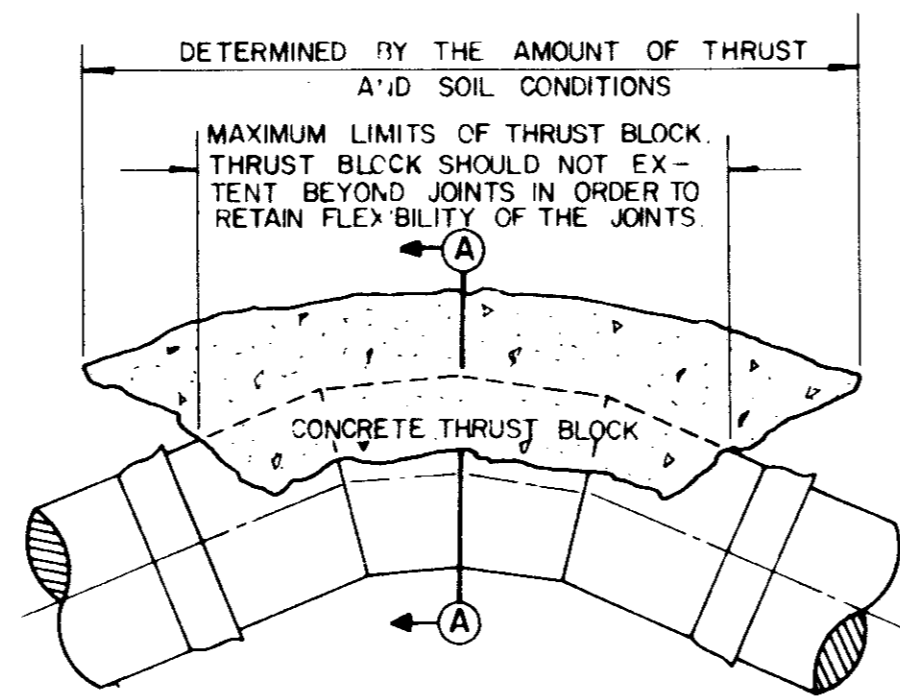


FLANGED CONNECTIONS

REINFORCED CONCRETE CYLINDER PIPE DETAILS

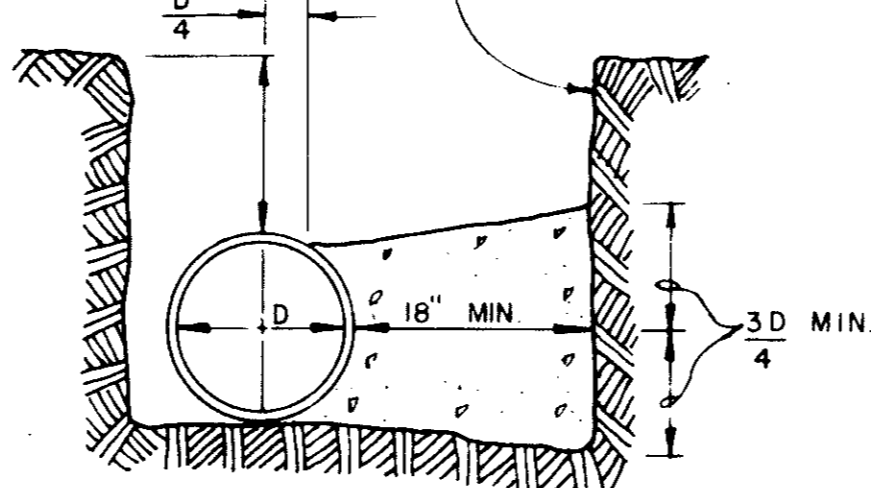
NOTE:

ANY SURFACE RECEIVING A CEMENT MORTAR COATING SHALL BE THOROUGHLY CLEAN AND WETTED WITH WATER JUST PRIOR TO PLACING THE CEMENT MORTAR COATING. AFTER PLACEMENT, CARE SHALL BE TAKEN TO PREVENT CEMENT MORTAR COATING FROM DRYING OUT TOO RAPIDLY BY COVERING WITH DAMP EARTH OR BURLAP. CEMENT MORTAR COATING SHALL NOT BE APPLIED DURING FREEZING WEATHER.



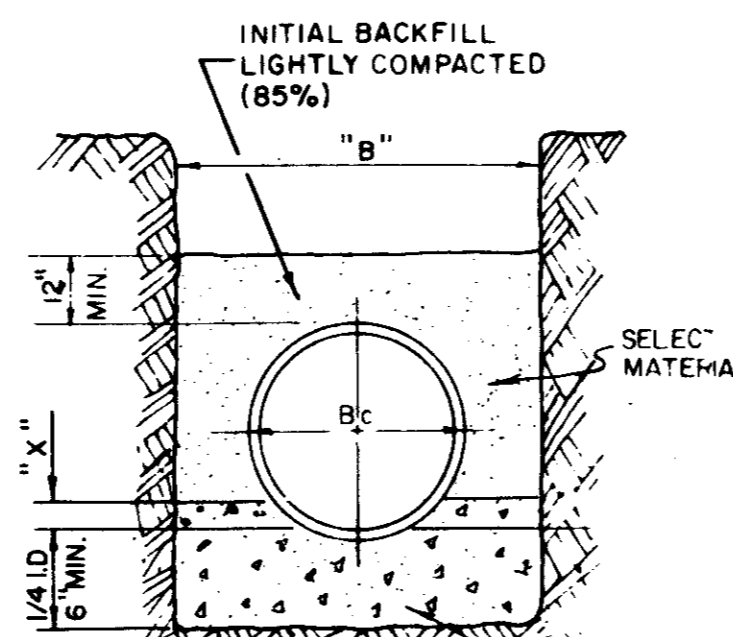
PLAN VIEW

THIS SURFACE MUST BE UNDISTURBED TRENCH WALL.

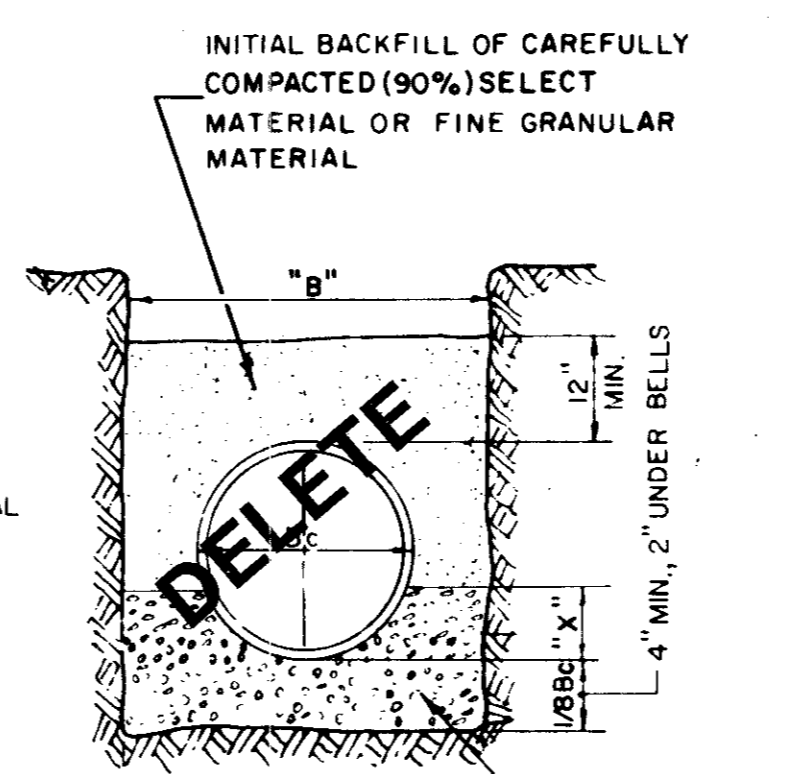


PROVIDE ADEQUATE BLOCKING AT TEES, WYES, BENDS, DEAD ENDS, ETC. TO COUNTERACT THE RESULTANT FORCE DUE TO INTERNAL PRESSURES.

THRUST BLOCK DETAIL

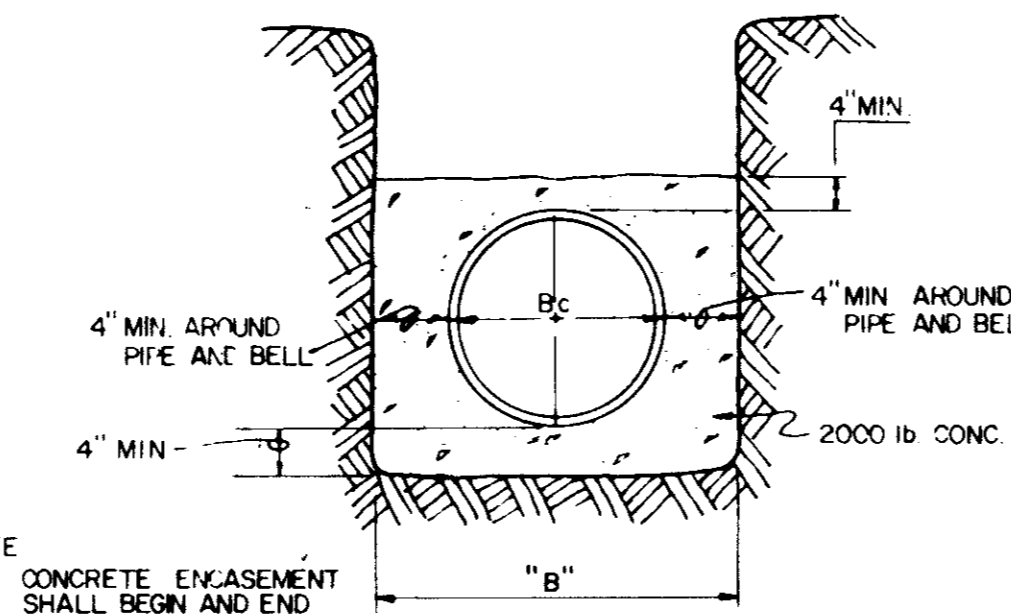


CONCRETE CRADLE



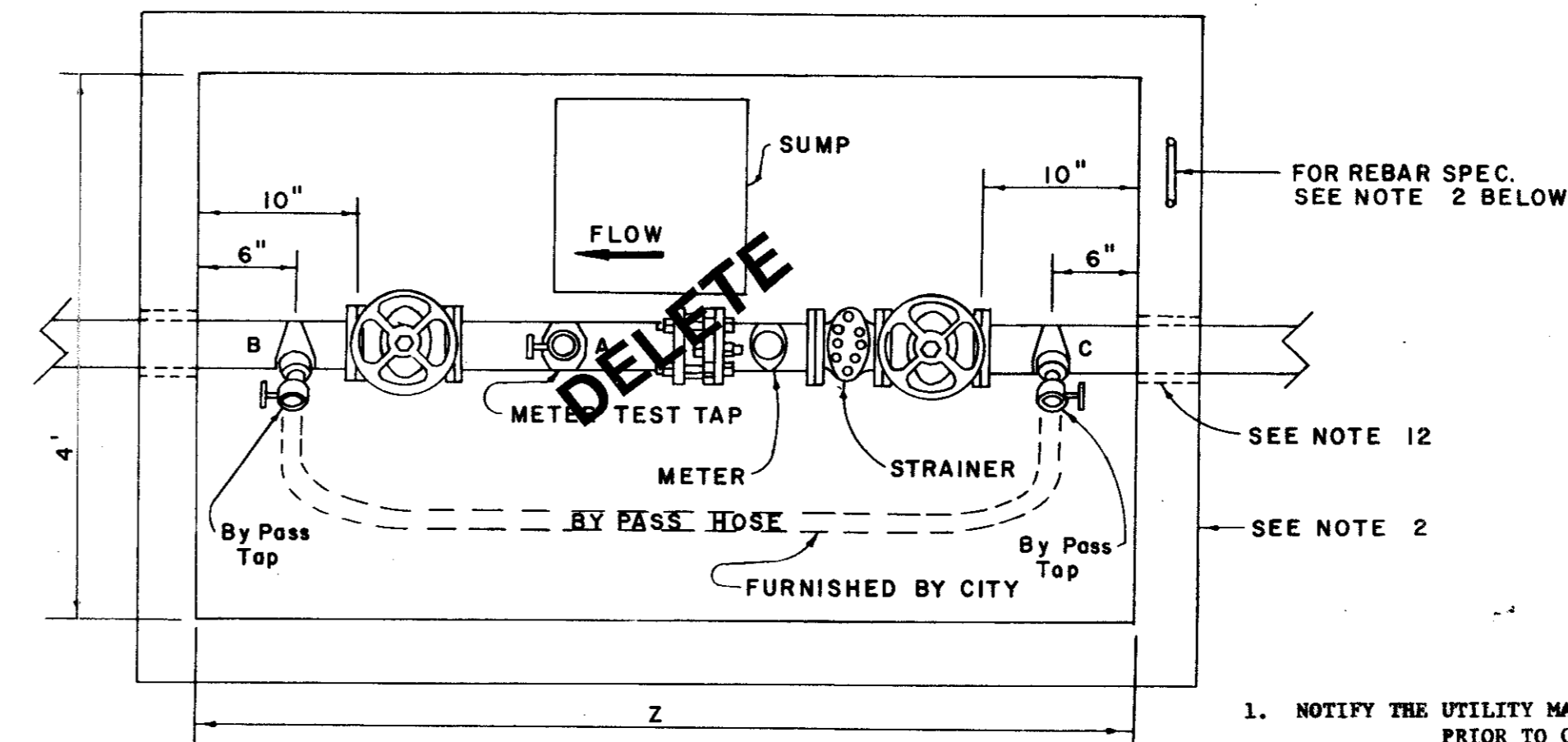
CLASS "1" EMB.

EMBEDMENT DETAILS



NOTE: CONCRETE ENCASEMENT SHALL BEGIN AND END 6 INCHES FROM THE END OF A JOINT.

CONCRETE ENCASEMENT

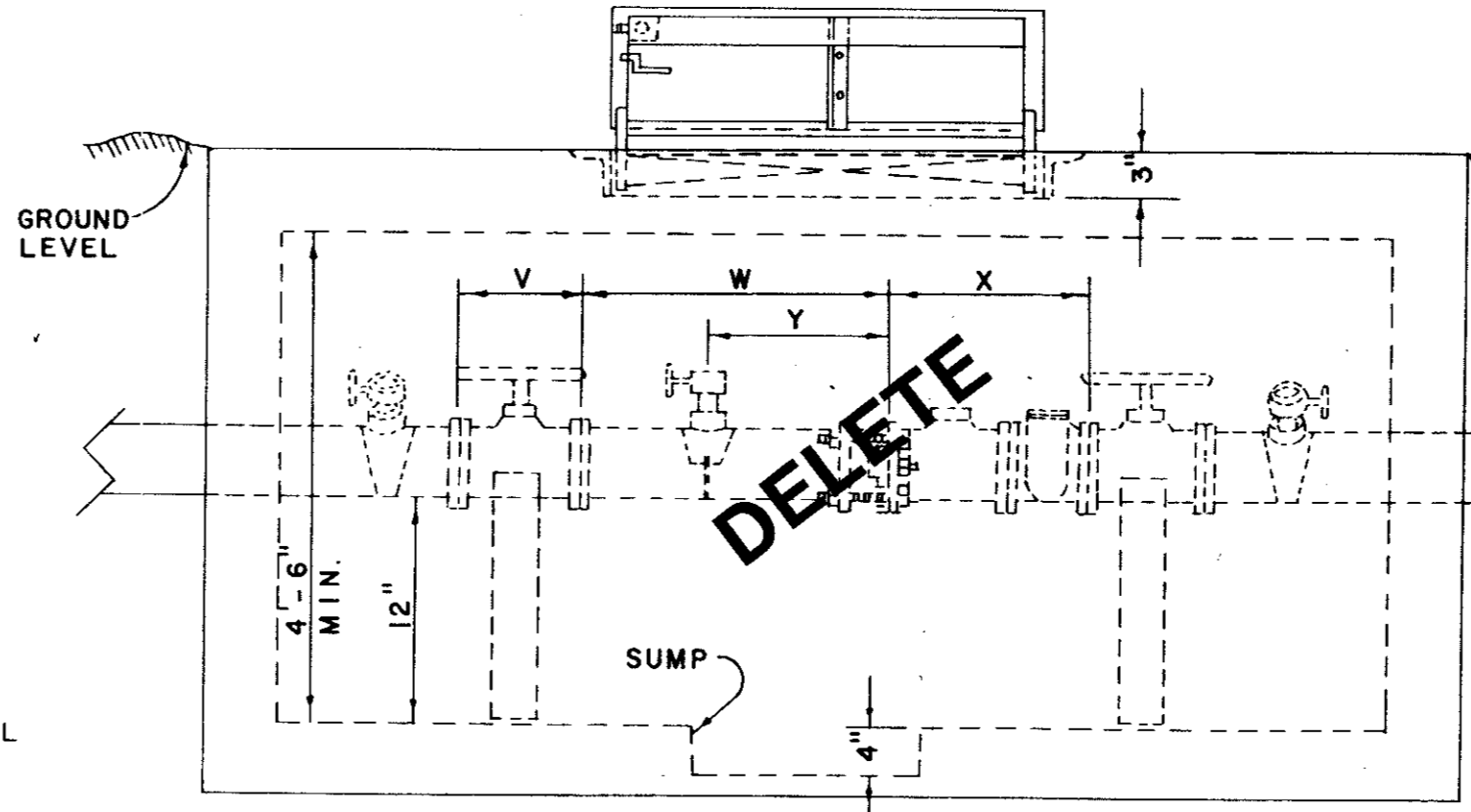


DIMENSION FOR 3", 4", & 6" M.V.

DIMENSION	3"	4"	6"
V	8"	10.5"	10.5"
W	20"	18"	18"
X	0"	23"	27"
Y	9"	9"	12"
Z	6'-1"	7'	7'-5"

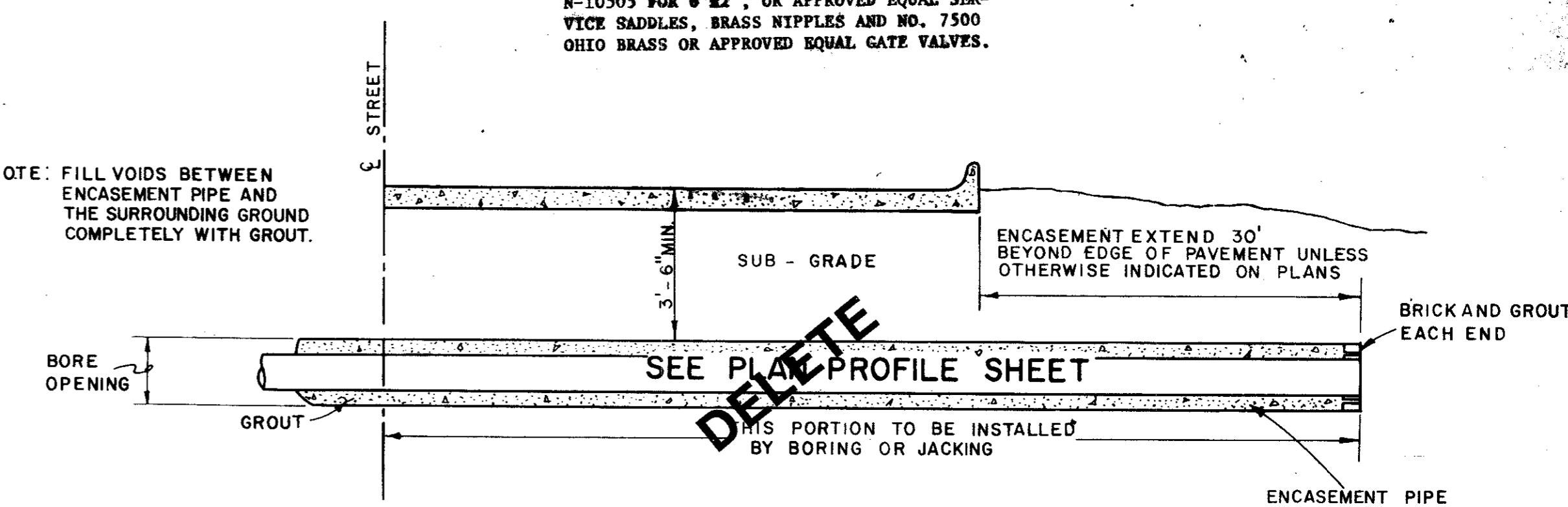
METER VAULT & BY-PASS SPECIFICATIONS

- NOTIFY THE UTILITY MAINTENANCE DEPARTMENT PRIOR TO CONSTRUCTION OF VAULT OR BY-PASS ASSEMBLY.
- THE METER VAULT CAN BE EITHER POURED IN PLACE OR PREFABRICATED. CONCRETE SHALL BE 6" THICK AND BE 3000 PSI REINFORCED WITH #4 STEEL BARS ON 12" CENTERS EACH WAY IF THE VAULT IS POURED IN PLACE. PREFABRICATED VAULTS SHALL BE 4" THICK AND BE 4500 PSI CONCRETE #4 STEEL BARS ON 8" CENTERS. THESE ARE MINIMUM SPECIFICATIONS.
- THE VAULT WILL NOT BE PUT IN ANY DRIVE OR PARKING AREAS AND MUST BE LOCATED IN A UTILITY EASEMENT.
- A DRAWING WITH THE EXACT MEASUREMENTS FOR METER VAULT AND BY-PASS WILL BE GIVEN TO THE CONTRACTOR FOR A 3", 4" and 6" METER.
- THE VAULT LID SHALL BE A BILCO LID, TYPE Q-4 SINGLE LEAF DESIGN. ANGLE FRAME IS 1/4" STEEL WITH STRAP ANCHORS BOLTED TO THE EXTERIOR. THE LEAF IS 1/4" STEEL DIAMOND PATTERN PLATE, PIVOTING ON TONSTON BARS FOR EASY OPERATION. THE MINIMUM LIVE LOAD CAPACITY IS 150 LBS. PER SQUARE FOOT. THE SIZE OF THE LID IS 3'x3'.
- THE LID SHALL BE PAINTED WITH 43-38 INEPEC DIFFUSED ALUMINUM PAINT OR APPROVED EQUAL.
- CONTRACTOR SHALL MAKE 3 TAPS INSIDE THE VAULTS. TAP A MUST BE AT LEAST TWO PIPE DIAMETERS DOWNSTREAM OF METER AND MUST BE 2". TAPS B & C MUST BE MADE AT APPROXIMATELY 45° ANGLE ON EACH END OF THE PIPING BEFORE IT INTERSECTS THE WALL. CONTRACTOR SHALL FURNISH MUELLER NO. N-10499 FOR 3"x2", MUELLER NO. N-10504 FOR 4"x2", AND MUELLER NO. N-10505 FOR 6"x2", OR APPROVED EQUAL SERVICE SADDLES, BRASS NIPPLES AND NO. 7500 OHIO BRASS OR APPROVED EQUAL GATE VALVES.
- THE STRAINER, METER, AND FLEXIBLE COUPLING WILL BE PROVIDED AND INSTALLED BY THE TOWN OF ADDISON AT THE CONTRACTORS EXPENSE.
- THE STRAINER, METER AND FLEXIBLE COUPLING WILL NOT BE SET UNTIL THE METER VAULT AND TAPS ARE ACCEPTED BY THE TOWN OF ADDISON, UTILITY MAINTENANCE DEPARTMENT.
- THE GATE VALVES ARE REQUIRED TO BE MUELLER A-2370-6 FLANGED RESILIENT SEAT GATE VALVES.
- THE BOTTOM OF THE METER VAULT MUST BE 6" THICK CONCRETE WITH #4 REBAR ON 12" CENTERS AND HAVE A 4" FILL SAND COURSE UNDERNEATH. A SUMP 4" DEEP AND 12" IN DIAMETER SHALL BE INSTALLED TO ONE SIDE OF THE CENTER OF THE BOTTOM SLAB. IF PRECAST VAULT IS USED WHERE THE SIDES JOIN THE BOTTOM, A LATER RAM-NEK SHALL BE USED TO SEAL THE JOINT.
- CONTRACTOR SHALL HAVE A CHOICE OF EITHER HAVING A LINK SEAL WALL SLAVE MODEL WS-8-12-S-6 FOR A 4" PIPE, WS-1036-S-6 OR WS-12-37-S-6 FOR 6" PIPE CAST IN THE VAULT OR HAVE THE VAULT WALL CORED BEFORE INSTALLATION OF VAULT AND PIPING. IN EITHER CASE, A LINK SEAL MODEL NO. LS-400-C MUST BE USED TO SEAL THE ANNULAR SPACE BETWEEN THE PIPE AND WALL OF VAULT. BREAKING OF THE WALL WITH A JACKHAMMER IS NOT PERMITTED.
- UNDER EACH VALVE WILL BE A CONCRETE SUPPORT.
- DEPTH OF VAULT SHALL BE A MINIMUM OF 4 1/2 FEET.



HALF-SECTION TYPICAL HIGHWAY CROSSING
NO SCALE

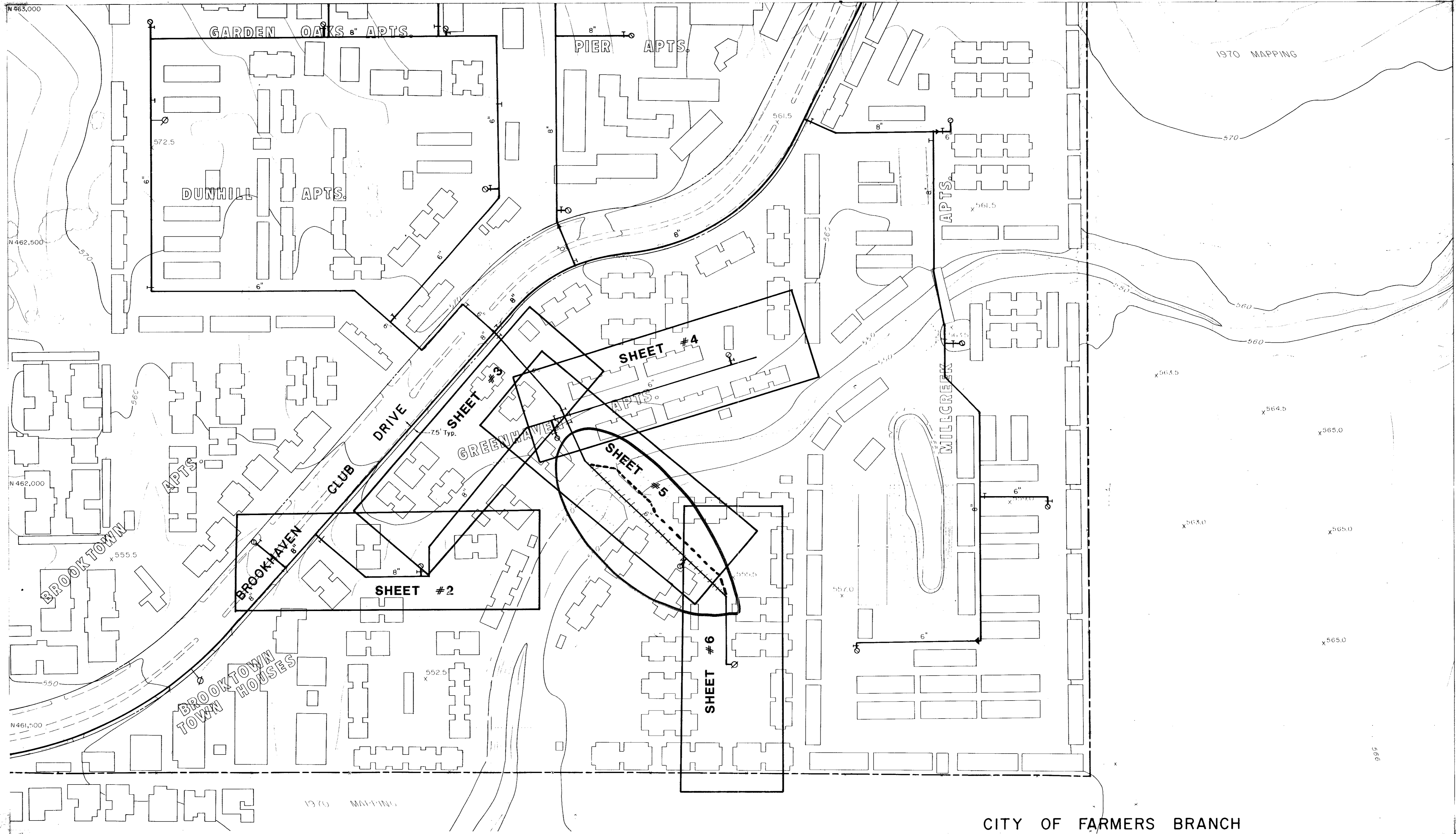
NOTE: FILL VOIDS BETWEEN ENCASEMENT PIPE AND THE SURROUNDING GROUND COMPLETELY WITH GROUT.



NOTE: ENCASEMENT PIPE MAY BE ELIMINATED FOR CITY STREETS.

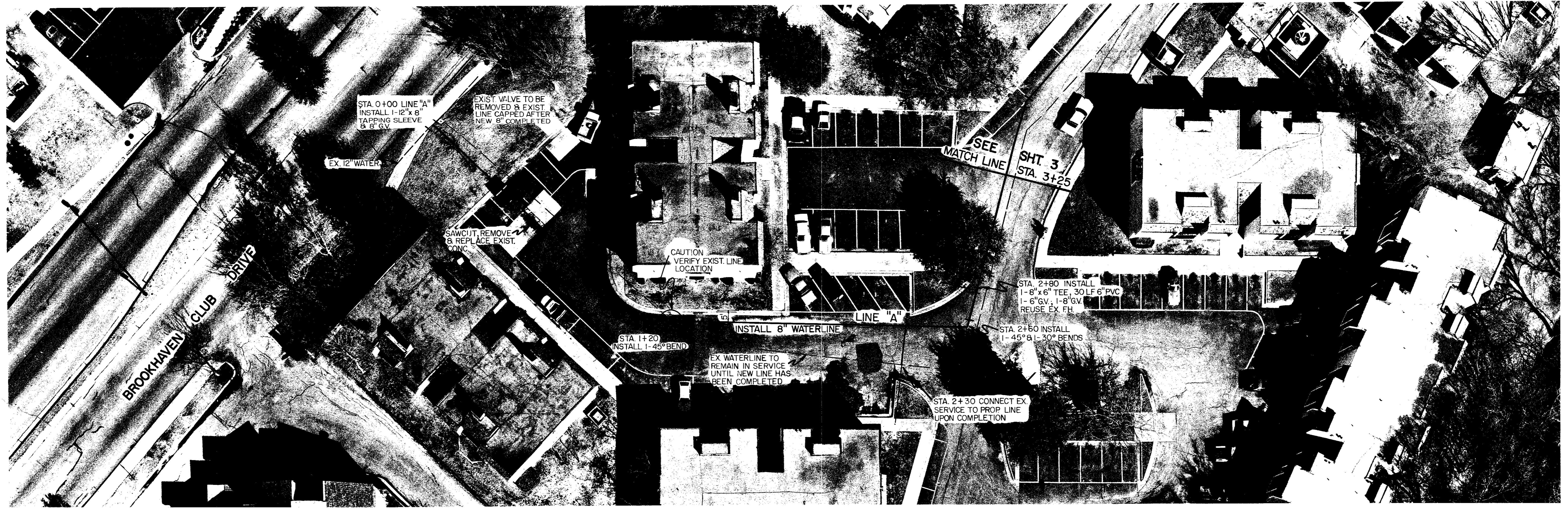
TABLE OF QUANTITIES OF MATERIALS IN CUBIC YARDS PER 100 LINEAR FEET						
INSIDE DIAMETER OF PIPE	APPROX. OUTSIDE DIAMETER OF PIPE	"X" IS A MINIMUM DEPTH	"B" TRENCH WIDTH FOR COMPUTATION OF QUANTITIES	CONCRETE		CRUSHED STONE FOR "CL" EMBEDMENT
				FOR EMBEDMENT	FOR ENCASEMENT	
REINFORCED CONCRETE CYLINDER PIPE						
14"	17.25"	2.53'	34"	6.91	16.07	5.16
16"	19.38"	2.84'	36"	7.50	17.76	5.64
18"	21.78"	3.19'	38"	8.11	19.52	6.16
24"	27.75"	4.06'	44"	9.97	24.90	9.28

NO.	REVISION	BY	DATE
TOWN OF ADDISON, TEXAS DEPARTMENT OF ENGINEERING			
STANDARD CONSTRUCTION DETAILS WATER			
WATER PIPE DETAILS			
APPROVED _____		H. WAYNE GINN, P.E.	
DATE MARCH, 1984		SHEET SD-17	

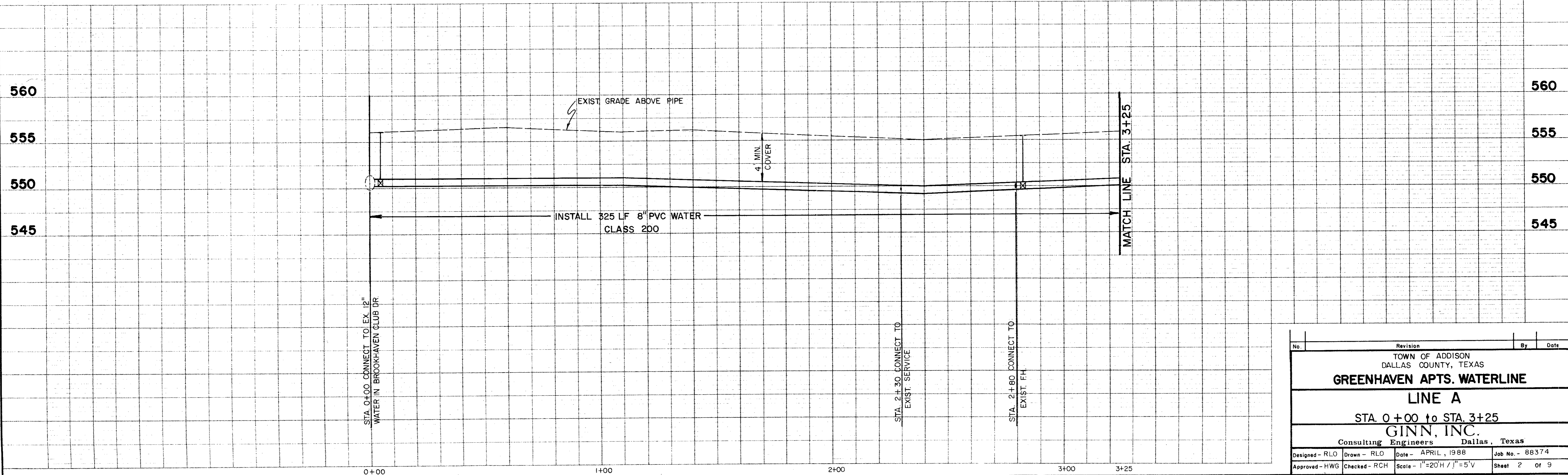


CITY OF FARMERS BRANCH

No.	Revision	By	Date
TOWN OF ADDISON DALLAS COUNTY, TEXAS GREENHAVEN APTS. WATERLINE			
TITLE SHEET			
GINN, INC. Consulting Engineers Dallas, Texas			
Designed - GINN	Drawn - GINN	Date - MAY, 1988	Job No. - 88374
Approved - HWG	Checked - RCH	Scale - 1" = 20' H / 1" = 5' V	Sheet 1 of 9



GENERAL NOTES:
 CONTRACTOR TO VERIFY STA'S UPON
 ACTUAL LAYOUT OF THE PROJECT IN THE FIELD.
 CONTRACTOR TO CUT & PLUG EX WATERLINE-
 AFTER NEW WATERLINE IS IN SERVICE



No.	Revision	By	Date
TOWN OF ADDISON DALLAS COUNTY, TEXAS			
GREENHAVEN APTS. WATERLINE			
LINE A			
STA. 0+00 to STA. 3+25			
GINN, INC.			
Consulting Engineers Dallas, Texas			
Designed - RLO	Drawn - RLO	Date - APRIL, 1988	Job No. - 88374
Approved - HWG	Checked - RCH	Scale - 1"=20'H / 1"=5'V	Sheet 2 of 9



STA. 3+60 INSTALL
1-30° BEND

STA. 4+95 & STA. 5+35
CONNECT EX. SERVICES
TO PROP LINE UPON ITS
COMPLETION

SAWCUT, REMOVE, &
REPLACE EX. CONC.

STA. 6+75 INSTALL
1-30° BEND

STA. 7+25 INSTALL
1-8" x 6" TEE, 1-90° BEND (6")
1-6" x 6" TAPPING SLEEVE
& VALVE. PLUG EX. AS SHOWN

STA. 7+60 END LINE "A" =
STA. 0+00 BEGIN LINE "B"
INSTALL 1-90° BEND

STA. 7+00 INSTALL
1-8" x 6" TEE, 1-6" GV
REUSE EX. FH.
1-8" G.V.; 40 LF 6" PVC

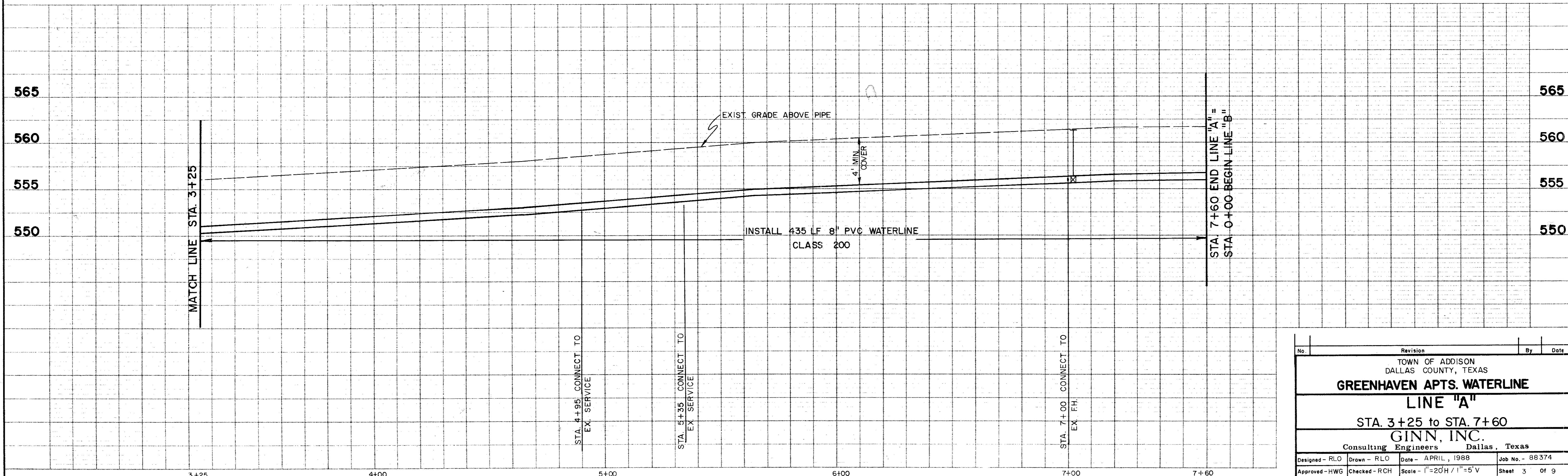
EX. WATER TO REMAIN
IN SERVICE UNTIL NEW
LINE HAS BEEN COMPLETED

MATCH LINE
SEE

STA. 3+25
SHT. 2

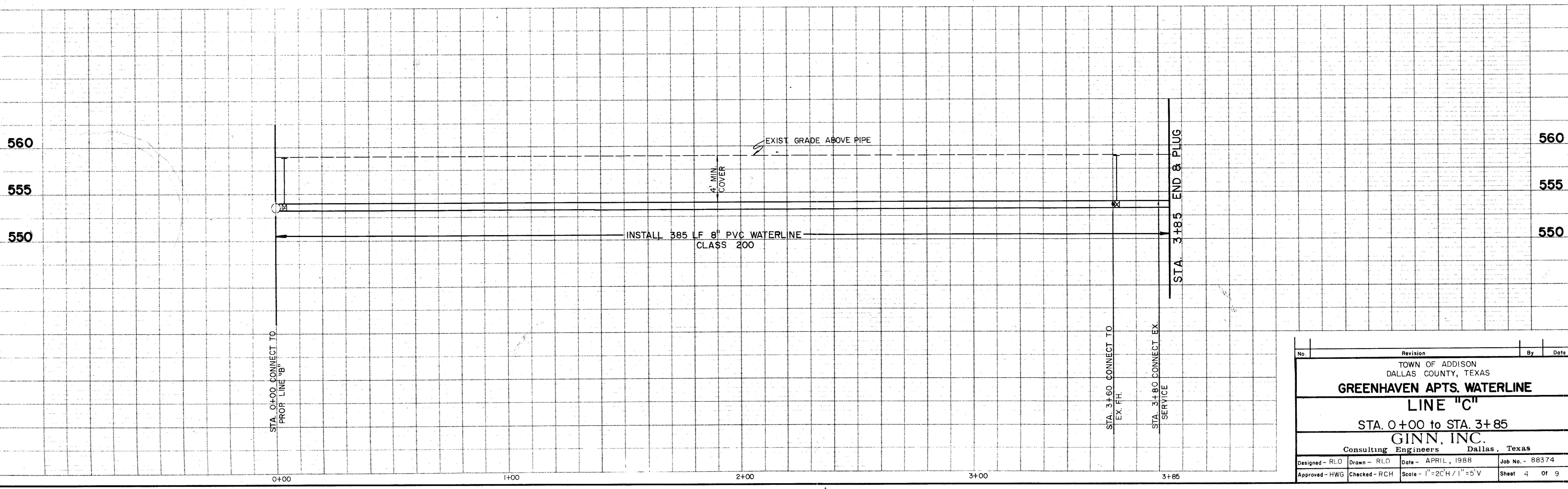
LINE "A"
INSTALL 8" PVC WATER

EX. VALVES



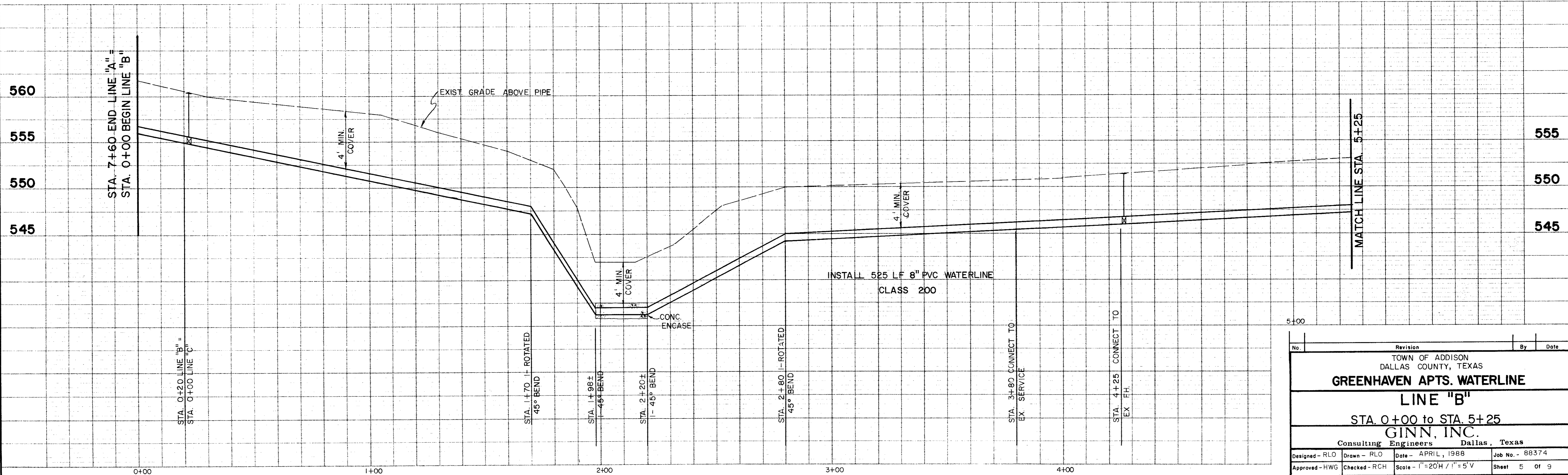
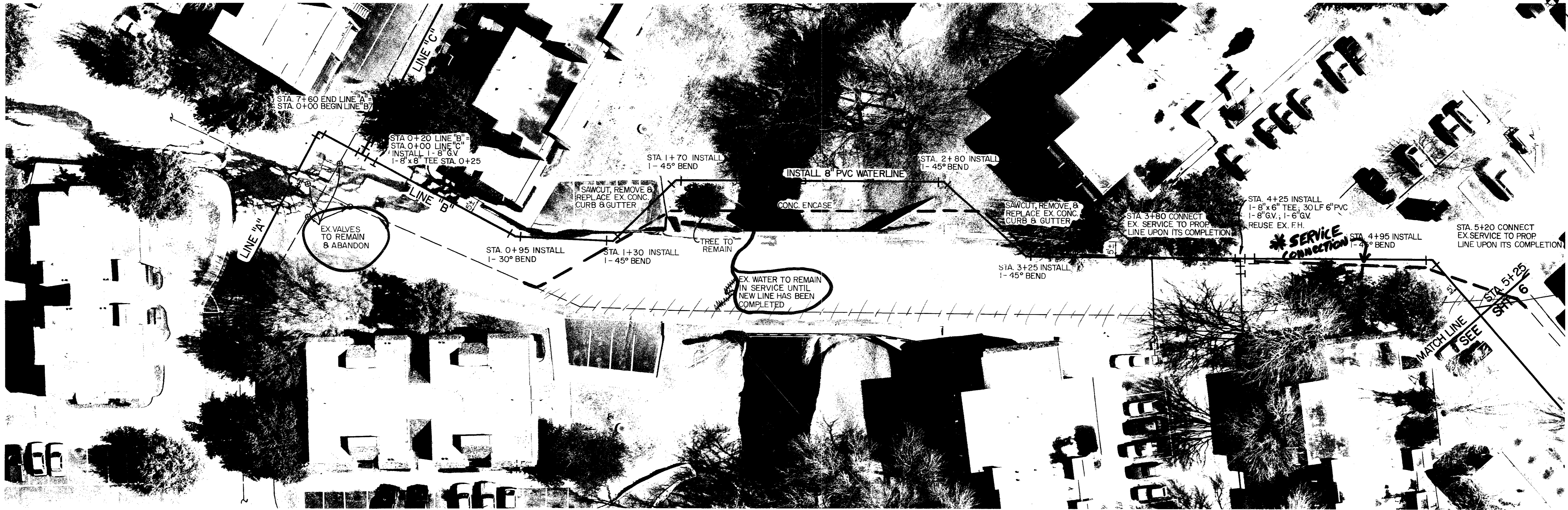
No.	Revision	By	Date
TOWN OF ADDISON DALLAS COUNTY, TEXAS			
GREENHAVEN APTS. WATERLINE			
LINE "A"			
STA. 3+25 to STA. 7+60			
GINN, INC.			
Consulting Engineers Dallas, Texas			
Designed - RLO	Drawn - RLO	Date - APRIL, 1988	Job No. - 88374
Approved - HWG	Checked - RCH	Scale - 1"=20'H / 1"=5'V	Sheet 3 of 9

TEL: 214-343-1111



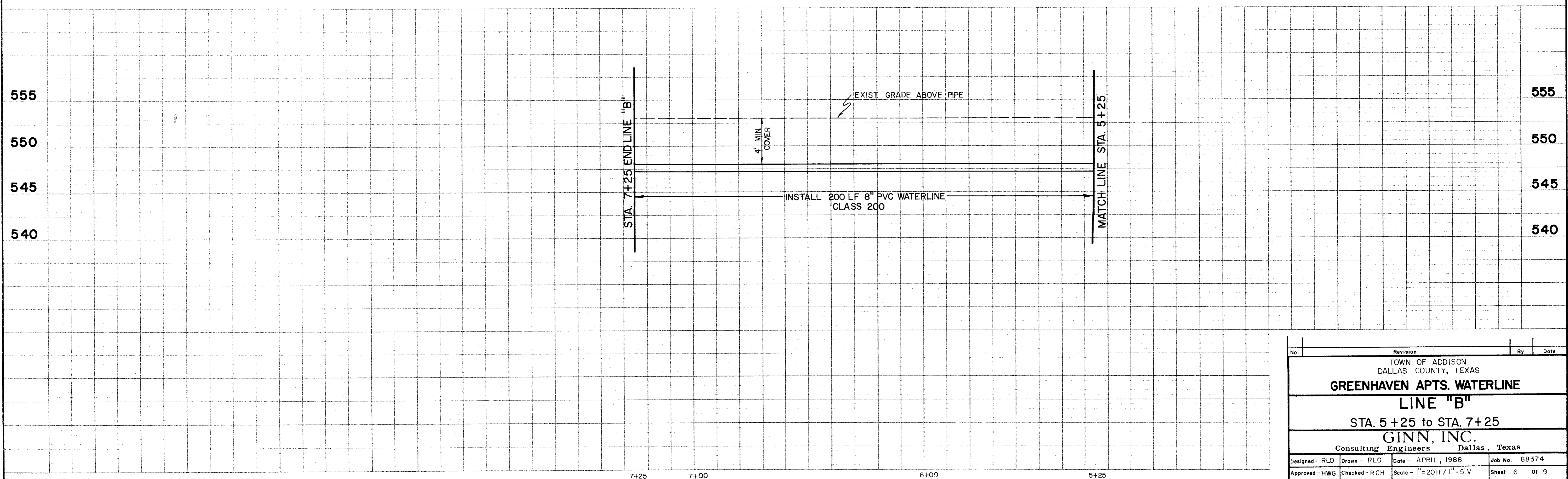
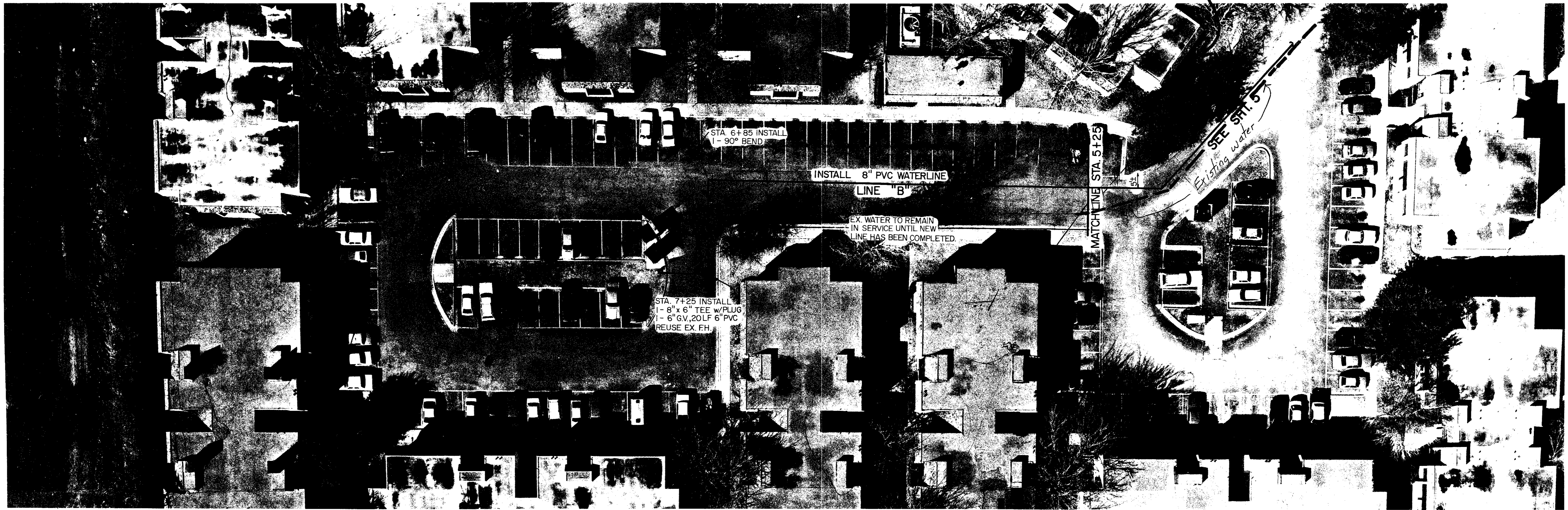
No.	Revision	By	Date
TOWN OF ADDISON DALLAS COUNTY, TEXAS GREENHAVEN APTS. WATERLINE LINE "C" STA. 0+00 to STA. 3+85 GINN, INC. Consulting Engineers Dallas, Texas			
Designed - RLO	Drawn - RLO	Date - APRIL, 1988	Job No. - 88374
Approved - HWG	Checked - RCH	Scale - 1"=20'H / 1"=5'V	Sheet 4 of 9

TELETYPE POST 11/8/88



No.	Revision	By	Date
TOWN OF ADDISON DALLAS COUNTY, TEXAS GREENHAVEN APTS. WATERLINE LINE "B" STA. 0+00 to STA. 5+25 GINN, INC. Consulting Engineers Dallas, Texas			
Designed - RLO	Drawn - RLO	Date - APRIL, 1988	Job No. - 88374
Approved - HWG	Checked - RCH	Scale - 1"=20'H / 1"=5'V	Sheet 5 of 9

* SVC. Connection
See Sheet 5



No.	Revision	By	Date
TOWN OF ADDISON DALLAS COUNTY, TEXAS GREENHAVEN APTS. WATERLINE LINE "B" STA. 5+25 to STA. 7+25 GINN, INC. Consulting Engineers Dallas, Texas			
Designed - RLO	Drawn - RLO	Date - APRIL, 1988	Job No. - 88374
Approved - HWG	Checked - RCH	Scale - 1"=20'H / 1"=5'V	Sheet 6 of 9

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