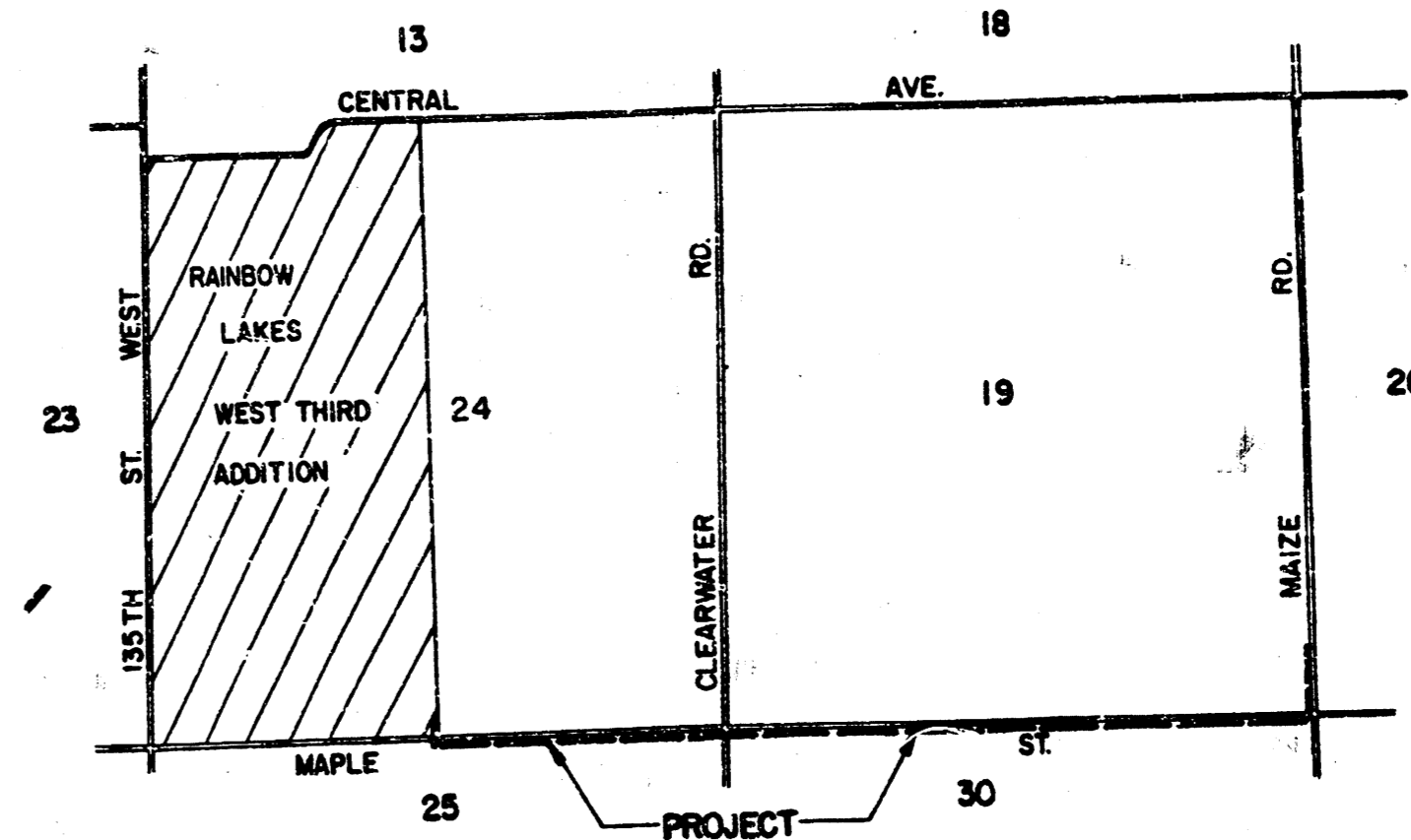


INDEX OF SHEETS

SHEET NO. 1	TITLE SHEET
2-5a	FORCE MAIN
6	PUMP STATION
7,7a	DETAIL SHEET
8	MANHOLE STANDARD



**CONSTRUCTION PLANS FOR
 SANITARY SEWER EXTENSIONS
 PUMPING STATION & FORCE MAIN
 FOR
 RAINBOW LAKES WEST THIRD ADDITION
 TO SEDGWICK COUNTY, KANSAS**

CITY OF WICHITA PROJECT NO 542-80-245-80032-000-000-003

**REISS AND GOODNESS ENGINEERS
 WICHITA, KANSAS**

1981

PLANS PREPARED BY
REISS & GOODNESS ENGINEERS
 2100 WEST 21ST STREET
 WICHITA, KANSAS 67204
 (316) 832-0233

DATE *1-6-81*

FILED
 FILED IN THE OFFICE OF
 THE SEDGWICK COUNTY CLERK

Deborah K. White *2-23-81*
 COUNTY CLERK DATE

APPROVED
J. L. Guzman
 COUNTY ENGINEER/DIRECTOR OF PUBLIC WORKS

DATE *2-23-81*

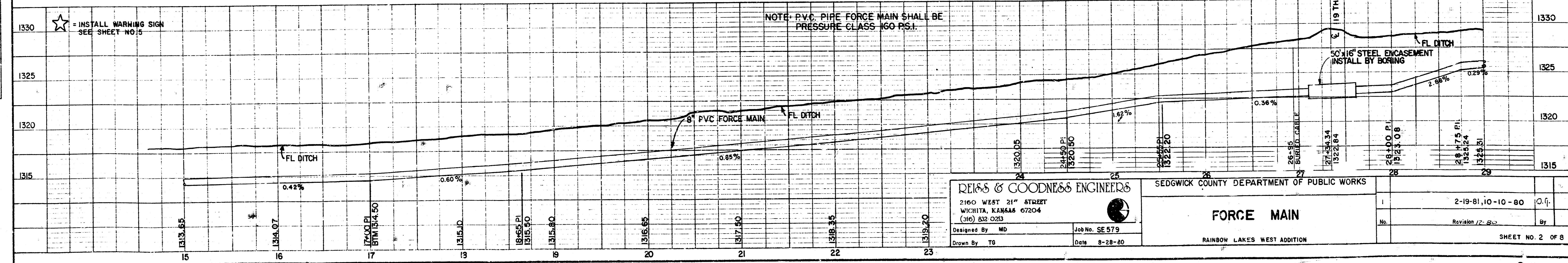
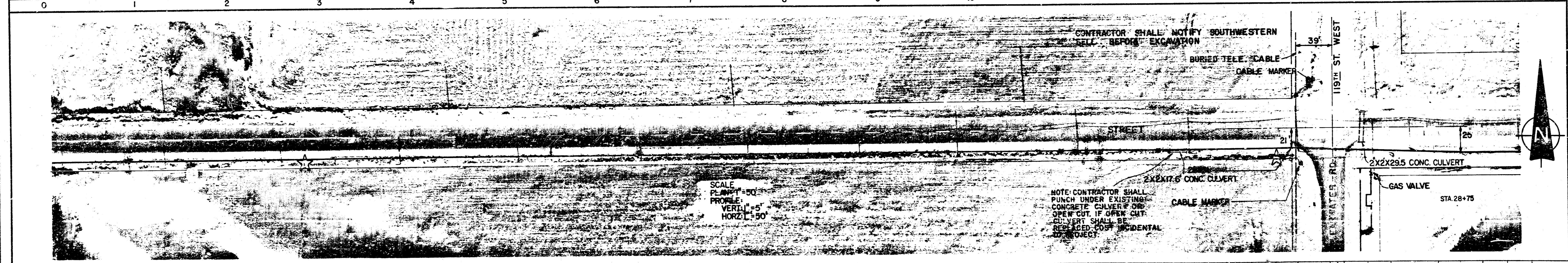
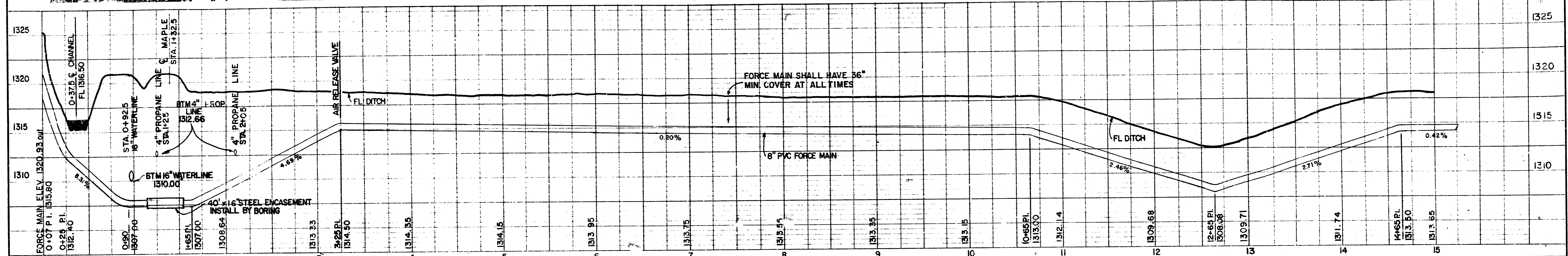
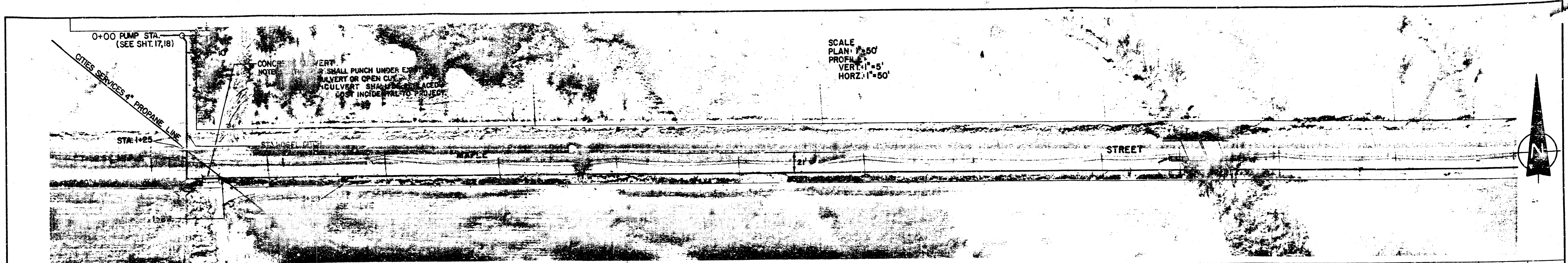
R. W. Bruggeman
 CITY ENGINEER, CITY OF WICHITA, KANSAS

DATE *2-12-81*

APPROVED DATE
Donald E. Gray
 CHAIRMAN
 BOARD OF COUNTY COMMISSIONERS

PLAN
 SURVEYED:
 NOTED:
 NOTE BOOK:
 NO.:

PROFILE
 SURVEYED:
 NOTED:
 NOTE BOOK:
 NO.:



REISS & GOODNESS ENGINEERS
 2160 WEST 21ST STREET
 WICHITA, KANSAS 67204
 (316) 832-0213

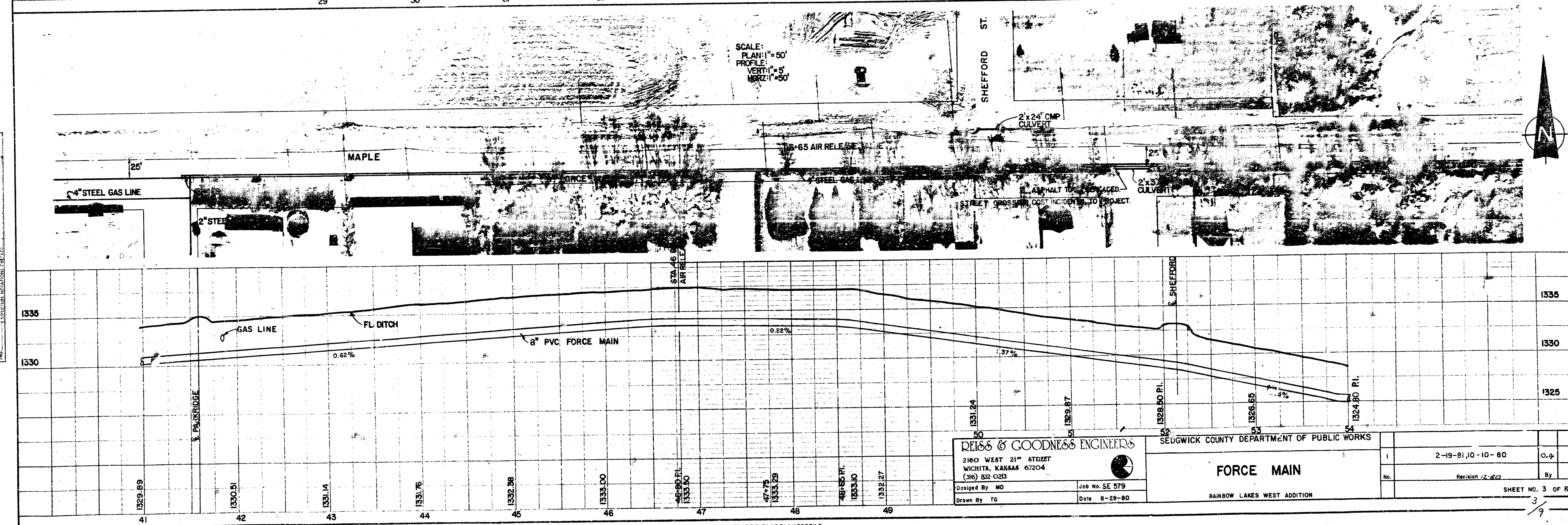
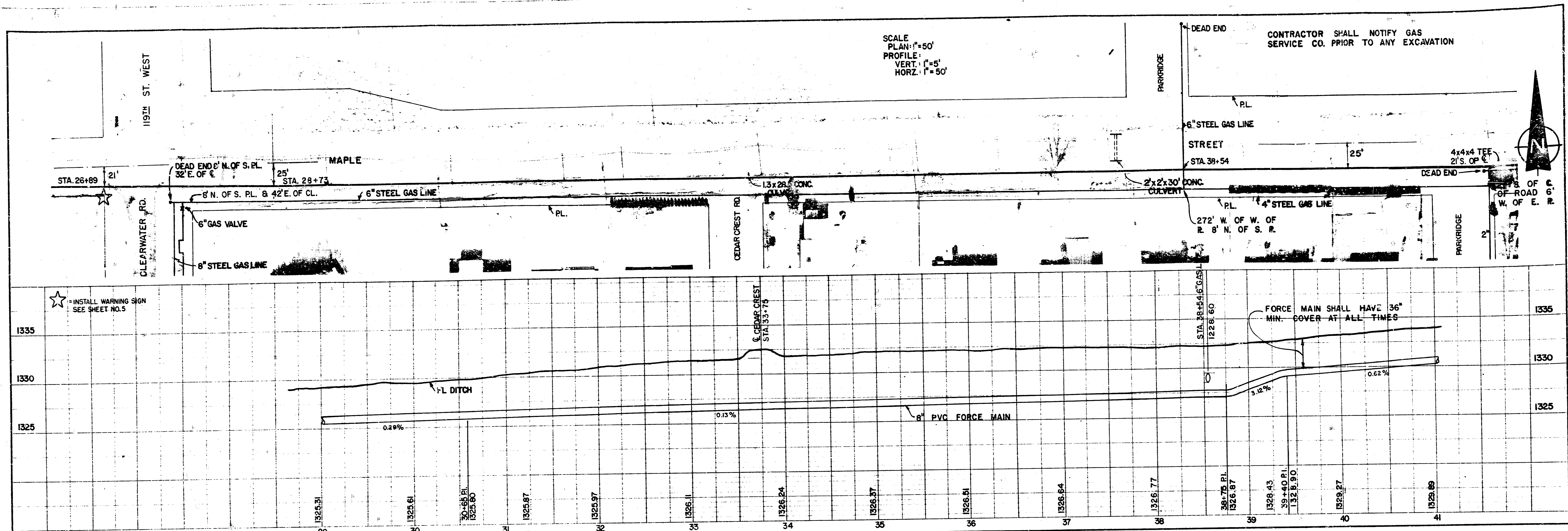
SEDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS

FORCE MAIN
 RAINBOW LAKES WEST ADDITION

Designed By: MD
 Job No.: SE 579
 Drawn By: TG
 Date: 8-28-80

2-19-81, 10-10-80
 Revision 1/2-81
 SHEET NO. 2 OF 8

PLAN
 NOTE BOOK
 NO.



PROFILE
 NOTE BOOK
 NO.

SCALE
 PLAN: 1"=50'
 PROFILE:
 VERT: 1"=5'
 HORZ: 1"=50'

CONTRACTOR SHALL NOTIFY GAS SERVICE CO. PRIOR TO ANY EXCAVATION

★ INSTALL WARNING SIGN SEE SHEET NO. 5

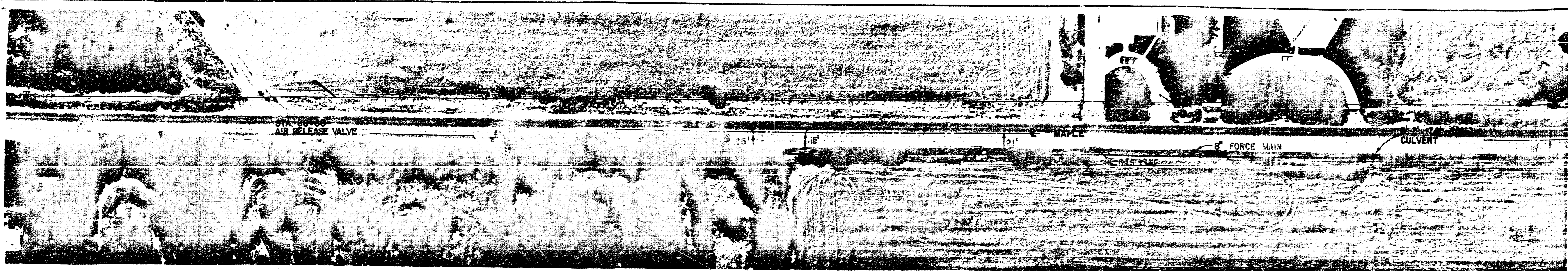
FORCE MAIN SHALL HAVE 36" MIN. COVER AT ALL TIMES

SCALE:
 PLAN: 1"=50'
 PROFILE:
 VERT: 1"=5'
 HORZ: 1"=50'

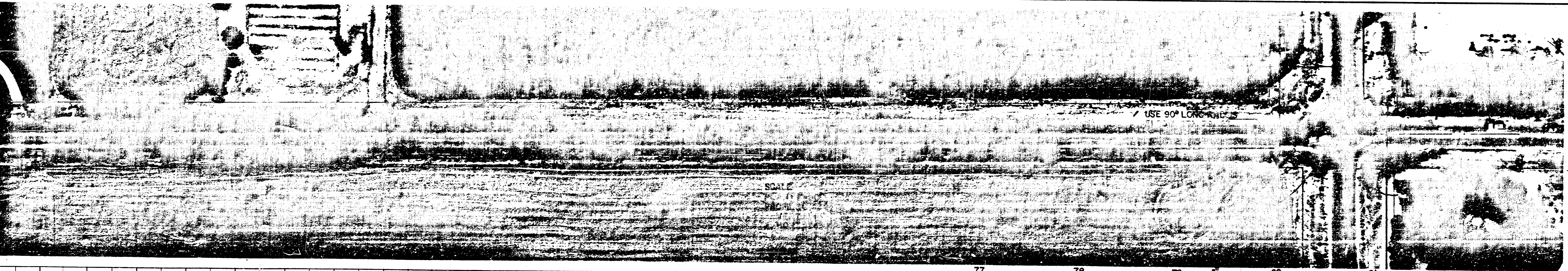
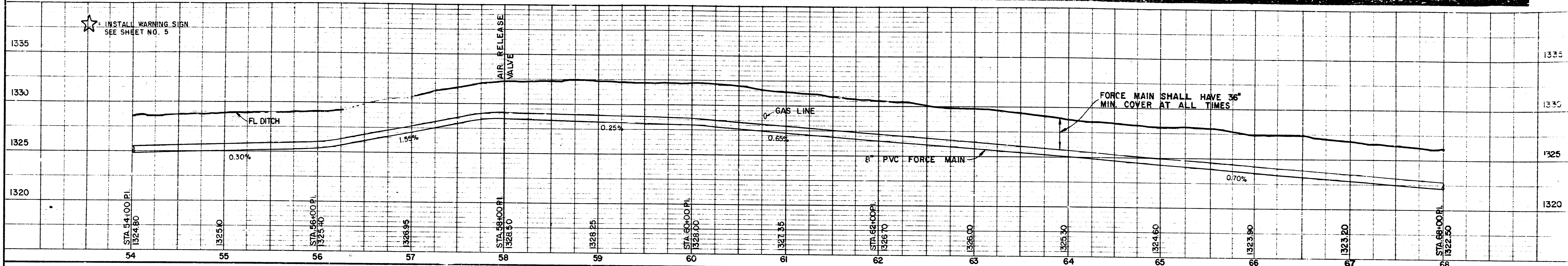
REISS & GOODNESS ENGINEERS
 2100 WEST 21ST STREET
 WICHITA, KANSAS 67204
 (316) 832-0203
 Designed By MD Job No. SE 579
 Drawn By TG Date 8-29-80

SEDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS
FORCE MAIN
 RAINBOW LAKES WEST ADDITION

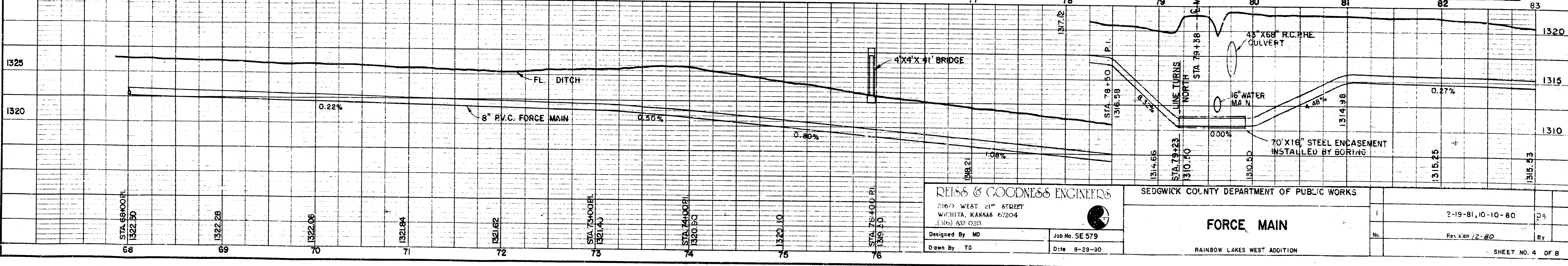
No.	2-19-81, 10-10-80	By	
Revision (2-22)			
SHEET NO. 3 OF 6			3



PLAN	DATE	
	BY	
	DESIGNED BY	
	NOTED BY	



PROFILE	DATE	
	BY	
	DESIGNED BY	
	NOTED BY	



REISS & GOODNESS ENGINEERS
 2160 WEST 21ST STREET
 WICHITA, KANSAS 67204
 (316) 832-0231

SEDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS

FORCE MAIN

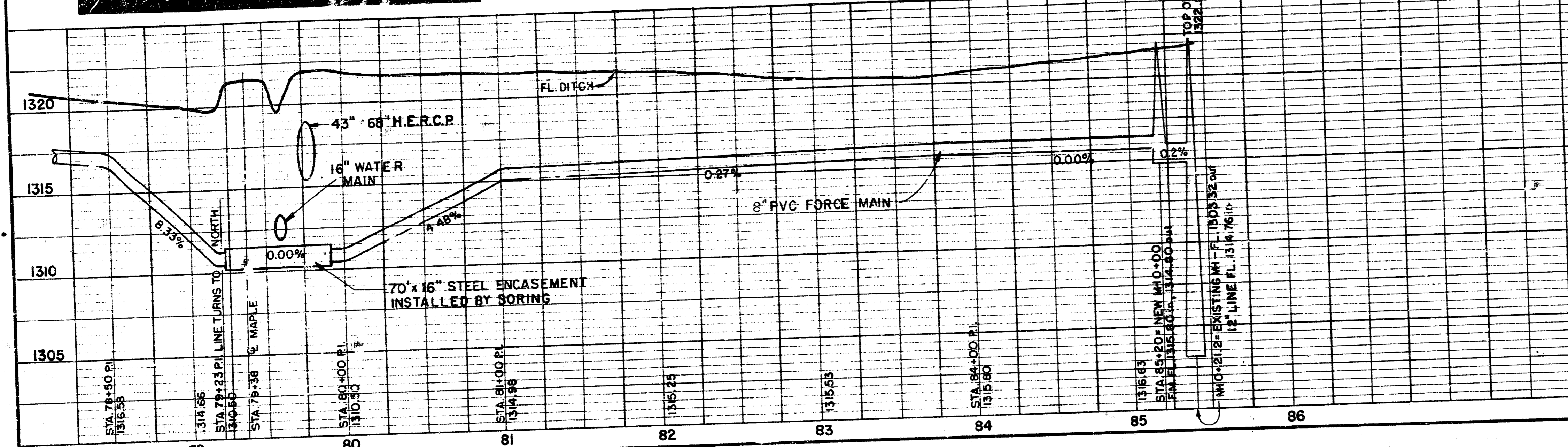
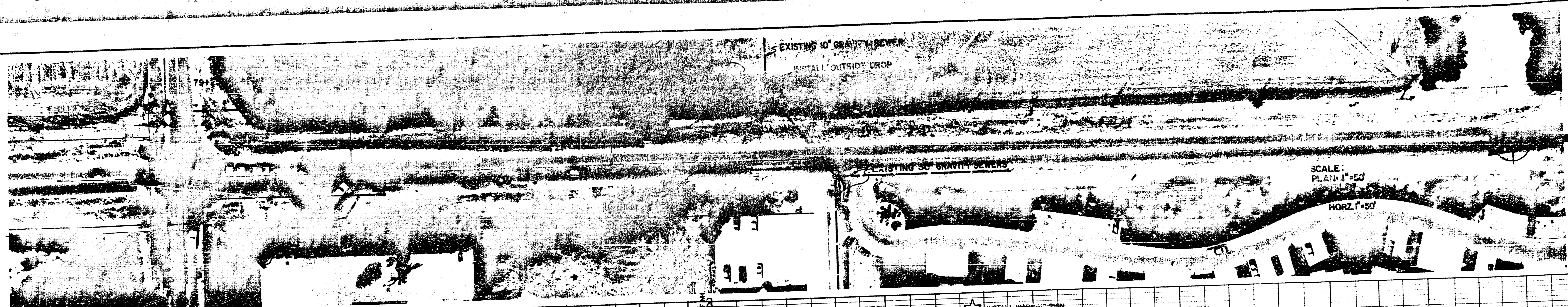
RAINBOW LAKES WEST ADDITION

1	2-19-81, 10-10-80	By
No.	Rev's on 2-80	

SHEET NO. 4 OF 8

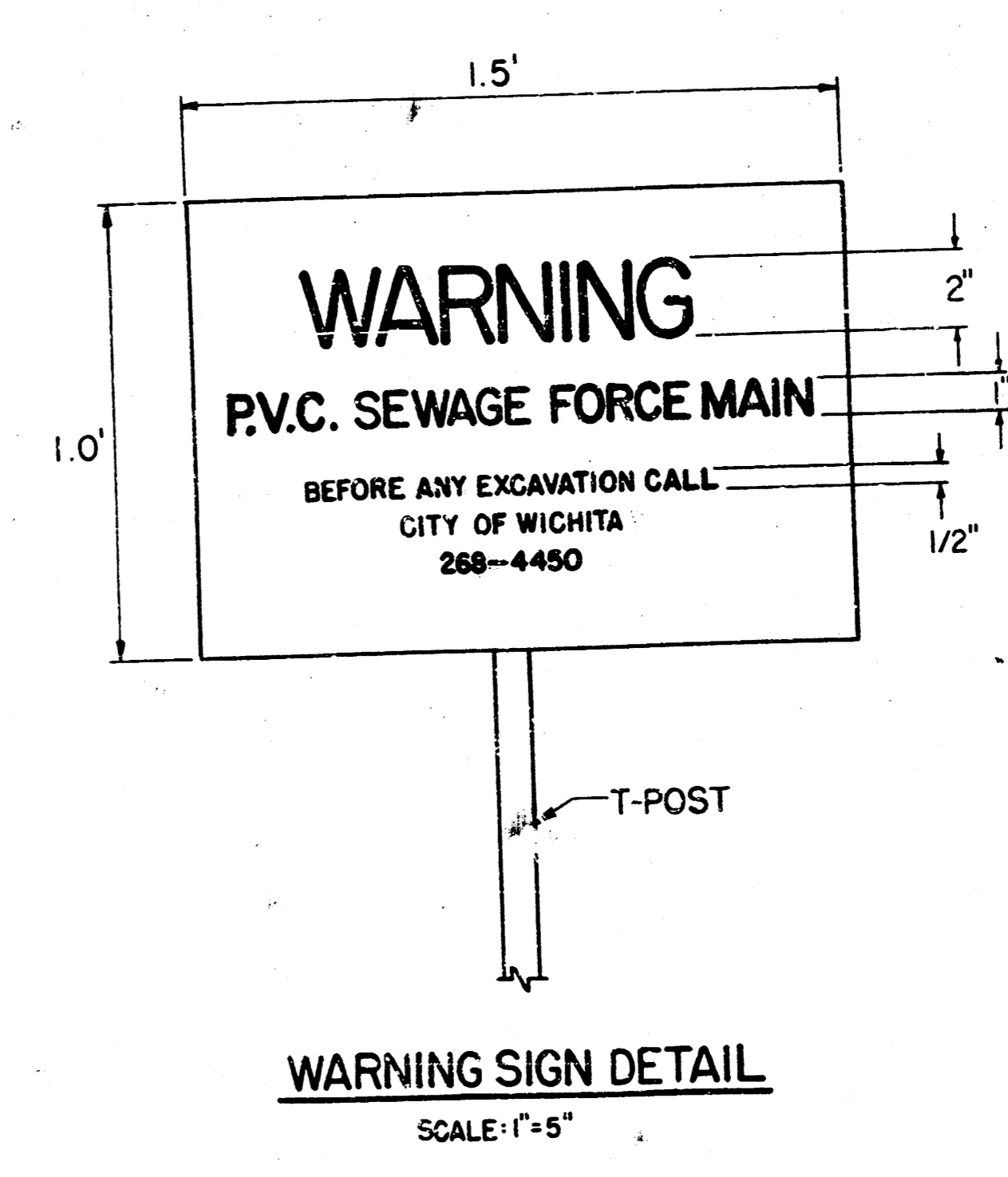
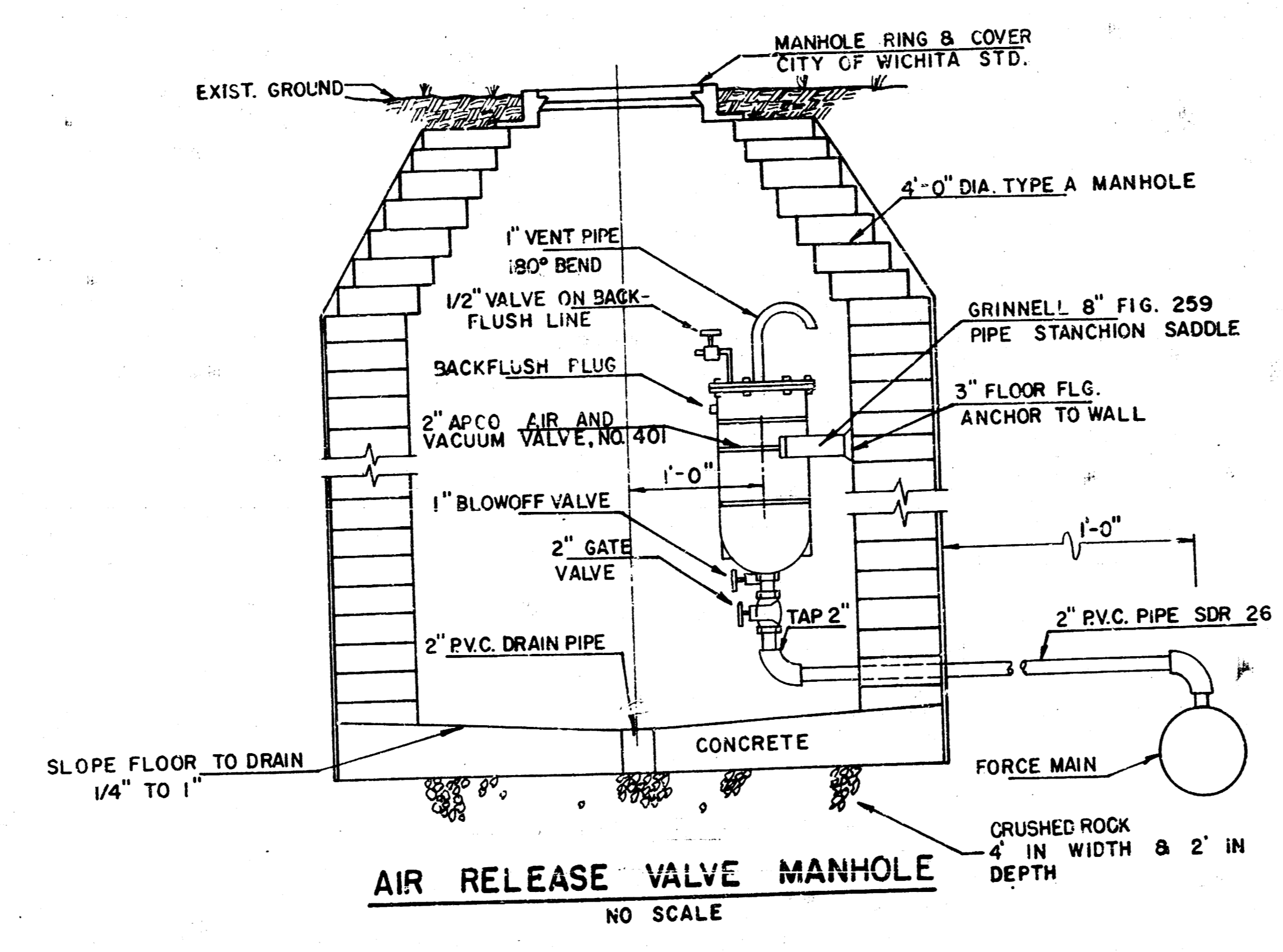
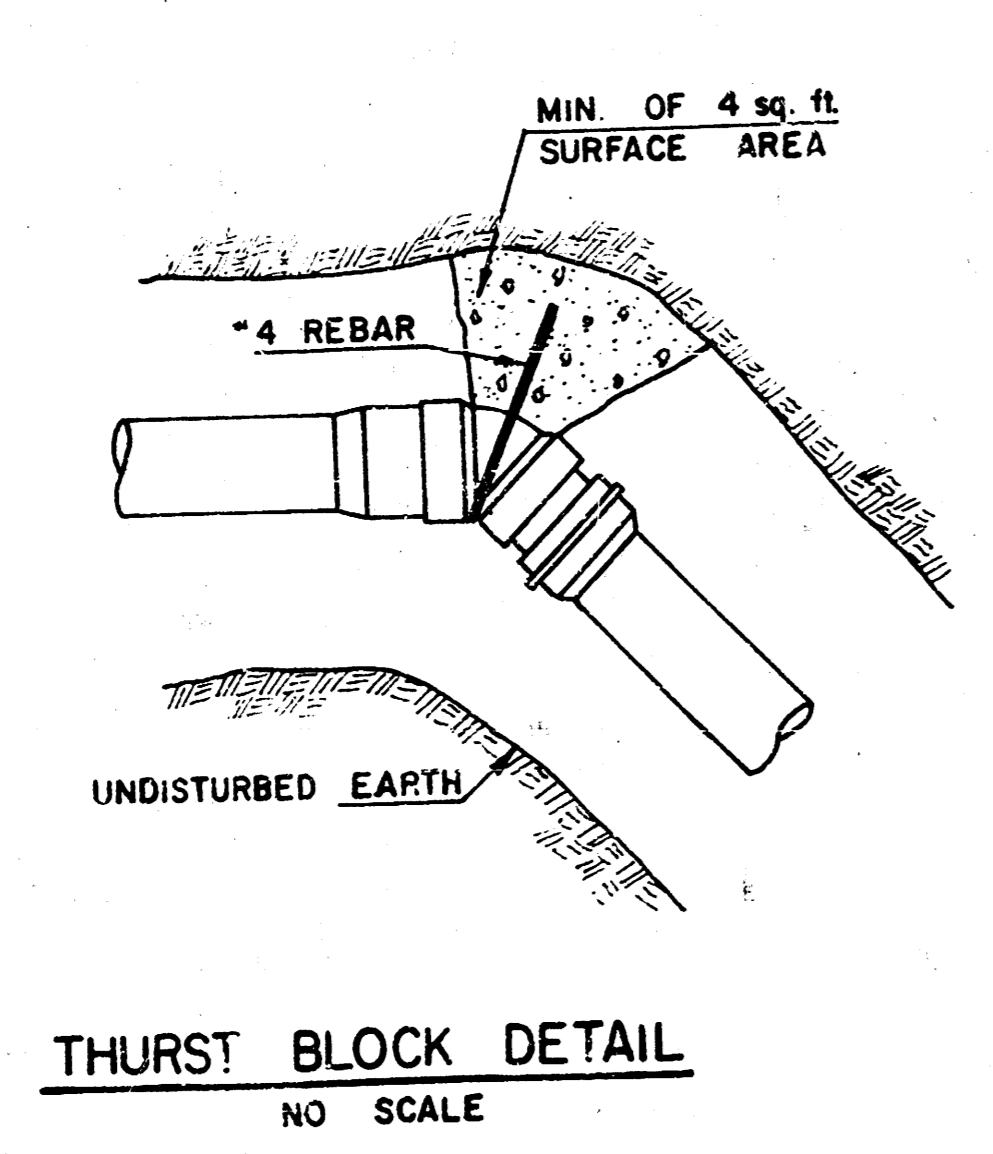
DATE	
BY	
REVISIONS	
NO.	
DATE	
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REVISIONS	
NO.	
DATE	
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REVISIONS	
NO.	

DATE	
BY	
REVISIONS	
NO.	
DATE	
BY	
REVISIONS	
NO.	
DATE	
BY	
REVISIONS	
NO.	



- NOTES:
- EXISTING MANHOLE IS A PLASTIC LINED TYPE D MANHOLE. THE OUTSIDE DROP INSTALLATION INTO THIS MANHOLE MUST MAINTAIN INTEGRITY OF PROTECTIVE PLASTIC LINING. SET CROWN OF BOTTOM OPENING TO MATCH CROWN OF 15" PIPE FLOWING OUT.
 - A FLEXIBLE WATER TIGHT GASKET SHALL BE USED TO CONNECT PVC PIPE TO M.N.HOLE O.O.C.

ADDENDUM NO. 1
3-19-1981

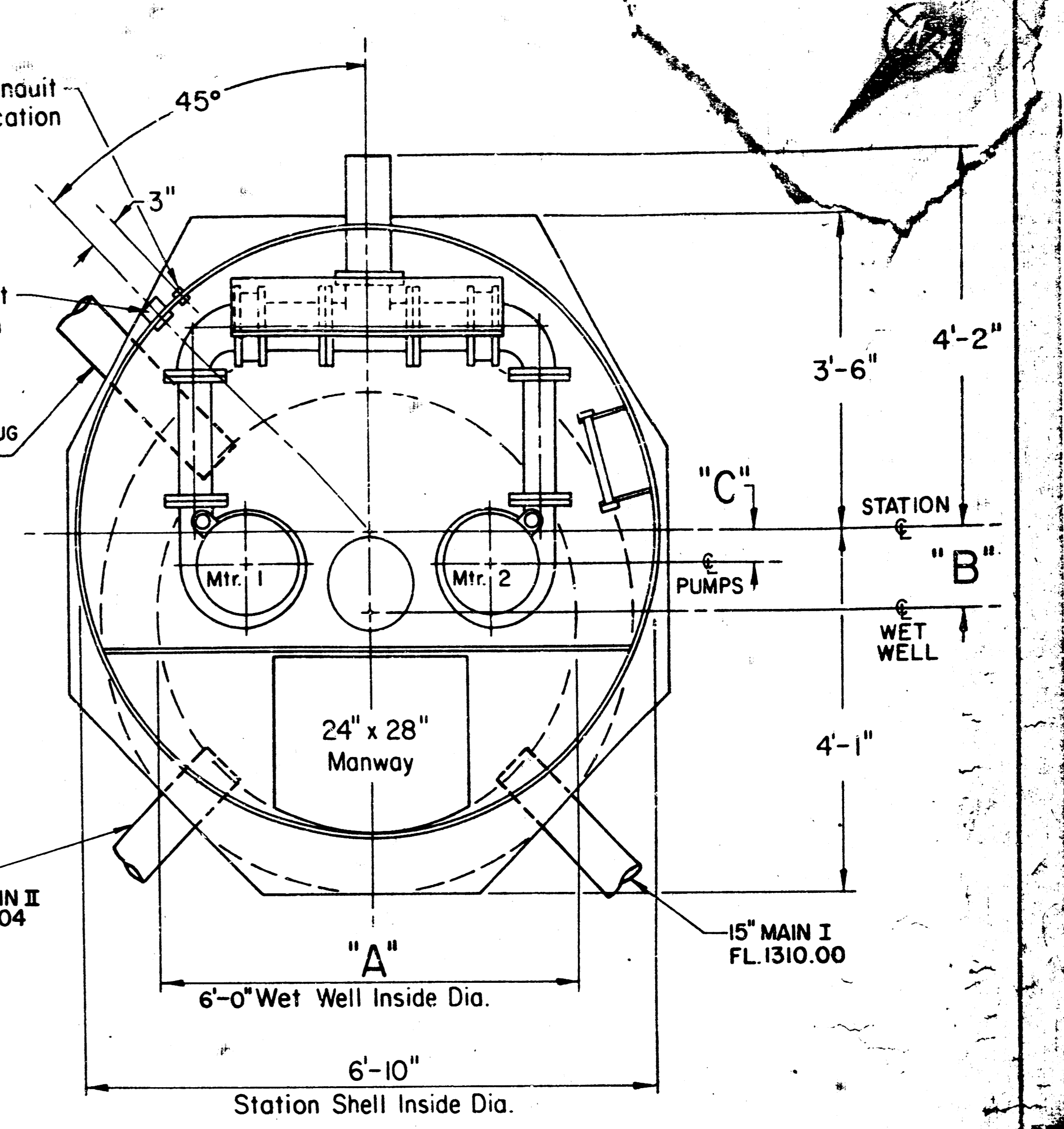
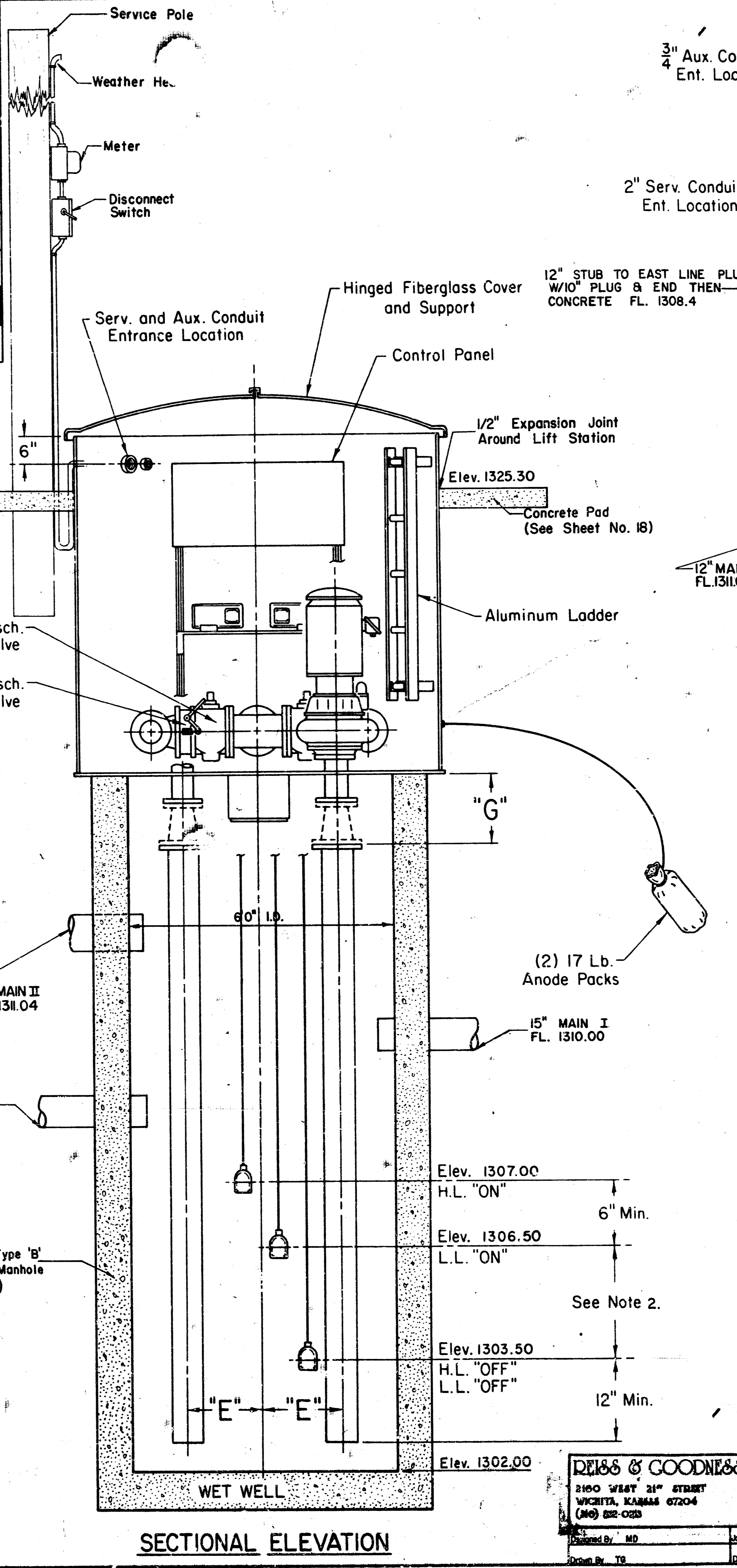
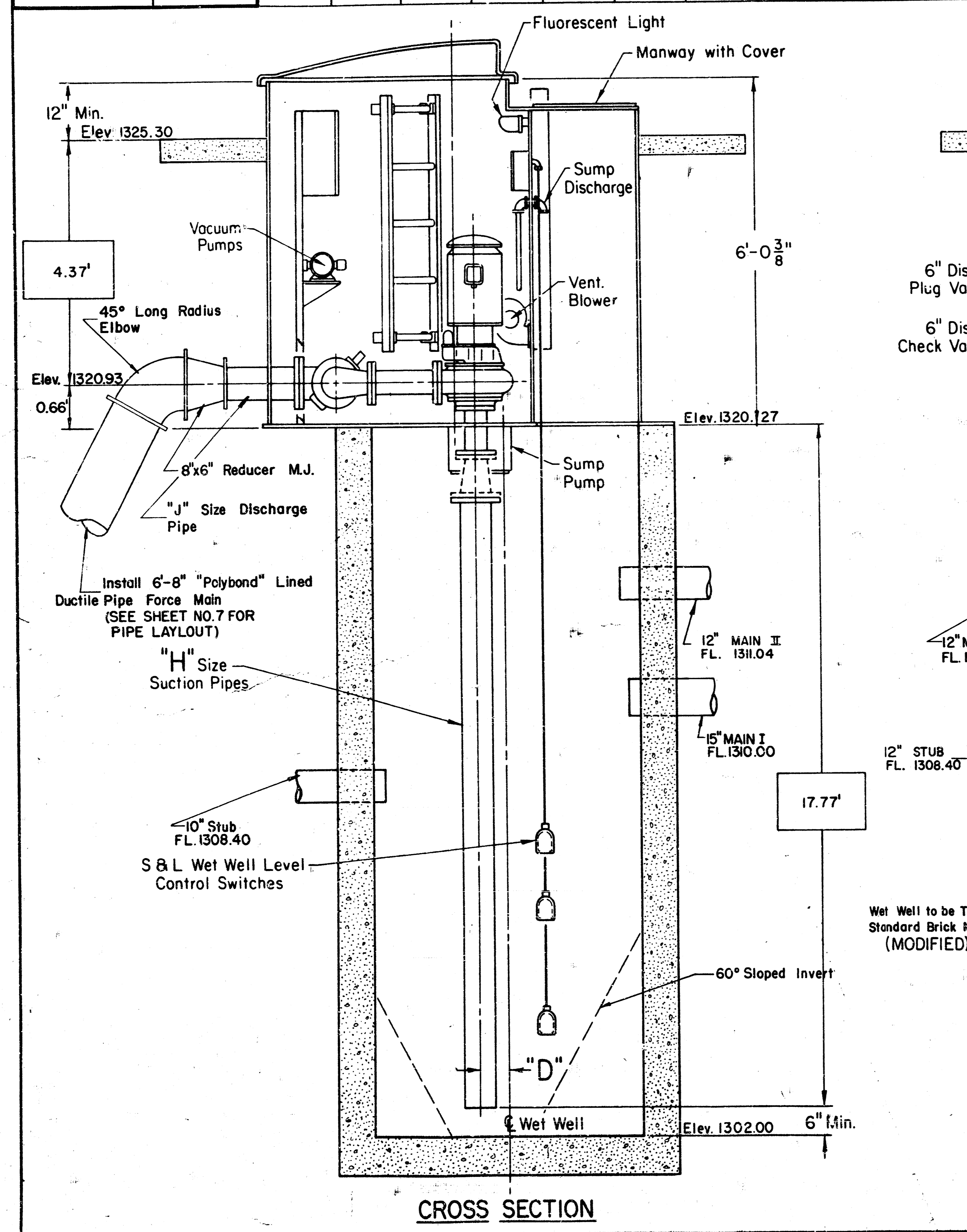


REISS & GOODNESS ENGINEERS 3160 WEST 21 ST STREET WICHITA, KANSAS 67204 (316) 833-0213	SEDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS	
	FORCE MAIN	2-19-81, 10-10-80
Designed By MD Drawn By TG	Job No. SE 579 Date 8-29-80	Revision / 2-81, 2-81 By
RAINBOW LAKES WEST ADDITION		SHEET NO. 5A OF 8 5/9

K&E PLATE 2, FLAT PLAN-PROFILE
KUEPPEL & ESSER CO.

FILMED FROM THE BEST

PUMPS	Pump Motor Maximum Horsepower	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"	"J"	"K"
4B2B	20	5'-0"	11"	4 3/4"	6 1/4"	22 7/16"	7 7/8"	15 1/16"	6"	6"	4" x 6"
		6'-0"	5"	4 3/4"	1/4"	22 7/16"	7 7/8"	15 1/16"	6"	6"	4" x 6"
4B2C	20	5'-0"	11"	4 3/4"	6 1/4"	22 7/16"	7 7/8"	15 1/16"	6"	6"	4" x 6"
		6'-0"	5"	4 3/4"	1/4"	22 7/16"	7 7/8"	15 1/16"	6"	6"	4" x 6"
4B3B/4C3B	30	5'-0"	11"	4 3/4"	6 1/4"	20 7/16"	7 7/8"	6"	6"	6"	---
		6'-0"	5"	4 3/4"	1/4"	20 7/16"	7 7/8"	6"	6"	6"	---
6B3B/6C3B	30	6'-0"	5"	4"	1"	20 7/16"	7 7/8"	6"	6"	6"	---
		6'-0"	5"	4"	1"	20 7/16"	6 7/8"	17 1/16"	8"	8"	6" x 8"



NOTES

- A dehumidifier assembly w/ hermetically sealed freon refrigeration type compressor expansion coil, fan and condenser coil shall be furnished to maintain the relative humidity of air in the pump chamber low enough to keep electrical equipment dry and to prevent condensation on the walls.
- Station Design Characteristics:
Suction Line 8" Discharge 6"
2 Pumps at 600 GPM at 85' TDH Singly Operated
- Backfill Around Station shall be Compacted to 95% Standard Proctor to Prevent Settlement Prior to Installation of Concrete Pad.
- These Drawings show a Recessed Wet Well Mounted Sewage Pumping Station Manufactured by Smith and Loveless (S & L). Station by any Other Manufacturer must be Approved by City Engineer Prior to Submitting Bids.
- Pumping Station shall include an alarm system compatible to city's lift station alarm system for power outage, High water in wet well & high water in pump chamber.
- A Dual Range Electric Heater w/ an automatic circulating fan thermostat control & an "ON-OFF" switch is to be provided. The Heater shall be capable of keeping the temperatures in the station above freezing. The Heater is to be operated by connection to the convenience receptacle location on control panel.

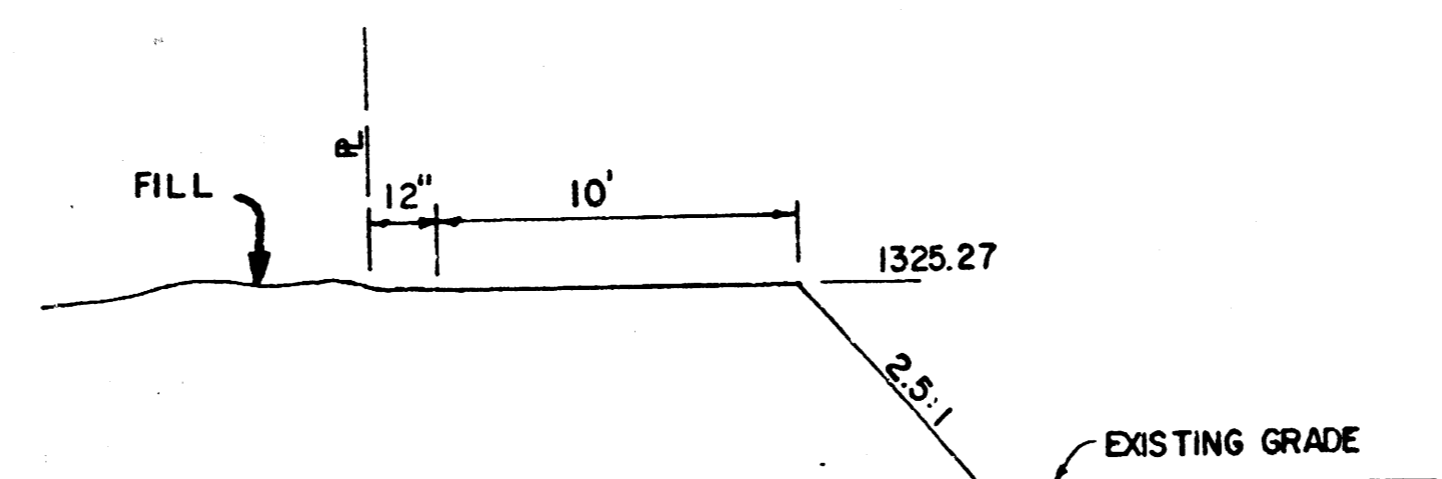
DEISS & GOODNESS ENGINEERS
2100 WEST 21ST STREET
WICHITA, KANSAS 67204
(913) 832-0238

Sedgwick County Department of Public Works
RAINBOW LAKES WEST ADDITION
PUMP STATION
SHEET NO. 6 OF 8

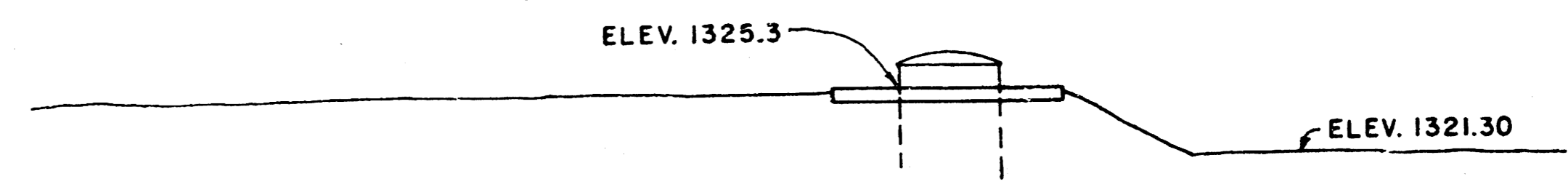
2	11-4-80, 2-19-81	
1	10-10-80	
No.	Revision	By



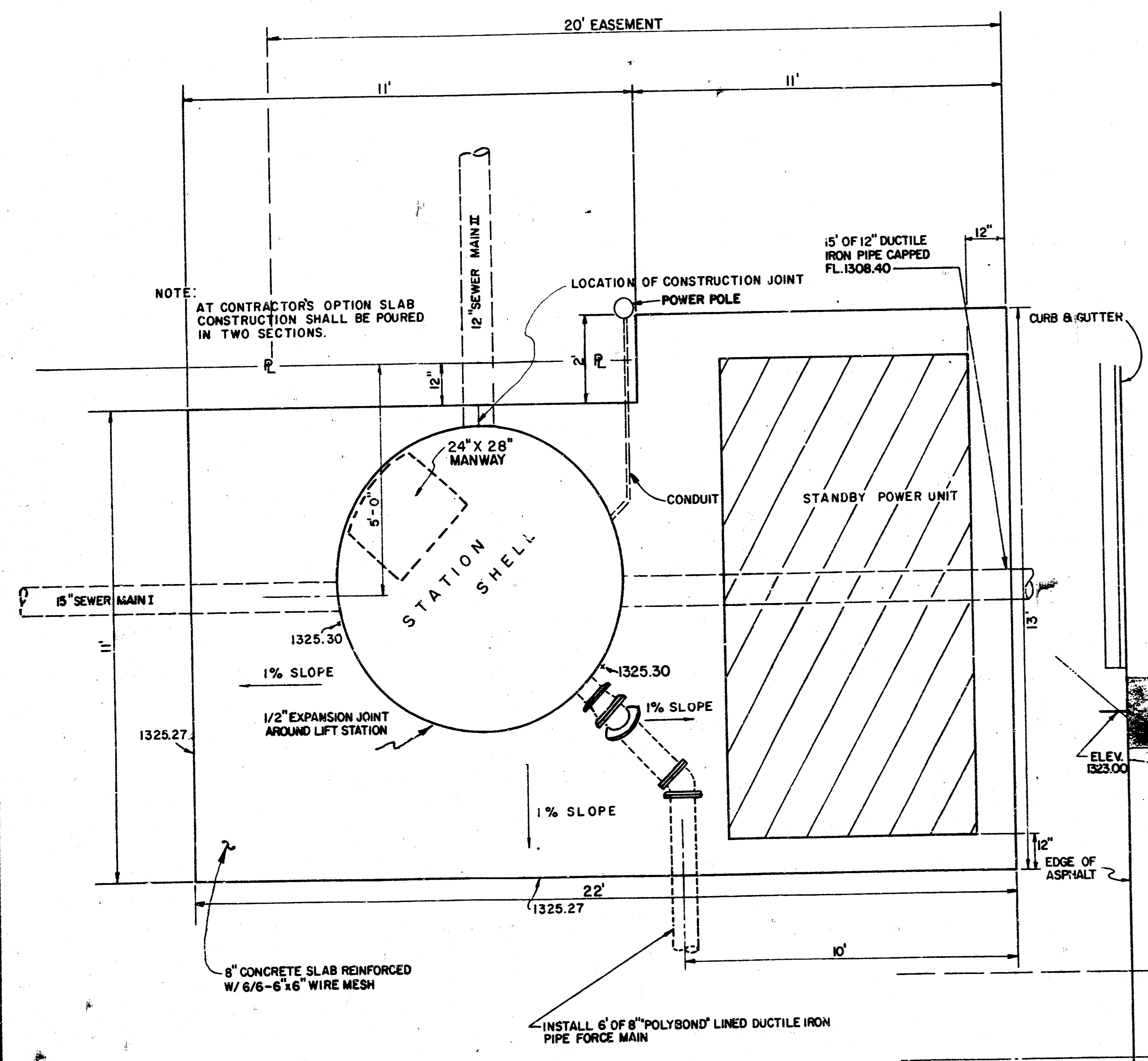
SCALE: 1"=10'



TYPICAL DRIVEWAY SECTION
NO SCALE

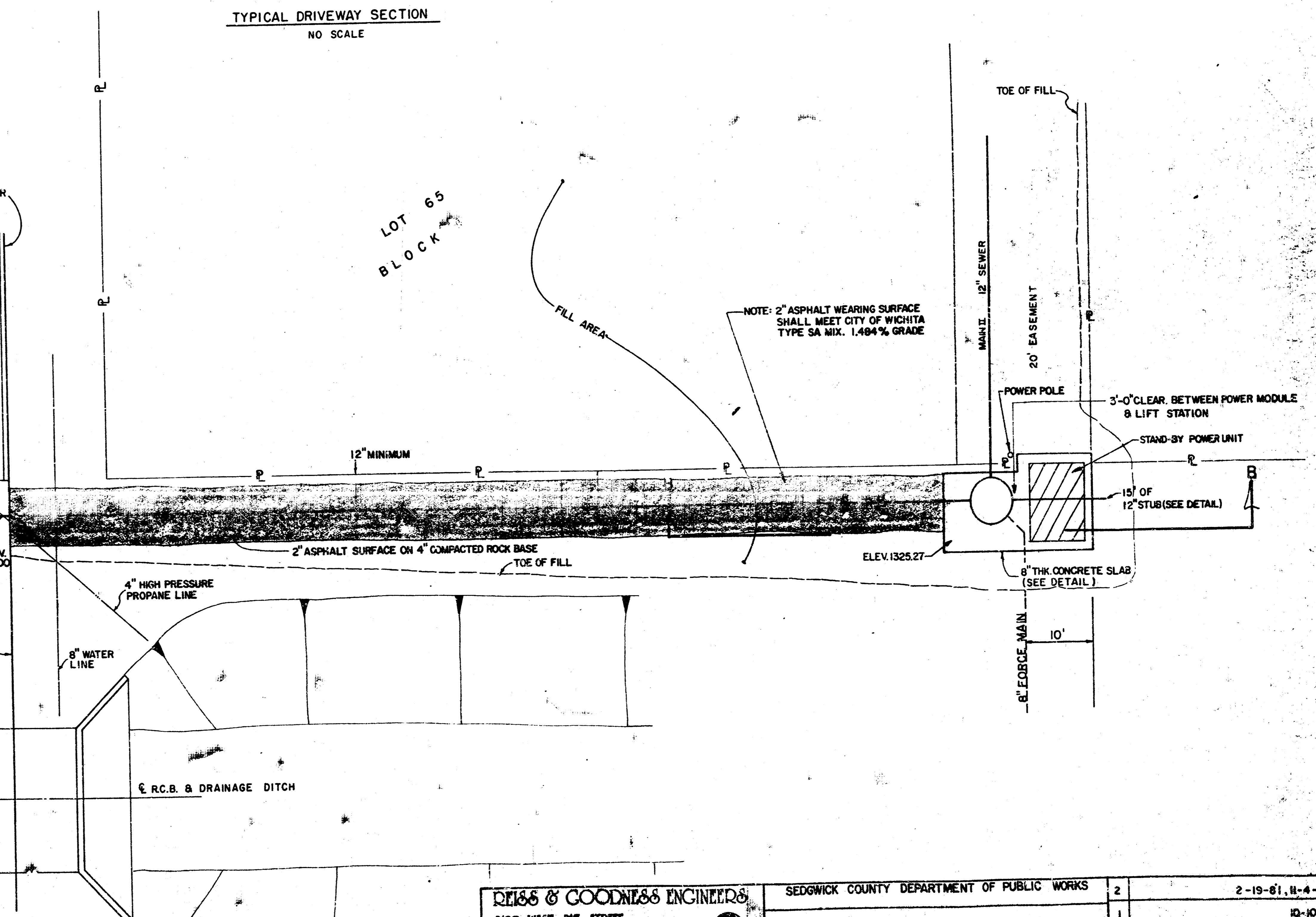


SECTION B-B



NOTE:
AT CONTRACTOR'S OPTION SLAB
CONSTRUCTION SHALL BE POURED
IN TWO SECTIONS.

NO SCALE



NOTE: 2" ASPHALT WEARING SURFACE
SHALL MEET CITY OF WICHITA
TYPE SA MIX, 1.494% GRADE

REISS & GOODNESS ENGINEERS

2100 WEST 21ST STREET
WICHITA, KANSAS 67204
(316) 638-0223

Designed By: M.D.
Drawn By: R.B.

Job No. SE579
Date:

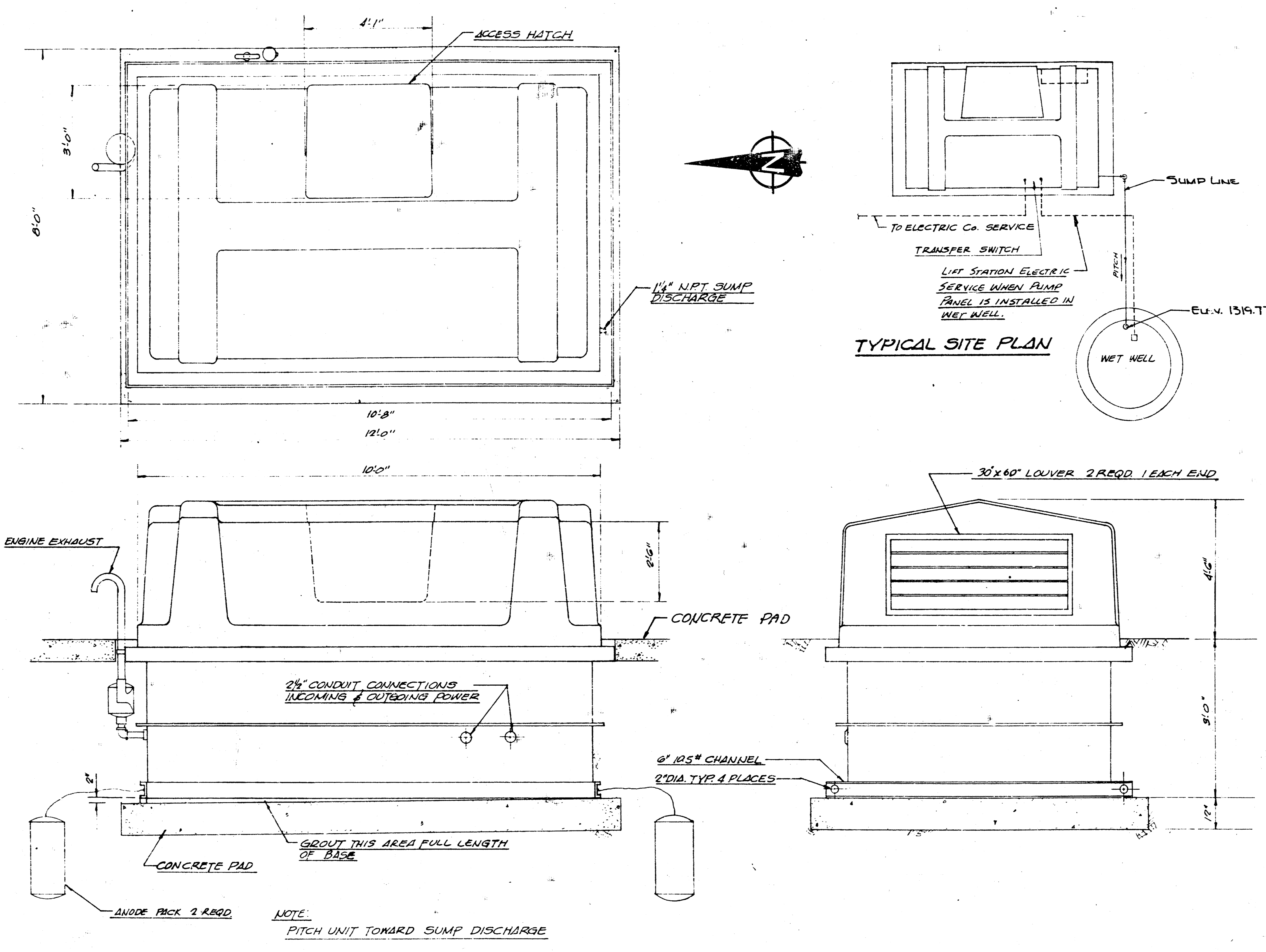
SEDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS

DETAIL SHEET

RAINBOW LAKES WEST ADDITION

2	2-19-81, H-4-80	CS
1	10-10-80	D.L.
No.	1/E-80	CS

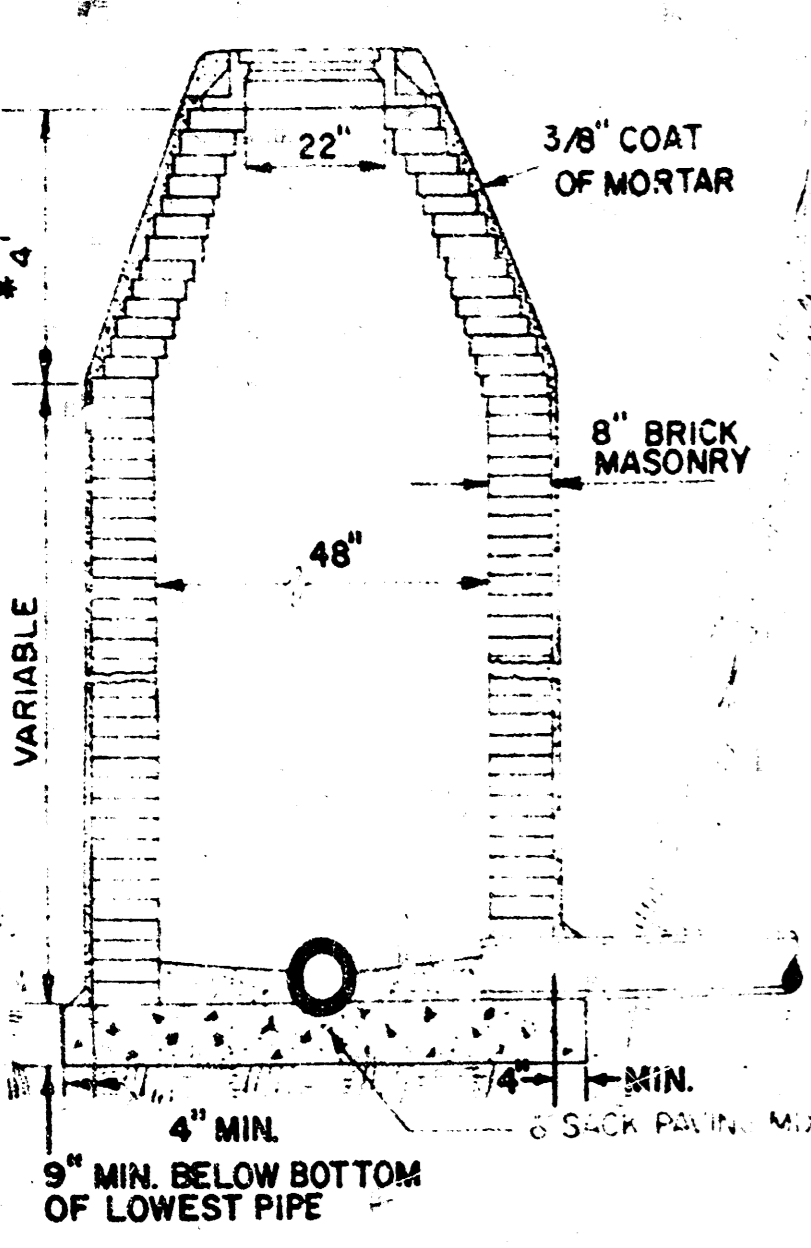
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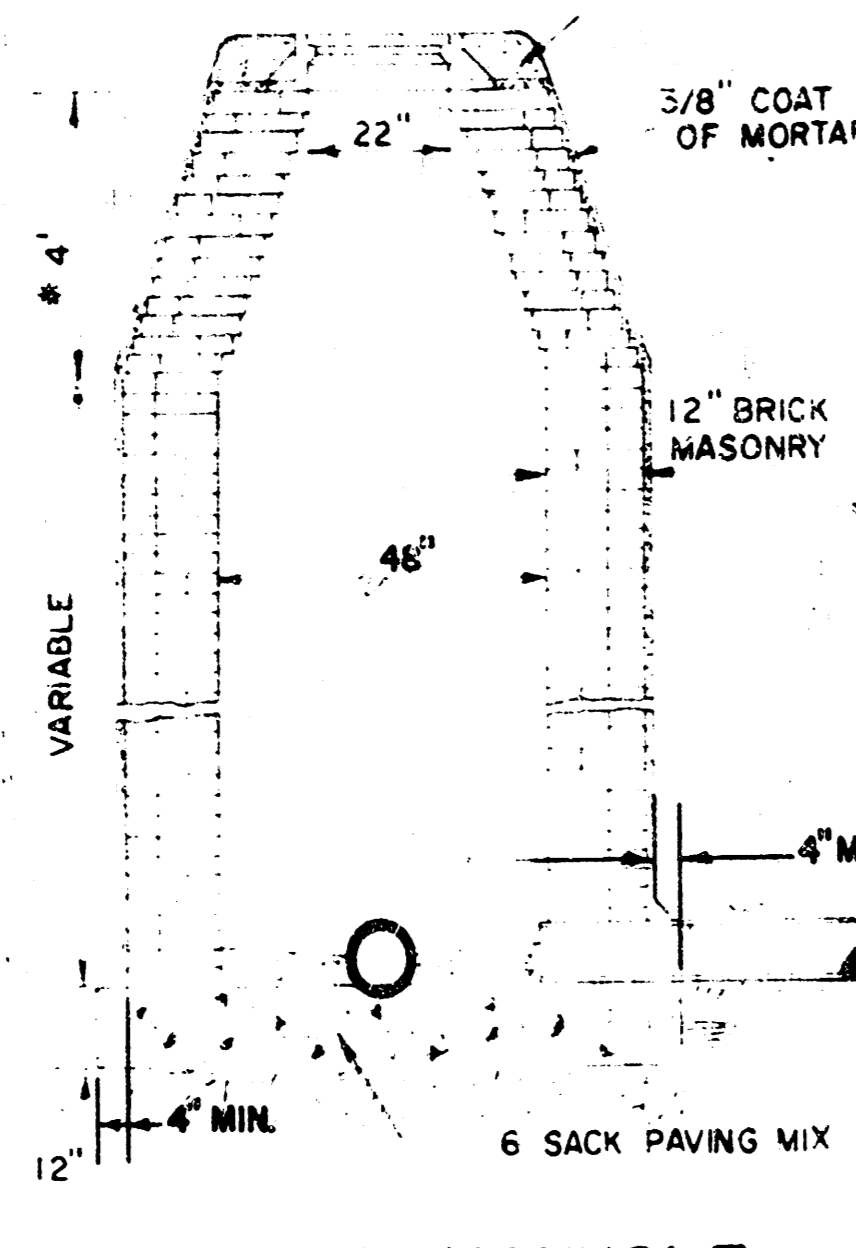
NOTE:
PITCH UNIT TOWARD SUMP DISCHARGE

No.	Revision	By	Date
SEDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS			
ADDENDUM NO. 1 SANITARY SEWER EXTENSIONS PUMPING STATION & FORCE MAIN RAINBOW LAKES WEST THIRD ADDITION			
REISS & GOODNESS ENGINEERS			
2160 WEST 21 ST STREET WICHITA, KANSAS 67204 (316) 632-0235			
Designed by STANDARD POWER EQUIP. CO.		Job No.	Shr 70 of 8
Drawn by		Date 3-2-31	

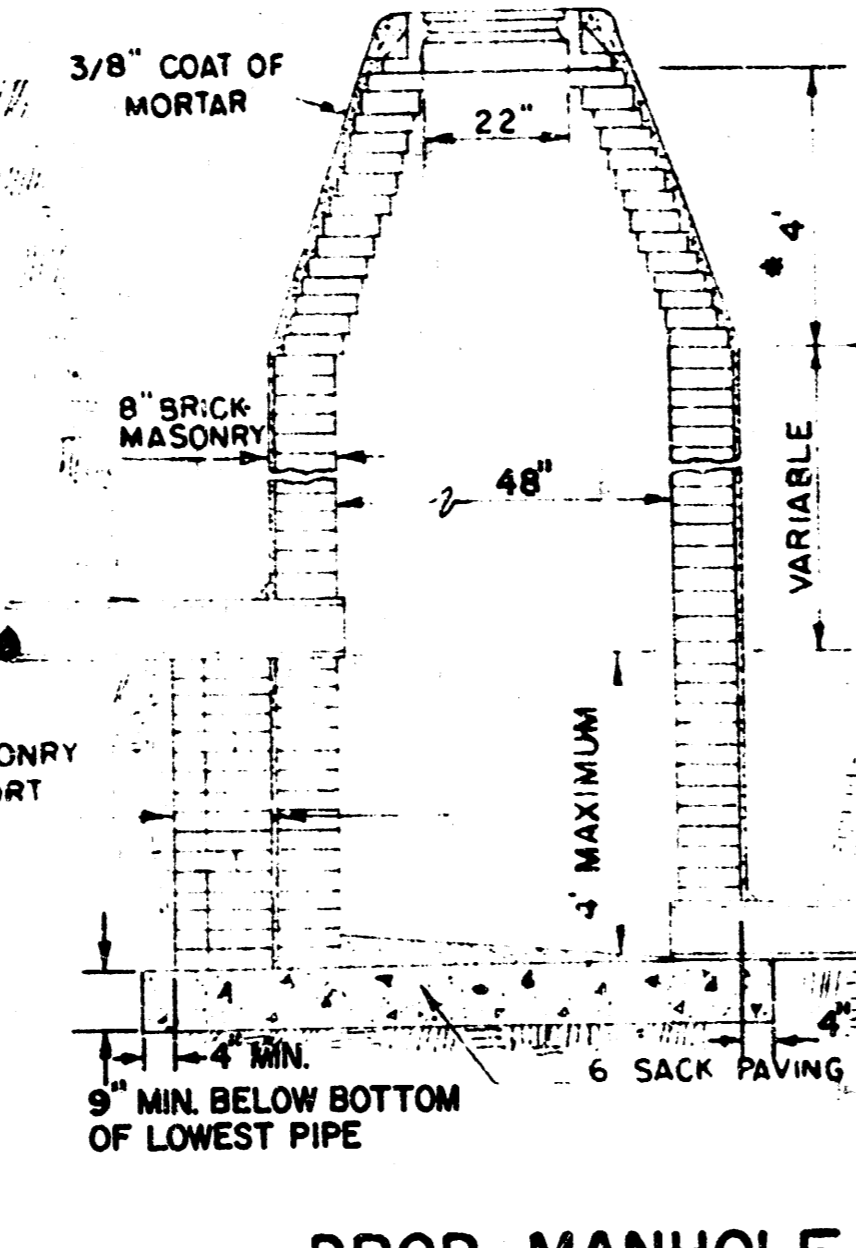
CRACK TO BE PLACED AROUND MANHOLE RING ONLY WHEN MANHOLE IS CONSTRUCTED IN UNPAVED AREAS. (TYPICAL ALL MANHOLES)



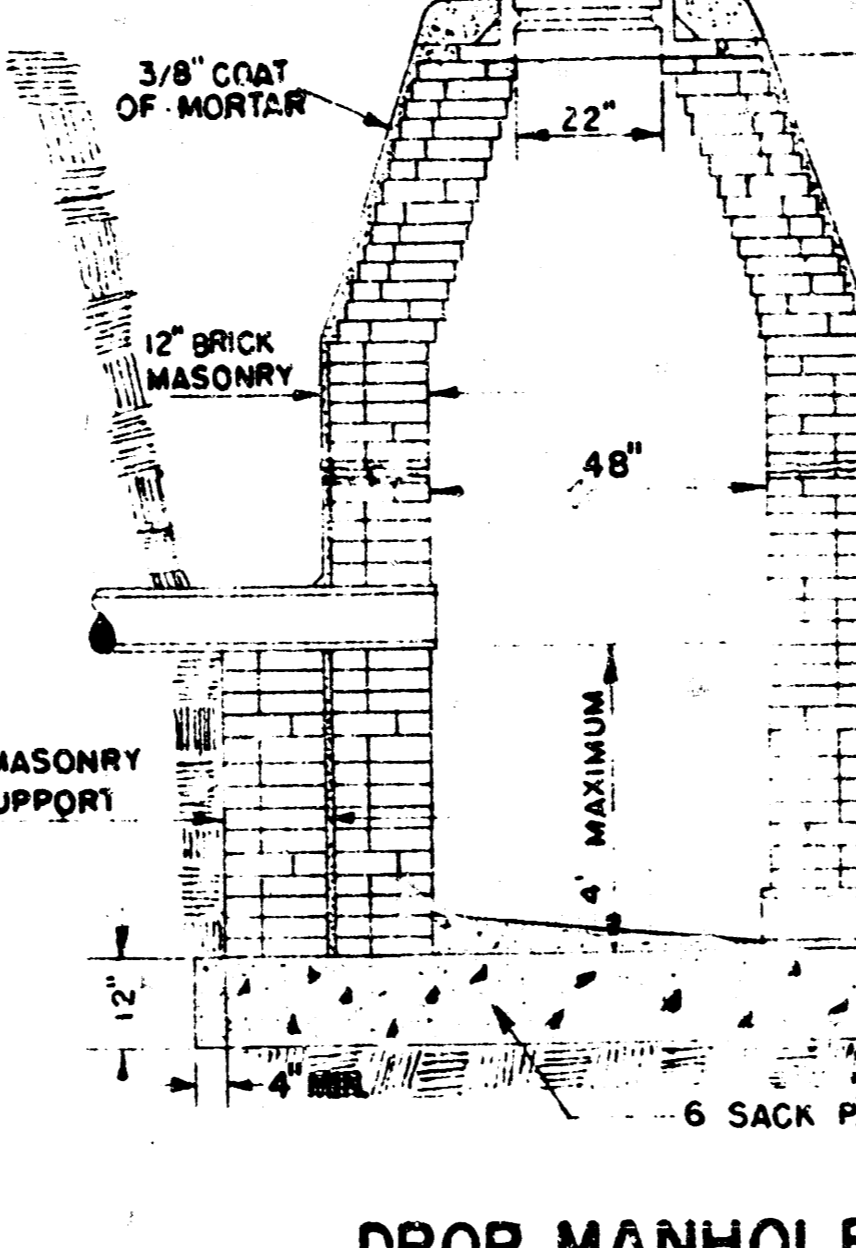
STANDARD MANHOLE TYPE "A"



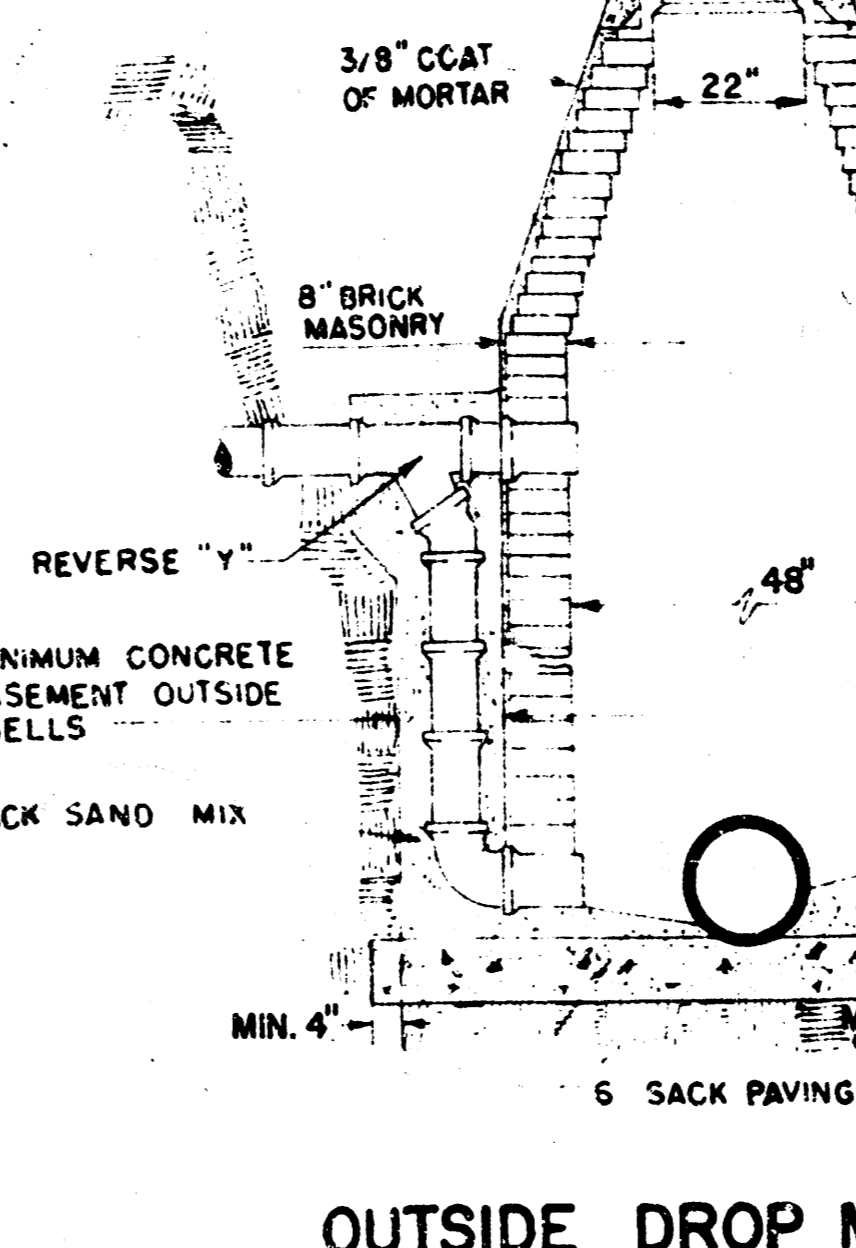
STANDARD MANHOLE TYPE "B"



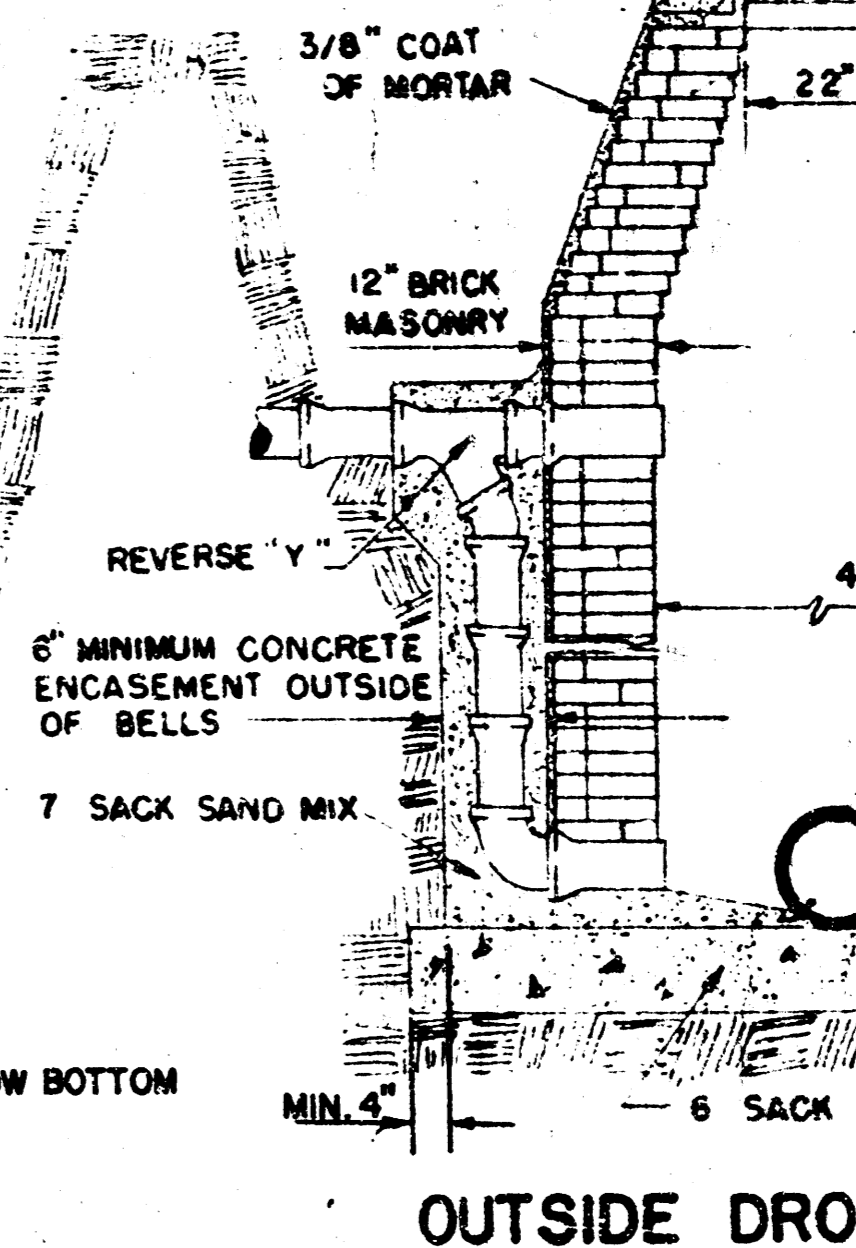
DROP MANHOLE TYPE "A"



DROP MANHOLE TYPE "B"



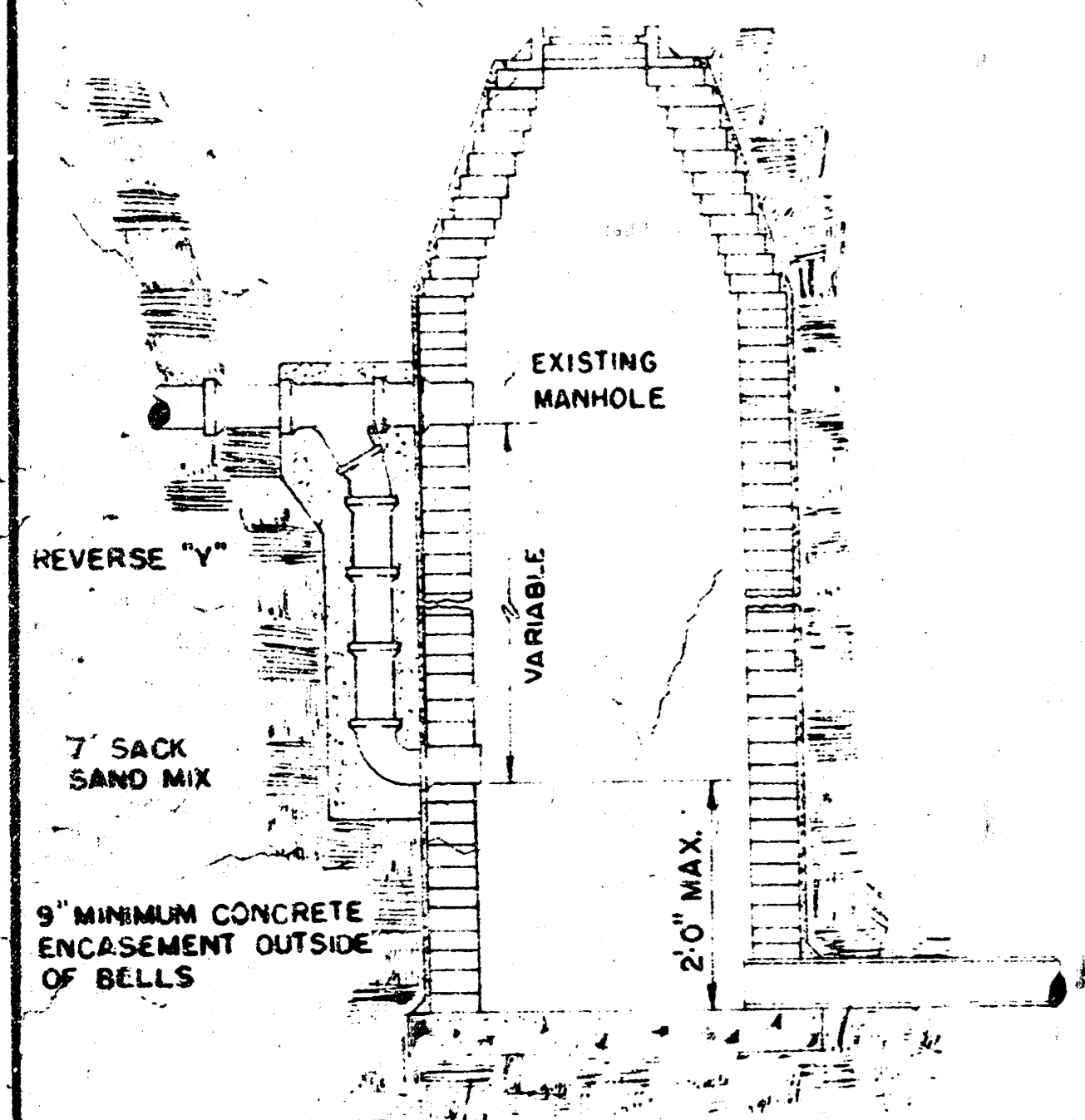
OUTSIDE DROP MANHOLE TYPE "A"



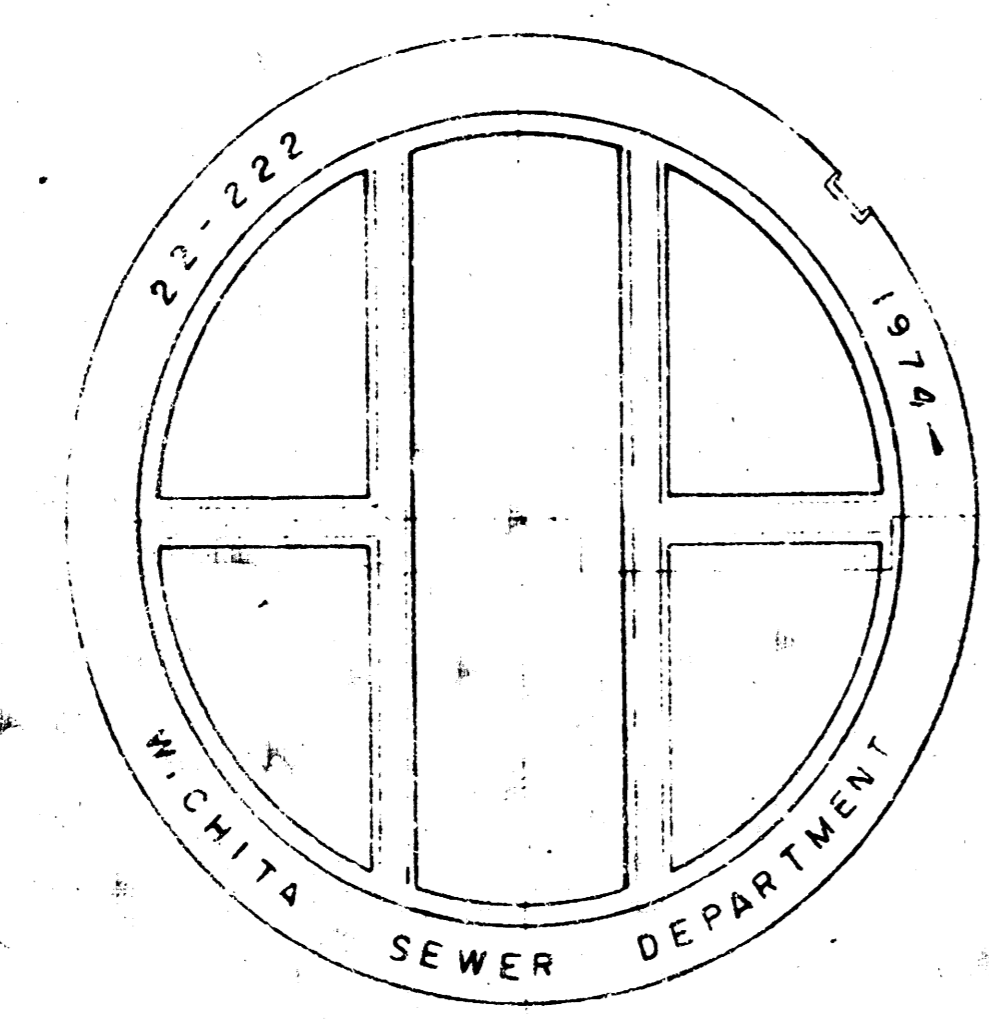
OUTSIDE DROP MANHOLE TYPE "B"

* DRAW = 6' ON 5' DIA. M.H.

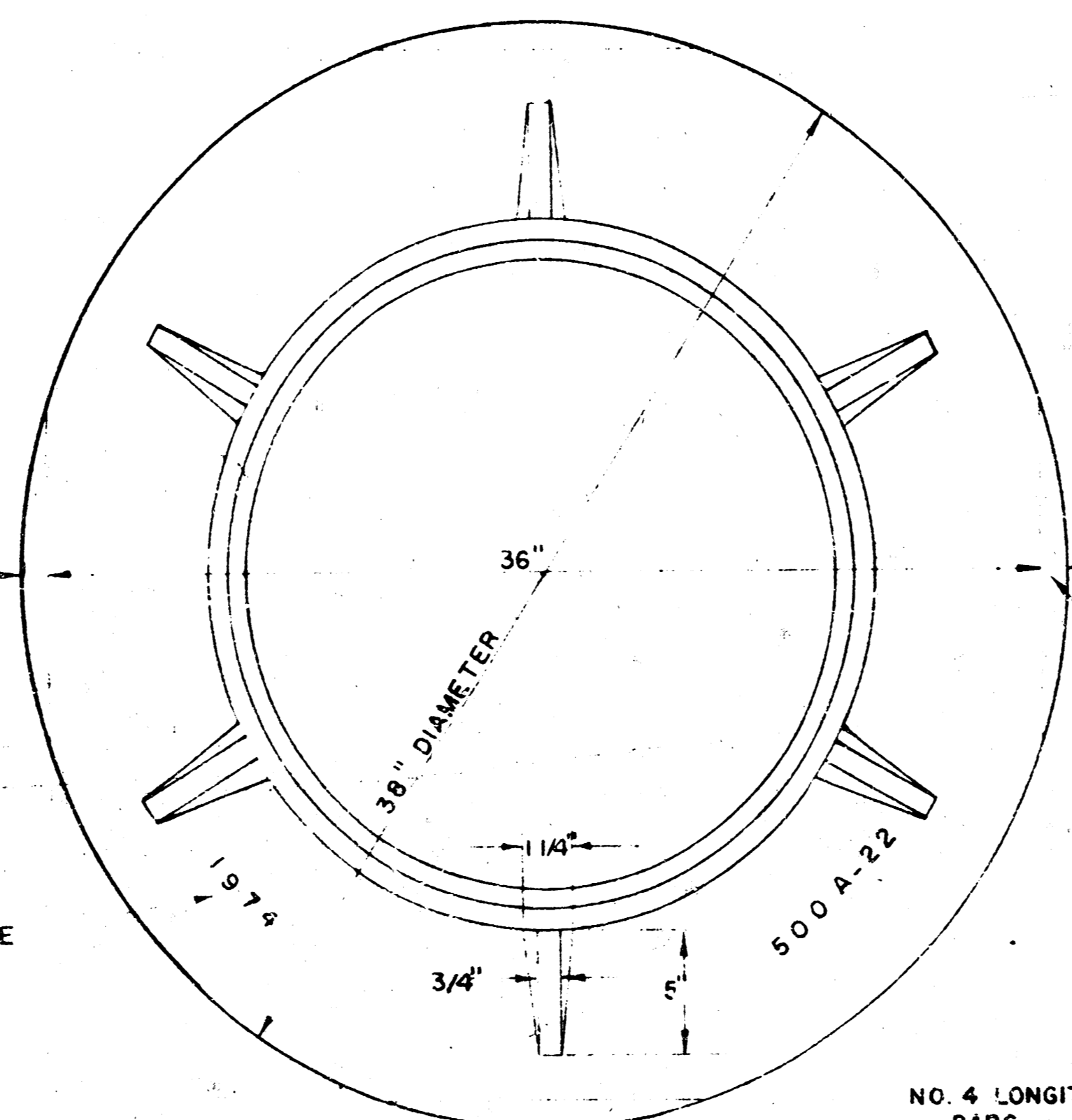
NOTE: REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASES 6" ABOVE THE BOTTOM. REINFORCING STEEL SHALL CONSIST OF NO. 4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. THE COST OF REINFORCING STEEL IS TO BE INCLUDED IN THE UNIT PRICE BID FOR MANHOLES CONSTRUCTED.



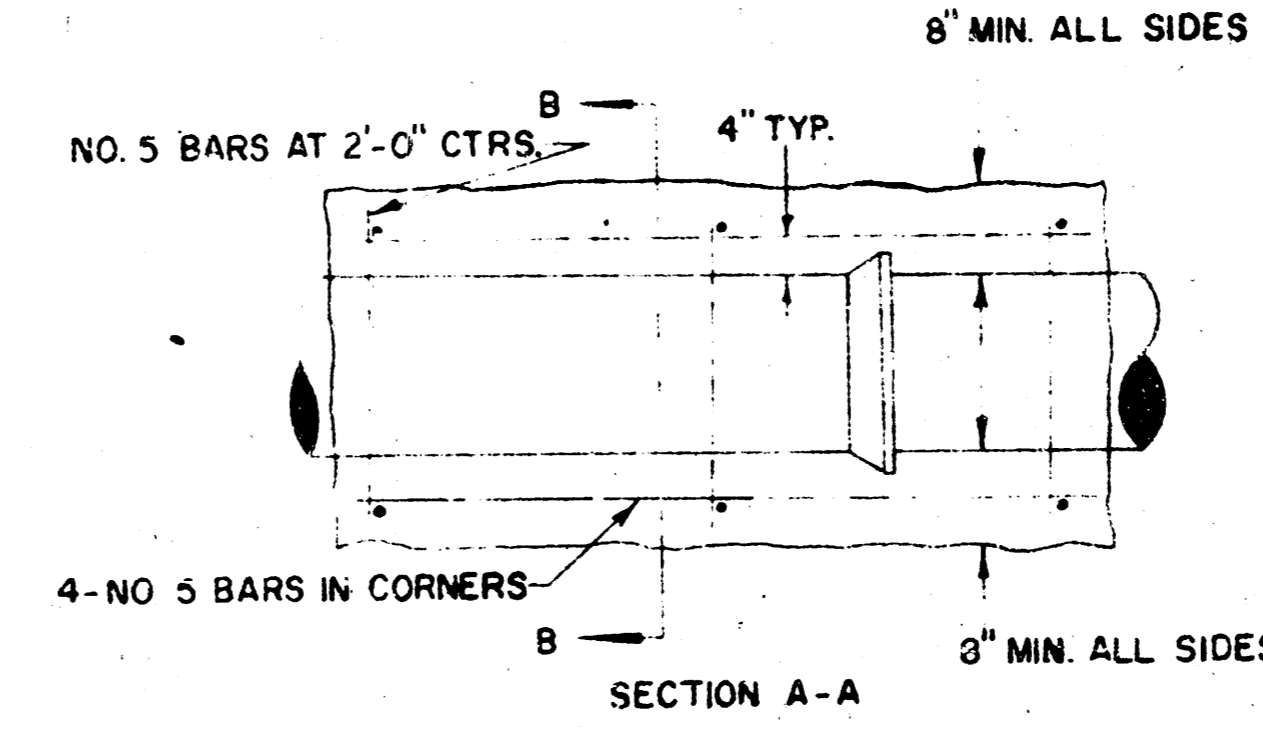
DETAIL OF DROP STACK FOR EXISTING MANHOLES IN GROUND WATER



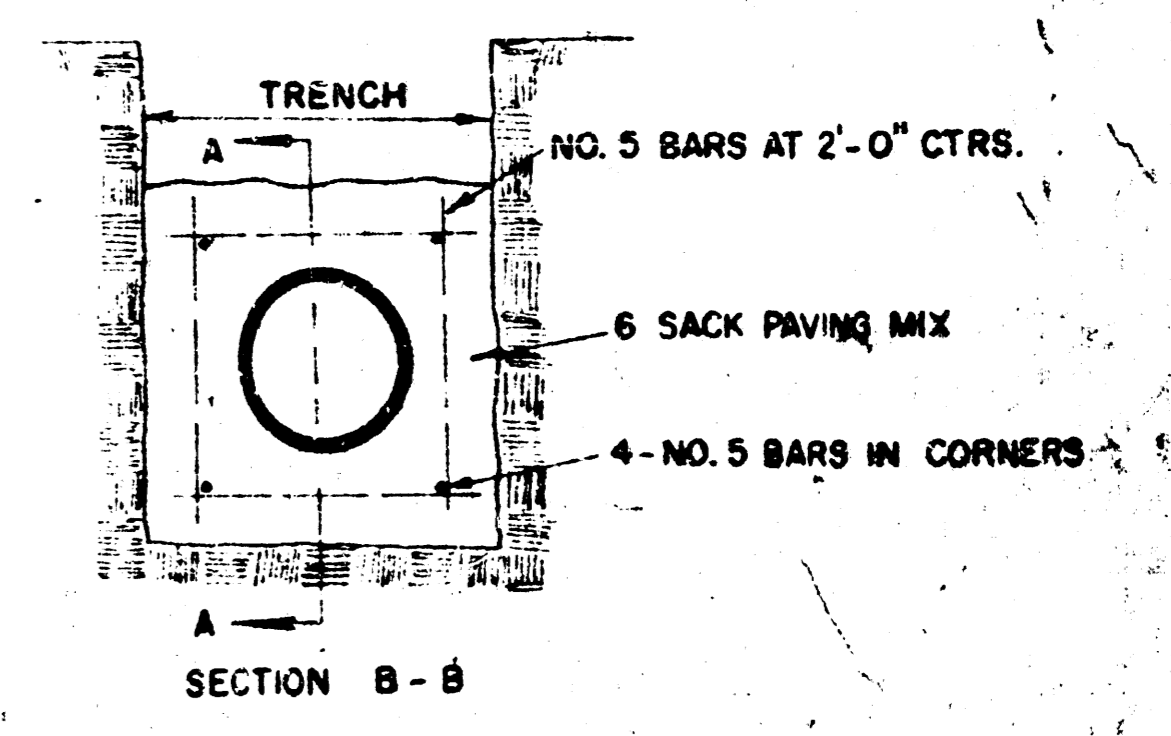
MANHOLE COVER WEIGHT 110 LBS



MANHOLE RING WEIGHT 325 LBS. RING NO. 500A WEIGHT 800 LBS. RING NO. 500AS



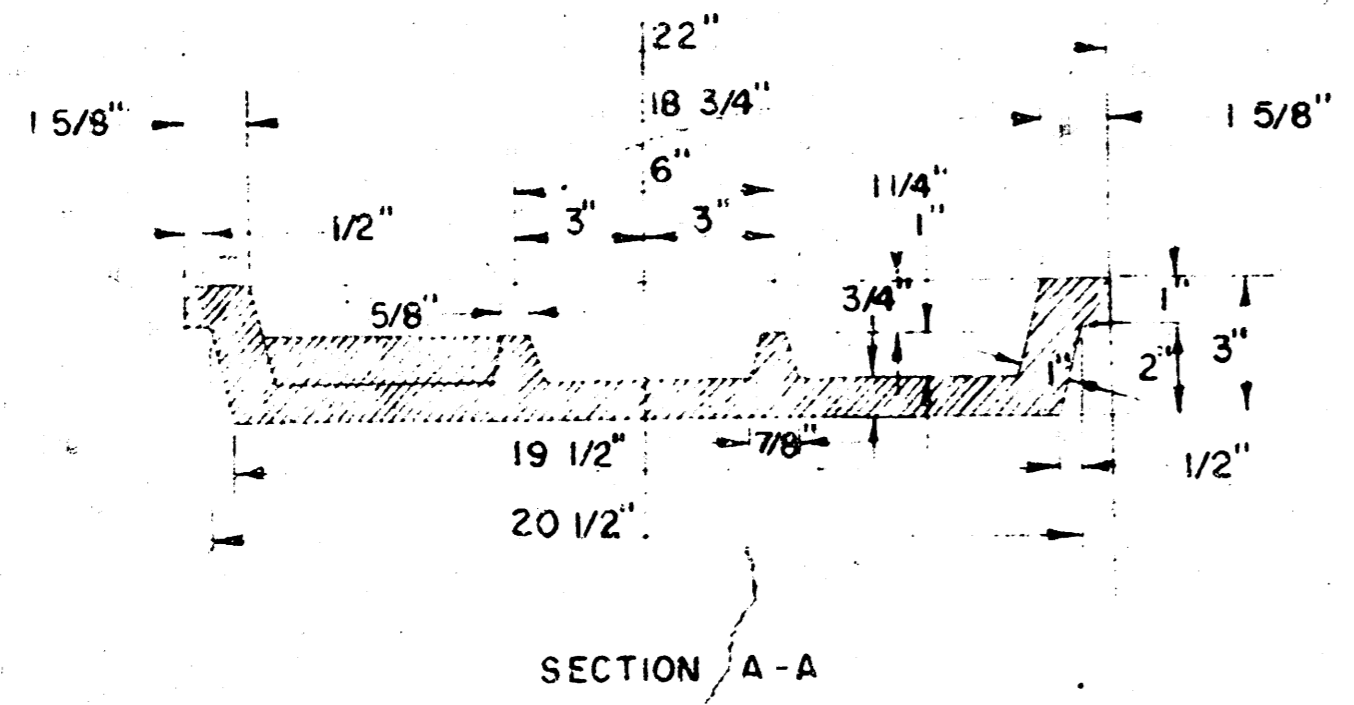
REINFORCED CONCRETE ENCASMENT



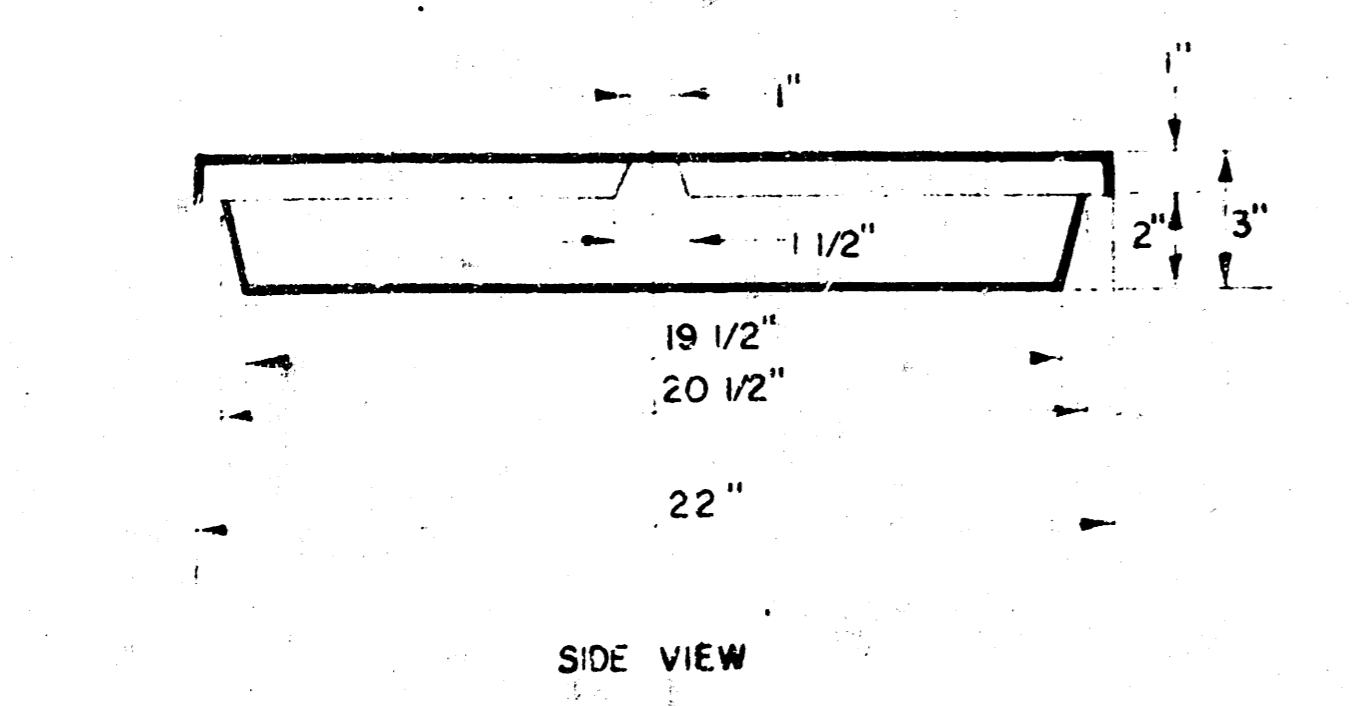
NOTE: CONCRETE ENCASMENT AND CONCRETE CRADLE SHALL BEGIN AND END AT A JOINT WHEN CLAY PIPE IS USED. 3" MINIMUM CONCRETE COVER OVER REBAR.

GENERAL NOTES

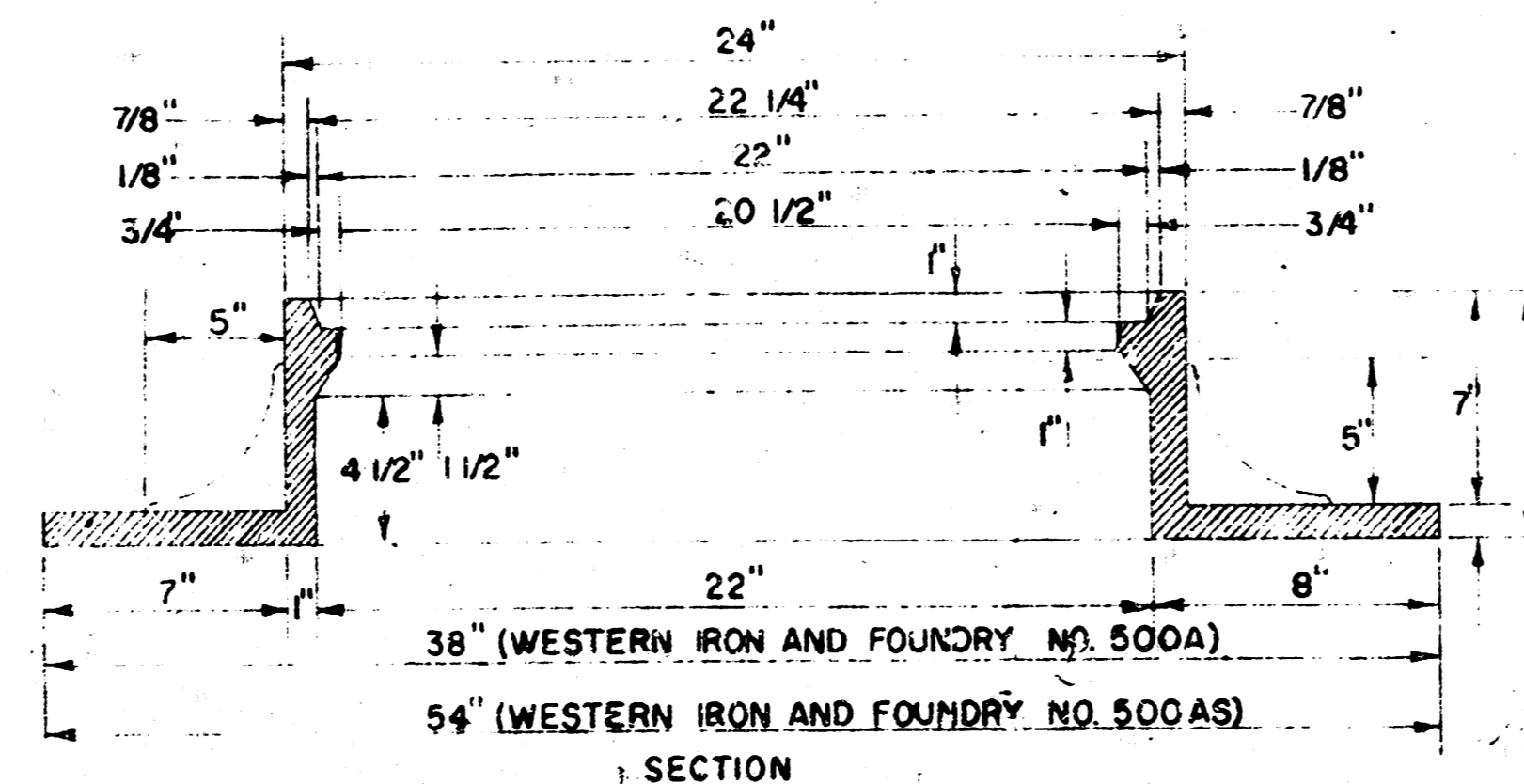
- MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 SACKS OF CEMENT PER CUBIC YARD.
- STANDARD MANHOLES TYPE "A" OR TYPE "B" AND STANDARD DROP MANHOLES TYPE "A" OR TYPE "B" SHALL BE BID PER LINEAR FOOT OF MANHOLES CONSTRUCTED.
- OUTSIDE DROP MANHOLES SHALL BE BID AS STANDARD OUTSIDE DROP MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE.
- MANHOLES WITH PIPE SIZES LARGER THAN 24" SHALL BE 5' DIAMETER.
- THE FLOORS OF ALL MANHOLES SHALL BE SHAPED TO INCREASE HYDRAULIC EFFICIENCY USING 8 SACK SAND MIX CONCRETE.
- PIPES INSTALLED WITHIN THE MANHOLE EXCAVATION SHALL BE CRADLED WITH CONCRETE TO THE LIMITS OF THE MANHOLE EXCAVATION. COST OF CRADLE WITHIN MANHOLE EXCAVATION SHALL BE INCLUDED IN THE UNIT PRICE BID FOR MANHOLES CONSTRUCTED. CRADLE SHALL EXTEND TO FIRST JOINT OUTSIDE OF MANHOLE WHEN CLAY PIPE IS USED.



MANHOLE COVER

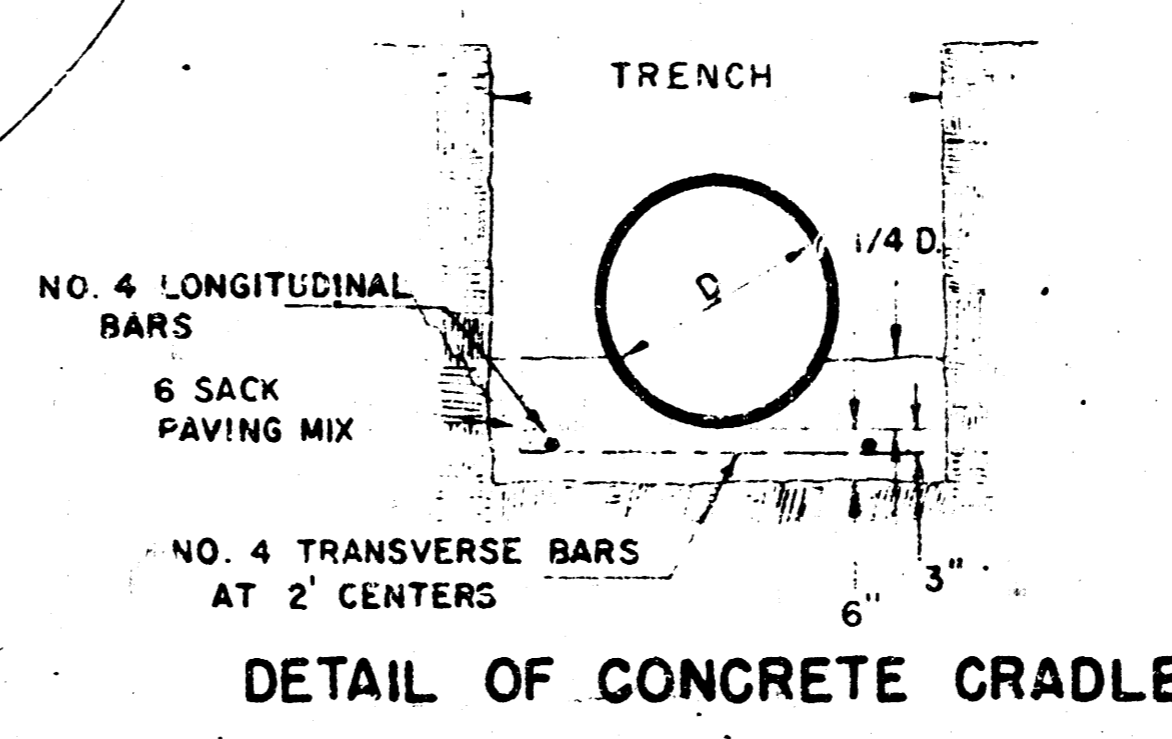


MANHOLE COVER

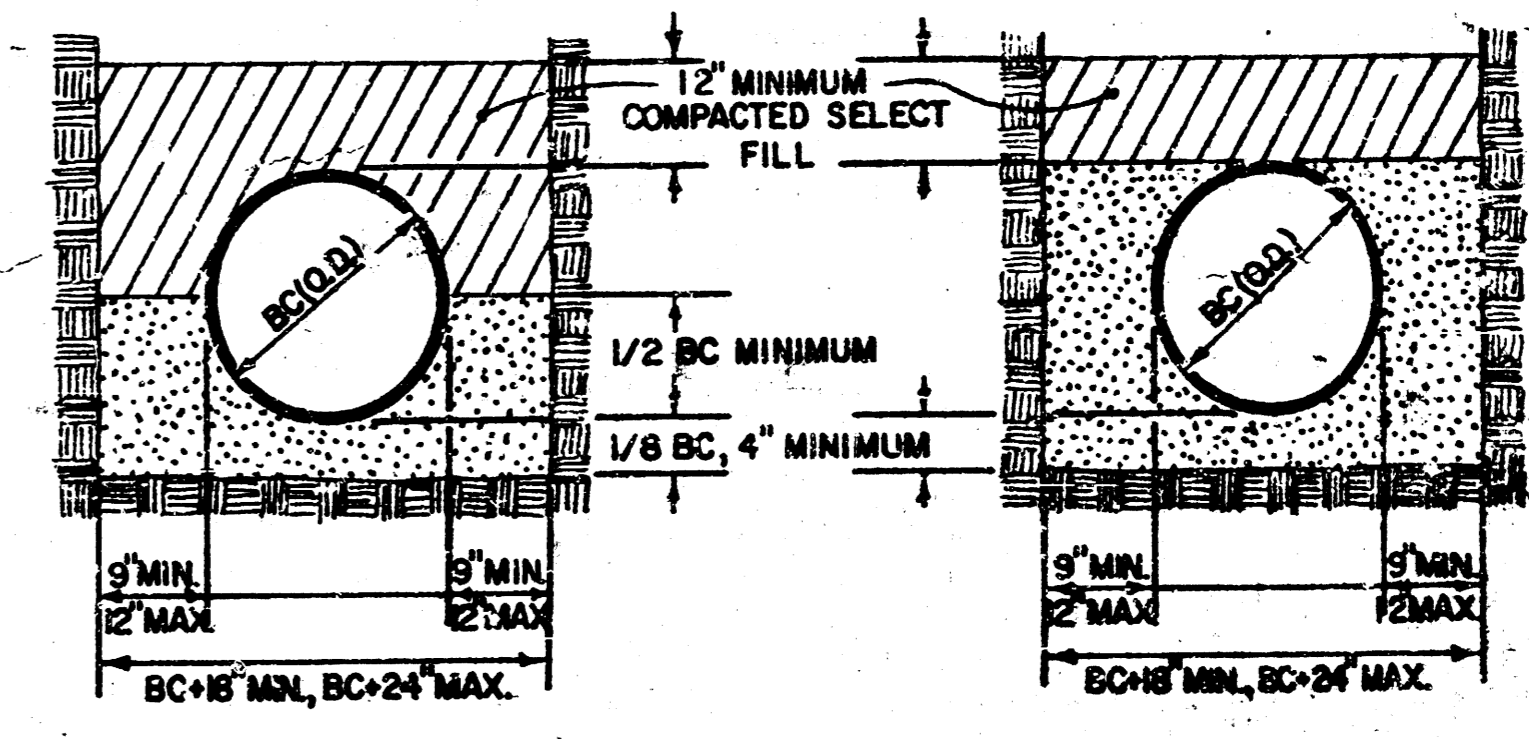


MANHOLE RING

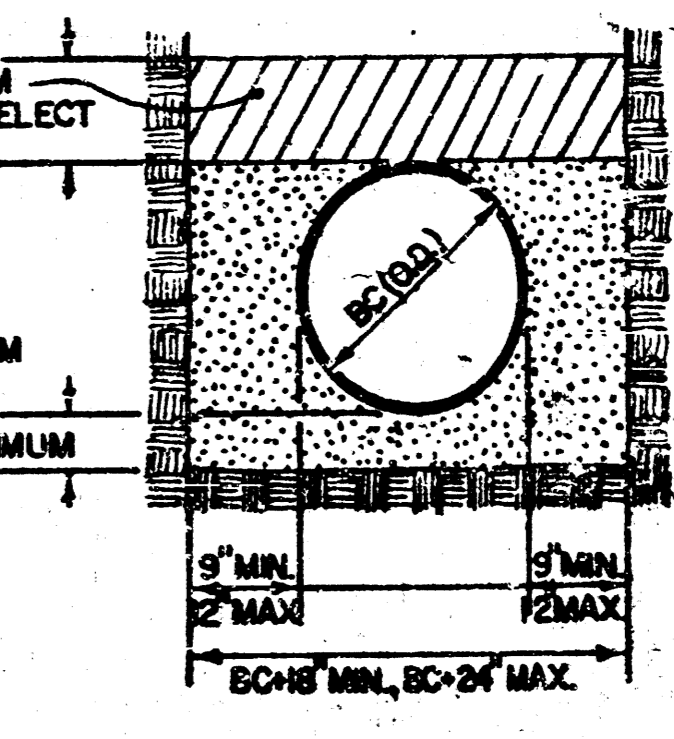
OUTSIDE CIRCUMFERENCE OF COVER AND THE INNER FACE AND SEAT OF RING TO BE MACHINE FIT.



DETAIL OF CONCRETE CRADLE



A.B.S. PIPE BEDDING DETAIL



R.V.C. PIPE BEDDING DETAIL

2-19-81, 1-8-81, 2-3-80, 11-14-80, 6-26-80 (SG.CJ)	D.J.
NO.	REVISION
SEDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS	
BRICK MANHOLE DETAILS (TYPES A&B) & MISC. DETAILS	
DESS & COONEY ENGINEERS	
2400 WEST 24th STREET WICHITA, KANSAS 67204 (913) 832-6888	
DESIGNED BY CITY OF WICHITA	JOB NO.
DRAWN BY CITY OF WICHITA	DATE 6-26-80
SHEET 8 OF 8	