

SHEET NO.	TOTAL SHEETS
1	8

PLANS FOR STORM WATER SEWER IMPROVEMENTS

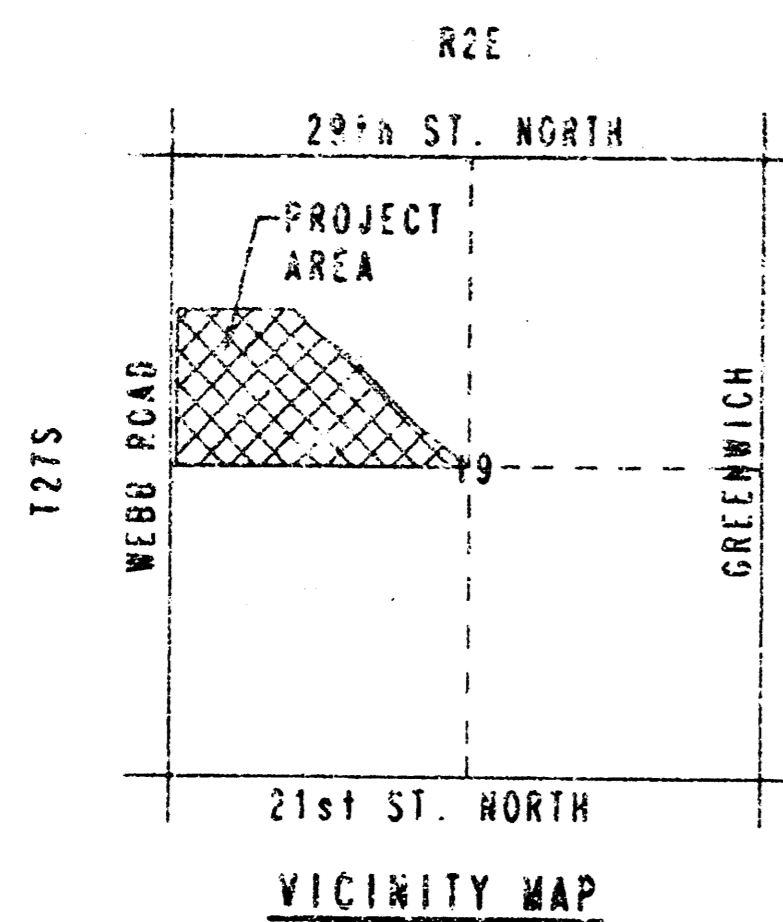
FOR
LOT 1 & 2, BLOCK 1
KANSAS SURGERY AND RECOVERY CENTER ADDITION
CITY OF WICHITA PRIVATE PROJECT NO. 525 PPS (607861)

INDEX OF SHEETS

1. TITLE SHEET
2. PLAN
3. PLAN
4. GRADING AND EROSION CONTROL DETAILS
5. DETAIL STANDARD TYPE 12 CURB INLET
6. REINFORCED CONCRETE MANHOLE
7. MANHOLE FRAME AND COVER DETAIL
8. PROFILE

NOTES

ALL STORM WATER SEWER TO BE CONSTRUCTED IN ACCORDANCE WITH CITY OF WICHITA STANDARD SPECIFICATIONS AS MODIFIED BY THE SPECIAL PROVISIONS. SPECIFICATIONS ARE ON FILE AT THE OFFICE OF THE CITY ENGINEER, 7TH FLOOR CITY HALL



APPROVED AS NOTED
BY CITY ENGINEER OF WICHITA

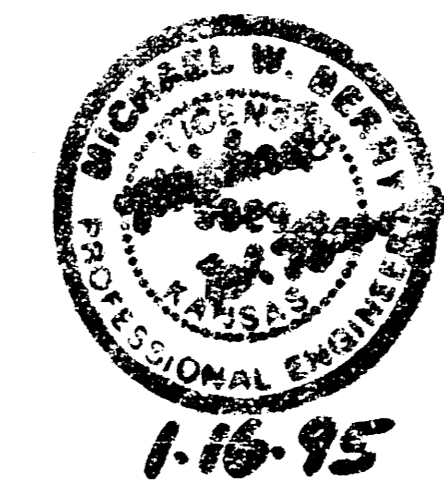
SANITARY SEWERS _____
STORM SEWERS UR# 1/17/95
DRIVEWAY APPROACHES _____
WATER MAINS _____
PAVING _____

NOTE TO CONTRACTOR

INSPECTION AND TESTING FOR THIS PROJECT IS TO BE PROVIDED BY A LICENSED CONSULTING ENGINEERING FIRM UNDER CONTRACT WITH THE OWNER/DEVELOPER SAID INSPECTION TO BE IN ACCORDANCE WITH THE CITY OF WICHITA STANDARD CONSTRUCTION ENGINEERING PRACTICES AND CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER. NO WORK SHALL BE PERFORMED IN DEDICATED EASEMENTS OR PUBLIC RIGHT-OF-WAY BY THE CONTRACTOR WITHOUT SUCH INSPECTION NOR SHALL ANY WORK BE COMMENCED IN DEDICATED EASEMENTS OR PUBLIC RIGHT-OF-WAY WITHOUT WRITTEN AUTHORIZATION BY THE CITY ENGINEER.

DECEMBER 1994

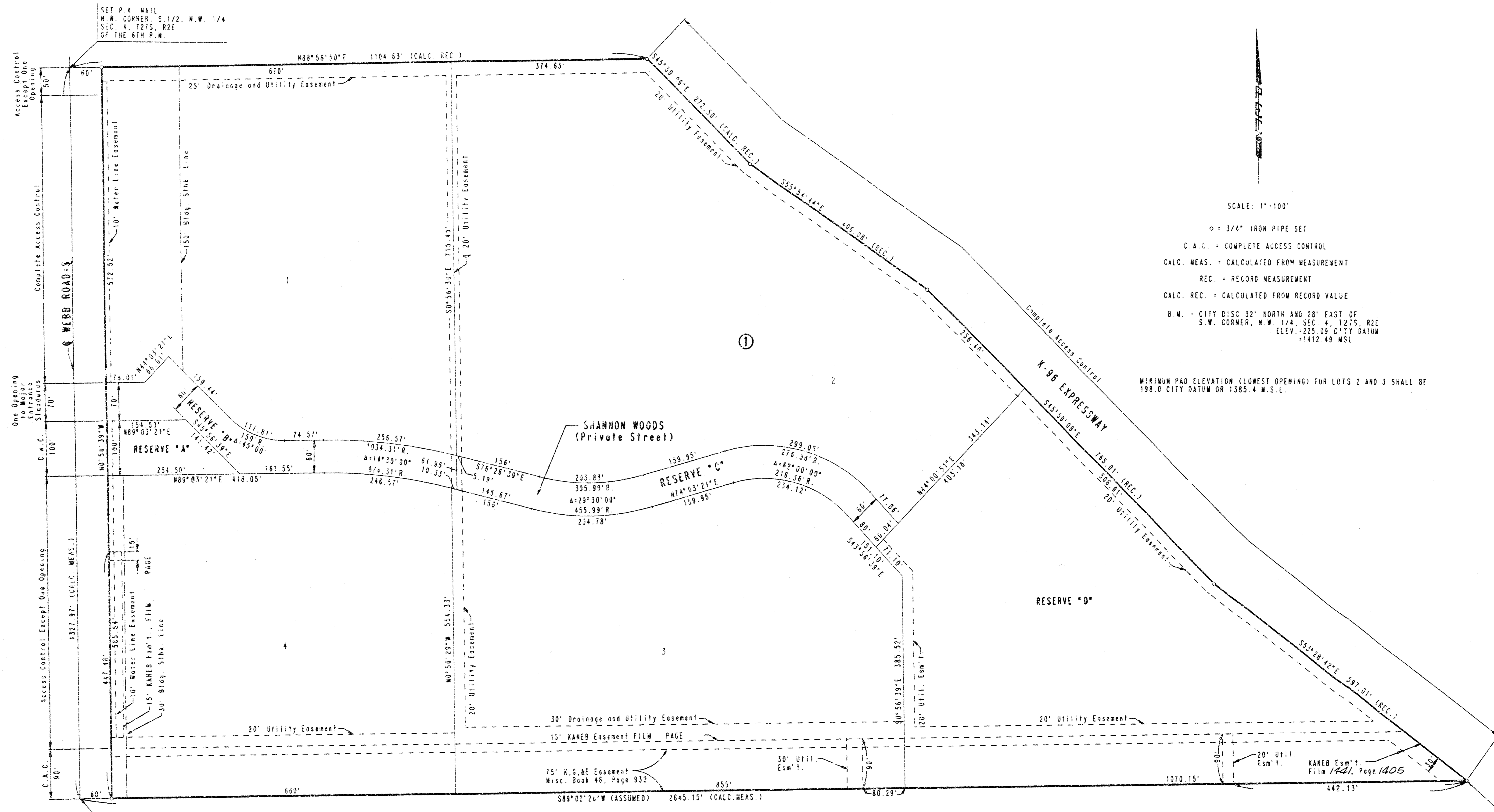
PLANS PREPARED BY
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS



PROJECT NAME: 525-4472-1 SW TITLE
DRAWN BY: JWB
CHECKED BY: JWB
DATE LAST REVISED ON: DEC. 28, 1994
SCALE: AS SHOWN
BYLINE: DUNK

KANSAS SURGERY AND RECOVERY CENTER ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS

PROJECT NO. 525 PPS (607861)	SHEET NO. 2	TOTAL SHEETS 8
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SCALE: 1"=100'

Ø = 3/4" IRON PIPE SET

C.A.C. = COMPLETE ACCESS CONTROL

CALC. MEAS. = CALCULATED FROM MEASUREMENT

REC. = RECORD MEASUREMENT

CALC. REC. = CALCULATED FROM RECORD VALUE

B.M. = CITY DISC 32" NORTH ANG 28" EAST OF S.W. CORNER, N.W. 1/4, SEC. 4, T27S, R2E
ELEV. = 225.09' CITY DATUM
+1412.49 MSL

MINIMUM PAD ELEVATION (LOWEST OPENING) FOR LOTS 2 AND 3 SHALL BE 198.0 CITY DATUM OR 1385.4 M.S.L.

PLAN	SUBMITTED	DATE
NOTE CORRECTED		
NO. OF REVISIONS		
BY		
DATE		

DRAWING NAME: 55-94772-1 PLAT
 LOCATION: 100' W. OF WEBB ROAD
 DATE LAST WORKED ON: DEC. 28, 1994
 DRAINAGE BOUND

ADVANCED ORTHOPAEDICS ASSOCIATES

PLAT

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

Designed by	Checked by	
Drawn by DEP	Date DEC 1994	Job no. 94772-1

PROJECT NO.	SHEET NO.	TOTAL SHEETS
525 PPS (607861)	3	8

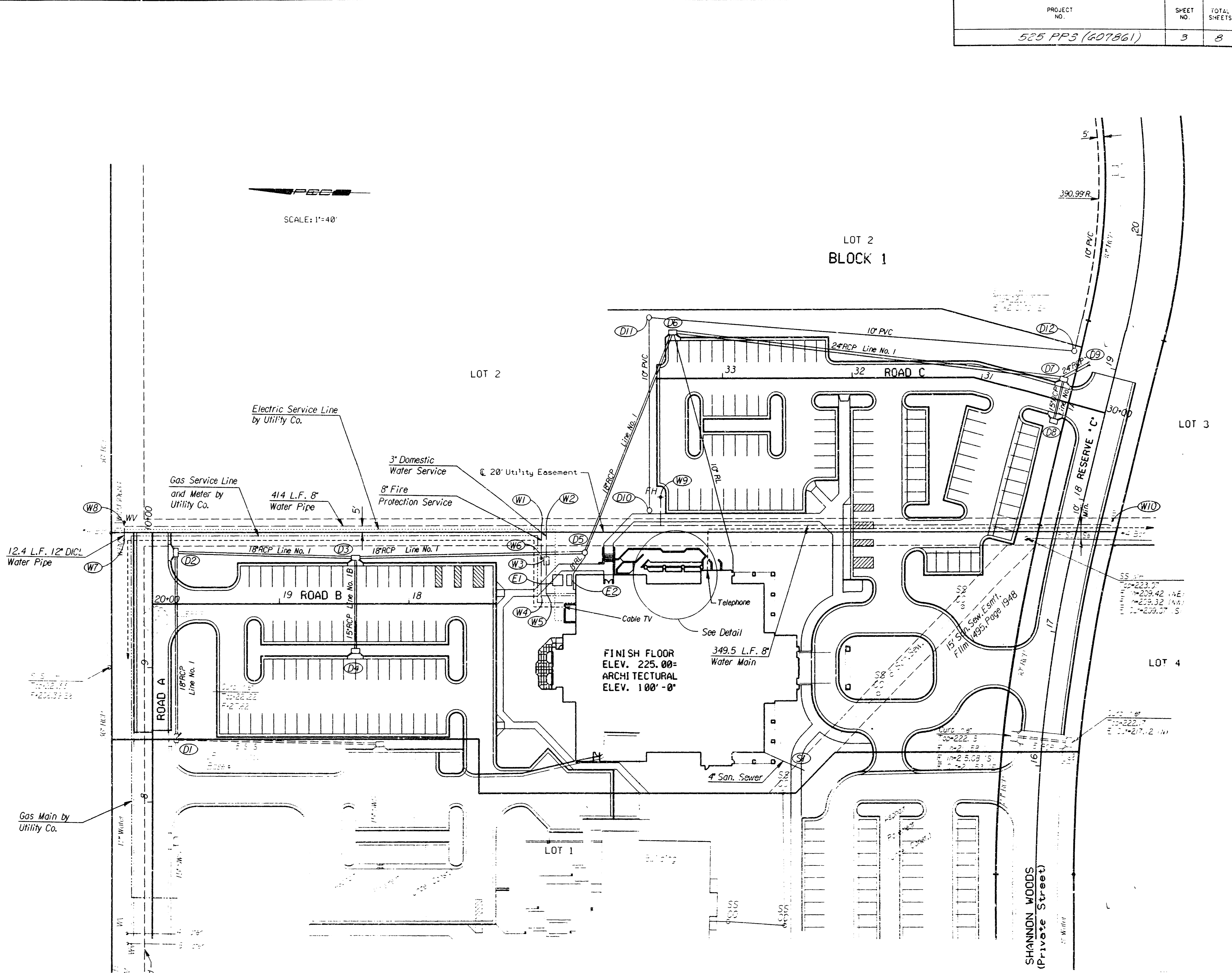
PLAN	DATE	BY
SURVEYED		
NOTED		
ALLOTTED		
CHECKED		
NO.		
REV.		

DRAWING MADE: 26-94772-1 BLANK SHEET
 LOCAL ORIGINATOR: MWD
 ROTATION ANGLE:
 DATE LAST WORKED ON:
 DRAWING NUMBER

- (D1) STA. 49+59.7, LINE NO. 1 - CENTER EXISTING CURB INLET. REMOVE 18" OUTLET PIPE FROM EXISTING INLET. CONNECT NEW 18" RCP.
- (D2) STA. 48+20.9, LINE NO. 1 - IN/AD A STA. 9+65.5, 17.67' RT. CONST. STD. TYPE 1A CURB INLET. L=6'-4", W=4'-4", H=6'-3" TOP ELEV.=211.87
INSTALL 138.8' L.F. 18" RCP (W)
E IN = 216.45 (W)
E OUT = 216.35 (S)
SEE SH. NO. SP2.2 AND SP2.6
- (D3) STA. 46+00.6, LINE NO. 1 - STA. 60+00, LINE NO. 1B - ROAD B STA. 18+42.11, 33.67' RT. CONST. STD. TYPE 1A CURB INLET. L=6'-4", W=4'-4", H=5'-3" TOP ELEV.=220.03
INSTALL 140.3' L.F. 18" RCP (W)
INSTALL 69.0' L.F. 15" RCP (W)
E IN = 215.75 (W)
E IN = 216.02 (W)
E OUT = 215.85 (S)
SEE SH. NO. SP2.2 AND SP2.6
- (D4) STA. 60+69.0, LINE NO. 1B - ROAD B STA. 18+42.11, 35.33' LT. CONST. STD. TYPE 1A CURB INLET. L=6'-4", W=4'-4", H=5'-6" TOP ELEV.=221.17
INSTALL 140.3' L.F. 18" RCP (W)
E IN = 216.37 (E)
SEE SH. NO. SP2.2 AND SP2.6
- (D5) STA. 45+04.5, LINE NO. 1 - ROAD B STA. 16+66.0, 37.5' RT. CONST. R.C. MANHOLE. L=4'-6", W=4'-6", H=8'-0", HT=1'-0" TOP ELEV.=223.0
INSTALL 176.1' L.F. 18" RCP (W)
E IN = 214.85 (W)
E IN = 216.00 (R/L)
E OUT = 214.75 (SE)
SEE SH. NO. SP2.3 AND SP2.6
- (D6) STA. 43+27.4, LINE NO. 1 - ROAD C STA. 33+38.01, 33.67' RT. CONST. STD. TYPE 1A CURB INLET. L=6'-4", W=4'-4", H=7'-6" TOP ELEV.=220.38
INSTALL 177.1' L.F. 18" RCP (W)
E IN = 213.37 (W)
E IN = 215.00 (L/R/L)
E OUT = 213.87 (S)
SEE SH. NO. SP2.2 AND SP2.6
- (D7) STA. 40+23.5, LINE NO. 1 - STA. 50+00, LINE NO. 1A - ROAD C STA. 30+68.0, 15.67' RT. CONST. STD. TYPE 1A CURB INLET. L=6'-4", W=4'-4", H=7'-6" TOP ELEV.=220.95
INSTALL 363.9' L.F. 18" RCP (W)
INSTALL 31.3' L.F. 15" RCP (W)
E IN = 212.47 (W)
E IN = 214.74 (W)
E OUT = 212.37 (SE)
SEE SH. NO. SP2.2 AND SP2.6
- (D8) STA. 50+31.3, LINE NO. 1A - ROAD C STA. 30+68.0, 15.67' LT. CONST. STD. TYPE 1A CURB INLET. L=6'-4", W=4'-4", H=6'-0" TOP ELEV.=220.95
E IN = 215.69 (E)
SEE SH. NO. SP2.2 AND SP2.6
- (D9) STA. 40+00.0, LINE NO. 1 - EXISTING R.C. MANHOLE. BREAK INTO MH WALL AND CONNECT 24" RCP PER CITY OF WICHITA REQUIREMENTS. REMOVE AND RESHAPE INLET INVERT AS REQUIRED
INSTALL 23.5' L.F. 24" RCP (W)
E IN = 211.24
- (D10) ROAD C STA. 33+57.5, 98' LT. CONST. R.C. MANHOLE L=4'-6", W=4'-6", H=12'-0", HT=1'-1" TOP ELEV.=221.40
INSTALL 10' PVC (E) @ 0.40%
E IN (47)=209.3 E IN (107)=209.0
E IN (47)=211.3 E OUT=206.9
SEE SH. NO. SP2.3 AND PLAN DETAIL THIS SHEET
- (D11) ROAD C STA. 33+57.50, 45' RT. CONST. R.C. MANHOLE L=4'-6", W=4'-6", H=11'-6", HT=1'-0" TOP ELEV.=220.0
INSTALL 10' PVC (S) @ 0.40%
E IN=208.30, E OUT=208.2
SEE SH. NO. SP2.3
- (D12) SHANNON WOODS STA. 19+04.07, 35' LT. CONST. R.C. MANHOLE L=4'-6", W=4'-6", H=13'-6", HT=1'-0" TOP ELEV.=220.5
INSTALL 10' PVC (E) @ 0.40%
LAY CONCENTRIC WITH NORTH LINE RESERVE B
E IN=206.9 E OUT=206.8
SEE SH. NO. SP2.3
- (D13) SHANNON WOODS STA. 23+61, 35' LT. INSTALL 45' BEND
- (D14) SHANNON WOODS STA. 23+50, 21.67' LT. EXISTING CURB INLET. BREAK INTO INLET AND CONNECT 10" PVC PER CITY OF WICHITA REQUIREMENTS. REMOVE AND RESHAPE INLET INVERT AS REQUIRED.
E IN=205.10
- (W1) W.L. STA. 3+22 1-8" x 8" CI CL MJ TEE
- (W2) W.L. STA. 3+26 1-8" x 3" CI CL MJ TEE
- (W3) 2" METER IN VAULT SEE DETAILS SH. NO. SP3.5
- (W4) 8" 90° BEND WITH REACTION BACKING PER C.O.D. SPEC. NO. 14533
- (W5) 3" 90° BEND WITH REACTION BACKING PER C.O.D. SPEC. NO. 14533
- (W6) POST INDICATOR ON 8" FIRE LINE
- (W7) ROAD A STA. 10+07, 21.75' LT. W.L. STA. 0+12 (STA. 10+22.37 PROJ. NO. H48-08784) EXISTING 2" BLOW-OFF ASSEMBLY REMOVE EXISTING 12" CI MJ CAP AND BEGIN NEW WATER MAIN INSTALLATION
- (W8) ROAD A STA. 9+35, 21.75' LT. W.L. STA. 0+00 1-12" x 8" CI CL MJ TEE 1-12" ANCHORED VALVE ASSEMBLY (E) (MJ BUTTERFLY VALVE) TOP VALVE BOX ELEV.=221.5 1-12" CI MJ PLUG (E) 1-8" VALVE ASSEMBLY (S) (MJ GATE VALVE) TOP VALVE BOX ELEV.=221.5
- (W9) W.L. STA. 4+10.0 1-FIRE MIFRANT ASSEMBLY L=21' TOP VALVE BOX ELEV.=221.50 TOP FH BURY LINE ELEV.=221.51
- (W10) W.L. STA. 7+63.5 (SHANNON WOODS STA. 68+94.03) REMOVE EXISTING 2" BLOW-OFF ASSEMBLY REMOVE 5' L.F. 8" MAIN 1-8" x 8" CI CL MJ TEE 1-8" VALVE ASSEMBLY (W) (MJ GATE VALVE) TOP VALVE BOX ELEV.=221.25 1-1 1/4" CI CL MJ BEND (W)
- (S1) CONNECT 4" SANITARY SEWER SERVICE TO EXISTING 6" MAIN
- (E1) ELECTRIC TRANSFORMER BY UTILITY CO.
- (E2) EMERGENCY GENERATOR. SEE ELECTRICAL PLANS

SEE ELECTRICAL PLANS FOR LIGHTING AND CONDUIT LOCATIONS.

NOTE: All disturbed areas to be seeded, fertilized & mulched in accordance with the requirements of Section 02900 of the Specifications.



ADVANCED ORTHOPAEDICS ASSOCIATES

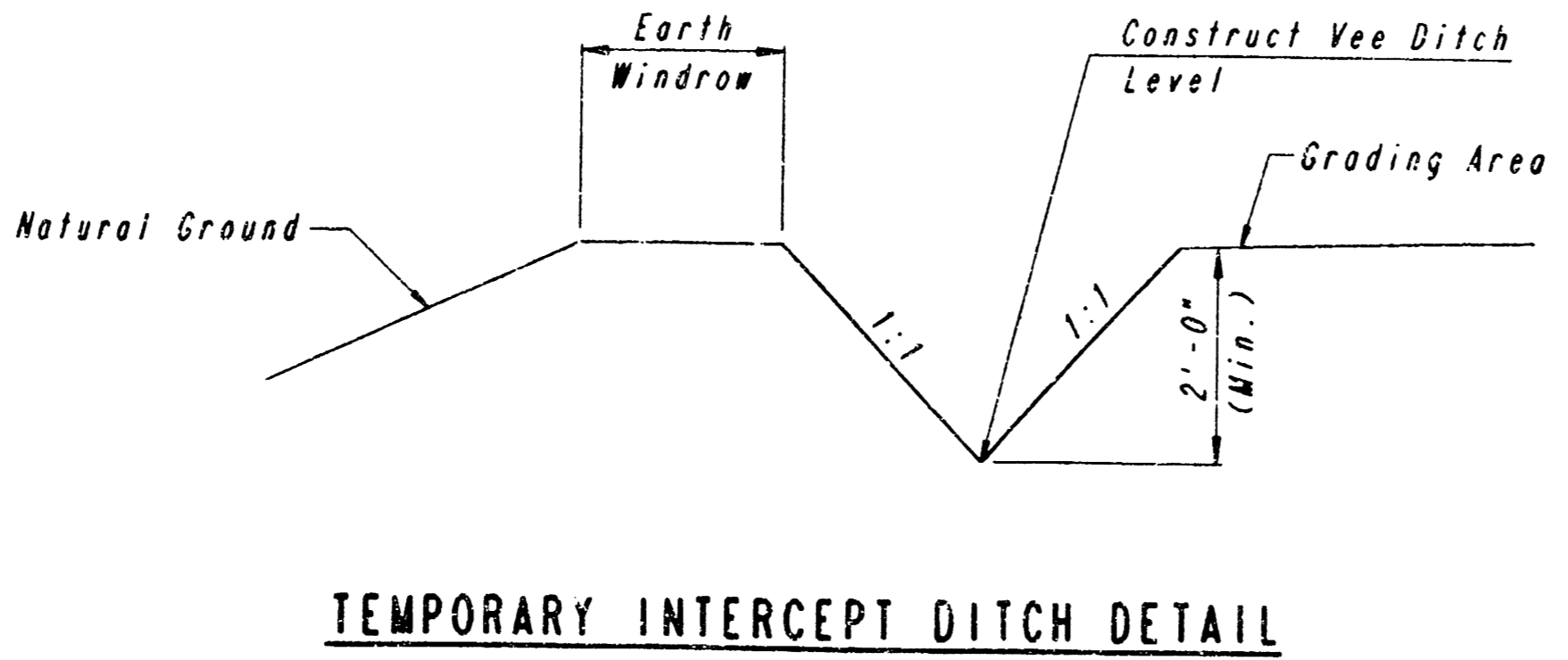
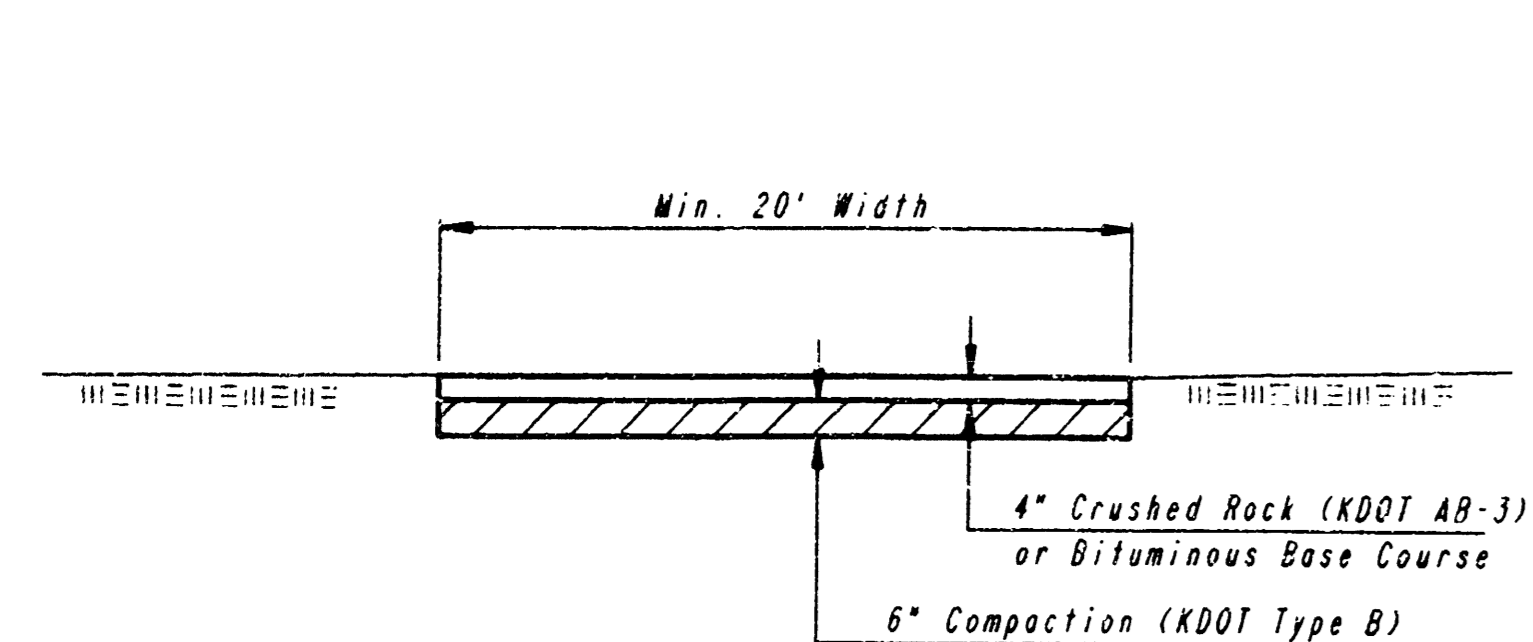
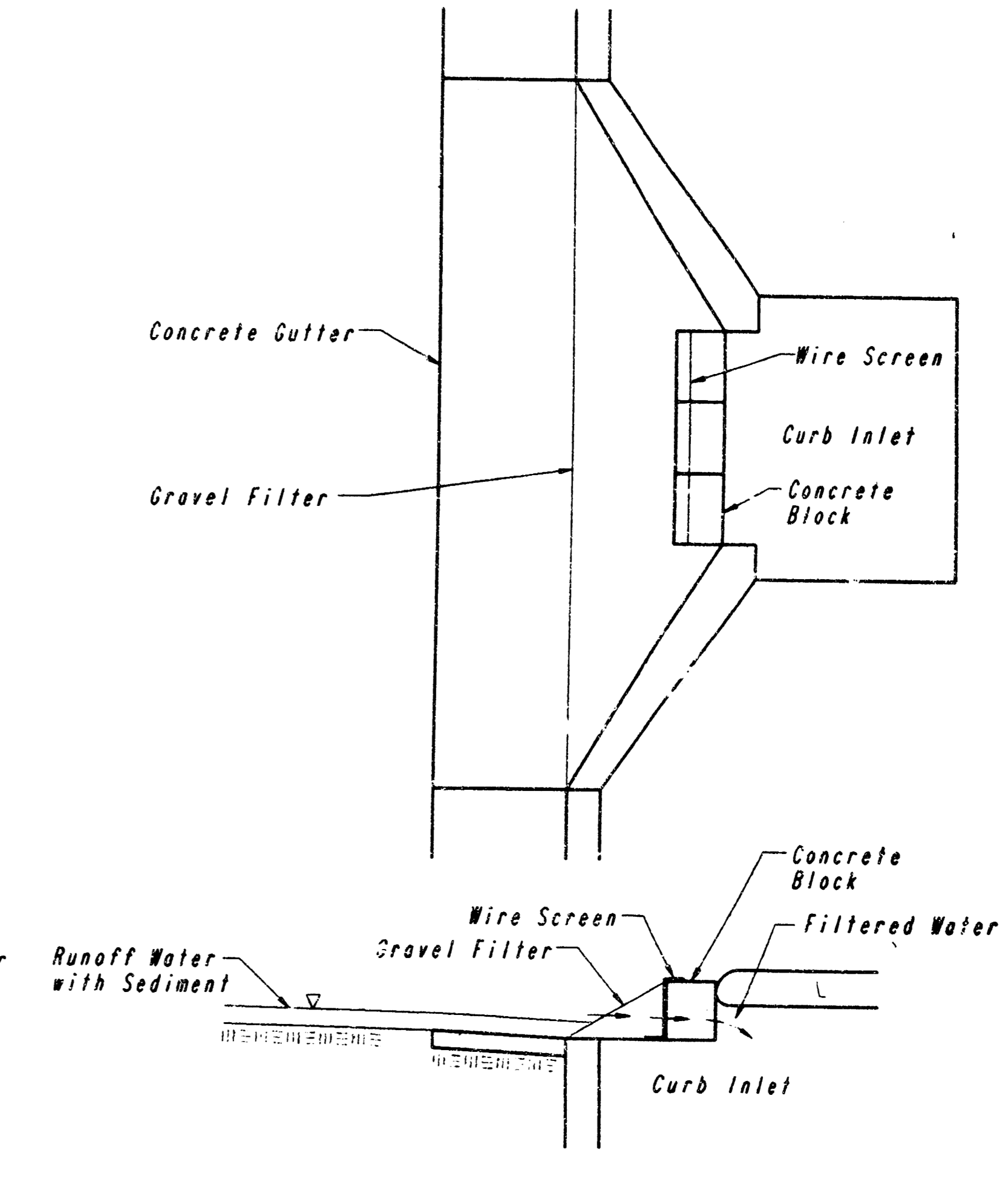
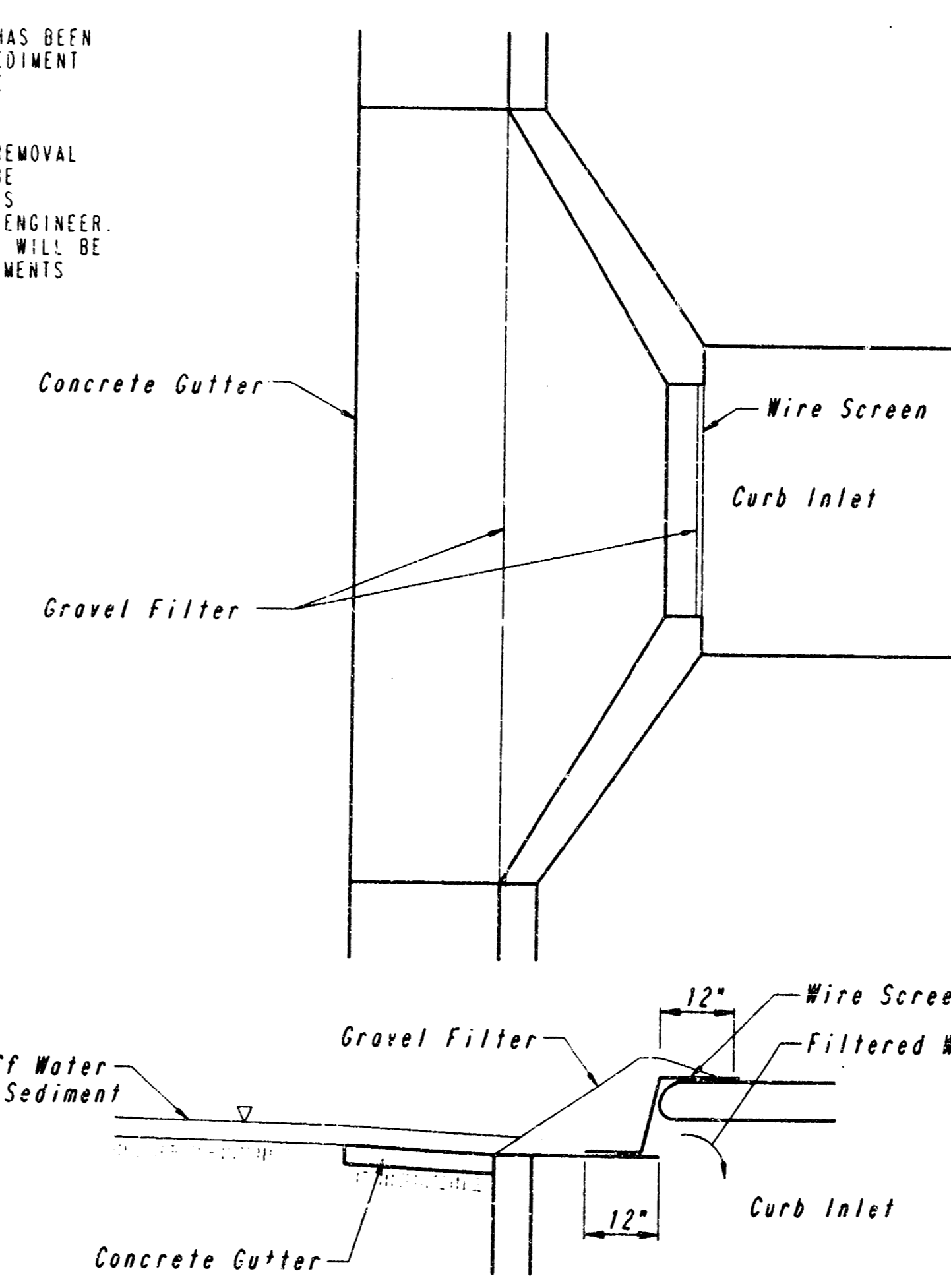
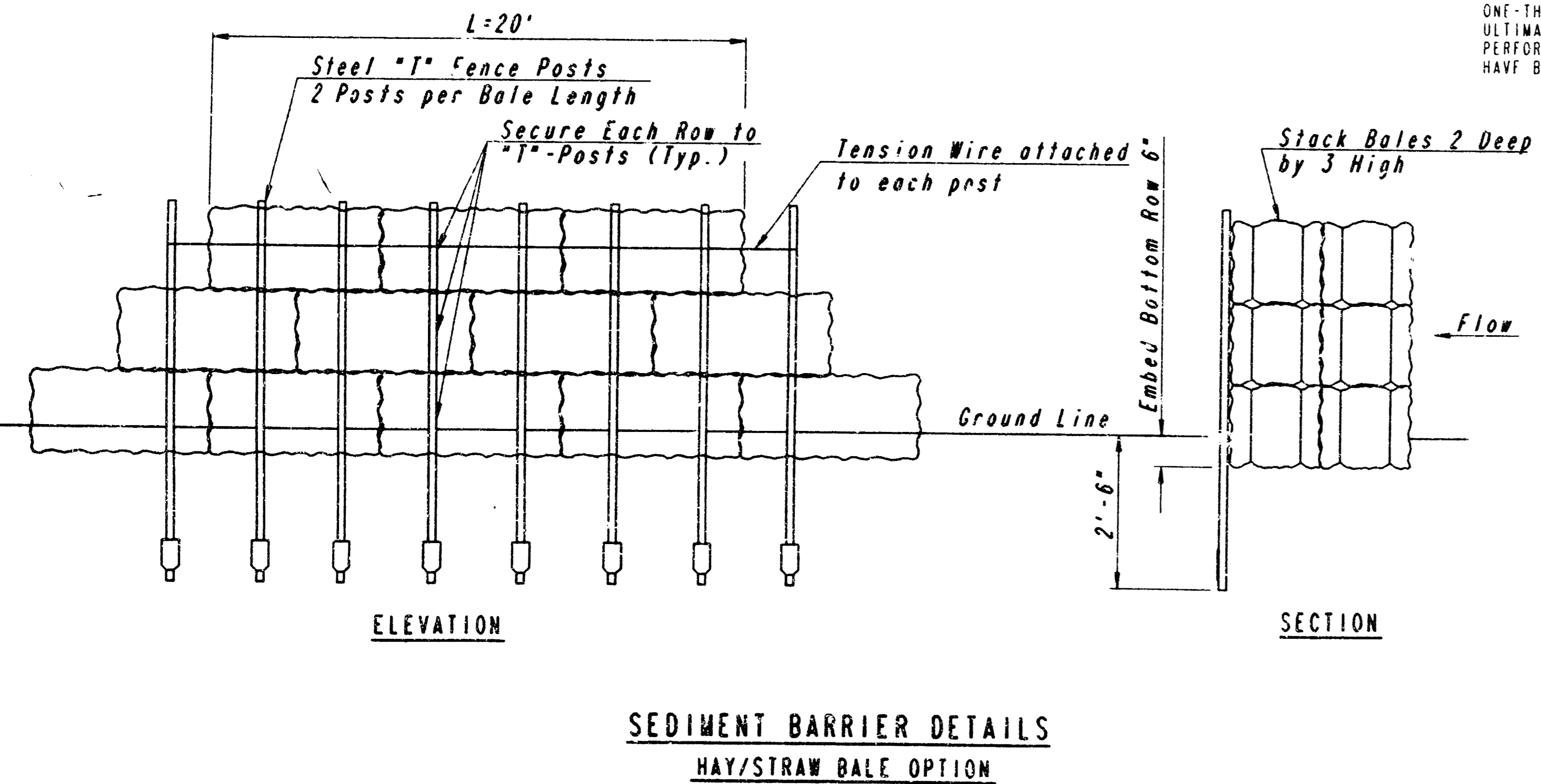
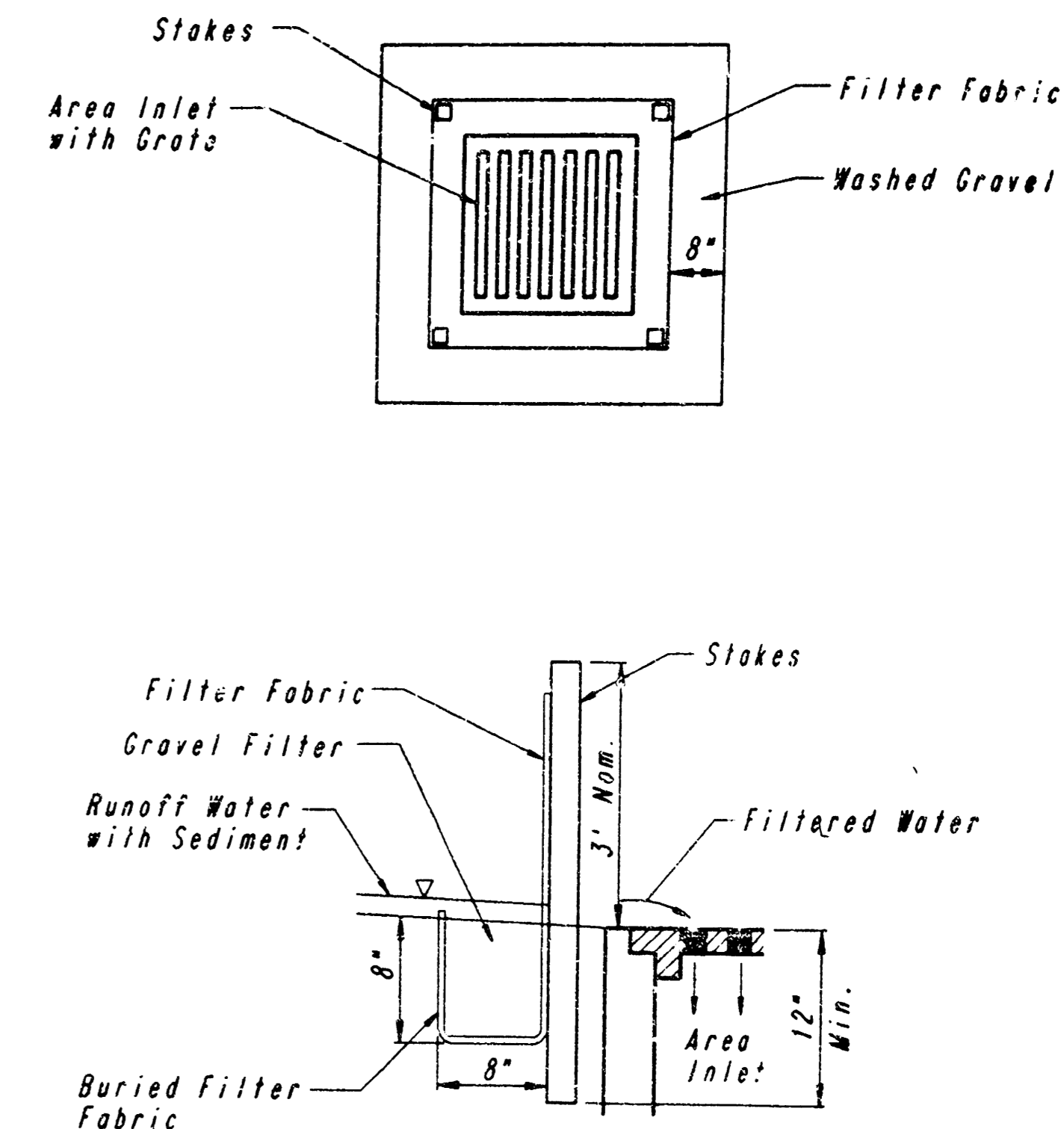
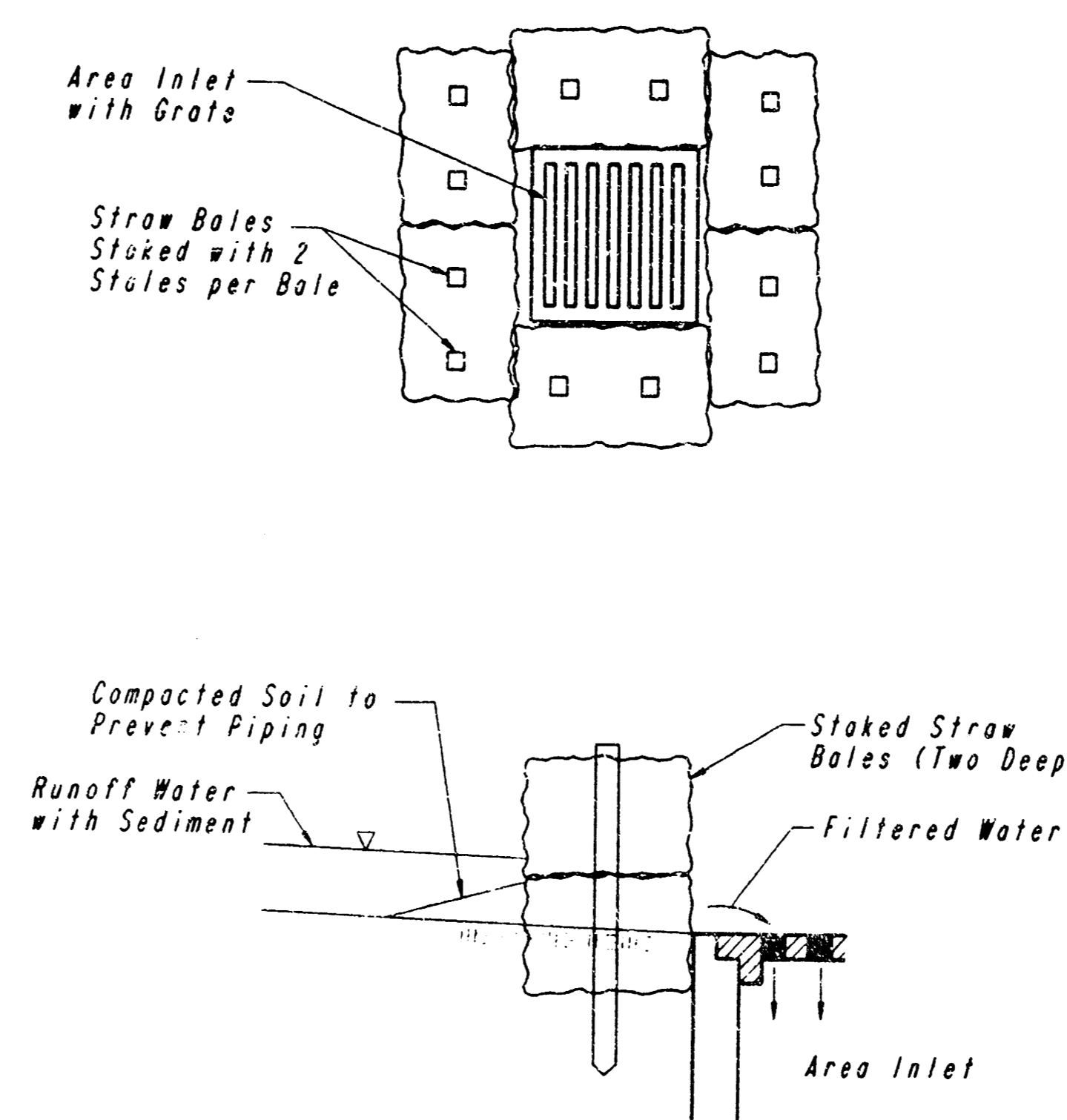
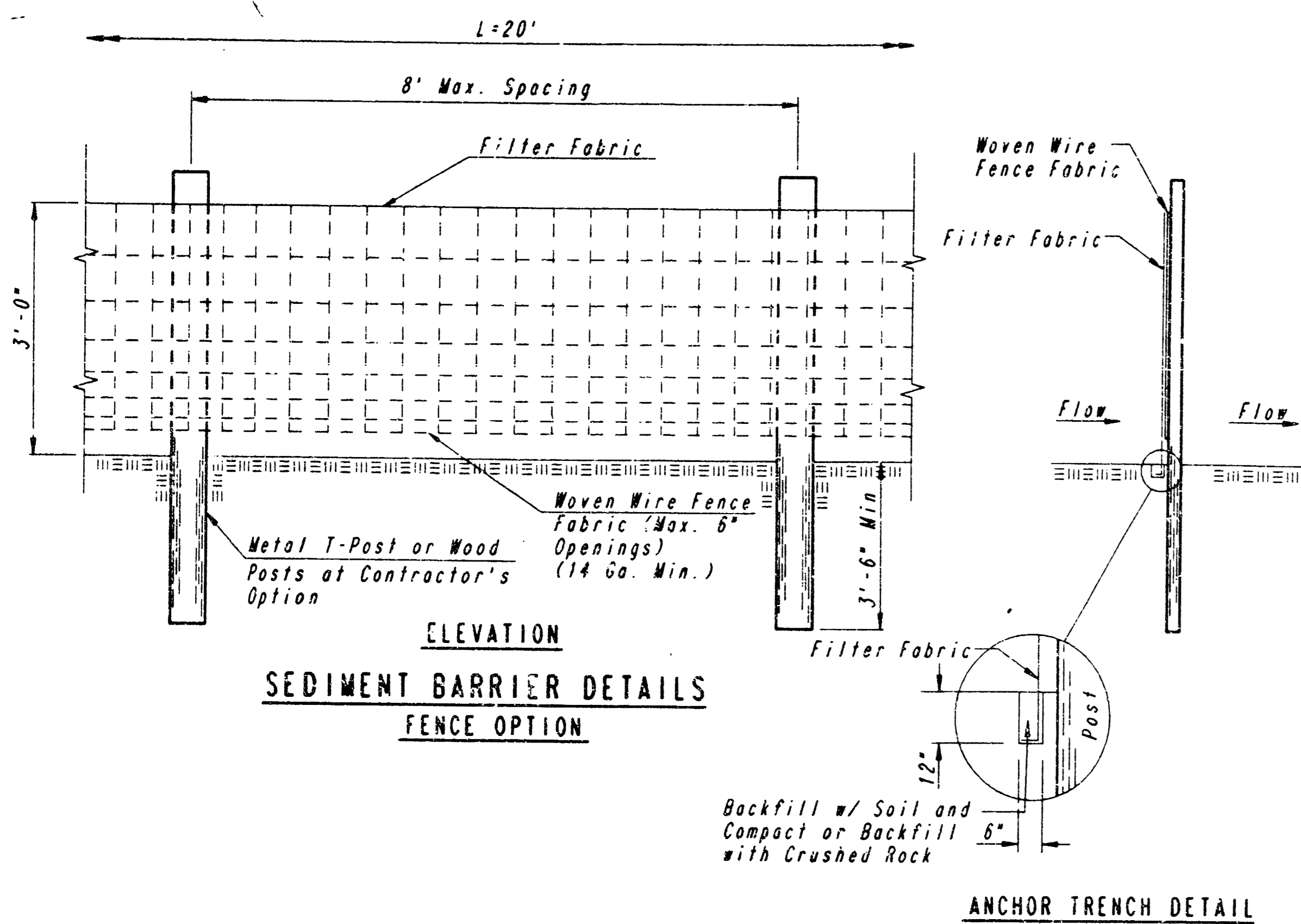
PLAN

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
 ENGINEERS
 WICHITA, KANSAS

Designed by	MWB	Checked by	
Drawn by	DEP	Date	DEC. 1994
		Job No.	94772-1

GENERAL NOTES

- TEMPORARY FIRE LANE TO BE PROVIDED IN ACCORDANCE WITH FIRE DEPARTMENT REQUIREMENTS AT ALL TIMES. SURFACE TO BE MINIMUM 4" CRUSHED ROCK (KDOT AB-3) OR APPROVED EQUAL. MAINTAIN FIRE LANE SURFACE THROUGHOUT PROJECT CONSTRUCTION TIME.
- TOPSOIL STRIPPED ON SITE TO BE UTILIZED IN LANDSCAPING. EXCESS TOPSOIL, IF ANY, TO BE STOCKPILED ON A SITE TO BE APPROVED BY THE OWNER ON LOT 2, BLOCK 1, KANSAS SURGERY AND RECOVERY CENTER ADDITION.
- EXCESS EXCAVATED MATERIAL TO BE STOCKPILED ON A SITE TO BE APPROVED BY THE OWNER ON LOT 2, BLOCK 1, KANSAS SURGERY AND RECOVERY CENTER ADDITION.
- SEDIMENT BARRIERS SHALL BE INSTALLED AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- SEDIMENT BARRIERS SHALL BE ERECTED PRIOR TO THE COMMENCEMENT OF EARTHWORK OPERATIONS IN A GIVEN BASIN. REMOVAL AND DISPOSAL OF ACCUMULATED SILT AND DEBRIS AND/OR REMOVAL AND RECONSTRUCTION OF SEDIMENT BARRIERS WILL BE PERFORMED THROUGHOUT THE PROJECT LIFE WHEN DEBRIS REACHES ONE-THIRD THE FENCE HEIGHT OR AS DEEMED NECESSARY BY THE ENGINEER. SEDIMENT BARRIERS AND ACCUMULATED DEBRIS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AFTER TURF COVER HAS BEEN ESTABLISHED, UNLESS OTHER ARRANGEMENTS HAVE BEEN AGREED TO.
- FILTER FABRIC FOR FENCE OPTION SEDIMENT BARRIERS SHALL BE RESISTANT TO ULTRAVIOLET LIGHT. MATERIALS MAY BE SUPPLIED BY THE FOLLOWING MANUFACTURERS:
 WIRAF, INC. : 100X
 HOECHST FIBERS INDUSTRIES : TREVIRA 1115
 EXXON : TYPAR 3301 W
 MATERIALS SUPPLIED BY THE ABOVE NAMED MANUFACTURERS SHALL BE ACCEPTED UPON VISUAL INSPECTION BY THE ENGINEER. OTHER COMPARABLE MATERIALS MAY BE USED IF APPROVED BY THE ENGINEER.
 FILTER FABRIC SHALL BE ATTACHED TO FENCE FABRIC BY MEANS OF THE WIRES OR HOE RINGS PRIOR TO ATTACHMENT OF FENCE/FABRIC COMBINATION ONTO THE POSTS.
- RAILS USED MAY BE EITHER HAY OR STRAW, PROVIDED THEY ARE SOUND AND INTACT.
- INLET PROTECTION METHOD MAY BE ANY OF THE APPLICABLE TYPES SHOWN, AT THE CONTRACTOR'S OPTION.
- GRAVEL FILTER SHALL BE A DURABLE, WELL-GRADED SAND-GRAVEL OR CRUSHED STONE, MAXIMUM 1-1/2 IN. SIZE. AS AN ALTERNATE GRAVEL FILLED BAGS OF BURLAP OR OTHER FABRIC MAY BE USED. WHERE BAGS ARE USED, THE WIRE SCREEN, WHERE SHOWN, MAY BE OMITTED.
- INLET PROTECTION SHALL BE ERECTED AS SOON AS THE STRUCTURE HAS BEEN BACKFILLED. MEASURES SHALL BE TAKEN TO PRECLUDE ENTRY OF SEDIMENT INTO THE STORM WATER SEWER SYSTEM DURING CONSTRUCTION OF THE STRUCTURE.
- REMOVAL AND DISPOSAL OF ACCUMULATED SILT AND DEBRIS AND/OR REMOVAL AND RECONSTRUCTION OF INLET PROTECTION INSTALLATIONS SHALL BE PERFORMED THROUGHOUT THE PROJECT LIFE WHENEVER DEBRIS REACHES ONE-THIRD THE BARRIER HEIGHT, OR AS DEEMED NECESSARY BY THE ENGINEER. ULTIMATE REMOVAL AND DISPOSAL OF INLET PROTECTION AND DEBRIS WILL BE PERFORMED AFTER SEEDING IS ESTABLISHED, UNLESS OTHER ARRANGEMENTS HAVE BEEN MADE.



WHERE TEMPORARY EROSION CONTROL INTERCEPT DITCHES ARE USED, ALL AREAS WHERE FLOW IS CONCENTRATED SHALL BE PROTECTED BY SEDIMENT BARRIERS PRIOR TO DISCHARGING INTO ANY DITCH, STORM SEWER, OR WATERCOURSE.

EROSION CONTROL DETAILS ADAPTED FROM:
 VIRGINIA SOIL AND WATER CONSERVATION COMMISSION,
 1985 AND DRAINAGE CRITERIA MANUAL, DENVER URBAN
 DRAINAGE AND FLOOD CONTROL DISTRICT 9-1-92.

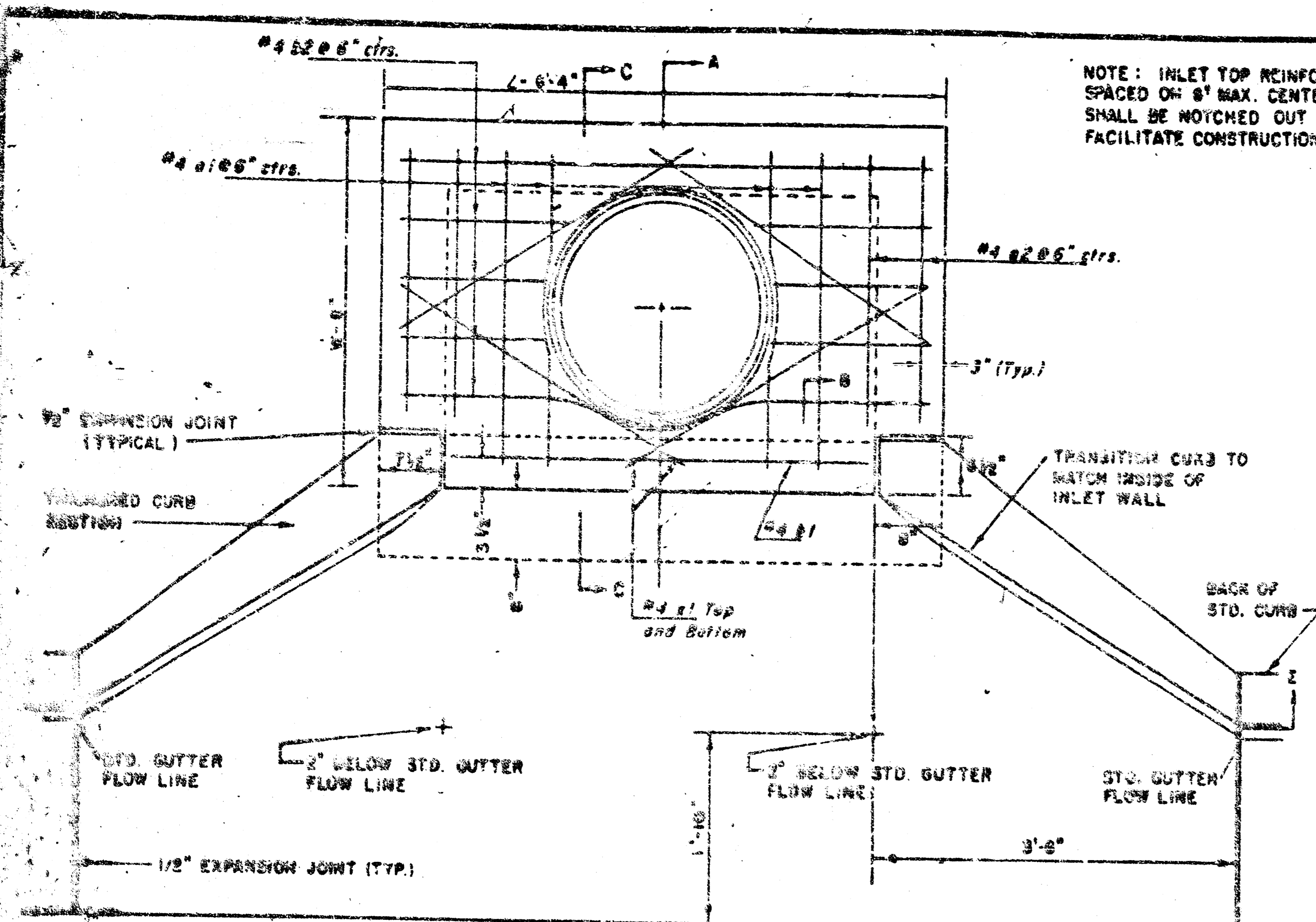
GRADING AND EROSION CONTROL DETAILS

29TH AND WEBB ROAD
 WICHITA, KANSAS

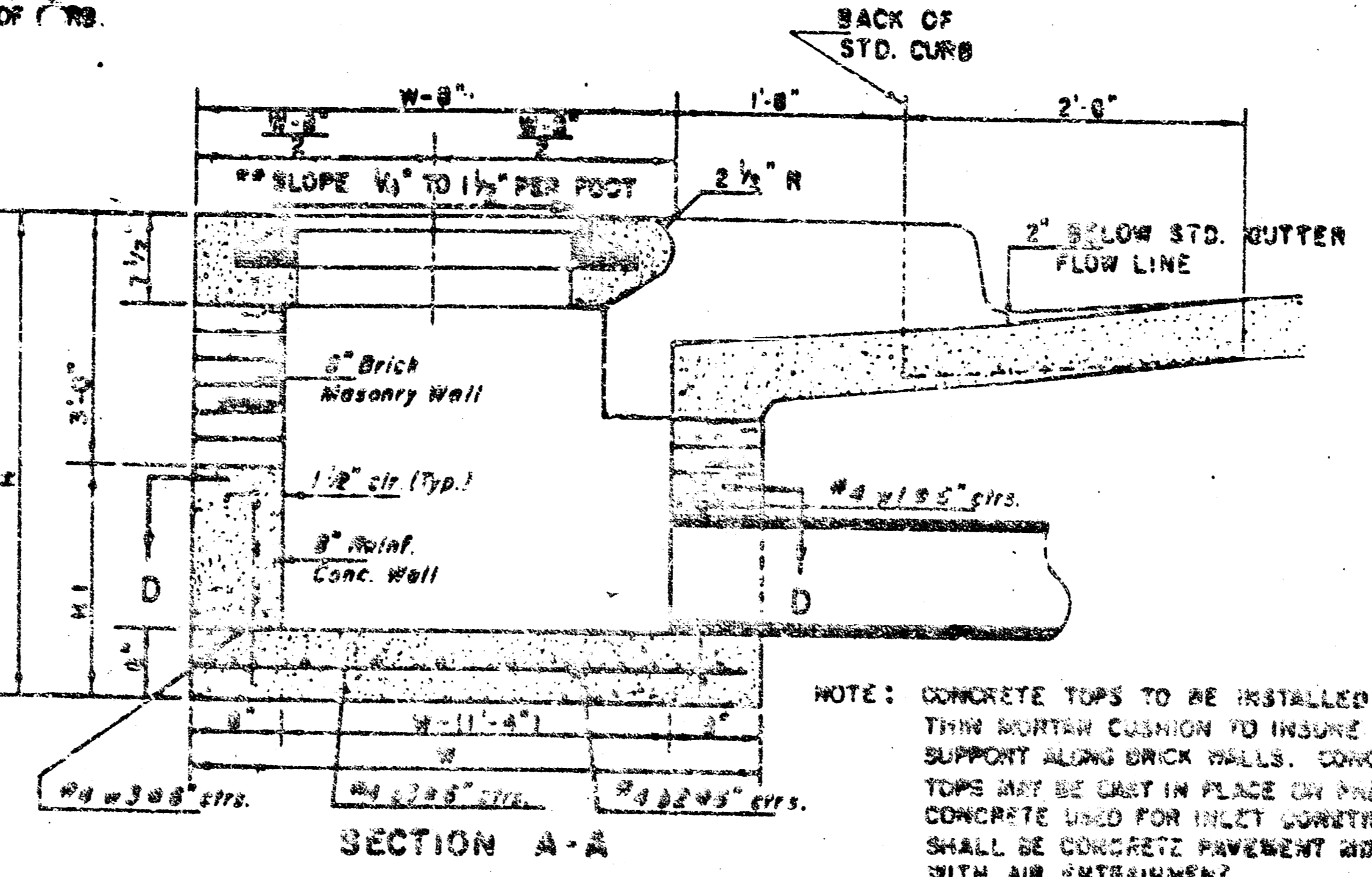
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
 ENGINEERS
 WICHITA, KANSAS

Designed by: WBB
 Drawn by: BEP
 Checked by: [Signature]
 Date: Dec. 1994 Job No. 94772-1

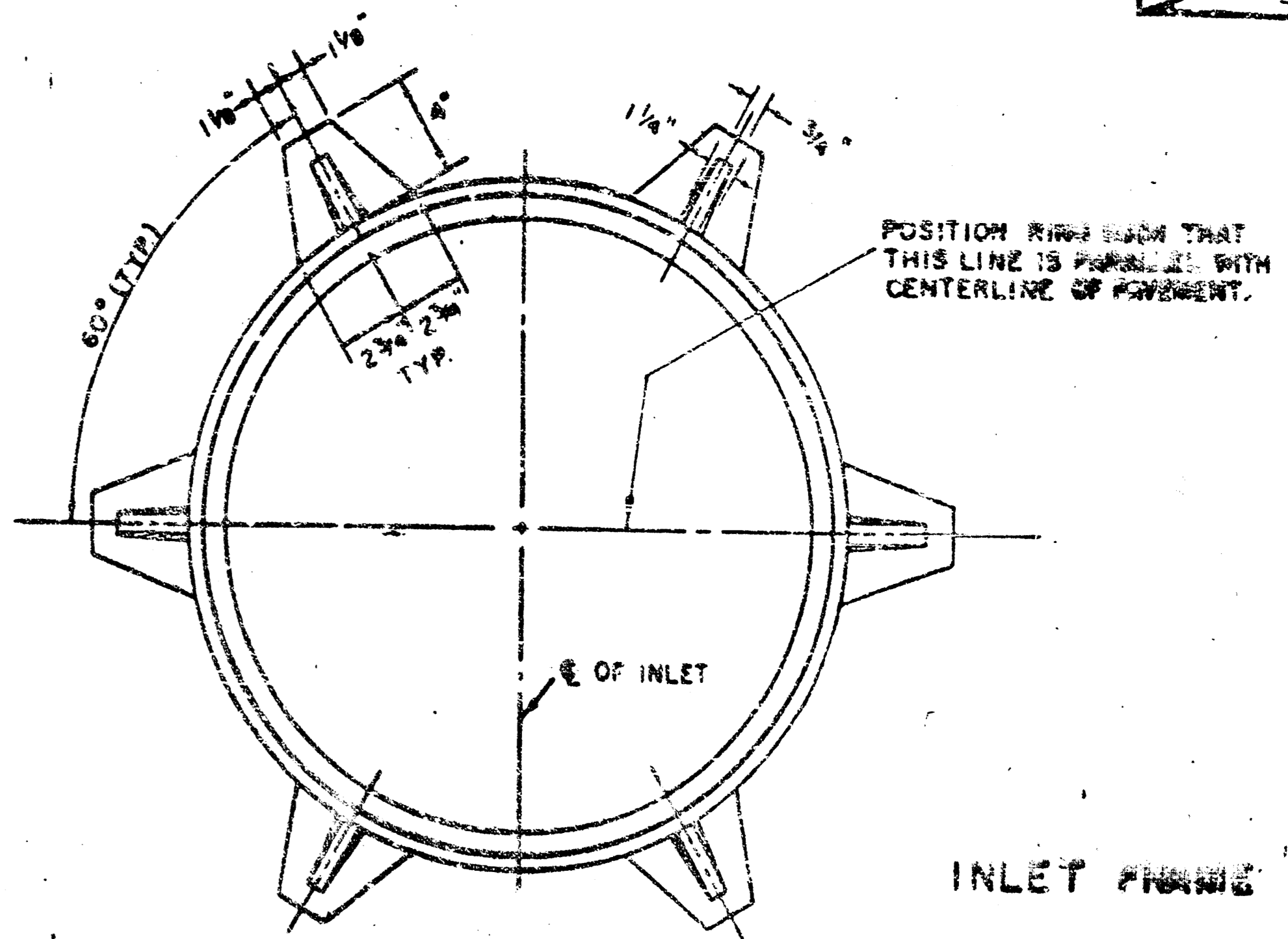
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 DATE LAST WORKED ON: [Blank]
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 LOCATION: 04, 122
 CENTER COORDINATES:
 DATE LAST WORKED ON:
 MIKE BERRY



NOTE: INLET TOP REINFORCING SHALL BE SPACED ON 8" MAX. CENTERS. INLET LIDS SHALL BE NOTCHED OUT AS INDICATED TO FACILITATE CONSTRUCTION OF CURB.



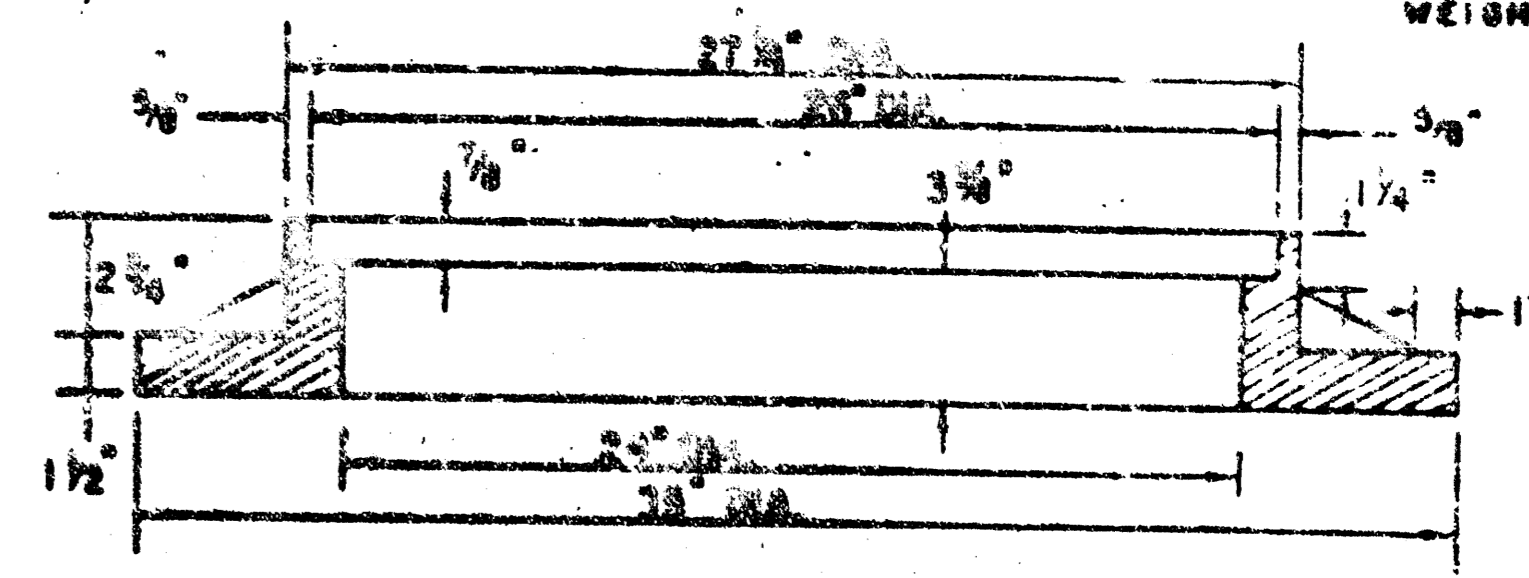
NOTE: CONCRETE TOPS TO BE INSTALLED ON THIN MORTAR CUSHION TO INSURE FULL SUPPORT ALONG BRICK WALLS. CONCRETE TOPS ARE TO BE CAST IN PLACE ON PRECAST. CONCRETE USED FOR INLET CONSTRUCTION SHALL BE CONCRETE PAVEMENT MIX WITH AIR ENTRAINMENT.



POSITION FRAME SO THAT THIS LINE IS PARALLEL WITH CENTERLINE OF PAVEMENT.

INLET FRAME

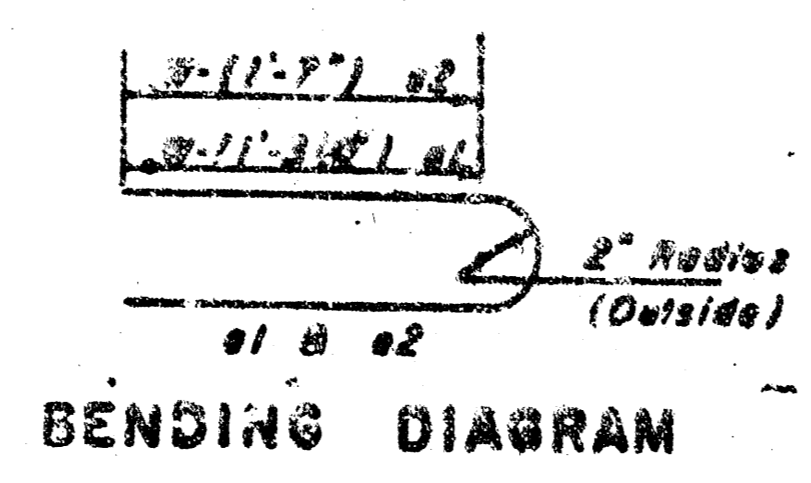
WEIGHT = 130 LBS.



SEE CITY OF WICHITA STANDARD MANHOLE FRAME AND COVER DETAIL SHEET FOR COVER DETAILS TO BE USED WITH INLET FRAME.

REINFORCEMENT BARS AND FLOOR REINFORCING

NO.	DESCRIPTION	QUANTITY	WEIGHT	TOTAL WEIGHT
1	#4 @ 2'-0" c/s	10	100	1000
2	#4 @ 2'-0" c/s	10	100	1000
3	#4 @ 2'-0" c/s	10	100	1000
4	#4 @ 2'-0" c/s	10	100	1000
5	#4 @ 2'-0" c/s	10	100	1000
6	#4 @ 2'-0" c/s	10	100	1000
7	#4 @ 2'-0" c/s	10	100	1000
8	#4 @ 2'-0" c/s	10	100	1000
9	#4 @ 2'-0" c/s	10	100	1000
10	#4 @ 2'-0" c/s	10	100	1000



STANDARD INLET LID TOPS

W	L	THICKNESS	WEIGHT	LOADING
6'-0"	6'-0"	1/2"	0.130	0.130
6'-0"	6'-0"	3/4"	0.195	0.195
6'-0"	6'-0"	1"	0.260	0.260
6'-0"	6'-0"	1 1/4"	0.325	0.325
6'-0"	6'-0"	1 1/2"	0.390	0.390
6'-0"	6'-0"	1 3/4"	0.455	0.455
6'-0"	6'-0"	2"	0.520	0.520

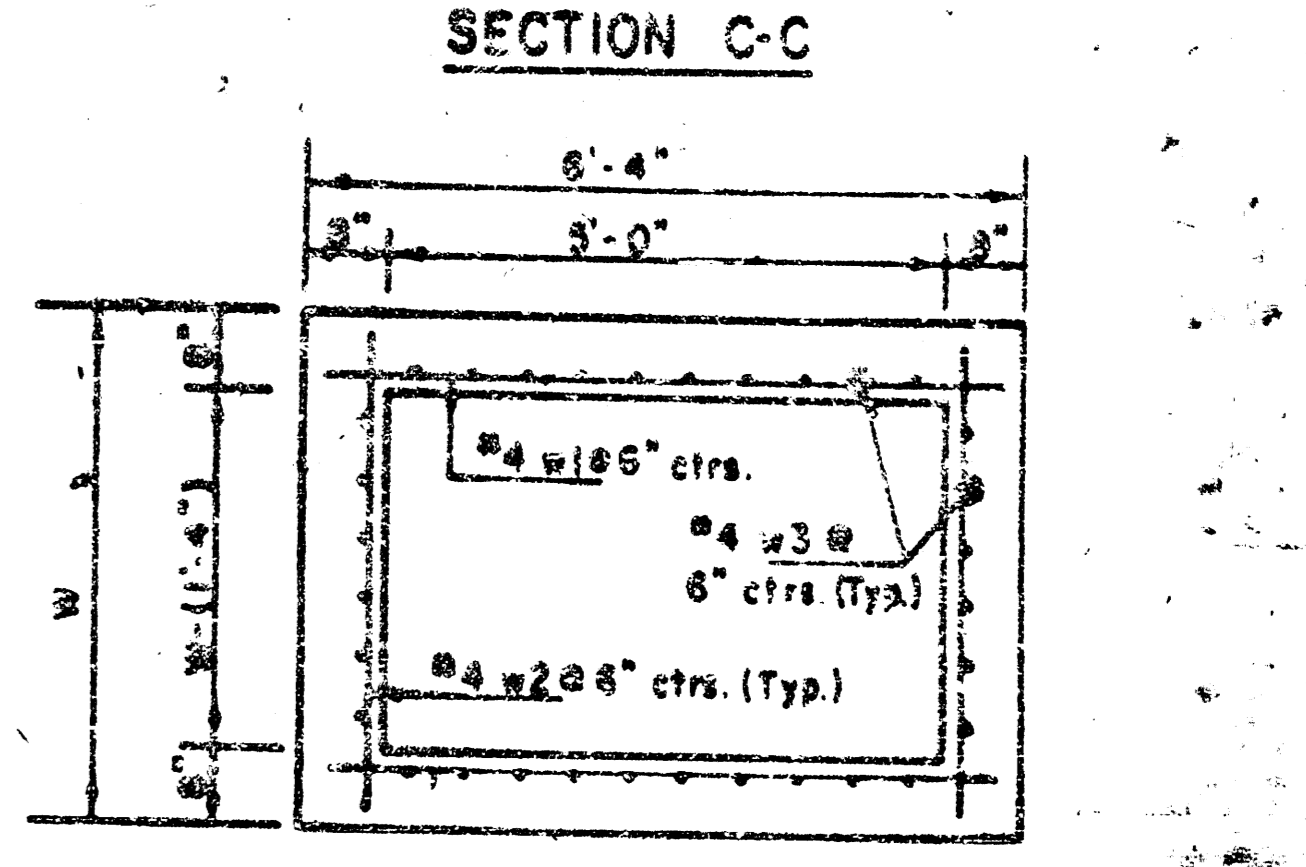
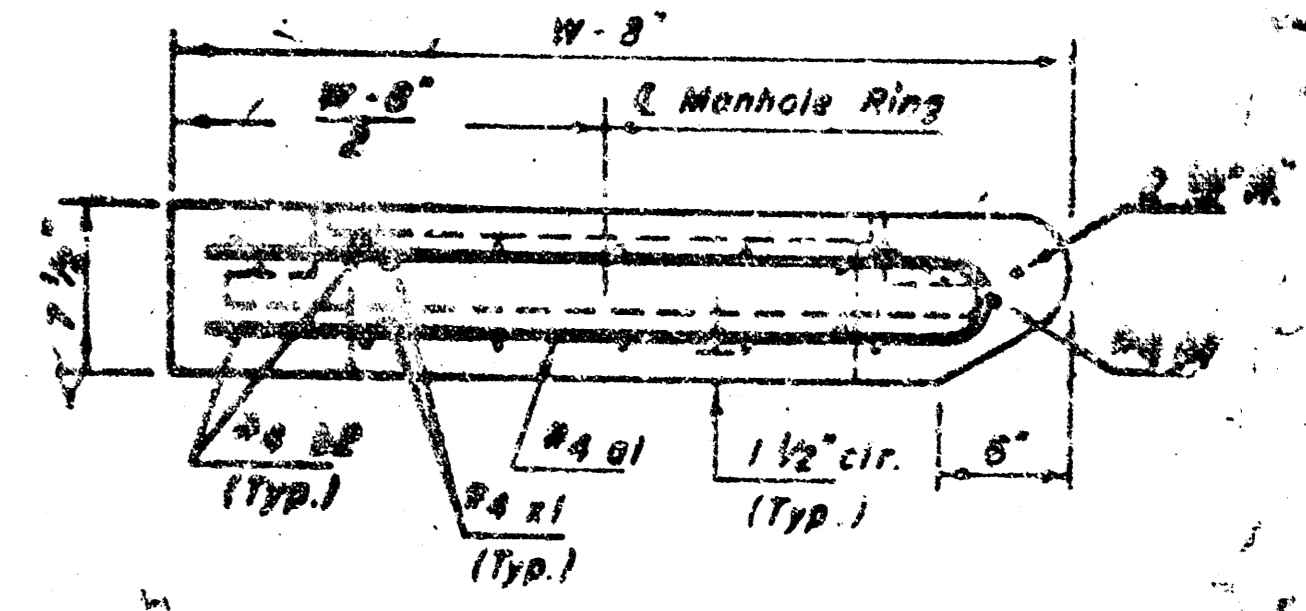
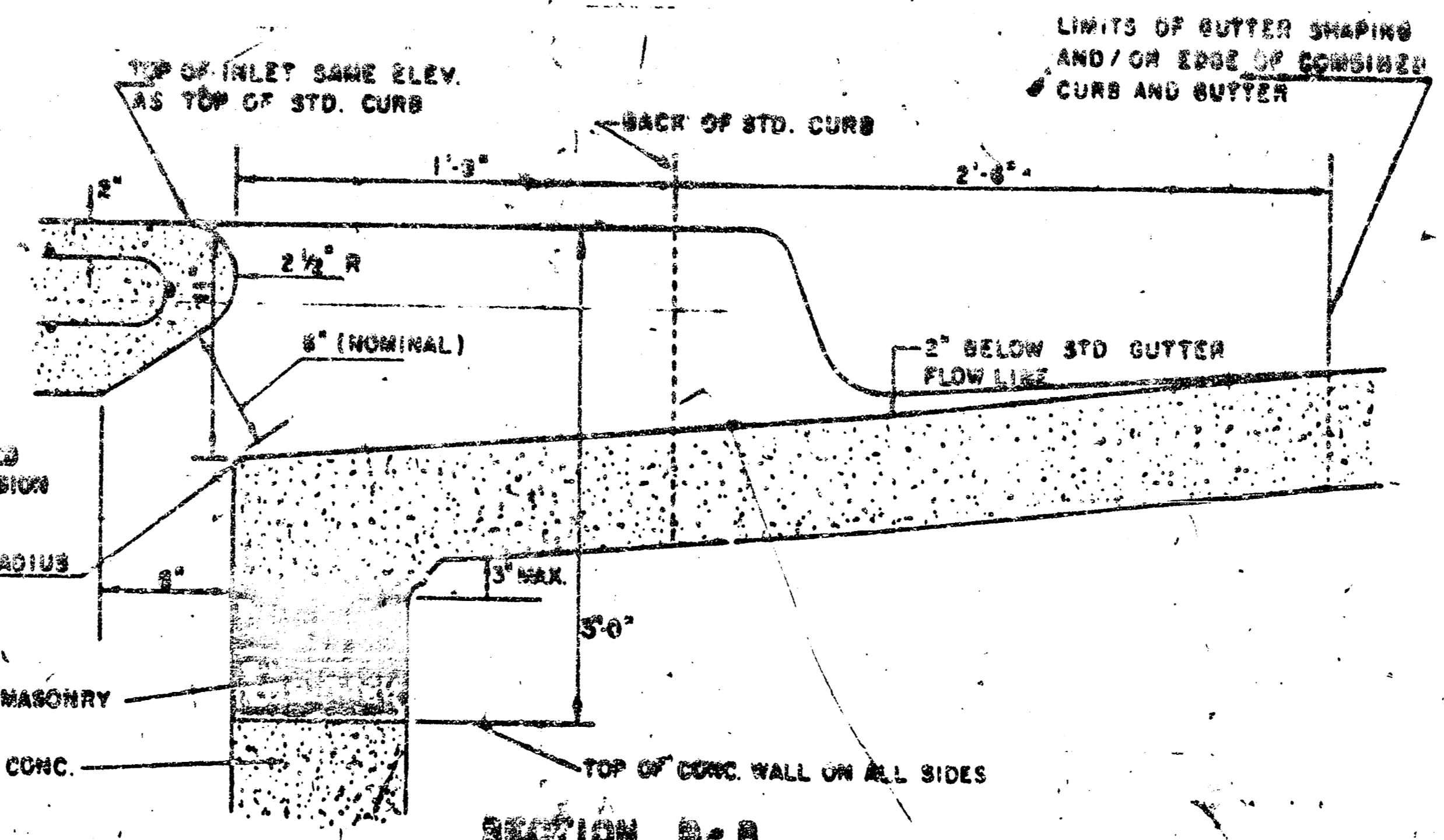
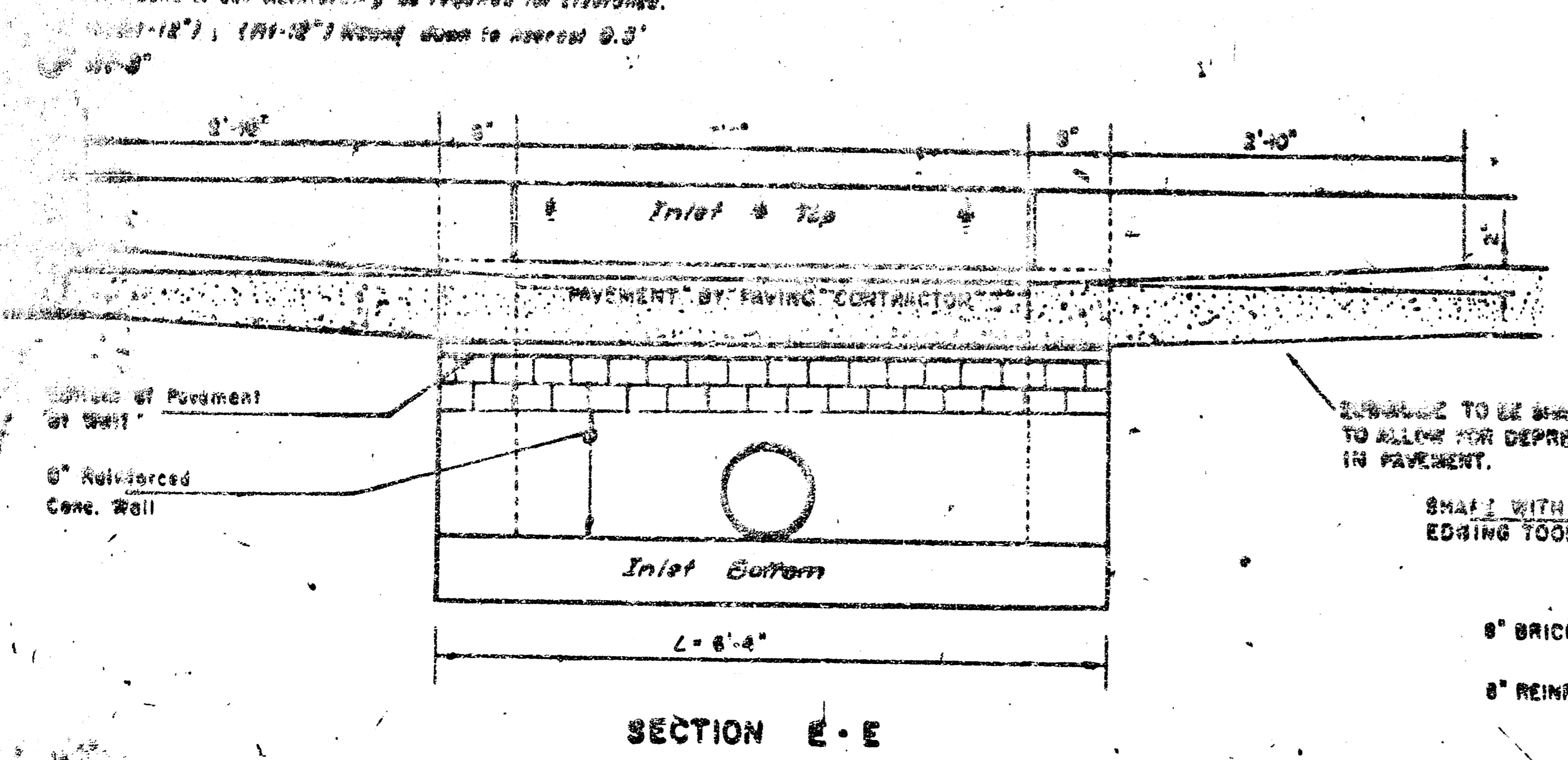
NOTE: CONTRACTOR SHALL HAVE THE OPTION OF CONSTRUCTING 8" BRICK MASONRY WALLS RATHER THAN THE STANDARD INLET FRAME AND TOP ON THIS INLET WHEN W = 6'-0" AND L = 7'-0" OR GREATER.

ADDITIONAL CURB AND GUTTER CONSTRUCTION NECESSARY TO CORRECT SETBACK INLET TO PAVEMENT WILL BE PAID FOR AT THE UNIT PRICE BID FOR EACH INLET INQUIRY.

INLET LIDS SHALL BE CONCRETE WITH A SACK SAND MIX CONCRETE TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE INLET WILL BE SELF-CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.

THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.

NOTE: Slope of Inlet Tops to match Street or Parking Slopes within Limits Indicated.



Revised 2-18-1989

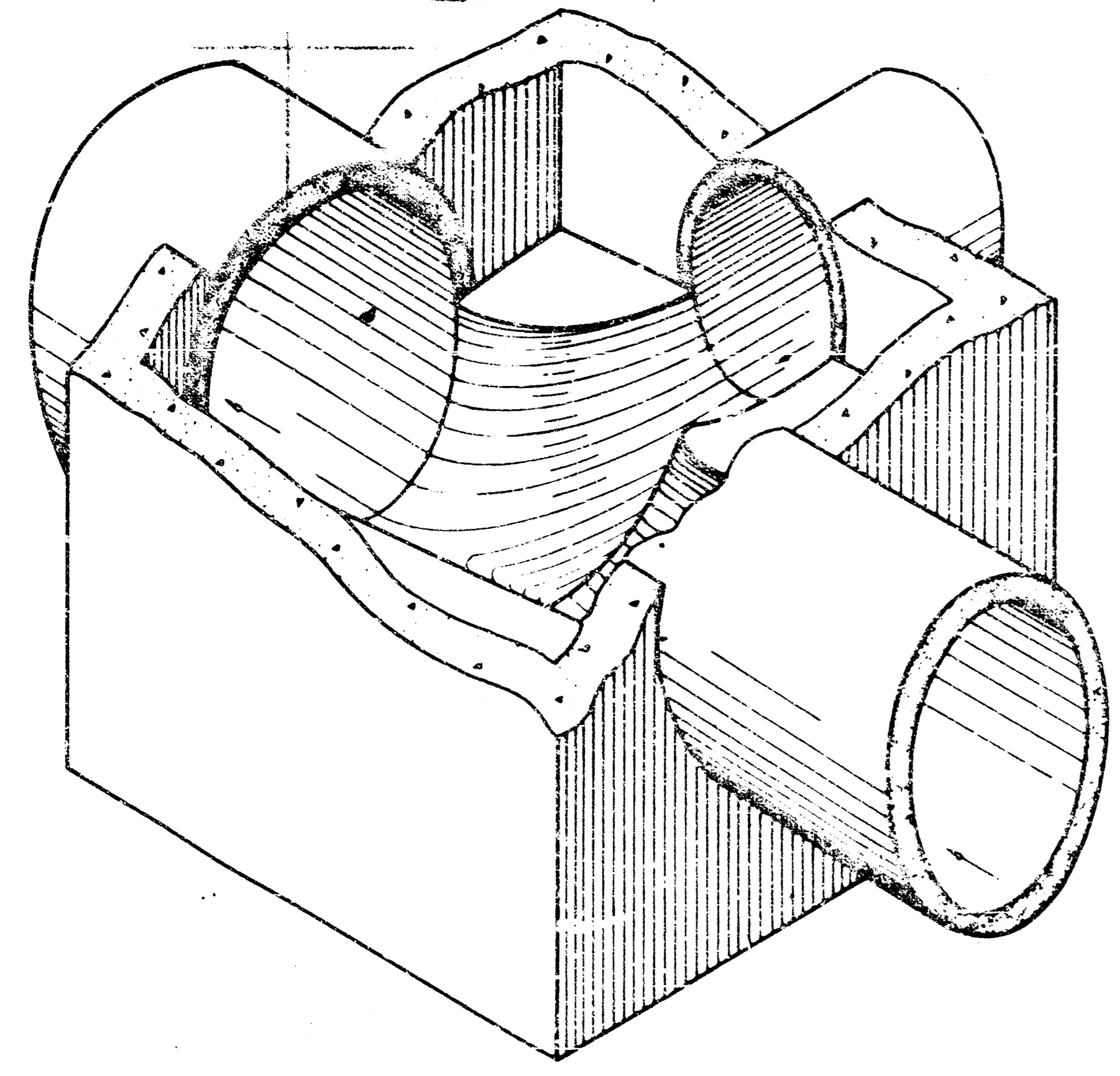
DETAIL STANDARD TYPE IA CURB INLET

CITY OF WICHITA, KANSAS

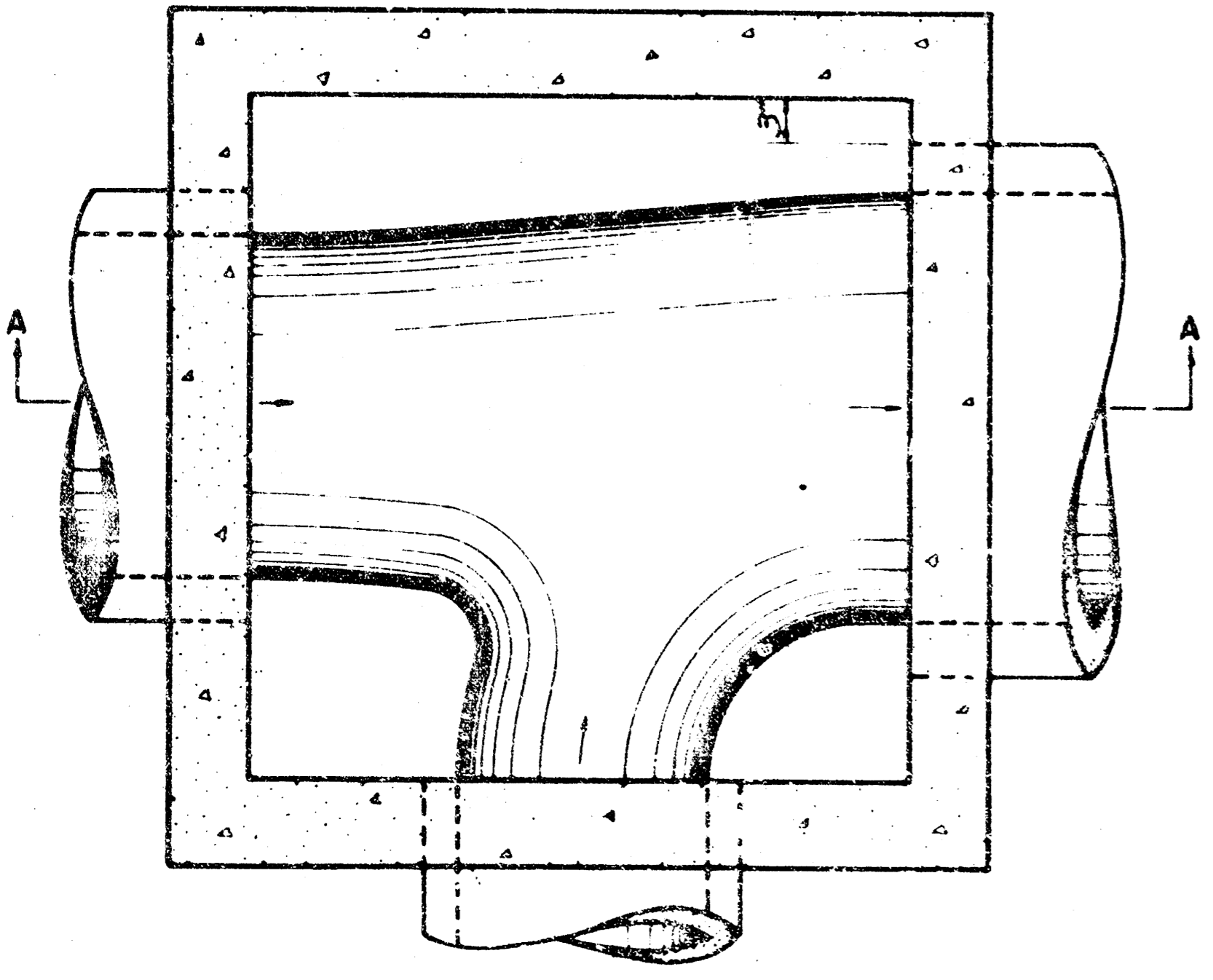
INLET OPENING = 6" x 8" O

6'-0" x 6'-0"

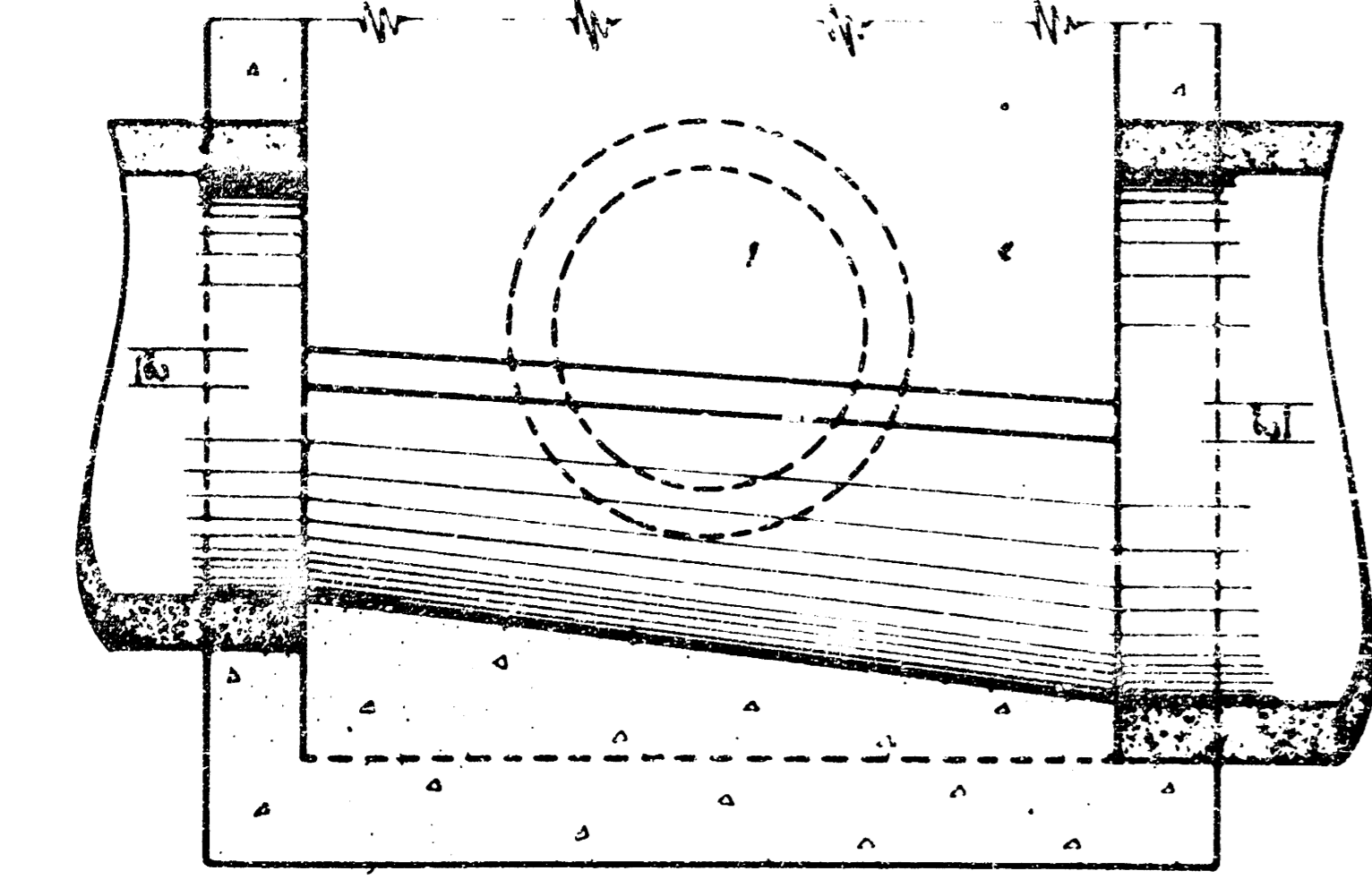
JUNE 1984



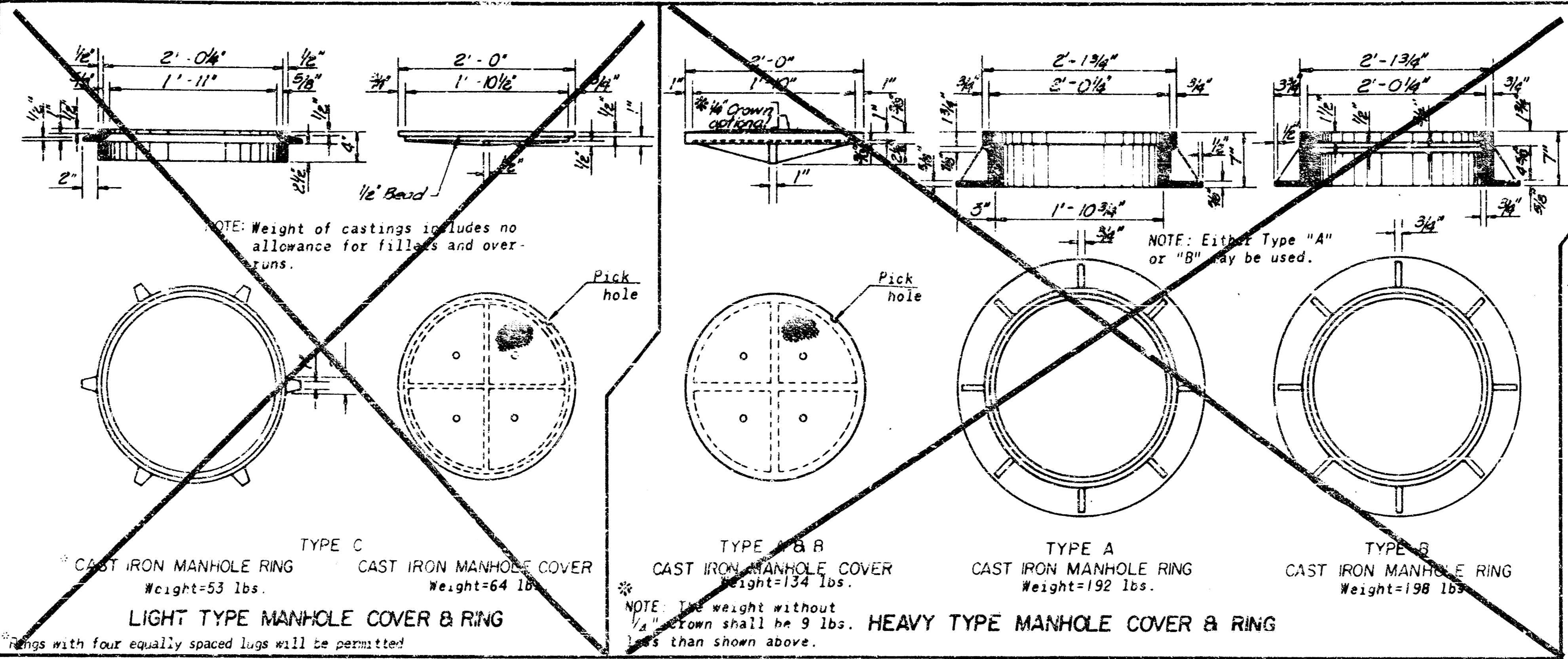
SECTIONAL VIEW (EXAMPLE IV)
Showing Floor Shaping



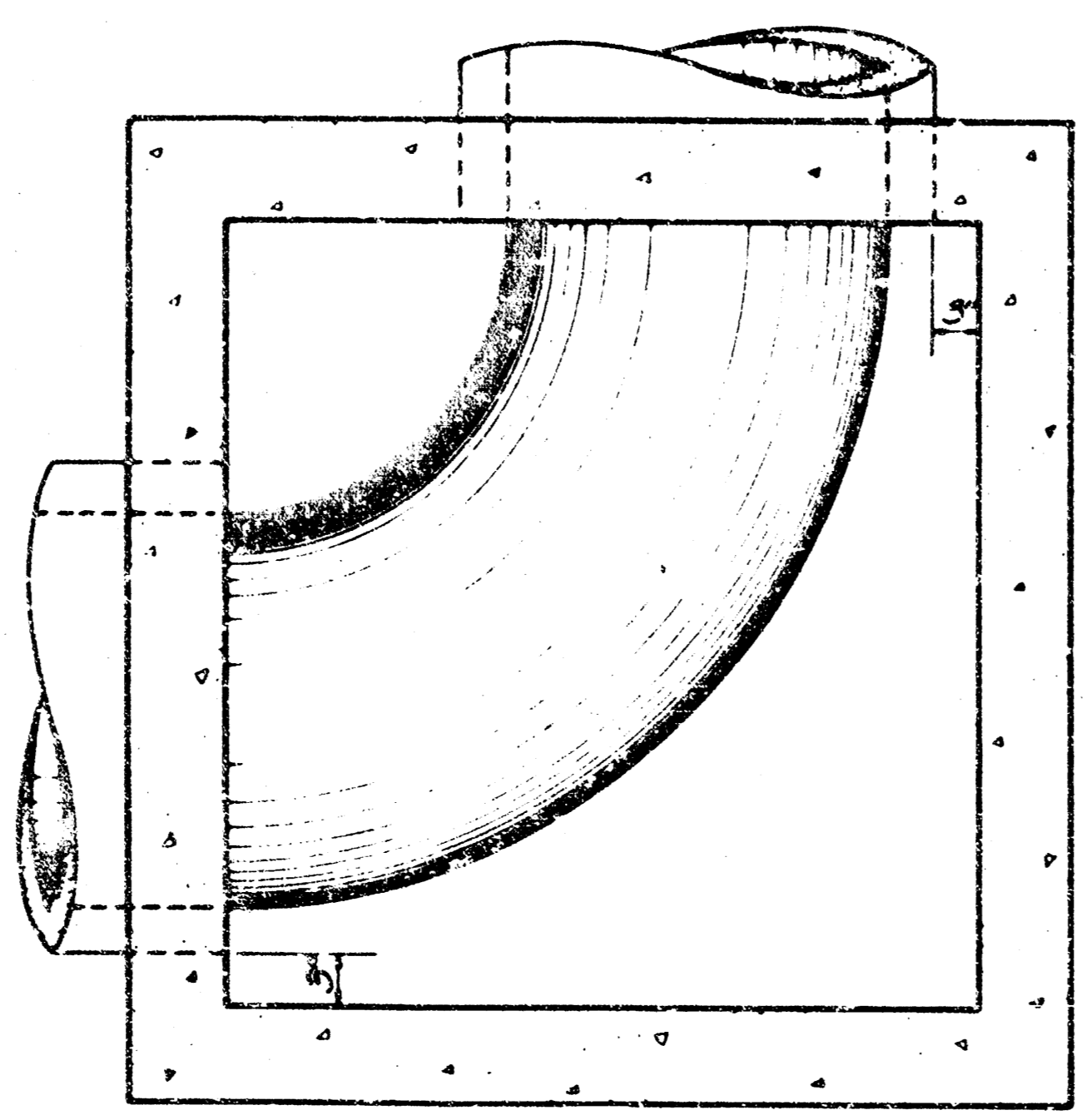
FLOOR PLAN (EXAMPLE IV)



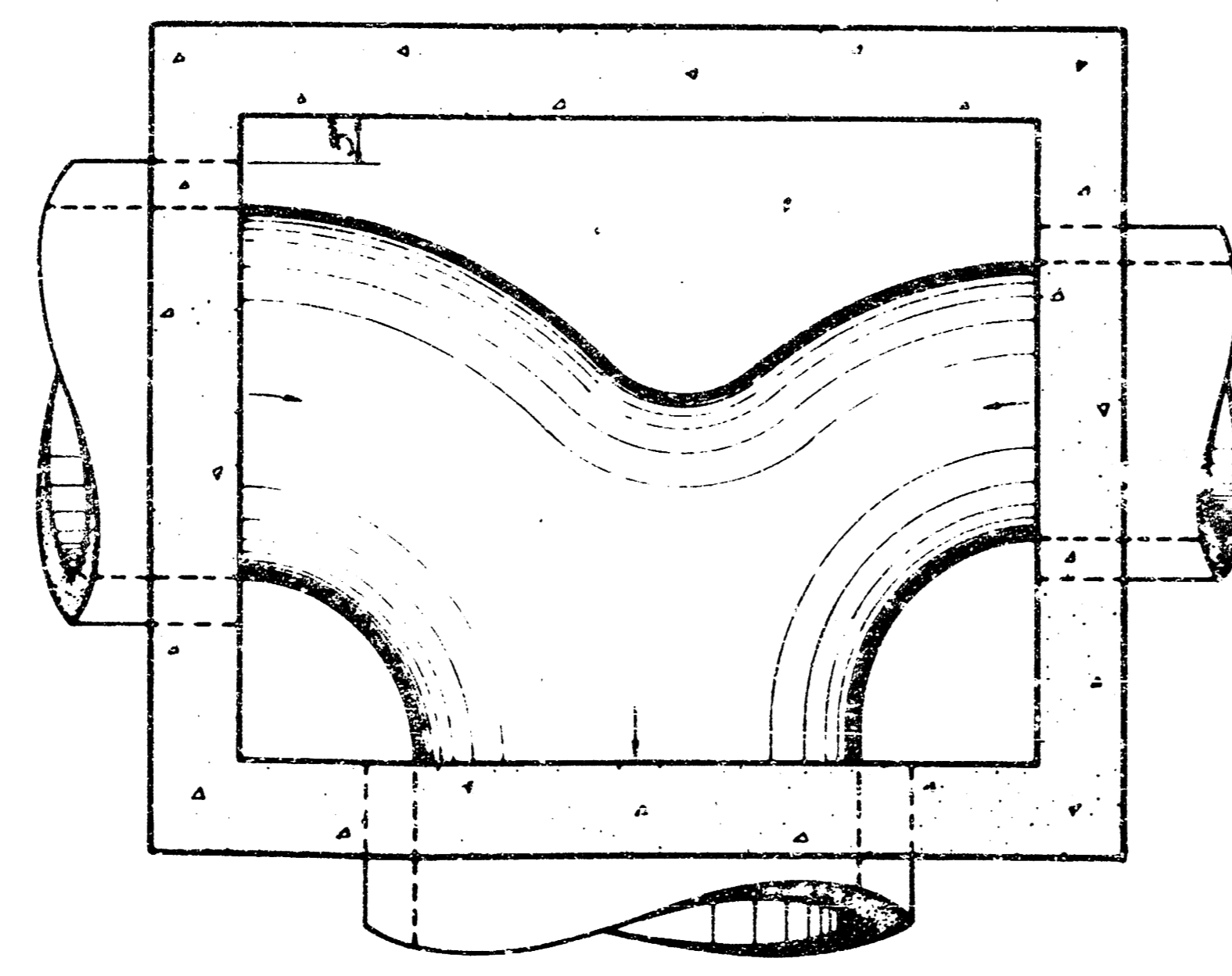
SECTION A-A (EXAMPLE IV)



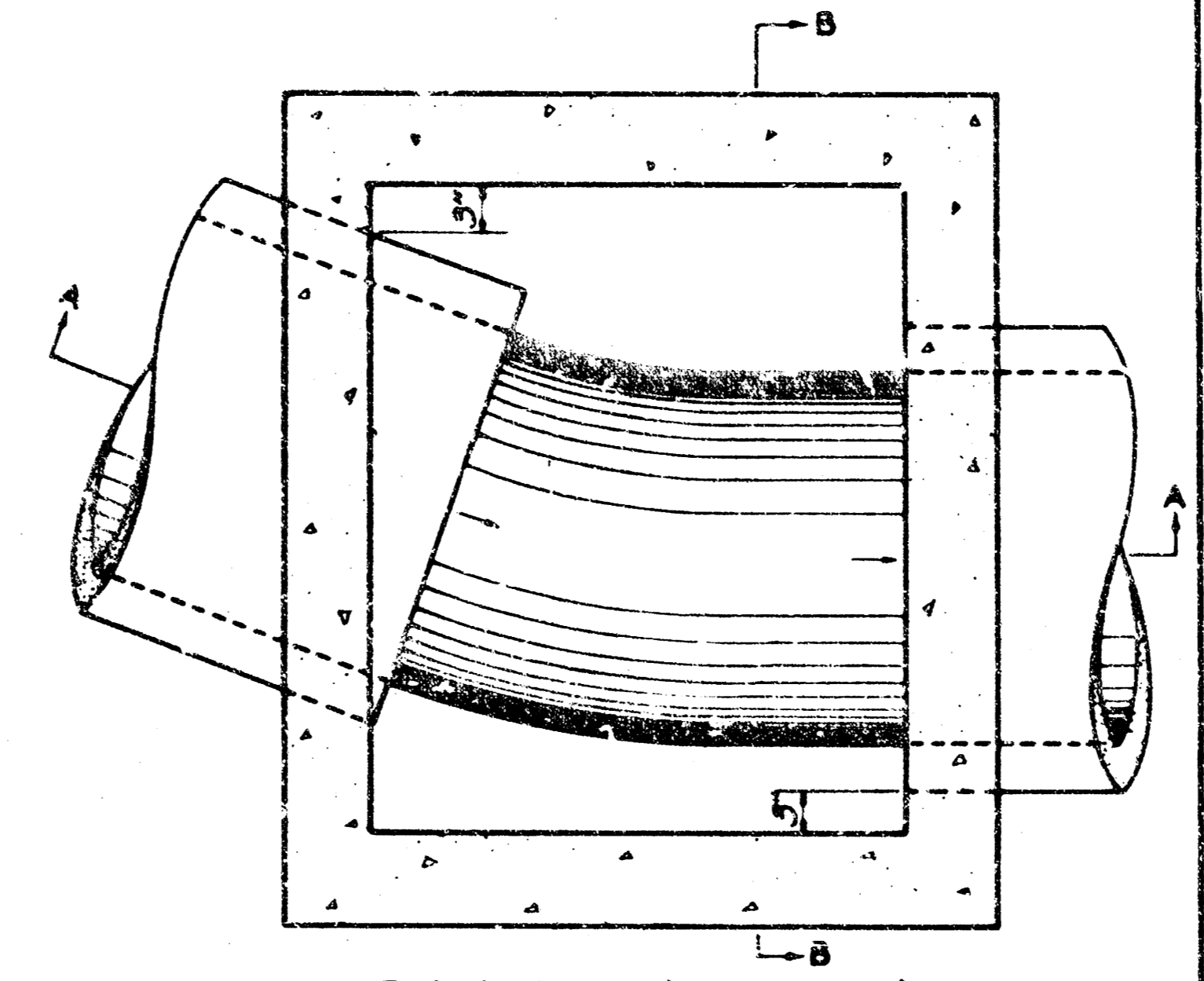
TYPICAL EXAMPLES OF VARIOUS PIPE COMBINATIONS
Showing method of shaping floor of manholes to provide increased hydraulic efficiency.
For reinforcing & other features see "PLAN" and "SECTION"



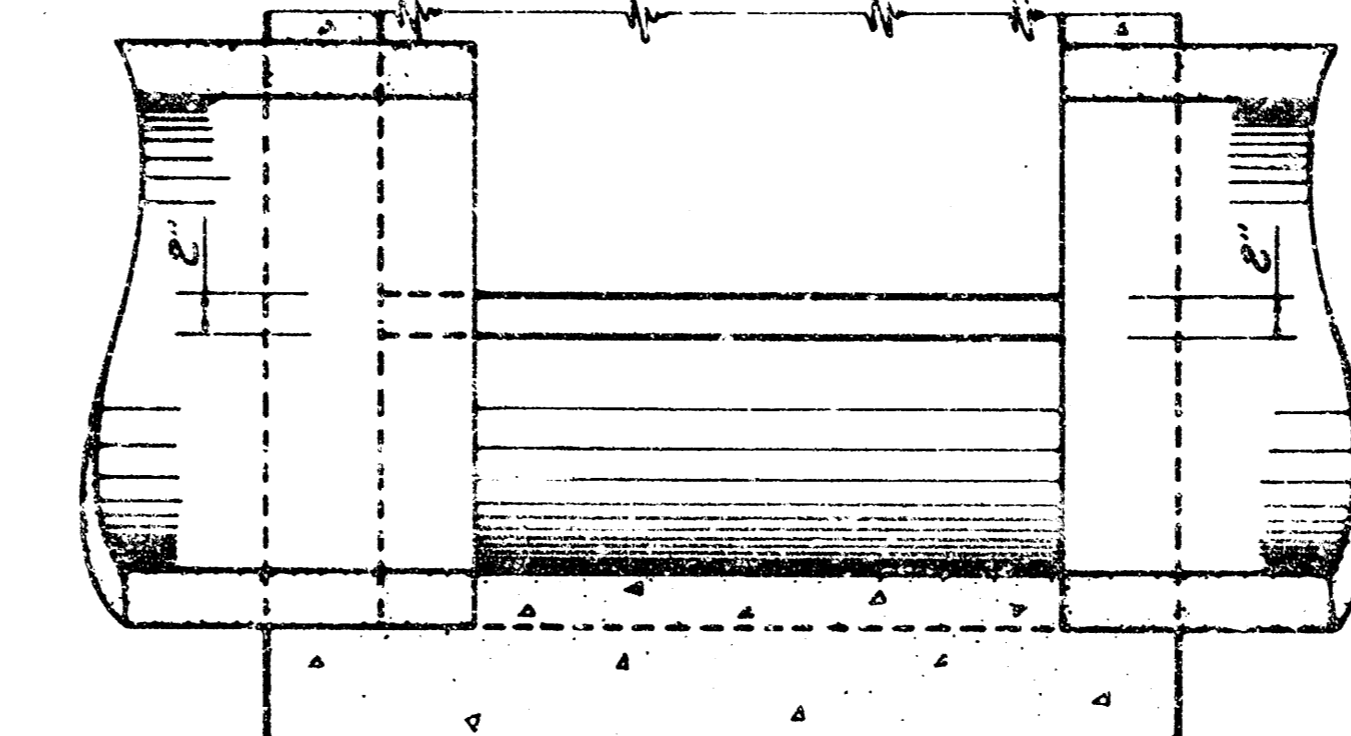
FLOOR PLAN (EXAMPLE II)



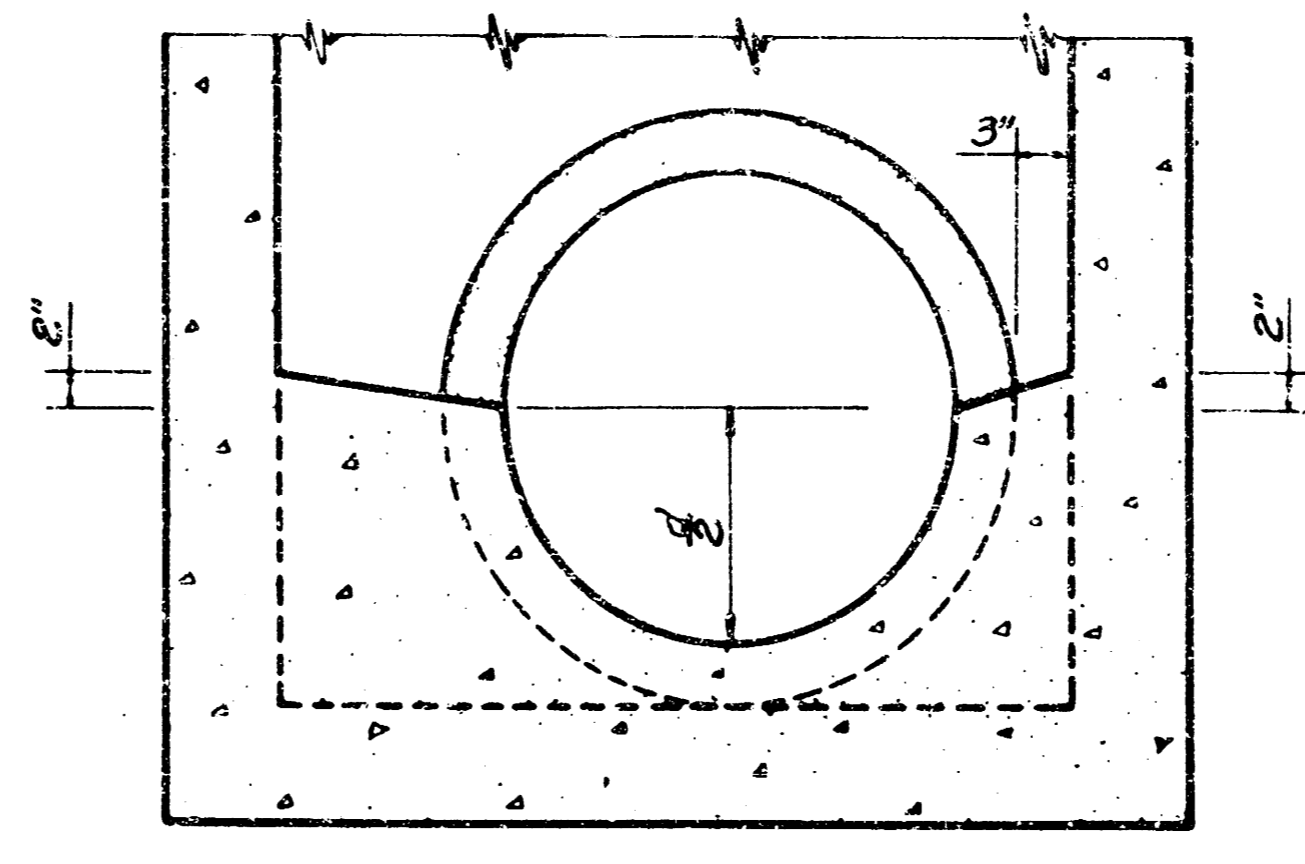
FLOOR PLAN (EXAMPLE III)



FLOOR PLAN (EXAMPLE I)

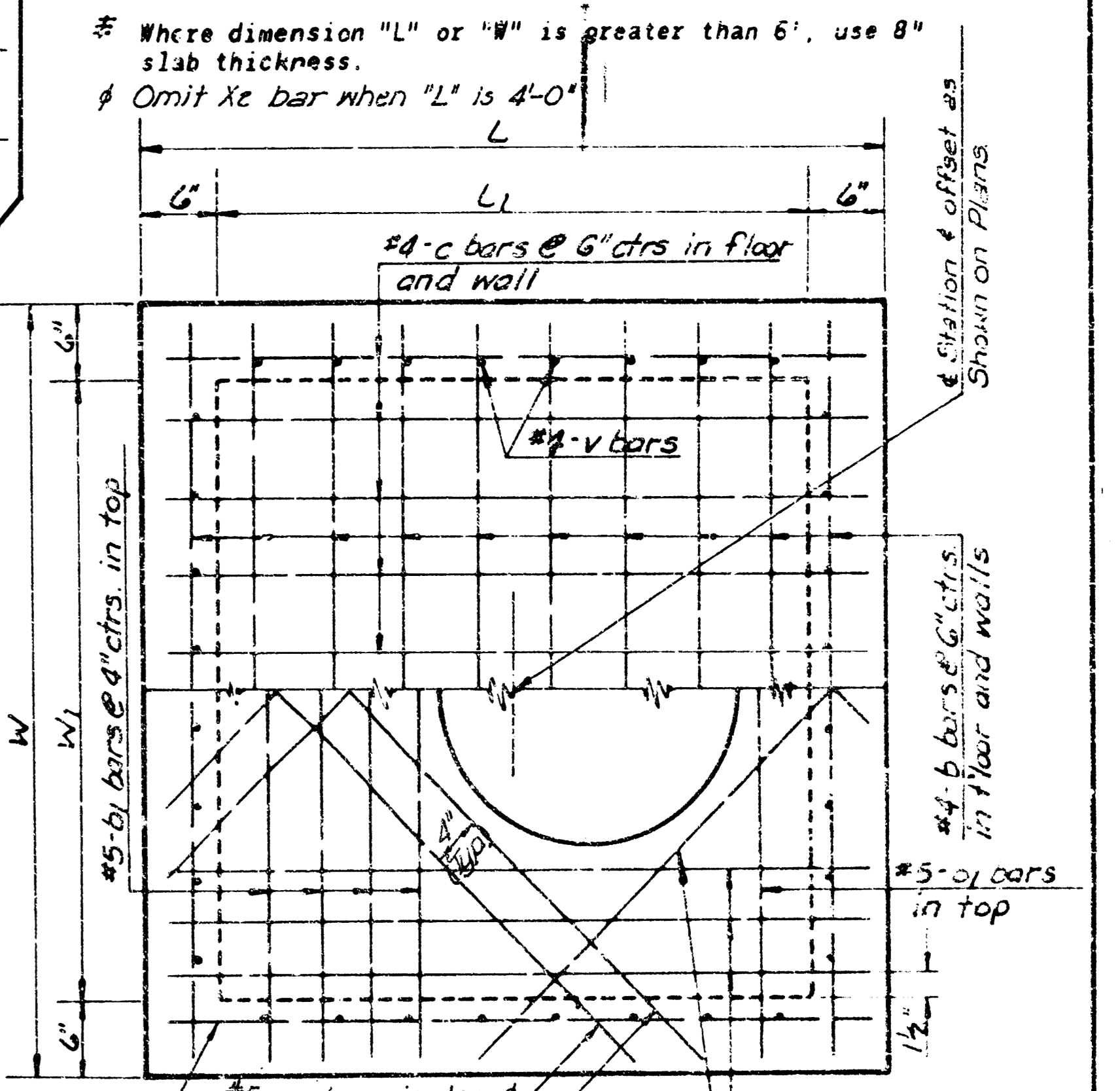


SECTION A-A (EXAMPLE I)

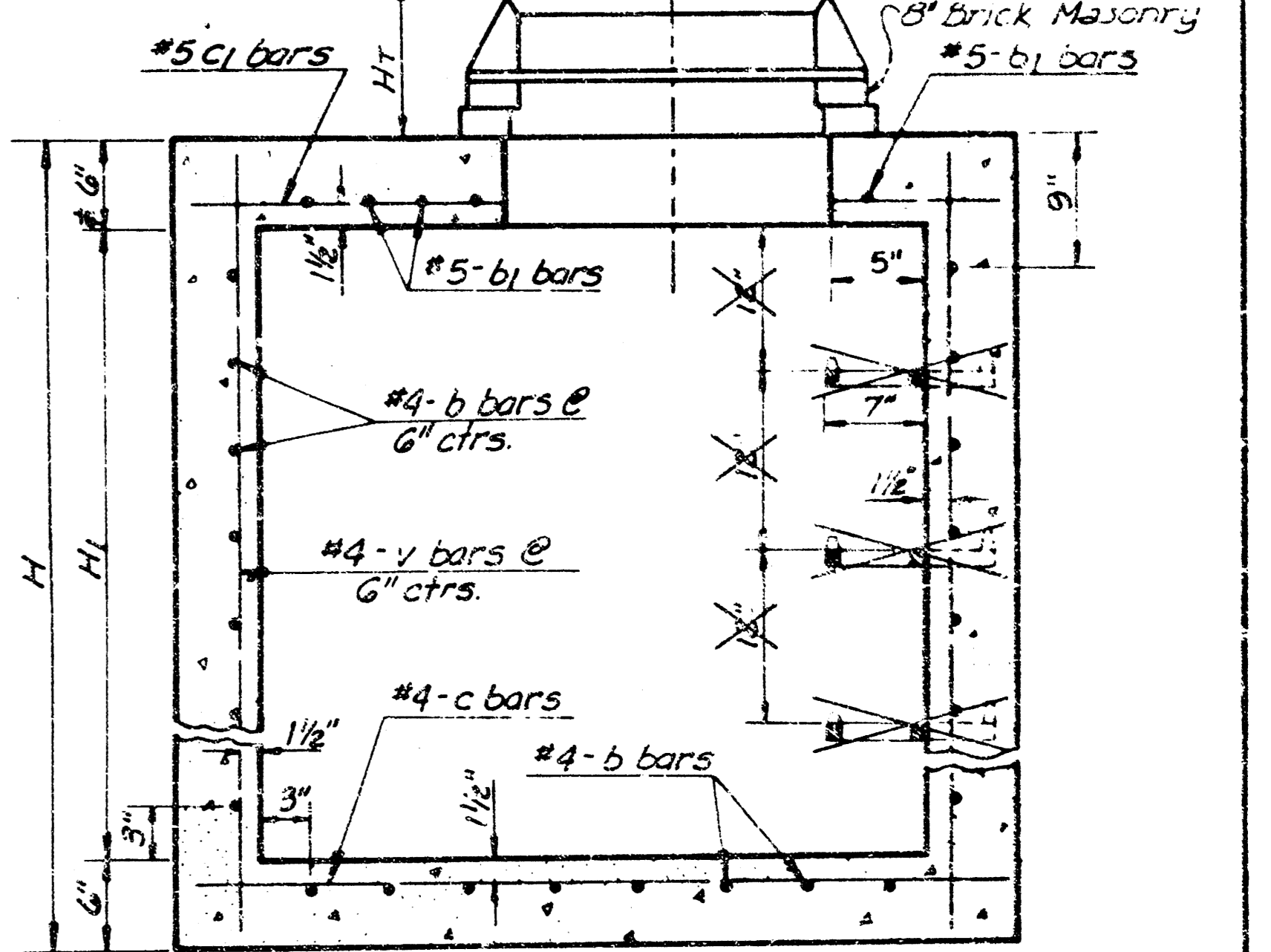


SECTION B-B (EXAMPLE I)

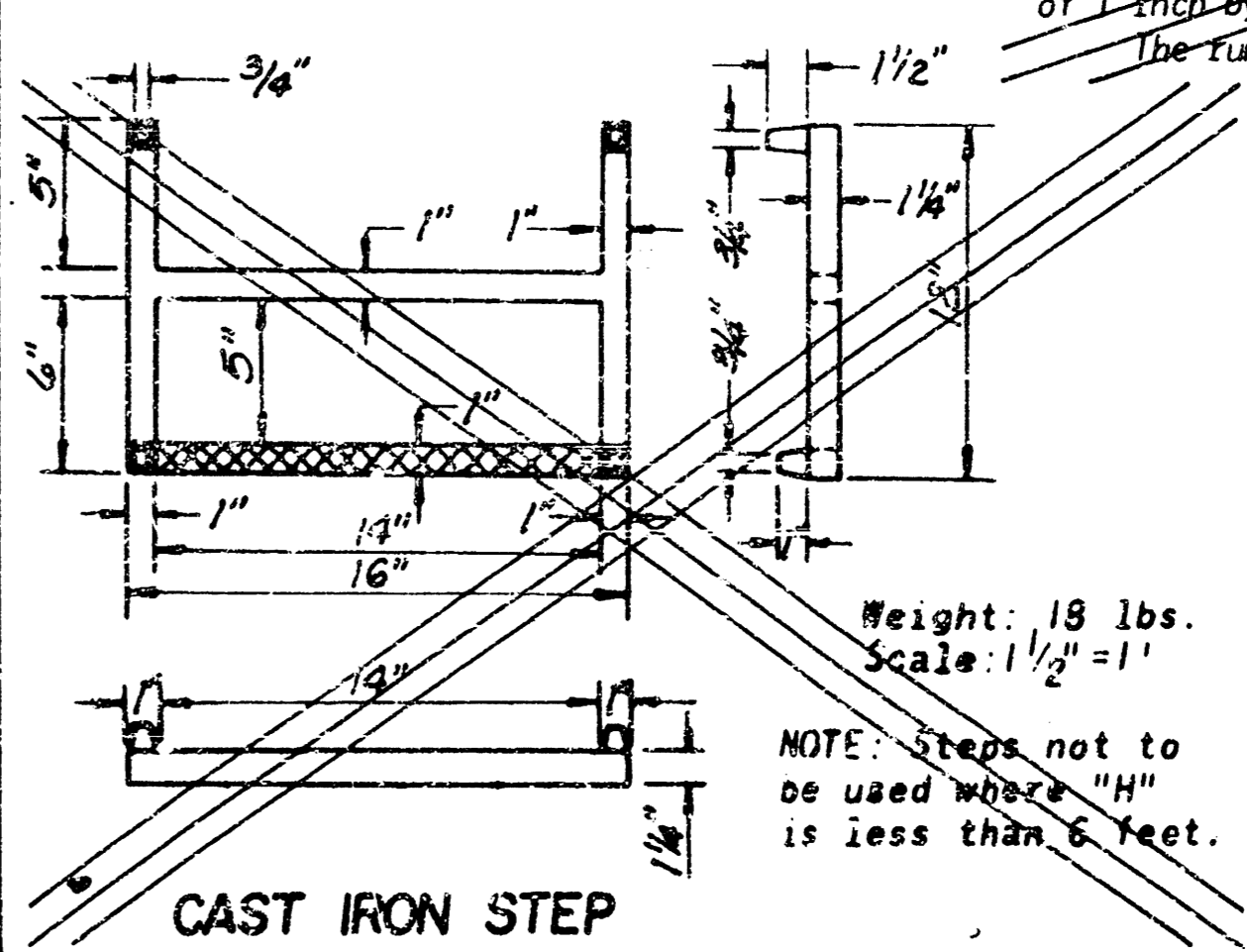
NOTE: All exposed edges shall be finished with an edging tool.
Concrete mix used in Conc. Pvt. may be used throughout.
In general, pipes will enter and leave the manhole at various positions. Where possible bend bars around pipes.
Floor of manhole to be shaped as shown in various "EXAMPLES" with unreinforced concrete.
Manhole opening and steps, where used, shall be placed to afford easy access to top of shaped invert. Top reinforcing bars to be adjusted accordingly.
All castings shall be gray iron and shall comply with the Standard Specifications.
All exposed cast iron surfaces (rings & covers) not subjected to traffic, shall be painted either in the shop or in the field with one coat of a zinc dust paint, followed by two field coats of aluminum paint.
No deductions in concrete quantities shall be made for pipe openings.
No additions in concrete quantities shall be made for shaping floor of manholes.
When so ordered by the Engineer, the top of the manhole shall be sloped slightly to approximately fit the ground line or other conditions.
Dimensions and weights of cast iron as shown on this sheet are minimum. Larger dimensions and/or heavier weights of cast iron may be used.



PLAN
Showing top 8 floor reinforcing in wall (Showing top 8 floor reinforcing)



SECTION (Exclusive of floor shaping)
As an alternate to the cast iron step shown, either an aluminum or a plastic coated steel step complying with the same minimum clear opening dimensions may be used. The minimum length of step shall be 14 inches and the maximum distance of any 1/2\"/>



26	9-28-62	Rev step from 16\"/>		
25	3-14-60	Revised to Standard Specs.		
24	4-2-60	Labeled bars same as Steel table		
NO.	DATE	REVISIONS	BY	APP'D.
KANSAS DEPARTMENT OF TRANSPORTATION				
REINFORCED CONCRETE MANHOLE				
STD NO. 633				
SHEET NO.	OF	SCALE	APP'D.	4-5-44
DESIGNED BY	TRAFFIC	QUANTITIES	TRACED BY	
DETAILS BY	QUAN. CK.	TRACED BY		

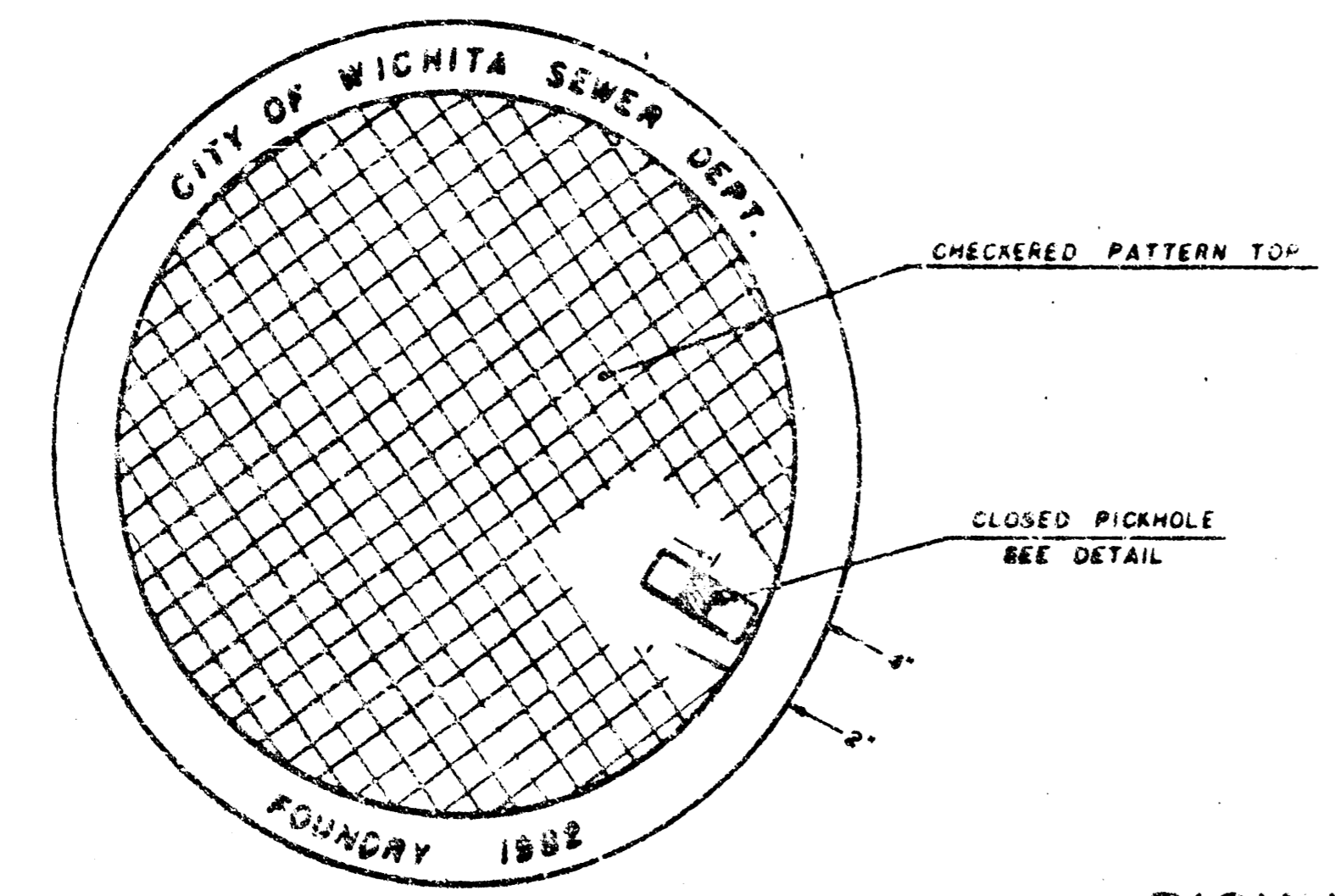
MANHOLE FRAME AND COVER DETAIL

ADOPTED AS STANDARD DESIGN

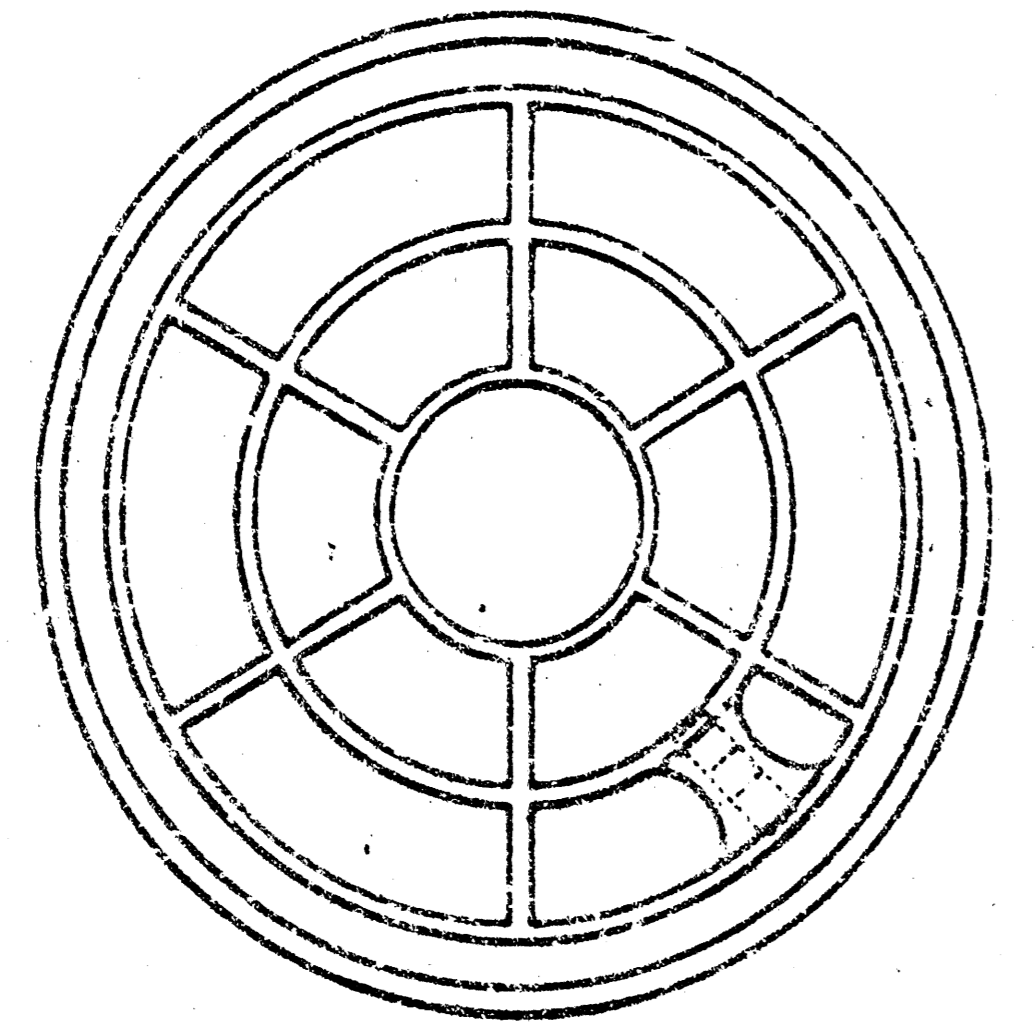
BY

City of Wichita, Kansas

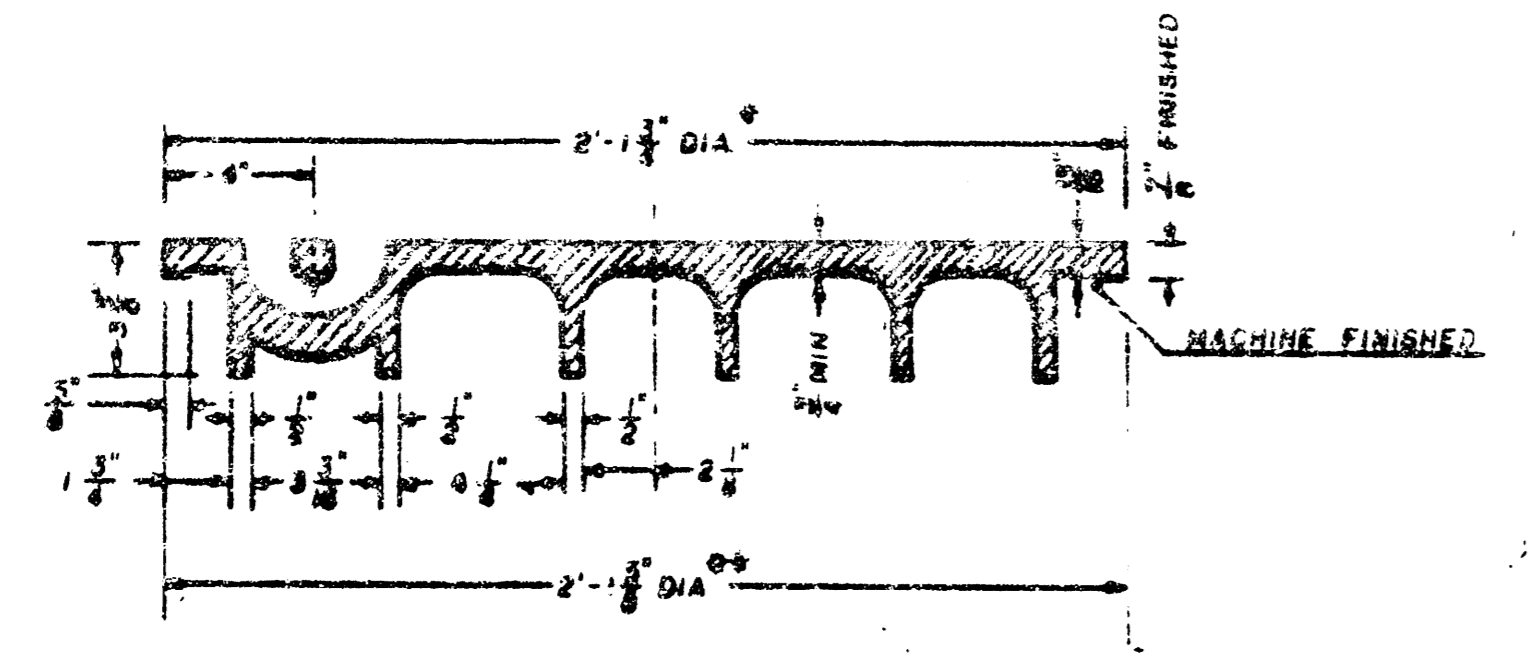
MANHOLE COVER
Weight: 180 Lbs.



TOP VIEW



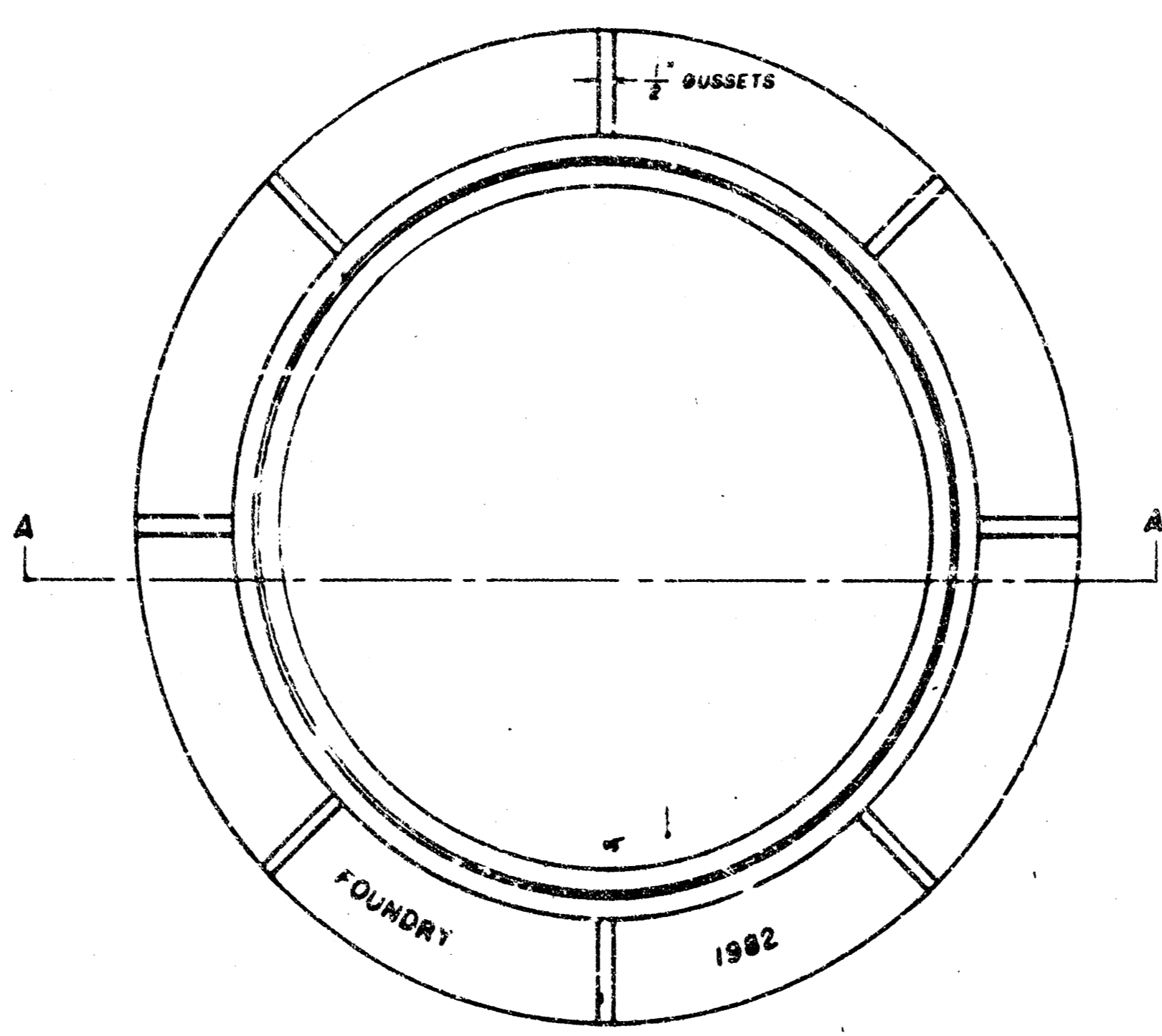
BOTTOM VIEW



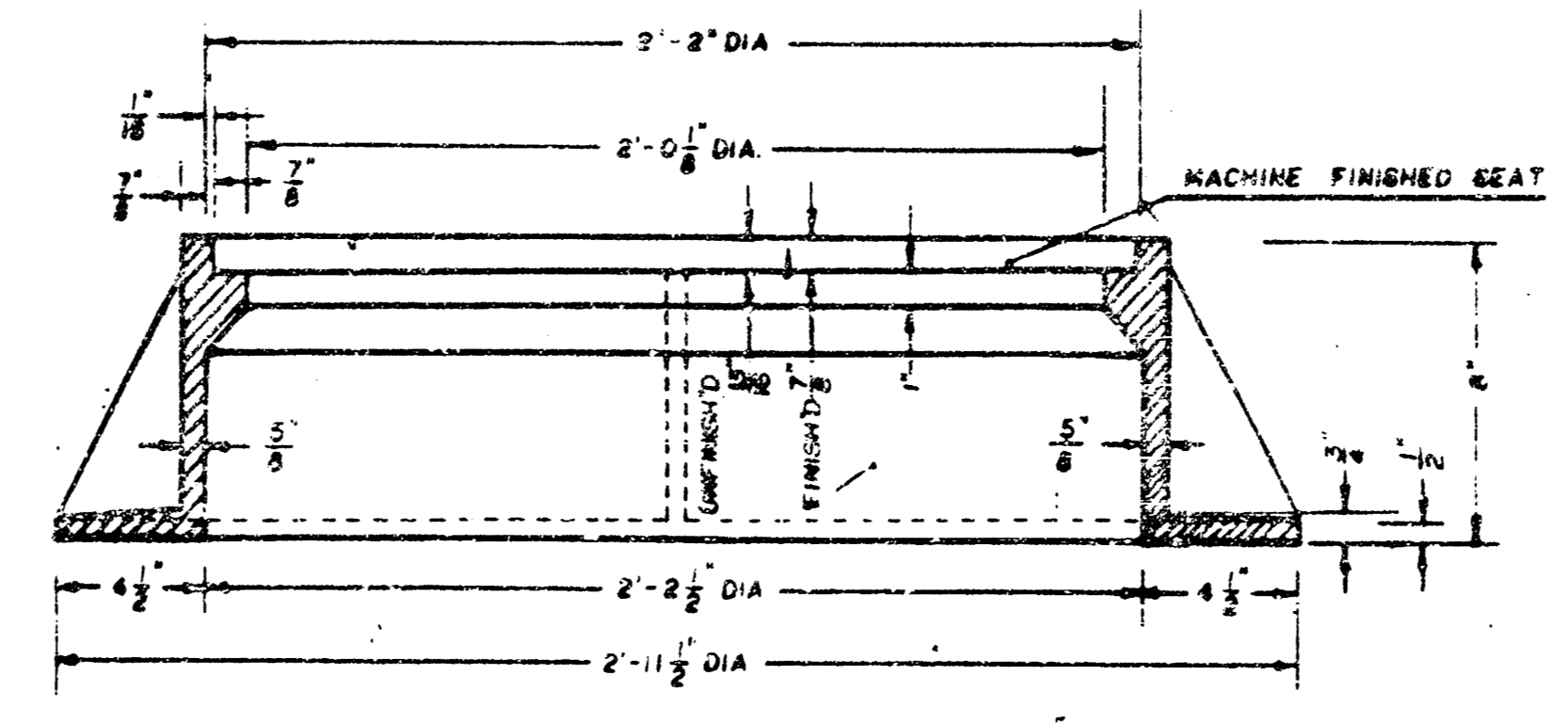
SECTION VIEW

* OUTSIDE DIA TOP OF COVER
** OUTSIDE DIA BOTTOM OF COVER

MANHOLE FRAME
Weight: 240 Lbs.

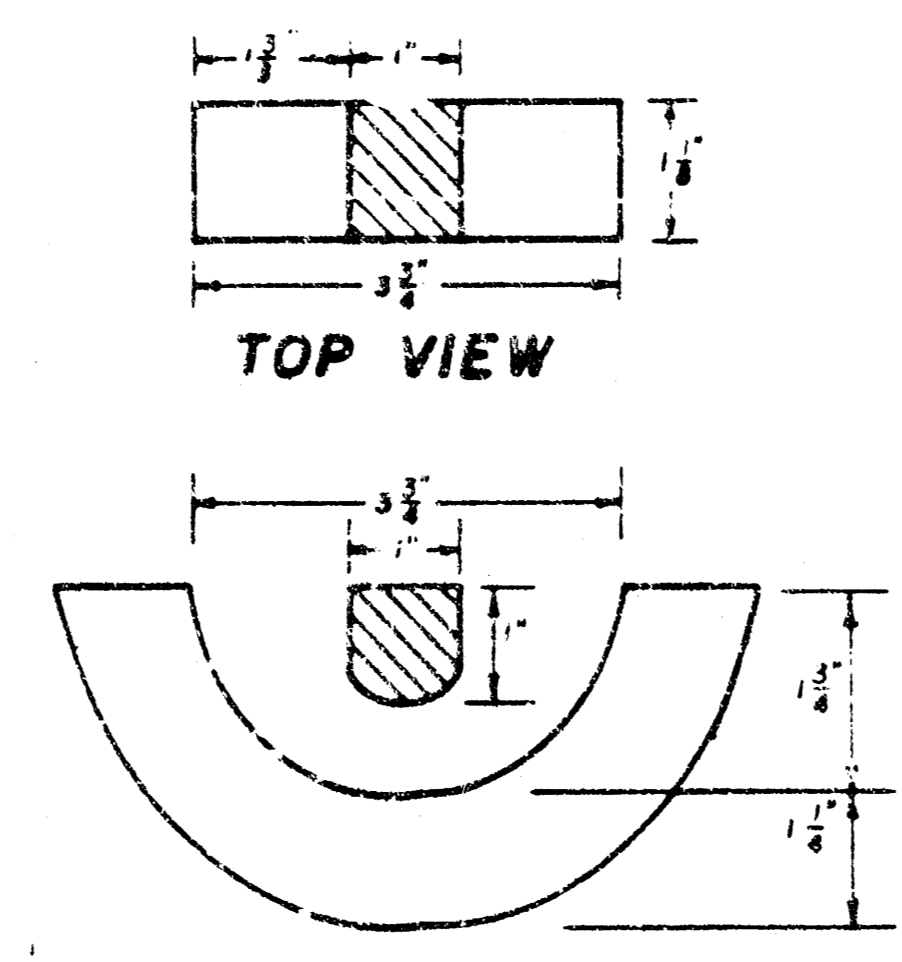


TOP VIEW



SECTION A-A

PICKHOLE DETAIL



SECTION VIEW

GENERAL NOTES

1. MANHOLE CASTINGS SHALL BE MANUFACTURED USING GOOD QUALITY GRAY IRON CONFORMING TO CLASS 30 OF A.S.T.M. DESIGNATION A-48. DIMENSIONS AND WEIGHTS SHOWN ON THE DETAILED DRAWINGS SHALL BE CONSIDERED AS MINIMUM REQUIREMENTS AND ANY DEVIATIONS FROM THE DIMENSIONS SHOWN MUST BE SPECIFICALLY APPROVED. THE FINISHED CASTINGS SHALL BE OF UNIFORM QUALITY, FREE FROM BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE DISTORTIONS OR OTHER DEFECTS.
2. MANHOLE CASTINGS SHALL BE MANUFACTURED SUCH THAT A COVER MANUFACTURED BY ANY ONE FOUNDRY WILL FIT INTERCHANGEABLY INTO A FRAME MANUFACTURED BY ANOTHER FOUNDRY AND STILL MEET ALLOWABLE CLEARANCES AND NON-ROCKING REQUIREMENTS. THIS WILL REQUIRE MANUFACTURING OF THE MATCHING FACES ON THE COVER AND THE FRAME TO CLOSE TOLERANCES.
3. THE OUTSIDE CIRCUMFERENCE OF THE VERTICAL FACE OF THE COVER AND THE INSIDE CIRCUMFERENCE OF THE VERTICAL FACE IN THE FRAME RECESS SHALL BE MANUFACTURED TO TOLERANCES SUCH THAT THE CLEARANCE BETWEEN THE COVER AND FRAME WILL NOT EXCEED 1/8" AT ANY POINT AROUND THE CIRCUMFERENCE OF THE COVER. THE SEATING SURFACES BETWEEN THE COVER AND FRAME SHALL BE MACHINED SUCH THAT THESE SURFACES SHALL MAKE FULL CONTACT FOR THEIR FULL CIRCUMFERENCE TO PRECLUDE THE COVER FROM ROCKING IN THE FRAME.
4. THE MANHOLE FRAME AND COVER SHALL BE MARKED WITH LETTERING INDICATING THE NAME OF THE MANUFACTURER AND THE YEAR WHEN THE COVER OR FRAME WAS CAST. THE COVER SHALL BE FURTHER IDENTIFIED WITH REGARDS TO OWNERSHIP USING LETTERS AT LEAST 1" IN HEIGHT. THIS IDENTIFICATION SHALL BE "CITY OF WICHITA SEWER DEPARTMENT". THE WORD DEPARTMENT MAY BE ABBREVIATED. THE TEXTURE OF THE TOP SURFACE OF THE COVER SHALL BE MANUFACTURED IN A CHECKERED PATTERN DESIGN AS INDICATED ON THE DRAWINGS. SMOOTH BLOCKOUTS SHALL BE UTILIZED TO HIGHLIGHT THE LETTERING ON THE COVER SURFACE. THE TOTAL AREA OF SMOOTH SURFACE BLOCKOUT SHALL NOT EXCEED THE AREA AS INDICATED ON THE DRAWING. POSITIONING OF SMOOTH BLOCKOUTS AND LETTERING MAY VARY FROM THAT SHOWN ON THE DETAILED DRAWING.

