

SHEET
NO.
SG-0

PLANS FOR STORM WATER SEWER IMPROVEMENTS

FOR

LOT 1, BLOCK 1
LAKESIDE PARK ADDITION

WICHITA, KANSAS

CITY OF WICHITA PRIVATE PROJECT NO. **451PPS (607861)**

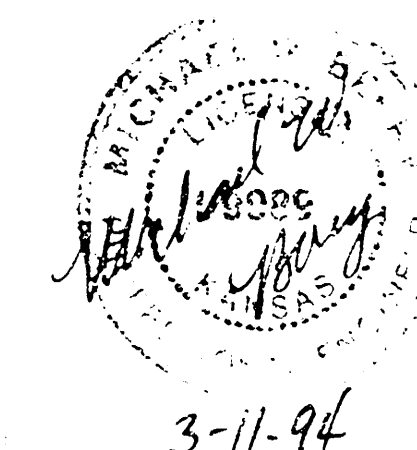
INDEX OF SHEETS

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SG-5 R.C. MANHOLE
SG-6 MANHOLE FRAME AND COVER
SG-7 SEDIMENT CONTROL

MARCH, 1994

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

Booked
E-1
8/14/03
RDL

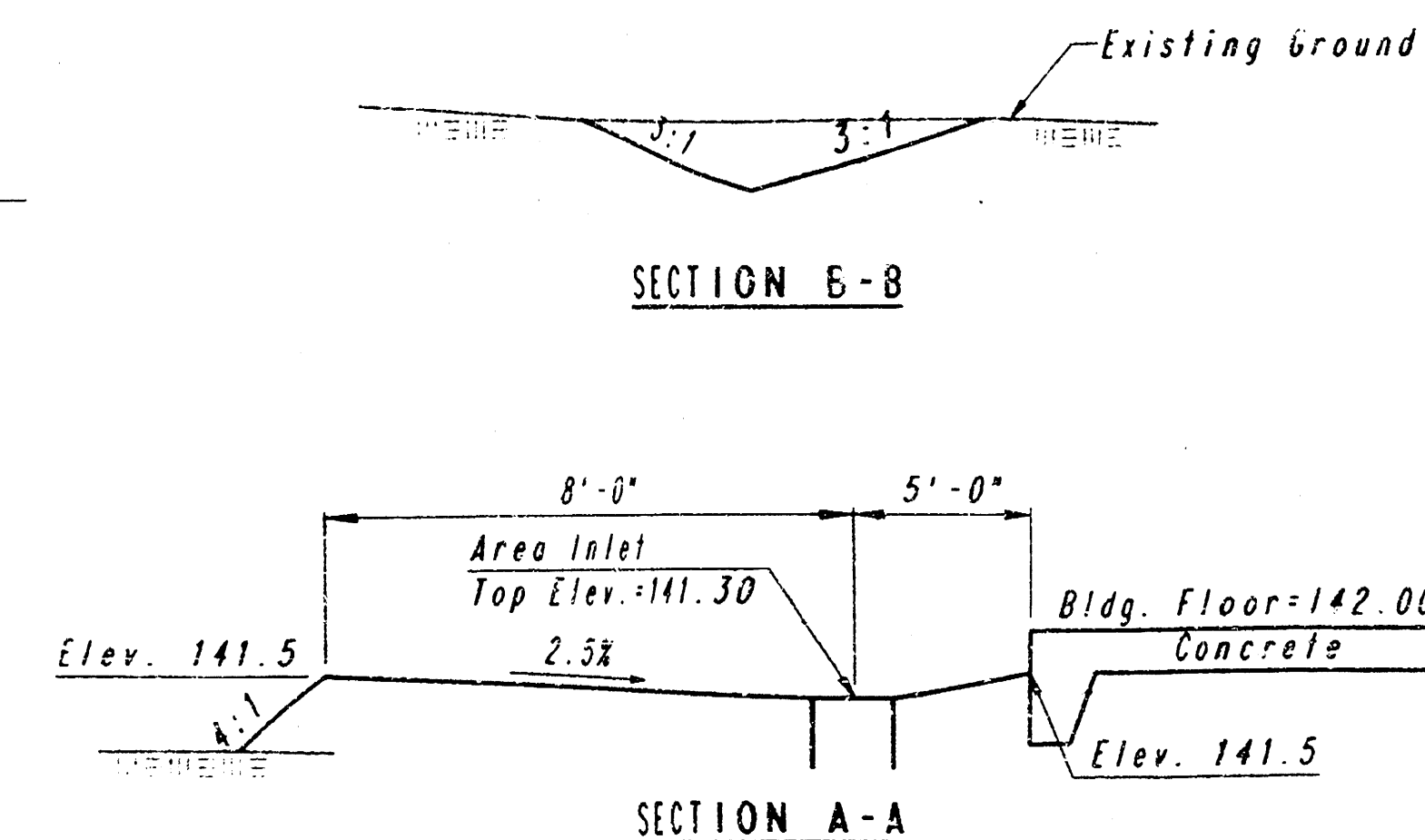


APPROVED AS NOTED
BY CITY ENGINEER OF WICHITA

SANITARY SEWERS _____
STORM SEWERS VRH 3/15/94
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.



NOTES

SEE SPECIFICATIONS FOR DEFINITION OF WORK TO BE PERFORMED BY BUILDING CONTRACTOR AND WORK TO BE PERFORMED BY OWNER UNDER SEPARATE CONTRACT.

ALL SITE WORK TO BE PERFORMED TO CITY OF WICHITA STANDARD SPECIFICATIONS.

SEE SH. NO. SA1.1 FOR ADDITIONAL HORIZONTAL CONTROL.

SITE GRADING AND UTILITY PLAN

RITCHIE CORPORATE OFFICE

PROFESSIONAL ENGINEERING CONSULTANTS, P.

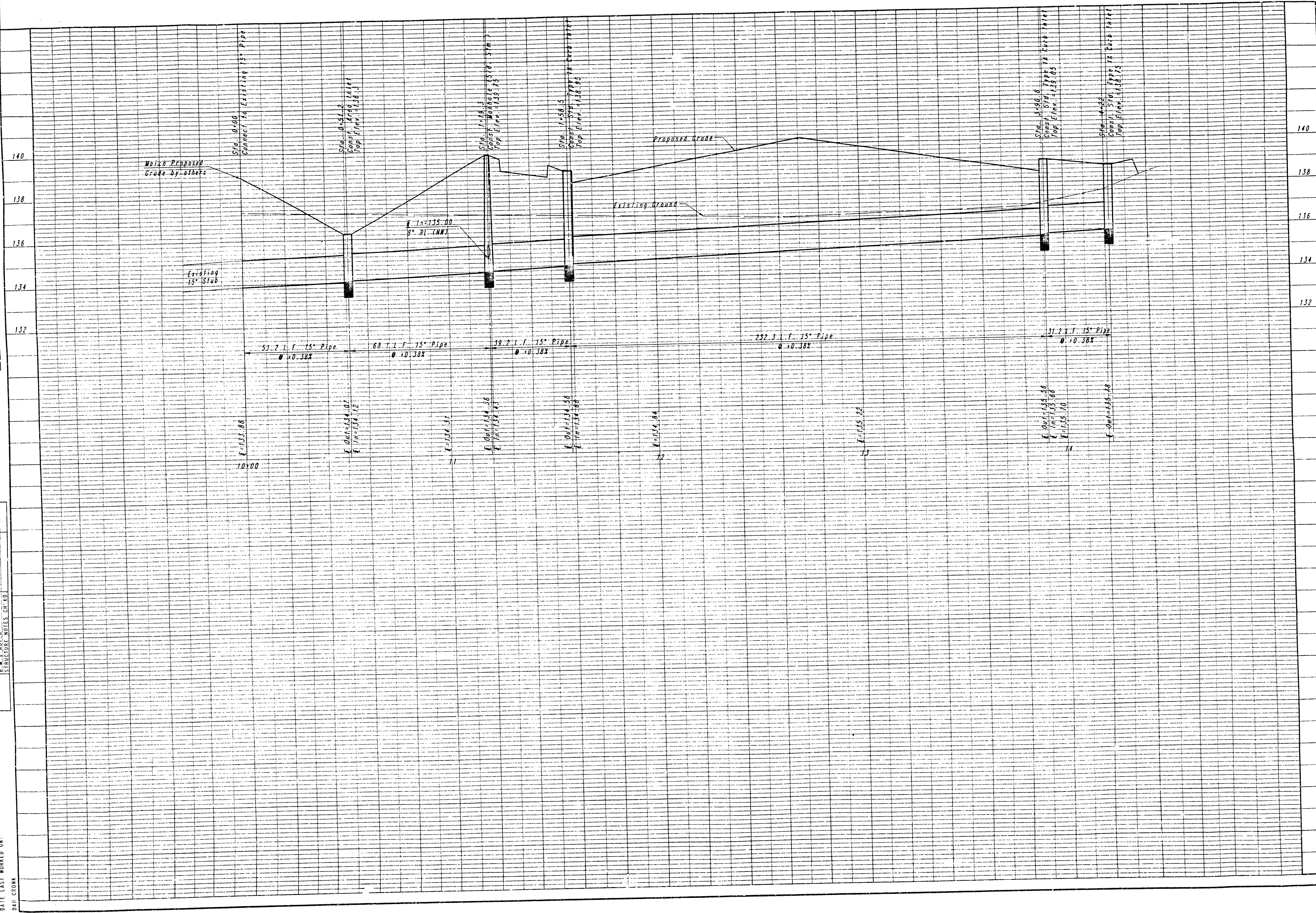
ENGINEERS
WICHITA, KANSAS

Designed by	DRC	Checked by	MWS
Drawn by	DEP	Date MAY. 1994	Job No. 9

DRAWING NAME:
LOCATION:
REVISION:
DATE LAST WORKED ON:
DAR: CSK

PROFILE	SURVEYED	BY	DATE
NOTE BOOK	PLotted		
GRADES	CHECKED		
NO.			
STRUCTURE NOTES: CH 10			

PLAN	SURVEYED	BY	DATE
NOTE BOOK	ALIGNED		
NO.	CH 10		
STRUCTURE NOTES: CH 10			



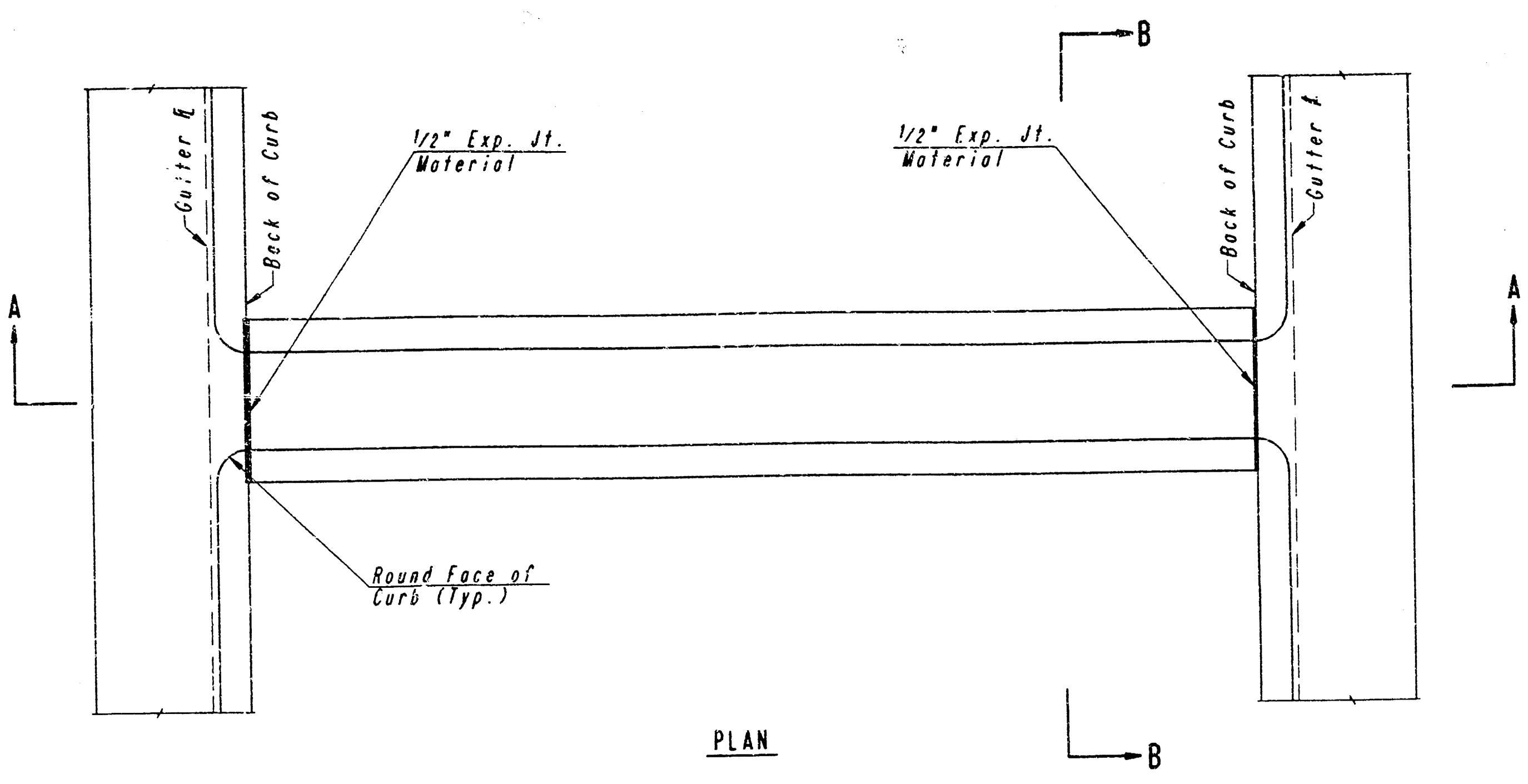
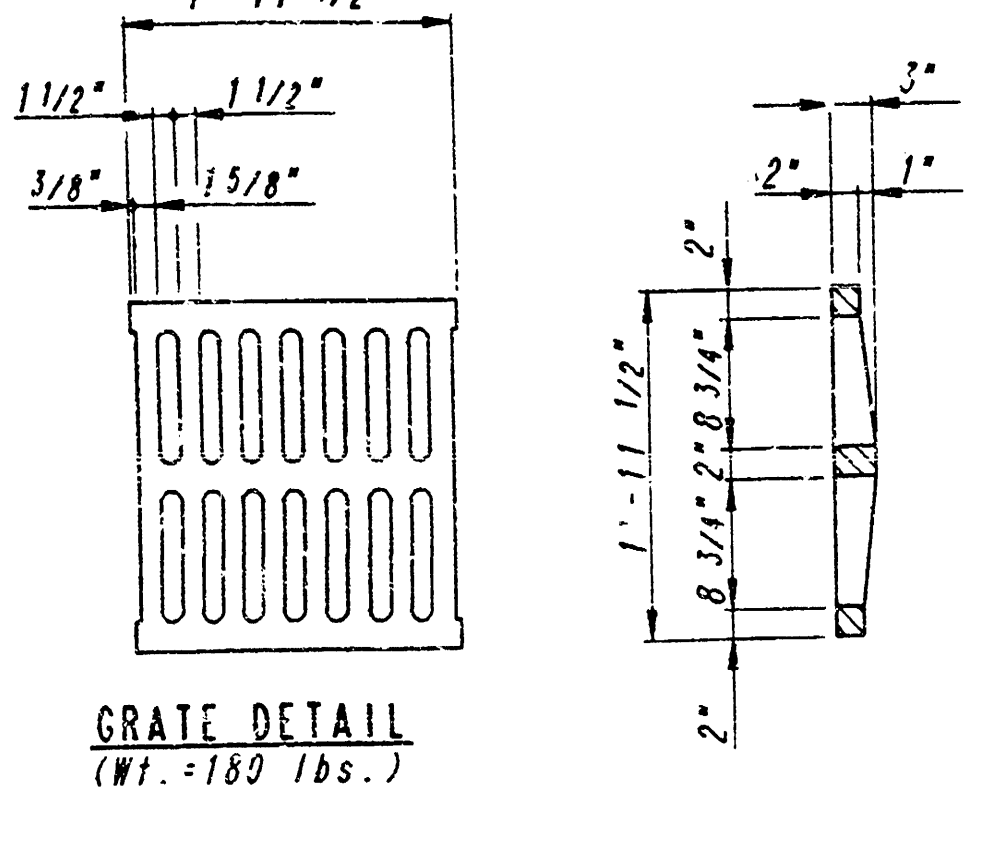
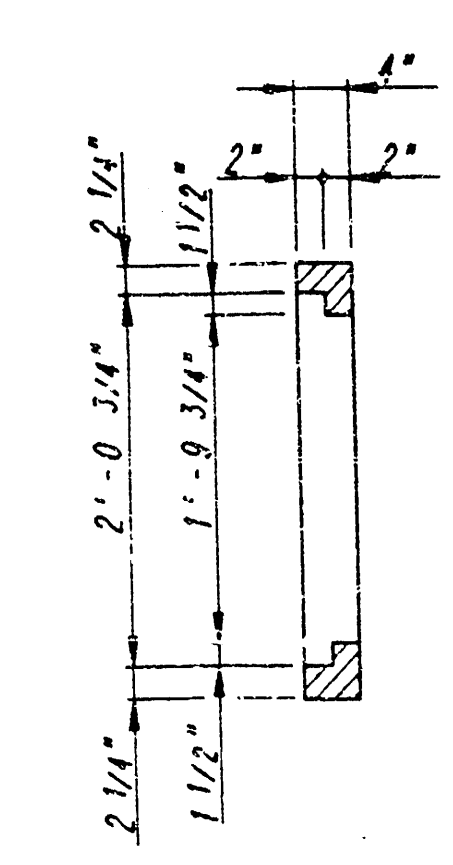
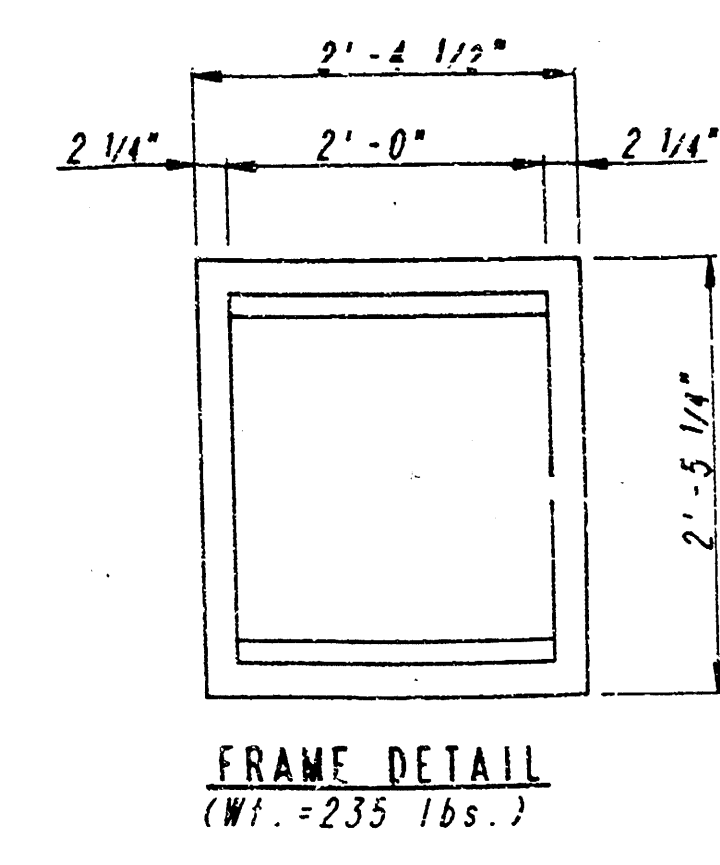
SWS LINE NO. 1
PROFILE

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.

ENGINEERS
WICHITA, KANSAS

Job No. 36-93489
Date MAR. 1994

RICHIE CORPORATE OFFICE



GENERAL NOTES

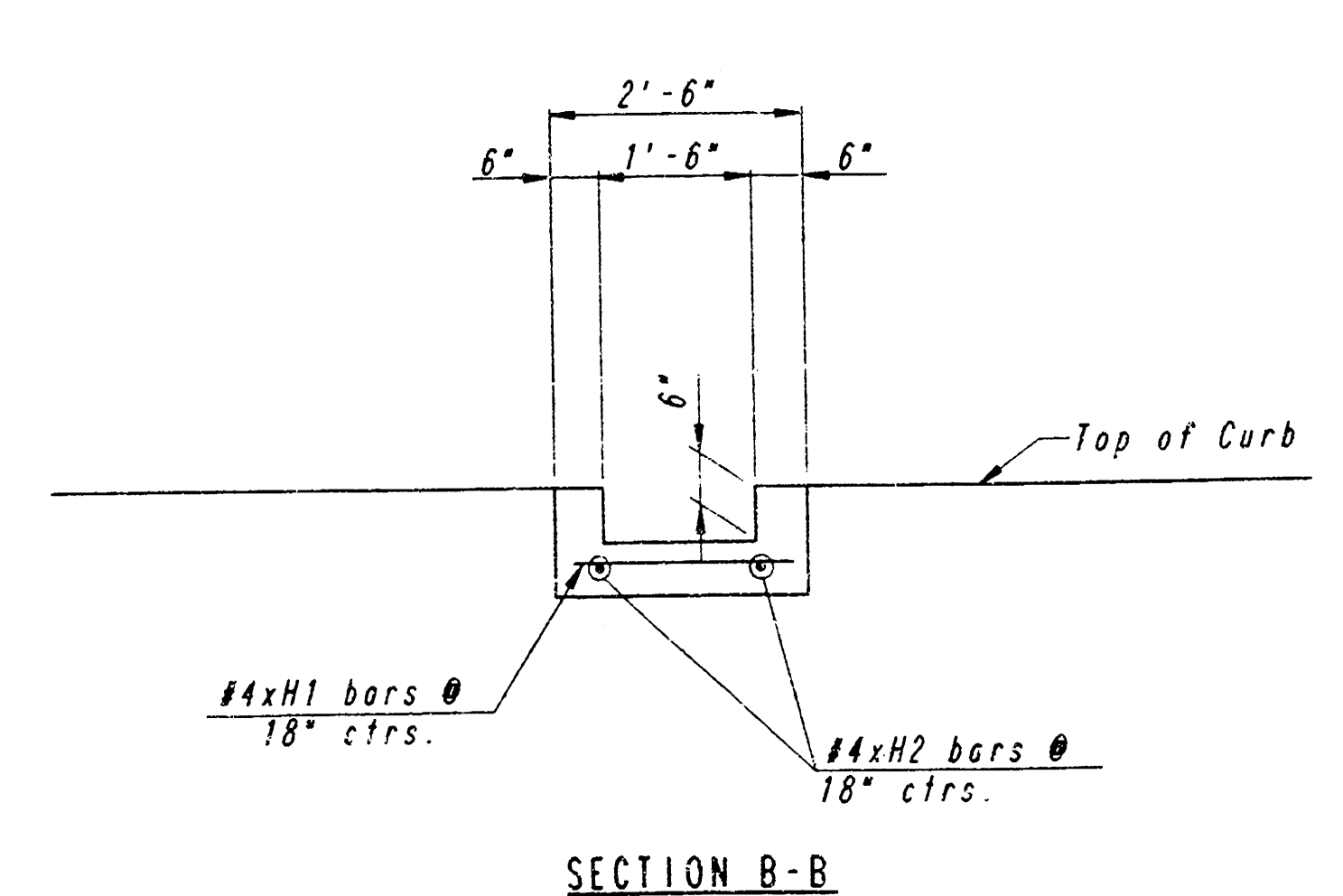
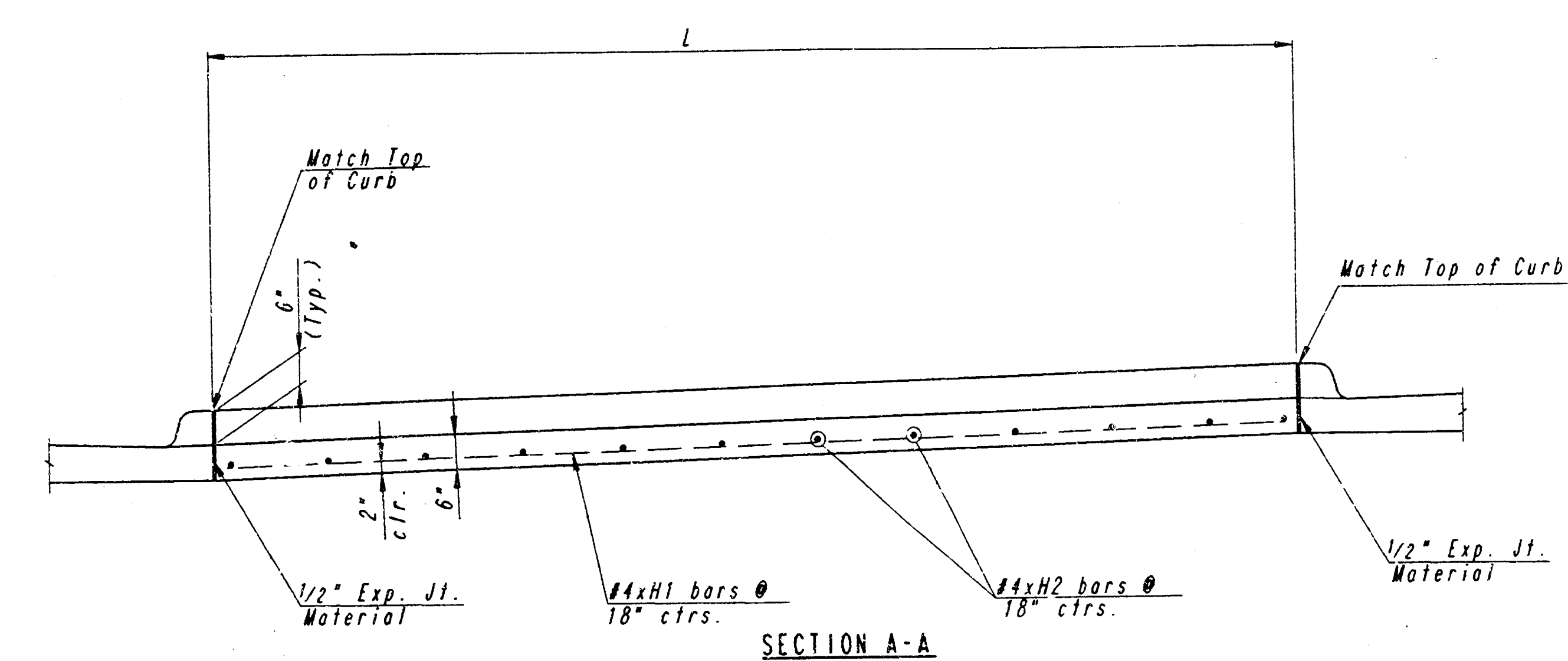
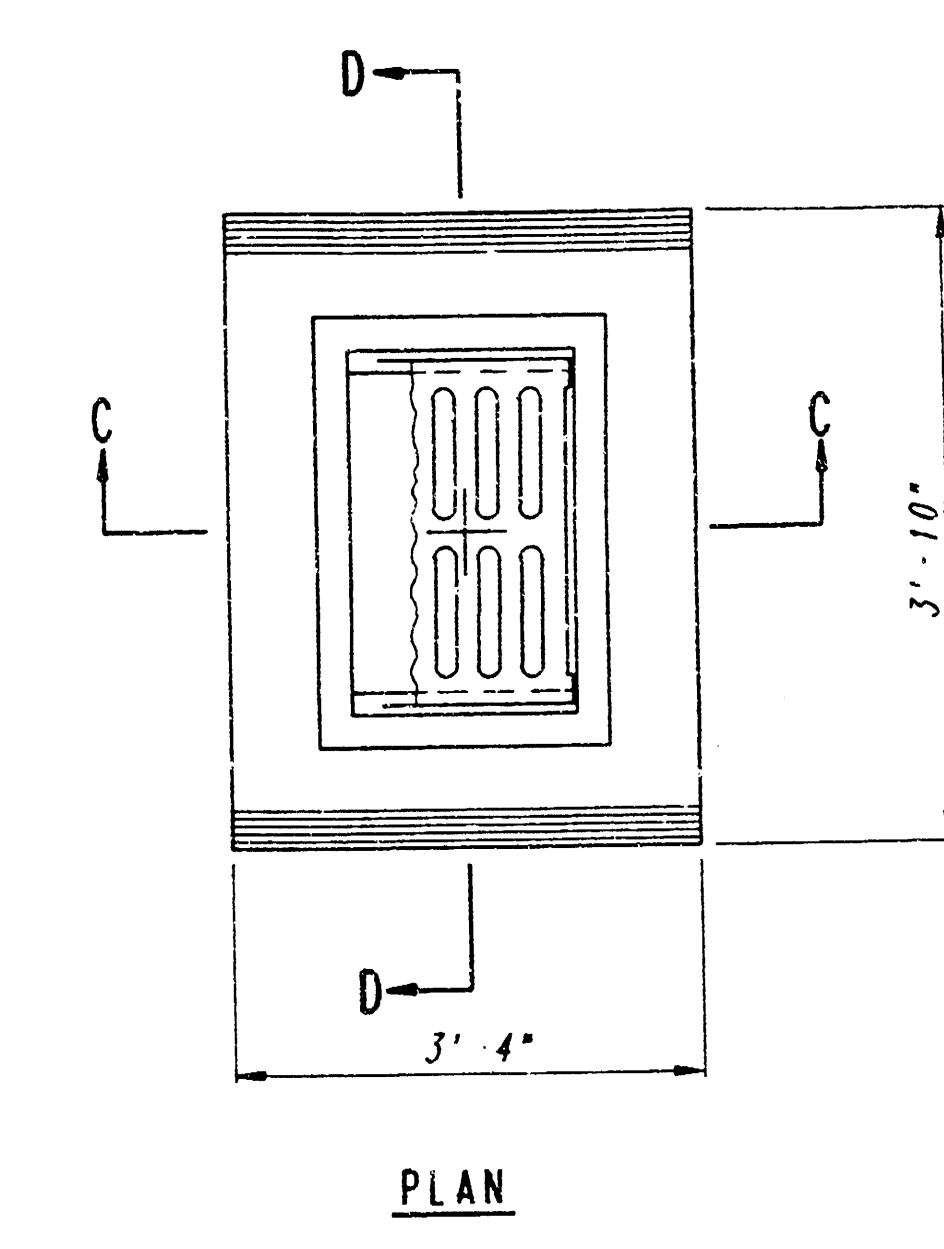
CONCRETE SHALL BE C.O.D.W. STANDARD PAVING MIX. ALL EXPOSED EDGES SHALL BE FINISHED WITH AN APPROVED EDGING TOOL.

REINFORCING STEEL SHALL BE A MINIMUM GRADE 40. A.S.T.M. A615. ALL DIMENSIONS RELATIVE TO PLACEMENT OF REINFORCING ARE TO THE CENTERLINE OF BARS UNLESS OTHERWISE NOTED.

INLET 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 DETAIL 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 EFFECTS.

CONSTRUCTION REQUIREMENTS AND MATERIALS FOR MASONRY WALLS SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

INLET FLOOR SHALL BE SHAPED WITH UNREINFORCED CONCRETE (8 SACK SAND MIX) TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE INLET WILL BE SELF-CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.

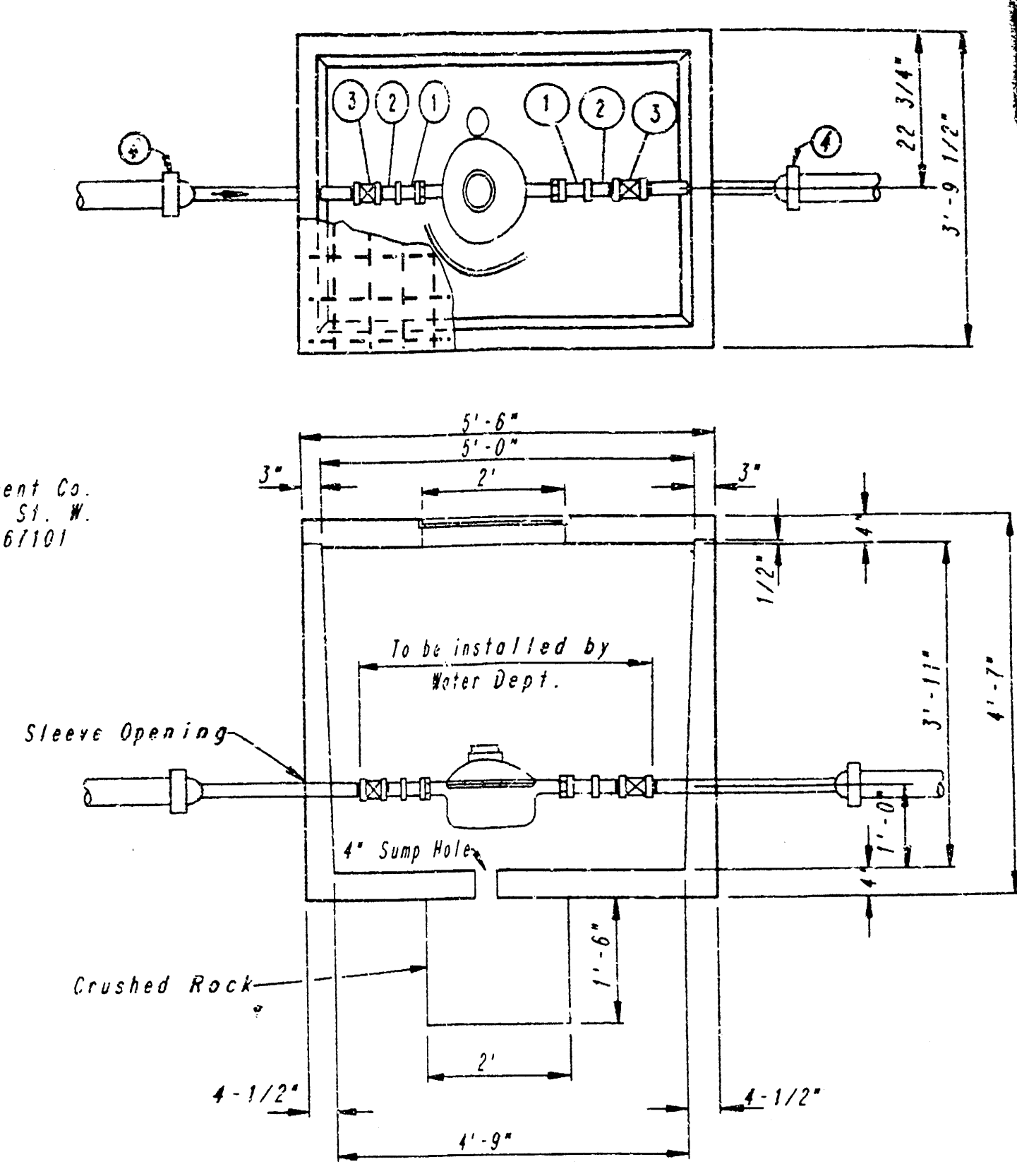
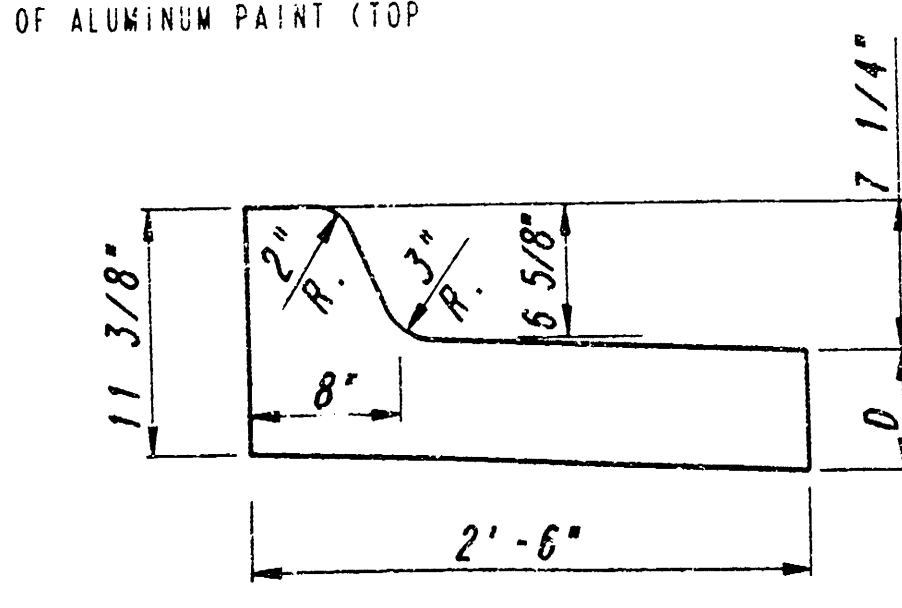
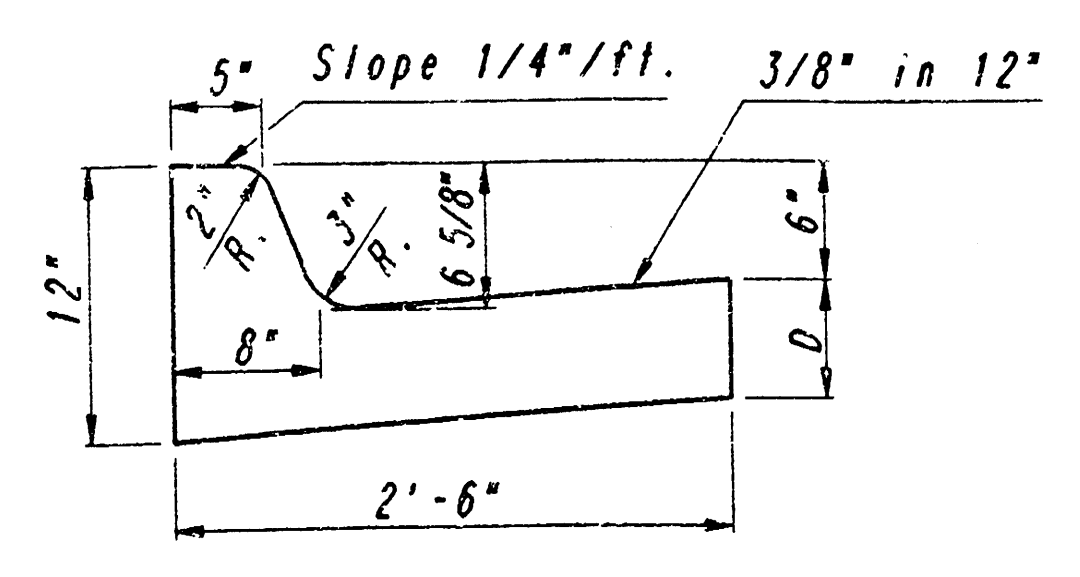


SIDEWALK FLUME DETAILS

GENERAL NOTES

CLASS A CONCRETE (C&P), OR THE MIX USED FOR CONCRETE PAVEMENT MAY BE USED THROUGHOUT. ALL EXPOSED EDGES SHALL BE FINISHED WITH AN EDGING TOOL.

THE CHECKERED STEEL PLATE SHALL HAVE A RAISED LUG PATTERN AND SHALL BE EITHER SHOP OR FIELD PAINTED WITH ONE COAT OF ZINC DUST PAINT FOLLOWED BY TWO FIELD COATS OF ALUMINUM PAINT (TOP AND BOTTOM).



STANDARD VAULT FOR SINGLE 2" METER

1	Ford Lok - Pak Meter Couplings
2	2" x 4" or 2" x 8" Nipple
3	2" Bronze Gate Valve, Wheel Operated
4	4" CIWU Cap - Topped 2"

- NOTES:**
- When the standard vault dimensions are not applicable, such as when additional space is required for special pipe fittings, additional meters, etc., the department shall design a vault with the required dimensions.
 - When it becomes necessary to locate a vault in an area where it will be subjected to vehicular loads, the top will be designed to satisfy the conditions as set forth in Ordinance No. 12-586, Paragraph 2804, of the City of Wichita, Kansas.
 - Vault location to be determined by Water Dept. prior to construction.
 - Manhole Ring and Lid to be Clay & Bailey, K.C. No. 1 Type "B", Dwyer Foundry, INC. #2000 with 1" pipe holes; or Neenah R-6034 front with Type "C" Solid lid and drop handle.
 - The Mechanical Contractor shall provide a 2" Male iron pipe thread end of service pipe, meter coupling(s), nipple(s), and valve(s).
 - Meter provided by Water Dept.

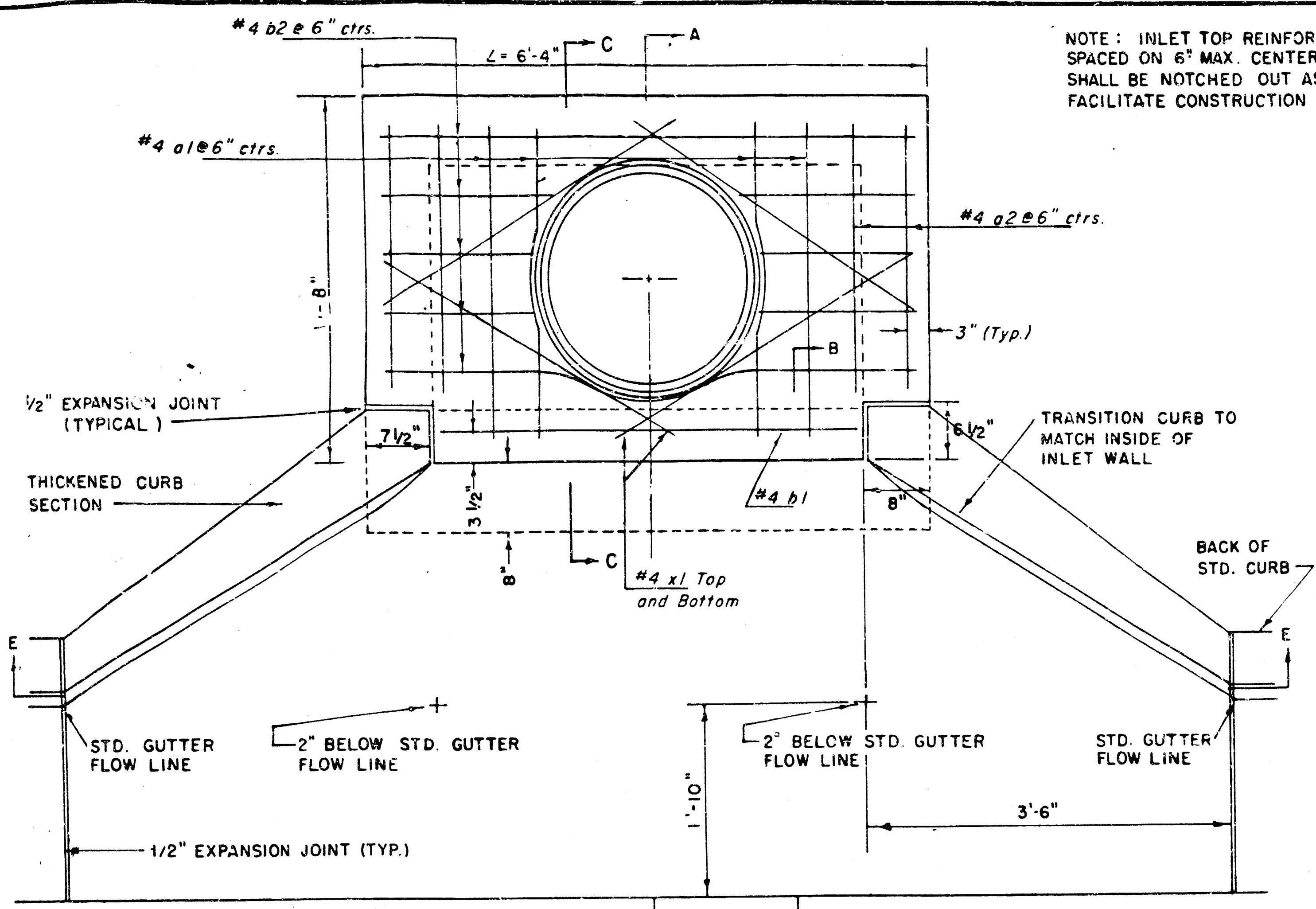
PLAN SHEETED
NOTE BOOK PLOTTED
ALIGNMENT CHECKED
NO. 1
BY: J. W. HAY
DATE: 11-10-94

89 MISC DTLs
CENTER COORDINATES
ROTATION ANGLE
DATE LAST WORKED ON:
DAR CRON

MISCELLANEOUS DETAILS

RITCHIE CORPORATE OFFICE
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

Designed by: DRC
Checked by: DEP
Date: MAR., 1994
Job No.: 94



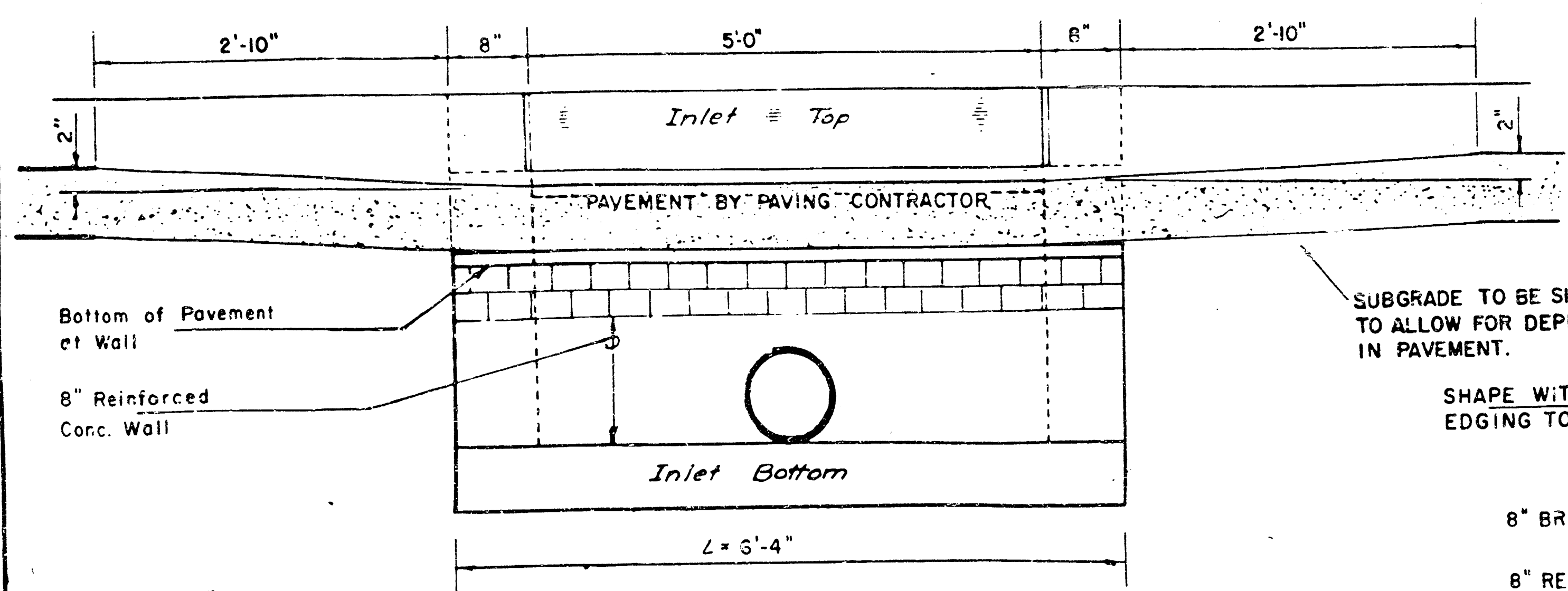
NOTE: EXPANSION JOINT ONLY IN CURB AREA WITH CONC. PAVEMENT.

PLAN

PRECAST SLAB AND FLOOR REINFORCING									
Mark	Size	No.	Length	No.	Length	No.	Length	No.	Length
a1	#4	6	6'-7"	6	8'-7"	6	10'-7"	6	12'-7"
a2	#4	4	6'-0"	4	8'-0"	4	10'-0"	4	12'-0"
a3	#4	13	4'-1"	13	5'-1"	13	6'-1"	13	7'-1"
b1	#4	1	4'-9"	1	4'-9"	1	4'-9"	1	4'-9"
b2	#4	23	6'-1"	29	6'-1"	35	6'-1"	41	6'-1"
x1	#4	8	3'-10"	8	4'-2"	8	4'-6"	8	5'-2"

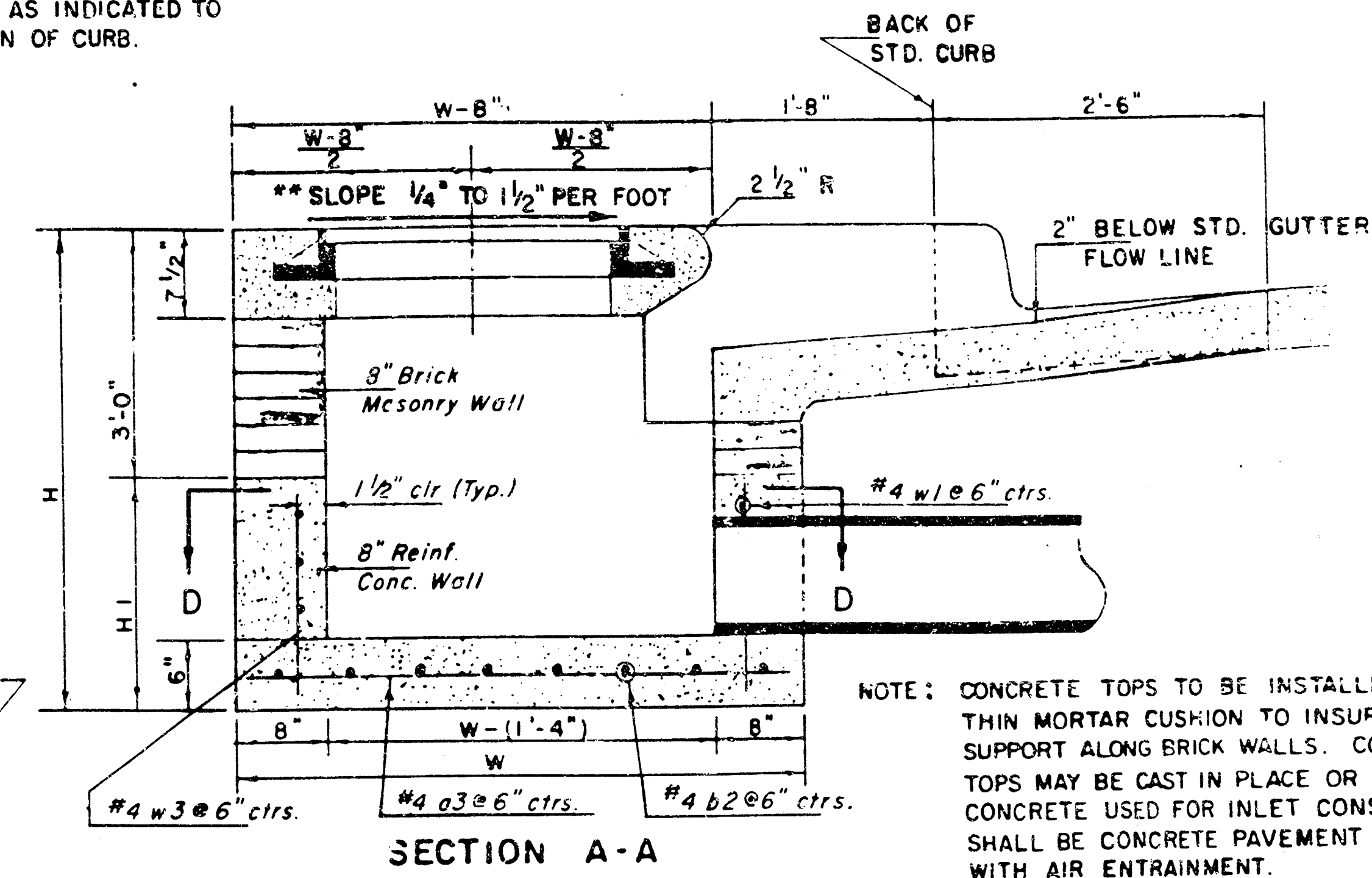
WALL REINFORCING									
Mark	Size	No.	Length	No.	Length	No.	Length	No.	Length
w1	#4	1	5'-1"	1	6'-1"	1	6'-1"	1	6'-1"
w2	#4	1	4'-1"	1	5'-1"	1	6'-1"	1	7'-1"
w3	#4	32	2	36	2	40	2	44	2

* Field bend or cut Reinforcing as required for clearance.
① 4(HI-12"); (HI-12") Round down to nearest 0.5'
② HI-3"



SECTION E-E

NOTE: INLET TOP REINFORCING SHALL BE SPACED ON 6" MAX. CENTERS. INLET LIDS SHALL BE NOTCHED OUT AS INDICATED TO FACILITATE CONSTRUCTION OF CURB.



SECTION A-A

NOTE: CONTRACTOR SHALL HAVE THE OPTION OF CONSTRUCTING 8" BRICK MASONRY WALLS BETWEEN THE CONCRETE INLET BASE AND TOP ON THIS INLET WHEN W = 6'-4" AND H = 7'-0" OR LESS.

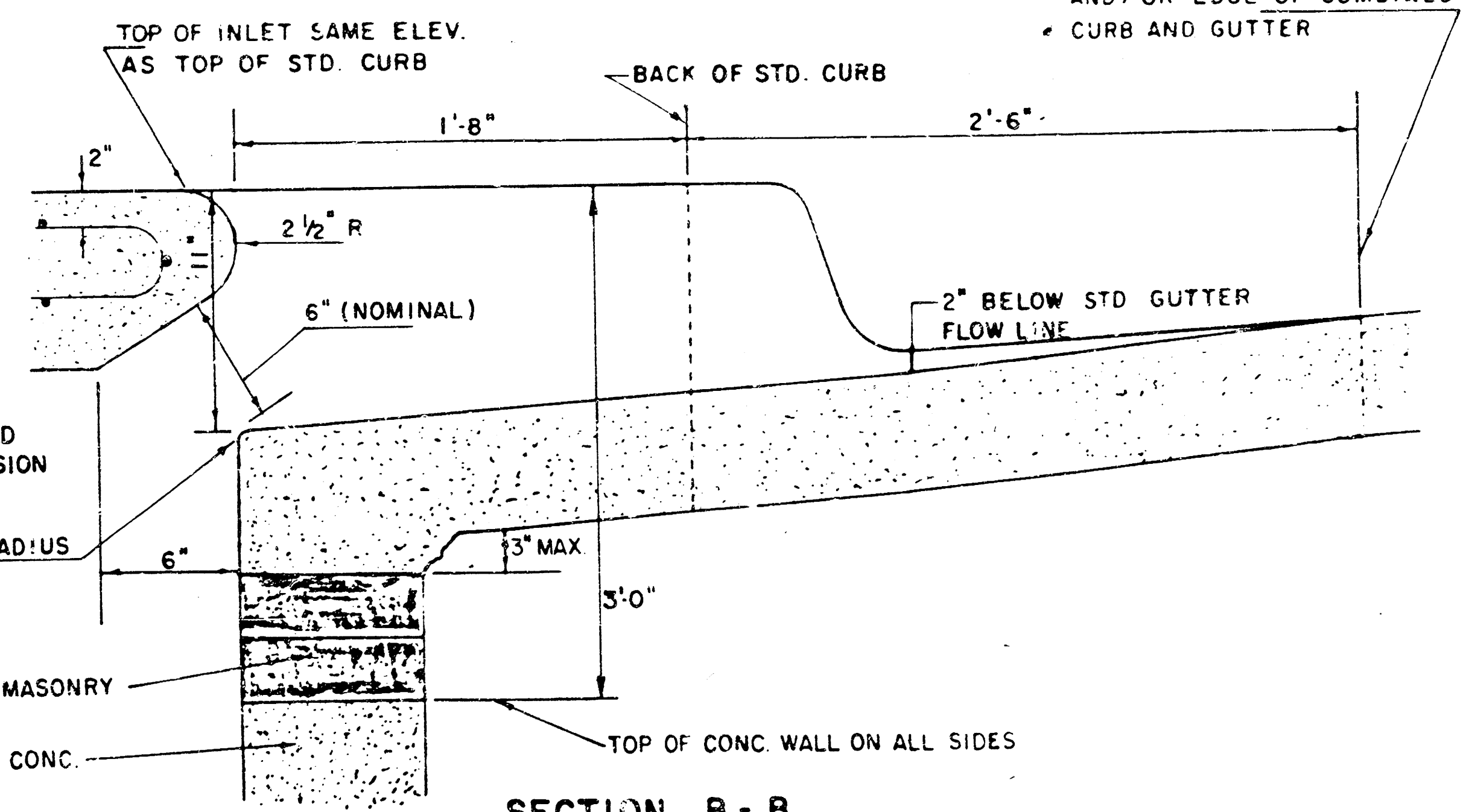
ADDITIONAL CURB AND GUTTER CONSTRUCTION NECESSARY TO CONNECT SET-BACK INLET TO PAVEMENT WILL BE PAID FOR AT THE UNIT PRICE BID FOR EACH INLET HOOKUP.

INLET INVERT SHALL BE SHAPED WITH 8 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.

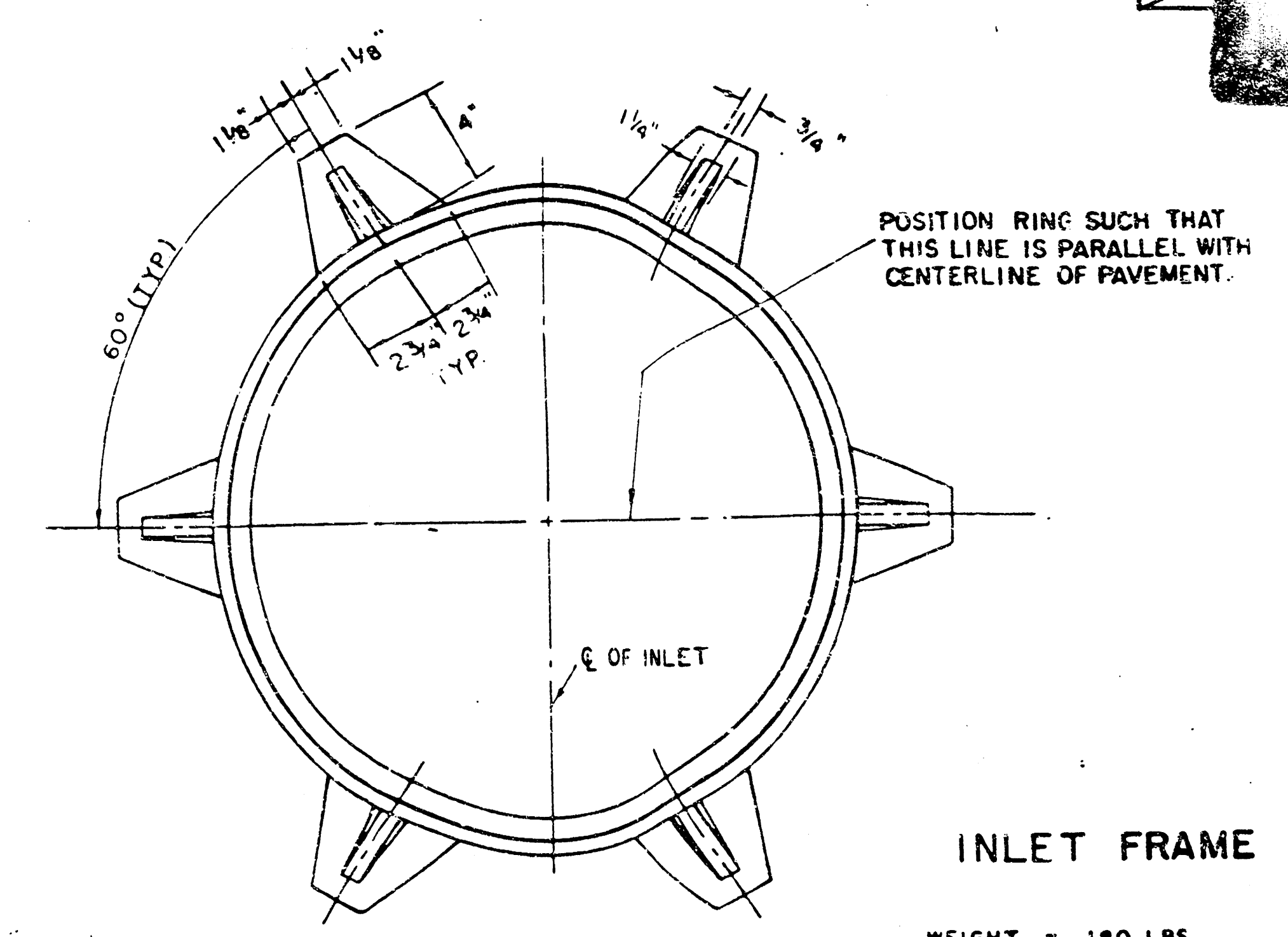
THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.

**NOTE: Slope of inlet Tops to match Sidewalk or Parking Slopes within Limits indicated.

STANDARD CURB INLET PRECAST TOPS				
W	PRE-CAST TOP SIZE	PIPE SIZE	CU YD. CONC.	
4' 4"	3'8" x 6'4" x 7 1/2"	21" & SMALLER	0.38 ±	
5' 4"	4'6" x 6'4" x 7 1/2"	24" & 30"	0.51 ±	
6' 4"	5'6" x 6'4" x 7 1/2"	36" & 42"	0.64 ±	
7' 4"	6'6" x 6'4" x 7 1/2"	48" & 54"	0.77 ±	
8' 4"	7'6" x 6'4" x 7 1/2"	60" & 66"	0.90 ±	

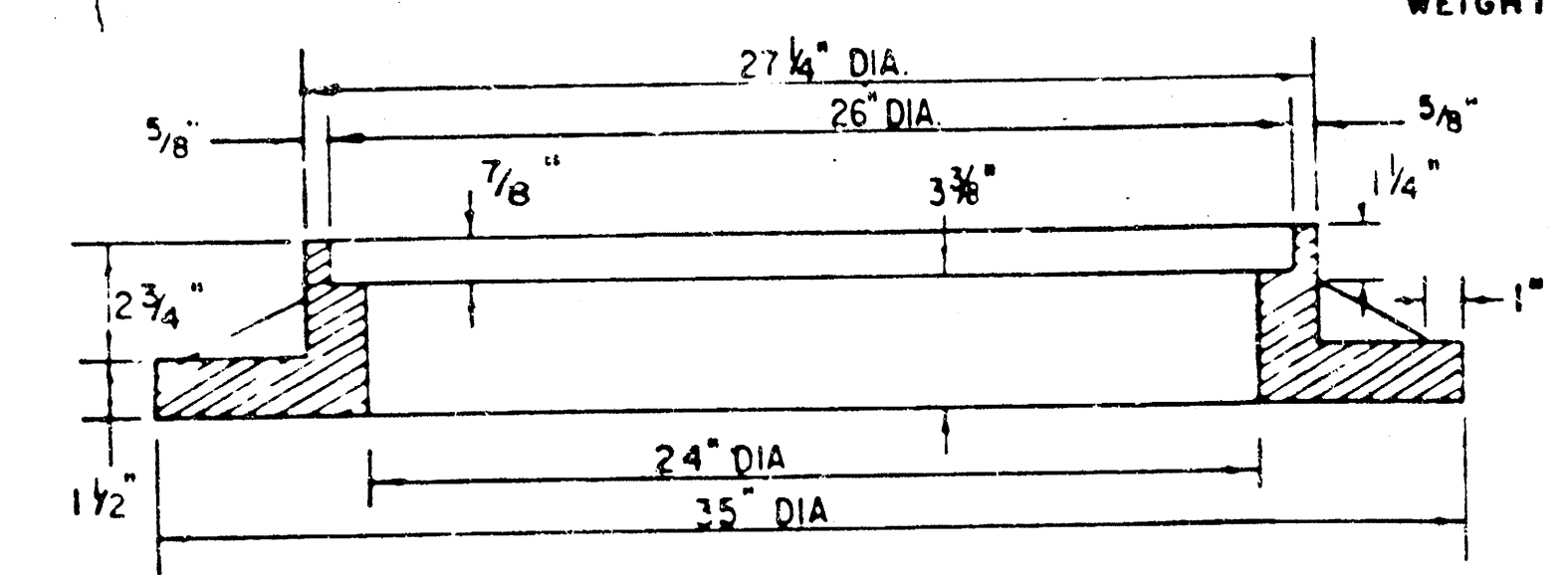


SECTION B-B

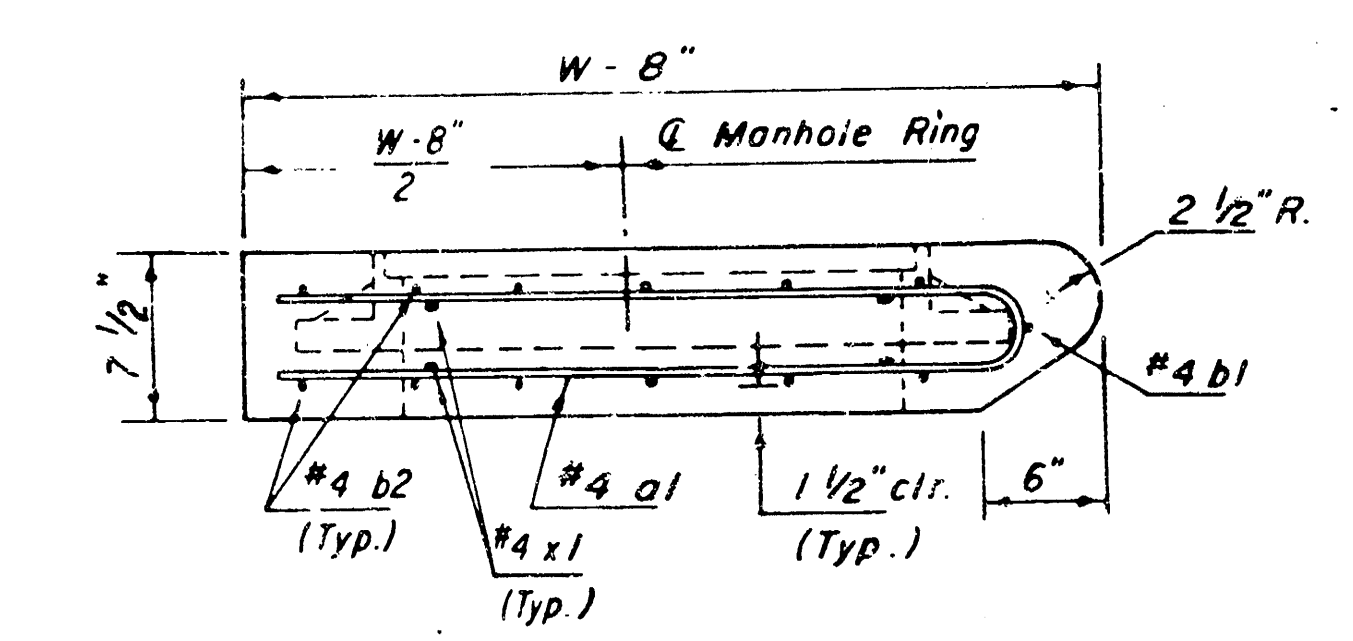


INLET FRAME

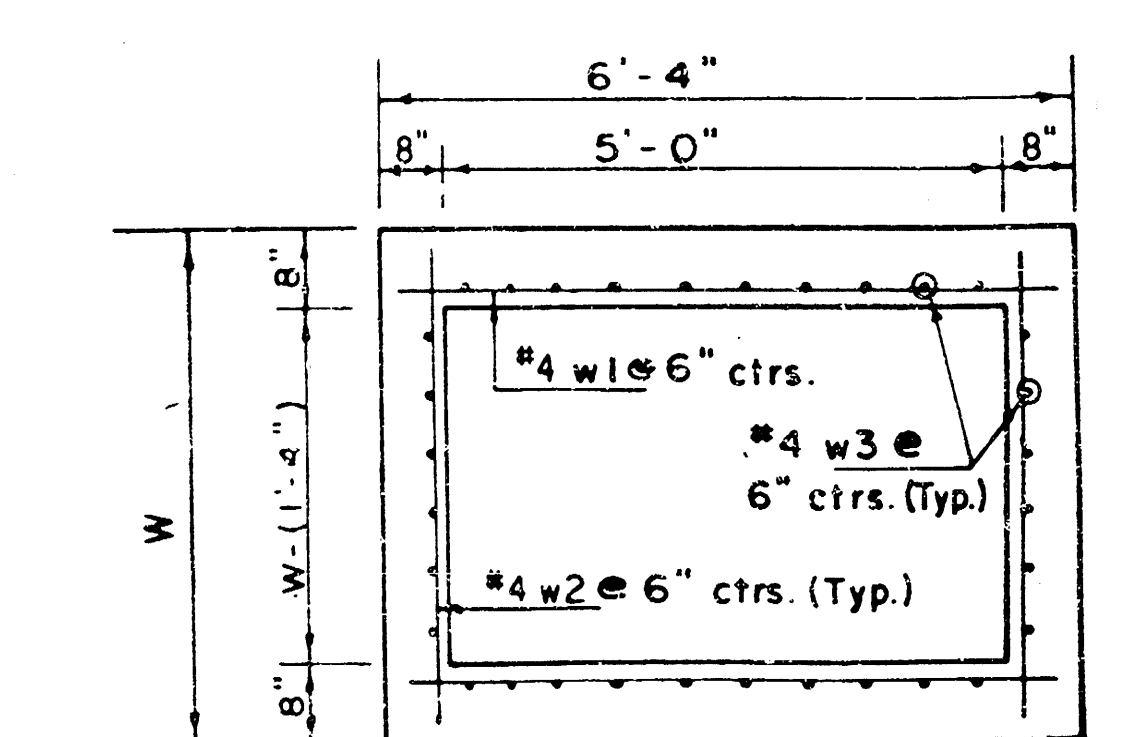
WEIGHT = 180 LBS.



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



SECTION C-C



SECTION D-D

REVISED 11-30-1988
REVISED 12-21-1984

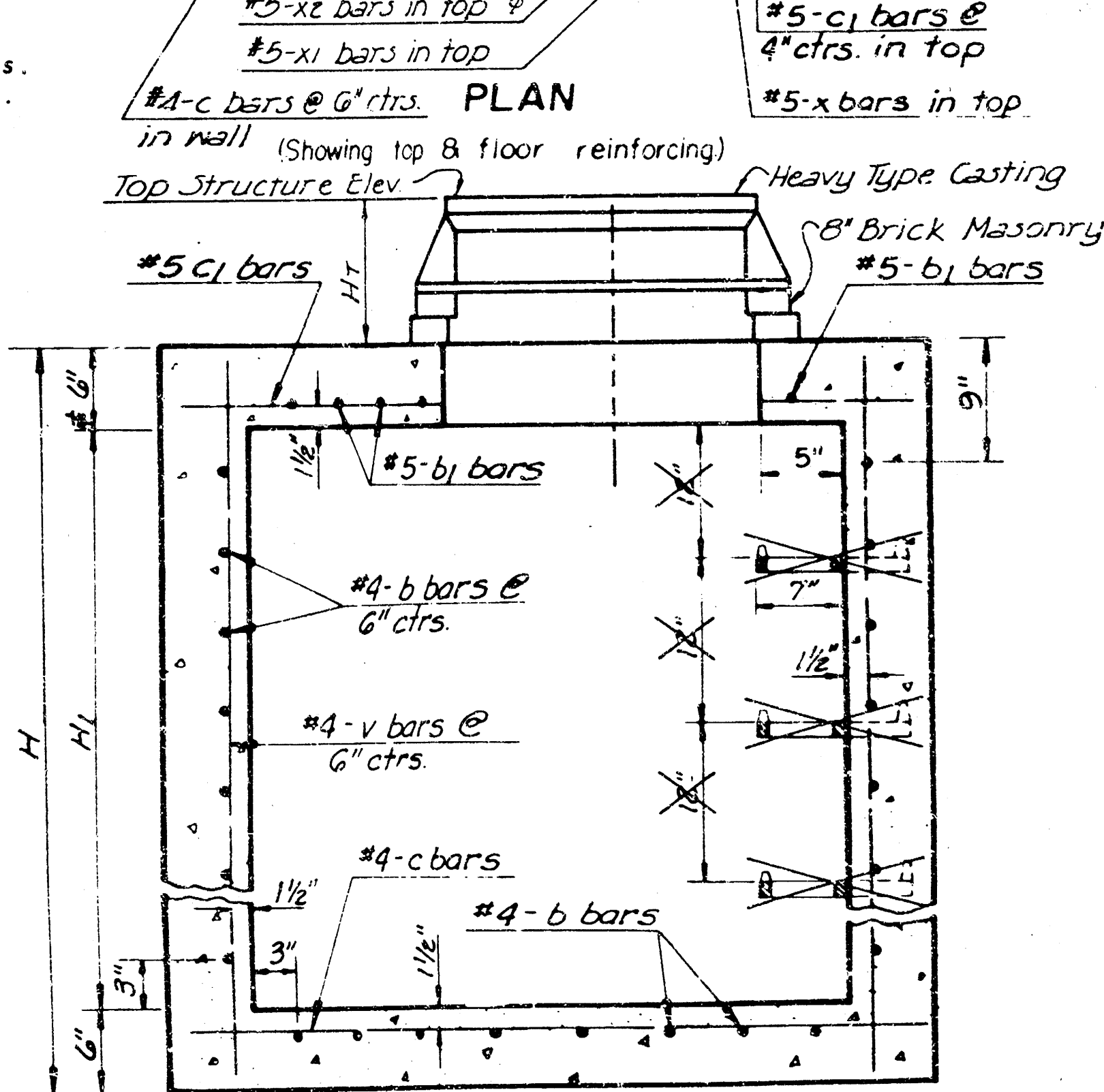
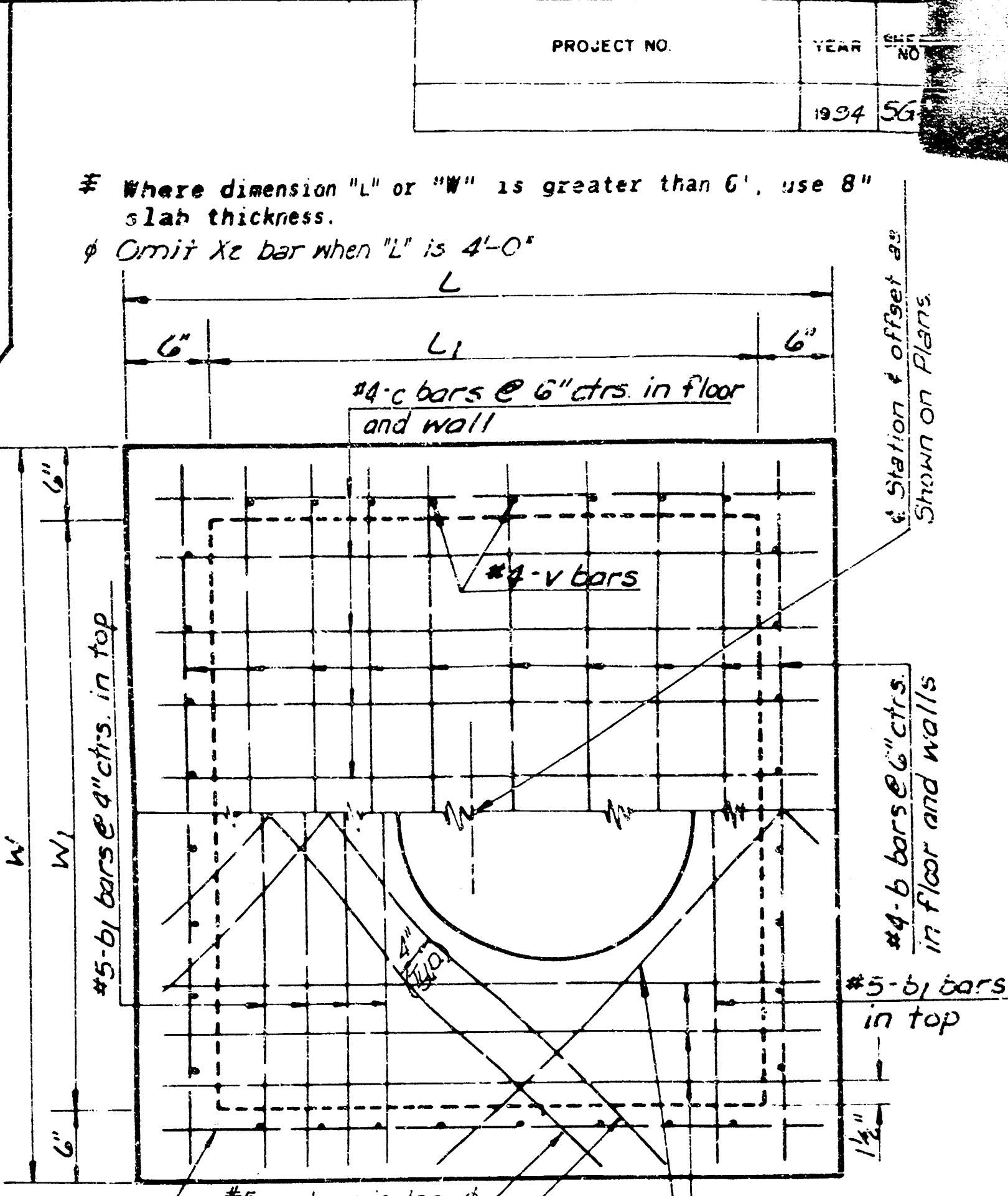
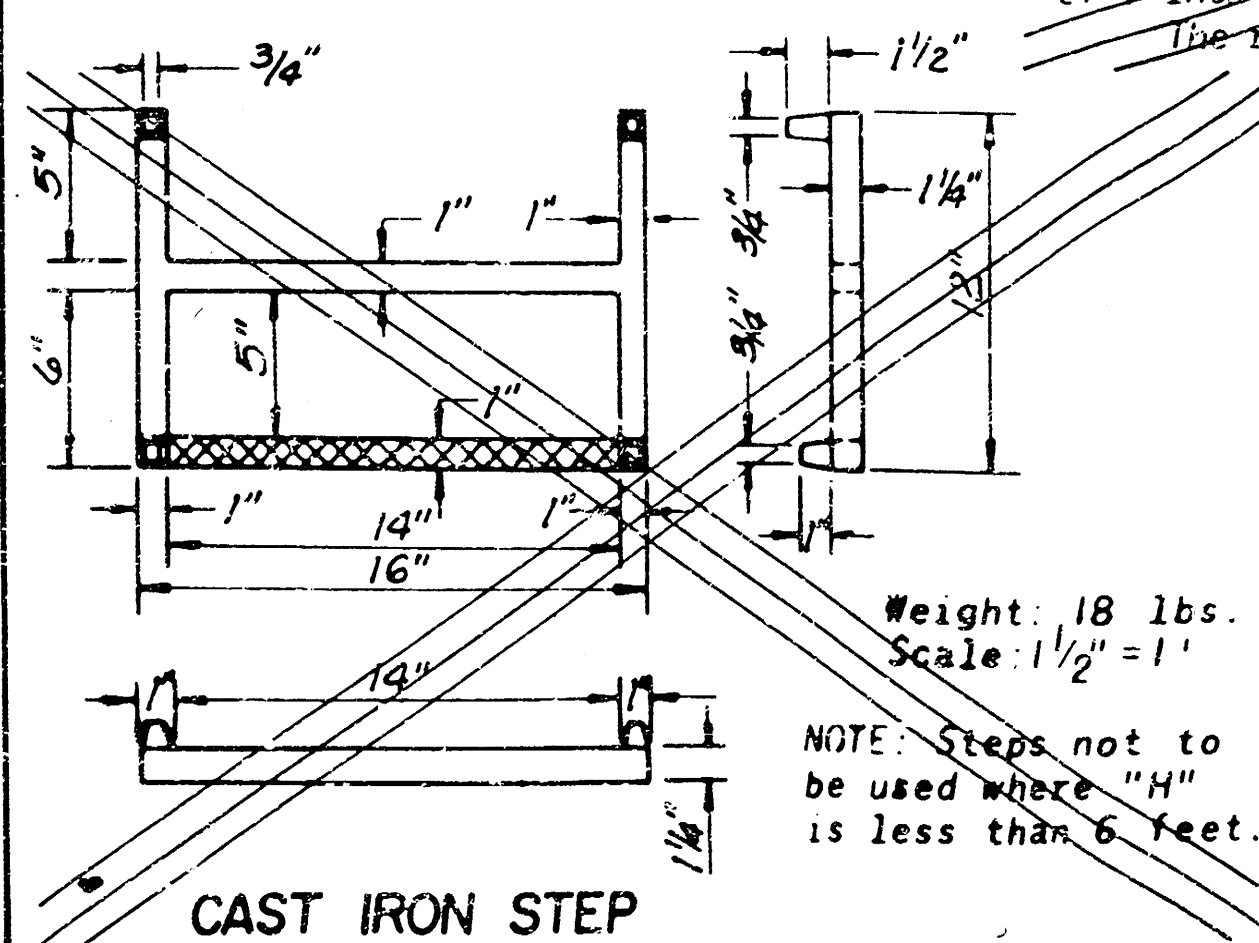
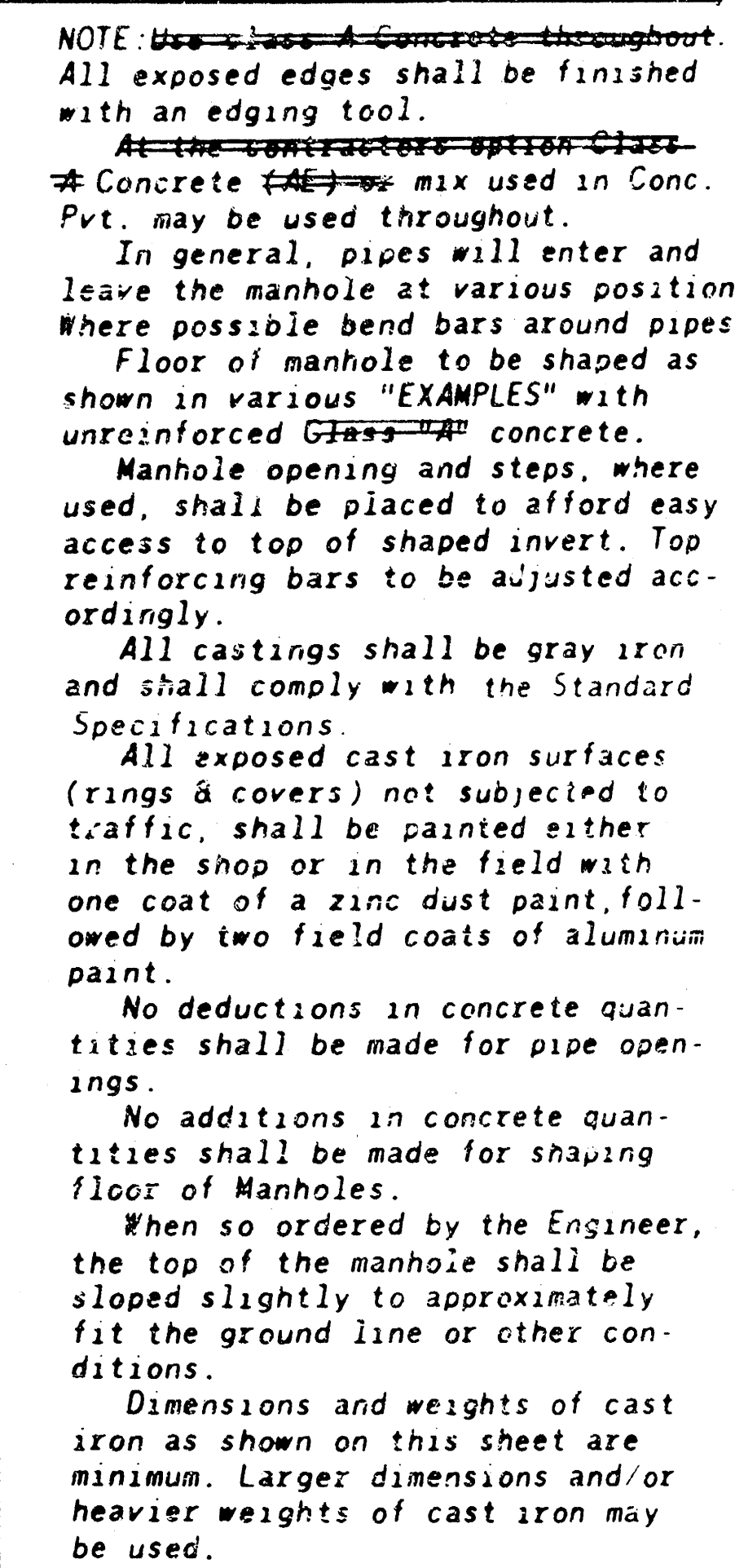
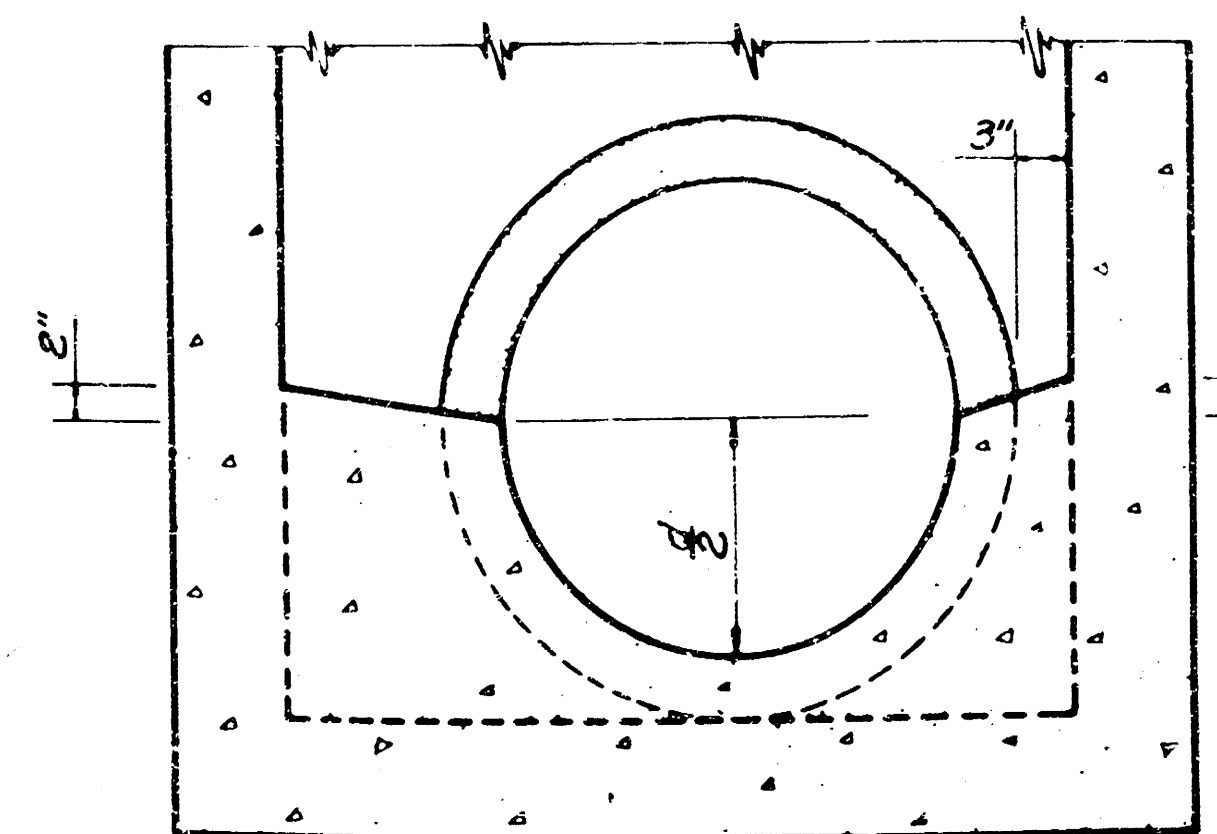
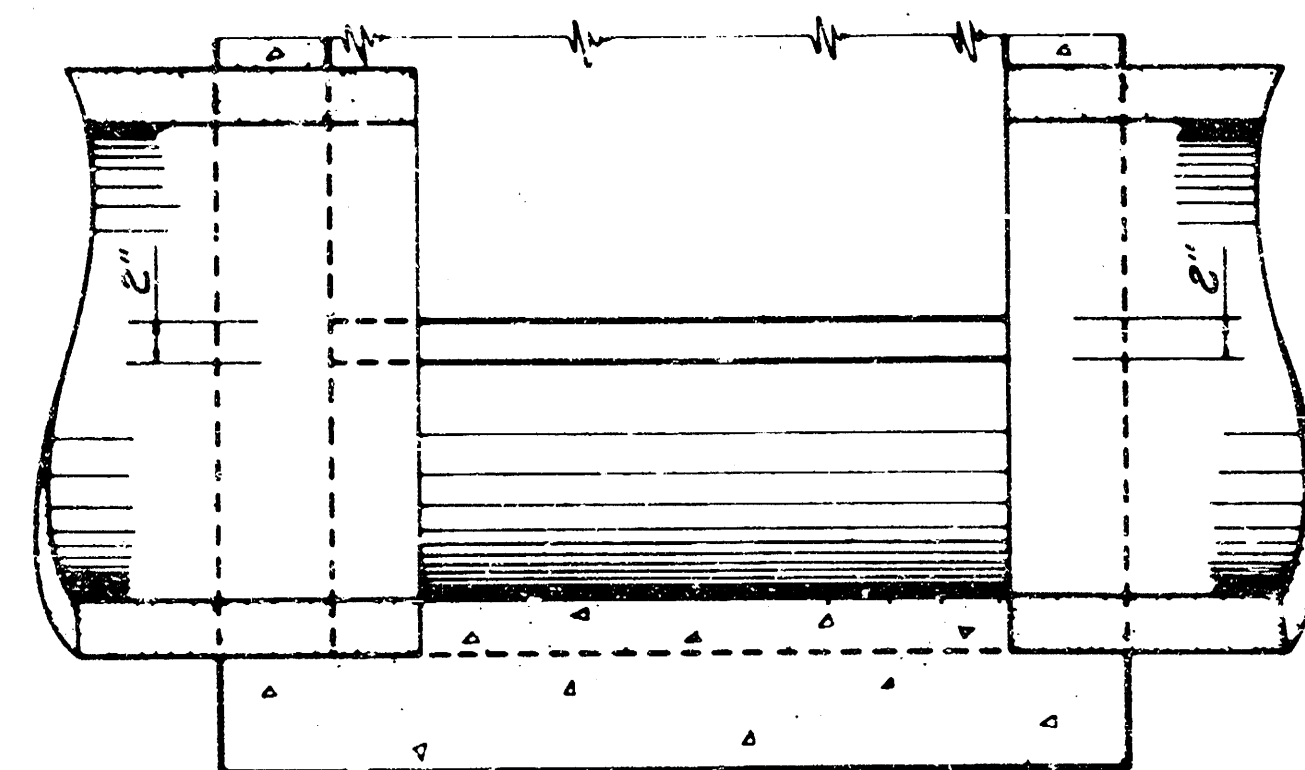
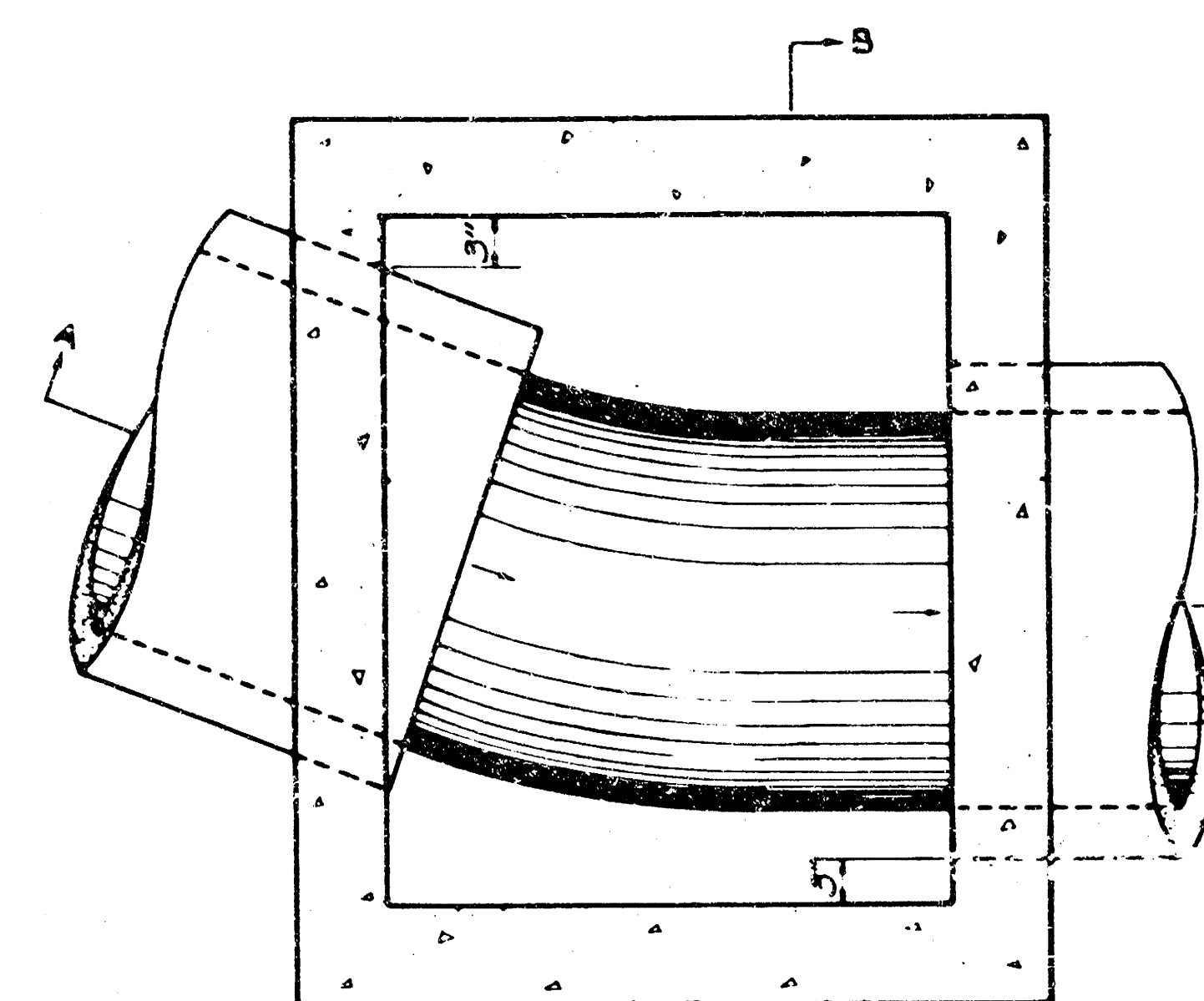
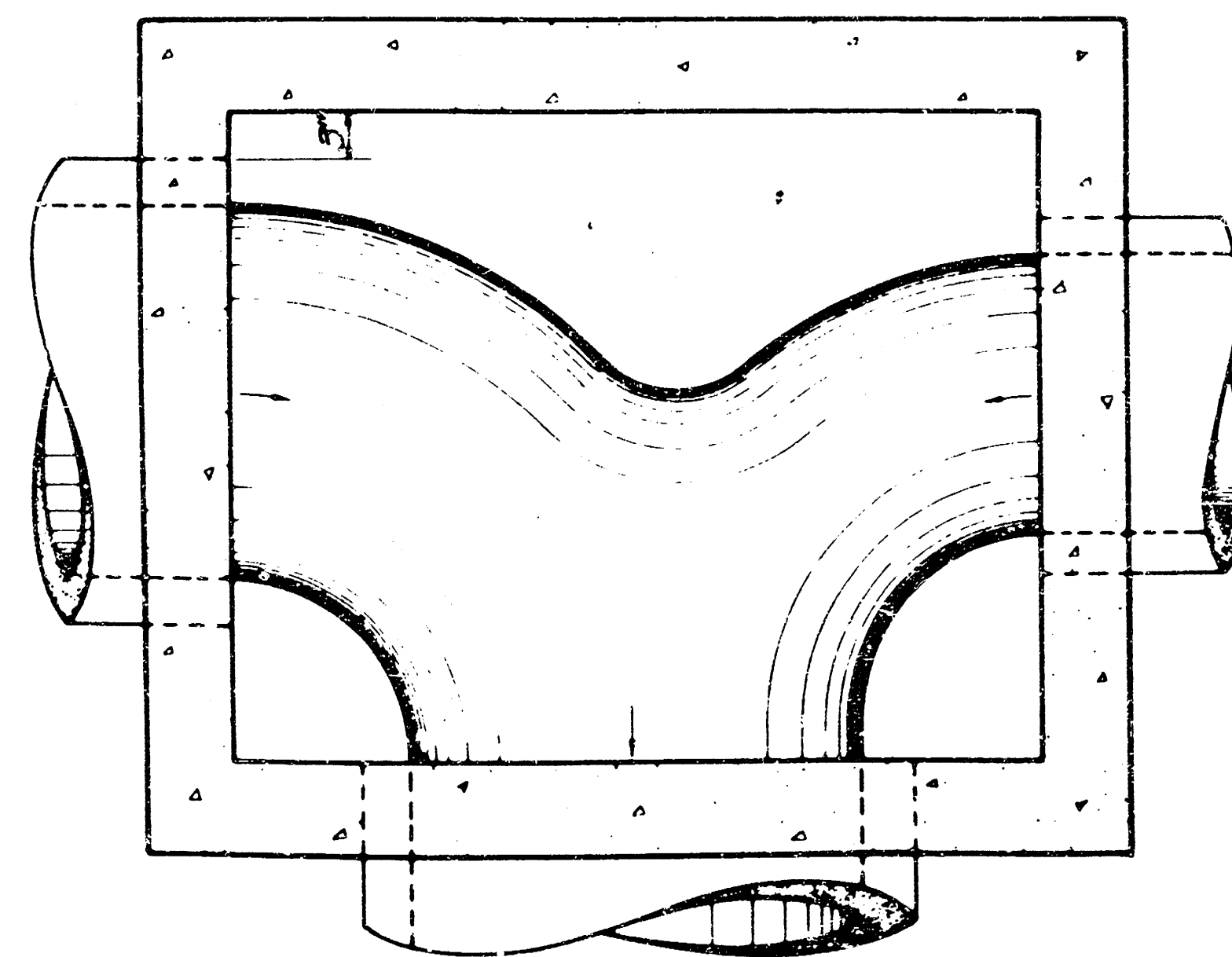
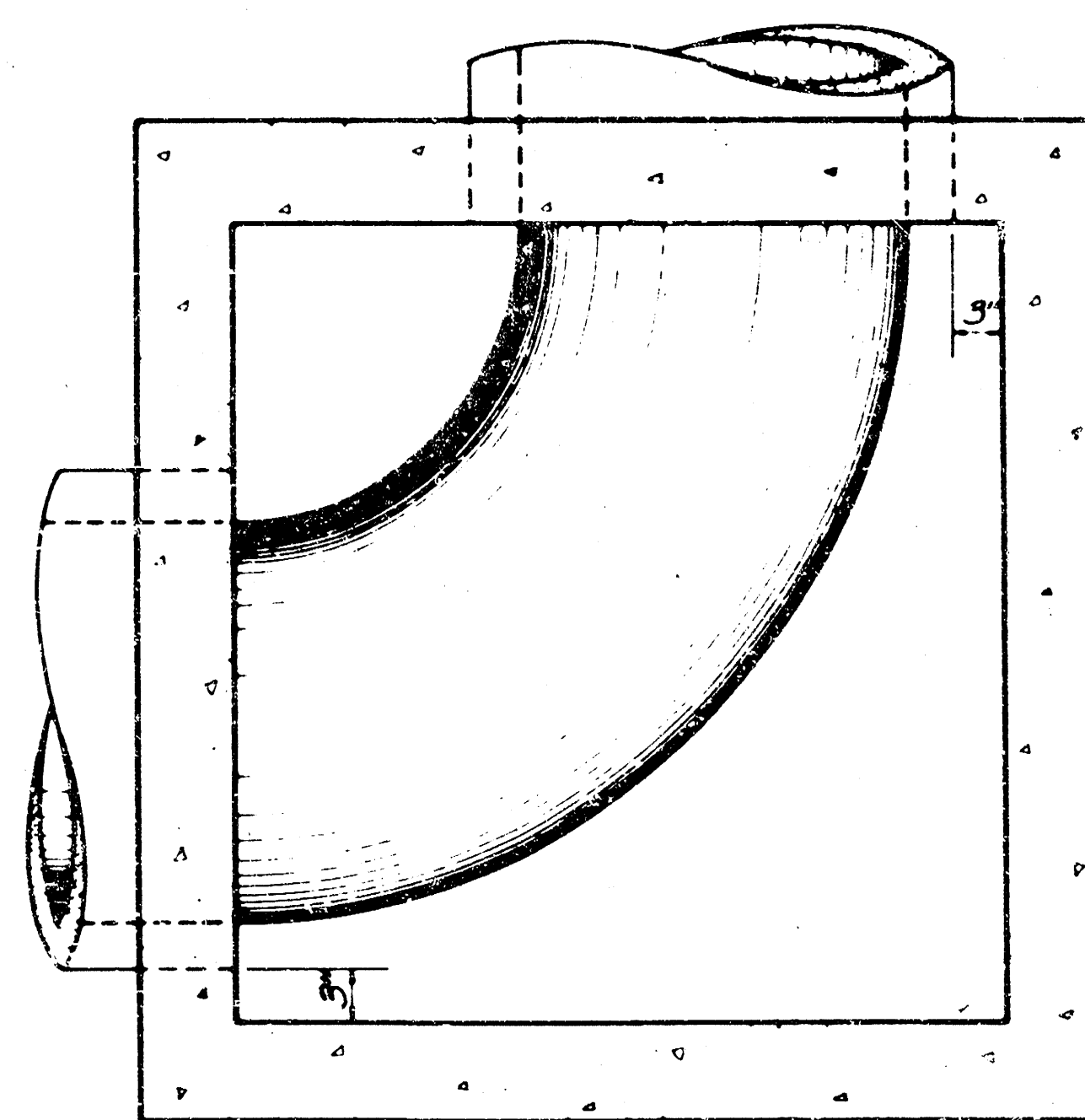
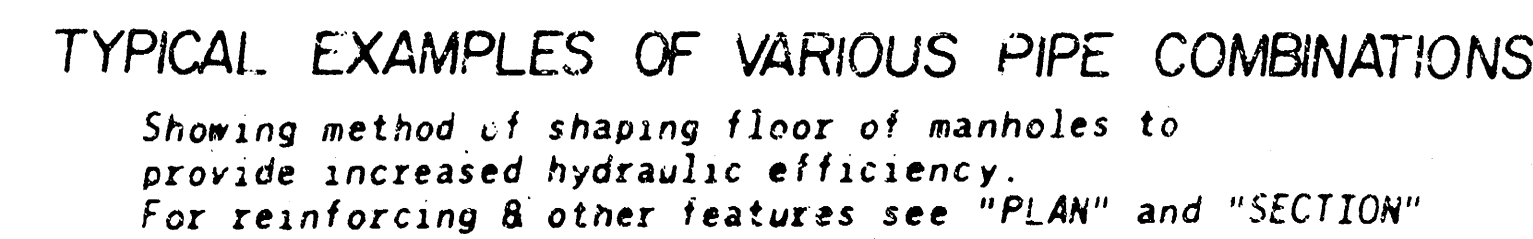
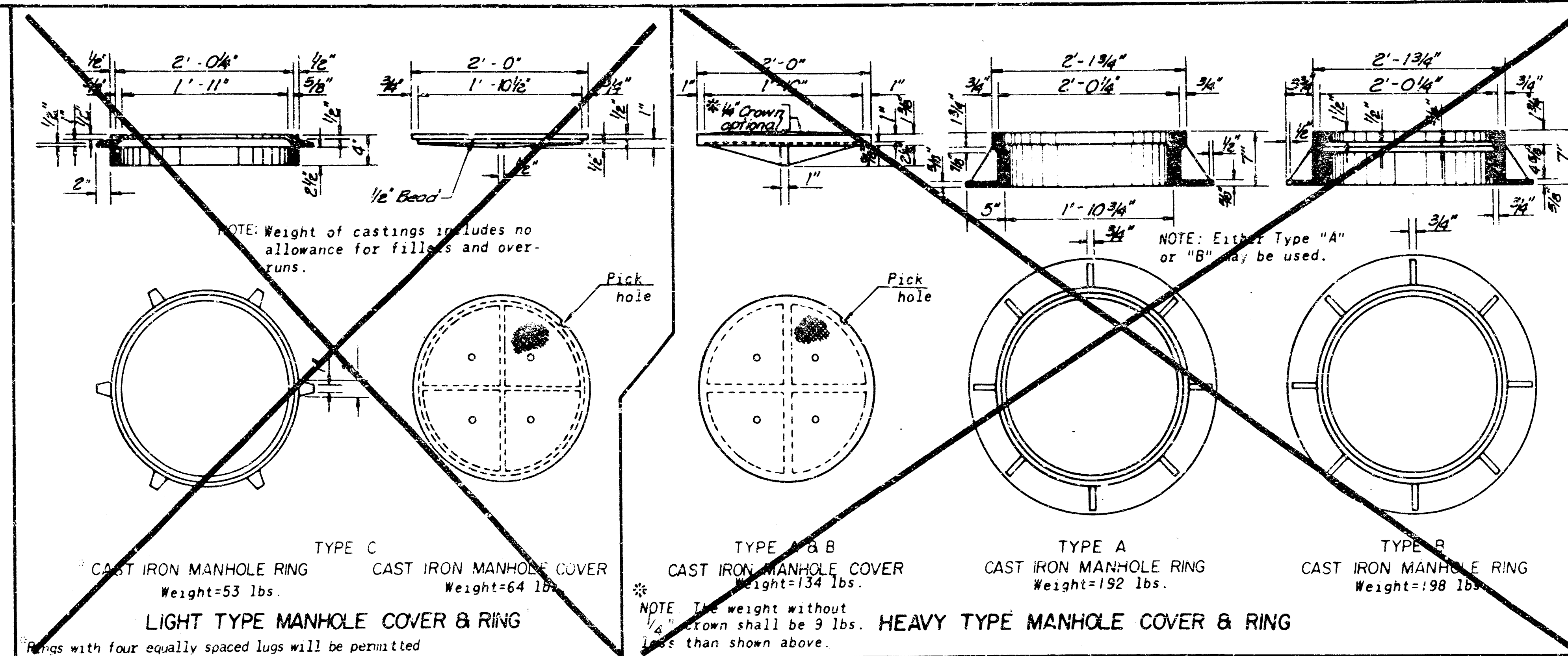
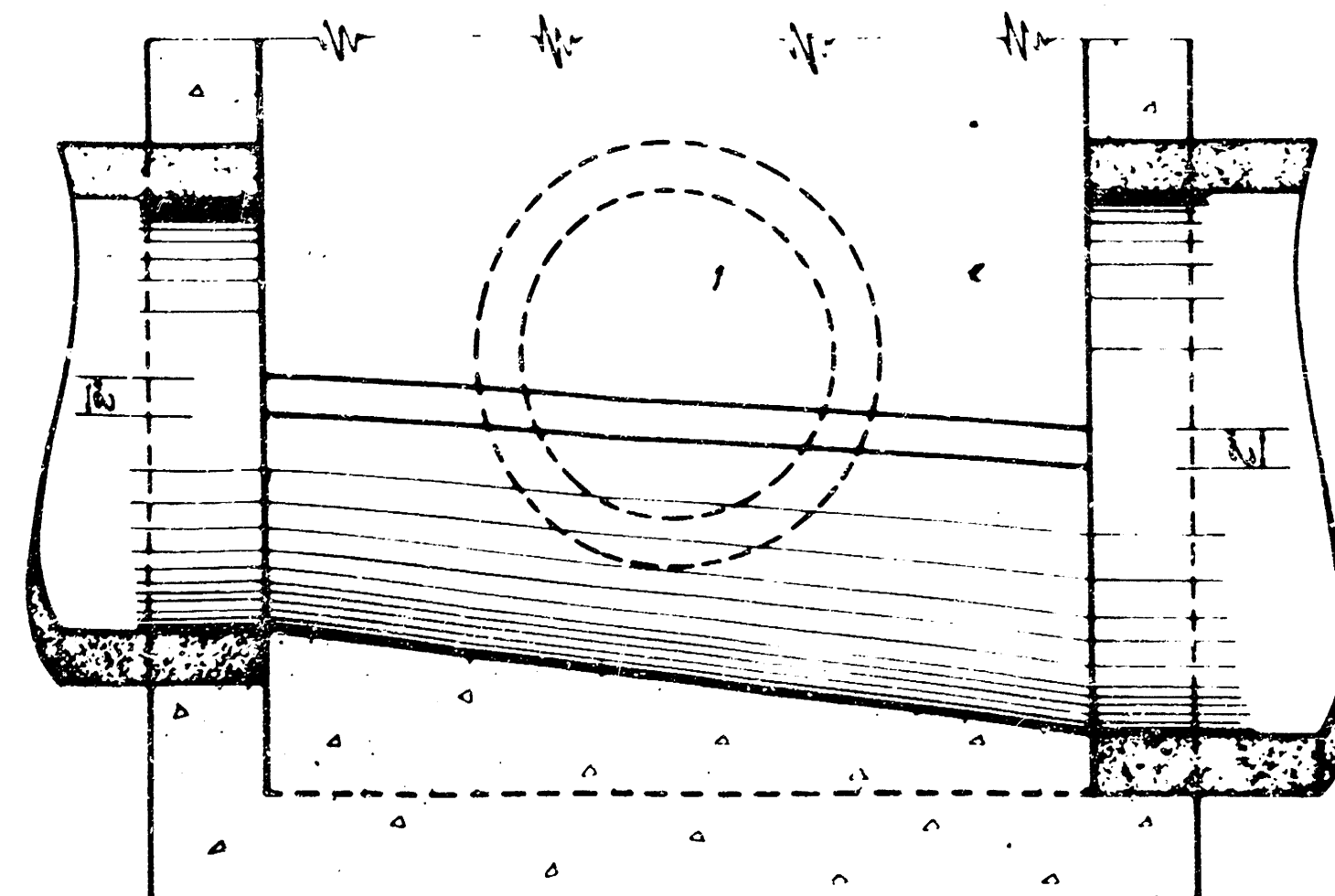
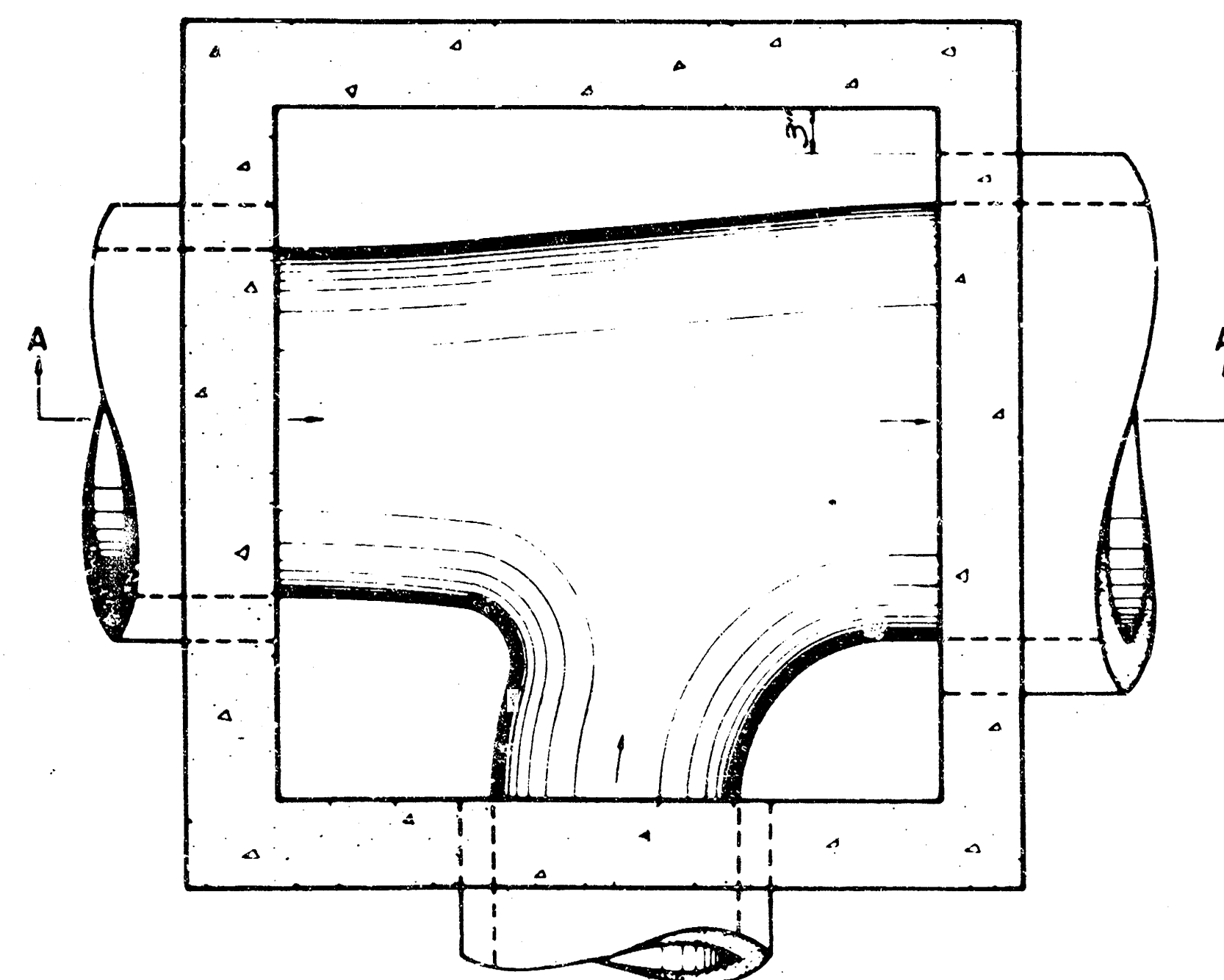
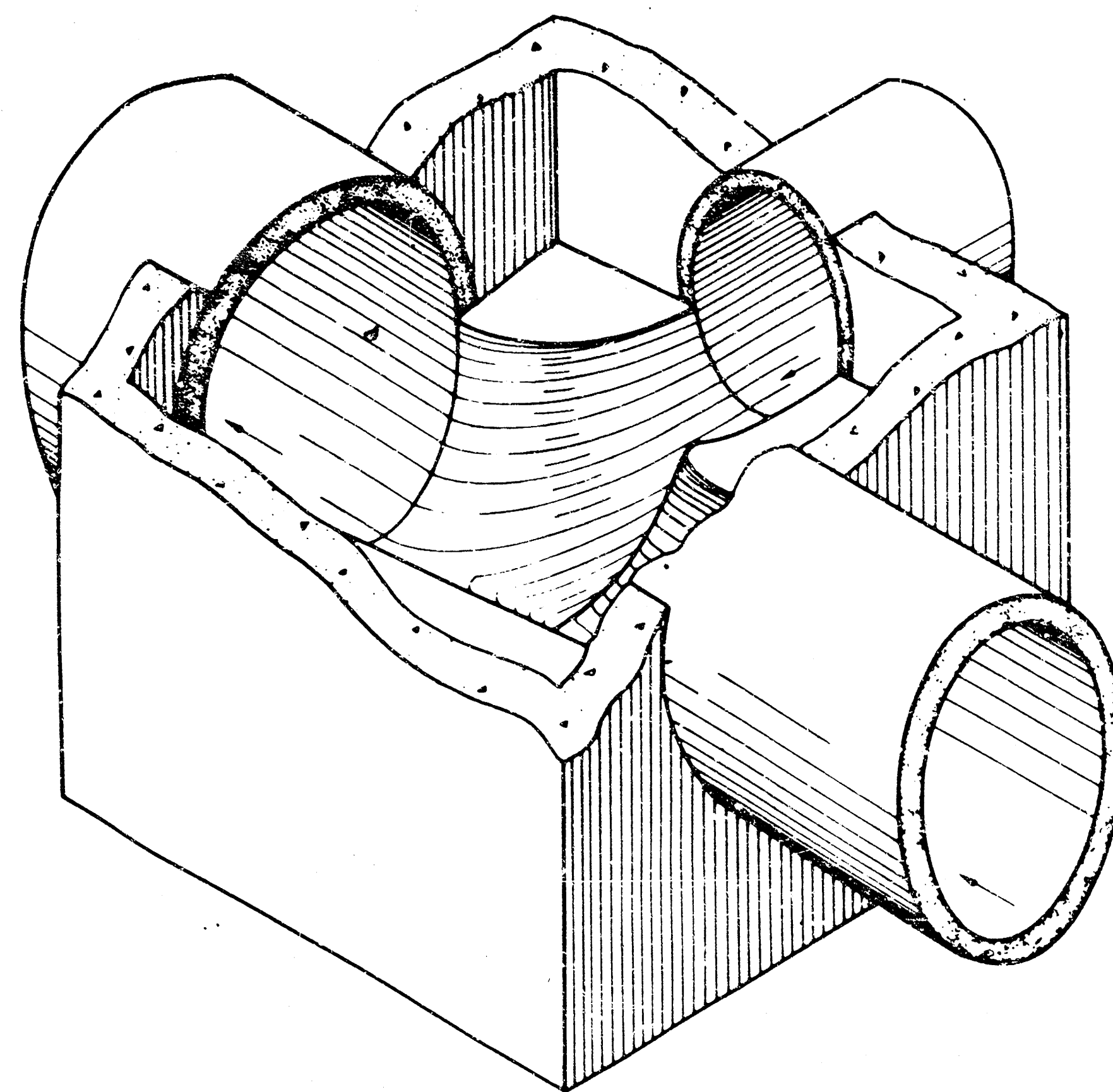
Revised 2-16-1989

DETAIL STANDARD TYPE IA CURB INLET

CITY OF WICHITA, KANSAS

INLET OPENING = 6" x 5' 0"

JUNE 1984



26	9-28-82	Rev step from 16" to 14" clear opening	W.L.H.	L.R.
25	8-14-80	Revised to Standard Specs.	W.L.H.	L.R.
24	4-2-80	Labeled bars same as Steel table	W.L.H.	L.R.
NO.	DATE	REVISIONS	BY	APP.

KANSAS DEPARTMENT OF TRANSPORTATION

REINFORCED CONCRETE MANHOLE

STD NO. 633-4-5

SHEET NO. 1	SCALE 1" = 1'	APP'D. <i>[Signature]</i>	
DESIGNED <i>[Signature]</i>	DETAILED <i>[Signature]</i>	QUANTITIES	TRACED <i>[Signature]</i>
DESIGN OK <i>[Signature]</i>	DETAIL OK <i>[Signature]</i>	QUAN OK	TRACE OK <i>[Signature]</i>

MANHOLE FRAME AND COVER DETAIL

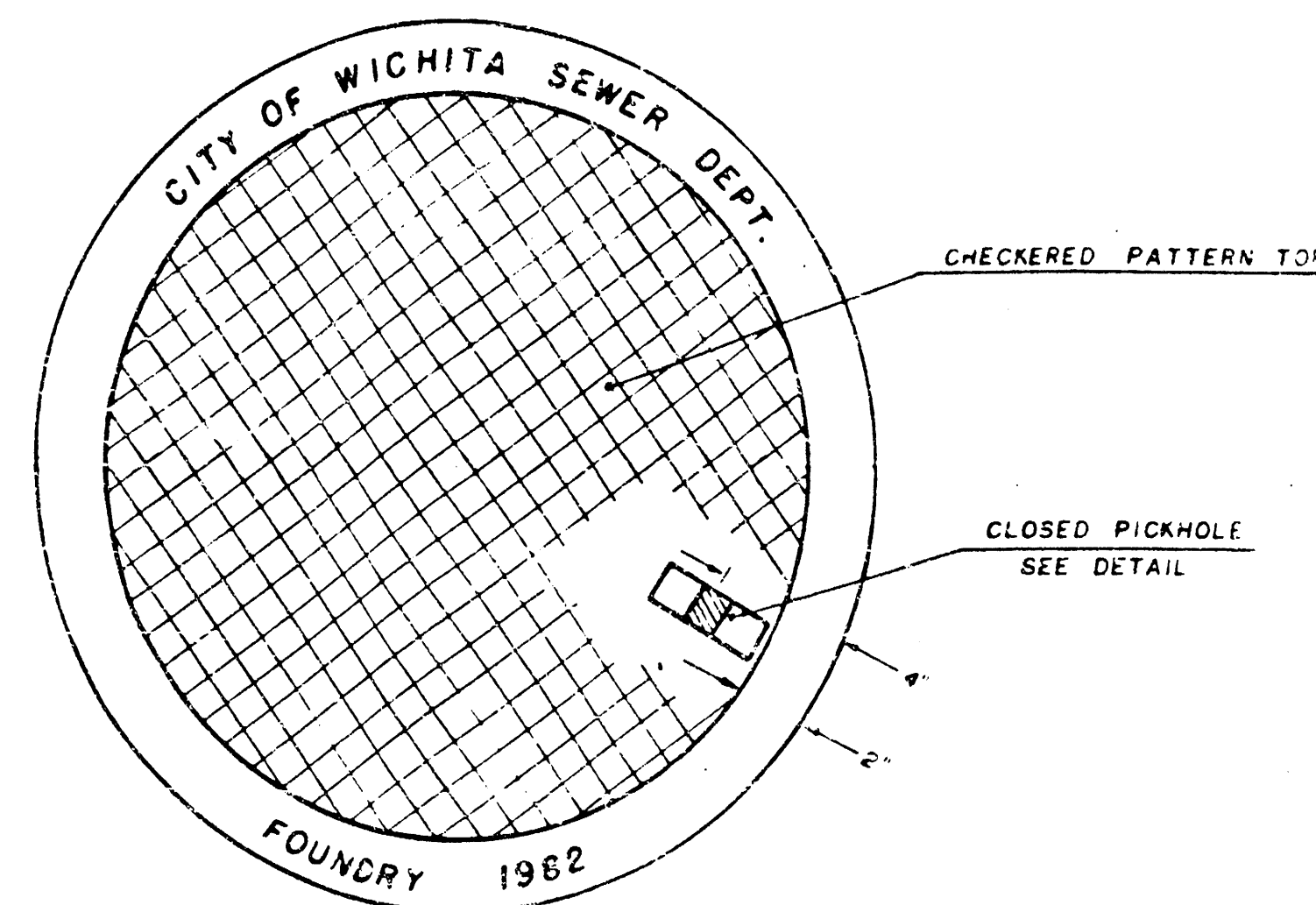
ADOPTED AS STANDARD DESIGN

BY

City of Wichita, Kansas

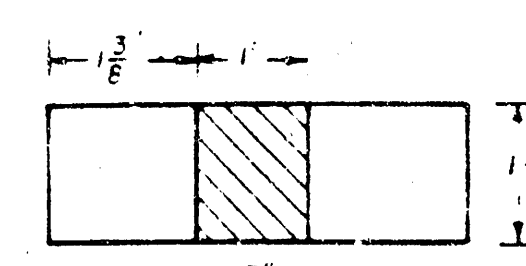
MANHOLE COVER

Weight: 180 Lbs.

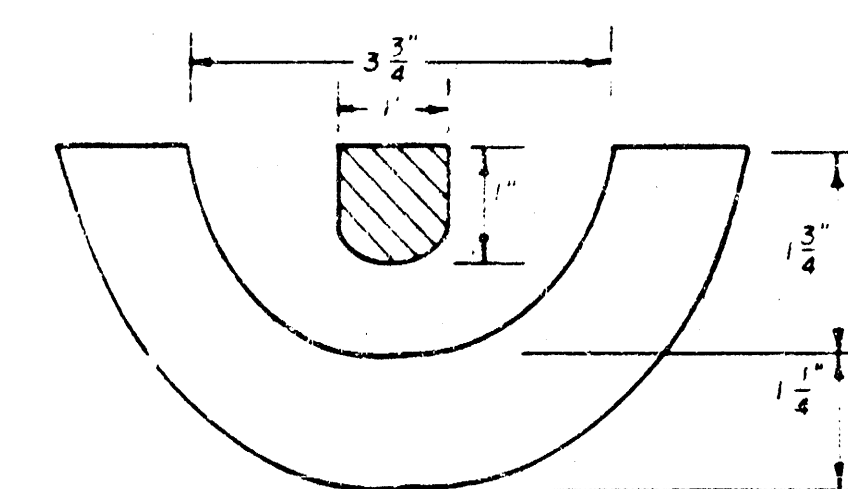


TOP VIEW

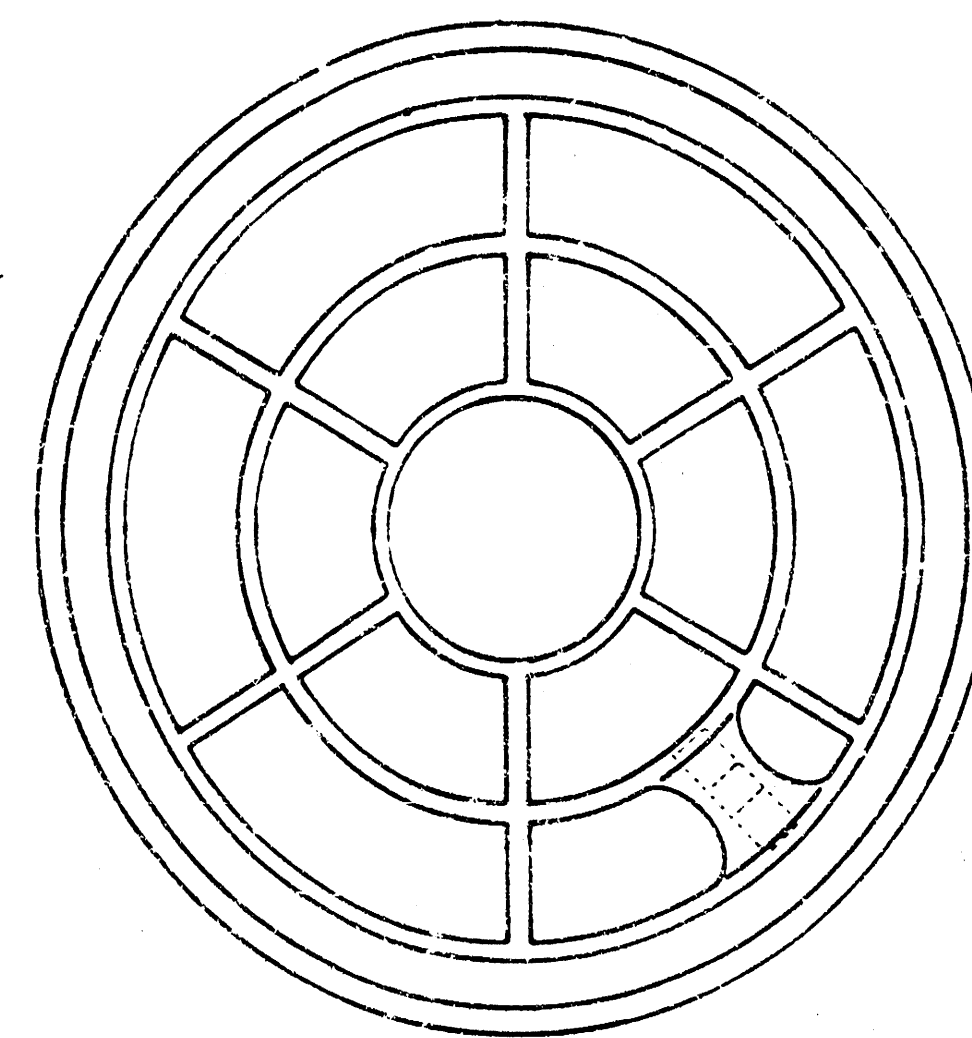
PICKHOLE DETAIL



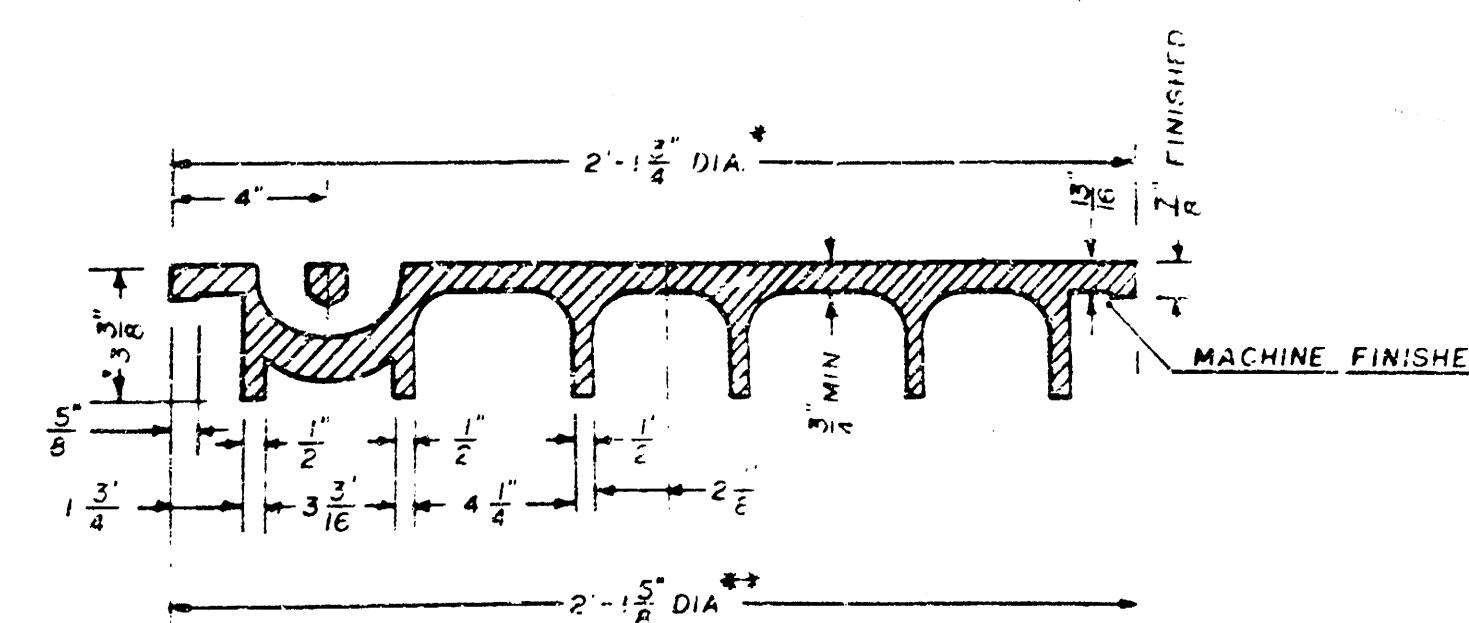
TOP VIEW



SECTION VIEW



BOTTOM VIEW

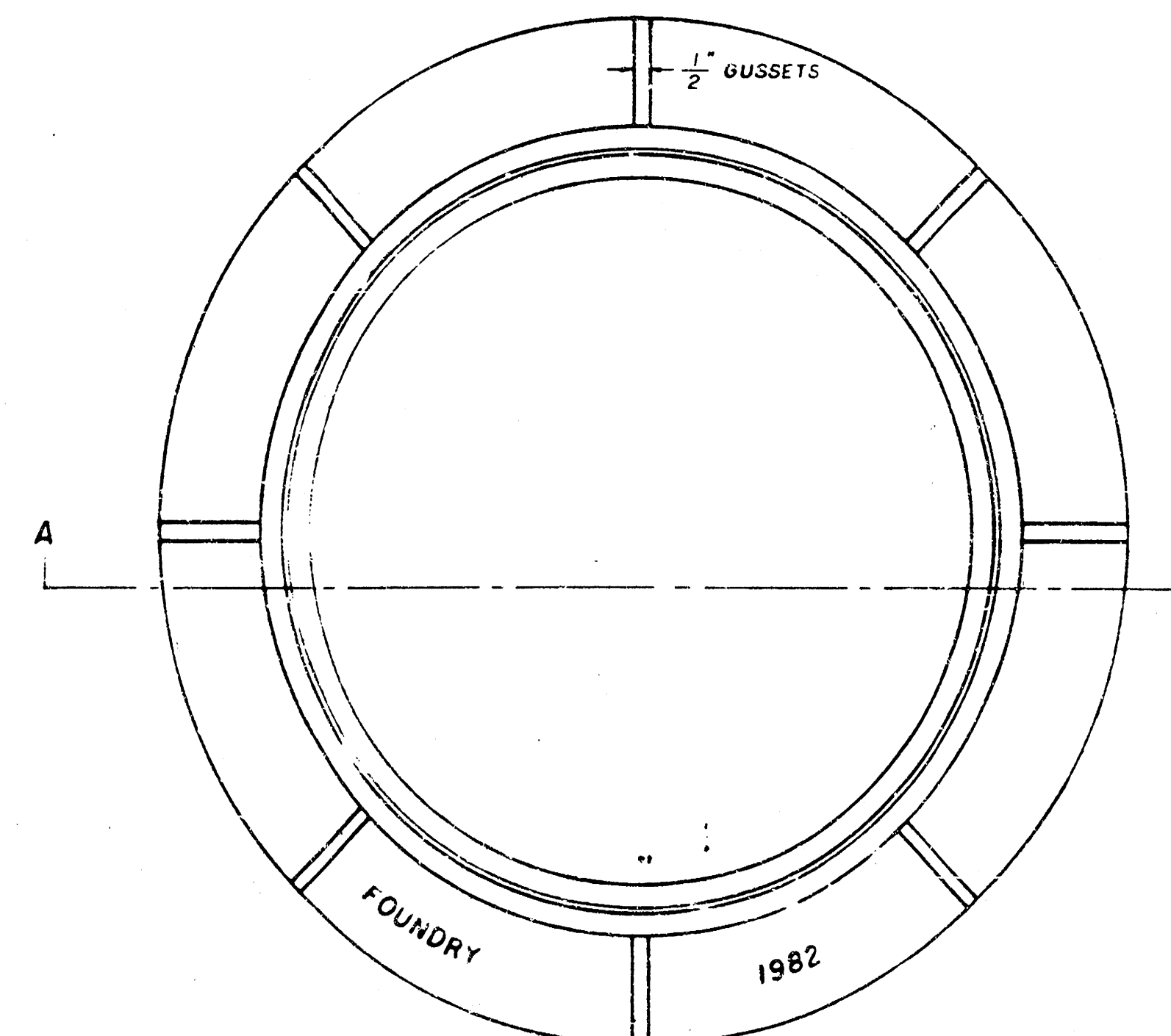


SECTION VIEW

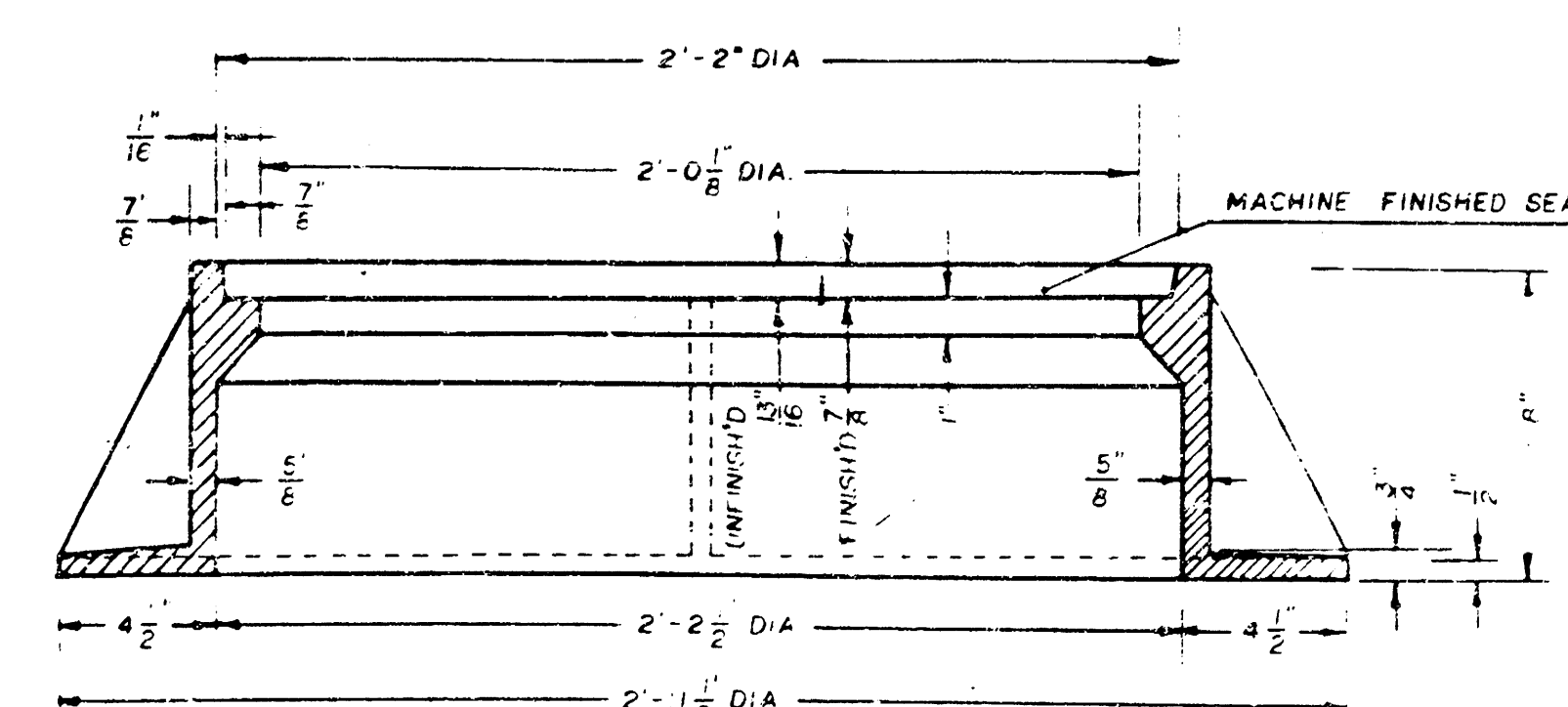
* OUTSIDE DIA. TOP OF COVER
** OUTSIDE DIA. BOTTOM OF COVER

MANHOLE FRAME

Weight: 240 Lbs.



TOP VIEW

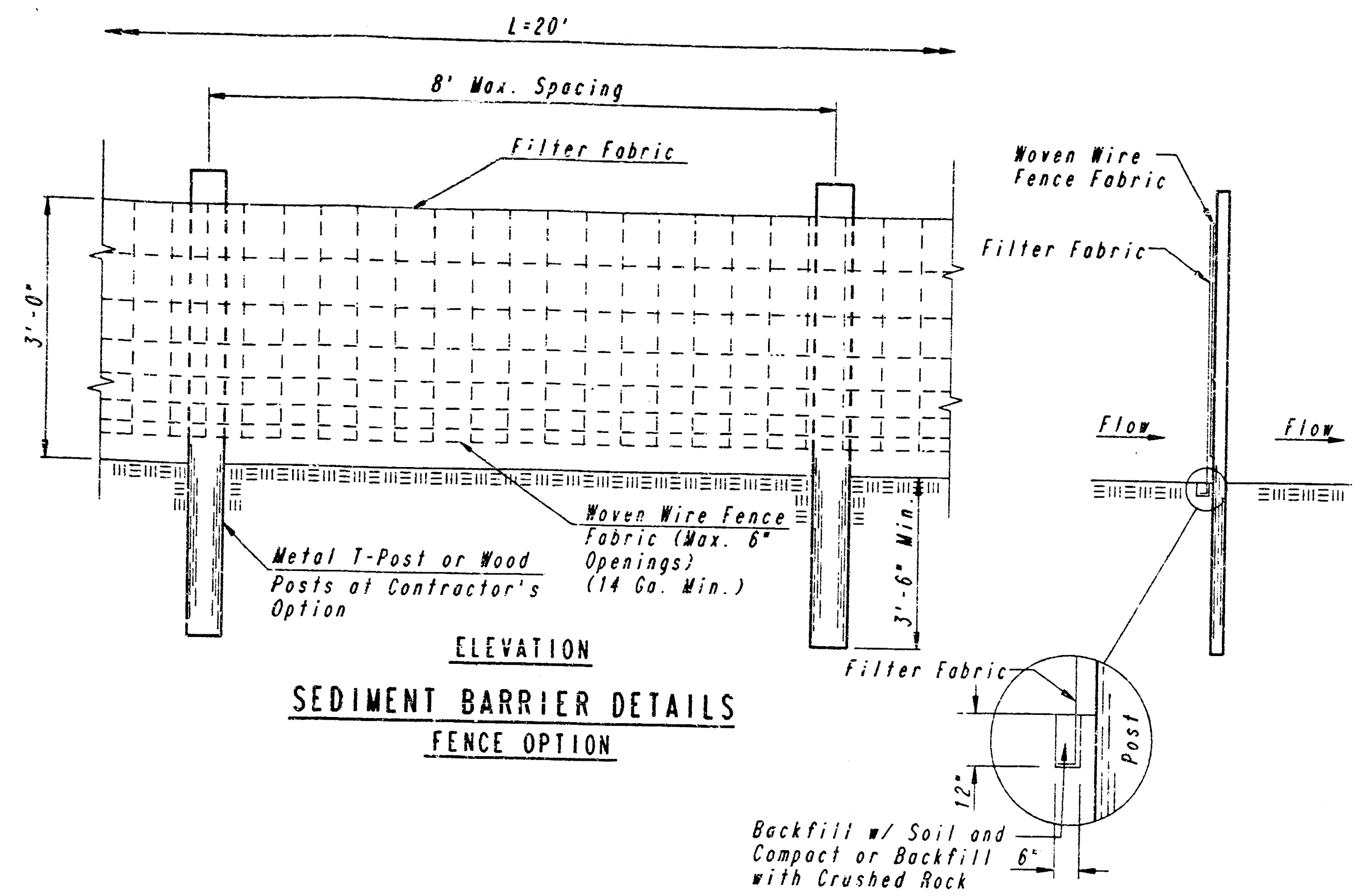


SECTION A-A

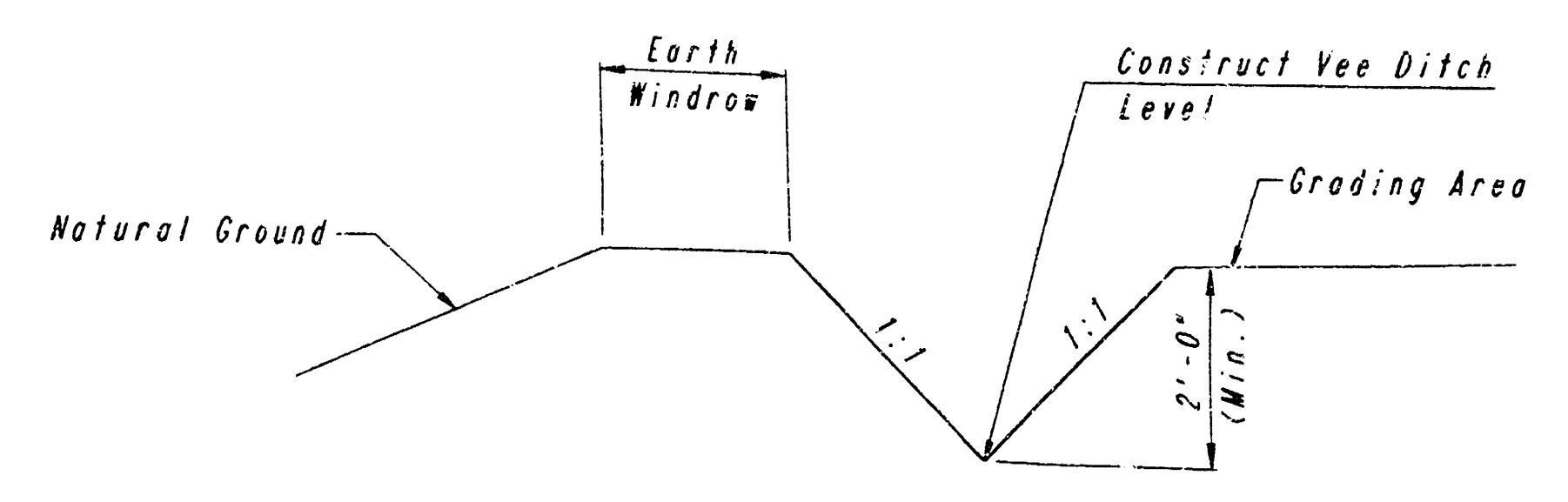
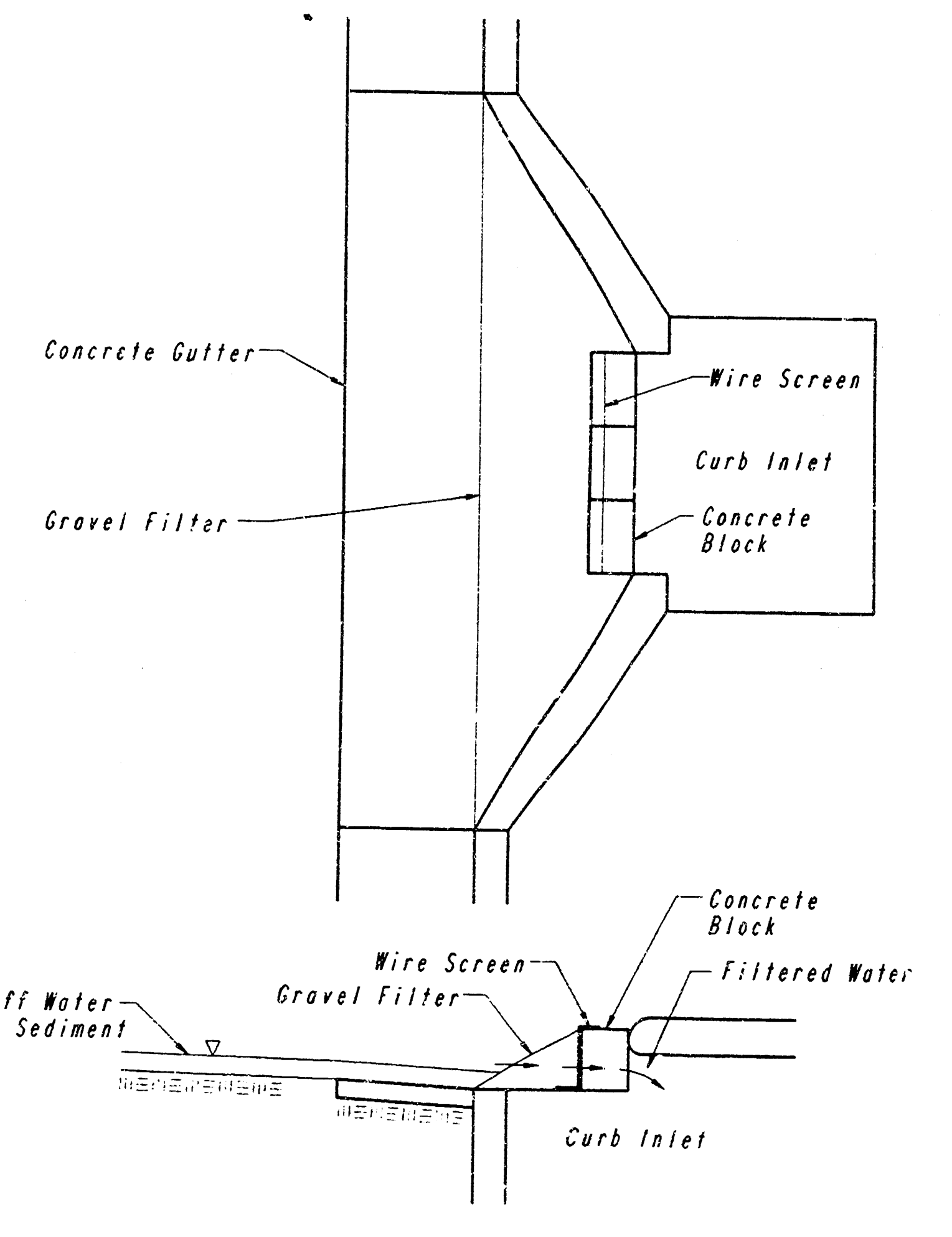
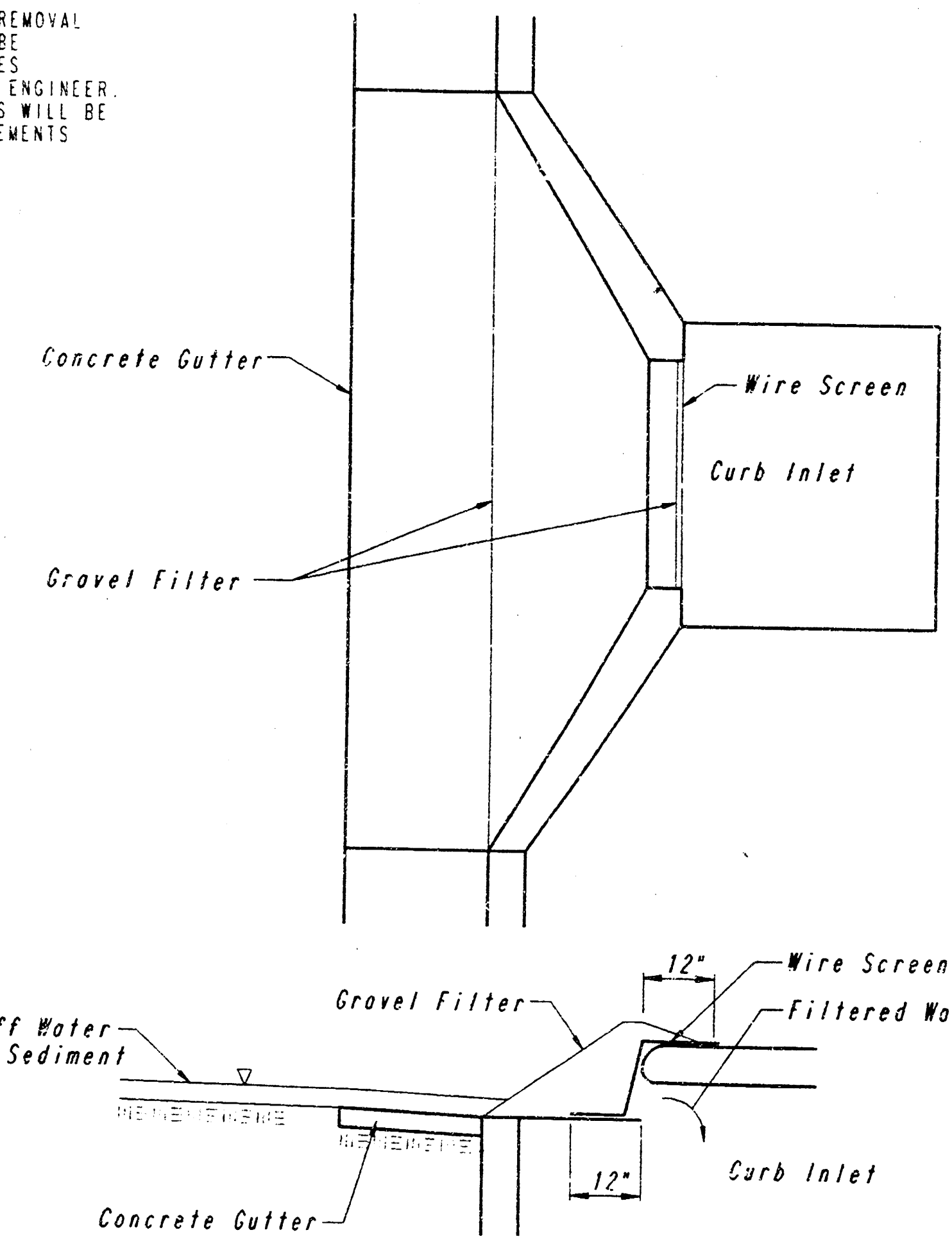
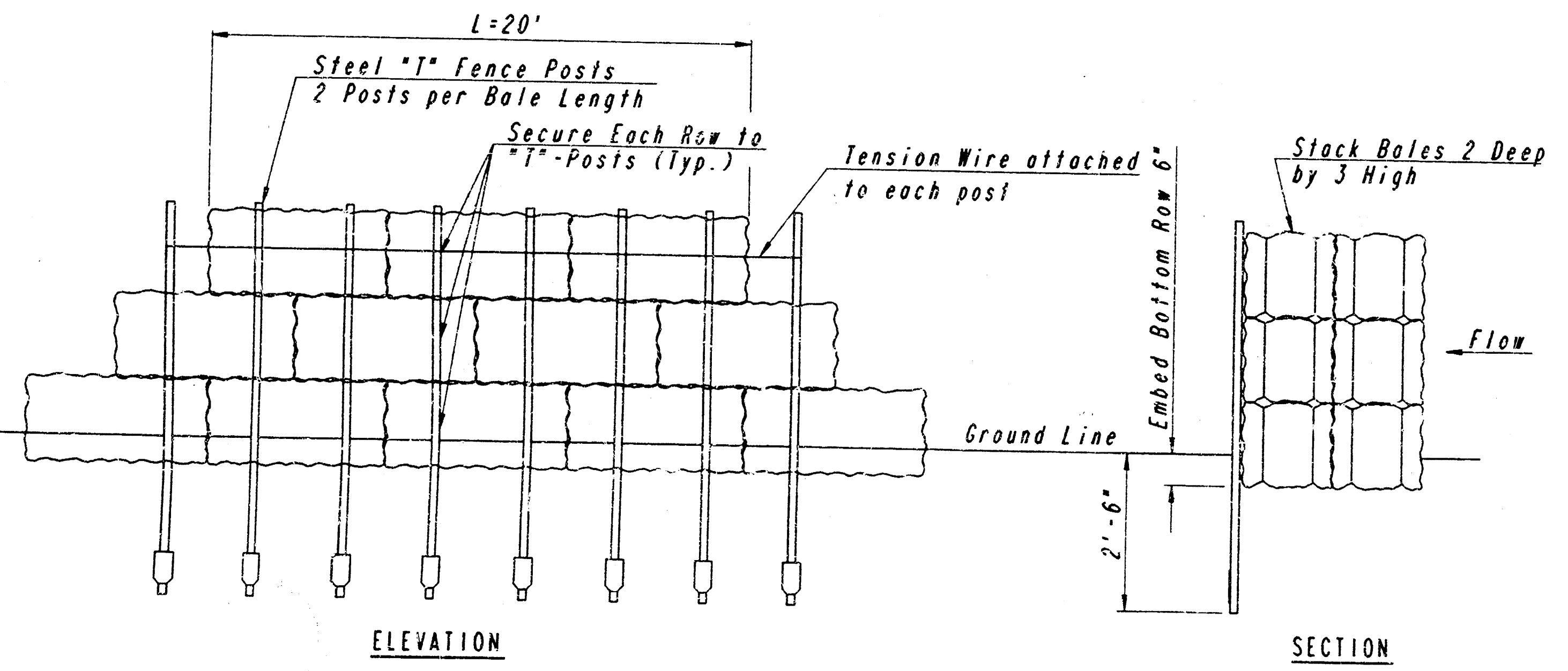
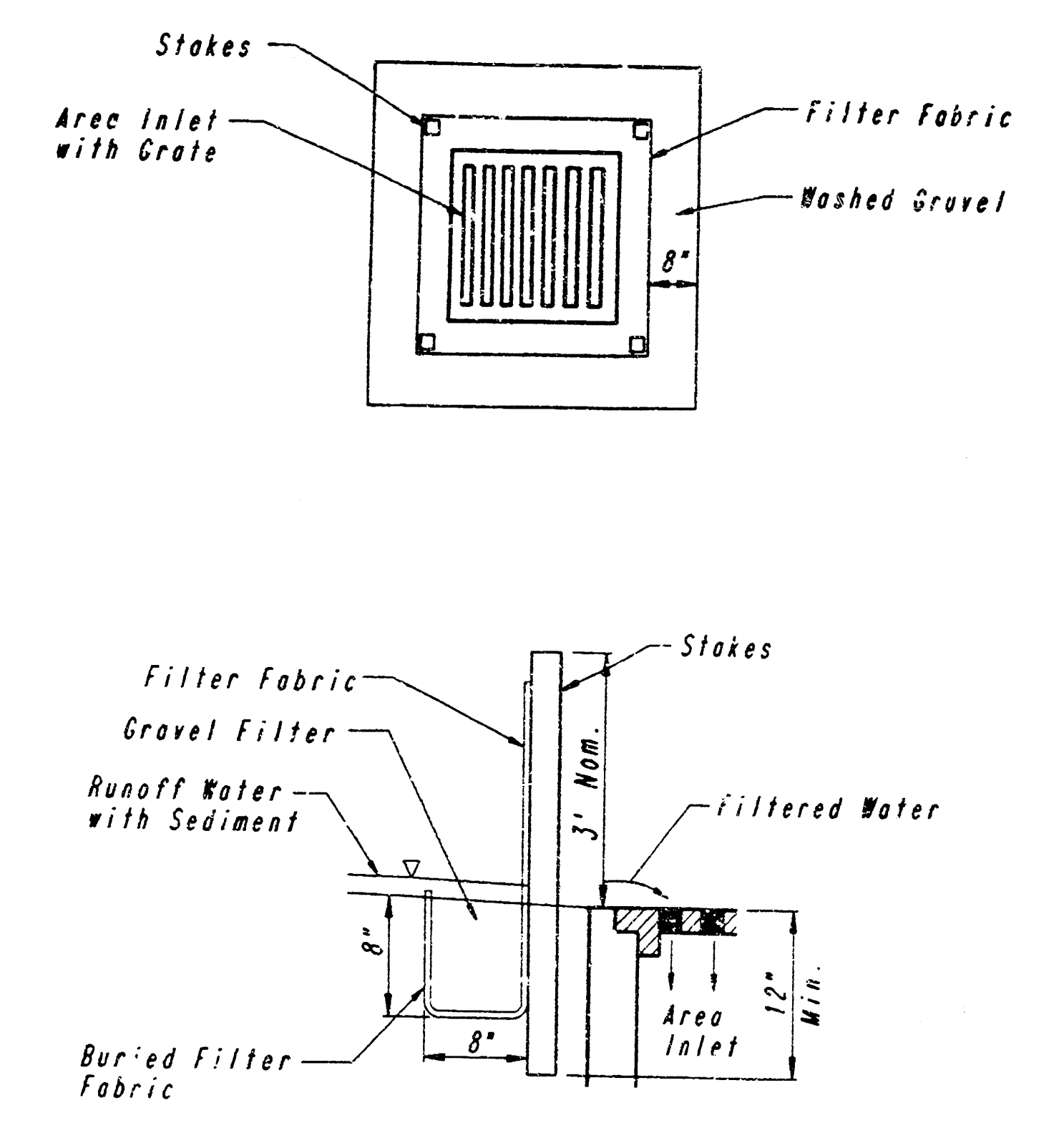
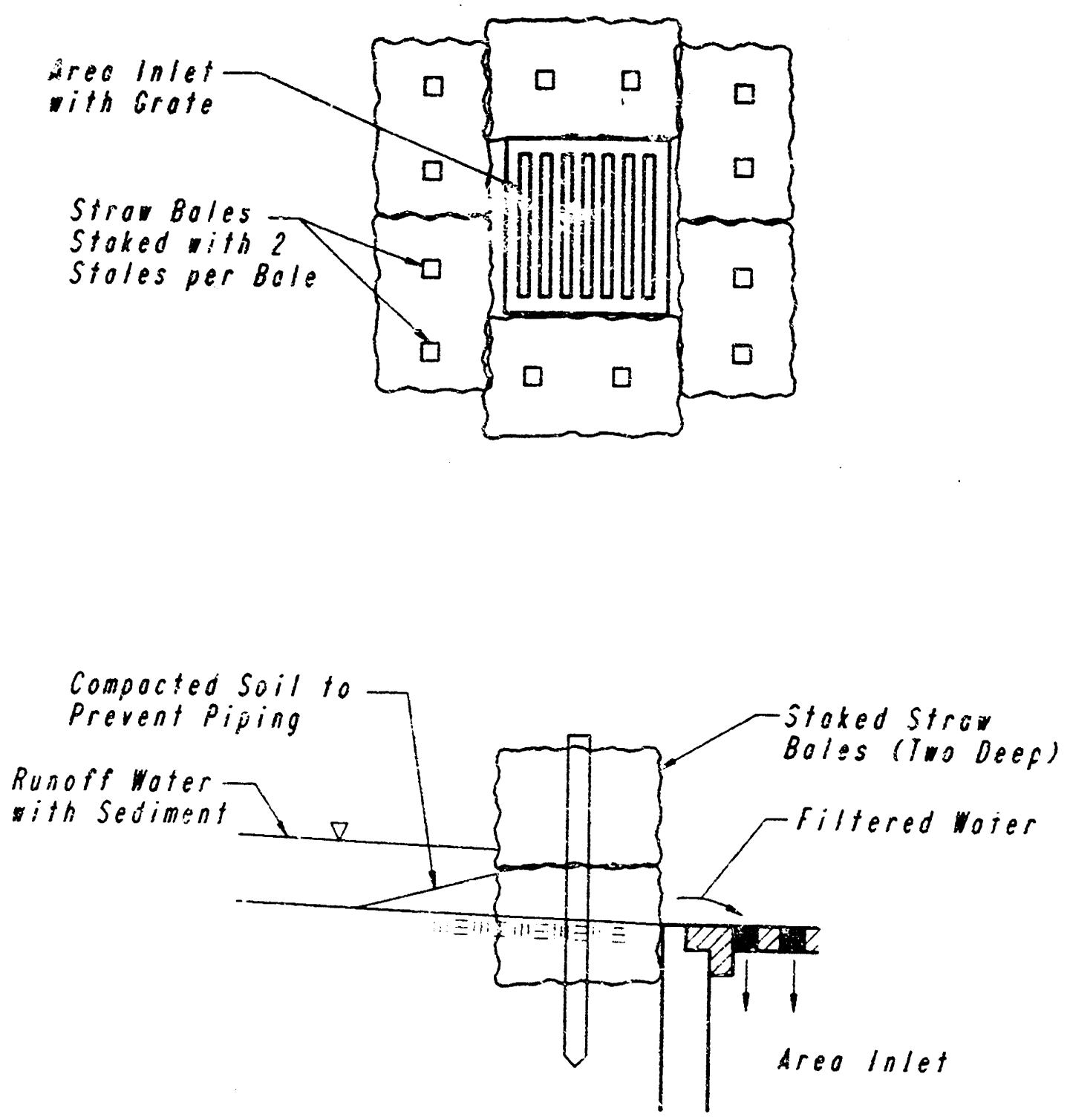
GENERAL NOTES

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 SURFACE 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.

REVISED MAY 1993



- GENERAL NOTES**
1. 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 1, BLOCK 1, LAKESIDE PARK ADDITION.
 2. SEDIMENT BARRIERS SHALL BE INSTALLED AT LOCATIONS SHOWN ON THE PLANS.
 3. 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.
 4. FILTER FABRIC FOR FENCE OPTION SEDIMENT BARRIERS SHALL BE RESISTANT TO ULTRAVIOLET LIGHT. MATERIALS MAY BE SUPPLIED BY THE FOLLOWING MANUFACTURERS:
 WIRAFI, INC. - 100Y
 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 RING RINGS PRIOR TO ATTACHMENT OF FENCE/FABRIC COMBINATION ONTO THE POSTS.
 5. BALES USED MAY BE EITHER HAY OR STRAW, PROVIDED THEY ARE SOUND AND INTACT.
 6. INLET PROTECTION METHOD MAY BE ANY OF THE APPLICABLE TYPES SHOWN, AT THE CONTRACTOR'S OPTION.
 7. 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.
 8. 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.
 9. 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**

RITCHIE CORPORATE OFFICE
PROFESSIONAL ENGINEERING CONSULTANTS, P
ENGINEERS
WICHITA, KANSAS 67202-1093

Designed by: DRC
Checked by: DEP
Date: MAY, 1994
Job No.: 93

PLAN
DATE: _____
NO. _____
NOTE BOOK ALIGNMENT CHECKED
DATE: _____
BY: _____
DATE: _____

DATE: _____
BY: _____
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