

CITY OF WICHITA, KANSAS
MICHAEL E. LINDEBAK, P.E., CITY ENGINEER

SHEET NO.	TOTAL SHEETS
1	11

STORM WATER SEWER NO. 304

IN
FAIRFIELD ESTATES AND FAIRFIELD ESTATES 2ND ADDITIONS

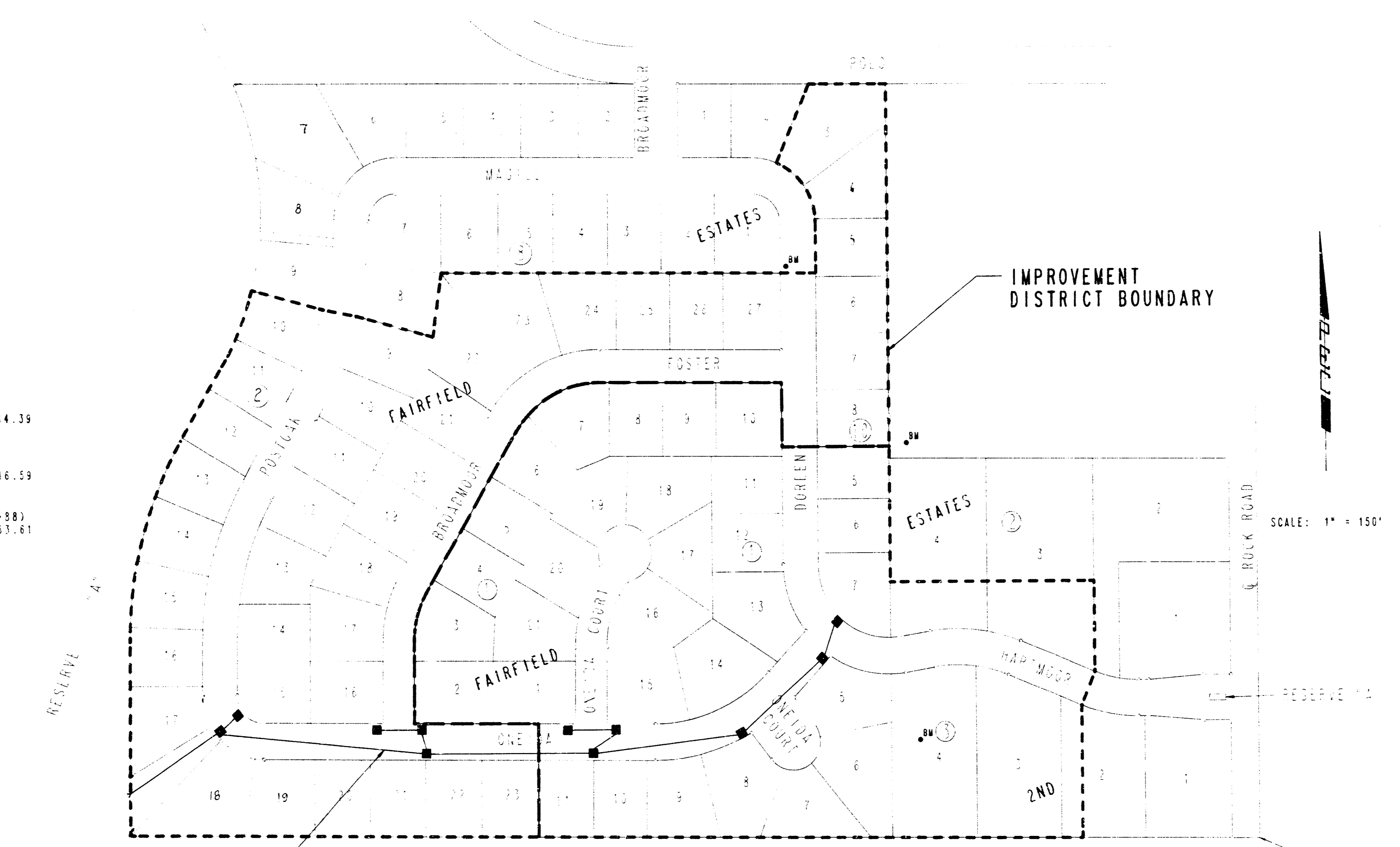
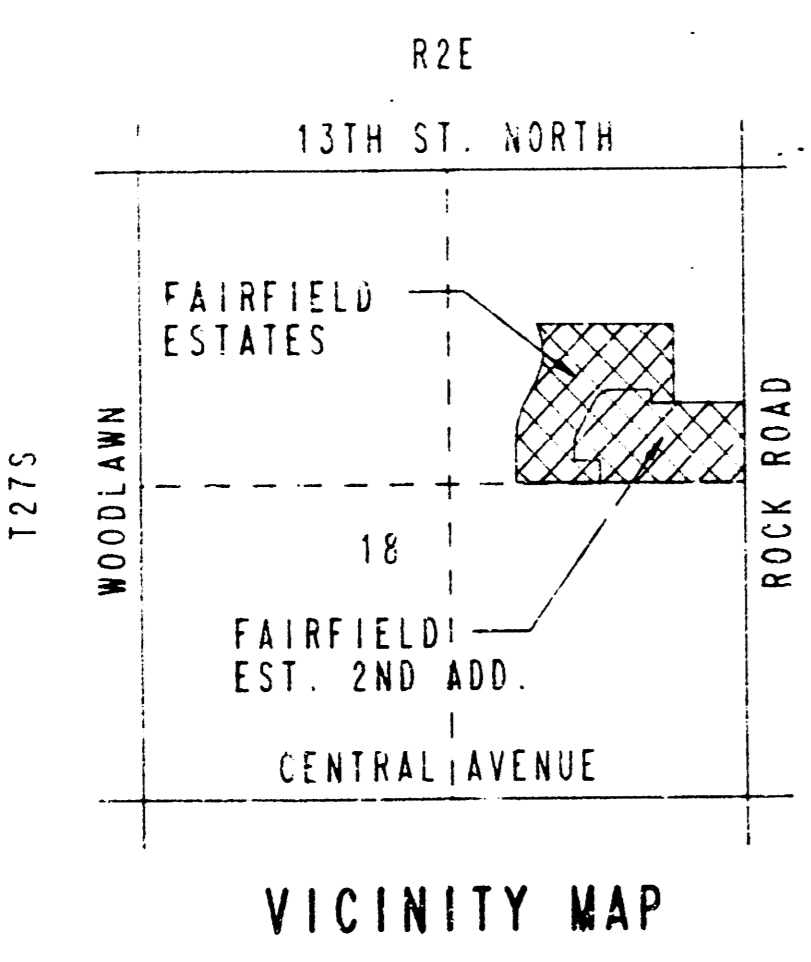
CITY OF WICHITA PROJECT NO. 468-76-245-81537-000-000-001
INDEX NO. 600874

INDEX OF SHEETS

- TITLE SHEET
- PLAN
- PLAN/PROFILE
- STD. TYPE 1A CURB INLET DETAILS (11'-4")
- STD. TYPE 1A CURB INLET DETAILS (6'-4")
- STD. MANHOLE RING AND COVER DETAILS

PROJECT SURVEY CONTROL

CITY OF WICHITA DATUM
 BENCH MARK: R.R. SPIKE IN 42" E.L.W. 1.0' ABOVE GROUND, LOCATED IN LOT 4, BLOCK 3 FAIRFIELD ESTATES 2ND ADDITION ELEV. +184.39
 BENCH MARK: L.R. SPIKE IN 38" E.L.W. EAST OF THE SE CORNER OF LOT 8, BLOCK 2 FAIRFIELD ESTATES 2ND ADDITION ELEV. +186.59
 BENCH MARK: CHISELED "A" ON TOP OF CURB W. SIDE DOREEN ST. APPROX. 2.0' N. OF S. END OF CURB (STREET STA. 48+98) ELEV. +183.81



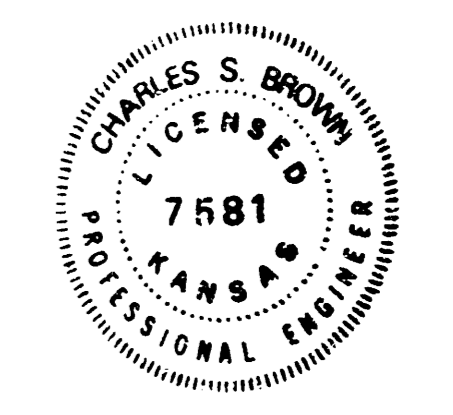
- ### GENERAL NOTES
- UNDERGROUND UTILITY SERVICE LINES AND OVERHEAD UTILITY POLE LINES ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.
 - RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES AND EXCESS EXCAVATION WHICH IS TO BE WASTED SHALL BE DISPOSED OF ON SITES TO BE PROVIDED BY THE CONTRACTOR. THESE SITES SHALL BE APPROVED BY THE ENGINEER AS TO SUITABILITY, APPEARANCE AND SITE LOCATION. LOCATIONS THAT, IN THE OPINION OF THE ENGINEER, WILL LEAVE AN UNSIGHTLY APPEARANCE WILL NOT BE APPROVED.
 - CONTRACTOR SHALL SATISFY HIMSELF OF SUBSURFACE CONDITIONS PRIOR TO CONSTRUCTION.
 - TREES AND SHRUBS IN PUBLIC RIGHT-OF-WAY WHICH ARE IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE REMOVED BY THE CONTRACTOR WITH THE ENGINEER'S APPROVAL. TREES AND SHRUBS WHICH ARE NOT IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE SAVED AND PROTECTED FROM DAMAGE.
 - THE CONTRACTOR SHALL GIVE ALL PROPERTY OWNERS AND/OR TENANTS OF DEVELOPED PROPERTY DIRECTLY ADJUTING THE CONSTRUCTION OF THIS PROJECT A MINIMUM OF TEN (10) DAYS ADVANCE NOTICE PRIOR TO START OF CONSTRUCTION.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR WILL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS SUCH IRONS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR OR A LICENSED PROFESSIONAL ENGINEER IN ACCORDANCE WITH STATE LAWS.
 - CONTRACTOR WILL BE REQUIRED TO PROVIDE A MINIMUM ADVANCE NOTICE OF TWENTY-FOUR (24) HOURS TO UTILITY COMPANIES PRIOR TO STARTING ANY EXCAVATION AS FOLLOWS:

SOUTHWESTERN BELL TELEPHONE COMPANY	1-316-571-2611
CABLEVISION	262-4270 OR 263-2061
KPL GAS SERVICE	263-7511
KANSAS GAS & ELECTRIC	264-1141
CITY OF WICHITA WATER DEPARTMENT	268-4908
CITY OF WICHITA SEWER DEPARTMENT	268-4071
ARKIA GAS COMPANY	942-8350 OR 263-8161
 - THE CONTRACTOR SHOULD BE AWARE THAT DUE TO THE PREVIOUS USE OF PROPERTY WITHIN THE LIMITS OF THIS SUBDIVISION, ACTIVE AND INACTIVE UTILITY SERVICE LINES MAY BE ENCOUNTERED DURING TRENCHING OPERATIONS. THE CONTRACTOR SHOULD BE PARTICULARLY CAREFUL IN THE AREA SURROUNDING THE EXISTING HOUSE IN LOT 3, BLOCK 2 OF FAIRFIELD ESTATES 2ND ADDITION. ANY ACTIVE UTILITY SERVICE LINES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED IMMEDIATELY BY THE CONTRACTOR. ANY INACTIVE UTILITY SERVICE LINES SHALL BE REPAIRED BY CONTRACTOR AS DIRECTED BY THE SUBDIVISION DEVELOPER. ALL COSTS INCURRED FOR WORK INVOLVING EXISTING UTILITY SERVICE LINES SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
 - ALL AREAS WITHIN RESERVE "A", FAIRFIELD ESTATES WHICH ARE DISTURBED BY S.W.S. AND OVERFLOW CHANNEL CONSTRUCTION SHALL BE SEEDED, FERTILIZED, AND MULCHED PER CITY OF WICHITA SPECIFICATIONS. THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO OTHER WORK ITEMS.
 - THE OPENING OF ALL CURB INLETS LOCATED WITHIN FUTURE PAVEMENT LIMITS SHALL BE PLUGGED BY BOARDS, PLANKS OR OTHER APPROVED METHODS TO PREVENT SOIL FROM ENTERING THE STORM WATER SEWER. THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO OTHER WORK ITEMS.

SCALE: 1" = 150'

APRIL, 1988
 PLANS PREPARED BY
 PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
 ENGINEERS
 WICHITA, KANSAS

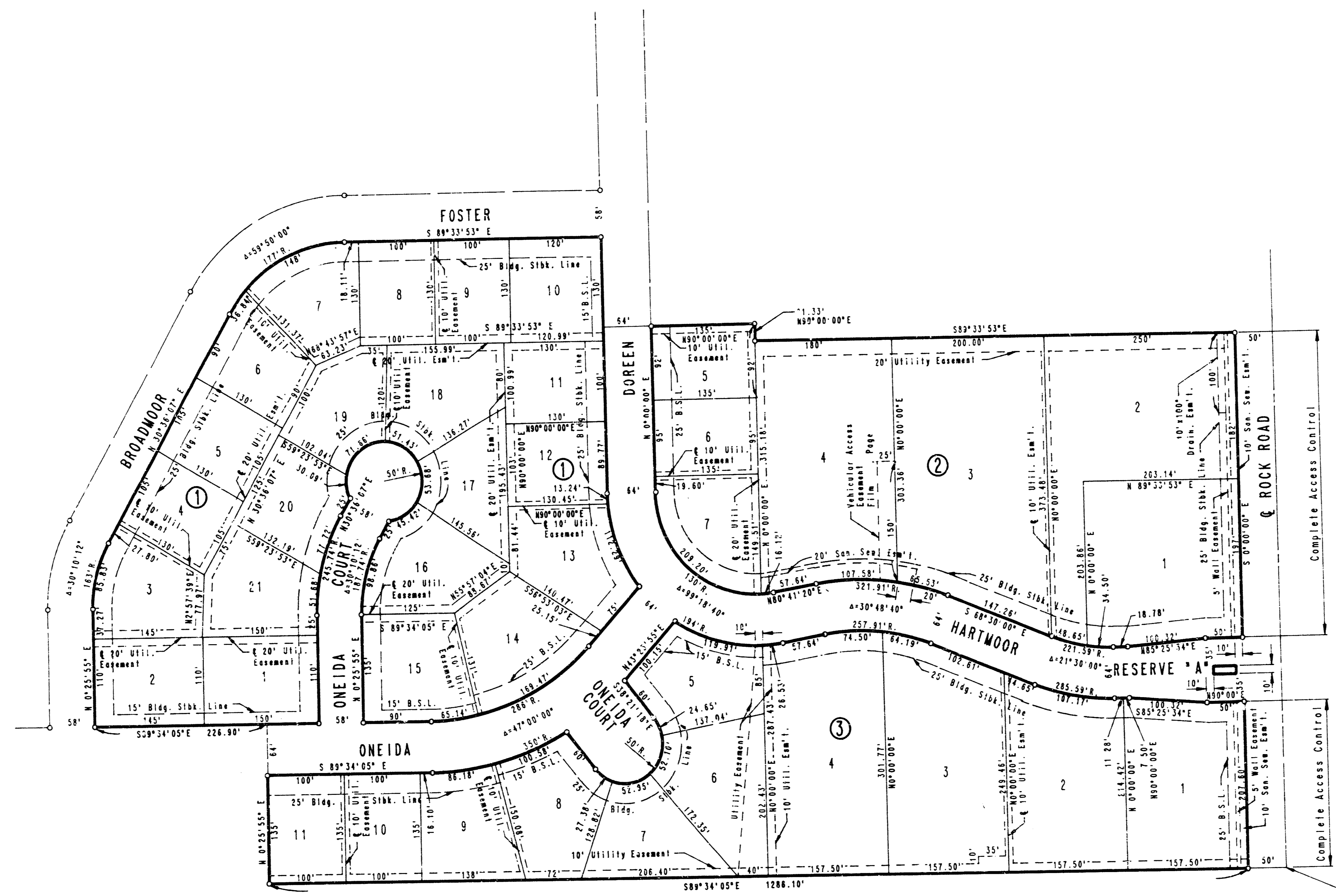
BOOKED
12/88
MCG



FAIRFIELD ESTATES 2ND ADDITION

AN ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS

PROJECT NO. 472-76-245-81537-000-000-001	SHEET NO. 2	TOTAL SHEETS 11
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SCALE: 1" = 100'
 ○ = IRON SET
 B.S.L. = BUILDING SETBACK LINE
 B.M. - CHISELED "0" S. END CURB RETURN
 WEST SIDE ROCK RD. AT E. 1/4 COR.
 SEC. 18, T21S, R2E.
 ELEV. = 179.18 CITY DATUM

S.E. Cor. N.E. 1/4
Sec. 18, T21S, R2E
of the 61N P.M.

FAIRFIELD ESTATES 2ND ADDITION

PLAT

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.

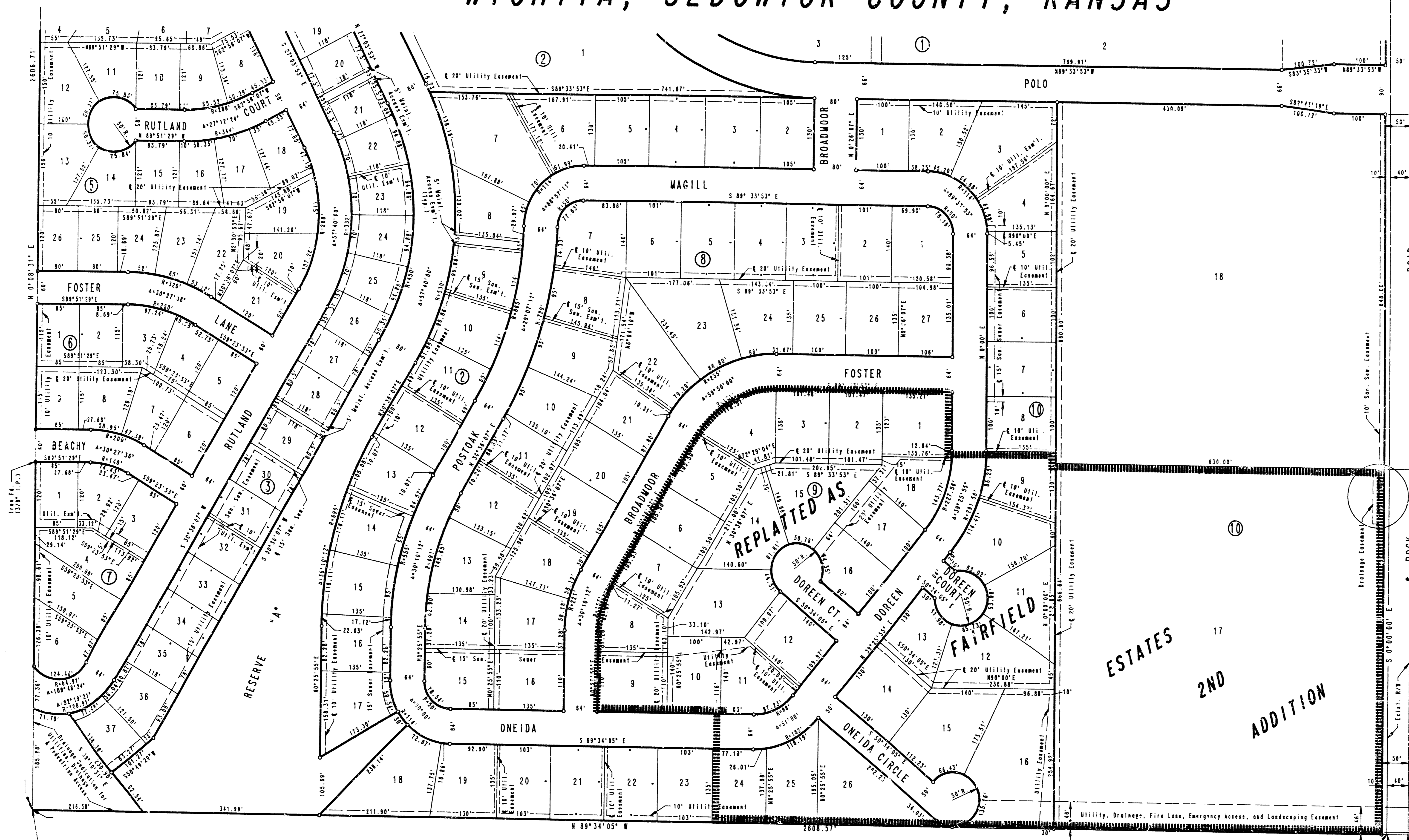
ENGINEERS
WICHITA, KANSAS

Designed by	Checked by
Drawn by DEP	Date MAR., 1988 Job No. 87615-1

FAIRFIELD ESTATES

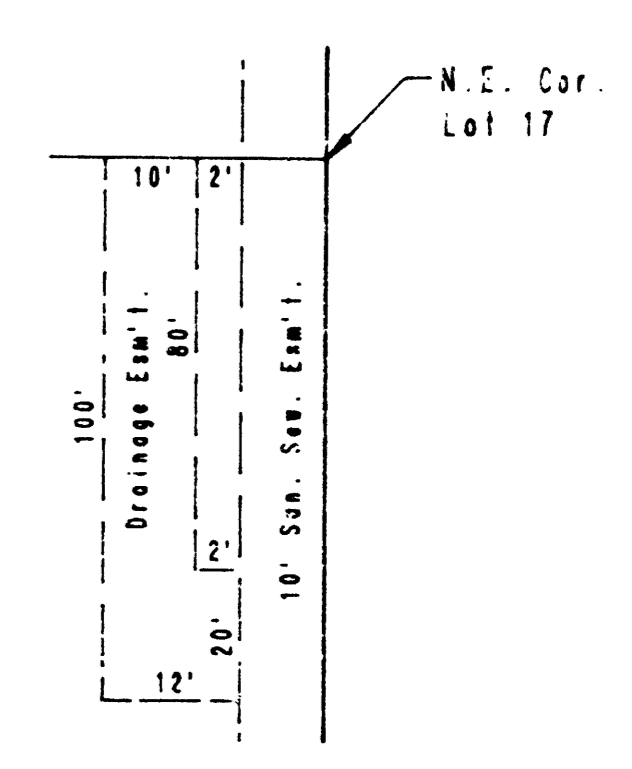
WICHITA, SEDGWICK COUNTY, KANSAS

PROJECT NO.	SHEET NO.	TOTAL SHEETS
472-76-245-81537-000-001	3	11



SCALE: 1" = 100'
 C.A.C. = COMPLETE ACCESS CONTROL
 SEE SHEET NO. 1 FOR BENCH MARK

BUILDING SETBACKS AS PER THE REQUIREMENTS OF THE FAIRFIELD COMMERCIAL C.U.P. (DP-144), FAIRFIELD RESIDENTIAL C.U.P. (DP-145), AND FAIRFIELD ESTATES C.U.P. (DP-149) ON FILE WITH THE WICHITA SEDGWICK COUNTY METROPOLITAN AREA PLANNING DEPARTMENT.



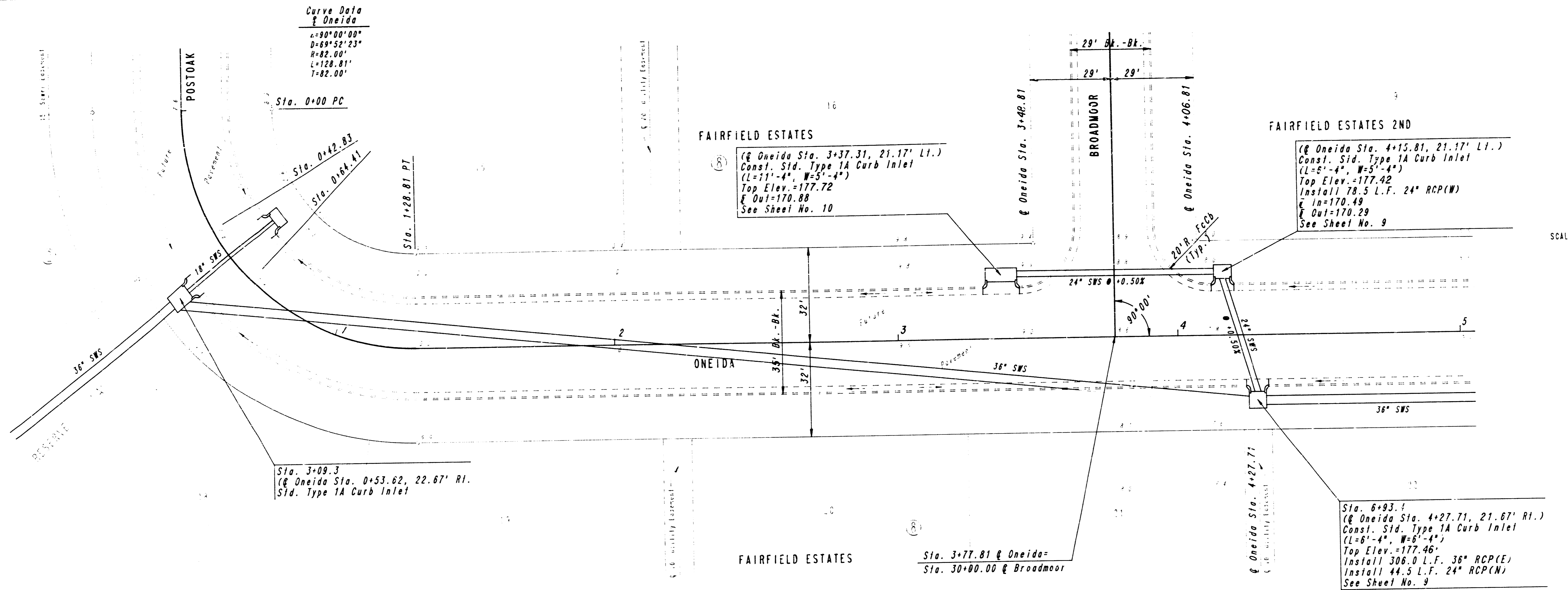
SW Cor. NE 1/4
 Sec. 18, T27S, R2E
 of the 6th P.M.

SE Cor. NE 1/4
 Sec. 18, T27S, R2E
 of the 6th P.M.

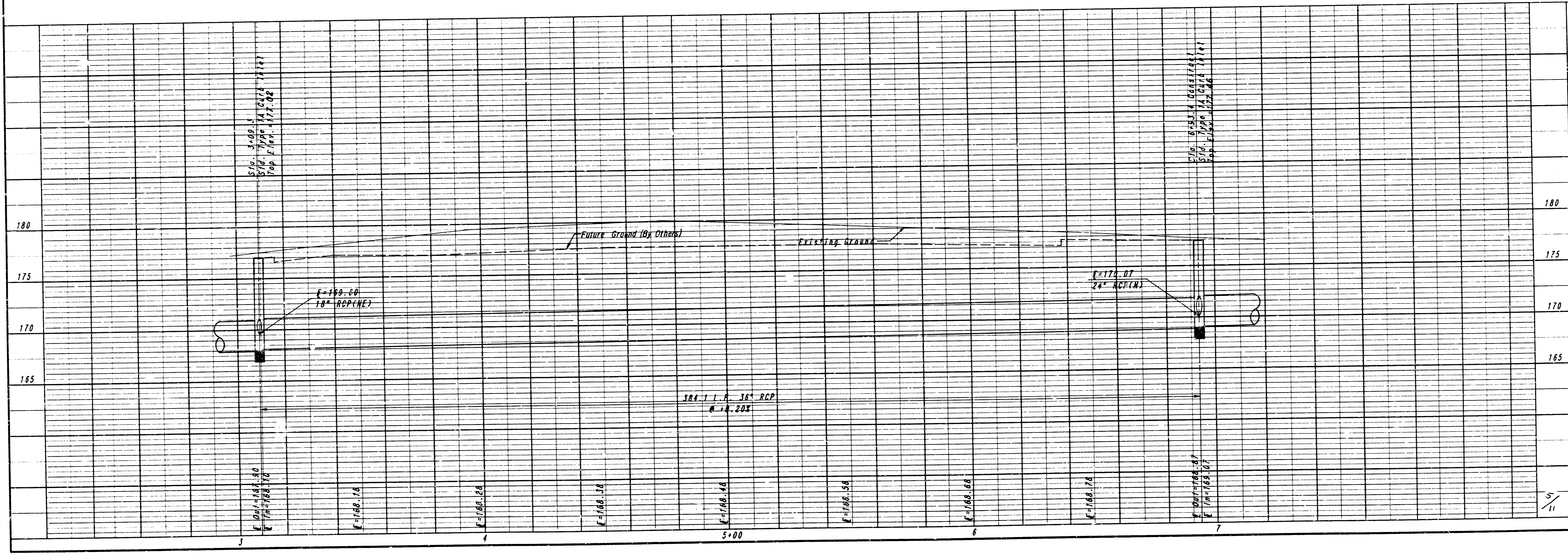
PLAT

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

Designed by	Checked by
Drawn by DEP	Date MAR., 1988 Job No. 87615-1



SCALE: 1" = 20'



STORM WATER SEWER NO. 304

S.W.S. IMPROVEMENTS

STA. 3+09.3 TO STA. 6+93.4

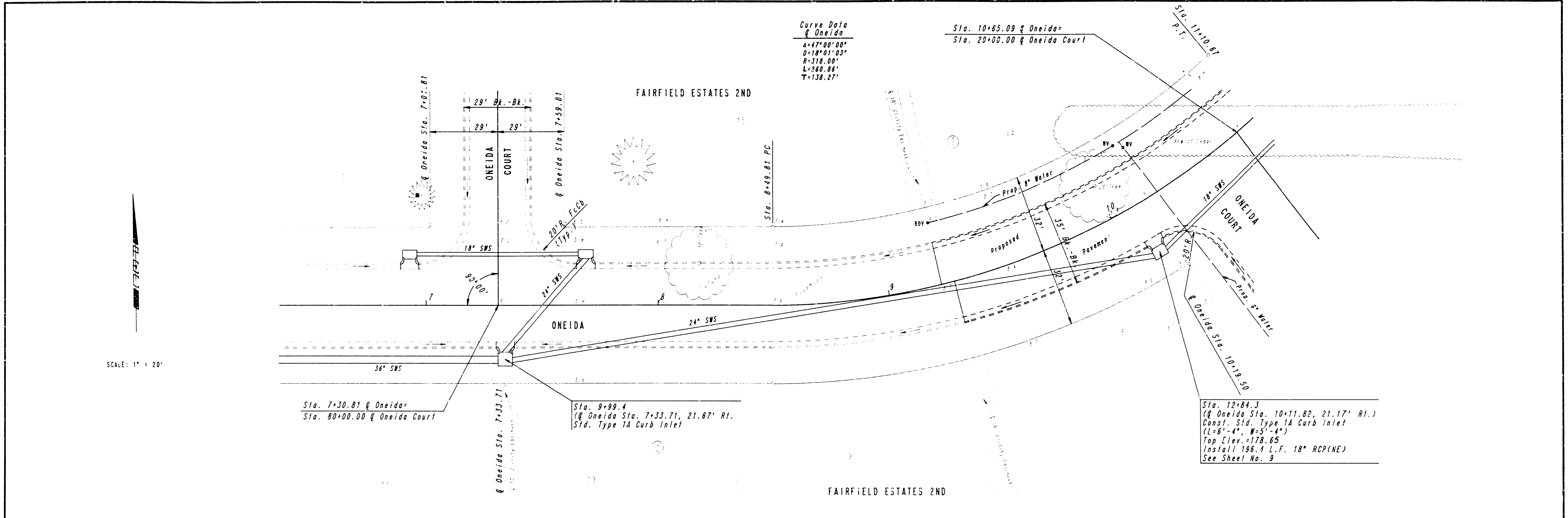
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.

ENGINEERS
WICHITA, KANSAS

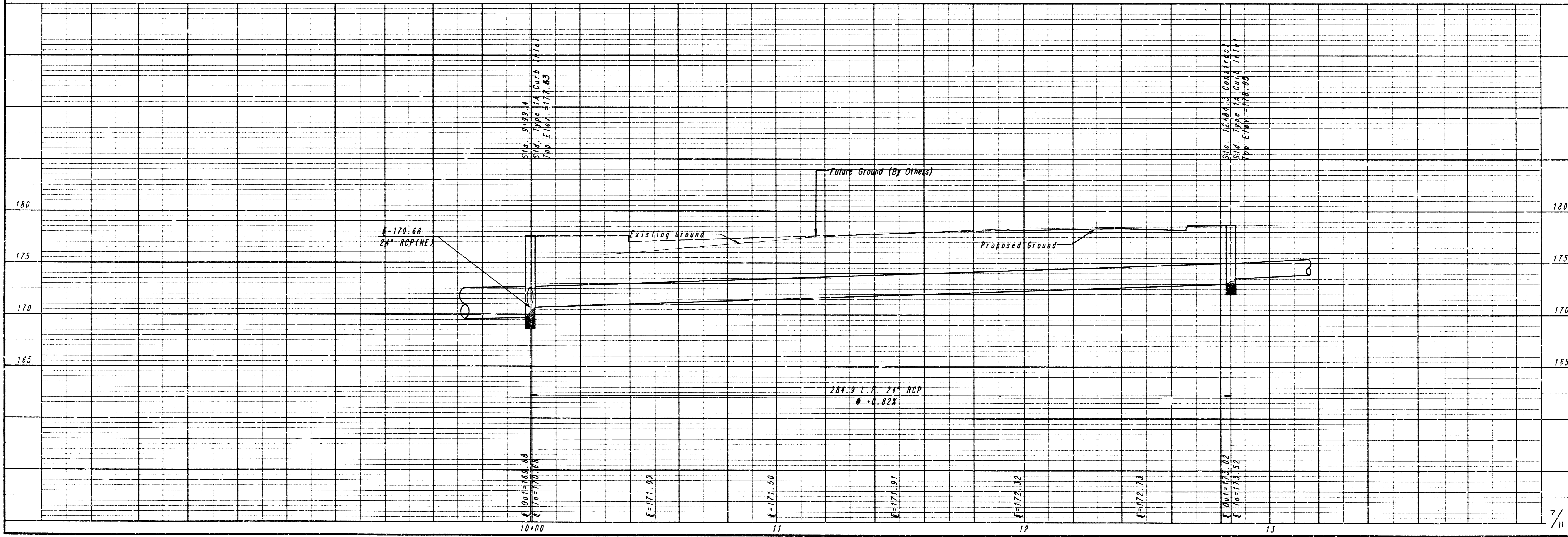
Job No. 32-87815-1
Designed By: CSB-000
Date: MAR., 1988

C.O.W. Proj. No. 488-76-215-81537-000-000-001

Sheet 5 of 11



SCALE: 1" = 20'



STORM WATER SEWER NO. 304

S.W.S. IMPROVEMENTS
STA. 9+99.4 TO STA. 12+84.3

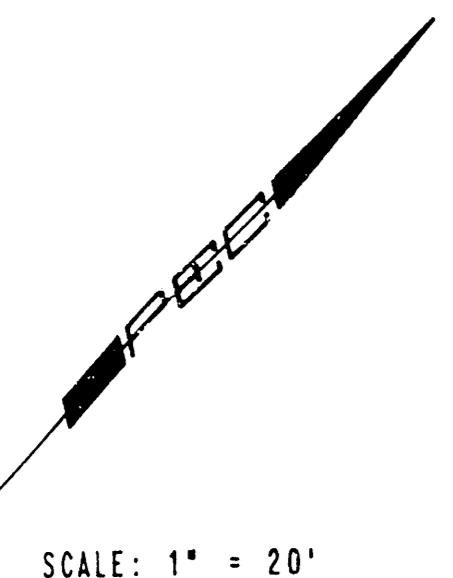
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

Designed By: GSR, BDD
Drawn By: JJP

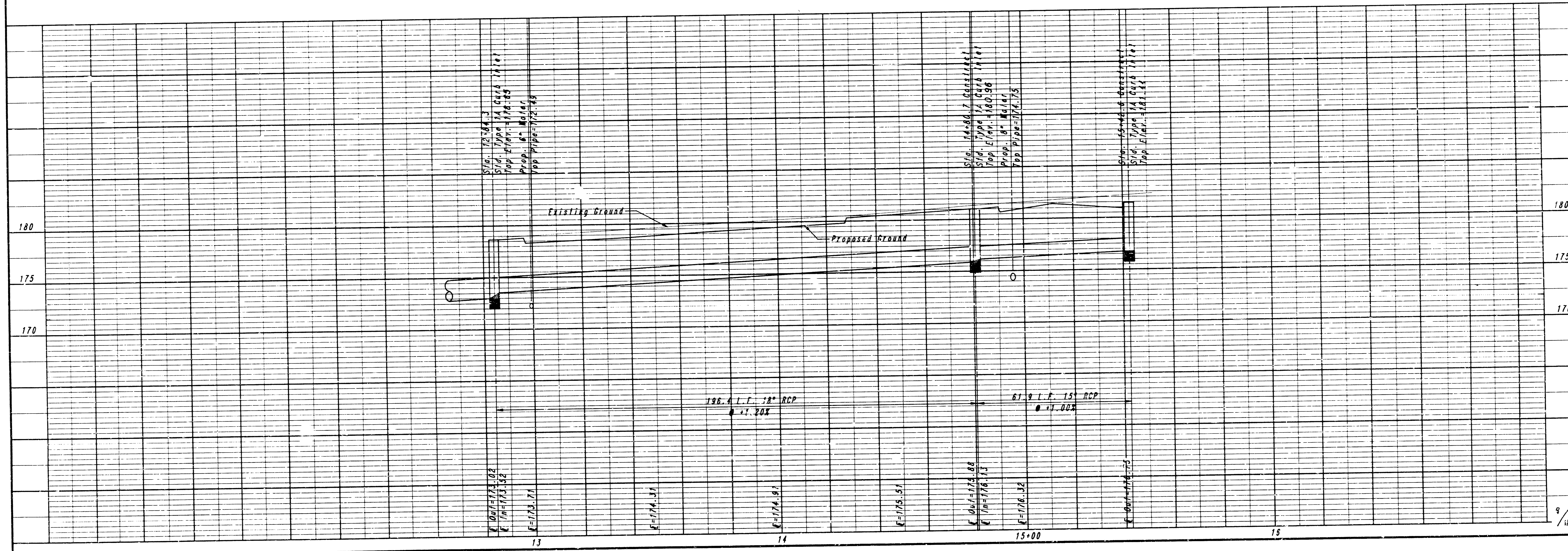
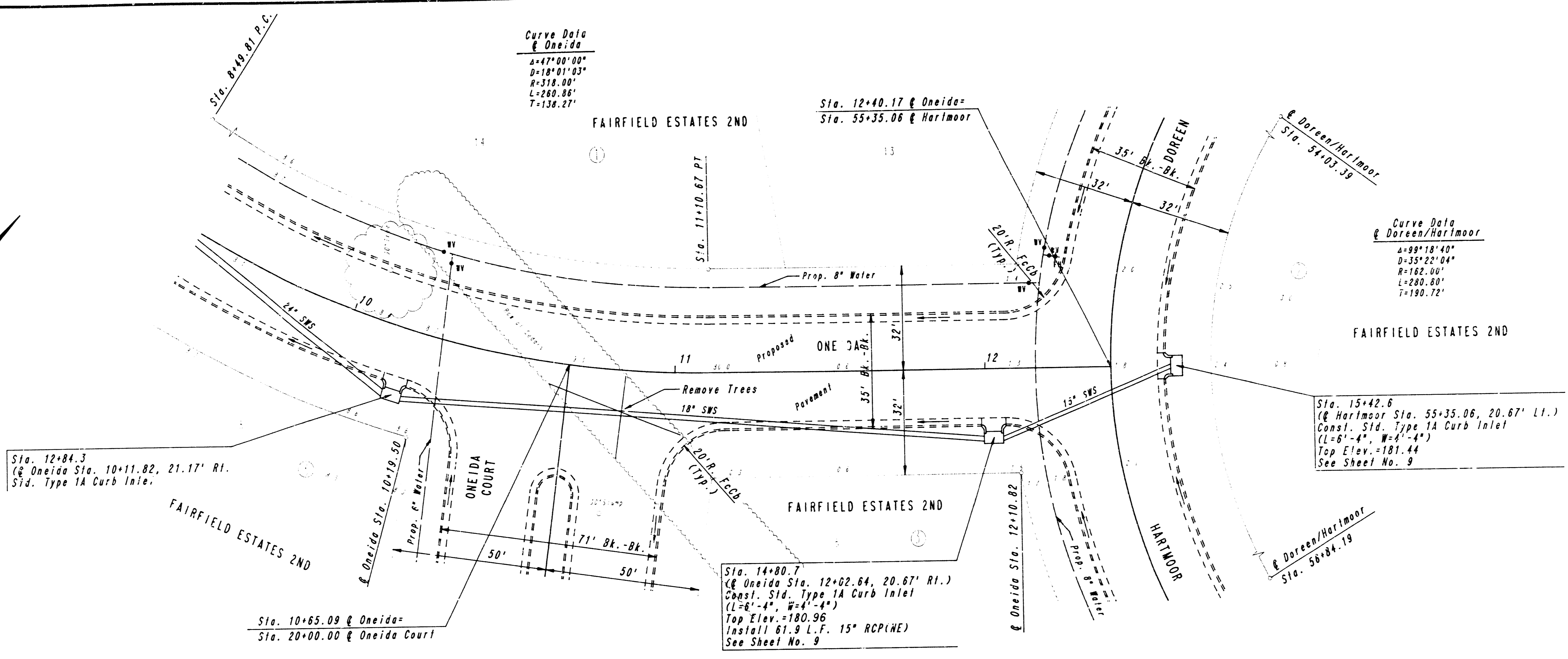
Job No. 12-87815-1
Date: MAR., 1988

C.O.W. PROJECT NO. 488-76-245-813J7-000-000-001

Sheet 7 of 11



SCALE: 1" = 20'



STONE WATER SEWER NO. 304

S.W.S. IMPROVEMENTS
STA. 12+84.3 TO STA. 15+42.6

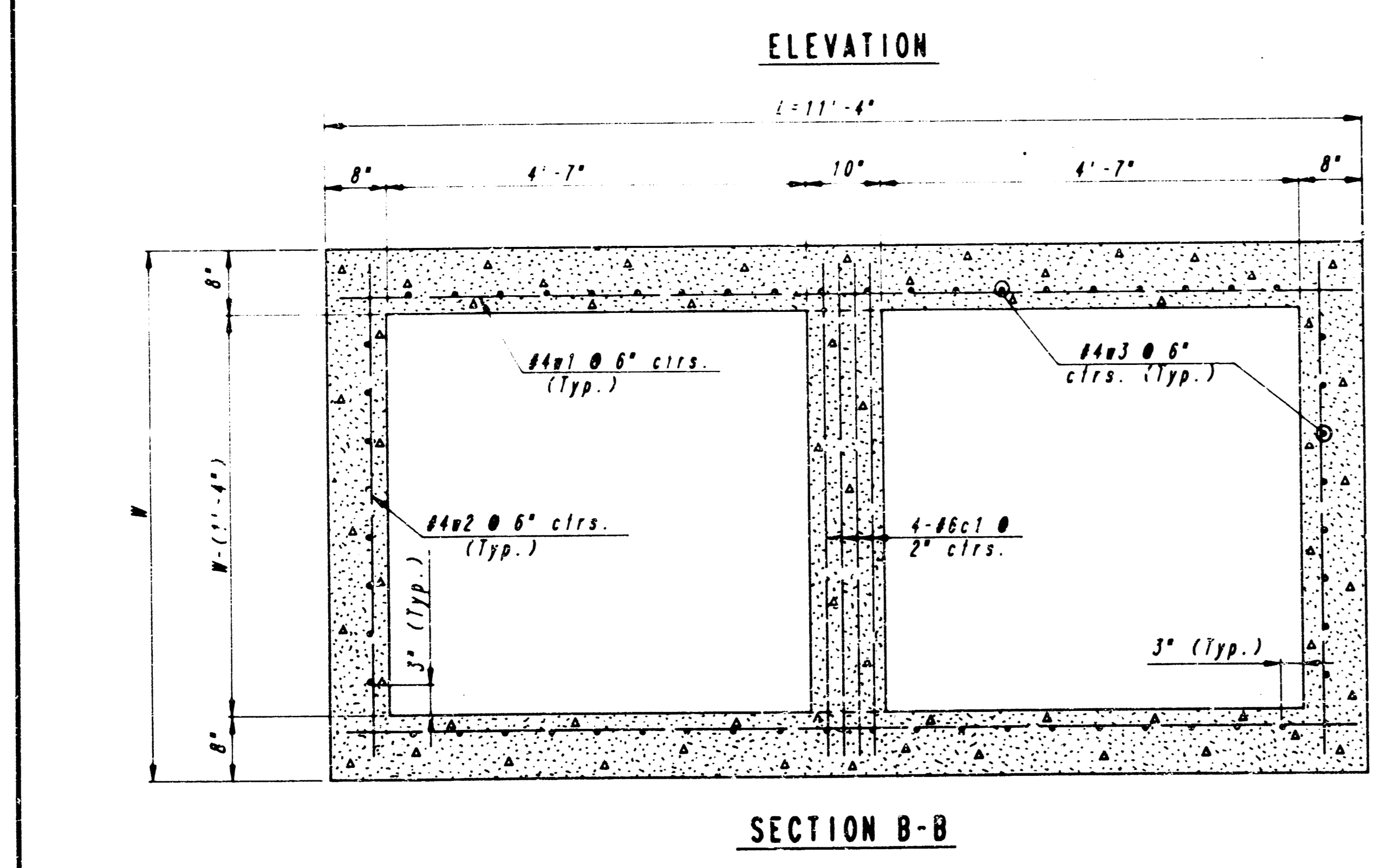
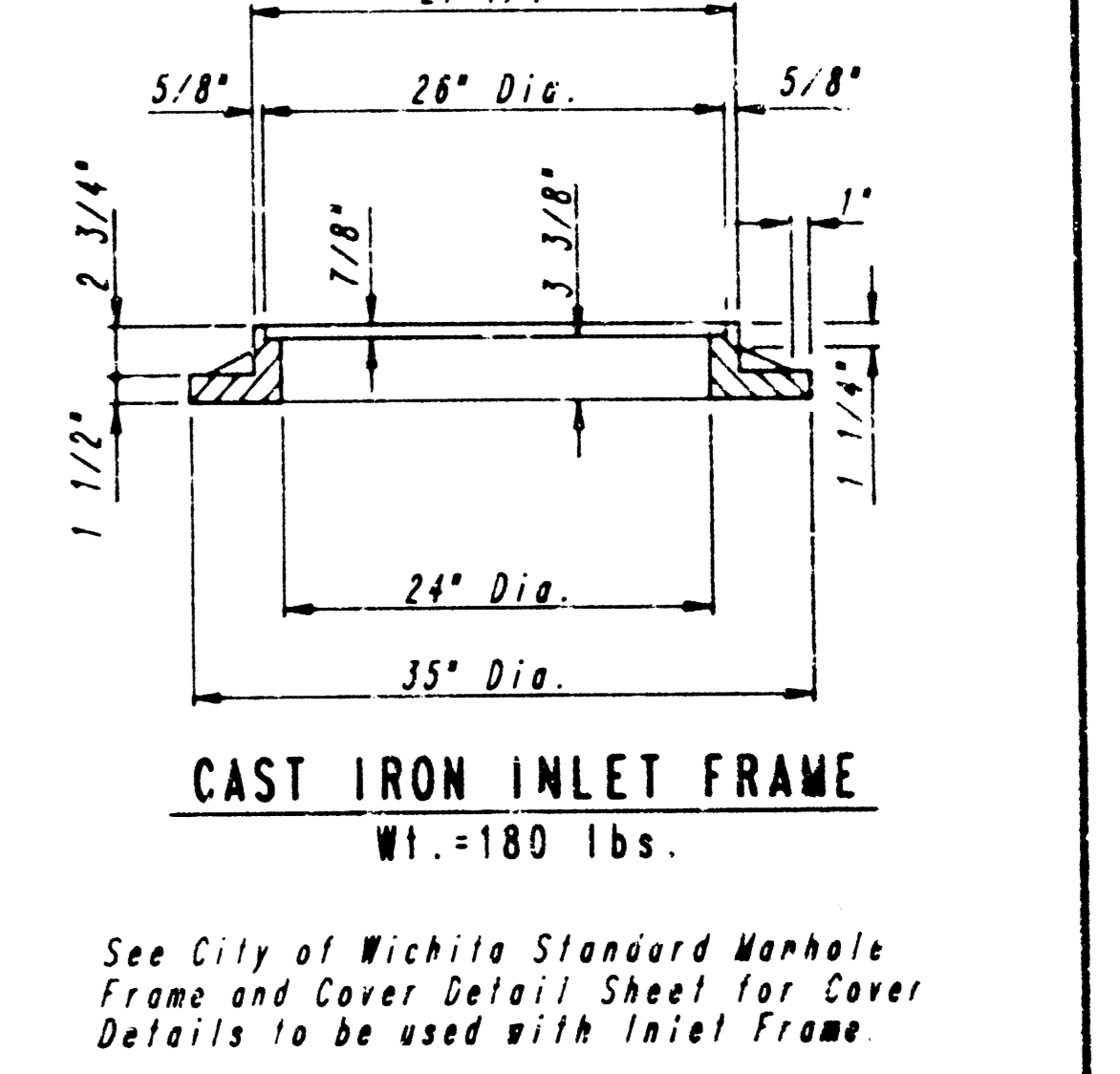
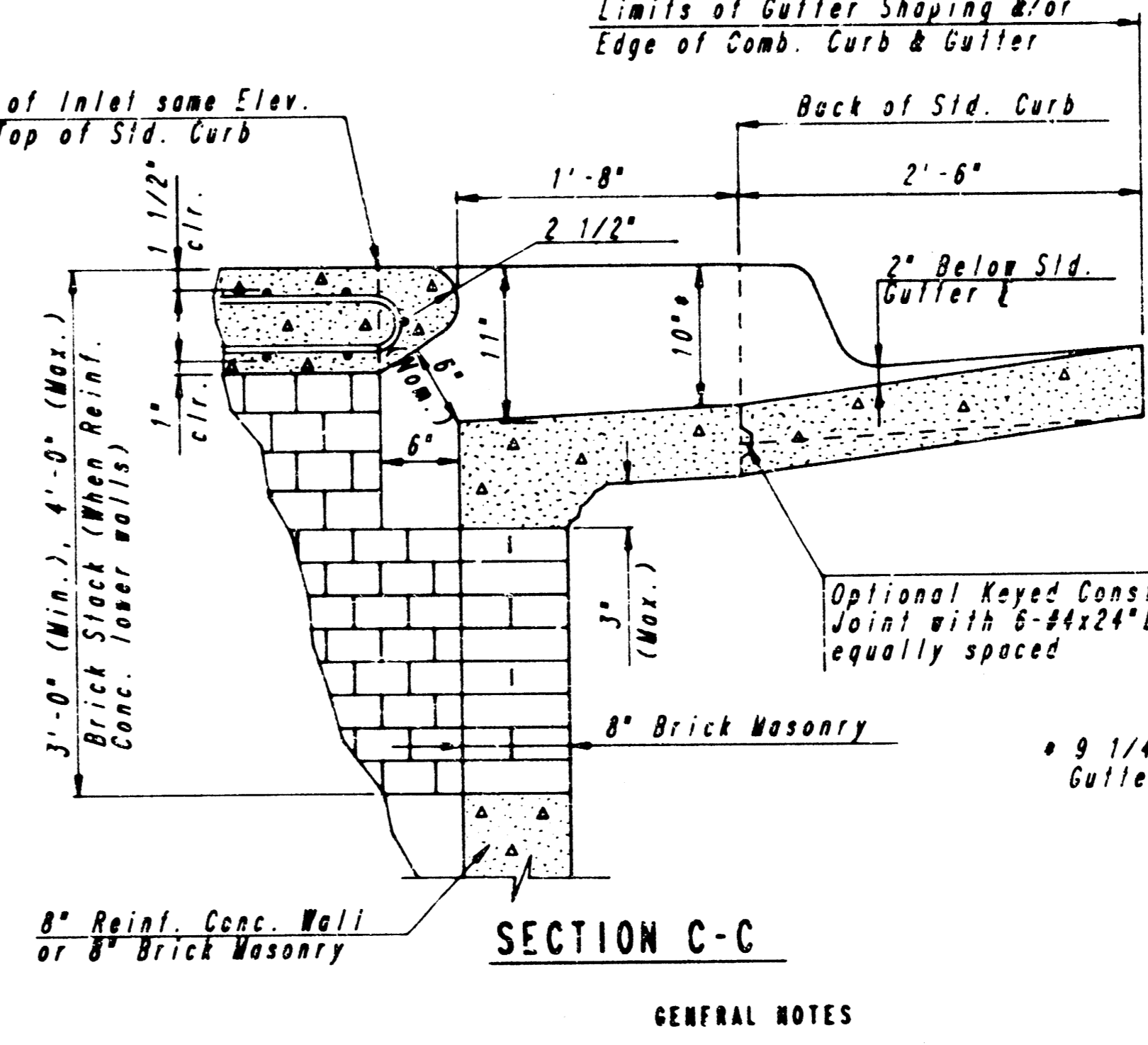
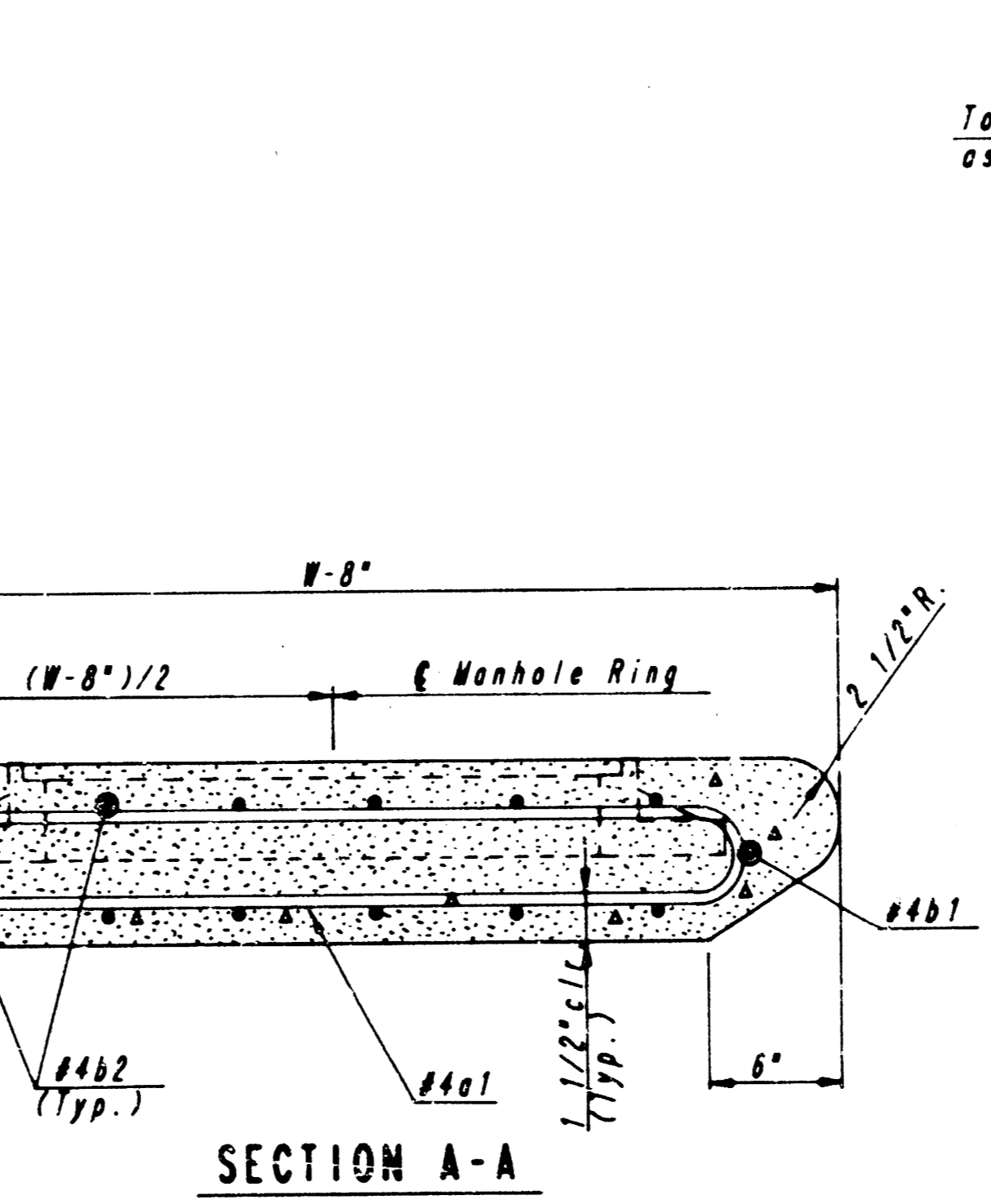
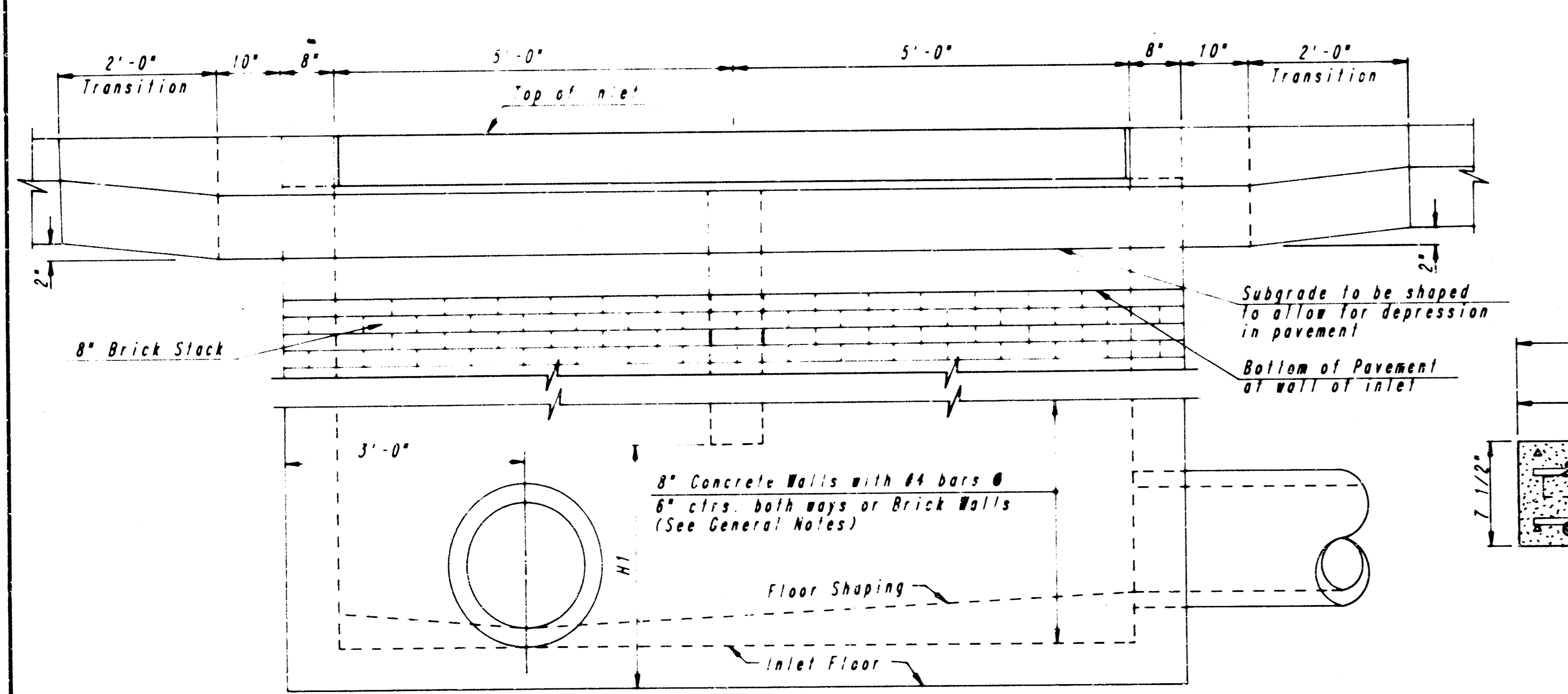
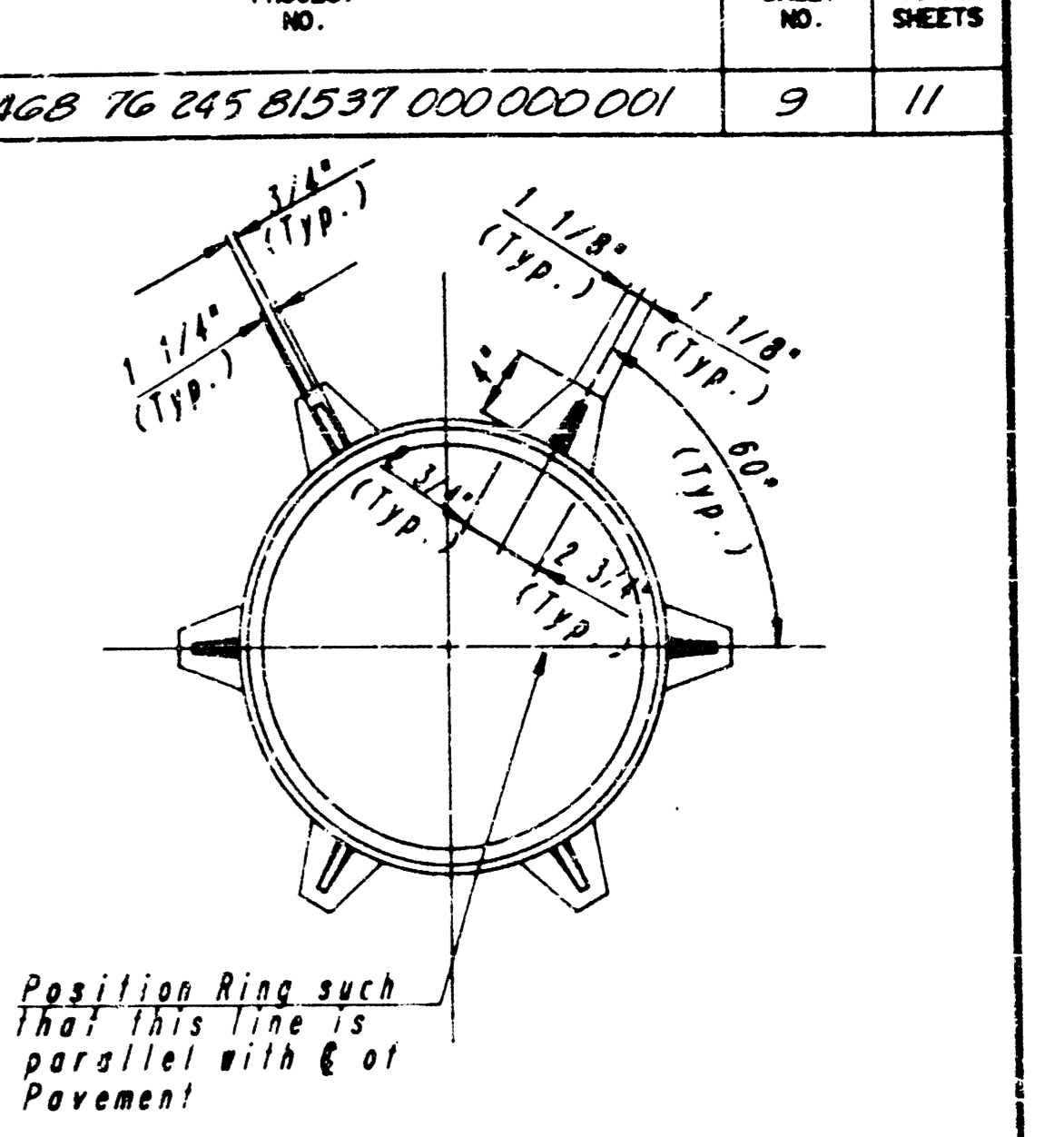
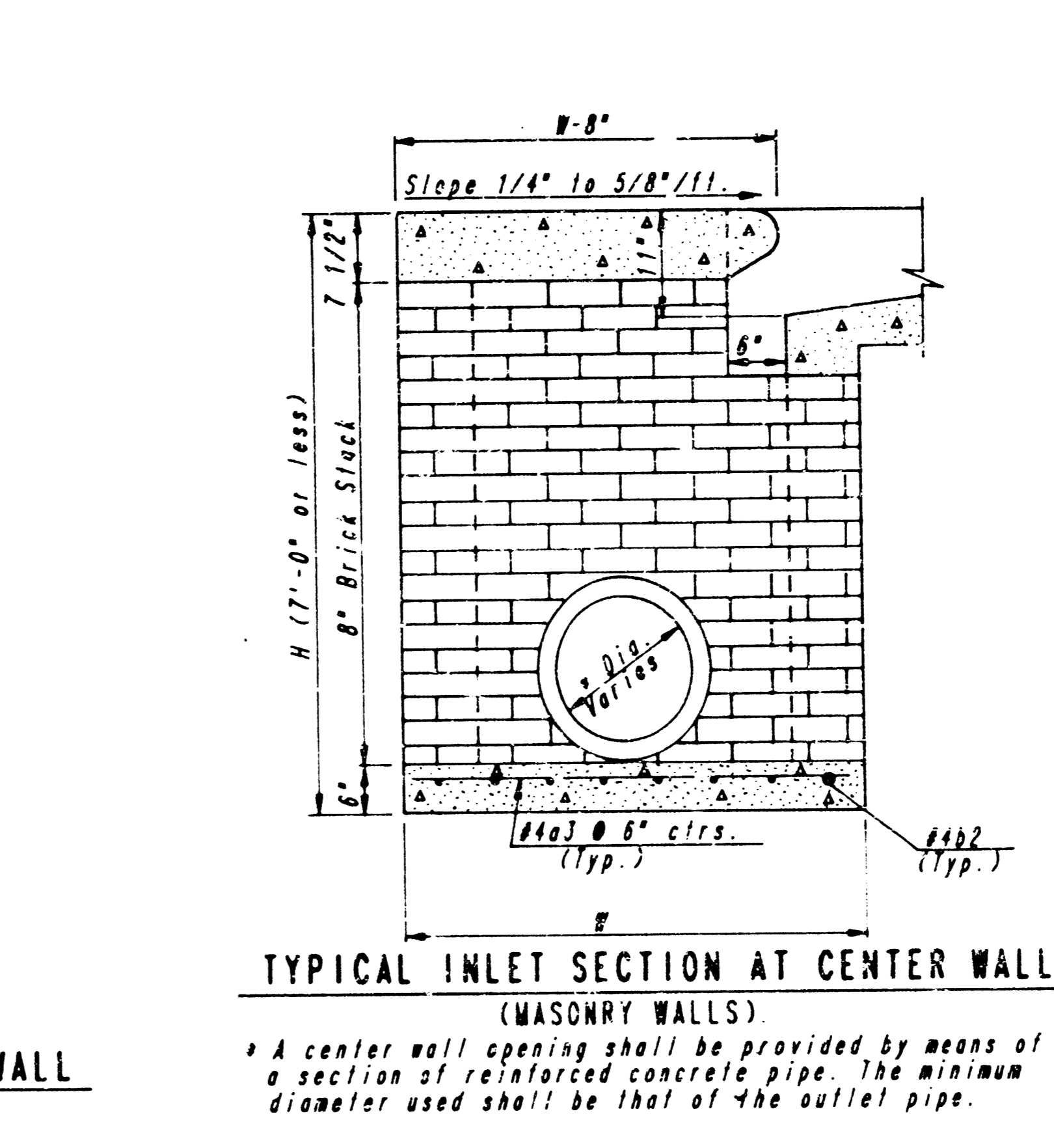
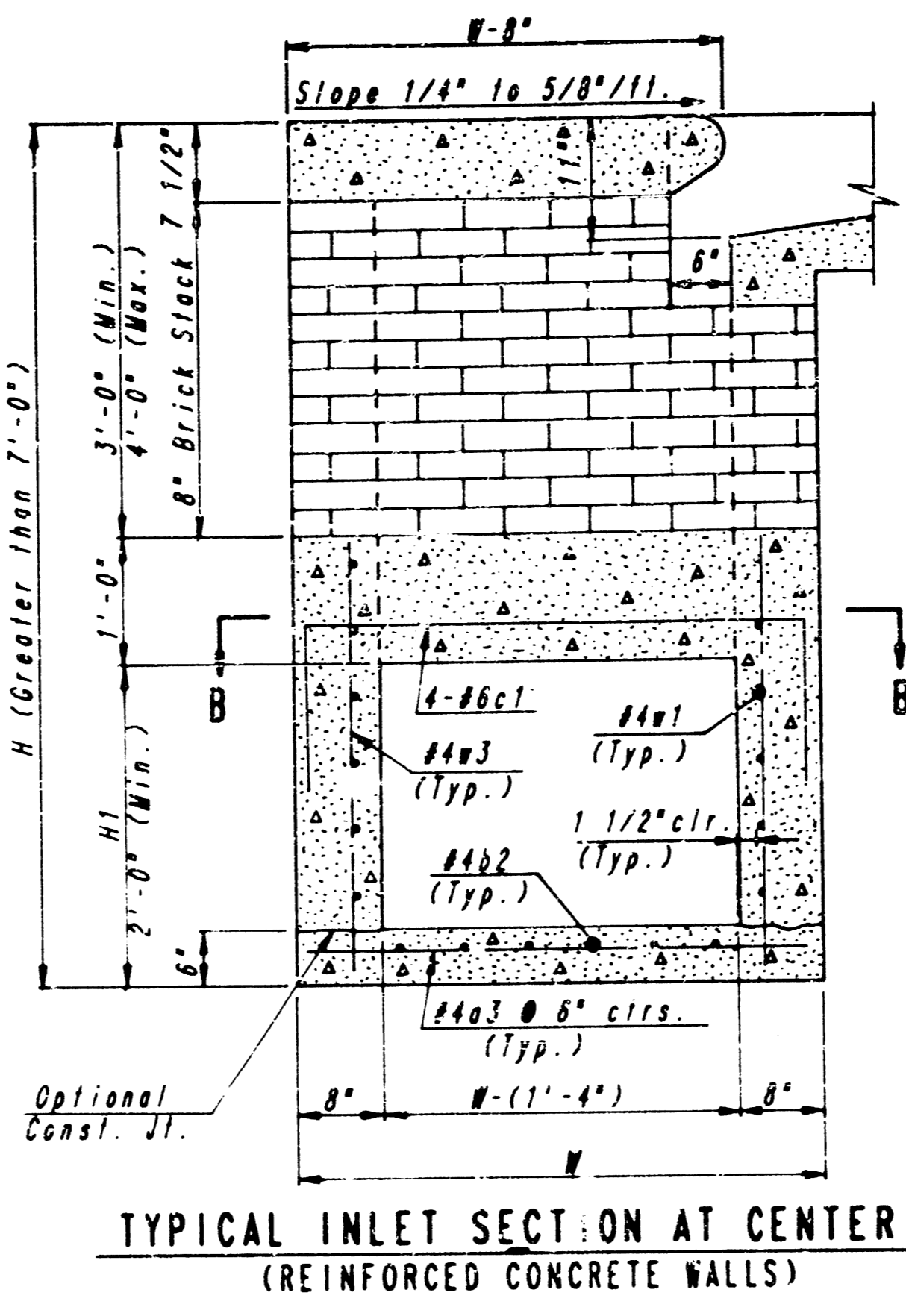
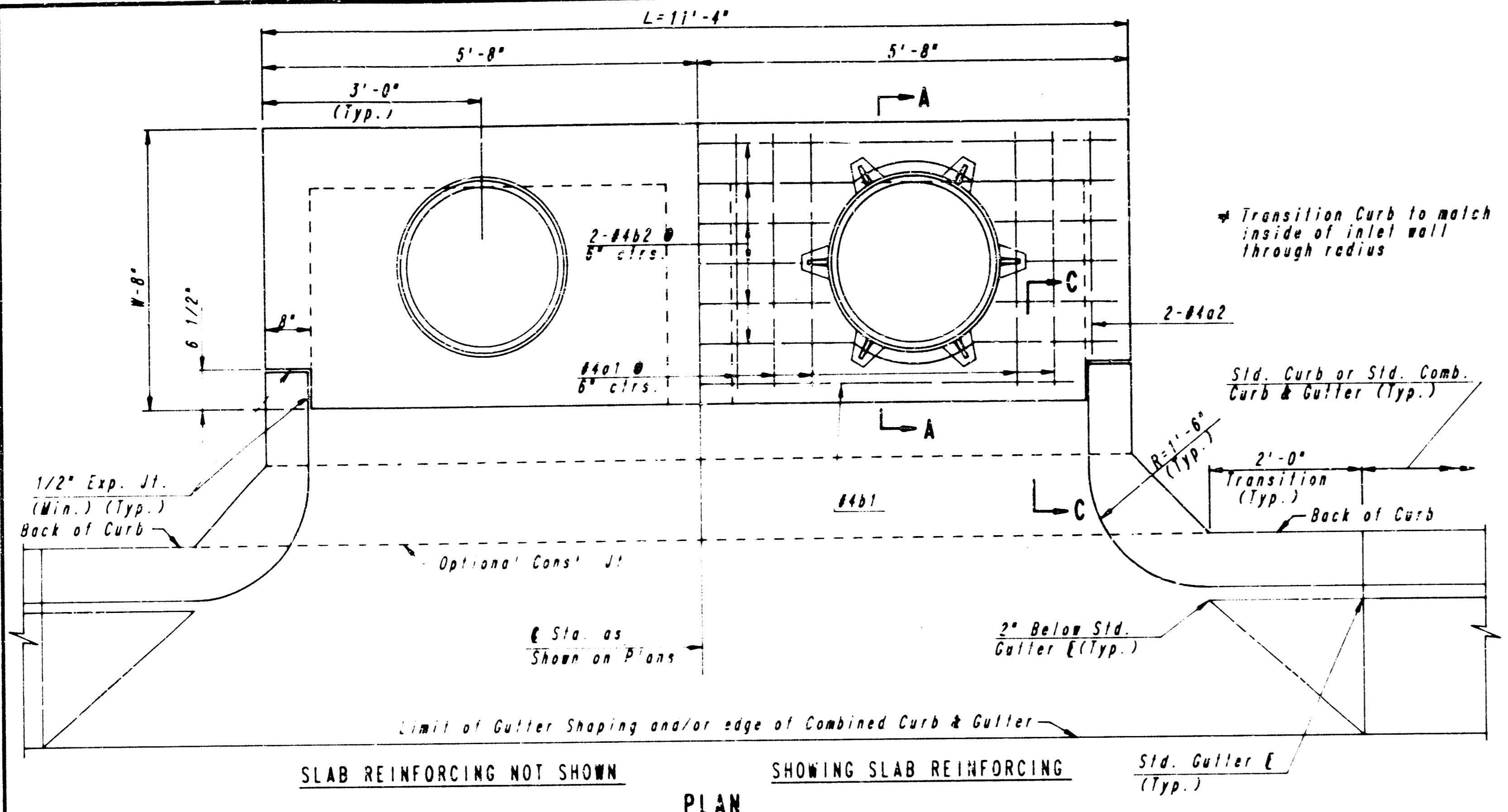
C.O.N. PROJECT NO. 468-76-245 R1537-000-000-001

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

Designed By: CSR, GDD
 Drawn By: DEP

Job No. 32-87815-1
 Date MAR., 1988

Sheet 8 of 11



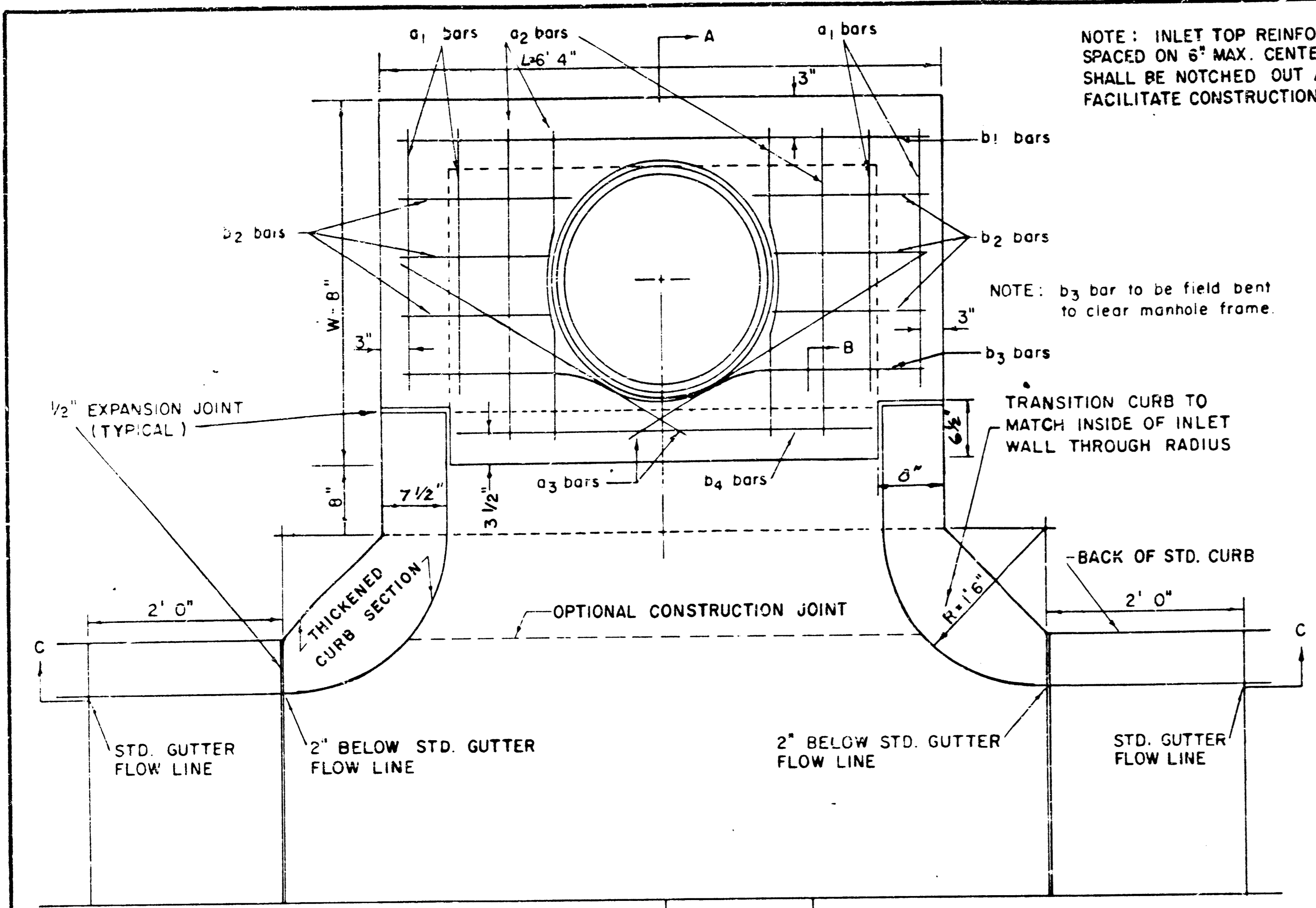
SLAB AND FLOOR REINFORCING											
MARK	SIZE	W=4'-4"		W=5'-4"		W=6'-4"		W=7'-4"		W=8'-4"	
		NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
a1	#4	13	6'-7 1/4"	13	8'-7 1/4"	13	10'-7 1/4"	13	12'-7 1/4"	13	14'-7 1/4"
a2	#4	2	6'-0"	2	8'-0"	2	10'-0"	2	12'-0"	2	14'-0"
a3	#4	20	4'-1"	20	5'-1"	20	6'-1"	20	7'-1"	20	8'-1"
b1	#4	1	9'-8"	1	9'-8"	1	9'-8"	1	9'-8"	1	9'-8"
#b2	#4	18	11'-1"	24	11'-1"	30	11'-1"	36	11'-1"	42	11'-1"

WALL REINFORCING											
MARK	SIZE	W=4'-4"		W=5'-4"		W=6'-4"		W=7'-4"		W=8'-4"	
		NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
c1	#6	4	6'-1"	4	7'-1"	4	8'-1"	4	9'-1"	4	10'-1"
w1	#4	1	11'-1"	1	11'-1"	1	11'-1"	1	11'-1"	1	11'-1"
w2	#4	1	4'-1"	1	5'-1"	1	6'-1"	1	7'-1"	1	8'-1"
w3	#4	2	2	2	2	2	2	2	2	2	2

* Field bend or cut Reinforcing as required for clearance
 ① A(H1-6")*4 (H1-6") Rounded down to nearest 0.5'
 ② 40*4(W - 15") ③ H1-(5")

GENERAL NOTES
 THE CONTRACTOR WILL BE REQUIRED TO CONSTRUCT 8" BRICK MASONRY WALLS BETWEEN THE CONCRETE INLET BASE AND TOP OF THIS INLET WHEN W=5'-4" OR LESS AND W=7'-0" OR LESS. WHEN W IS GREATER THAN 7'-4" AND W IS LESS THAN 7'-0", THE OUTSIDE WALLS BELOW THE BRICK STACK SHALL BE REINFORCED CONCRETE CONSTRUCTION AND THE CENTER WALL SHALL BE OF MASONRY CONSTRUCTION AS SHOWN FOR THE MASONRY WALL OPTION.
 INLET INVERT SHALL BE SHAPED 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.
 CONCRETE SHALL BE CITY OF WICHITA STANDARD PAVING MIX. ALL EXPOSED EDGES SHALL BE FINISHED WITH AN EDGING TOOL. INLET TOPS ARE TO BE PLACED ON A THIN MORTAR CUSHION TO INSURE FULL SUPPORT ALONG BRICK WALLS. CONCRETE TOPS MAY BE PRECAST OR CAST IN PLACE. INLET TOPS SHALL BE NOTCHED OUT AS INDICATED TO FACILITATE CONSTRUCTION OF CURB.
 UNLESS OTHERWISE NOTED, ALL BARS ARE #4 ON 8" MAX. CENTERS AND SHALL HAVE A MINIMUM CLEARANCE OF 1-1/2". BARS SHALL BE FIELD BENT OR CUT TO CLEAR MANHOLE RINGS AND PIPE OPENINGS.
 THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.
 ADDITIONAL CURB AND/OR CURB AND GUTTER CONSTRUCTION NECESSARY TO CONNECT SET-BACK INLET TO PAVEMENT WILL BE PAID FOR AT THE UNIT PRICE BID PER EACH FOR "INLET INVERT".

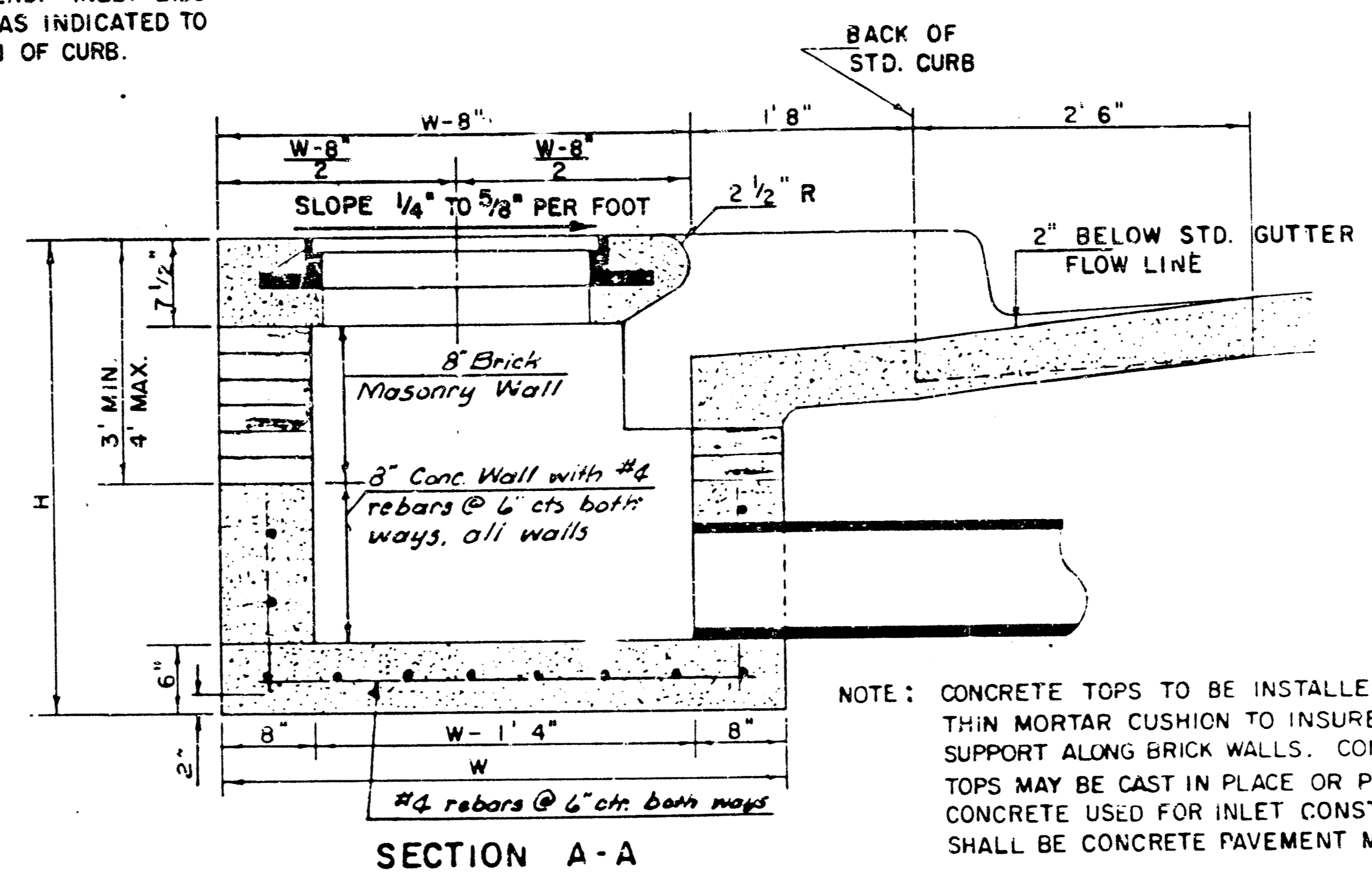
CITY OF WICHITA, KANSAS
DETAIL STANDARD TYPE IA CURB INLET
 INLET OPENING - 6"X10'-0" (L=11'-4")
 PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
 ENGINEERS
 WICHITA, KANSAS
 9/11
 Designed by _____ Checked by _____
 Drawn by _____ Date _____ Job No. 67615-1



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

NOTE: b₃ bar to be field bent to clear manhole frame.

TRANSITION CURB TO MATCH INSIDE OF INLET WALL THROUGH RADIUS



SECTION A-A

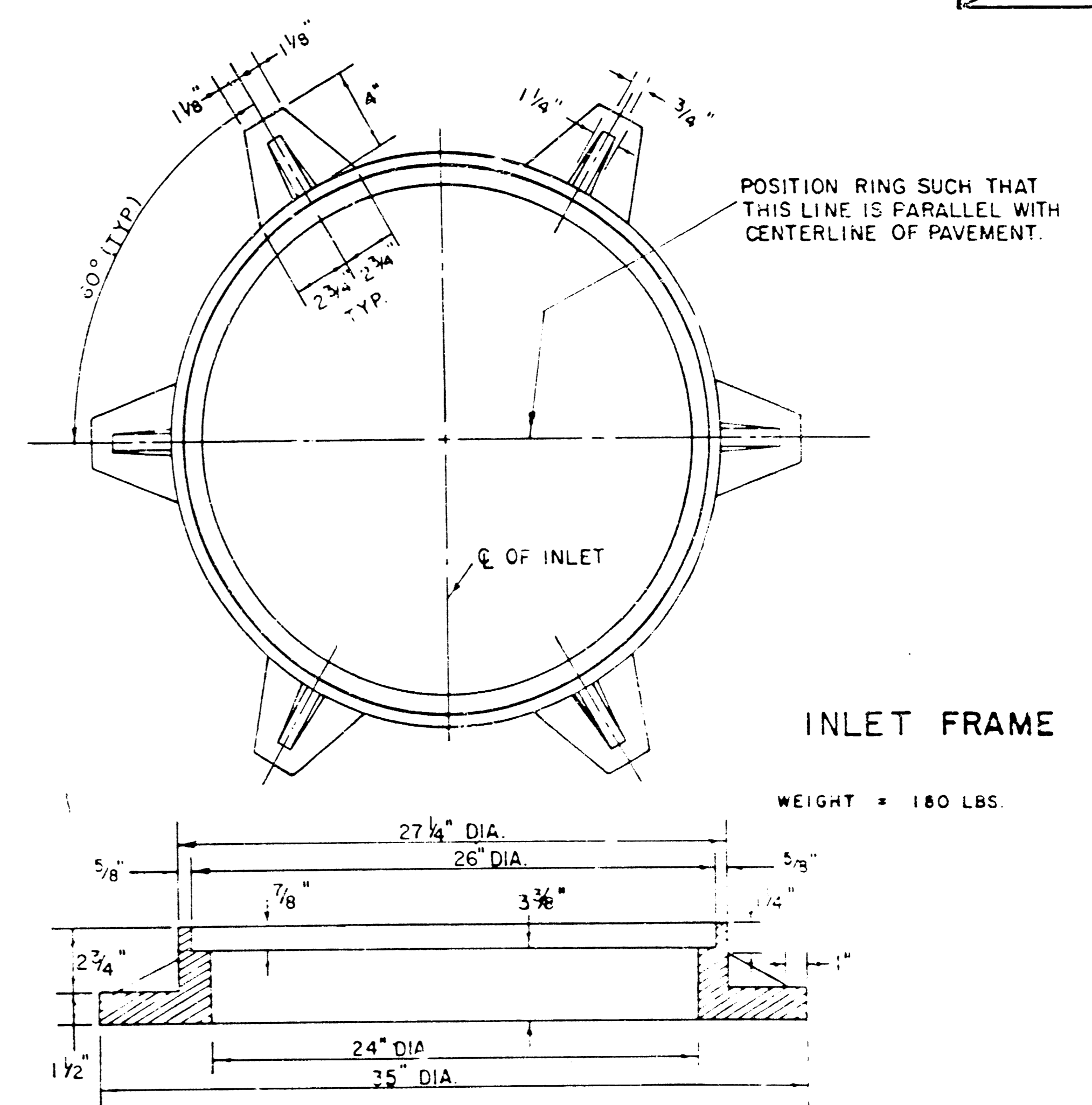
NOTE: CONCRETE TOPS TO BE INSTALLED ON THIN MORTAR CUSHION TO INSURE FULL SUPPORT ALONG BRICK WALLS. CONCRETE TOPS MAY BE CAST IN PLACE OR PRECAST. CONCRETE USED FOR INLET CONSTRUCTION SHALL BE CONCRETE PAVEMENT MIX.

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.



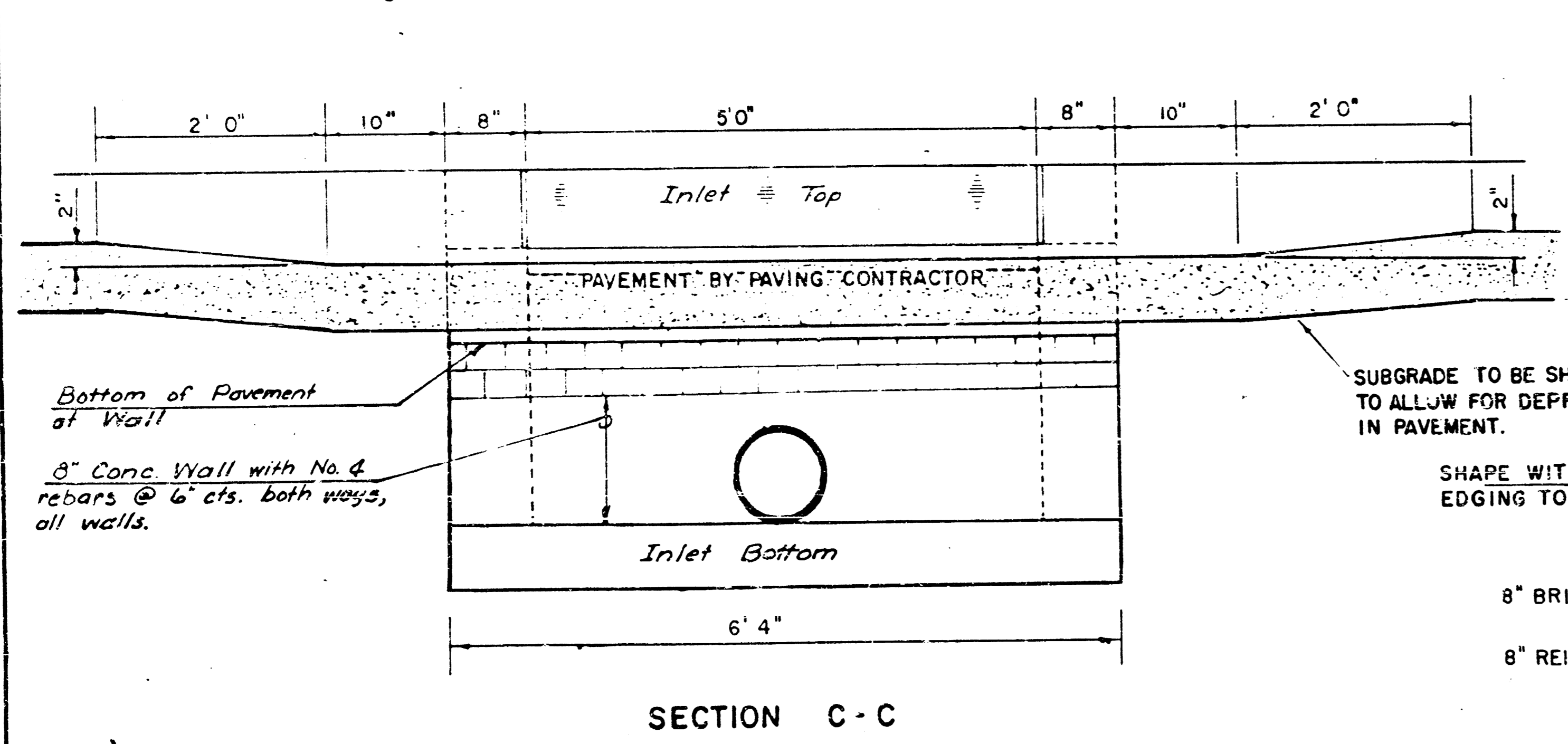
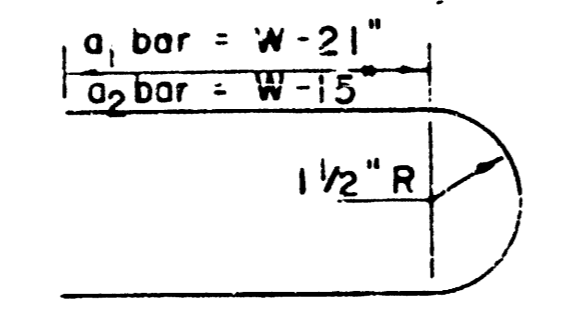
SEE CITY OF WICHITA STANDARD MANHOLE FRAME AND COVER DETAIL SHEET FOR COVER DETAILS TO BE USED WITH INLET FRAME.

STEEL SCHEDULE

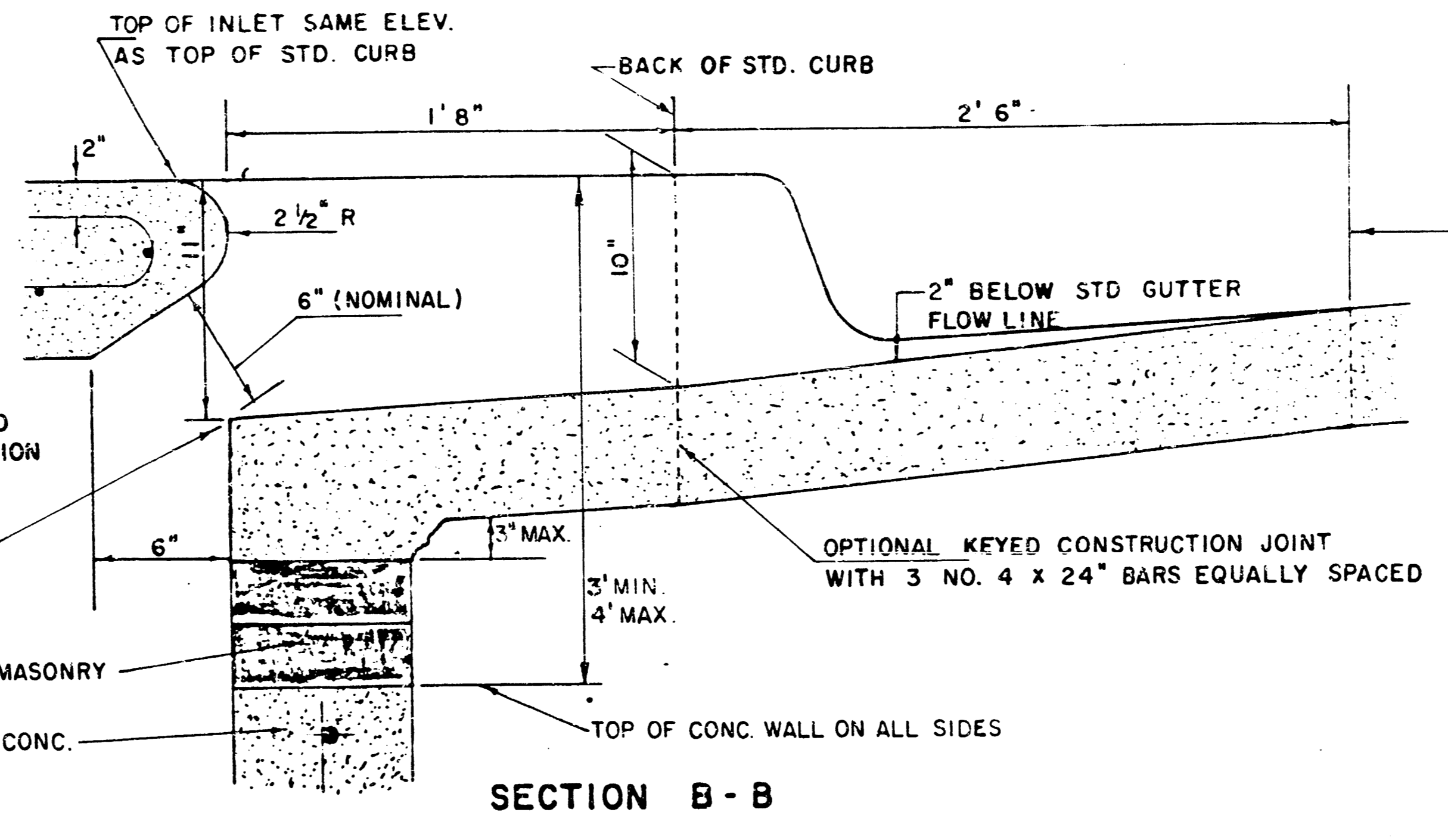
BAR	a ₁		a ₂		a ₃		b ₁				b ₂	b ₃	b ₄	WT. LBS.
	4	4	4	4	4	4	4	4	4	4				
NUMBER	4	4	2	1	3	5	7	9	6	1	1			
SIZE	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#6	
W=4'4"	5'7"	6'7"	4'0"	6'1"	-	-	-	1'9"	6'2"	4'8"	60 ±			
W=5'4"	7'7"	8'7"	5'0"	6'1"	-	-	-	1'9"	6'2"	4'8"	81 ±			
W=6'4"	9'7"	10'7"	6'0"	6'1"	-	-	-	1'9"	6'2"	4'8"	101 ±			
W=7'4"	11'7"	12'7"	7'0"	6'1"	-	-	-	1'9"	6'2"	4'8"	121 ±			
W=8'4"	13'7"	14'7"	8'0"	6'1"	-	-	-	1'9"	6'2"	4'8"	141 ±			

* NOTE: a₃ BARS TO BE PLACED APPROX. 2" BELOW TOP OF INLET COVER

BENDING DIAGRAM



SECTION C-C



SECTION B-B

REVISED 12-21-1984 Proj. No. 468 76 245 B1537 000 000 001

DETAIL STANDARD TYPE IA CURB INLET
CITY OF WICHITA, KANSAS
INLET OPENING = 6" x 5' 0"
(L = 6'-4")
JUNE 1984

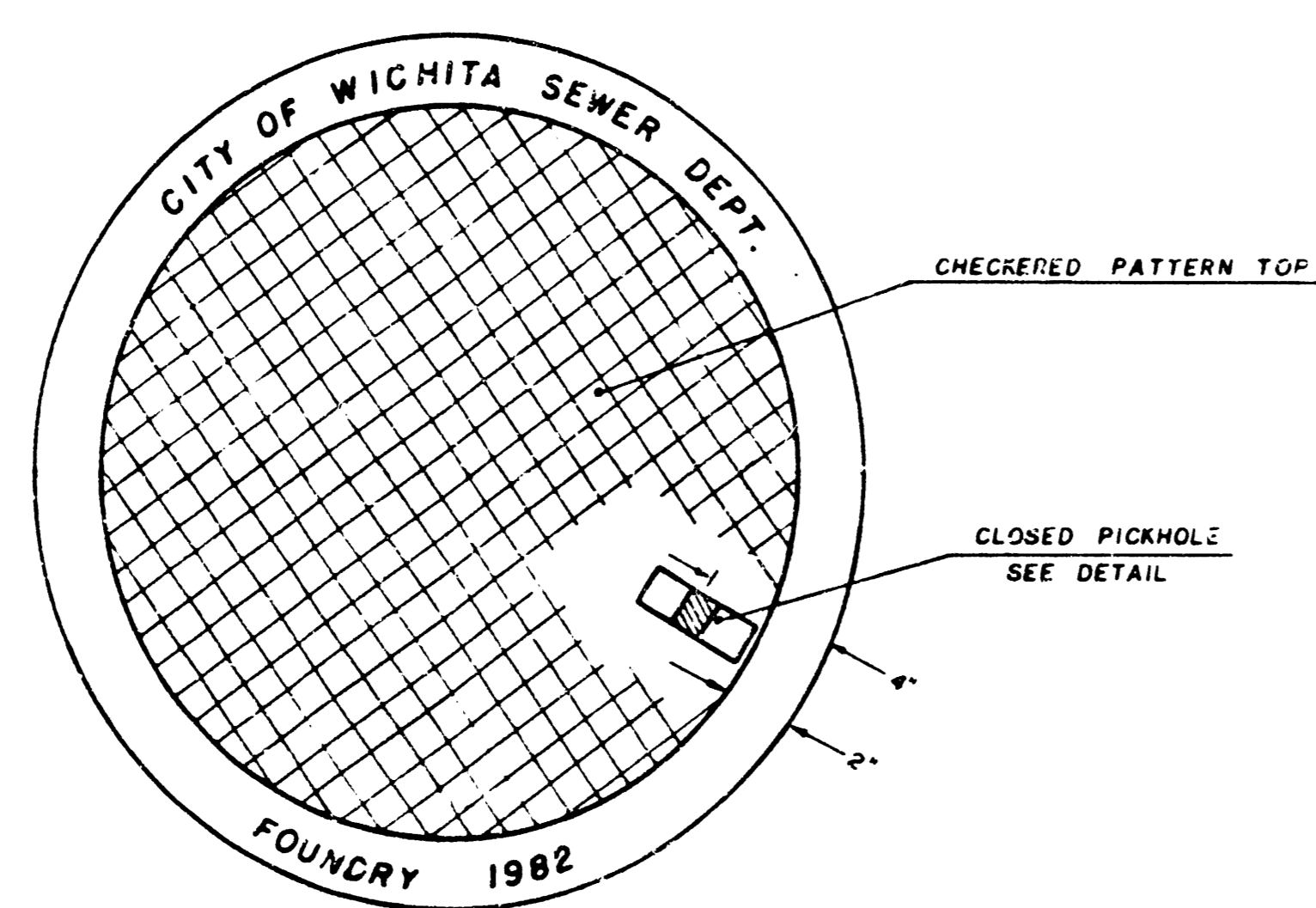
MANHOLE FRAME AND COVER DETAIL

ADOPTED AS STANDARD DESIGN

BY

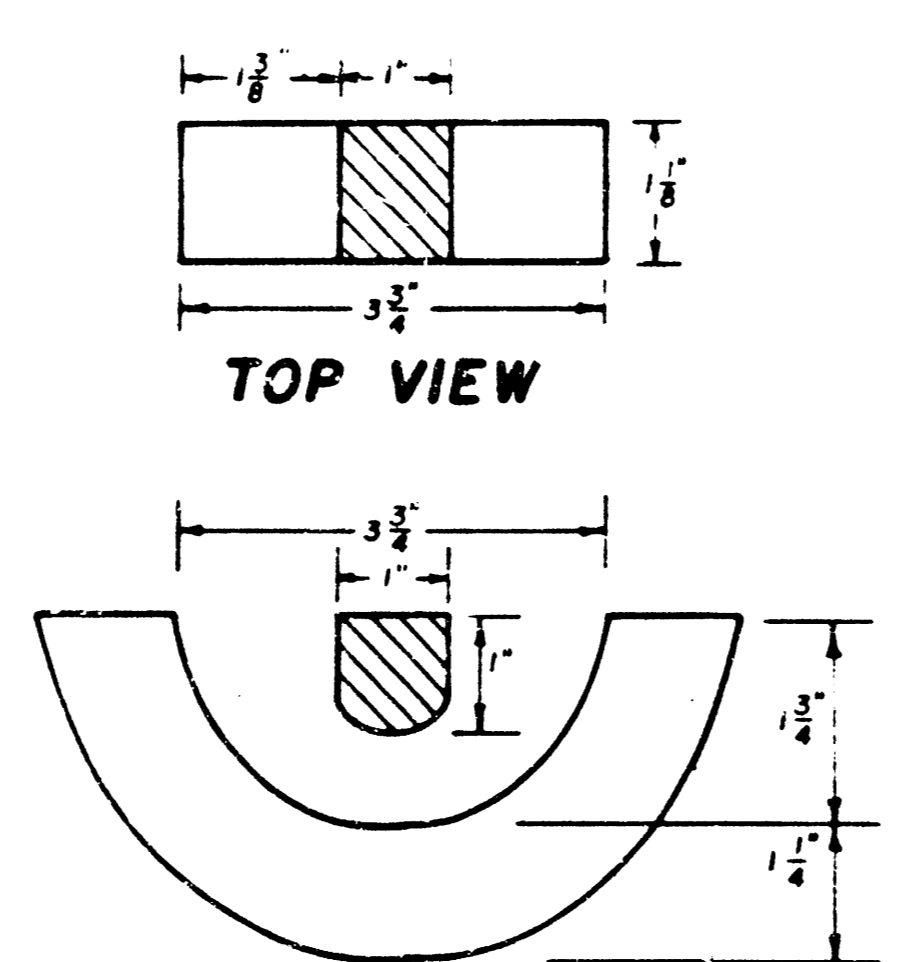
City of Wichita, Kansas

MANHOLE COVER
Weight: 180 Lbs.



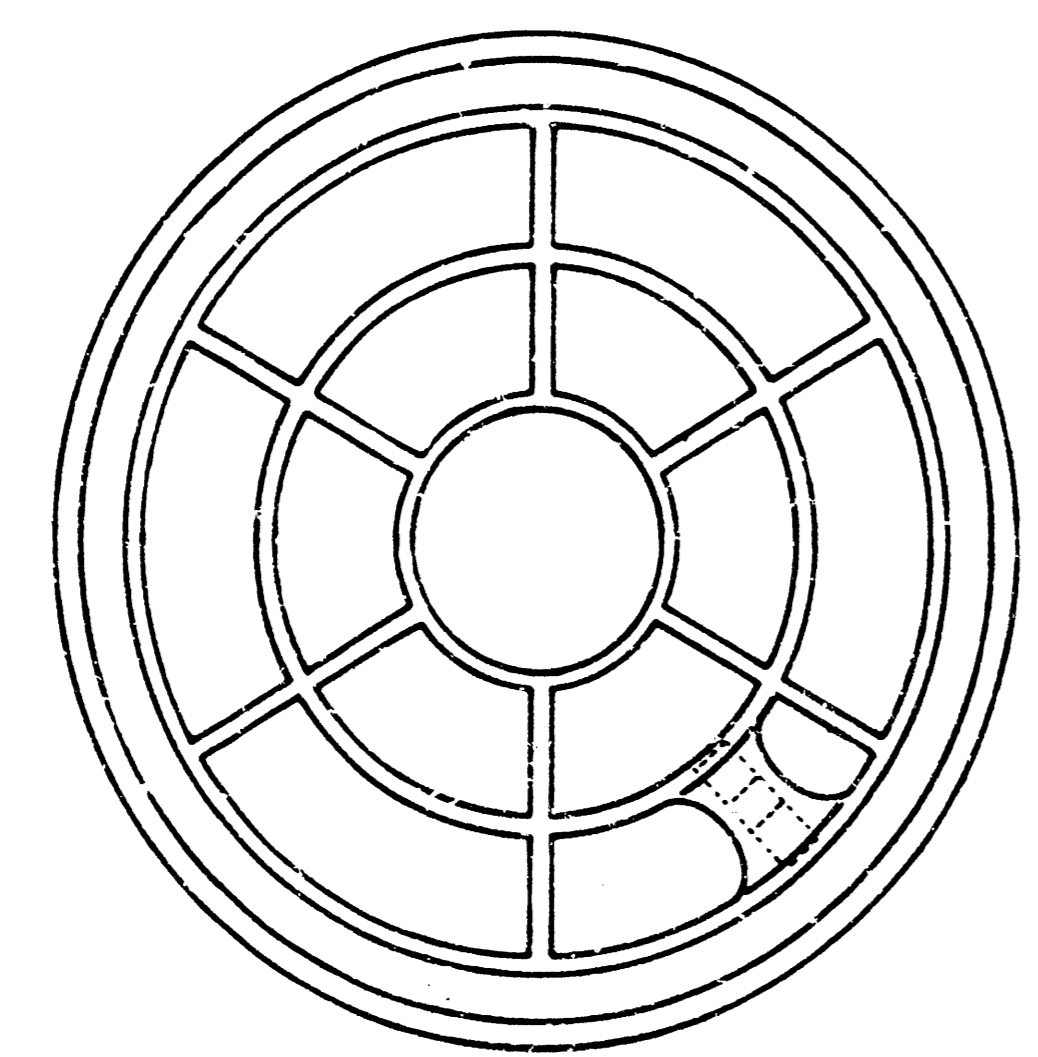
TOP VIEW

PICKHOLE DETAIL

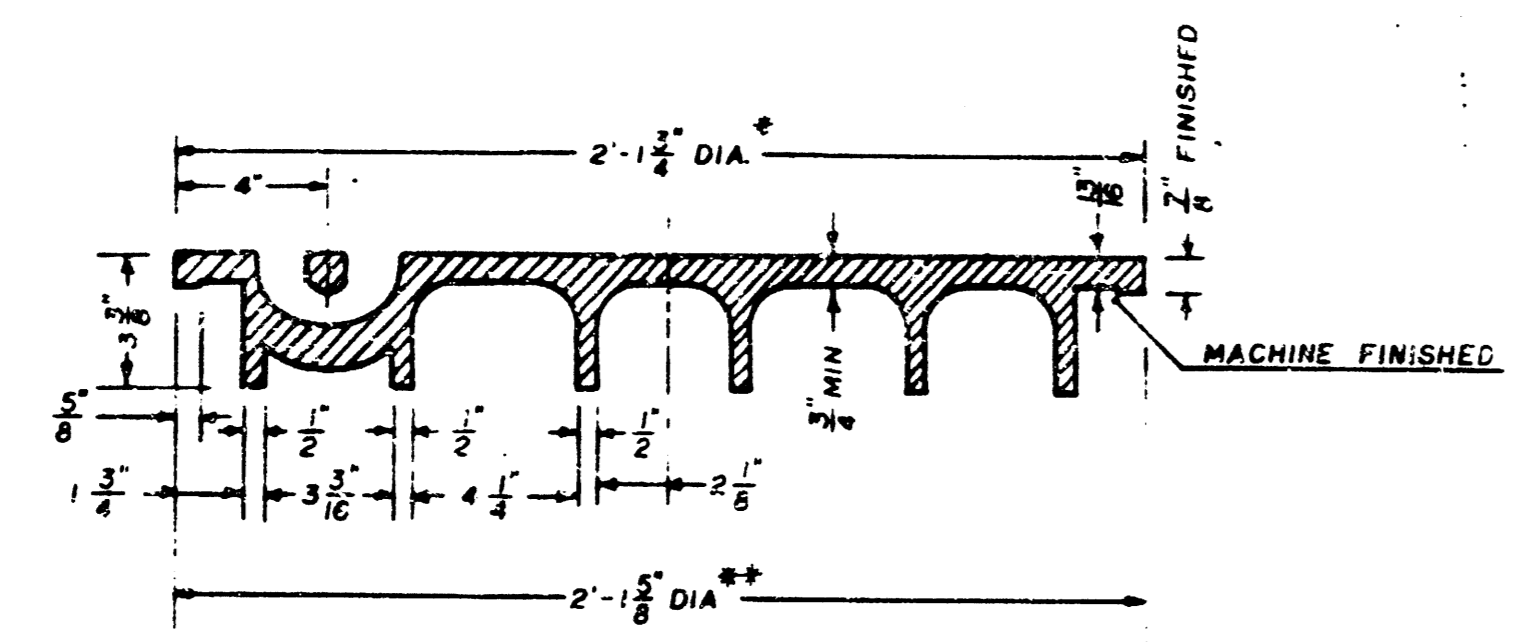


TOP VIEW

SECTION VIEW



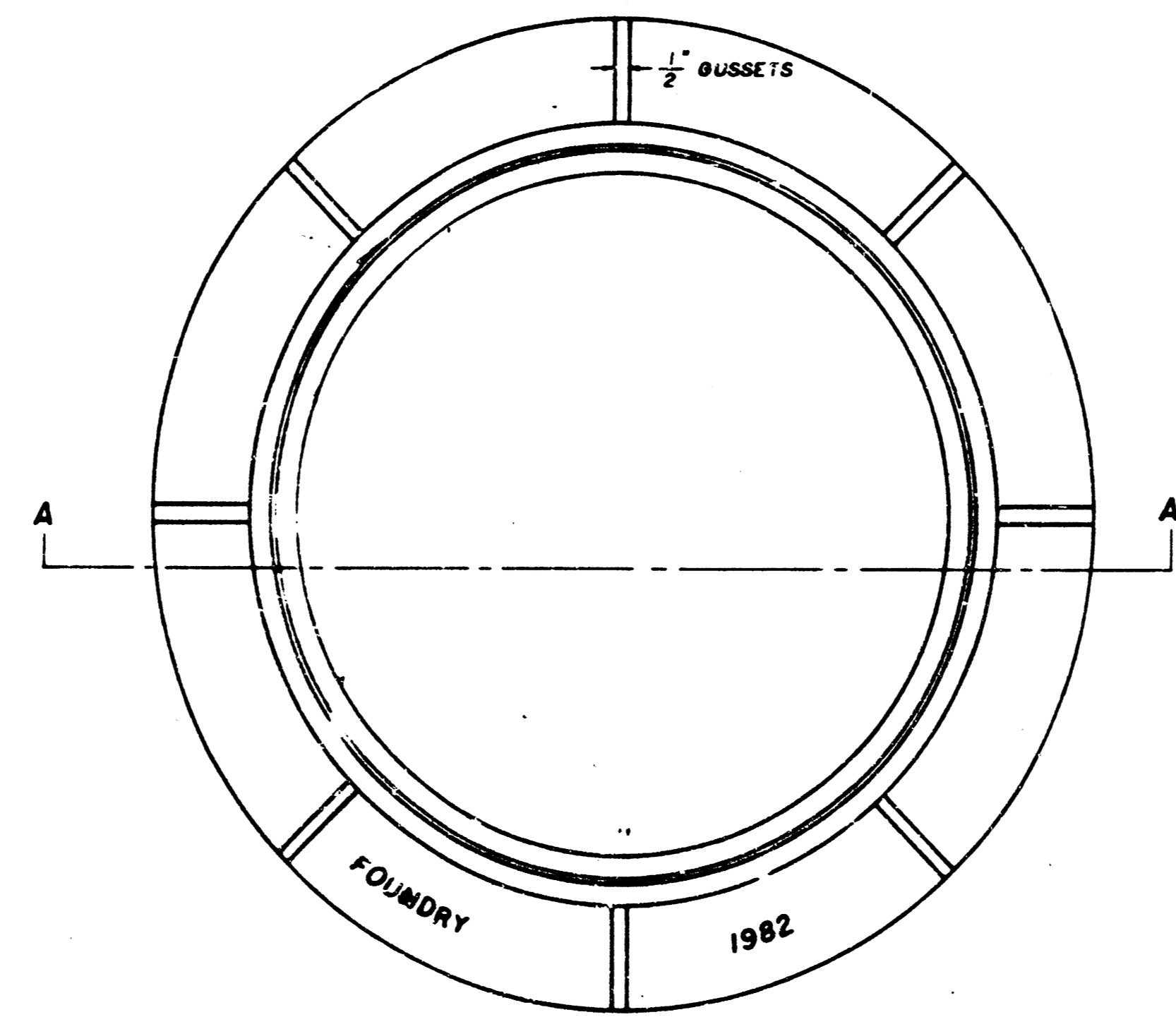
BOTTOM VIEW



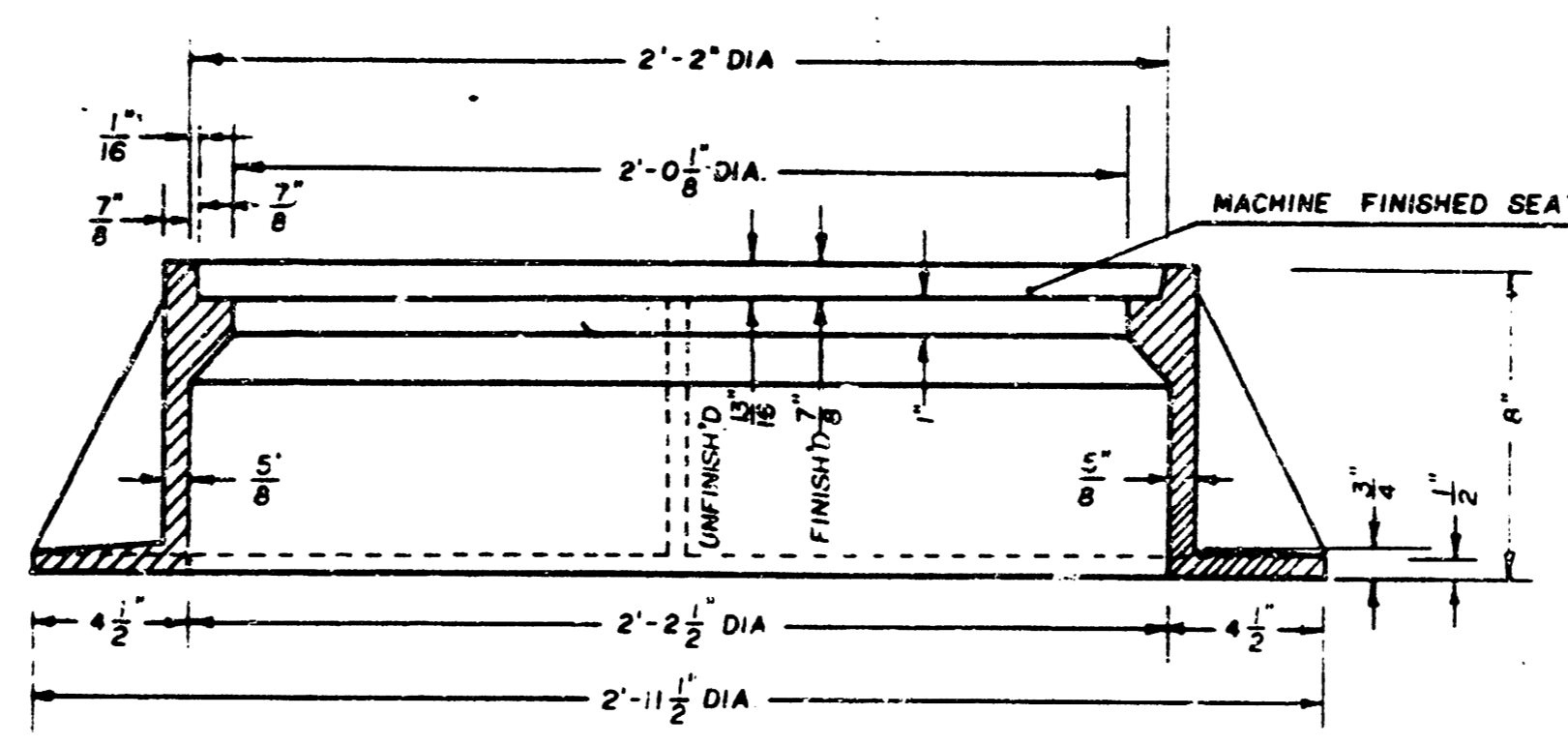
SECTION VIEW

* 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 COATED WITH AN ASPHALT PAINT RESULTING IN A SMOOTH, TOUGH AND TENACIOUS COATING WHICH IS NOT BRITTLE OR TACKY.
3. 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.
4. 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.
5. 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.