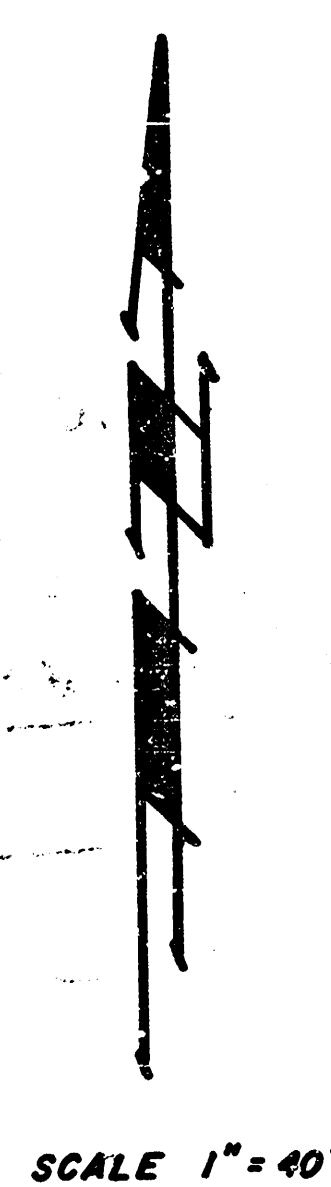


CENTURY II DRIVE RELOCATION

FROM S.L. DOUGLAS TO W.L. MAIN ST.

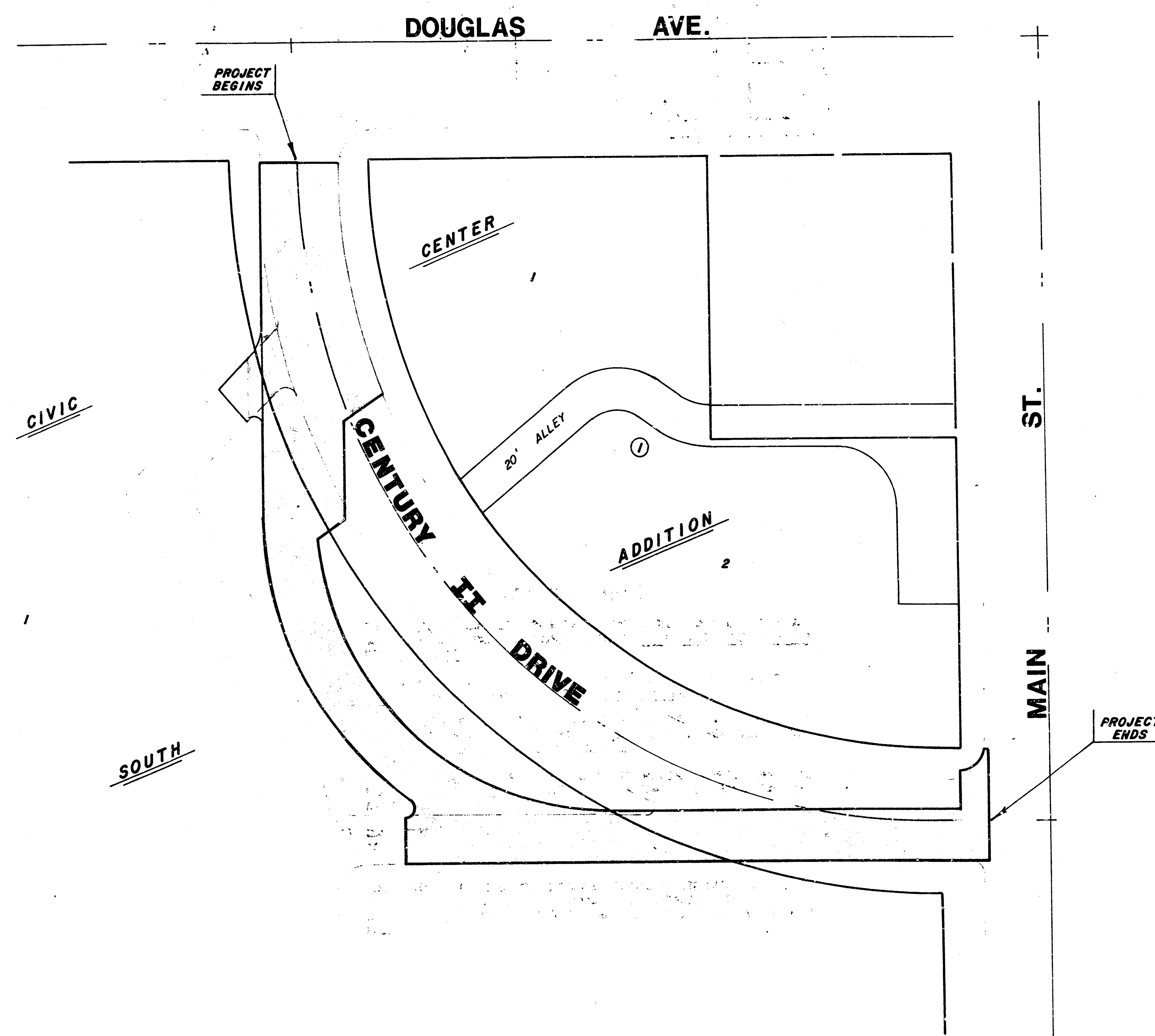
PROJECT NO.

460-24-810-80062-000-000-000



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- 1 Title and Location Map
- 2 4 Typical Pavement Sections
- 5 Pavement Plan
- 6 Removal Plan
- 7-8 Incidental Drainage
- 9 10 Inlet Details
- 11 Manhole Details
- 12-13 Earthwork Sections



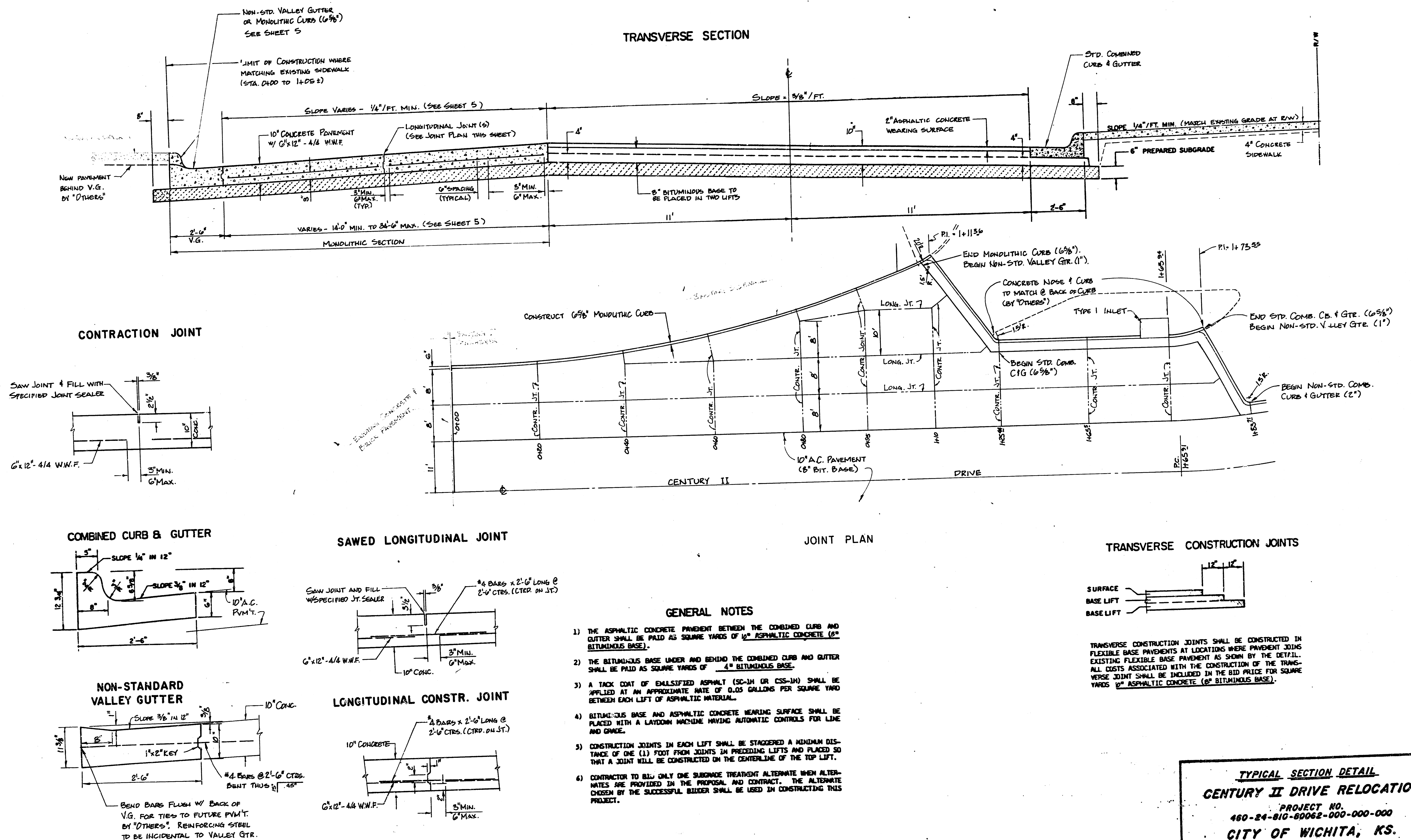
CITY OF WICHITA, KS.
MIKE E. LINDEBAK CITY ENGINEER

BAUGHMAN COMPANY, P.A.
SURVEYING & ENGINEERING
316/262-7271 • 520 LAURA • WICHITA, KANSAS 67211

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TYPICAL PAVEMENT DETAILS

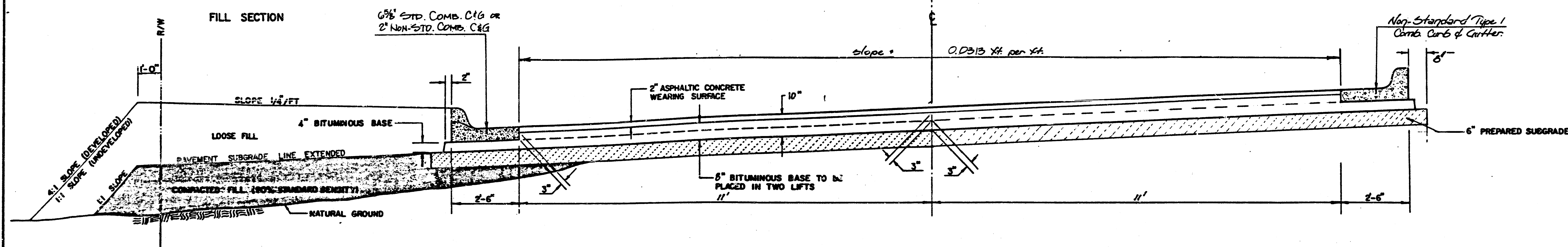
STA. 0+00 TO 1+83.71



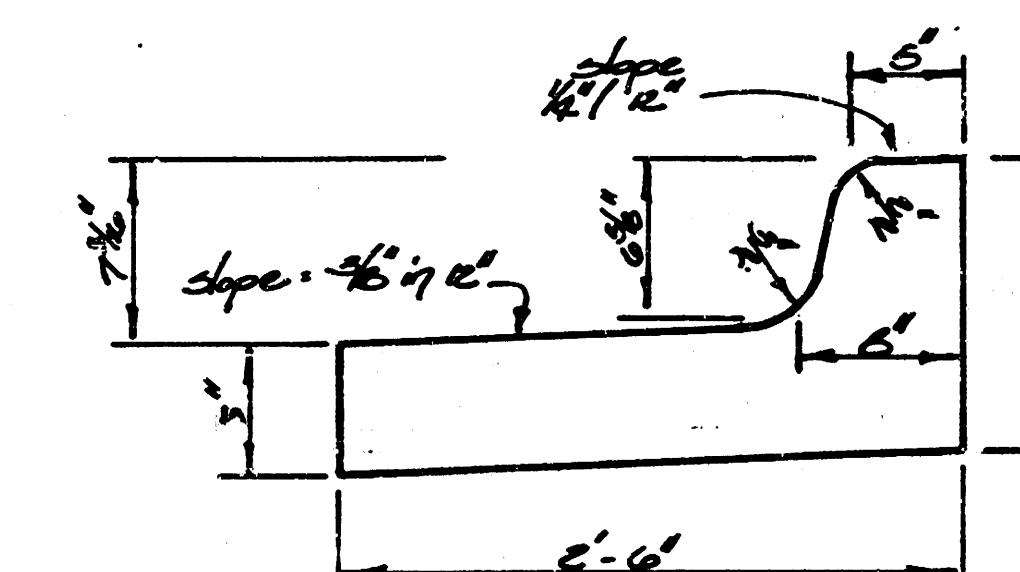
TYPICAL 27' PAVEMENT DETAILS

STA. 1+83.71 TO 3+21.80

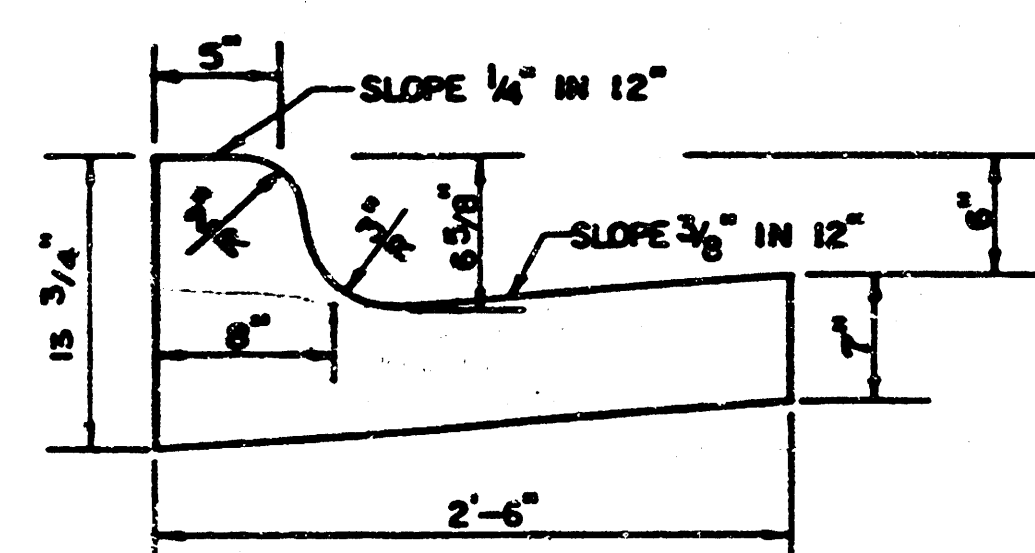
TRANSVERSE SECTION



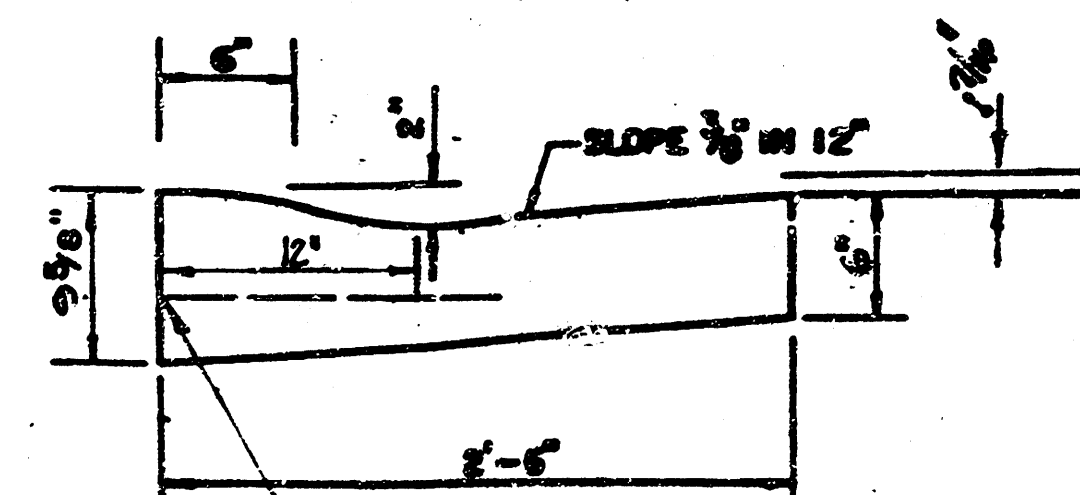
NON-STANDARD - TYPE 1 COMBINED CURB & GUTTER



COMBINED CURB & GUTTER



NON-STANDARD ROLL TYPE COMBINED CURB & GUTTER



*4 BARS @ 2'-6" CTRS. BEND
FLUSH W/ BACK OF CURB FOR
TIES TO FUTURE PAVEMENT BY
"OTHERS". BEND THUS
REINFORCING STEEL TO
BE INCIDENTAL TO C&G GTR.

GENERAL NOTES

- 1) THE ASPHALTIC CONCRETE PAVEMENT BETWEEN THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 12" ASPHALTIC CONCRETE (6" BITUMINOUS BASE).
- 2) THE BITUMINOUS BASE UNDER AND BEHIND THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 4" BITUMINOUS BASE.
- 3) A TACK COAT OF EMULSIFIED ASPHALT (50-100 OR 100-150) SHALL BE APPLIED AT AN APPROXIMATE RATE OF 0.05 GALLONS PER SQUARE YARD BETWEEN EACH LIFT OF ASPHALTIC MATERIAL.
- 4) BITUMINOUS BASE AND ASPHALTIC CONCRETE WEARING SURFACE SHALL BE PLACED WITH A LAYDOWN MACHINE HAVING AUTOMATIC CONTROLS FOR LINE AND GRADE.
- 5) CONSTRUCTION JOINTS IN EACH LIFT SHALL BE STAGGERED A MINIMUM DISTANCE OF ONE (1) FOOT FROM JOINTS IN PRECEDING LIFTS AND PLACED SO THAT A JOINT WILL BE CONSTRUCTED ON THE CENTERLINE OF THE TOP LIFT.
- 6) CONTRACTOR TO BID ONLY ONE SUBGRADE TREATMENT ALTERNATE WHEN ALTERNATES ARE PROVIDED IN THE PROPOSAL AND CONTRACT. THE ALTERNATE CHOSEN BY THE SUCCESSFUL BIDDER SHALL BE USED IN CONSTRUCTING THIS PROJECT.

1. 80.55 B R=122' T=161' L=254' C=226'

Curve Data based on 6'		46' 41' 57' 36"	
Sta.	Arc.	Chord	Length
		6' off C&G	6' off C&G
1+83.71	0	0' 00' 00"	0' 00' 00"
1+83.71	17'	15'	3' 6' 52"
2+00	16'	13'	2' 02' 50"
2+25	25'	21'	4' 25' 16"
2+50	"	"	4' 25' 16"
2+75	"	"	4' 25' 16"
3+00	25'	21'	4' 25' 16"
3+21.80	21'	15'	3' 01' 10"
3+50	25'	21'	4' 25' 16"
3+75	25'	21'	4' 25' 16"
4+00	25'	21'	4' 25' 16"
4+20	20'	17'	3' 55' 50"

Defl. (P) = 10.61033 miq.

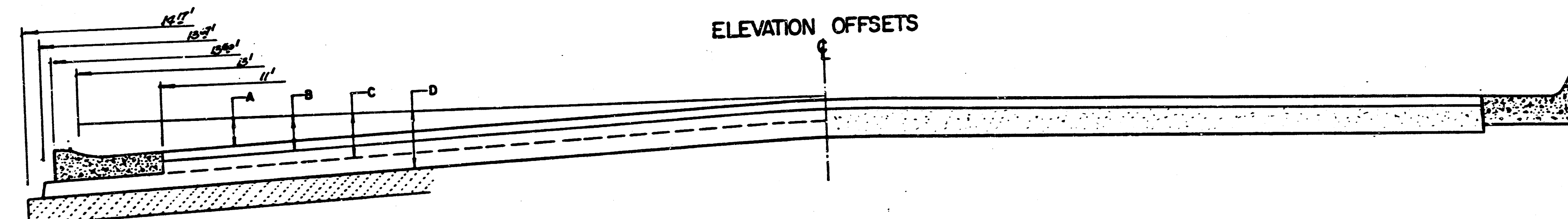
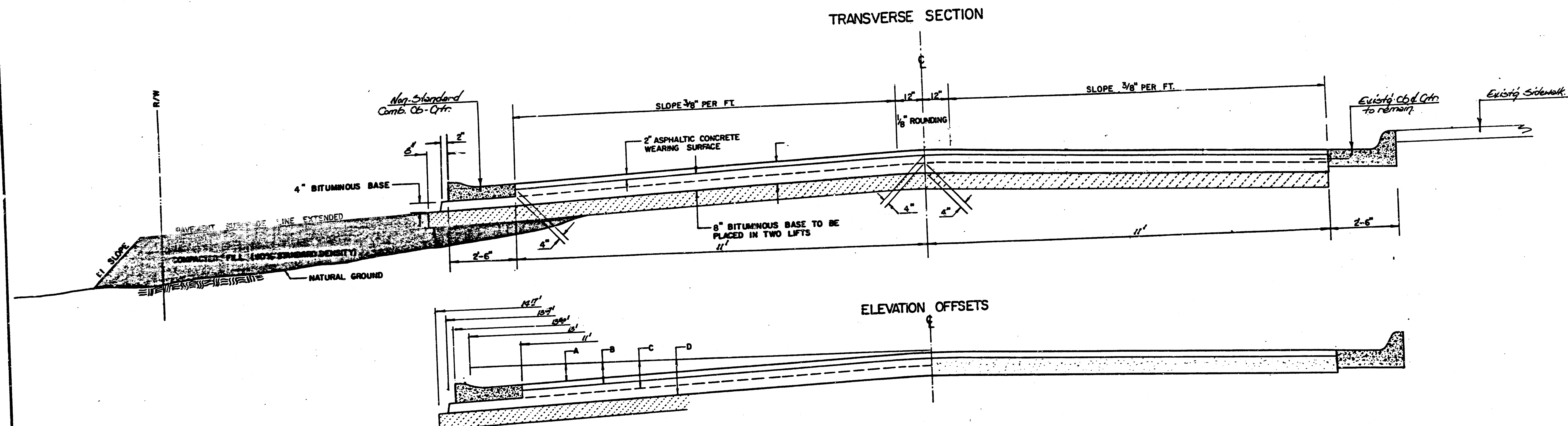
TYPICAL SECTION DETAIL CENTURY II DRIVE RELOCATION

PROJECT NO.
460-24-810-80062-000-000-000
CITY OF WICHITA, KS.

3/13

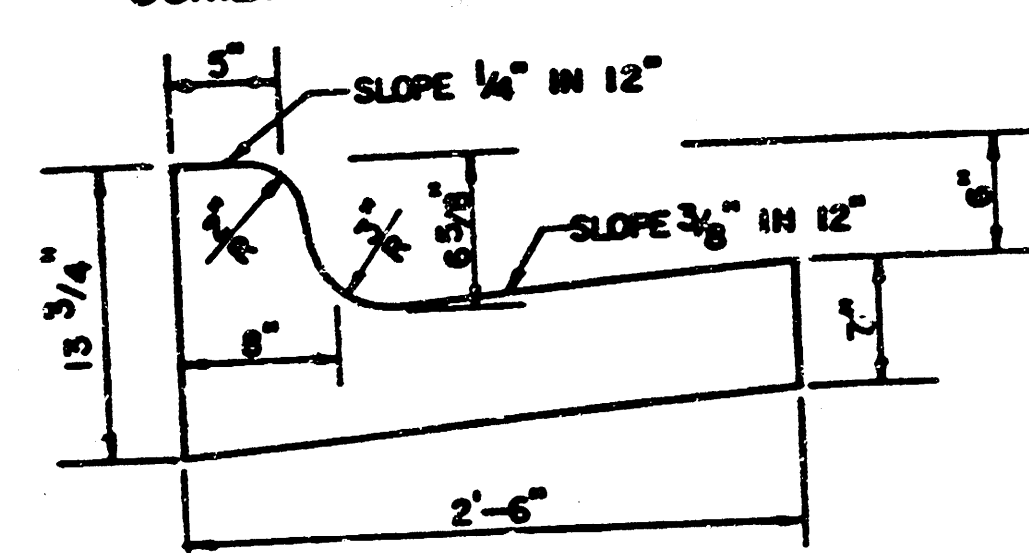
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TYPICAL 27' PAVEMENT DETAILS STA. 4+20¹⁶ TO 5+75

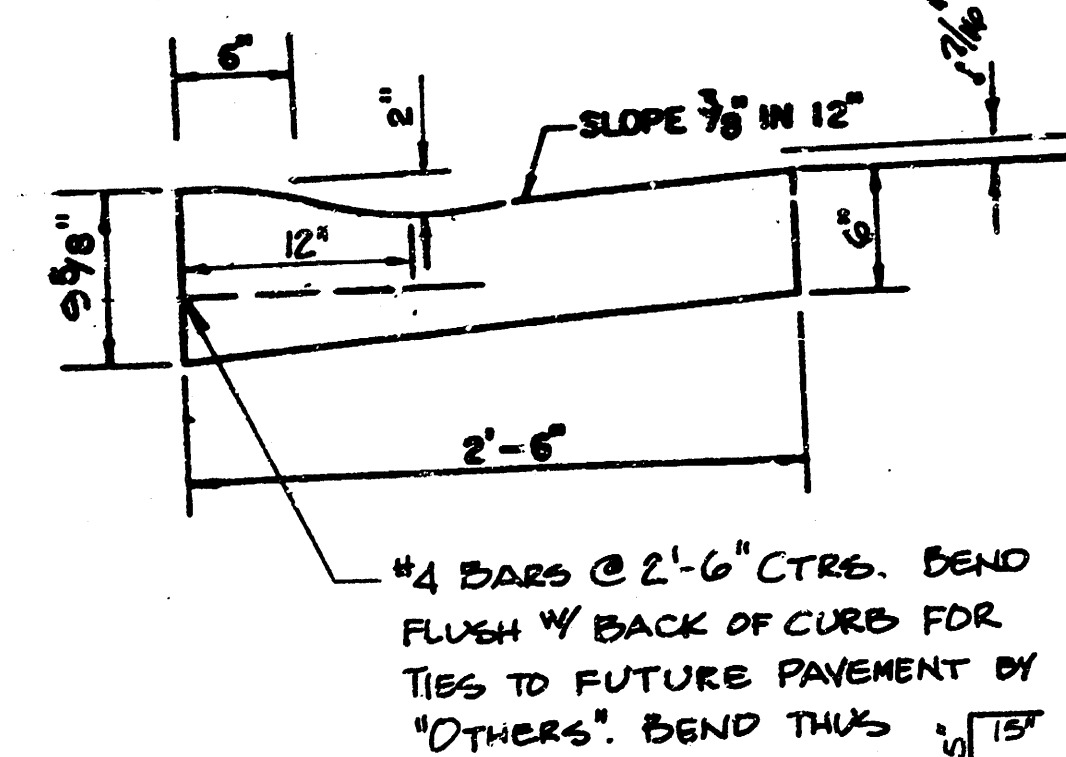


	DISTANCE FROM CENTERLINE (LT. & RT.)										
	0'	2'	4'	6'	8'	10'	11'	13'	15.5'	13.6'	14.17'
A: TOP OF CURBS TO TOP OF SURFACE LIFT	.17	.22	.28	.34	.40	.46	.49	—	—	—	—
B: TOP OF CURBS TO TOP OF UPPER BASE LIFT	.35	.39	.45	.51	.57	.63	.66	—	—	—	—
C: TOP OF CURBS TO TOP OF LOWER BASE LIFT	.69	.73	.80	.88	.95	.97	1.07	1.15	1.17	1.17	—
D: TOP OF CURBS TO TOP OF SUBGRADE	1.10	1.14	1.21	1.28	1.35	1.42	1.45	1.52	1.54	1.54	1.56

COMBINED CURB & GUTTER



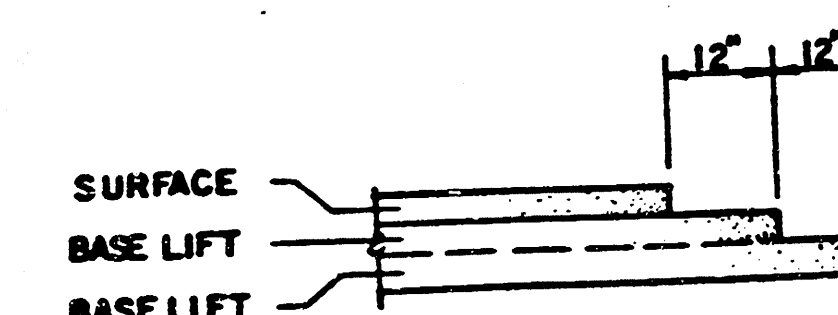
NON-STANDARD ROLL TYPE COMBINED CURB & GUTTER



GENERAL NOTES

- 1) THE ASPHALTIC CONCRETE PAVEMENT BETWEEN THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 10" ASPHALTIC CONCRETE (8" BITUMINOUS BASE).
- 2) THE BITUMINOUS BASE UNDER AND BEHIND THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 4" BITUMINOUS BASE.
- 3) A TACK COAT OF EMULSIFIED ASPHALT (SC-1H OR CSS-1H) SHALL BE APPLIED AT AN APPROXIMATE RATE OF 0.05 GALLONS PER SQUARE YARD BETWEEN EACH LIFT OF ASPHALTIC MATERIAL.
- 4) BITUMINOUS BASE AND ASPHALTIC CONCRETE WEARING SURFACE SHALL BE PLACED WITH A LAYDOWN MACHINE HAVING AUTOMATIC CONTROLS FOR LINE AND GRADE.
- 5) CONSTRUCTION JOINTS IN EACH LIFT SHALL BE STAGGERED A MINIMUM DISTANCE OF ONE (1) FOOT FROM JOINTS IN PRECEDING LIFTS AND PLACED SO THAT A JOINT WILL BE CONSTRUCTED ON THE CENTERLINE OF THE TOP LIFT.
- 6) CONTRACTOR TO BID ONLY ONE SUBGRADE TREATMENT ALTERNATE WHEN ALTERNATES ARE PROVIDED IN THE PROPOSAL AND CONTRACT. THE ALTERNATE CHOSEN BY THE SUCCESSFUL BIDDER SHALL BE USED IN CONSTRUCTING THIS PROJECT.

TRANSVERSE CONSTRUCTION JOINTS



TRANSVERSE CONSTRUCTION JOINTS SHALL BE CONSTRUCTED IN FLEXIBLE BASE PAVEMENTS AT LOCATIONS WHERE PAVEMENT JOINTS EXISTING FLEXIBLE BASE PAVEMENT AS SHOWN BY THE DETAIL. ALL COSTS ASSOCIATED WITH THE CONSTRUCTION OF THE TRANSVERSE JOINT SHALL BE INCLUDED IN THE BID PRICE FOR SQUARE YARDS 10" ASPHALTIC CONCRETE (8" BITUMINOUS BASE).

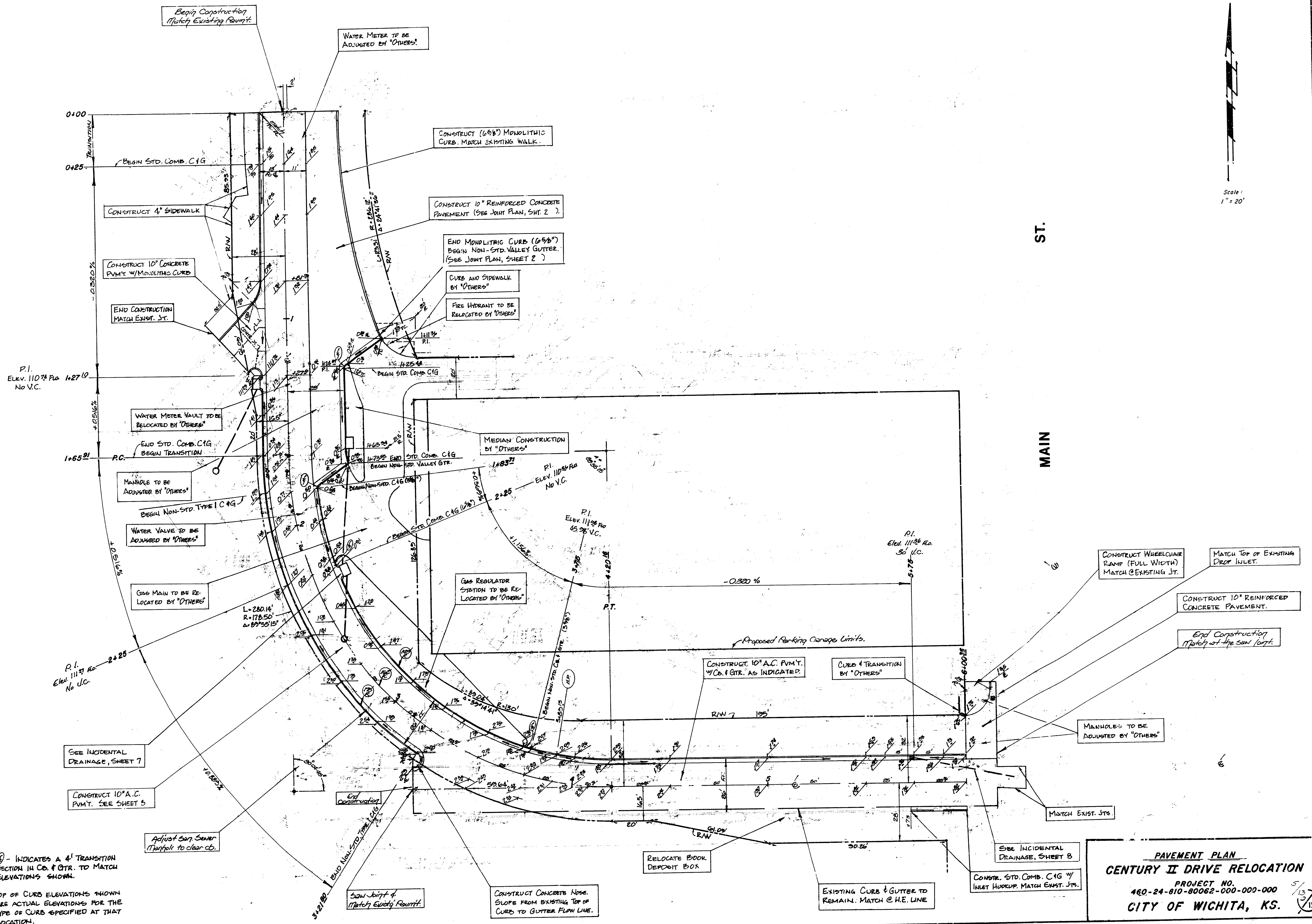
TYPICAL SECTION DETAIL
CENTURY II DRIVE RELOCATION
PROJECT NO.
460-24-810-80062-000-000-000
CITY OF WICHITA, KS.

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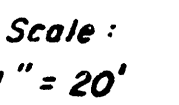
DOUGLAS

AVE.



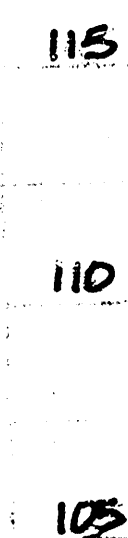
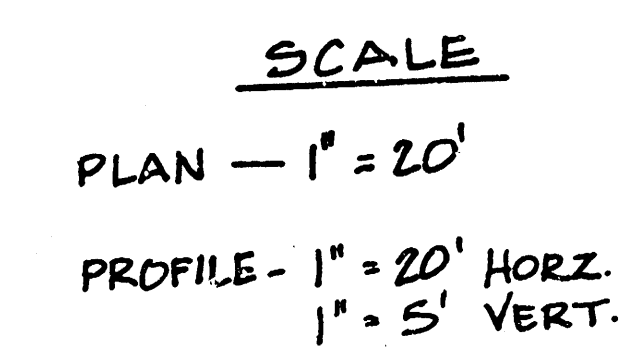
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AVE.



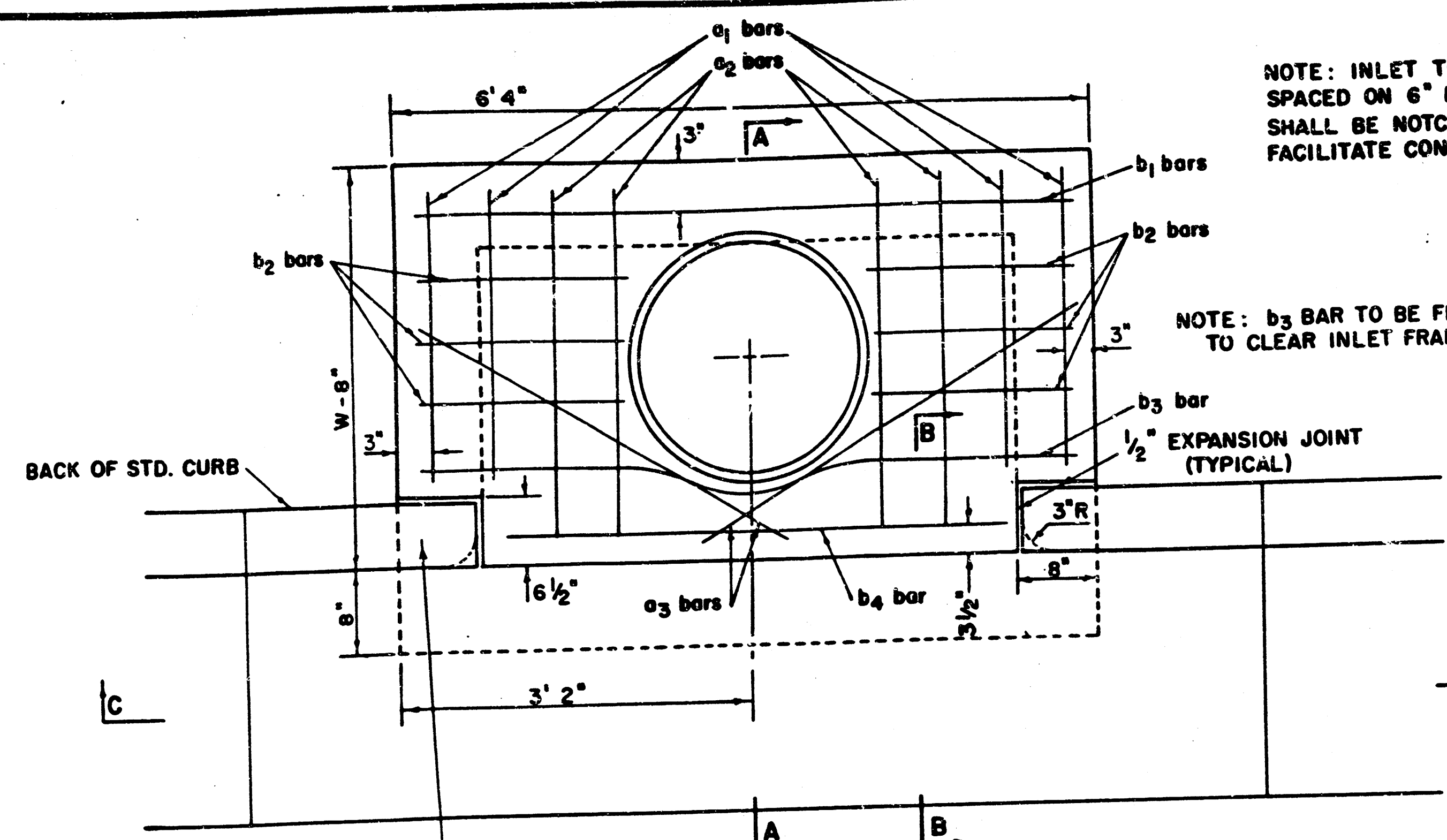
PAVEMENT REMOVAL PLAN
CENTURY II DRIVE RELOCATION
PROJECT NO. _____
460-24-810-80062-000-000-000
CITY OF WICHITA, KS.

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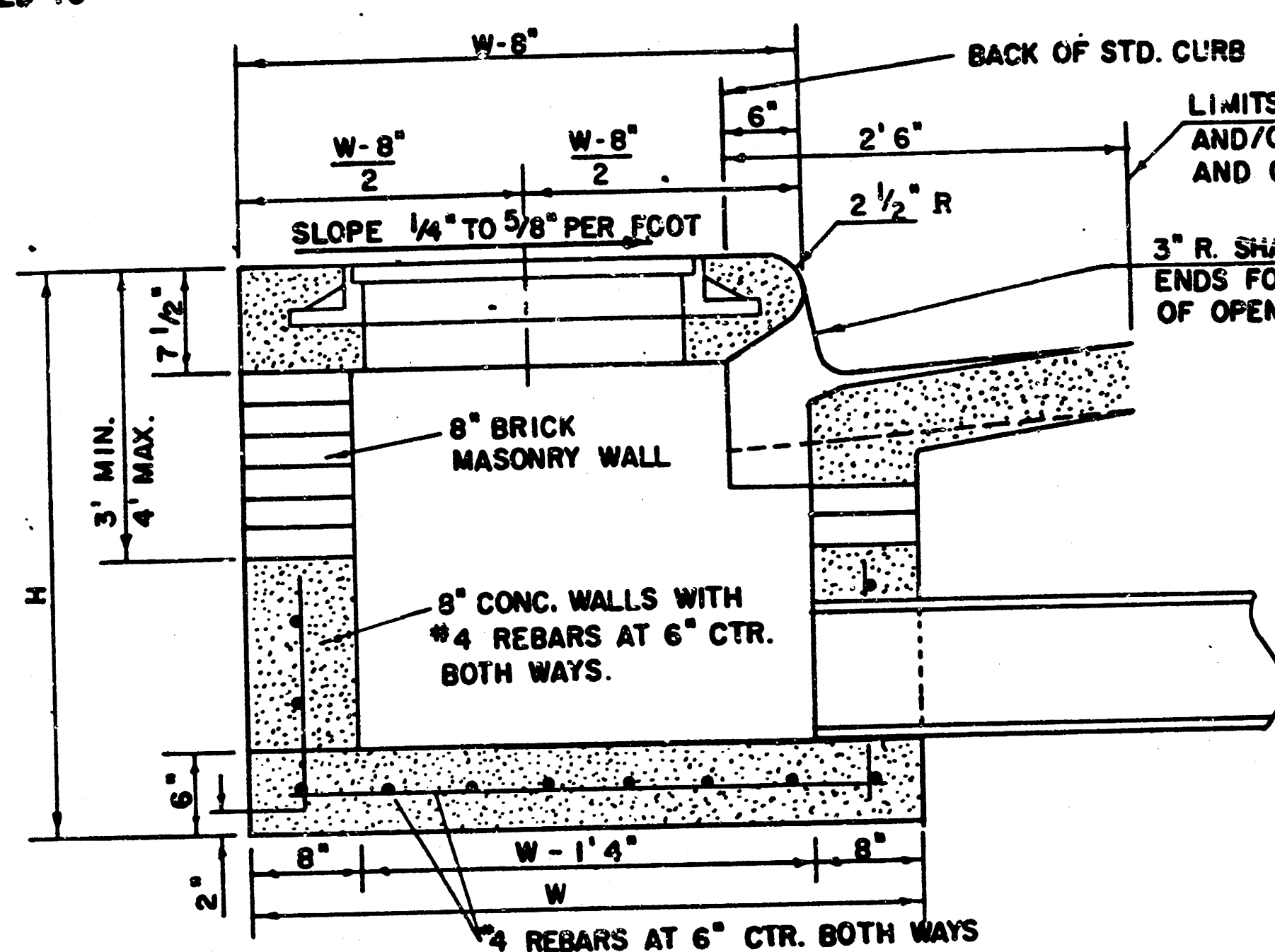


INCIDENTAL DRAINAGE
CENTURY II DRIVE RELOCATION
PROJECT NO.
460-24-210-80062-000-000-000
CITY OF WICHITA, KS.

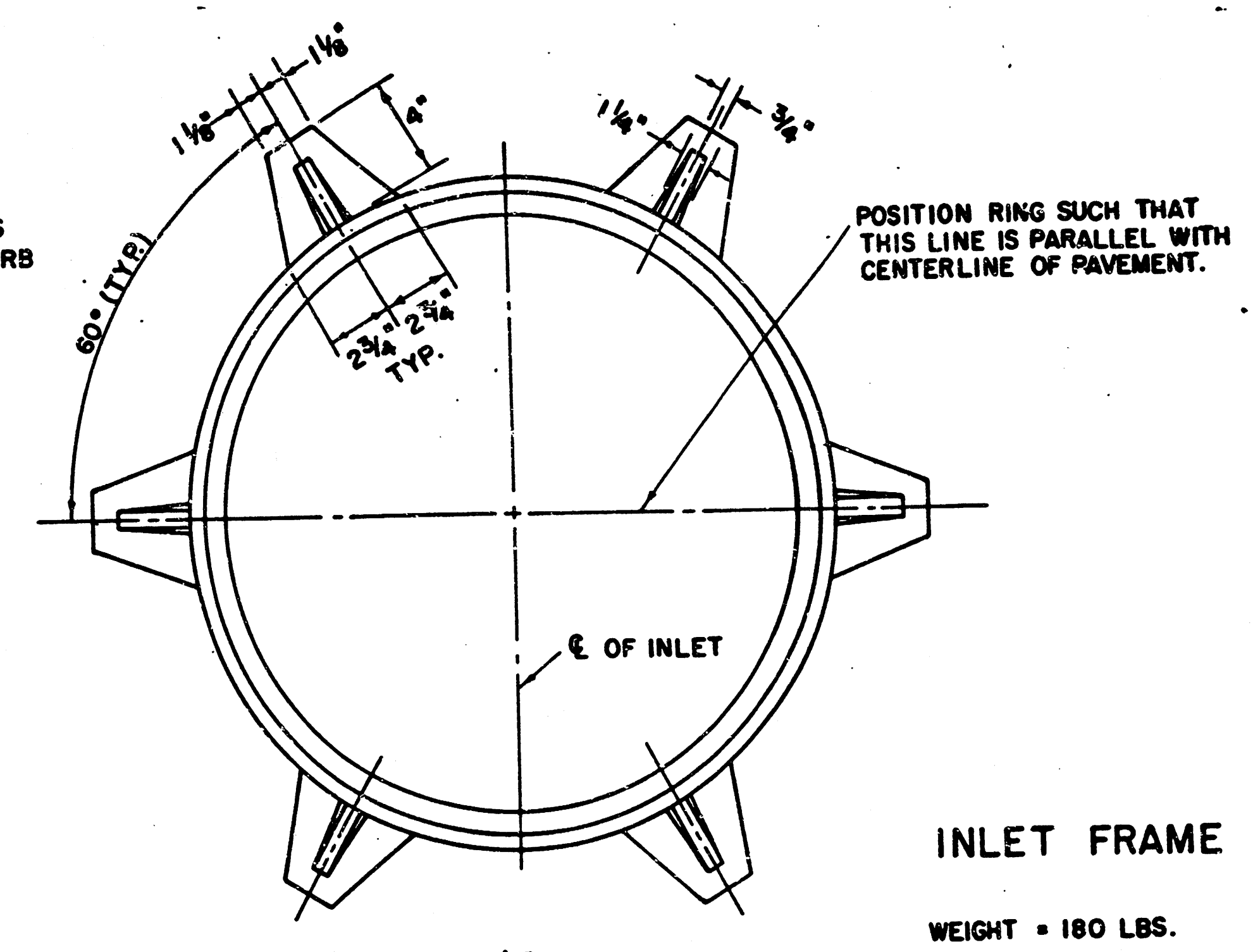
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PLAN



SECTION A-A



STEEL SCHEDULE

BAR	a ₁	a ₂	a ₃	b ₁	b ₂	b ₃	b ₄	WT. LBS.
NUMBER	4	4	2	1	3	5	7	9
SIZE	#4	#4	#4	#4	#4	#4	#4	#4
LENGTH	W-4' 4"	5' 7"	6' 7"	4' 0"	6' 1"	-	-	-
	W-5' 4"	7' 7"	8' 7"	5' 0"	6' 1"	-	-	-
	W-6' 4"	9' 7"	10' 7"	6' 0"	6' 1"	-	-	-
	W-7' 4"	11' 7"	12' 7"	7' 0"	6' 1"	-	-	-
	W-8' 4"	13' 7"	14' 7"	8' 0"	6' 1"	-	-	-

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

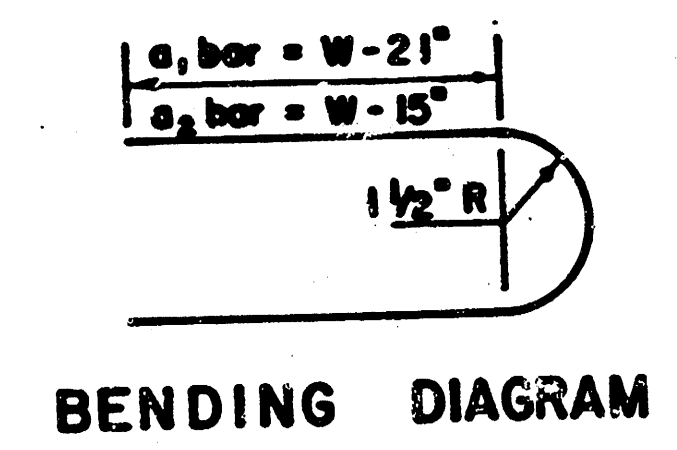
STANDARD CURB INLET PRECAST TOPS

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

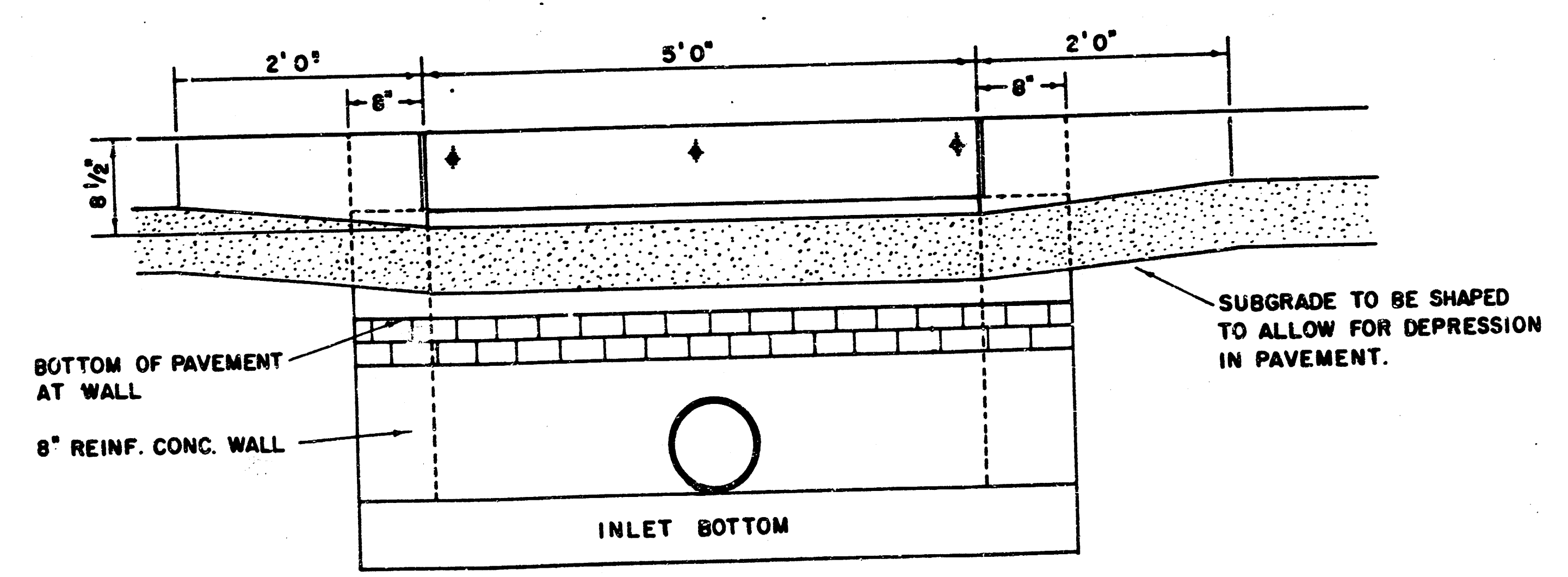
NOTE: CONTRACTOR SHALL HAVE THE OPTION OF CONSTRUCTING 8" BRICK MASONRY WALLS BETWEEN THE CONCRETE INLET BASE AND TOP ON THIS INLET WHEN W = 6' 4" AND H = 7' 0" OR LESS.

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.

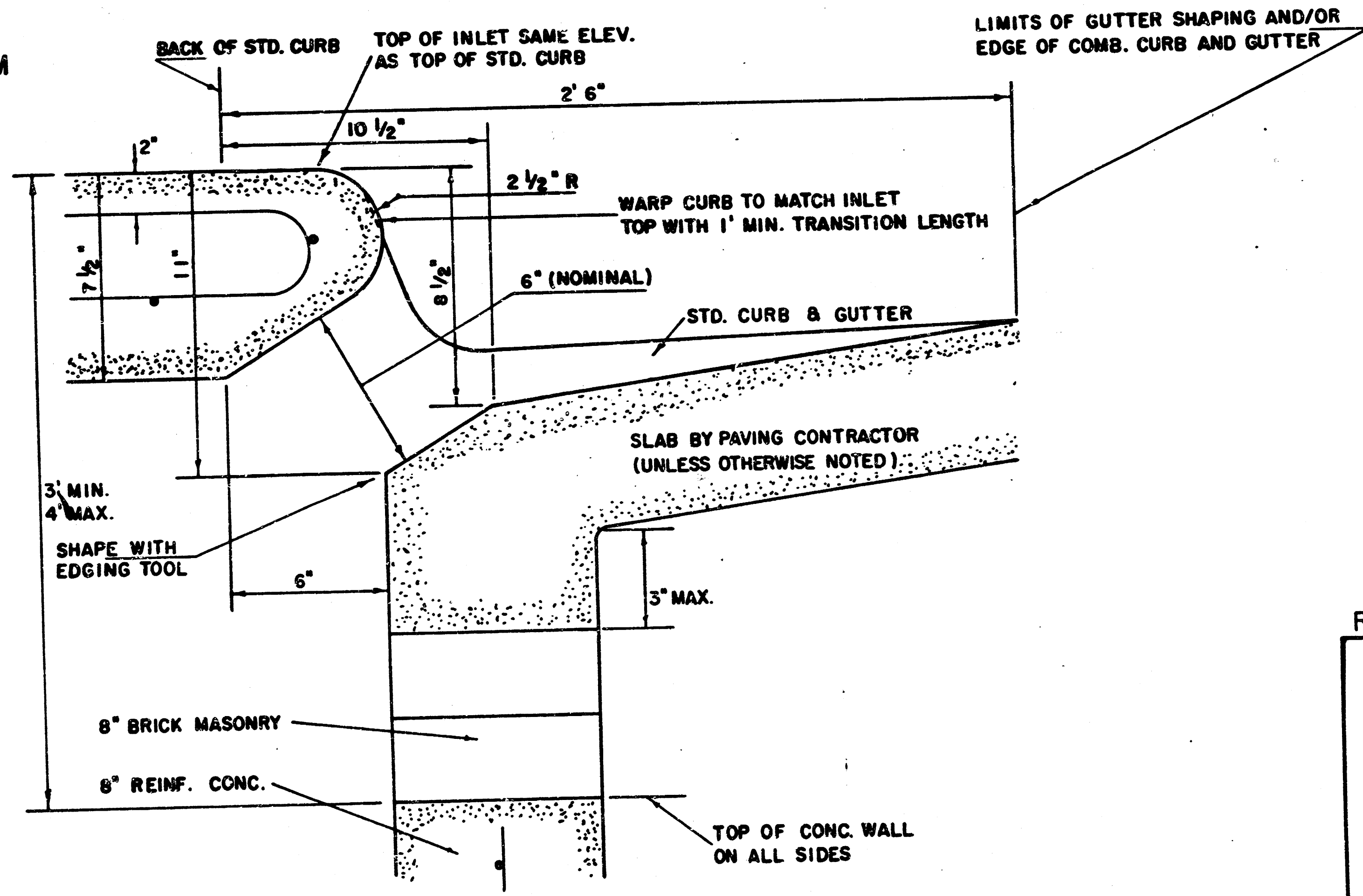
THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.



SECTION B-B



SECTION C-C

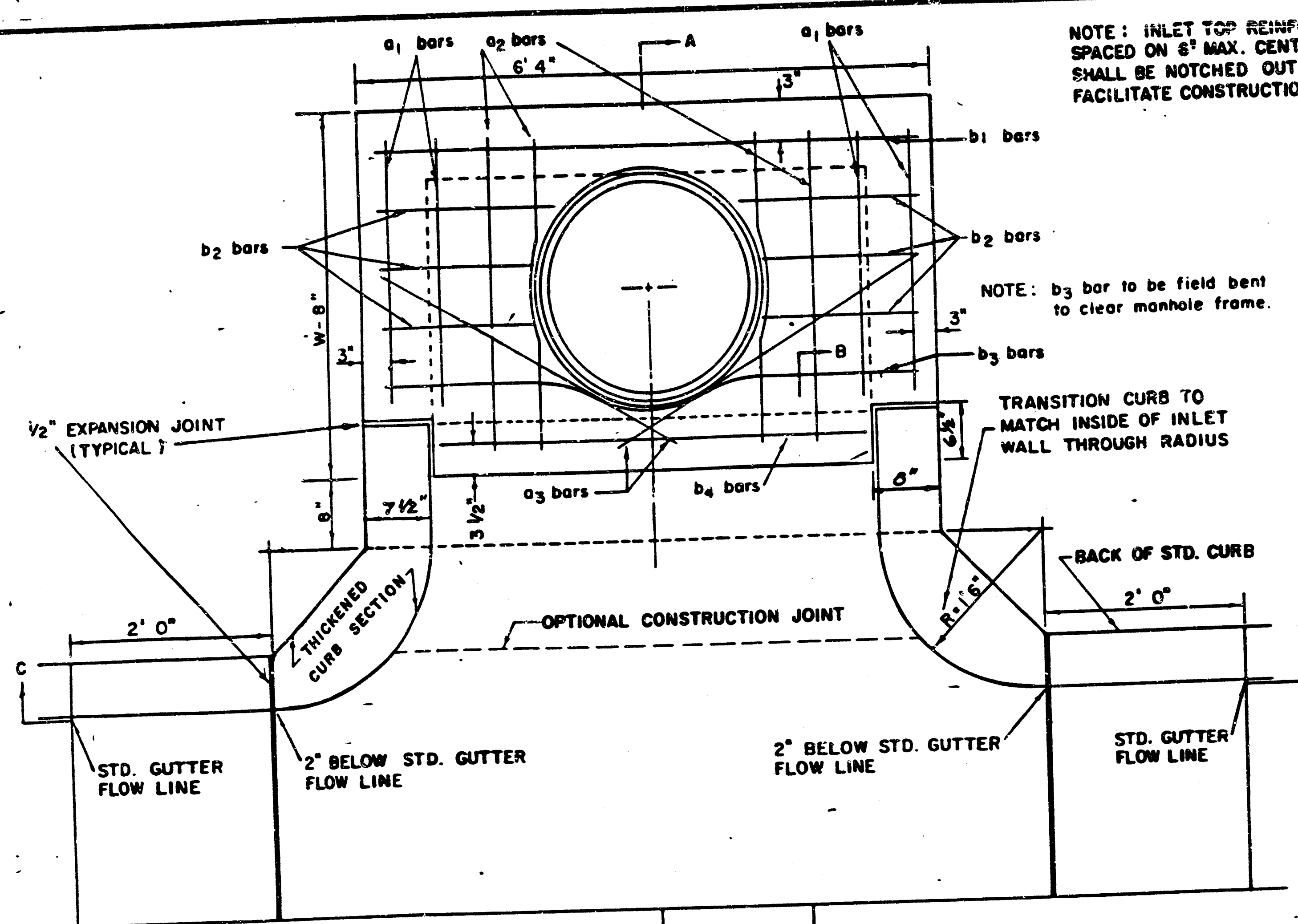


REVISED 12-21-1984

DETAIL STANDARD TYPE I CURB INLET
CITY OF WICHITA, KANSAS
INLET OPENING = 6" x 5' 0"

JUNE 1984

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PLAN

STEEL SCHEDULE

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

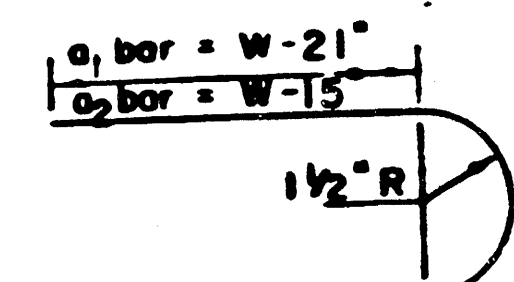
* NOTE: a₃ BARS TO BE PLACED APPROX. 2" BELOW TOP OF INLET COVER

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

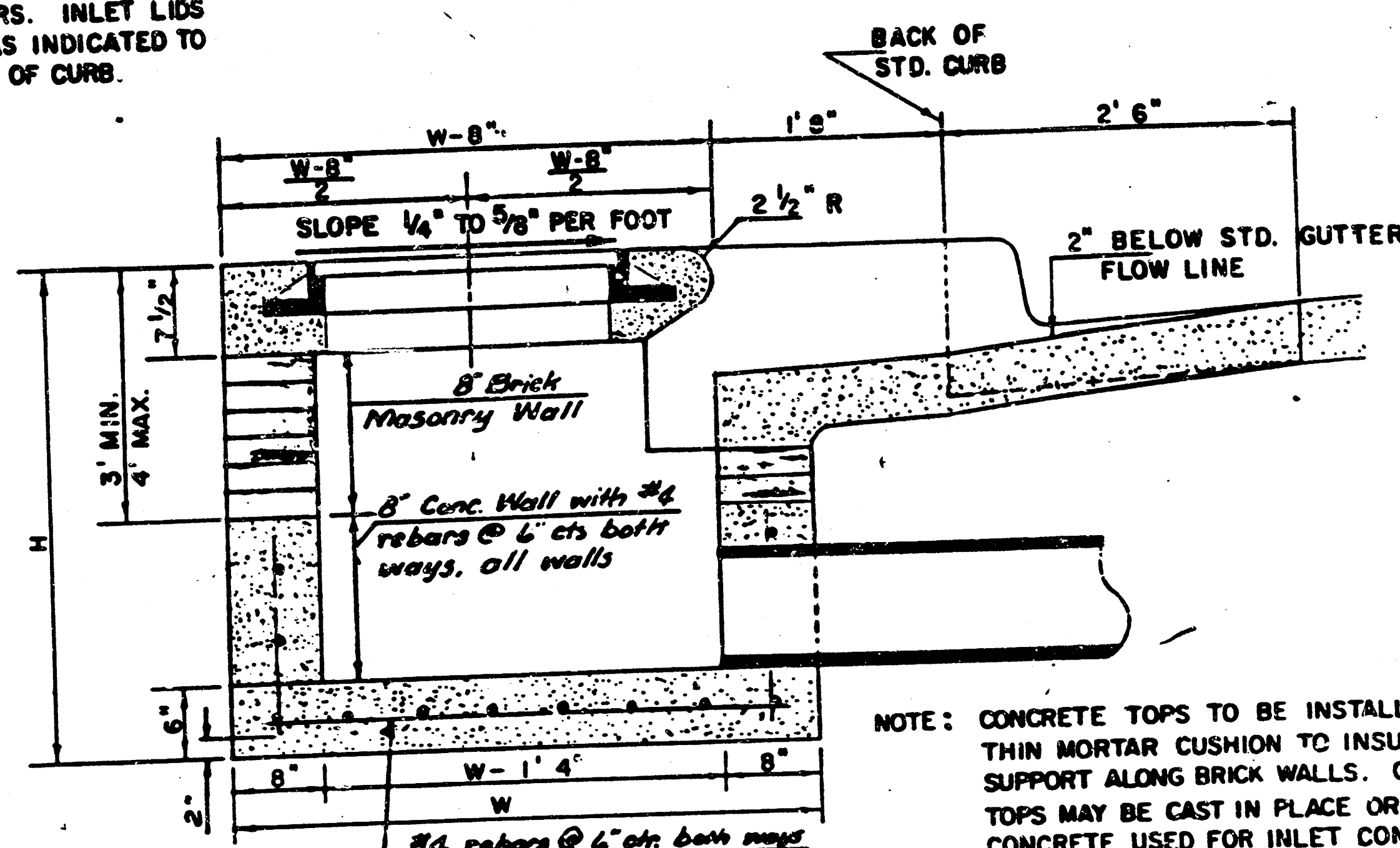
TRANSITION CURB TO MATCH INSIDE OF INLET WALL THROUGH RADIUS

BACK OF STD. CURB



BENDING DIAGRAM

W	PRE-CAST TOP SIZE	PIPE SIZE	C.Y. CONC.
4' 4"	5' 6" x 6' 4" x 7 1/2"	21" & SMALLER	0.38 ±
5' 4"	6' 6" x 6' 4" x 7 1/2"	24" & 30"	0.51 ±
6' 4"	6' 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 ±



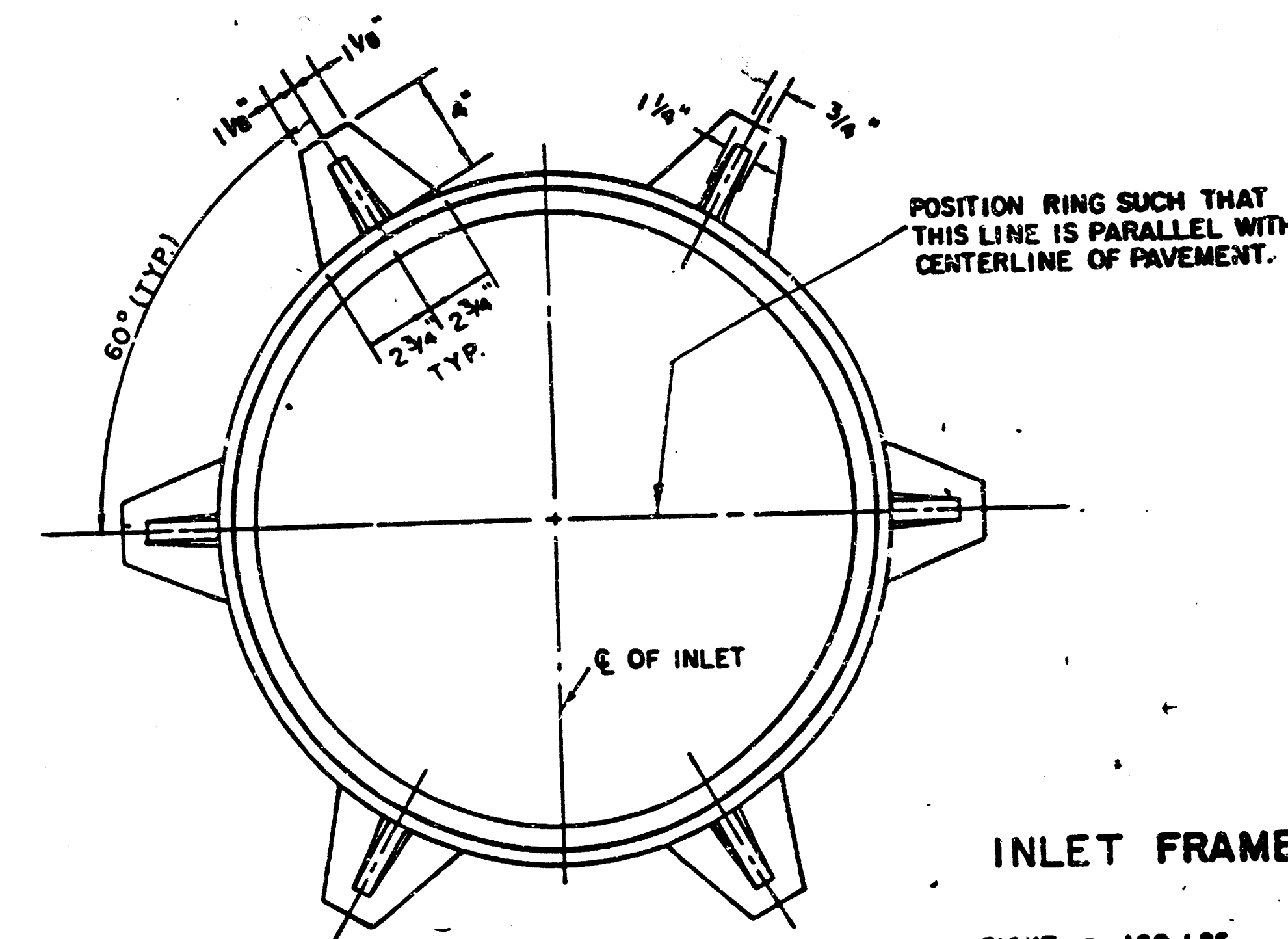
SECTION A-A

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 MAKEUP.

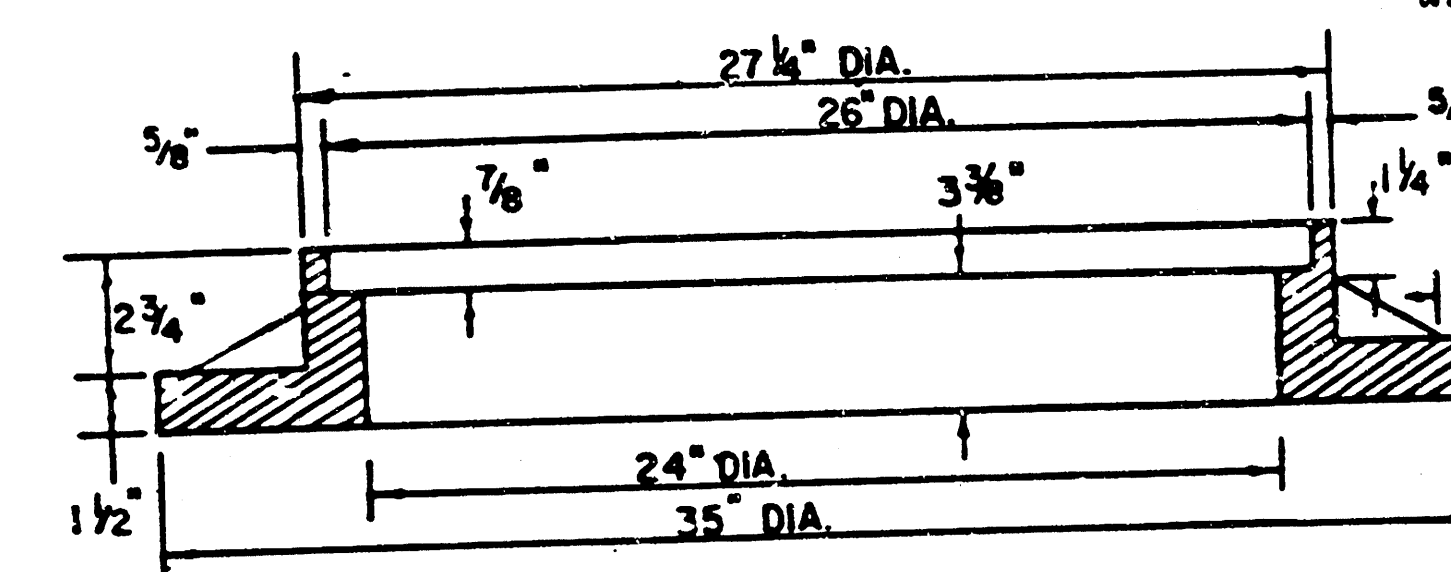
INLET INVERT SHALL BE SHAPED WITH A SACK SAND MIX CONCRETE TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE INLET WILL BE SELF-CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.

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

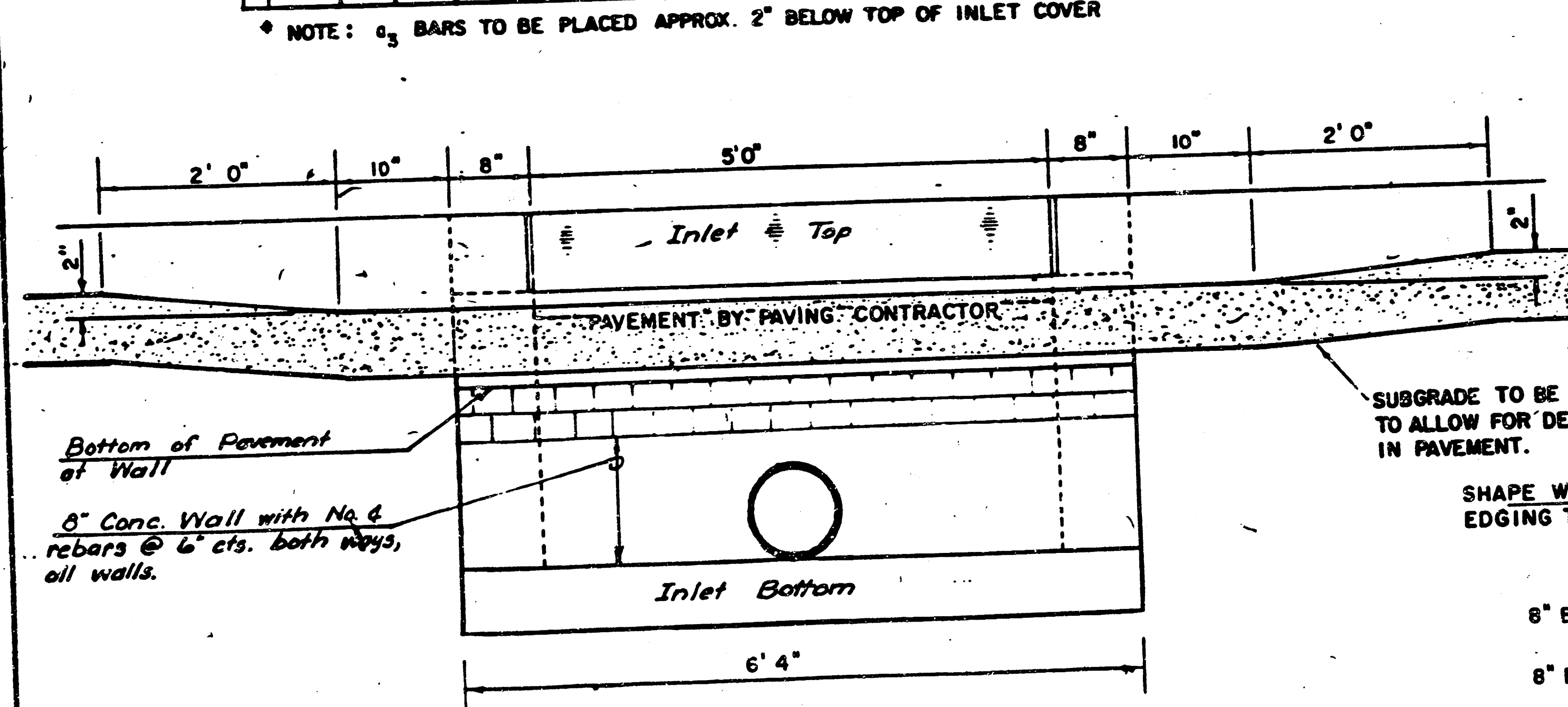


INLET FRAME

WEIGHT = 180 LBS.



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



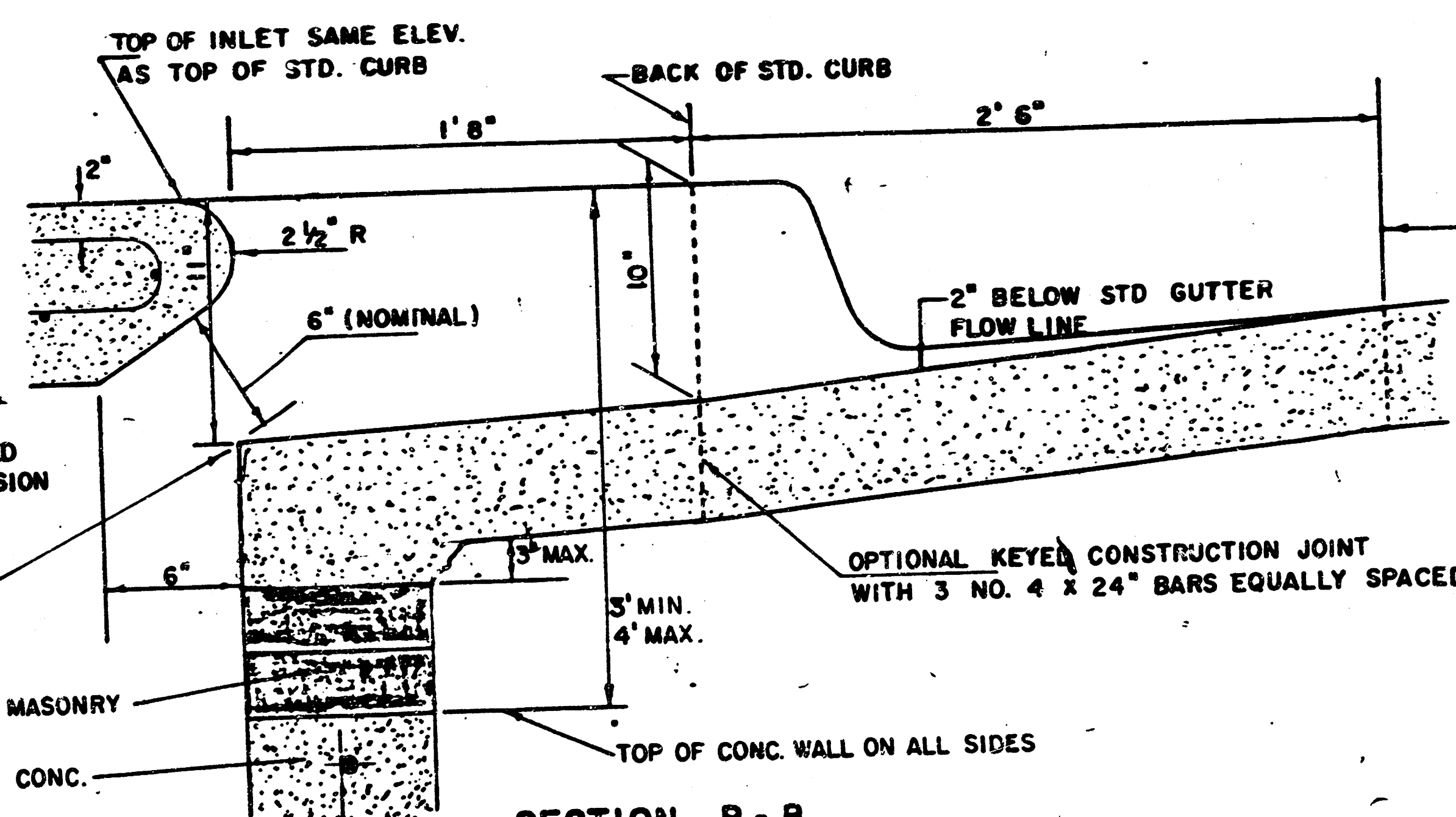
SECTION C-C

SUBGRADE TO BE SHAPED TO ALLOW FOR DEPRESSION IN PAVEMENT.

SHAPE WITH EDGING TOOL

8" BRICK MASONRY

8" REINF. CONC.



SECTION B-B

LIMITS OF GUTTER SHAPING AND/OR EDGE OF COMB. CURB AND GUTTER

2" BELOW STD. GUTTER FLOW LINE

OPTIONAL KEYED CONSTRUCTION JOINT WITH 3 NO. 4 x 24" BARS EQUALLY SPACED

TOP OF CONC. WALL ON ALL SIDES

REVISED 12-21-1984

DETAIL STANDARD TYPE 1A CURB INLET
CITY OF WICHITA, KANSAS
INLET OPENING = 6" x 5' 0"

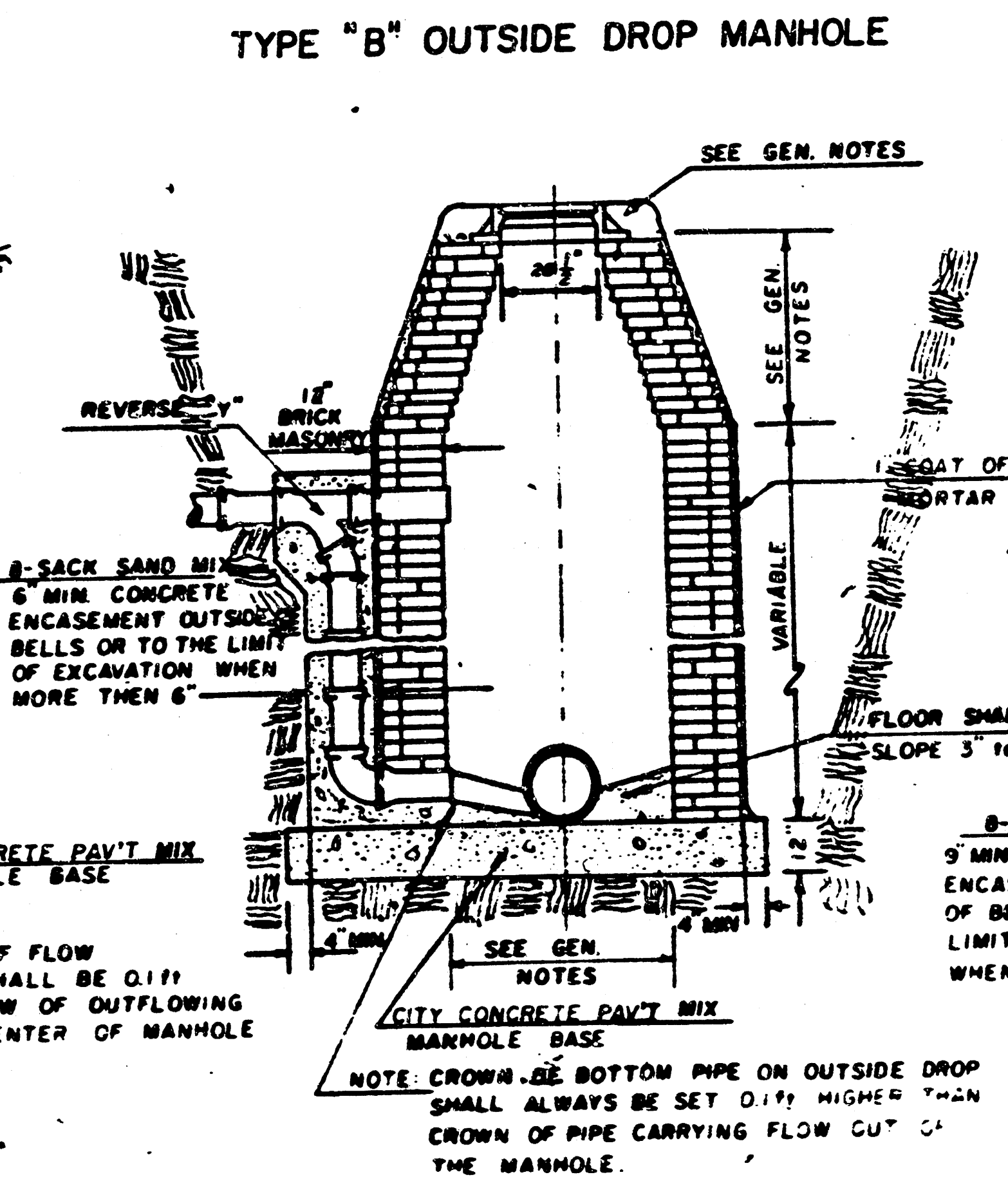
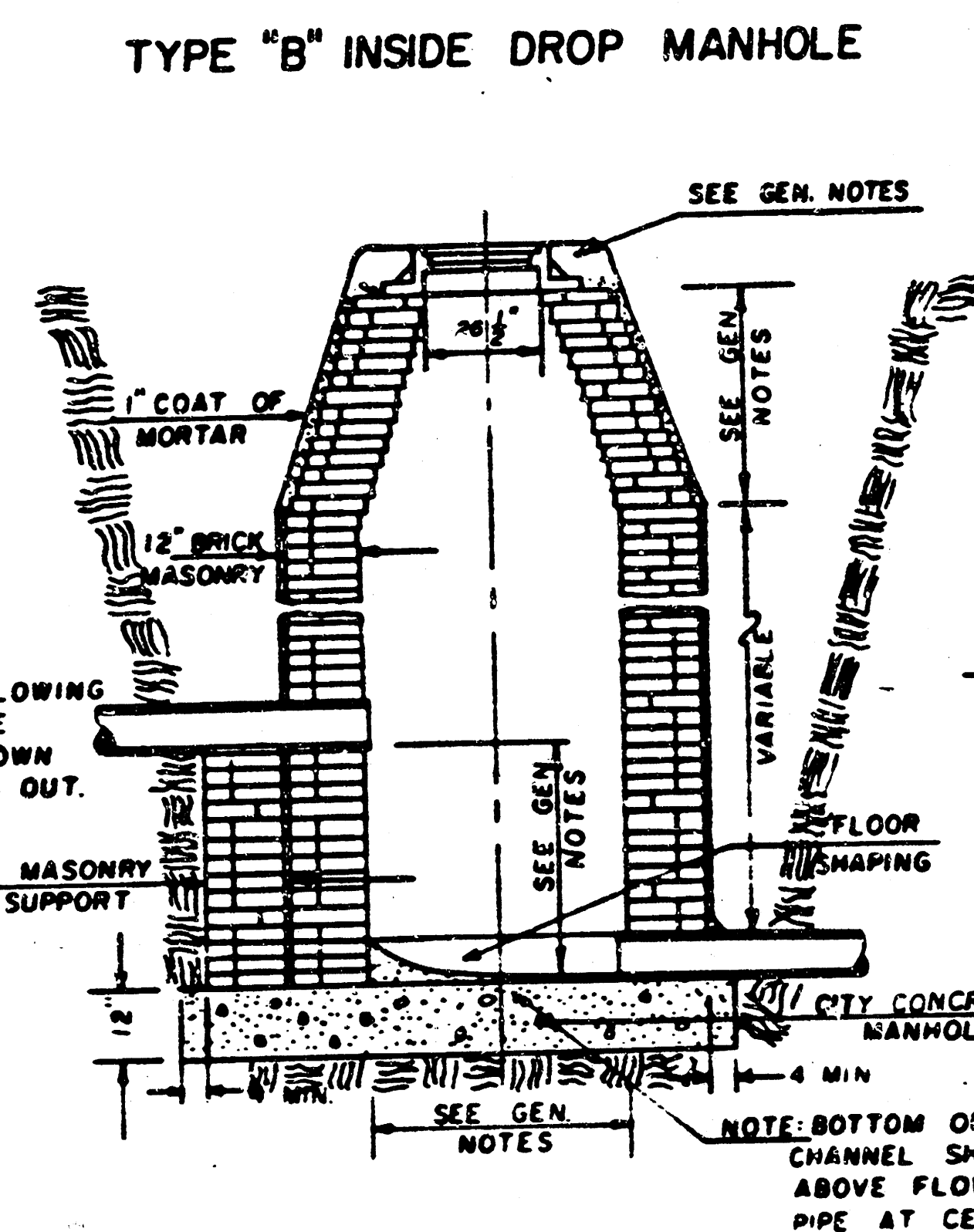
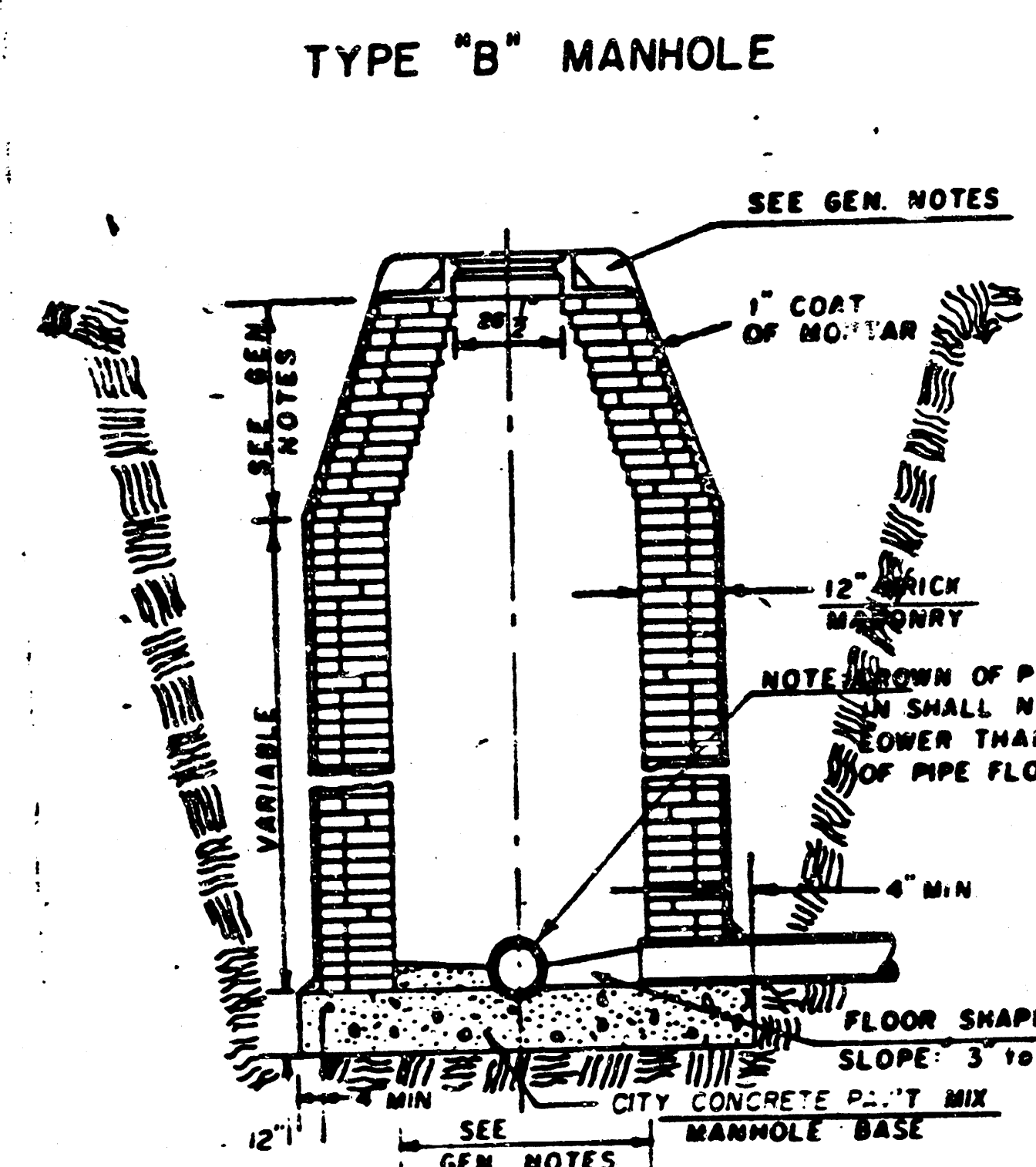
JUNE 1984

SEWER APPURTENANCES DETAILS

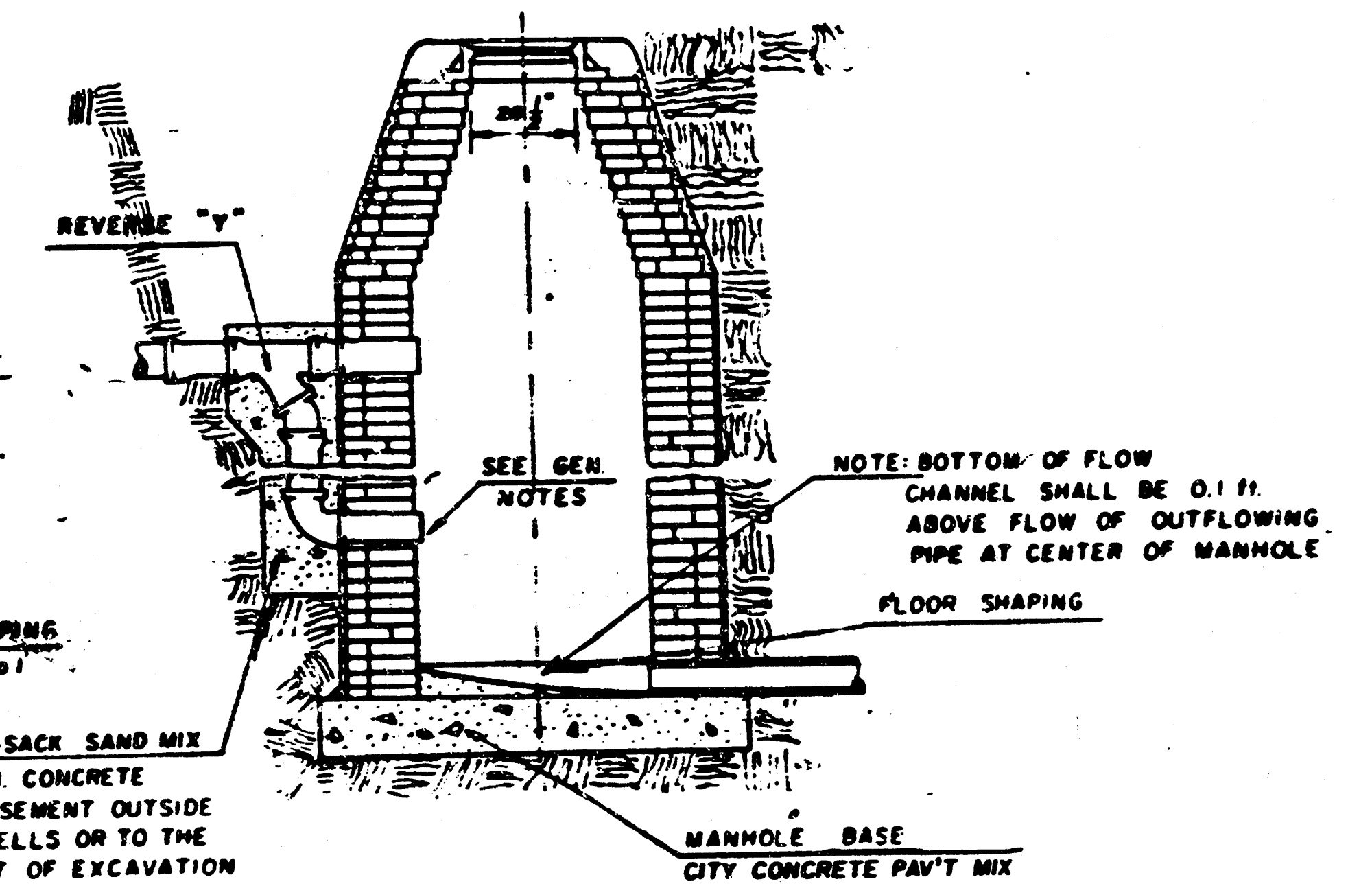
ADOPTED AS STANDARD DESIGN
BY

City of Wichita, Kansas

REVISED MAY 1981
REVISED JAN. 1982



DETAIL OF OUTSIDE DROP
CONSTRUCTED ON EXISTING MANHOLE

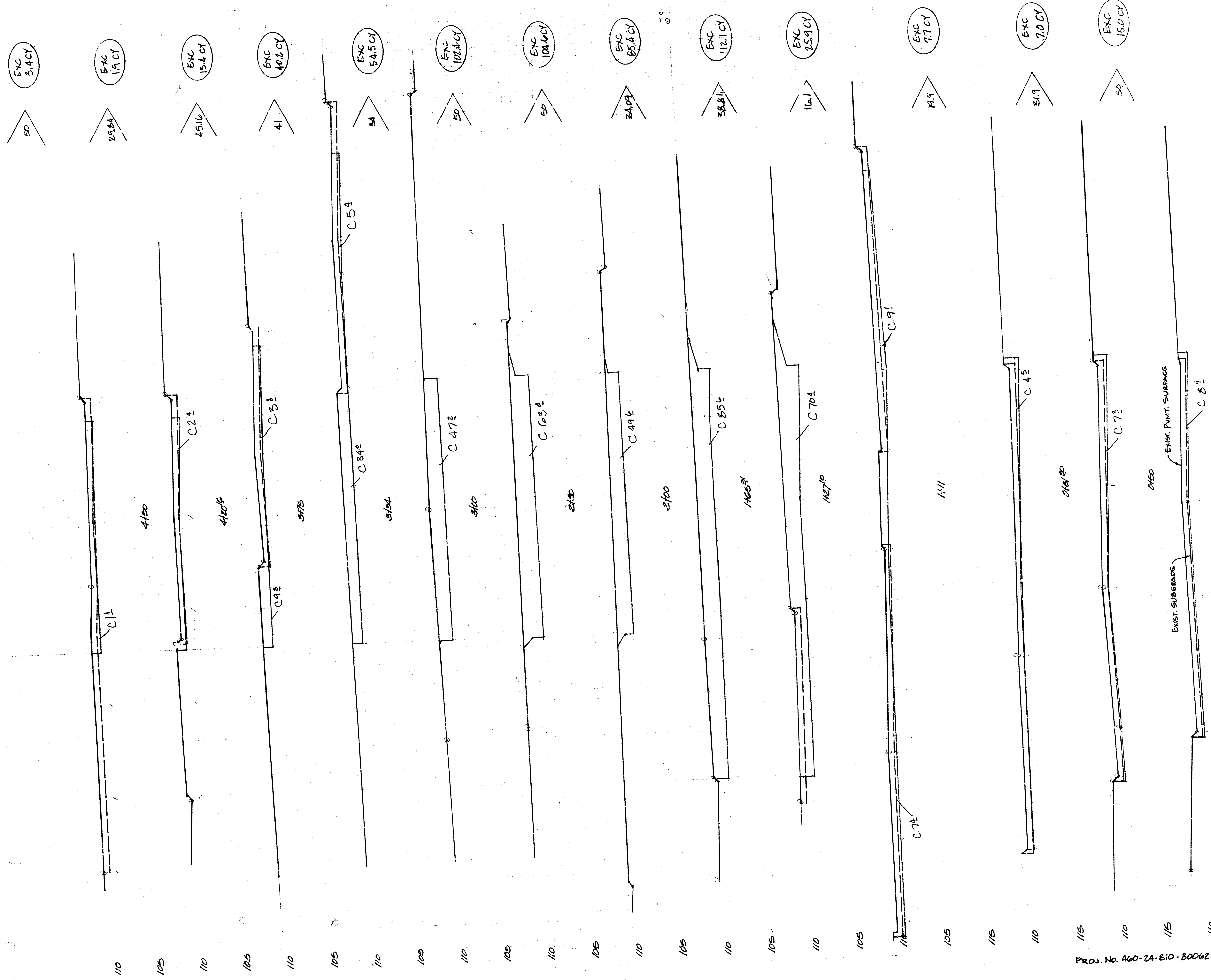


- GENERAL NOTES
1. MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 BAGS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE BASES SHALL CONFORM TO THE REQUIREMENTS OF CONCRETE FOR CONCRETE PAVING CONSTRUCTION AS SPECIFIED IN THE CITY STANDARD PAVING SPECIFICATIONS USING CITY CONCRETE PAVT MIX WITHOUT AIR ENTRAINING ADMIXTURE. MORTAR SHALL BE PLACED AROUND THE MANHOLE RING AS SHOWN ON THE DRAWINGS WHEN MANHOLES ARE CONSTRUCTED IN UNPAVED AREAS. TYPE "B" MANHOLES CAN BE USED ON AREAS HAVING DEPTHS GREATER THAN 16" ON WHICH THE MANHOLE IS LOCATED IN PUBLIC STREET PAVEMENT. MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE SMALLER THAN 24" SHALL HAVE AN INSIDE DIAMETER OF 4'. MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE 24" OR LARGER SHALL HAVE AN INSIDE DIAMETER OF 5'. THE HEIGHT OF THE CORBELS ON 4' DIAMETER MANHOLES SHALL BE 4'. MANHOLES HAVING A DIAMETER OF 5' SHALL HAVE CORBELS 4' IN HEIGHT. COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATER TIGHT.
 2. REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASES AND SHALL CONSIST OF NO. 4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. THE MANHOLE BASE REINFORCEMENT SHALL BE PLACED 6" ABOVE THE BOTTOM OF THE MANHOLE BASE. ALL COSTS FOR FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
 3. OPENINGS SHALL BE CUT INTO THE MANHOLE WALL WHEN OUTSIDE DROPS ARE CONSTRUCTED ON EXISTING MANHOLES. SUCH OPENINGS CUT INTO EXISTING MANHOLES SHALL BE AS SMALL AS PRACTICAL TO FACILITATE INSTALLING AND GROUTING THE NEW PIPE IN PLACE. WATERSTOP GASKETS SHALL BE USED WITH P.V.C. AND A.B.S. COMPOSITE PIPE. THE NEW PIPE SHALL BE GROUTED INTO THE OPENING USING AN APPROVED NONSHRINK GROUT FOR THE FULL MANHOLE WALL THICKNESS. THE EXTERIOR OF THE COMPLETED CONNECTION SHALL BE SEALED WITH AN APPROVED BITUMINOUS COATING SUCH THAT THE CONNECTION WILL BE WATER TIGHT. FLOOR OF MANHOLE SHALL BE MODIFIED TO FORM NEW FLOW CHANNEL FOR THE NEW CONNECTION AS INDICATED BY THE DRAWING. THE VERTICAL DROP FROM THE LOWER PIPE ON OUTSIDE DROP CONNECTIONS SHALL NOT EXCEED 4' FOR INFLOWING PIPES SIZED 12" OR SMALLER AND 2' FOR INFLOWING PIPES SIZED LARGER THAN 12", EXCEPT THE CROWN OF THE LOWER PIPE SHALL NEVER BE SET BELOW THE CROWN OF ANY LARGER OUTFLOWING PIPE. THIS WORK, INCLUDING MODIFICATION OF MANHOLE FLOOR, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR OUTSIDE DROP STACK CONSTRUCTED ON EXISTING MANHOLE.

4. THE FLOORS OF ALL MANHOLES SHALL BE SHAPED WITH FLOW CHANNELS SUCH THAT THE MANHOLES WILL BE SELF-CLEANING AND FREE OF AREAS WHERE SOLIDS COULD BE DEPOSITED AS SEDIMENT. FLOORS THROUGH THE MANHOLE FROM ALL INLET PIPES TO THE OUTLET PIPE. FLOW CHANNELS SHALL BE FORMED TO MATCH THE BOTTOM HALVES OF THE INFLOWING PIPES AND THE OUTFLOWING PIPES AS SHOWN BY THE DRAWINGS EXCEPT FOR INSIDE DROP MANHOLES. FLOW CHANNELS FOR INSIDE DROP MANHOLES SHALL BE CONSTRUCTED AS INDICATED BY THE DRAWING. MANHOLE FLOORS SHALL HAVE SLOPES OF 3 INCHES PER FOOT IN THE AREAS OUTSIDE OF THE FLOW CHANNELS SLOPED TOWARD THE FLOW CHANNELS. PIPES LAID THROUGH MANHOLES SHALL HAVE THE TOP HALF REMOVED TO GREAT LINES FOR THE FULL INSIDE DIAMETER OF THE MANHOLE. MANHOLE FLOORS SHALL THEN BE SHAPED AROUND THE BOTTOM HALF OF THE PIPE WHICH FORMS THE FLOW CHANNEL.
5. PIPES INSTALLED WITHIN THE EXCAVATION MADE FOR THE MANHOLE SHALL BE CRADLED WITH CONCRETE TO THE LIMITS OF THE MANHOLE EXCAVATION. WHEN CLAY PIPE IS USED, THE CRADLE SHALL EXTEND TO THE FIRST JOINT OUTSIDE THE MANHOLE. THE CRADLE SHALL BE TERMINATED AT THE CLAY PIPE JOINT IN A MANNER WHICH WILL MAINTAIN THE FLEXIBILITY OF THE JOINT. COST OF CRADLE WITHIN MANHOLE EXCAVATION OR TO CLAY PIPE JOINTS ADJACENT TO MANHOLE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
6. MANHOLE COVER CASTINGS AND MANHOLE FRAME CASTINGS SHALL CONFORM TO THE REQUIREMENTS AS INDICATED IN THE STANDARD SPECIFICATIONS AND AS SHOWN IN THE STANDARD DETAIL DRAWING.
7. THE VERTICAL DROP IN INSIDE DROP MANHOLES SHALL NOT EXCEED 4' FOR INFLOWING PIPES SIZED 12" OR SMALLER AND 2' FOR INFLOWING PIPES LARGER THAN 12". THE CROWNS OF INFLOWING PIPES SHALL NEVER BE SET LOWER THAN THE CROWN OF THE OUTFLOWING PIPE.
8. STANDARD MANHOLES TYPE "B" AND STANDARD INSIDE DROP MANHOLES TYPE "B" SHALL BE BID AS STANDARD MANHOLES FOR THE TYPE AND DIAMETER INDICATED. OUTSIDE DROP MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE.

CENTURY II DRIVE RELOCATION
PROJECT NO.
460-24-810-80062-000-000-000
CITY OF WICHITA, KS.

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PROJECT TOTAL
EXC. = 588.3 CY.
FILL = 0

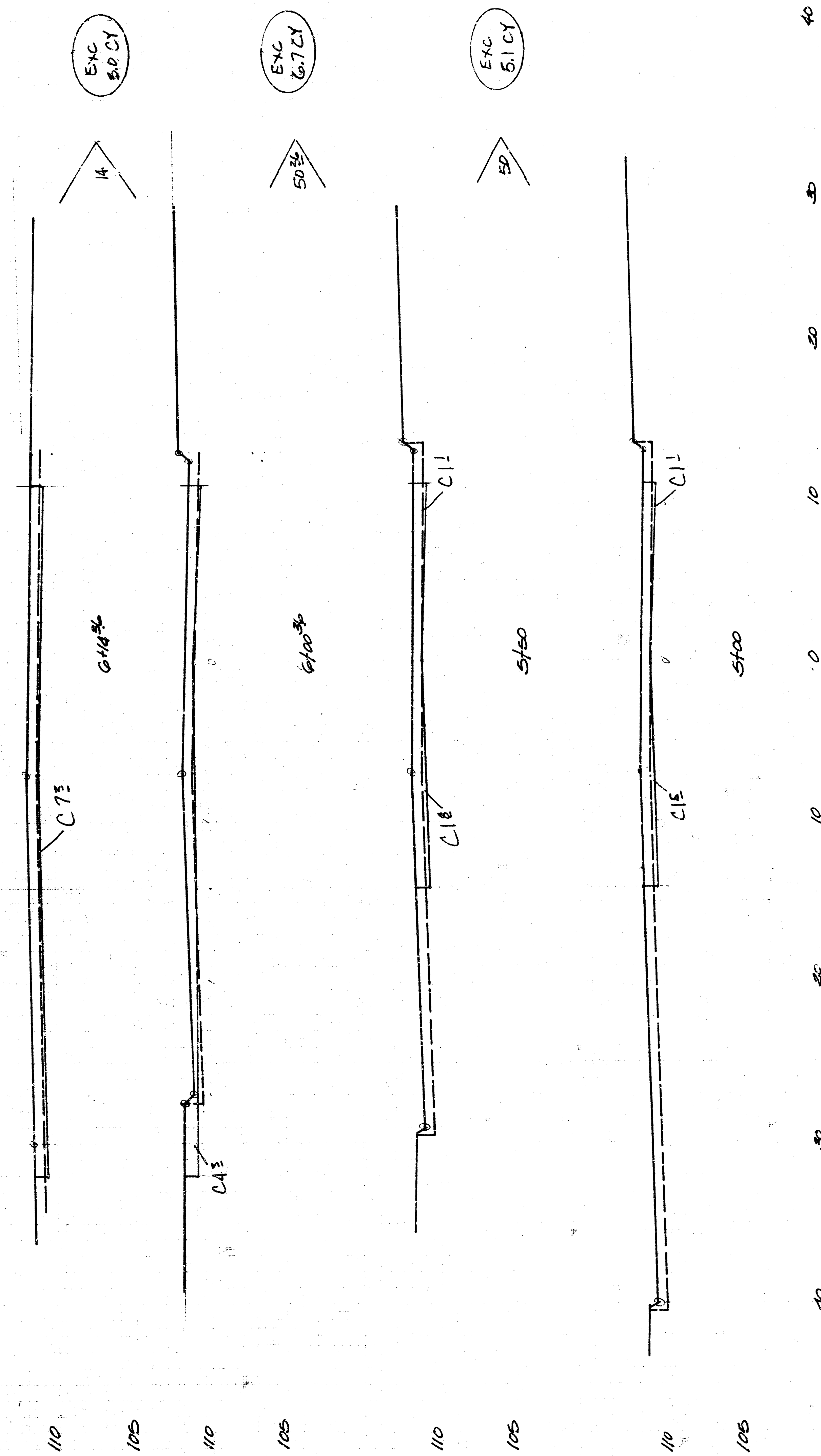
SHEET TOTAL
EXC. = 578.5 CY.
FILL = 0

40 30 20 10 0 10 20 30 40

PROJ. No. 460-24-810-80062-000-000-000

12/13

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SHEET TOTAL
 EXC. = 14.8 CY.
 FILL = 0

PROJ. NO. 460-24-10-6000-000-000

13/15

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