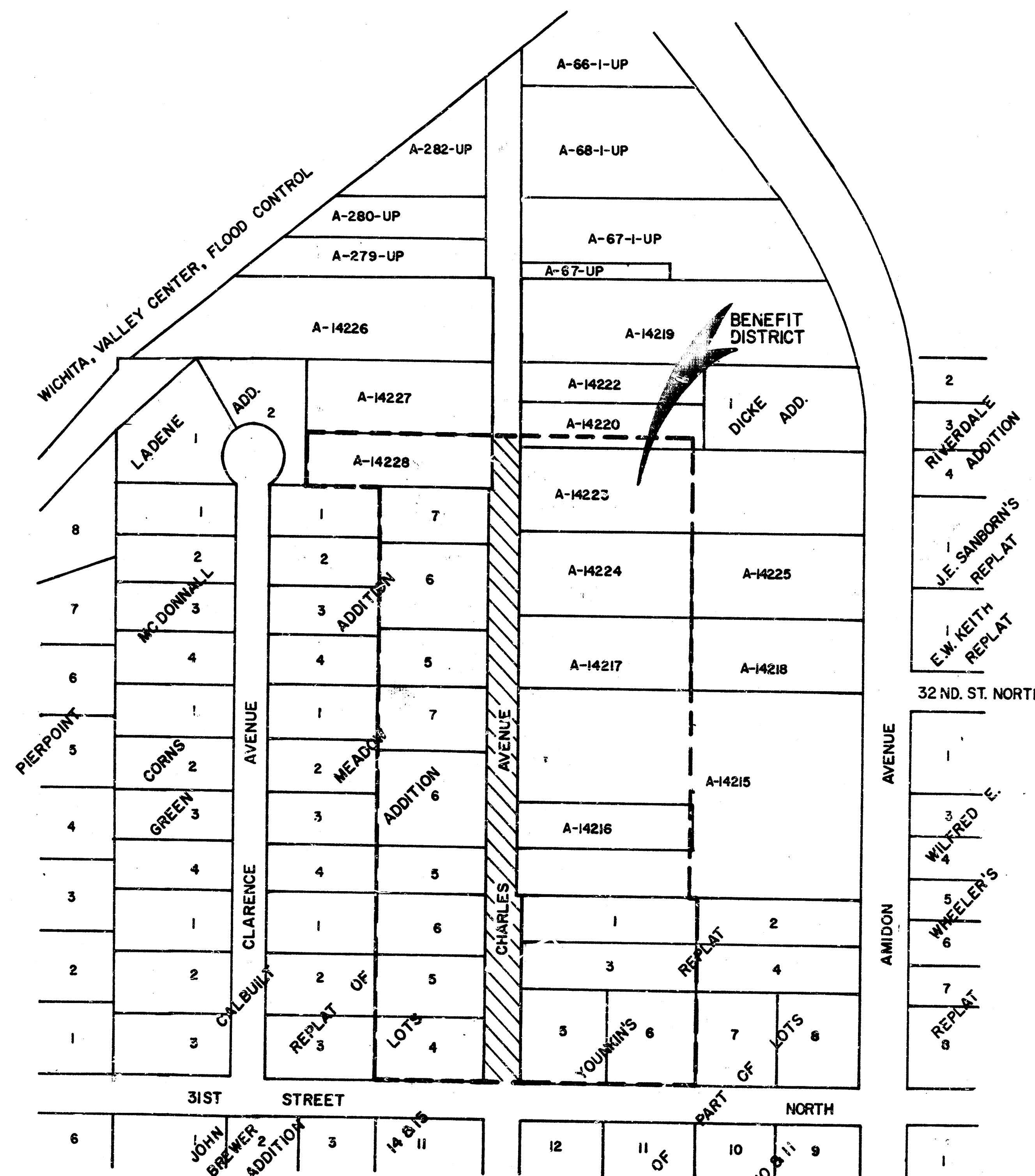


FROM 31ST STREET NORTH TO 1055 FEET NORTH

CITY OF WICHITA, KANSAS
MICHAEL E. LINDEBAK CITY ENGINEER
MARCH 1989

GENERAL NOTES

- CHARLES STREET SHALL BE CLOSED UNTIL THE EXCAVATION, SURGEHAND MANIFESTATIONS, FIRST LIFT OF ASPHALTIC CONCRETE BASE COURSE, AND THE CURB AND GUTTER HAVE BEEN INSTALLED. AFTER THE CURB AND GUTTER ARE IN PLACE, TRAFFIC WILL BE ALLOWED TO PASS AS USUAL ON LOCAL TRAFFIC THROUGHOUT THE DURATION OF THE STREET CONSTRUCTION.
7. UTILITY SERVICE LINES; POLARIS, VALVE BOXES, METERS, AND OTHER ACCESSORIES SHALL BE RELOCATED BY OTHERS PRIOR TO UNOCCUPANCY UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR OR UNLESS THE PLANS SPECIFICALLY REQUIRE THE UTILITY TO BE ADJUSTED BY ITS OWNERS DURING CONSTRUCTION. EXISTING UTILITIES AND THEIR LOCATIONS, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FROM THE RECORDS OF THE CONTRACTOR. THE CONTRACTOR SHALL NOT OCCUPY ANY RIGHTS AT THE RIGHT-OF-WAY WHICH DO NOT COMPLY WITH PROGRAM CONSTRUCTION.
8. RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES AND EXCESS EXCAVATION MICHIN IS TO BE WASTED SMALL BE DISPOSED OF OFF SITE. RUBBLE TO BE REUSED FOR THE PROJECT AND SERVICES SHALL BE APPROVED BY THE ENGINEER AS TO SUITABILITY, APPEARANCE AND QUANTITY. THE CONTRACTOR SHALL PROVIDE A LICENSED PROFESSIONAL ENGINEER, WILL LEAVE AN UNSIGHTLY APPEARANCE WILL NOT BE APPROVED.
9. THE CITY OF MICHIGAN'S SEWER MAINTENANCE DIVISION HAS TELEVISION EQUIPMENT FOR THE INSPECTION OF THE OPERATING AND NON-OPERATING DEFACTS REQUIRING REPAIR. THE DIVISION SHALL BE NOTIFIED AND AFFORDED THE OPPORTUNITY TO INVESTIGATE SEWER LINES AFTER THE CONTRACTOR HAS COMPLETED THE EXCAVATION AND BEFORE CONSTRUCTION TO DETERMINE IF SUCH SEWER LINES HAVE BEEN DAMAGED BY HIS CONSTRUCTION. THE CONTRACTOR SHALL BE ADVISED BY THE ENGINEER THAT REPAIRS WILL BE REQUIRED BY THE CONTRACTOR, AS DIRECTED BY THE ENGINEER, AT THE CONTRACTOR'S EXPENSE. TELEVISION LOOKS ARE SUBJECT TO THE DISCRETION OF THE CONTRACTOR DURING WORKING HOURS AT THE SEWER MAINTENANCE DIVISION'S OFFICE AT CITY HALL.
10. THE CONTRACTOR SHALL NOTIFY PIPELINE COMPANIES AT LEAST 24 HOURS IN ADVANCE OF ANY WORK BEING PERFORMED OVER AND/OR ALONG ANY PIPELINES.
11. DELIVERY LOCATIONS SHOWN ON THE PLANS ARE TENTATIVE. CONTRACTOR WILL BE REQUIRED TO OBTAIN PROPERLY EXECUTED DELIVERY REQUEST FORM SIGNED BY PROPERTY OWNER OR HIS AUTHORIZED REPRESENTATIVE VERIFIED BY PROPERTY NUMBER AND HIS ADDRESS. ALL DELIVERIES SHALL BE SUBMITTED TO THE ENGINEER FOR HIS REVIEW AND APPROVAL.
12. MAILBOXES WITHIN THE LIMITS OF THE PROJECT SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR AS APPROVED BY THE ENGINEER. WHILE THIS WILL BE REQUIRED TO HAVE SUFFICIENT PROVISIONS FOR MAIL DELIVERY TO PROPRIETORS AFFECTED BY THIS PROJECT DURING ITS CONSTRUCTION.
13. TREES AND SHRUBS IN PUBLIC RIGHT-OF-WAY MICHIN IS IN DIRECT CONFLICT WITH THE CONSTRUCTION OF THE PROJECT AND SHALL BE THE CONTRACTOR WITH THE ENGINEER'S APPROVAL. TREES AND SHRUBS WHICH ARE NOT IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE GRASSED AND PROTECTED BY GRASS.
14. LIMITS OF TYPICAL-SHADE AND MOVED EXISTING GRASS ELEVATIONS AT THE PROPERTY LINE SHALL BE INDICATED BY A WHITE PLYWOOD SIGN (SEE PLAN). A NEW FINISHED GRADE SIGN, WHEN FURNISHED, ELEVATIONS IS SHOWN. THE LANDSCAPE SHALL DESIGN FROM FINISHED GRADE TO EXISTING GRADE. THE CONTRACTOR SHALL MAINTAIN PERMISSIBLE SLOPES TO MATCH THE EXISTING GROUND SURFACE.
15. ALL ENTRANCE AND CROSS ROAD PIPE WITHIN THE PROJECT LIMITS SHALL BE REMOVED BY THE CONTRACTOR. CLOSURE OBSTRUCTIONS MUST BE PLANNED AND REMOVED IN ACCORDANCE WITH THE PROGRAM TO THE APPROVAL OF THE PROGRAM SPECIFICATIONS.
16. THE CONTRACTOR SHALL GIVE PROPERTY OWNERS NOTIFYING THIS PROJECT, MEASURE YARDS WILL BE LONGER THAN THE NEW FINISHED GRADE ELEVATIONS AT THE RIGHT-OF-WAY LINE, AN OPPORTUNITY TO REMOVE OR REDUCE EXCAVATION TO THE PROPERTY LINE. THE CONTRACTOR SHALL ASCERTAIN THAT A DIST ORDER BOOK HAS BEEN PROPERLY ENDORSED BY THE PROJECTS SUPERVISOR AND SUCH ORDER IS IN EFFECT.
17. THE CONTRACTOR WILL BE PERMITTED TO BID ONLY ONE OF THE ALTERNATE TYPES OF SURBERG TREATMENT, THE TYPE BID BY THE SUCCESSFUL BIDDER WILL BE THE TYPE OF SURBERG TREATMENT USED TO CONSTRUCT THE PROJECT.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RE-EVALUATING ANY PROPERTY INTERFERED BY THE PROJECT OR FOR RE-EVALUATING ANY PROPERTY; ITEMS WHICH ARE DAMAGED OR DESTROYED BY ITS CONSTRUCTION OPERATIONS. SUCH ITEMS SHALL BE RE-EVALUATED BY THE CONTRACTOR AND REPAIRED TO ORIGINAL LOCATION AND FUNCTION IN ACCORDANCE WITH STATE LAW.
19. THE CONTRACTOR SHALL GIVE ALL PROPERTY OWNERS AND PERSONS OF DEVELOPED PROPERTY NOTIFYING THE PROPERTY LAHIERA TO A MINIMUM OF TWO (14) DAYS ADVANCE NOTICE PRIOR TO START OF CONSTRUCTION.



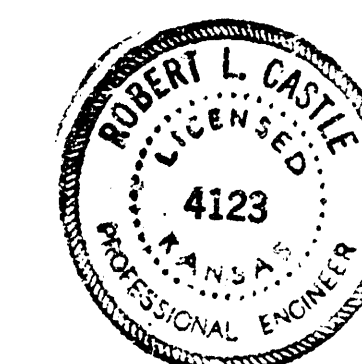
DRAWING INDEX

SHEET	TITLE
1	MAP AND BENEFIT DISTRICT
2	TYPICAL 31" PAVEMENT DETAILS
3	PLAN CHARLES AVENUE
4	PLAN CHARLES AVENUE
5 <i>454</i>	DETAIL STANDARD TYPE IA CURB INLET
6	CROSS SECTIONS CHARLES AVENUE

SCALE 1"=150'

LEGEND

OW	WATER METER
OG	GAS METER
OD	WATER VALVE
OTP	TELEPHONE POLE
OP	POWER POLE
●LPP	LIGHT & POWER POLE
□	MAIL BOX
— — 6" — W —	WATER LINE & SIZE
— — 2" — G —	GAS LINE & SIZE
— x 4 x CH x LK —	CHAIN LINK FENCE & HEIGHT
— x 6 x WD x —	WOODEN FENCE & HEIGHT
— P —	PROPERTY LINE



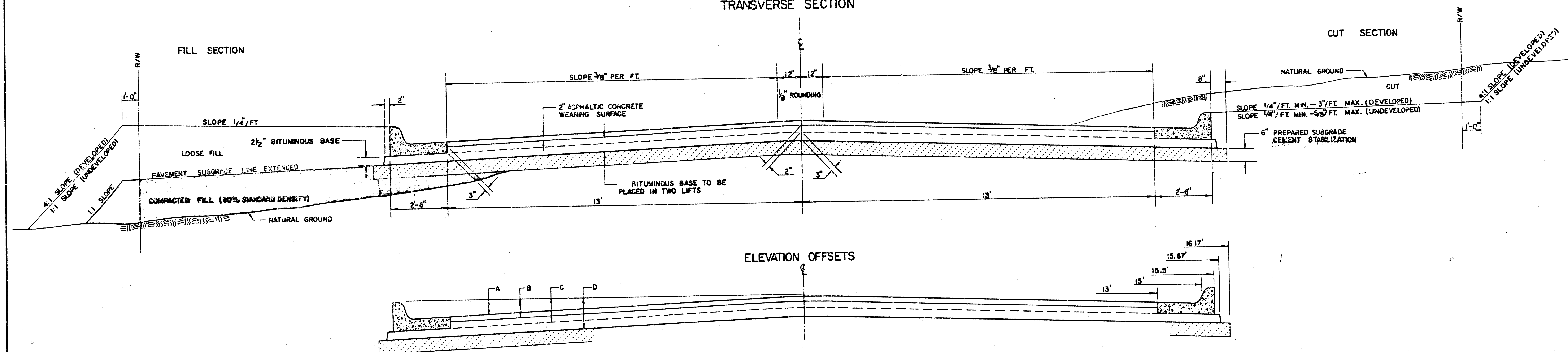
WICHITA, KANSAS			
STREET IMPROVEMENTS			
MAP AND BENEFIT DISTRICT			
CHARLES AVENUE			
PROJECT NO. 472-78-243-81854-000-000-001			
	CASTLE & ASSOCIATES ENGINEERS WICHITA, KANSAS		DWG FILE NO. 8838-D-80,085
	DWG DOR DOR DOR CH LNK APP	1988	SHEET NO. 1 OF 6
DATE	MARCH	1988	REV

7 plan sheet

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AVAILABLE COPY**

TYPICAL 31' PAVEMENT DETAILS

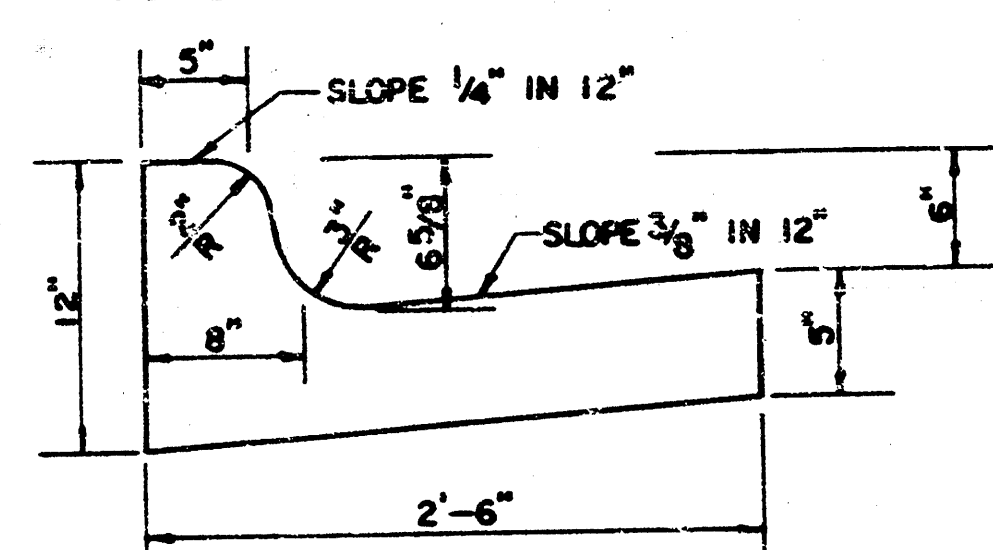
TRANSVERSE SECTION



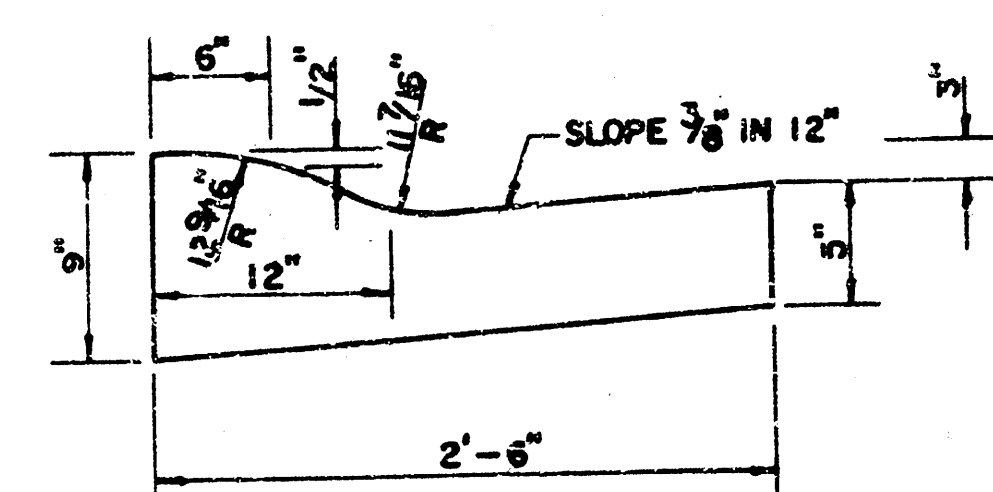
ELEVATION OFFSETS

	DISTANCE FROM CENTERLINE (LT. & RT.)											
	0'	2'	4'	6'	7.5'	10'	12'	13'	15'	15.5'	15.67'	16.17'
A: TOP OF CURBS TO TOP OF SURFACE LIFT	0.10	0.14	0.21	0.27	0.32	0.39	0.46	0.49	—	—	—	—
B: TOP OF CURBS TO TOP OF UPPER BASE LIFT	0.27	0.31	0.38	0.44	0.49	0.56	0.63	0.66	—	—	—	—
C: TOP OF CURBS TO TOP OF LOWER BASE LIFT	0.44	0.49	0.57	0.64	0.70	0.79	0.87	0.90	0.98	1.00	1.00	—
D: TOP OF CURBS TO TOP OF SUBGRADE	0.69	0.73	0.80	0.87	0.93	1.01	1.08	1.12	1.19	1.21	1.21	1.23

COMBINED CURB & GUTTER



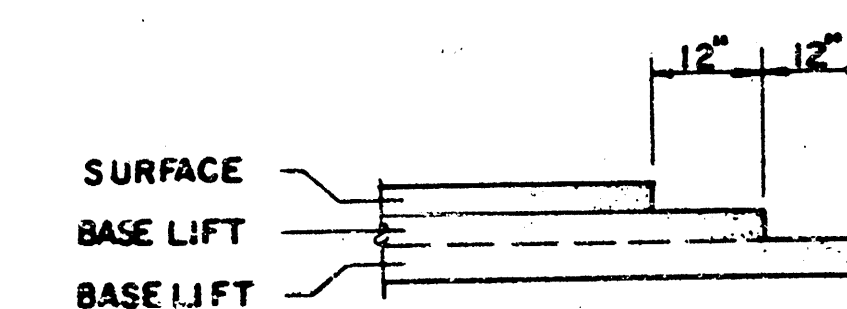
ROLL TYPE COMBINED CURB & GUTTER



GENERAL NOTES

- 1) THE ASPHALTIC CONCRETE PAVEMENT BETWEEN THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 7" ASPHALTIC CONCRETE (5" BITUMINOUS BASE).
- 2) THE BITUMINOUS BASE UNDER AND BEHIND THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 2 1/2" 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 JOINS 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 7" ASPHALTIC CONCRETE (5" BITUMINOUS BASE).

7 INCH RESIDENTIAL ASPHALTIC CONCRETE
PAVEMENT WITH 5 INCH BITUMINOUS BASE
CITY OF WICHITA, KANSAS

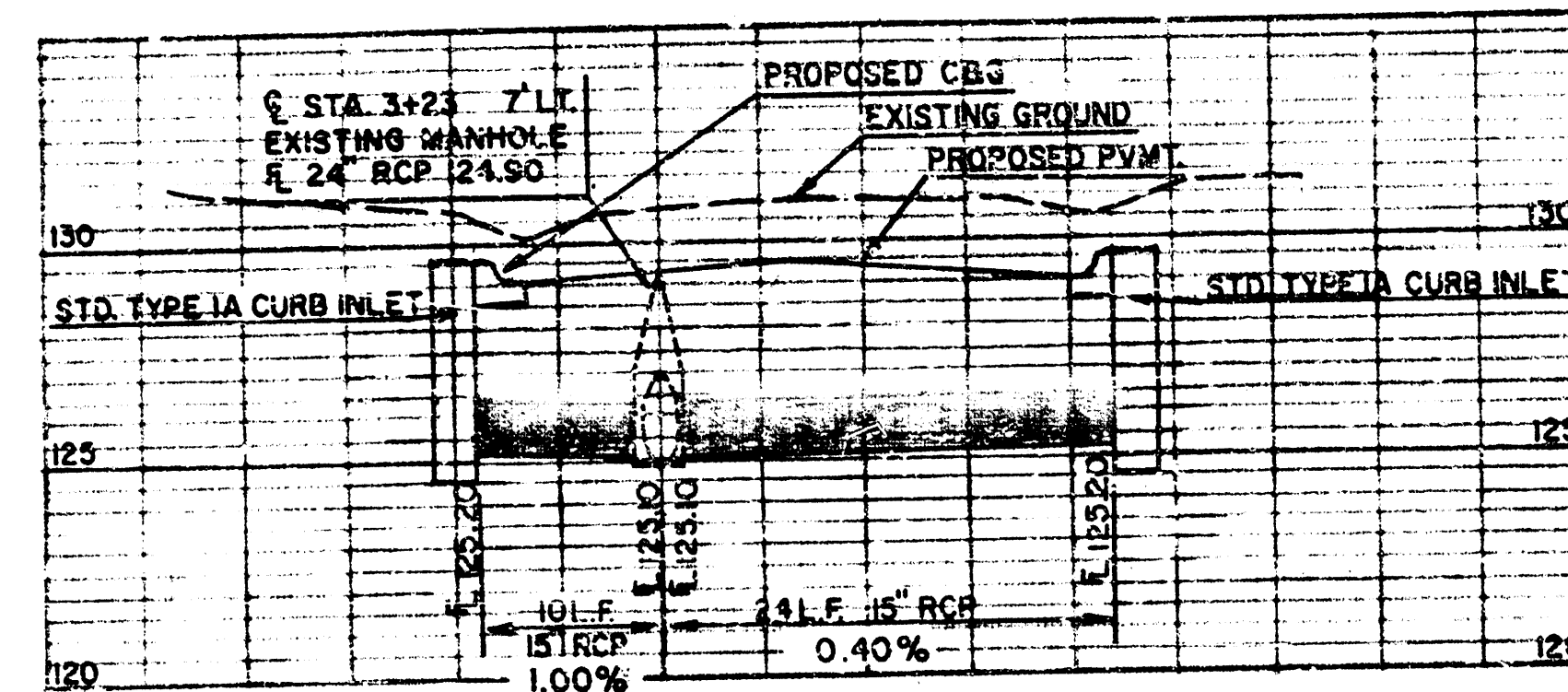
PROJECT NUMBER
472-35-245-01554-000-000-001

8838-D-80,000

SHEET NO. 2 OF 6

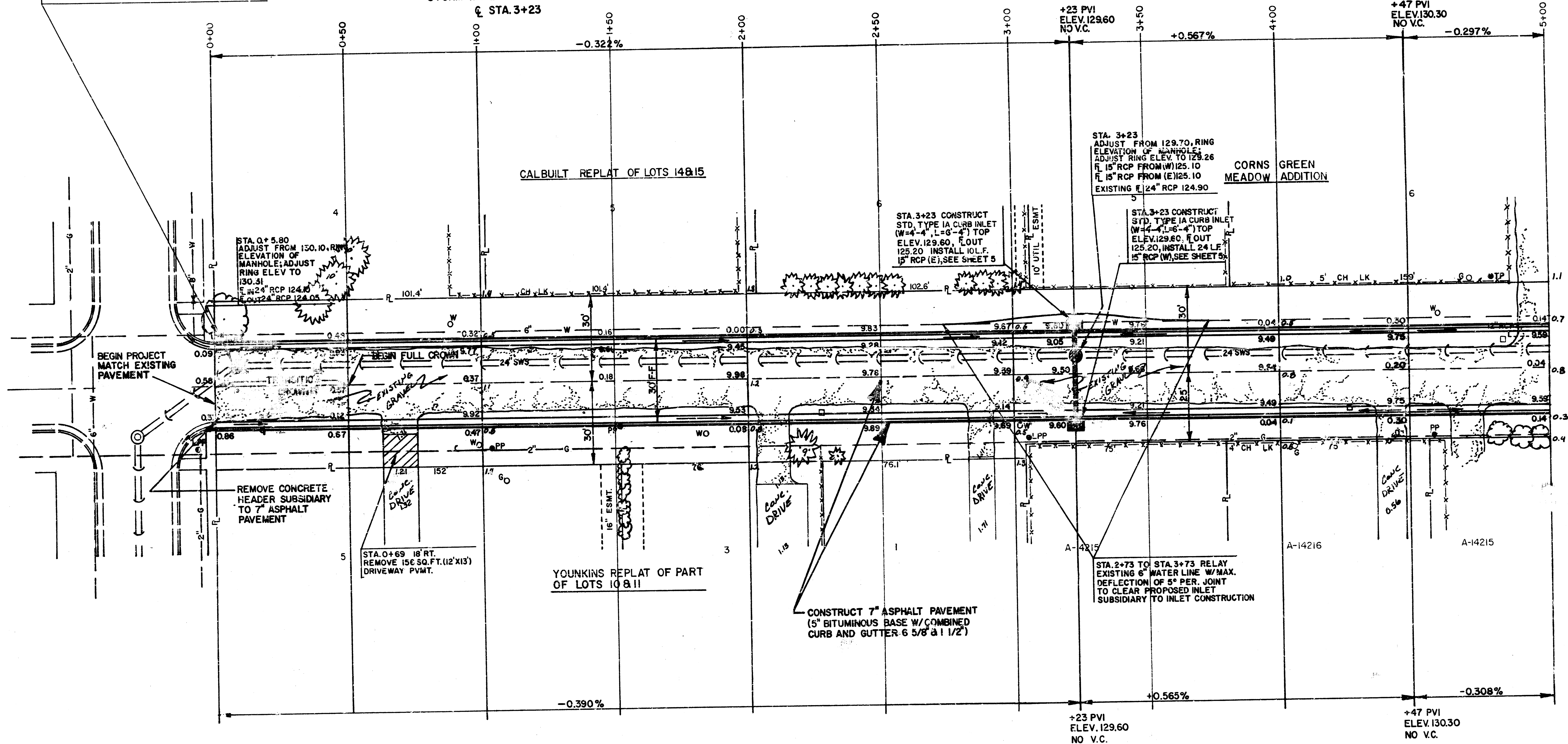
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STA. 0+02 175' LT
EXISTING WATER VALVE BOX ELEV. 130.75 = PROPOSED
WATER VALVE BOX ELEV. 130.75.



STORM WATER SEWER PROFILE

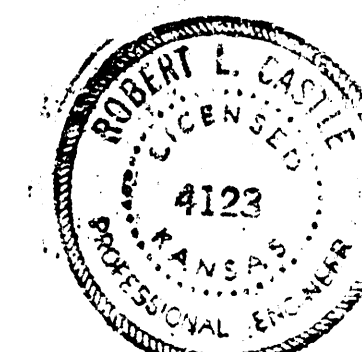
STA. 3+23



BENCHMARK:
BM 1 R.R. SP'VE IN WEST FACE OF POWER
POLE ON THE NE CORNER OF CHARLES
& 31 ST. STREET N. ELEV. 132.09
BM 2 R.R. SPIKE IN WEST FACE OF POWER
POLE ON EAST SIDE OF CHARLES
60' ± NORTH OF END OF PROJECT ELEV. 131.82

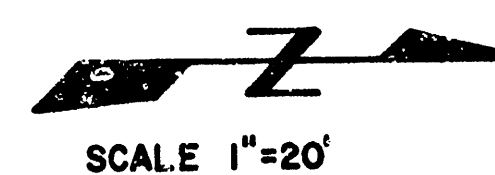
EXCAVATION 1669.73 C.Y.
+10% 166.97 C.Y.
TOTAL 1836.70 C.Y.

MANIPULATION 3794 S.Y.

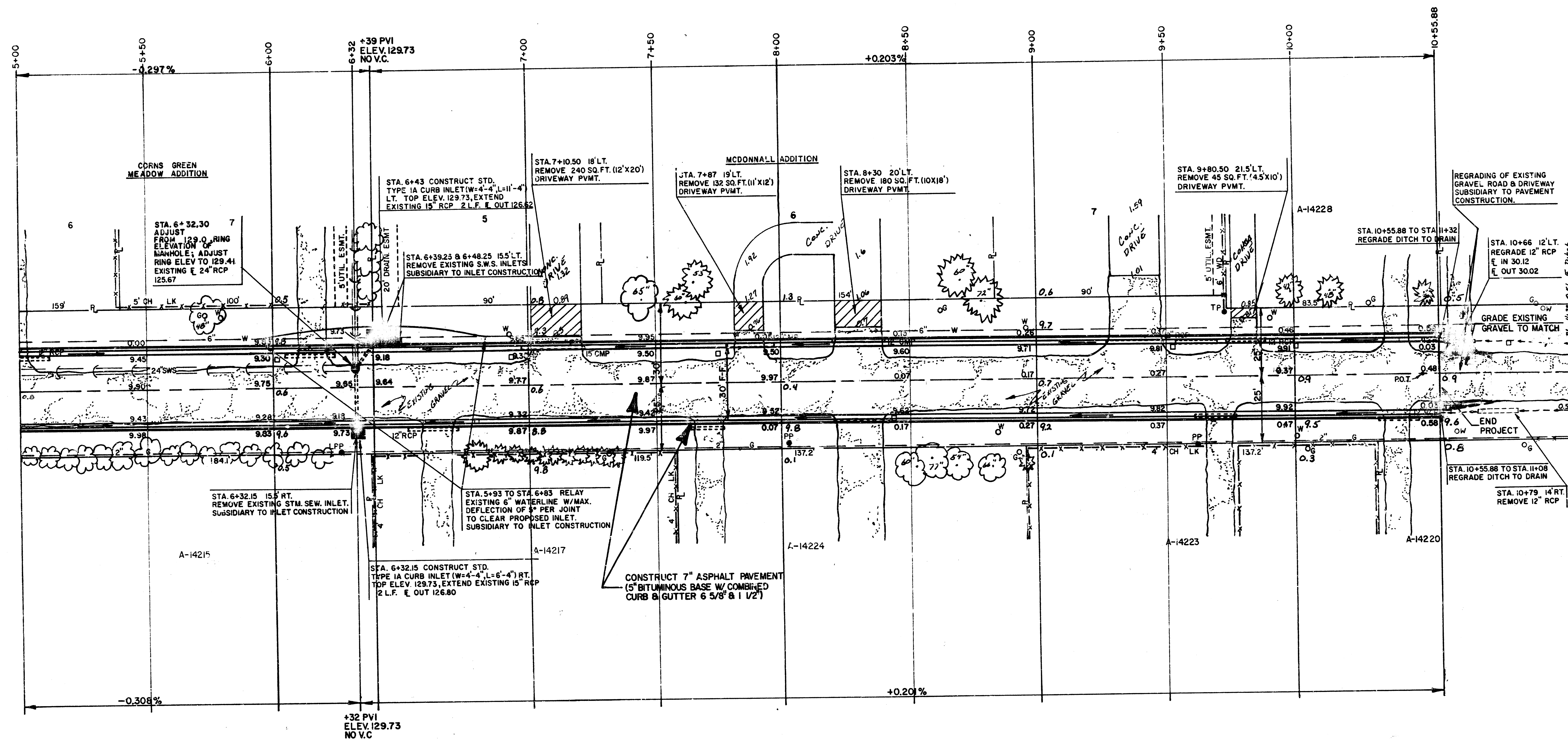


WICHITA, KANSAS STREET IMPROVEMENTS			
PLAN CHARLES AVENUE PROJECT NO. 472-76-245-81854-000-000-001			
CASTLE & ASSOCIATES ENGINEERS WICHITA, KANSAS	DWG. DOR DR. DOR CH. LJK	DWG. FILE NO. 8838-D-80,087	REV.
DATE MARCH 1989	APP	SHEET NO. 3 OF 6	

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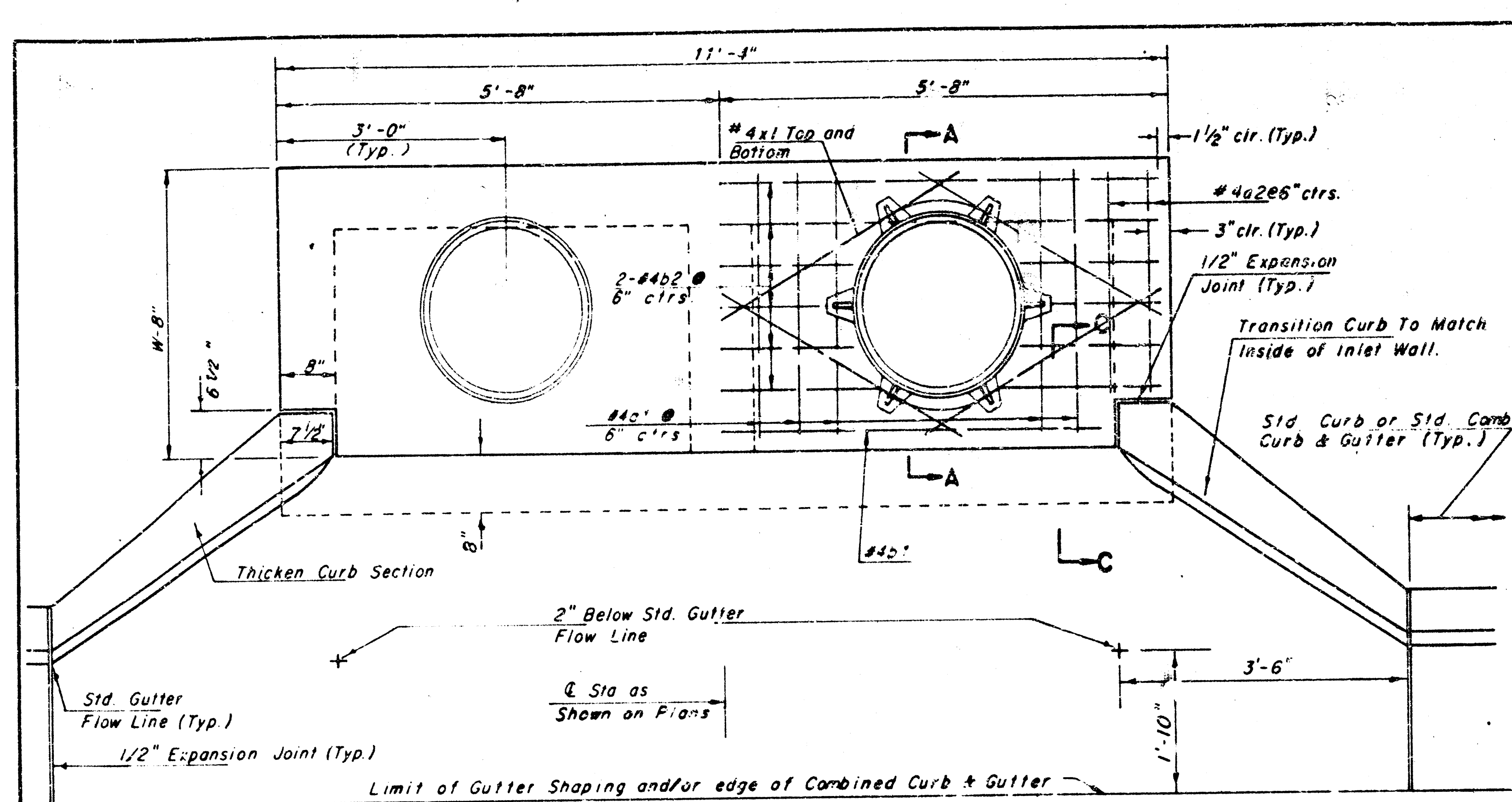


- P.O.T. STA. 10+50
1. 3/4" IRON PIPE 0.2' BELOW SURFACE ON C.
2. CTR. TOP CH. LNK. FNC. CORNER POST — 32.00' SE
3. R.R. SPIKE IN WEST FACE HLP — 61.45' NNE
4. CORP. STOP ON GAS METER — 51.90' NNW
5. CORP. STOP ON GAS METER — 34.03' SW



WICHITA, KANSAS			
STREET IMPROVEMENTS			
PLAN			
CHARLES AVENUE			
PROJECT NO. 472-76-245-81854-000-000-001			
	DESIGN	DWG FILE NO	REV
	DR	8838-D-80,088	
	CH		
DATE	MARCH 1983	APP	SHEET NO. 4 OF 6

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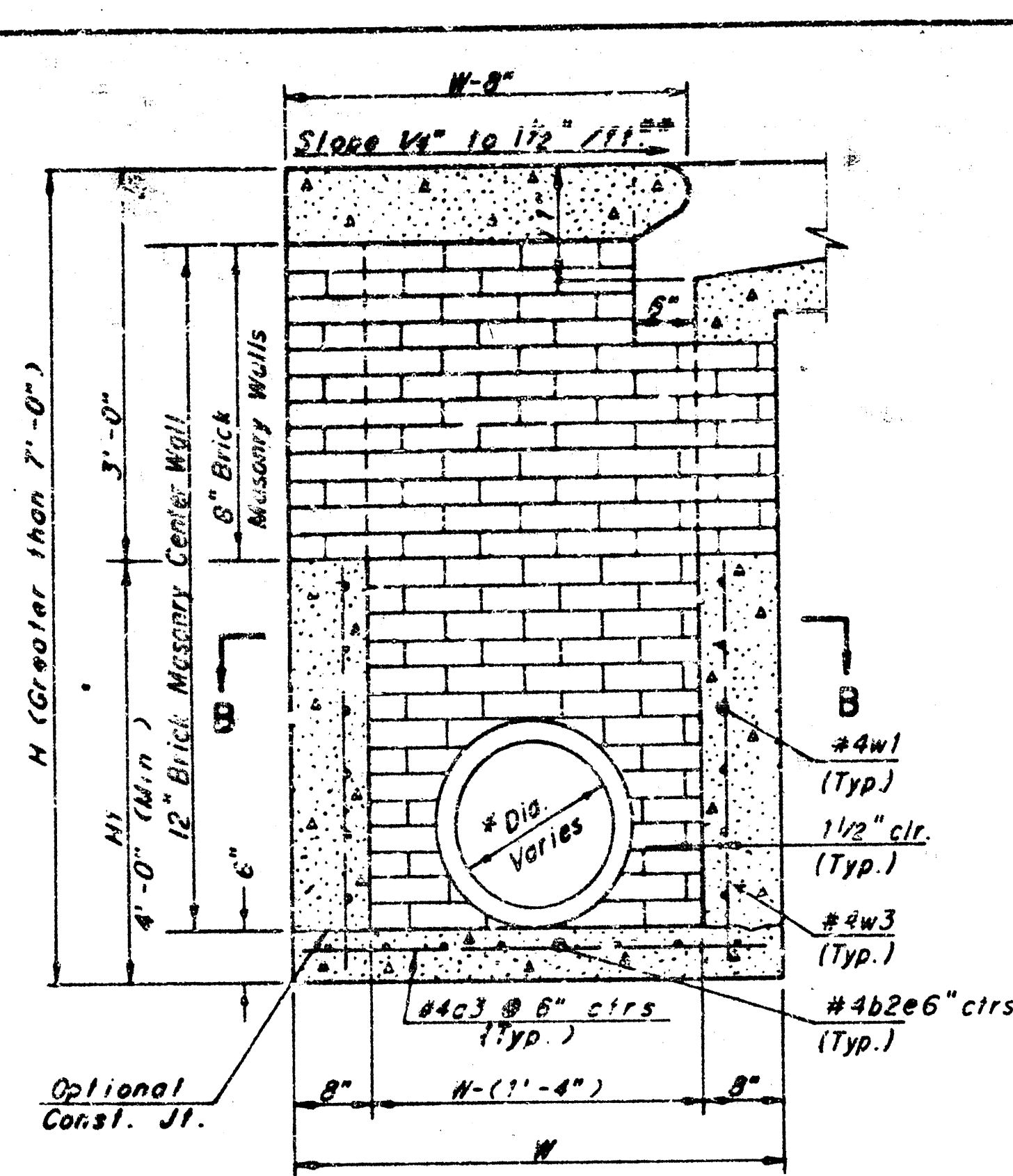


SLAB REINFORCING NOT SHOWN

PLAN

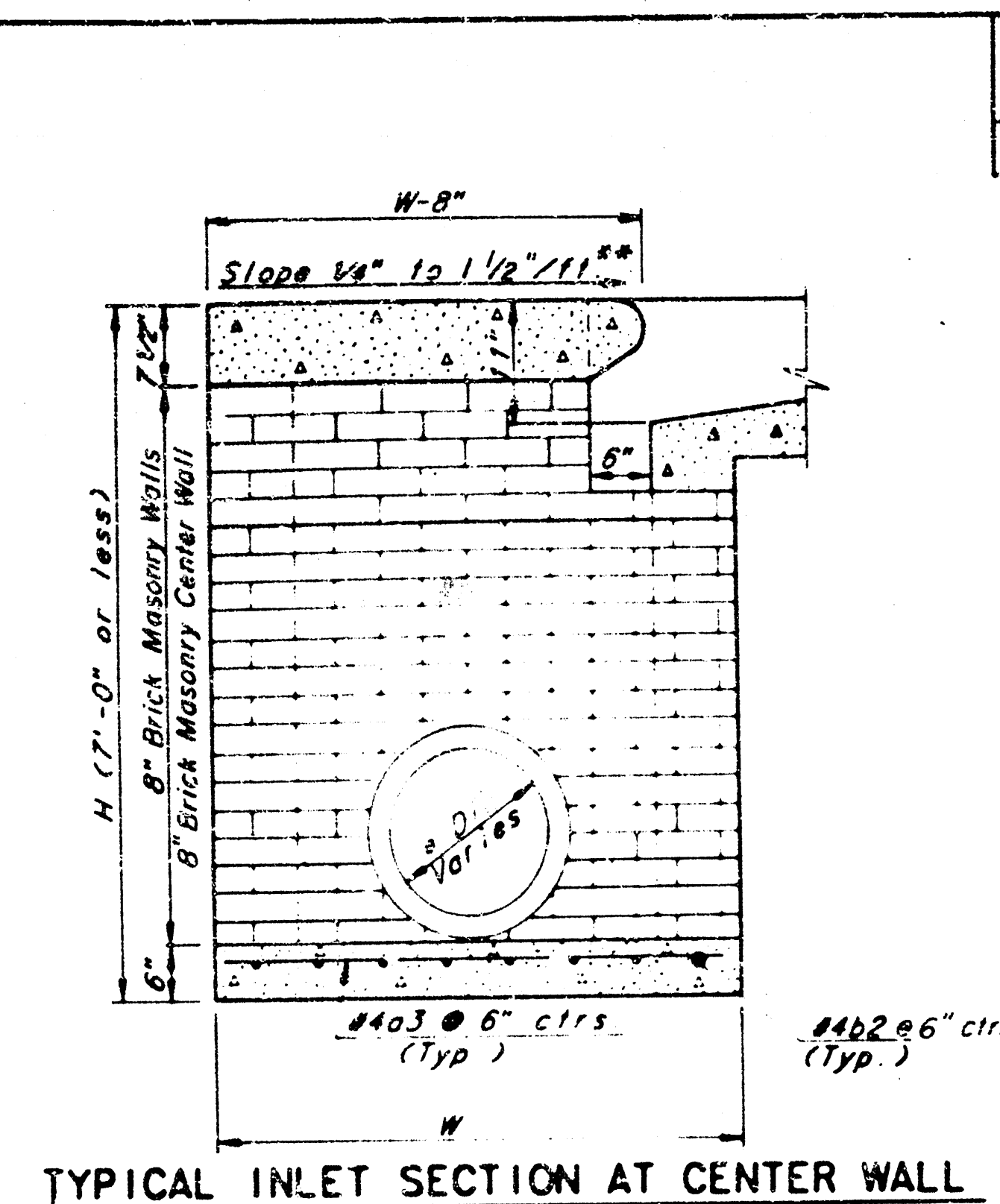
SHOWING SLAB REINFORCING

NOTE: Expansion Joint only in Curb Area with Conc. Pavement.



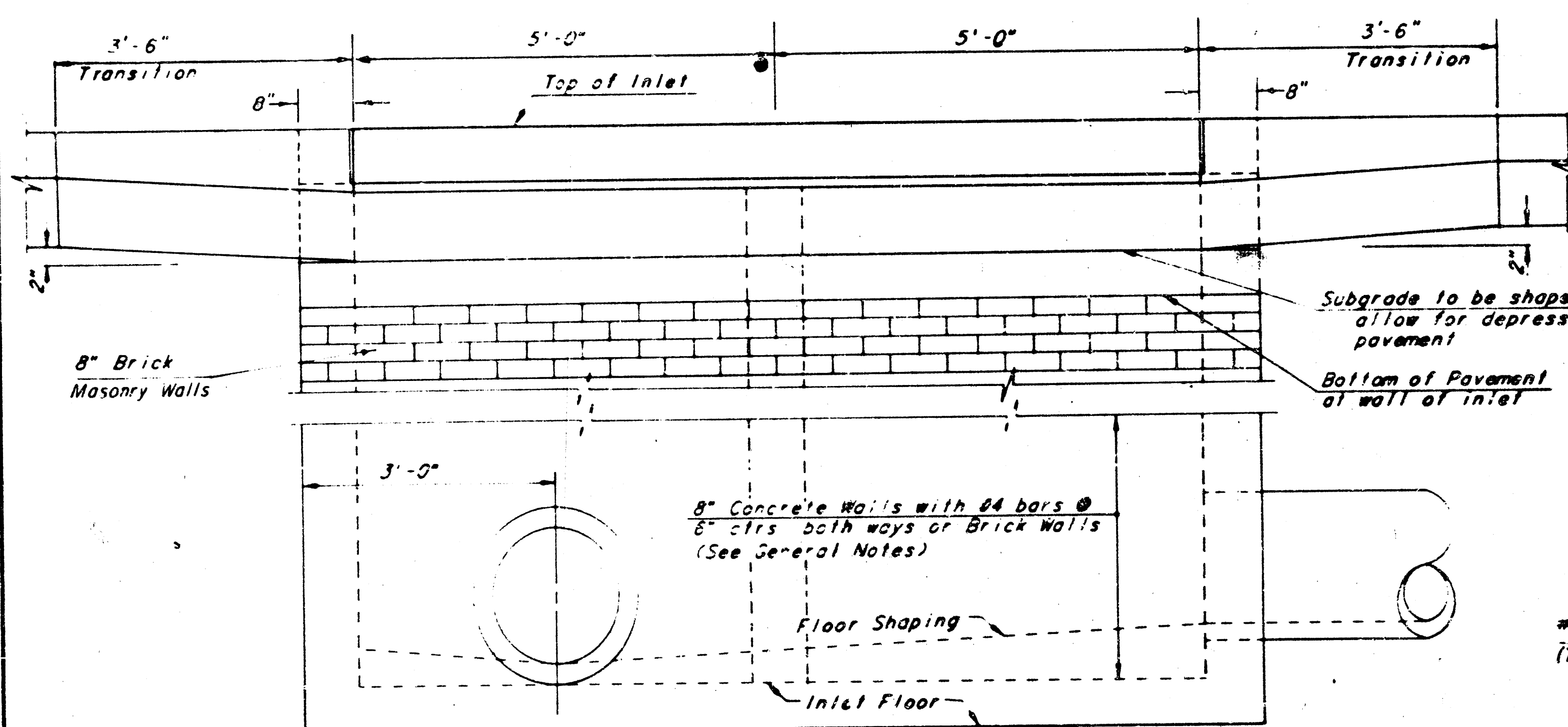
TYPICAL INLET SECTION AT CENTER WALL (REINFORCED CONCRETE WALLS)

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

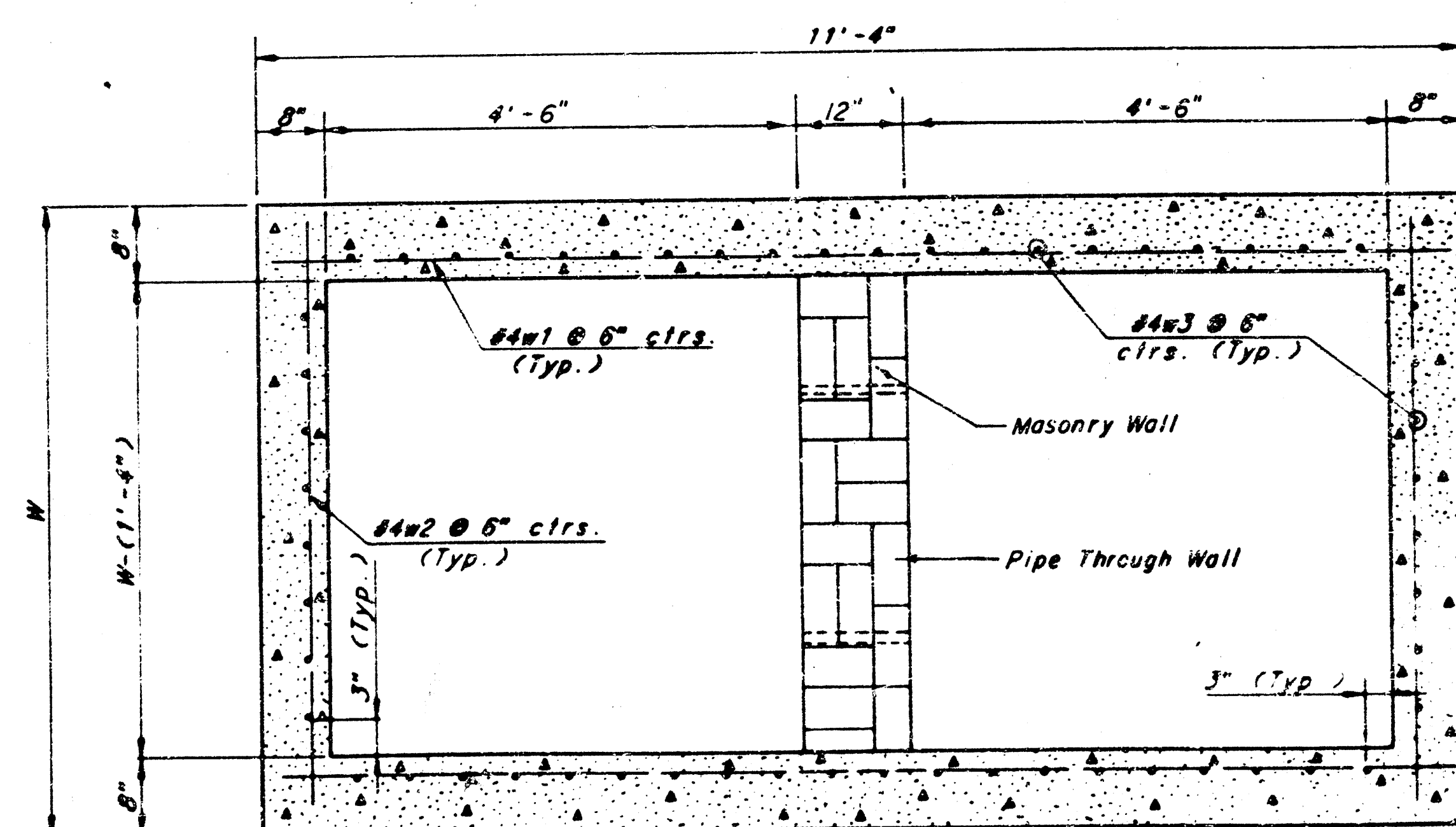


TYPICAL INLET SECTION AT CENTER WALL (MASONRY WALLS)

* A center wall opening shall be provided by means of a section of reinforced concrete pipe. See Case I and Case II Below.

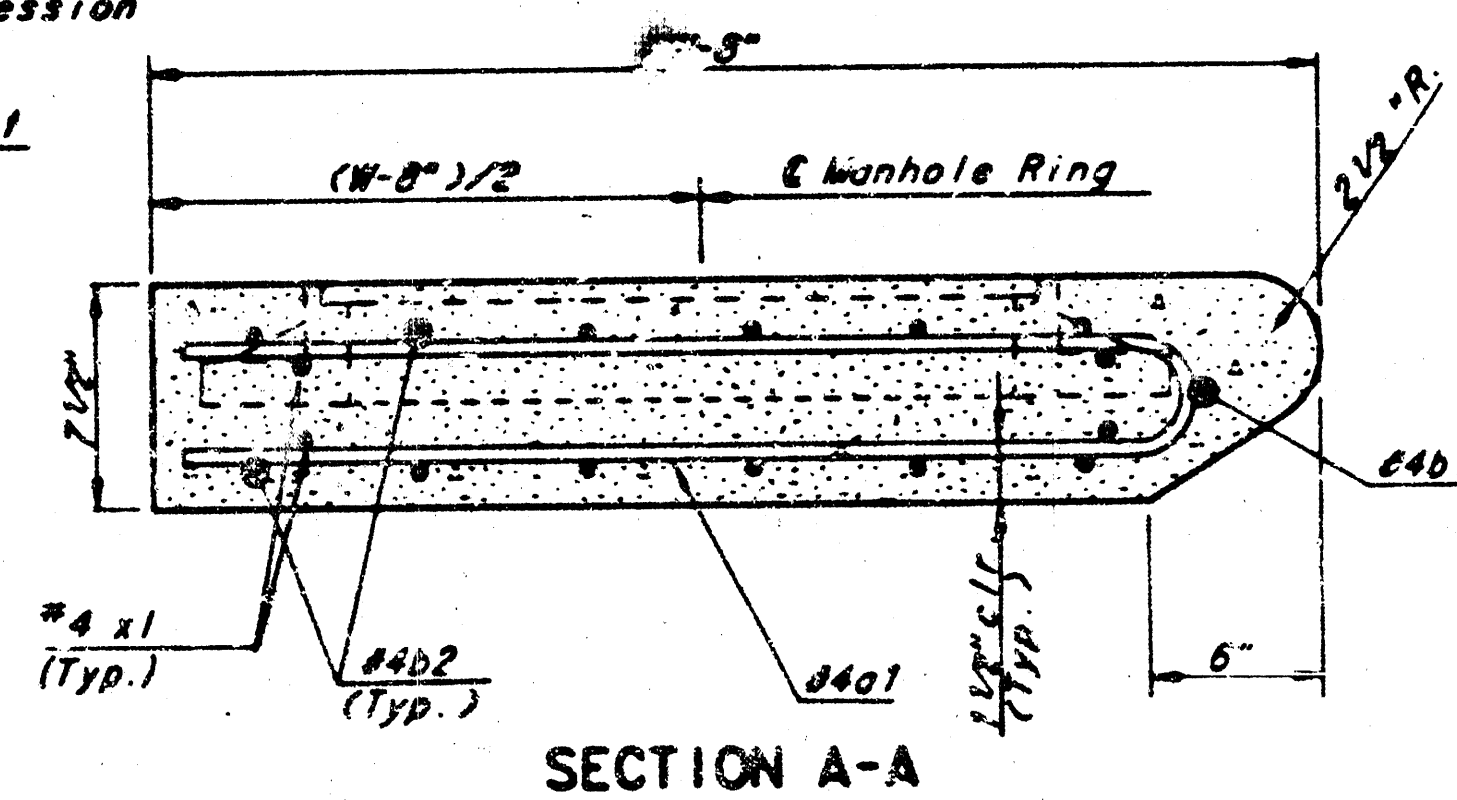


ELEVATION

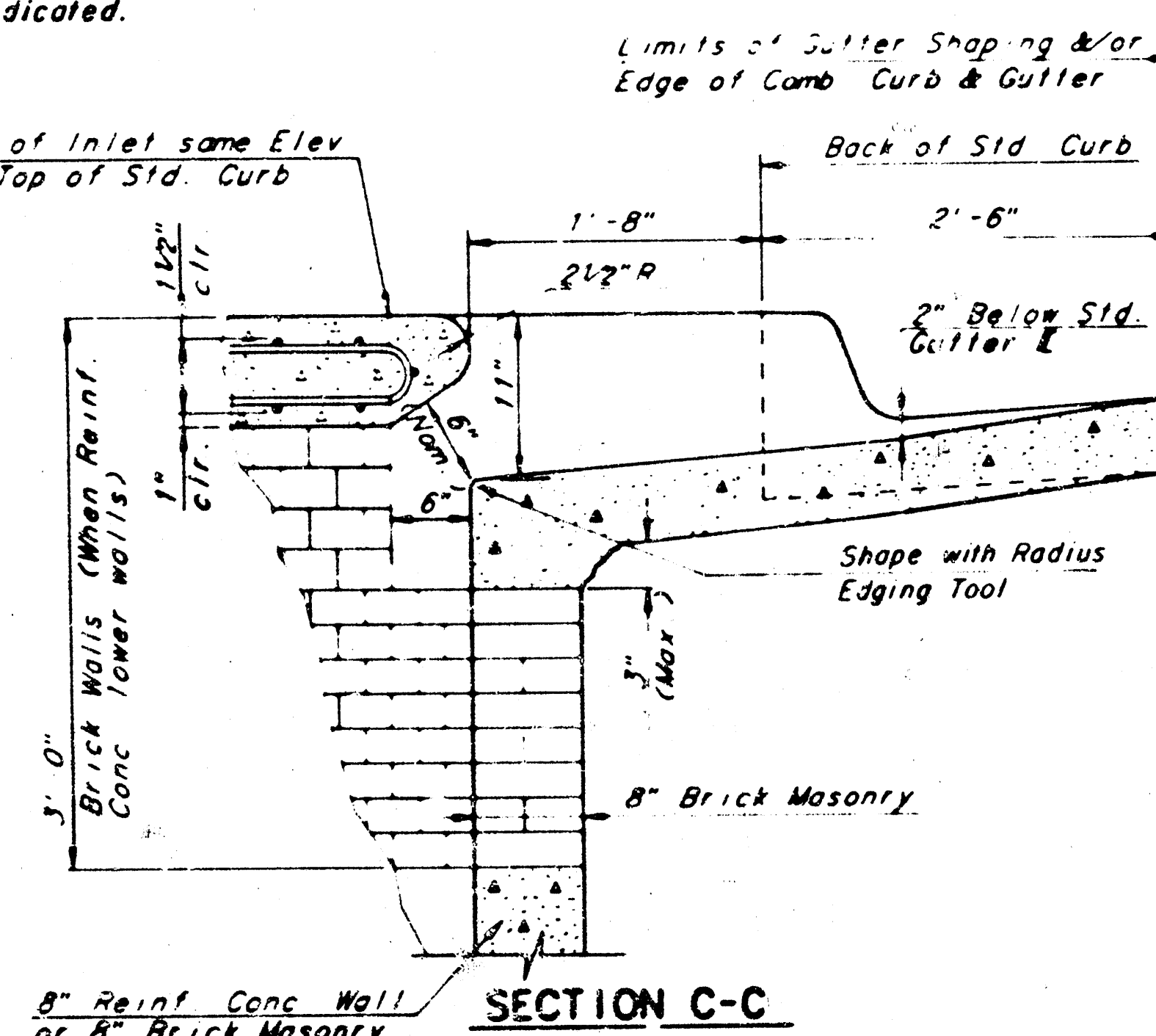


SECTION B-B

BENDING DIAGRAM



SECTION A-A

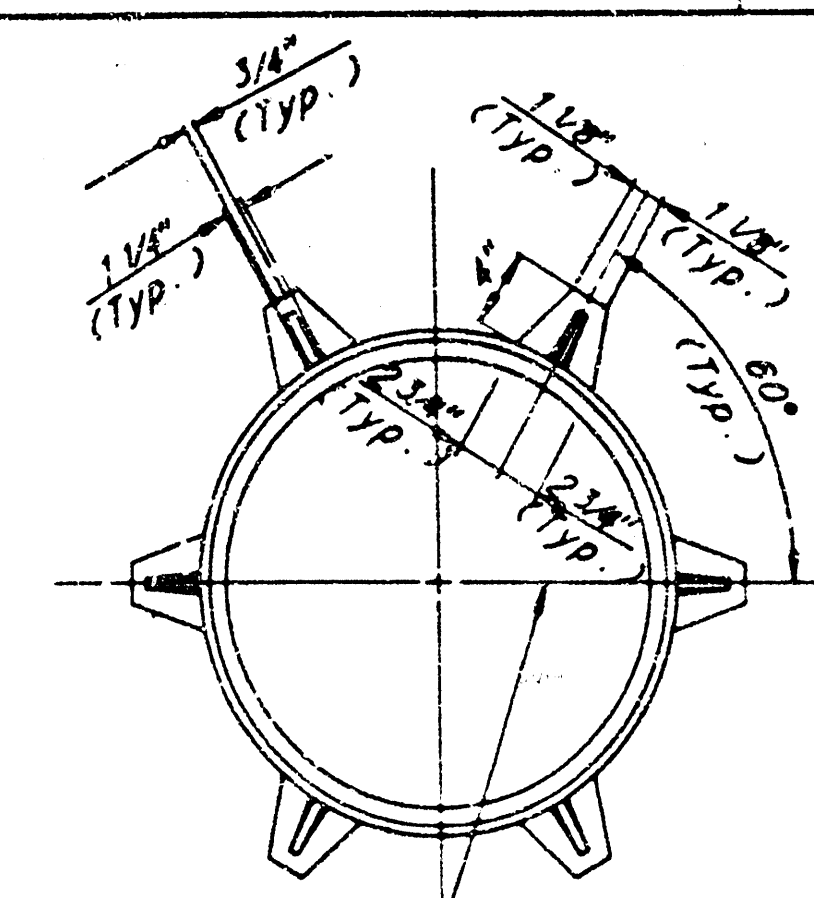


SECTION C-C

GENERAL NOTES

- THE CONTRACTOR SHALL BE REQUIRED TO CONSTRUCT 8" BRICK MASONRY WALLS BETWEEN THE INLET BASE AND TOP ON THIS INLET WHEN W=6'-4" OR LESS AND H=7'-0" OR LESS. WHEN W IS GREATER THAN 6'-4" AND H IS LESS THAN 7'-0" THE OUTSIDE INLET 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 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.
- 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.
- INLET TOP REINFORCING SHALL BE SPACED ON 6" MAX. CENTERS. INLET LIDS SHALL BE NOTCHED OUT AS INDICATED TO FACILITATE CONSTRUCTION OF CURB BARS IN INLET TOP TO BE FIELD BENT OR CUT TO CLEAR MANHOLE RING.
- THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.

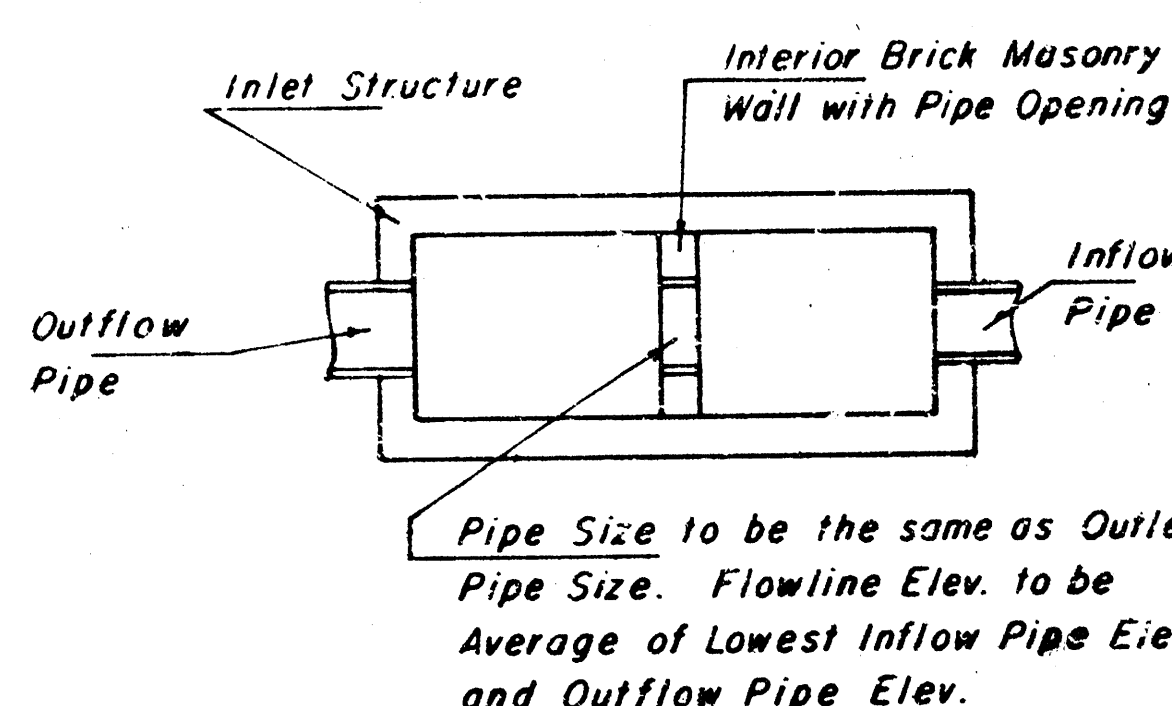
STANDARD CURB INLET PRECAST TOPS				
W	PRE-CAST TOP SIZE	SIDE OR INTERIOR WALL PIPE SIZE	CU. YD. CONC.	
4'-4"	3'-8"x11'-4"x7 1/2"	21" B. SMALLER	0.83 ±	
5'-4"	4'-8"x11'-4"x7 1/2"	24" B. 30"	1.09 ±	
6'-4"	5'-8"x11'-4"x7 1/2"	36" B. 42"	1.35 ±	
7'-4"	6'-8"x11'-4"x7 1/2"	48" B. 54"	1.61 ±	
8'-4"	7'-8"x11'-4"x7 1/2"	60" B. 66"	1.87 ±	



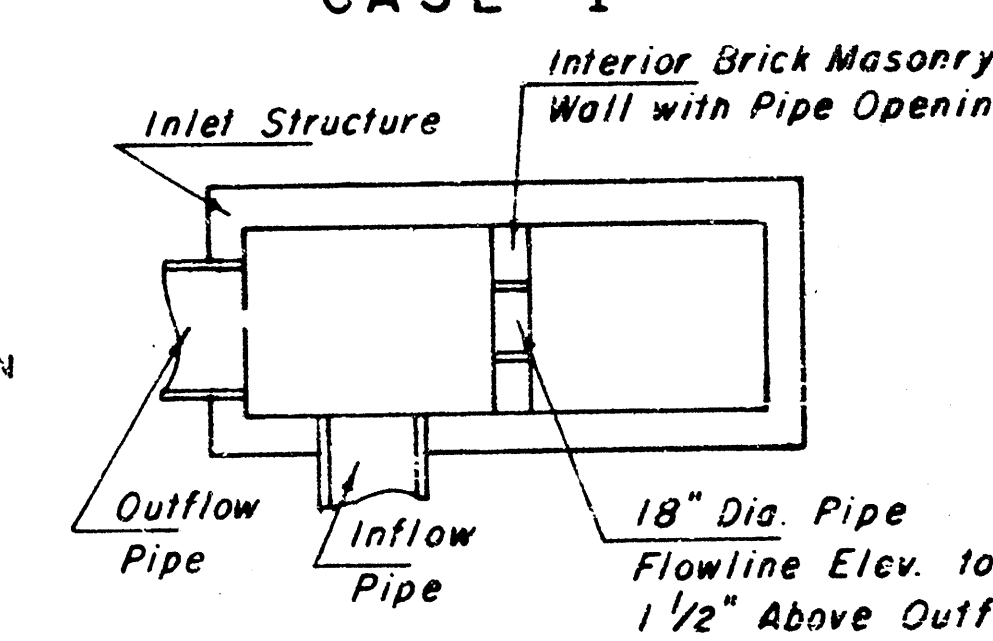
CAST IRON INLET RING

WT. = 180 lbs.

See City of Wichita Standard Manhole Frame and Cover Detail Sheet for Cover Details to be used with Inlet Frame.



CASE I



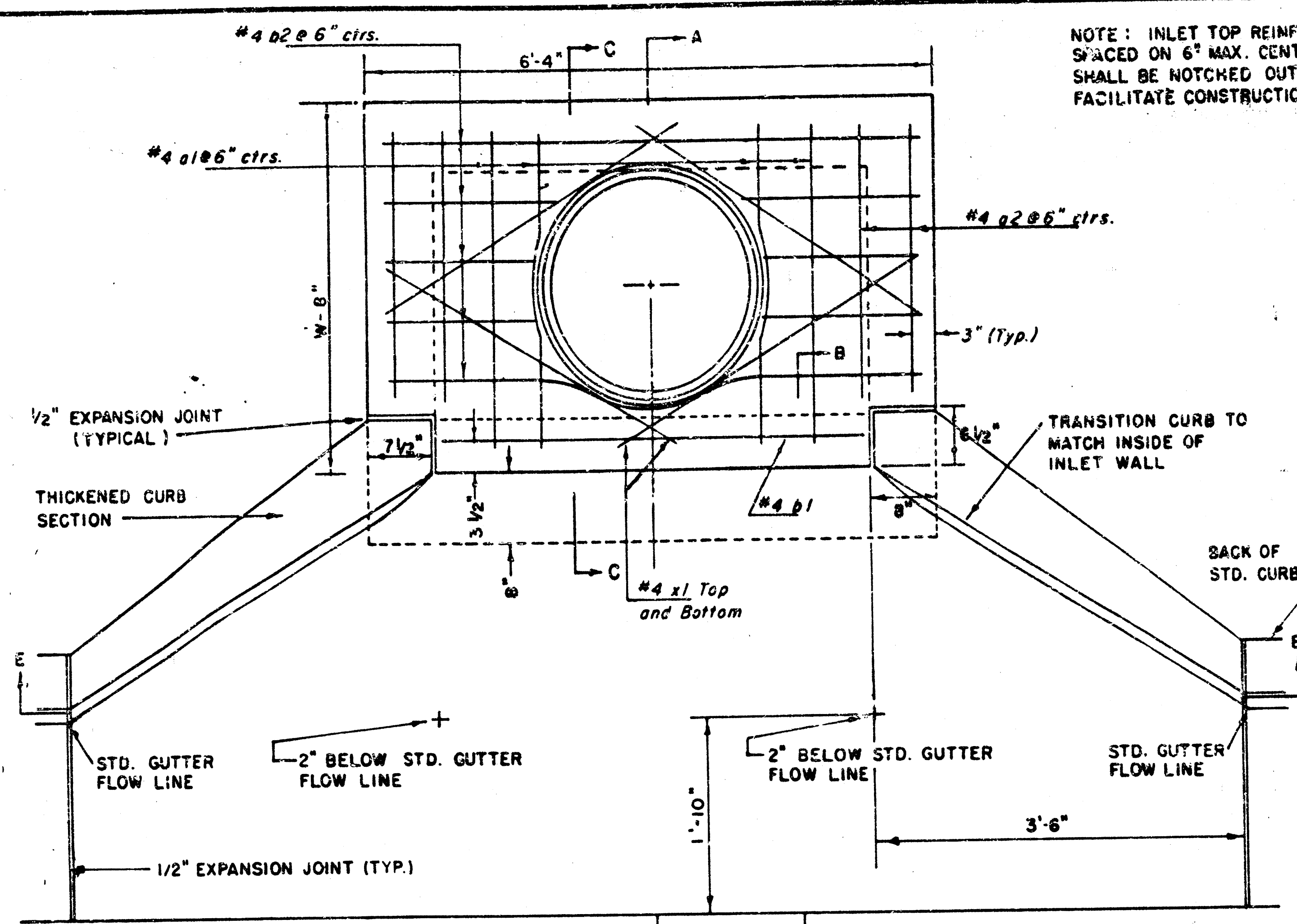
CASE II

NOTE: Center Wall Pipe Size shall be as Specified in Inlet Construction No. 2 on the Plan/Profile Sheets for those Cases not shown here.

STANDARD TYPE 1A CURB INLET
INLET OPENING = 6" x 10'-0"

PROJECT NO. 472-76-245-81854-000-000-001
8838-D-80,089 WICHITA, KANSAS SHEET NO 5 OF 6
Designed by B.E.P. K.J.S. AME Checked by AME
Drawn by JOP Date Nov. 1984 Job No.

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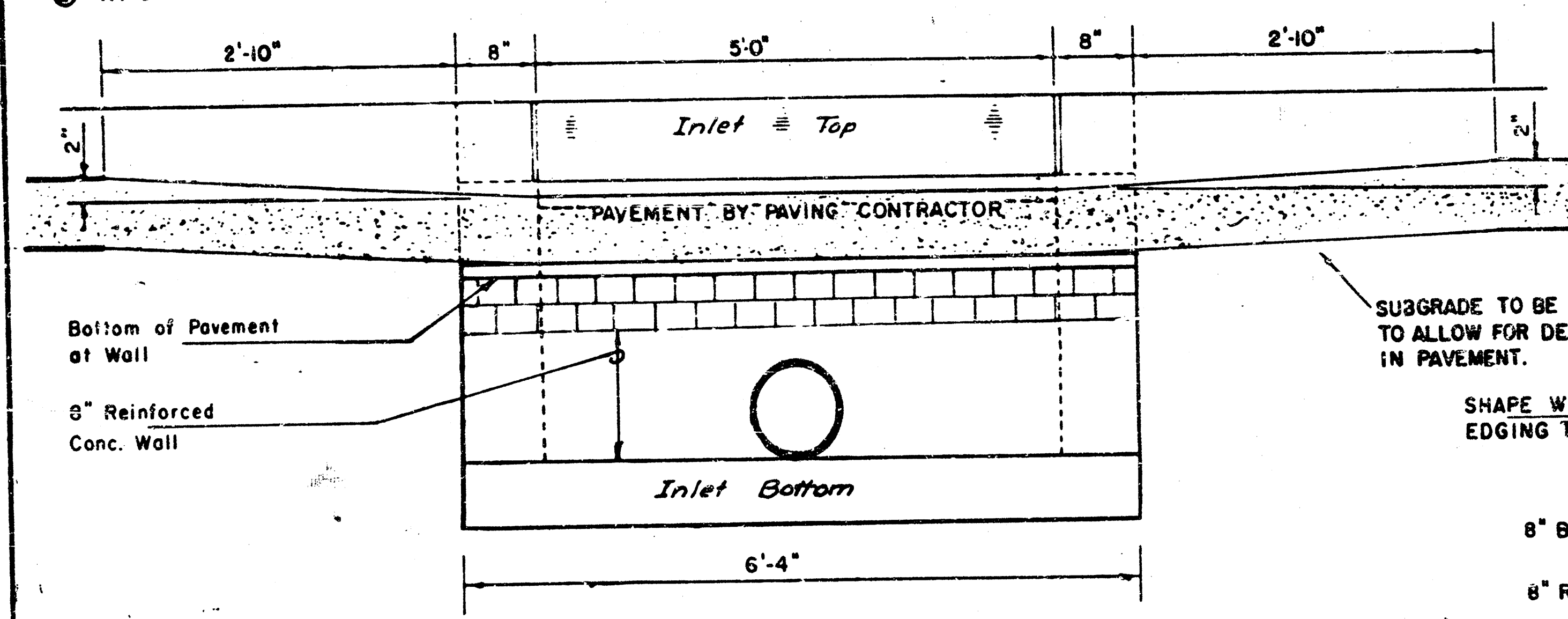
NOTE: EXPANSION JOINT ONLY IN CURB AREA WITH CONC. PAVEMENT.

PLAN

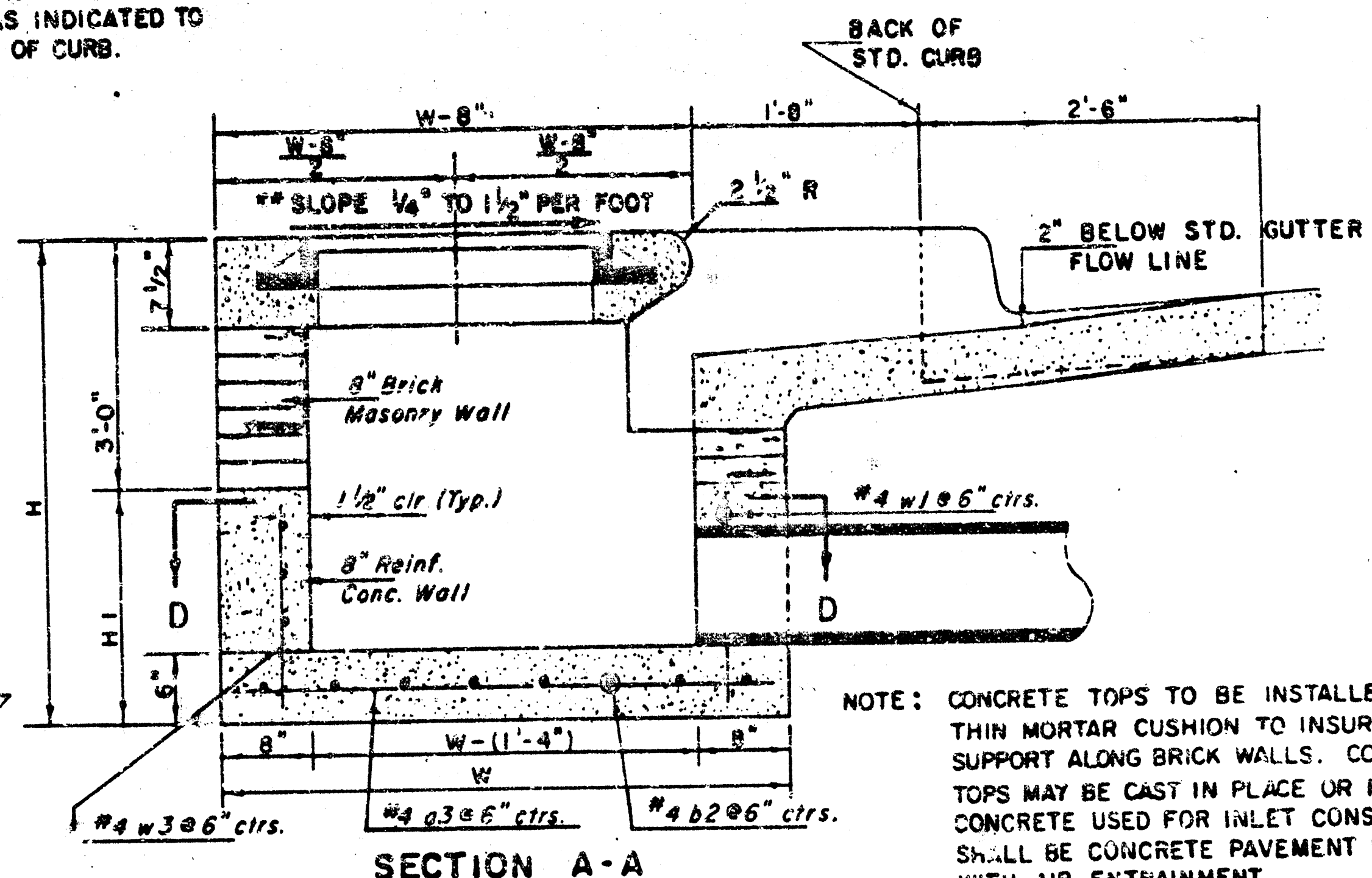
PRECAST SLAB AND FLOOR REINFORCING									
Mark	Size	No.	Length	No.	Length	No.	Length	No.	Length
a1	#4	6	8'-7"	6	8'-7"	6	10'-7"	6	14'-7"
a2	#4	4	8'-0"	4	8'-0"	4	10'-0"	4	14'-0"
a3	#4	13	4'-1"	13	5'-1"	13	6'-1"	13	8'-1"
b1	#4	1	4'-9"	1	4'-9"	1	4'-9"	1	4'-9"
b2	#4	23	6'-1"	23	6'-1"	35	6'-1"	41	6'-1"
x1	#4	8	3'-10"	8	4'-2"	8	4'-6"	8	4'-10"

WALL REINFORCING									
Mark	Size	No.	Length	No.	Length	No.	Length	No.	Length
w1	#4	0	6'-1"	0	6'-1"	0	6'-1"	0	6'-1"
w2	#4	0	4'-1"	0	5'-1"	0	6'-1"	0	7'-1"
w3	#4	32	0	36	0	40	0	44	0

* 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



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.

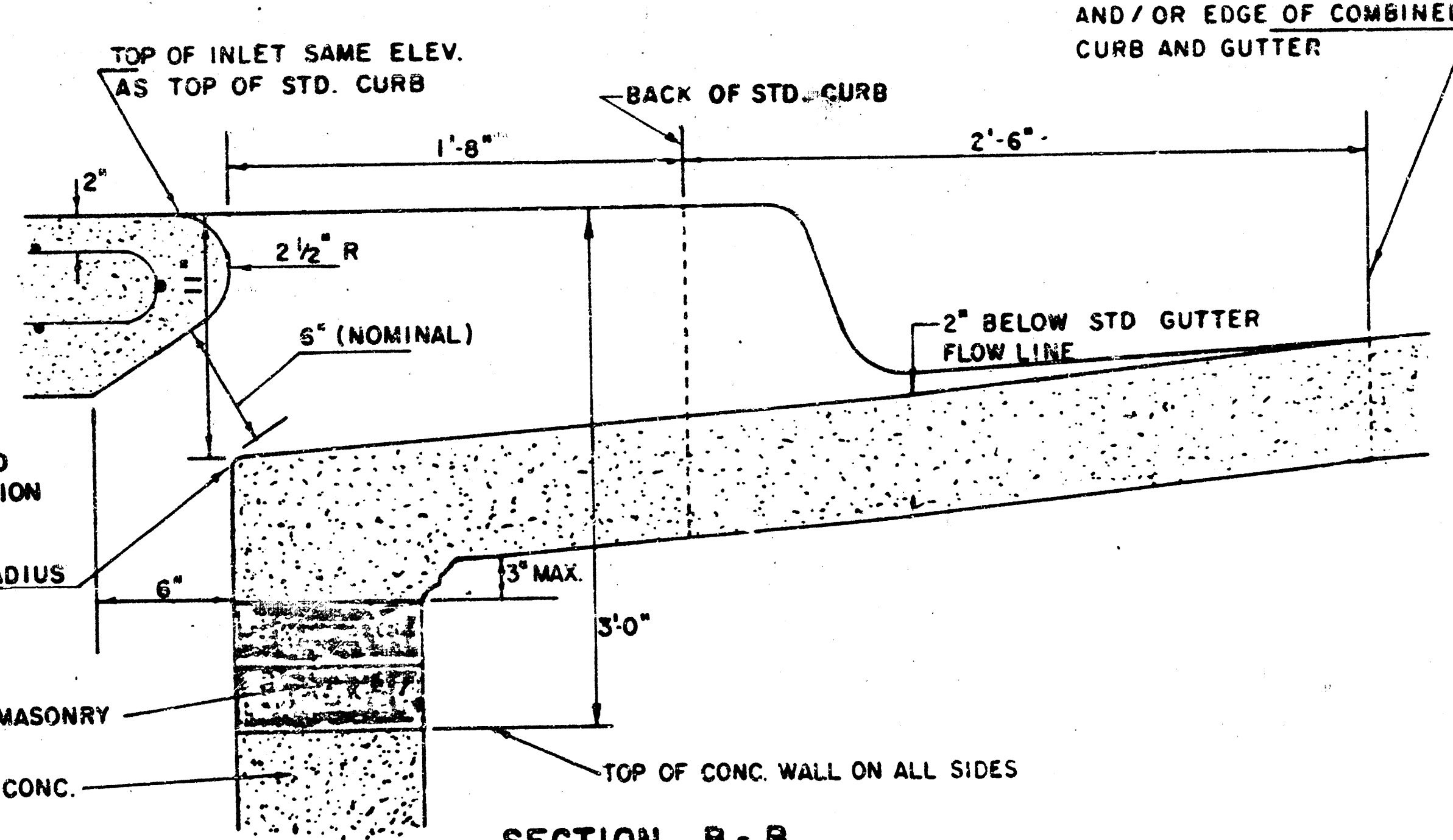
ADDITIONAL CURB AND GUTTER CONSTRUCTION NECESSARY TO CONNECT SET-BACK INLET TO PAVEMENT WILL BE PAID FOR AT THE UNIT PRICE BID FOR EACH INLET HOOKUP.

INLET INVERT SHALL BE SHAPED WITH 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.

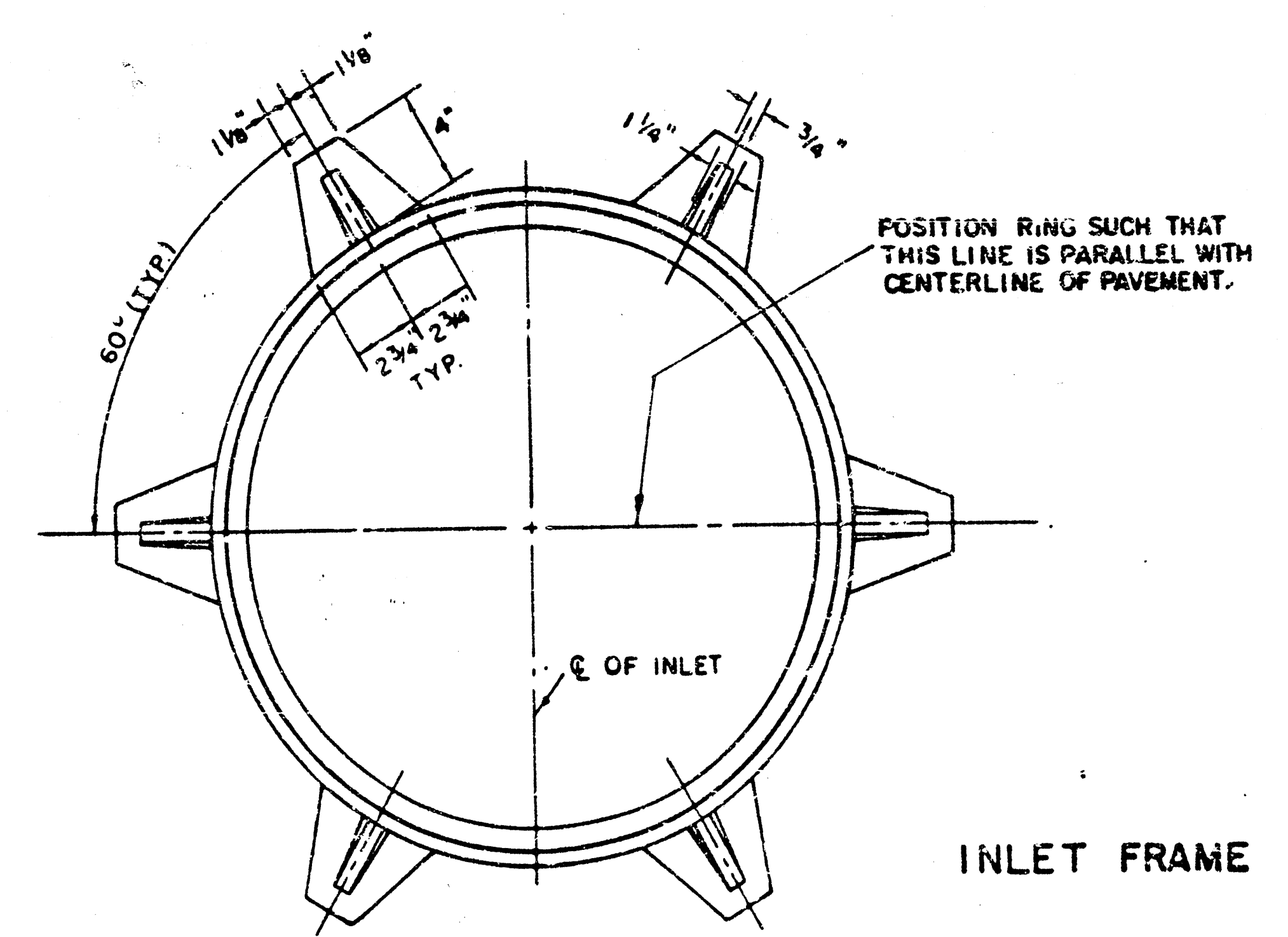
THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.

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

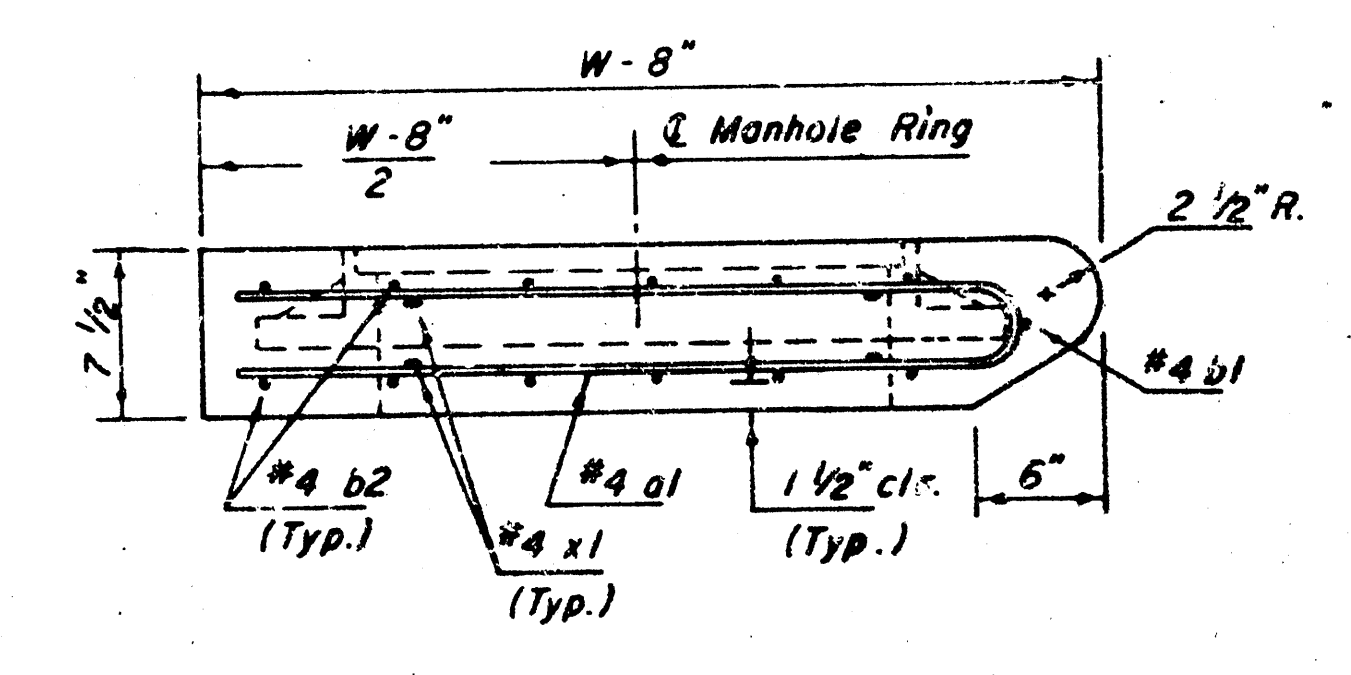
W	PRE-CAST TOP SIZE	PIPE SIZE	CU. YD. CONC.
4' 4"	3' 6" x 6' 4" x 7 1/2"	21" & SMALLER	0.39 ±
5' 4"	4' 8" x 6' 4" x 7 1/2"	24" & 30"	0.51 ±
6' 4"	5' 8" x 6' 4" x 7 1/2"	36" & 42"	0.64 ±
7' 4"	6' 8" x 6' 4" x 7 1/2"	48" & 54"	0.77 ±
8' 4"	7' 8" x 6' 4" x 7 1/2"	60" & 66"	0.90 ±



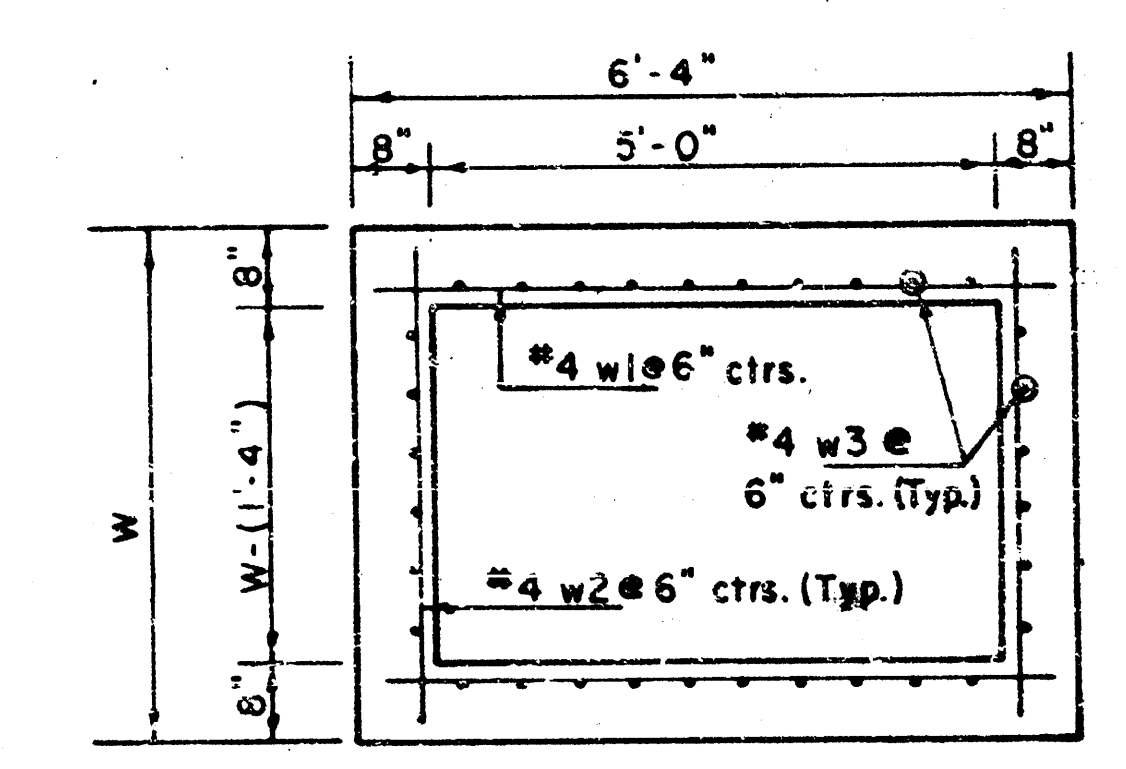
SECTION B-B



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

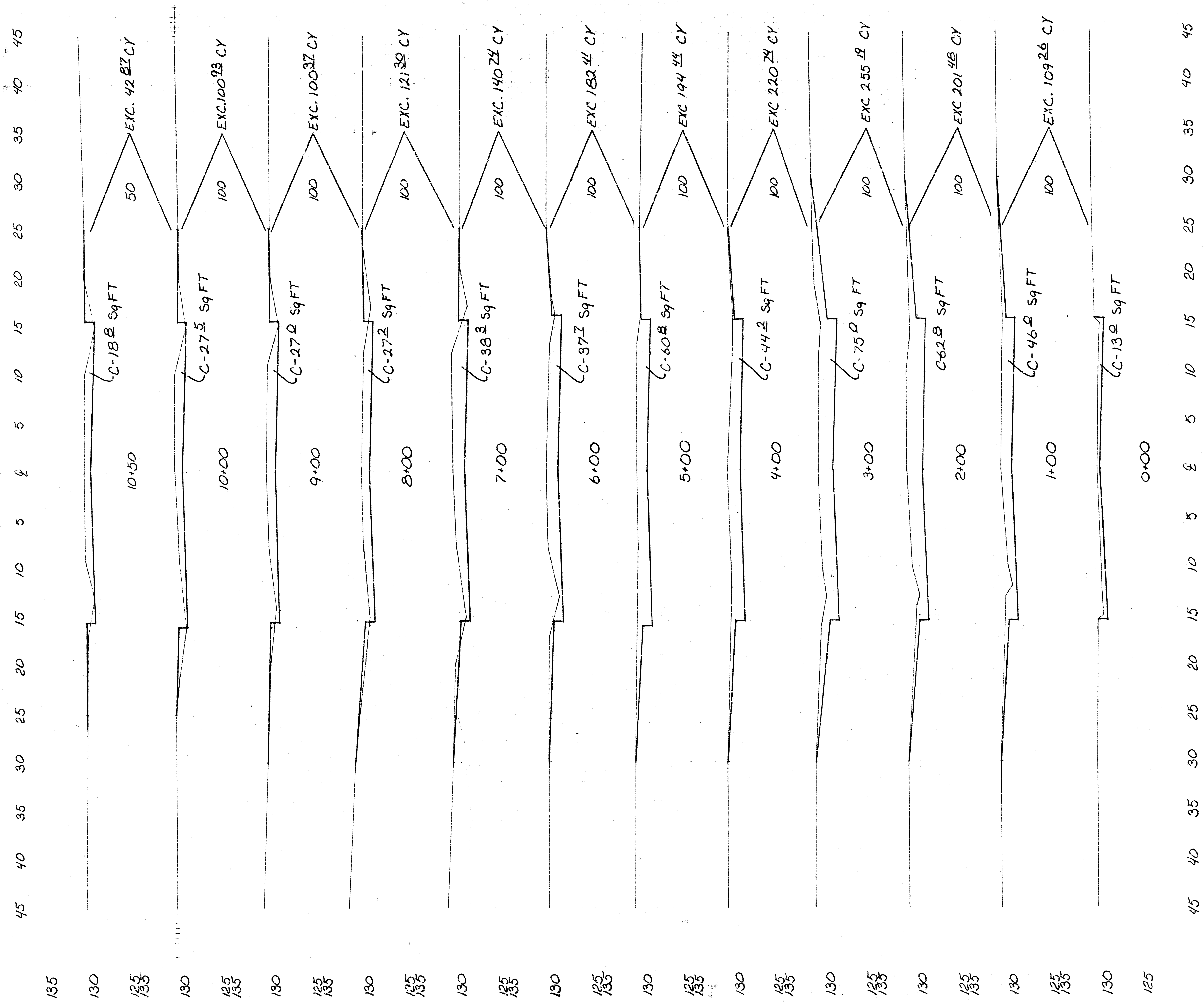
REVISED 11-30-1988
 REVISED 12-31-1984
 Revised 2-16-1989

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

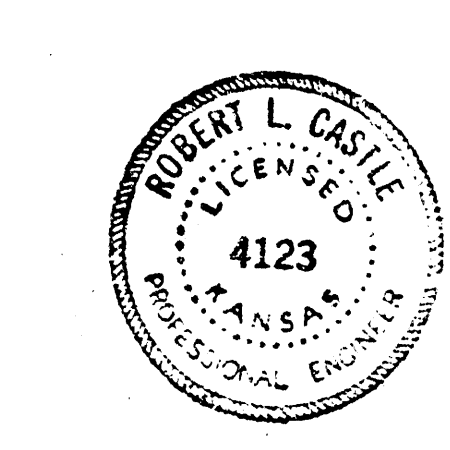
JUNE 1984

5A/6

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SHEET TOTAL
 1669.73 CY EXCAVATION
 10% 166.97
 TOTAL 1836.70 CY EXCAVATION



WICHITA, KANSAS STREET IMPROVEMENTS	
CROSS SECTIONS CHARLES AVENUE PROJECT NO 472-76-245-81854-000-000-001	
CASTLE & ASSOCIATES ENGINEERS WICHITA, KANSAS	DSG DOR DR DOR CH LJK DATE MARCH 1989
DWG. FILE NO. 8938-D-80,090	SHEET NO. 6 OF 6

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