

52ND ST. SO.
FROM E.L. SENECA AVE. TO W.L. OSAGE AVE.

INDEX NO. 761734

M. E. LINDEBAK - CITY ENGINEER

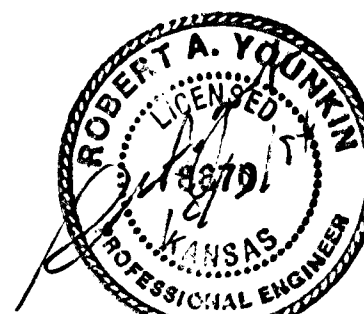
1. Utility service lines, poles, valve boxes, meters, etc. are to be adjusted as necessary by others prior to construction unless the plans specifically call for their adjustment by the Contractor or unless the plans specifically identify a utility to be adjusted by its owner during construction. Existing utilities and their location, as shown on the plans, represent the best information obtainable for design. The Contractor will be required to work around existing utilities within the right-of-way which do not conflict with proposed construction.
2. Contractor is solely responsible to notify and to make any necessary arrangements with utility companies for any needed adjustments of utility facilities prior to start of work.
3. Contractor will be required to provide as minimum advance notice of forty-eight (48) hours to utility companies prior to starting any excavation as follows:

1. 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.
5. Limits of earthwork shall match existing ground elevations at the right-of-way line unless otherwise noted on the plans. Where the new finished grade elevations do not match the existing ground elevations, the contractor shall extend one foot beyond the right-of-way line and then sloped up or down using permissible slopes to match the existing ground surface.
6. Contractor will be required to obtain property executed driveway request forms signed by property owners or their authorized representatives verifying driveway widths and locations. Such forms shall be submitted to the Engineer for his review and approval.
7. The Contractor shall give all property owners and/or tenants of developed property abutting the project limits a minimum of ten (10) days advance notice prior to start of construction.
8. The Contractor must examine the construction site prior to bidding and be satisfied as to the work shown for completion. After bids have been received, the Contractor shall not assert that there was a misunderstanding of the quantities of work or of the nature of the work to be completed.
9. All construction and materials, unless otherwise noted, to comply with City of Wichita specifications and standards.
10. Contractor shall give property owners abutting this project, whose yards will be lower than the new finished grade elevations at the right-of-way line, an opportunity to utilize excess excavated material from the project to regrade their yards to drain to the new pavement. Contractor will be required to dump and spread the excess material as required by the specifications when requested by the property owner. The Contractor shall ascertain that a dirt apron form has been installed and approved by the property owner before any such excess material is delivered to such properties.
11. Any fence removed for construction shall be repaired in a condition equal to, or better than original, and no wasted cost to the owner. This cost shall be considered as subsidiary to other bid items.
12. Rubble Removal - 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. All disposal must be approved by the Kansas Department of Health and Environment. Material either stockpiled or disposed of in a flood plain will require a Kansas State Board of Agriculture permit. Any material dumped in waters of the United States or wetlands is subject to US Corps of Engineers permitting regulations. Material utilized on sites approved beyond approved construction limits would require additional archeological investigations unless buried in a previously approved borrow location. The cost of disposing of rubble from the removal of miscellaneous structures and excess excavation, including loading and hauling shall be subsidiary to the other bid items.

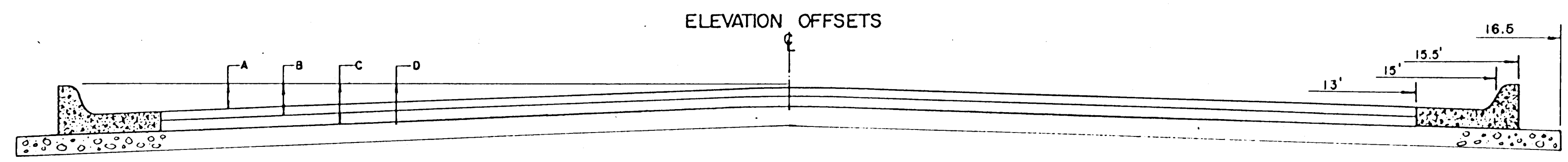
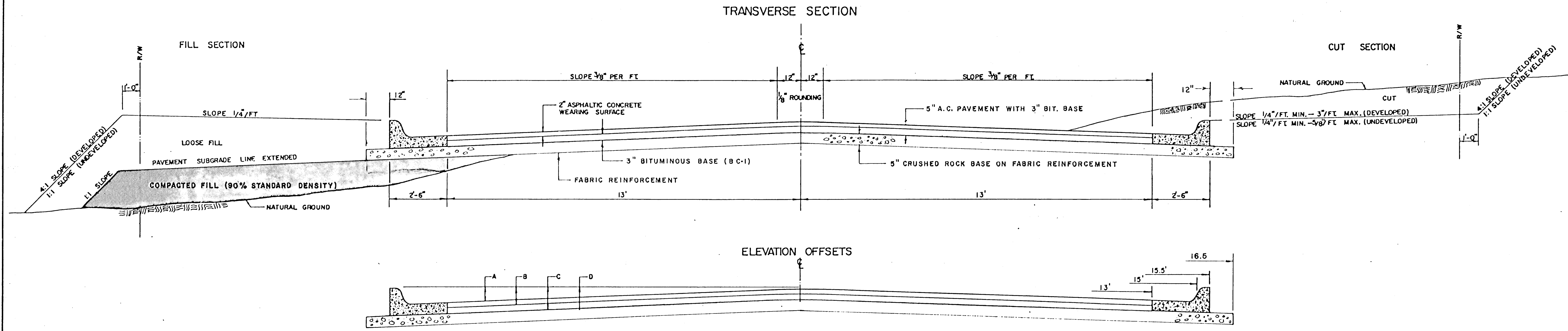
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INCIDENTAL DRAINAGE
BOOKED
7-20-95-
D-248
MCG

SHEET	1	-	TITLE SHEET
SHEET	2	-	TYPICAL 31" PAVEMENT DETAIL
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SHEET	11-13	-	EARTHWORK SECTIONS

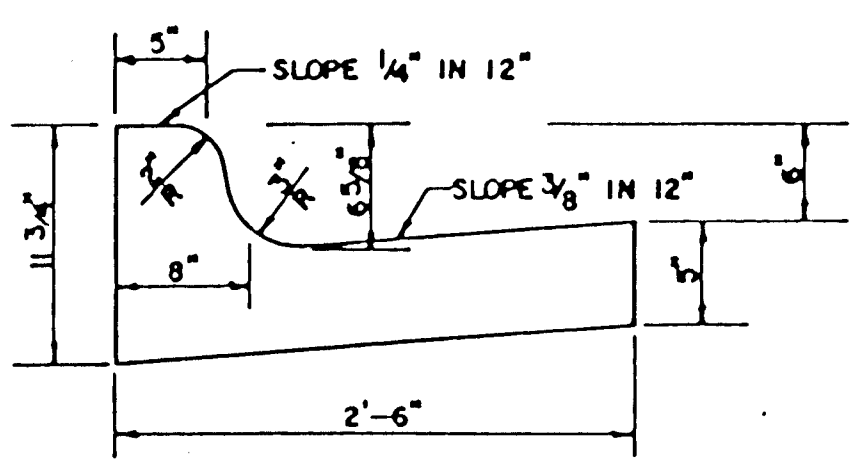


TYPICAL 31' PAVEMENT DETAILS

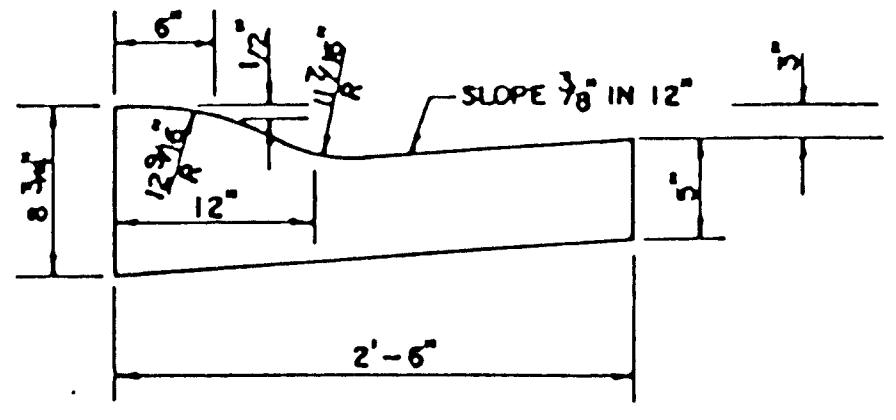


	DISTANCE FROM CENTERLINE (LT. & RT.)											
	0'	2'	4'	6'	7.5'	10'	12'	13'	15'	15.5'	15.67'	16.17'
A: TOP OF CURBS TO TOP OF SURFACE LIFT	.10	.14	.21	.27	.32	.39	.46	.49	---	---	---	---
B: TOP OF CURBS TO TOP OF BASE LIFT	.27	.31	.37	.44	.48	.56	.62	.65	---	---	---	---
C: TOP OF CURBS TO TOP OF ROCK BASE	.52	.56	.63	.69	.74	.81	.88	.91	.97	.98	.99	---
D: TOP OF CURBS TO TOP OF SUBGRADE												

COMBINED CURB & GUTTER



ROLL TYPE COMBINED CURB & GUTTER



GENERAL NOTES

FABRIC BASE REINFORCEMENT SHALL BE B x 1100 BY TENSAR CORP. OR LBO201 BY TENAX CORP. OR APPROVED EQUAL. FABRIC BASE REINFORCEMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURES RECOMMENDATIONS. CRUSHED ROCK SHALL BE UNIFORMLY GRADED FROM 1-1/2" MAXIMUM SIZE TO NOT MORE THAN 10% PASSING A NO. 200 SIEVE. ROCK QUALITY SHALL BE THE SAME AS SPECIFIED FOR COARSE AGGREGATE FOR CONCRETE MIXES.

ROCK BASE IS TO BE COMPACTED AND SMOOTHED WITH A STEEL FACED ROLLER PRIOR TO PLACEMENT OF ASPHALT. TACK COAT WILL NOT BE APPLIED TO ROCK BASE.

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.

BITUMINOUS BASE AND ASPHALTIC CONCRETE WEARING SURFACE SHALL BE PLACED WITH A LAYDOWN MACHINE HAVING AUTOMATIC CONTROLS FOR LINE AND GRADE.

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.

THE ASPHALTIC CONCRETE PAVEMENT BETWEEN THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 5" ASPHALTIC CONCRETE (3" BITUMINOUS BASE).

TRANSVERSE CONSTRUCTION JOINTS

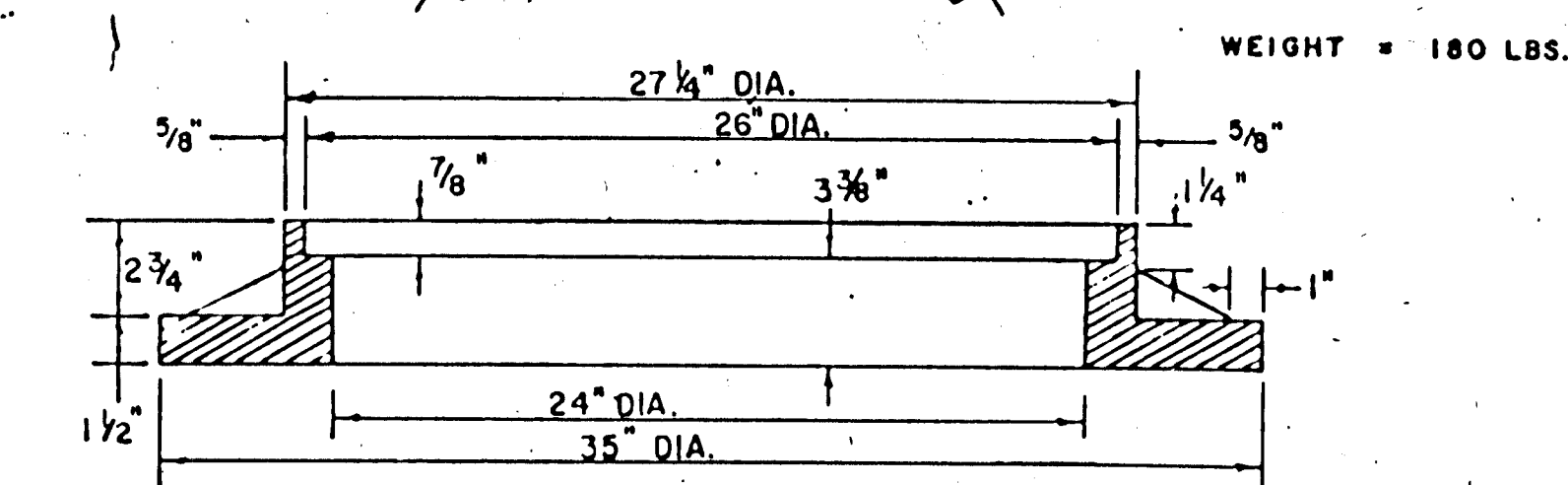
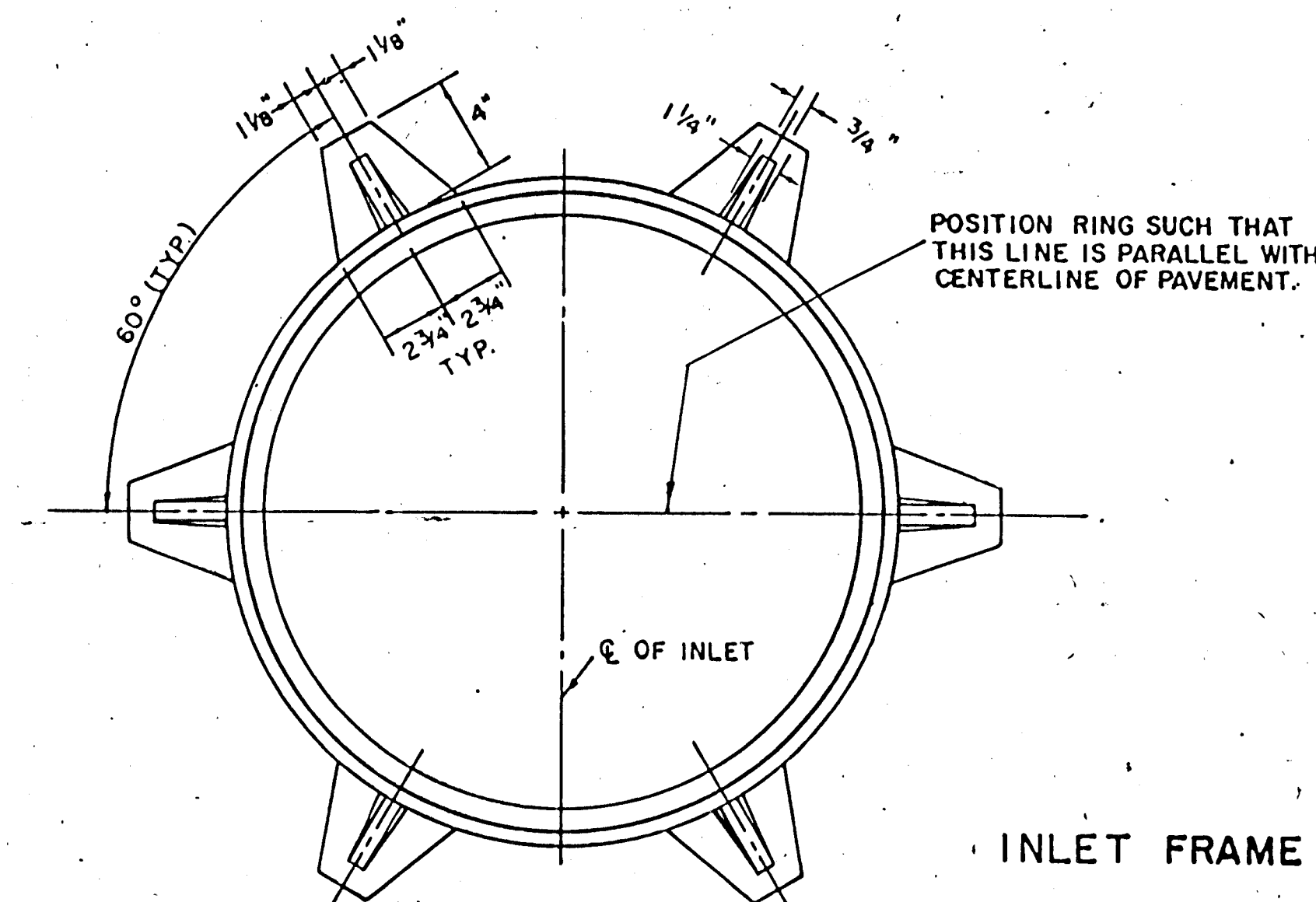
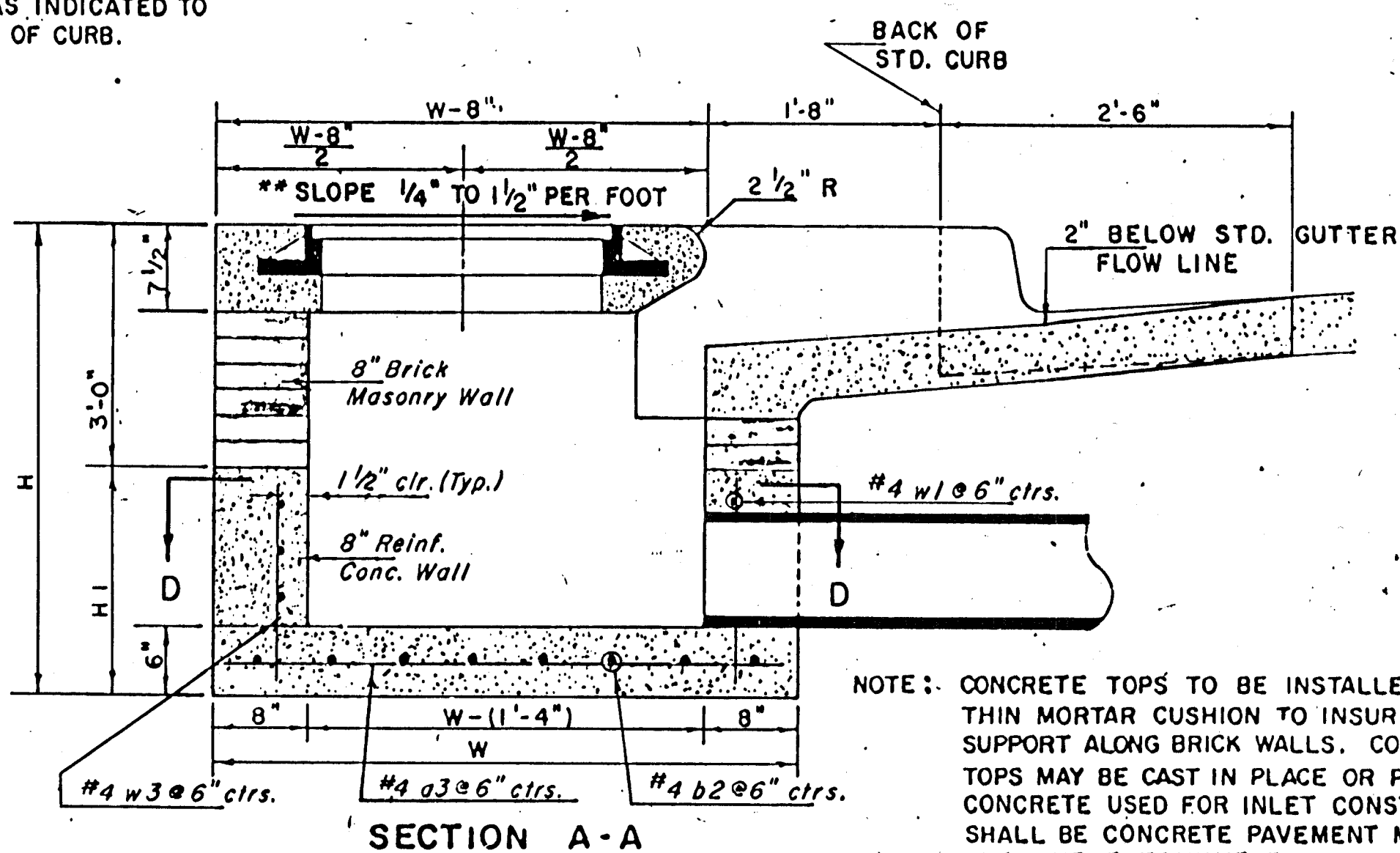
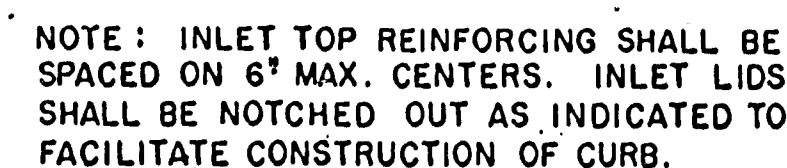


TRANSVERSE CONSTRUCTION JOINTS SHALL BE CONSTRUCTED IN FLEXIBLE BASE PAVEMENTS AT LOCATIONS WHERE PAVEMENT JOINTS EXISTING FLEXIBLE BASE PAVEMENT AS SHOWN BY THE DETAIL. ALL COSTS ASSOCIATED WITH THE CONSTRUCTION OF THE TRANSVERSE JOINT SHALL BE INCLUDED IN THE BID PRICE FOR SQUARE YARDS 5" ASPHALTIC CONCRETE (3" BITUMINOUS BASE).

REVISED 1-3-92 JKB

5" RESIDENTIAL ASPHALTIC CONCRETE
PAVEMENT WITH CRUSHED ROCK BASE
ON FABRIC REINFORCEMENT

52nd St. So.
Sheet 2 of 13



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



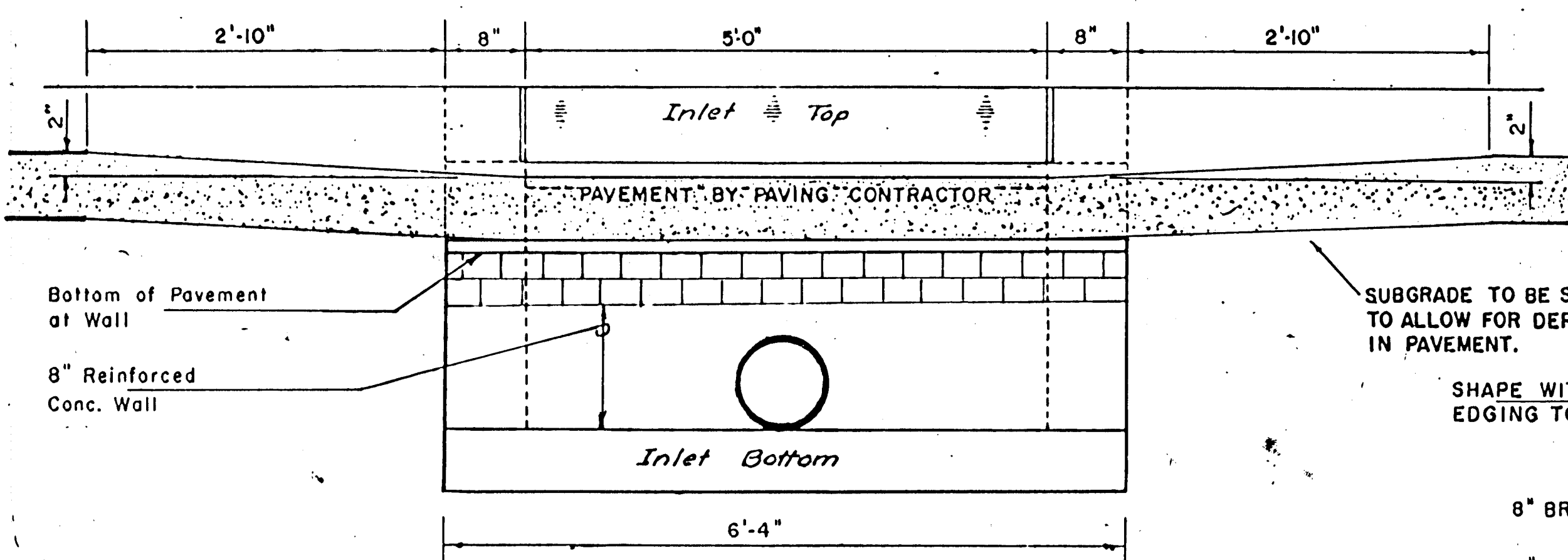
PLAN

PRECAST SLAB AND FLOOR REINFORCING											
		W=4'-4"		W=5'-4"		W=6'-4"		W=7'-4"		W=8'-4"	
Mark	Size	No.	Length	No.	Length	No.	Length	No.	Length	No.	Length
a1	#4	6	6'-7"	6	8'-7"	6	10'-7"	6	12'-7"	6	14'-7"
a2	#4	4	6'-0"	4	8'-0"	4	10'-0"	4	12'-0"	4	14'-0"
a3	#4	13	4'-1"	13	5'-1"	13	6'-1"	13	7'-1"	13	8'-1"
b1	#4	1	4'-9"	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"	47	6'-1"
x1	#4	8	3'-10"	8	4'-2"	8	4'-6"	8	4'-10"	8	5'-2"

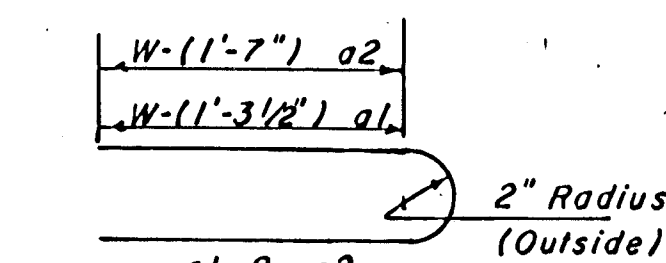
WALL REINFORCING											
		W=4'-4"		W=5'-4"		W=6'-4"		W=7'-4"		W=8'-4"	
Mark	Size	No.	Length	No.	Length	No.	Length	No.	Length	No.	Length
w1	#4	①	6'-1"	①	6'-1"	①	6'-1"	①	6'-1"	①	6'-1"
w2	#4	①	4'-1"	①	5'-1"	①	6'-1"	①	7'-1"	①	8'-1"
w3	#4	32	②	36	②	40	②	44	②	48	②

* 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



BENDING DIAGRAM

STANDARD CURB INLET PRECAST TOPS			
W	PRE-CAST TOP SIZE	PIPE SIZE	CU. YD. CONC.
4' 4"	3' 6" 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 ±

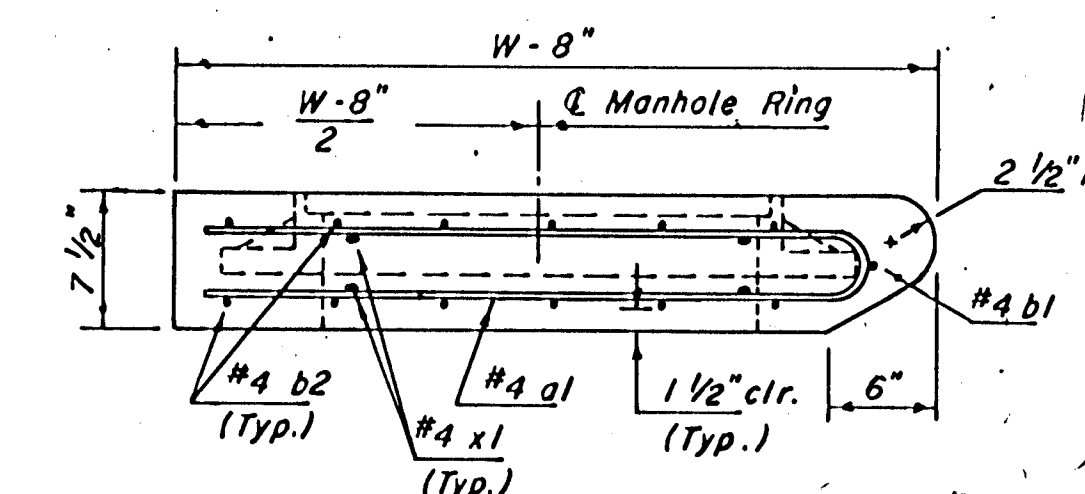
NOTE: CONTRACTOR SHALL HAVE THE OPTION OF CONSTRUCTING 8" BRICK MASONRY WALLS BETWEEN THE CONCRETE INLET BASE AND TOP ON THIS INLET WHEN W = 6'4" AND H = 7'0" OR LESS.

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.

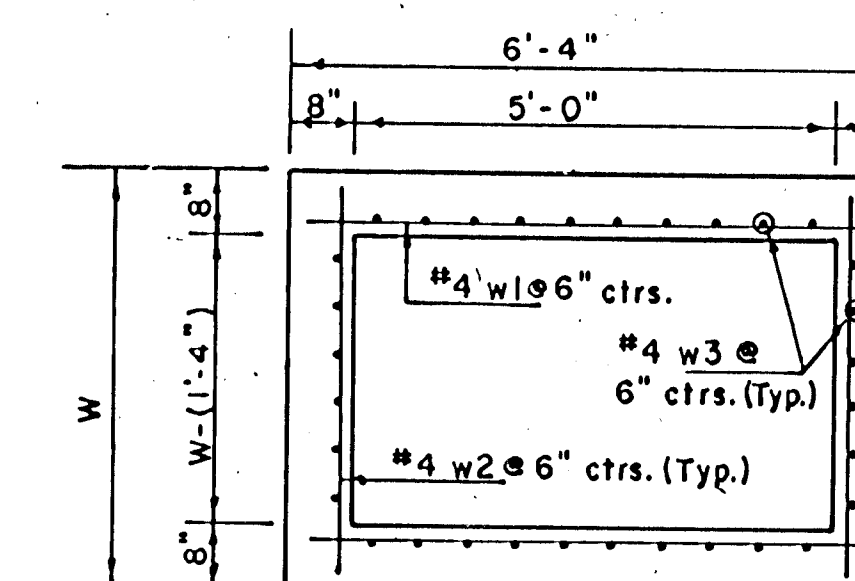
INLET INVERT SHALL BE SHAPED WITH 8 SACK SAND MIX CONCRETE TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE INLET WILL BE SELF CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.

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.



SECTION C-C



SECTION D-D

~~REVISED 11-30-1988~~

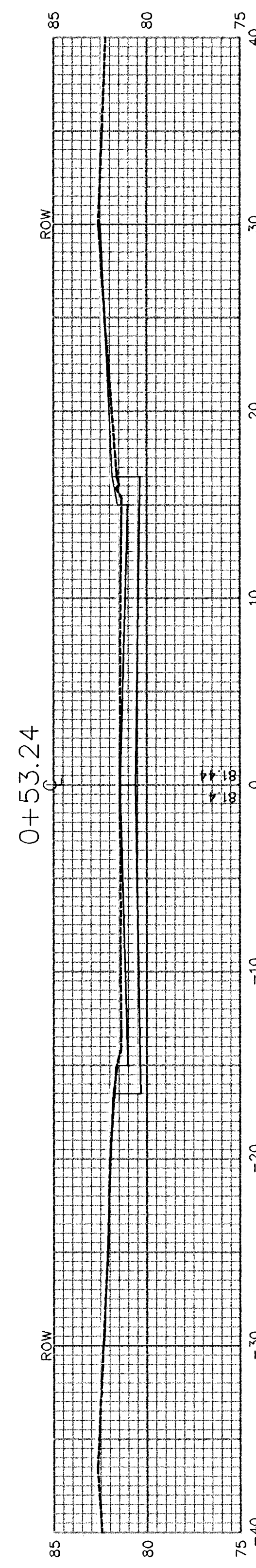
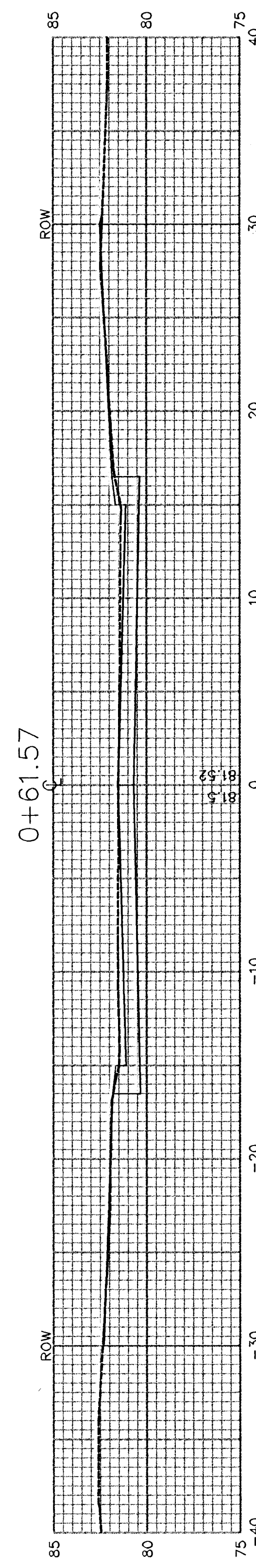
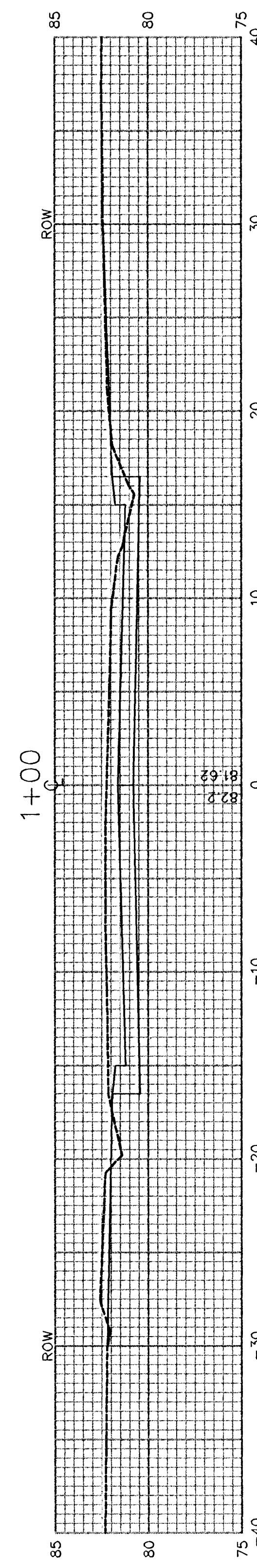
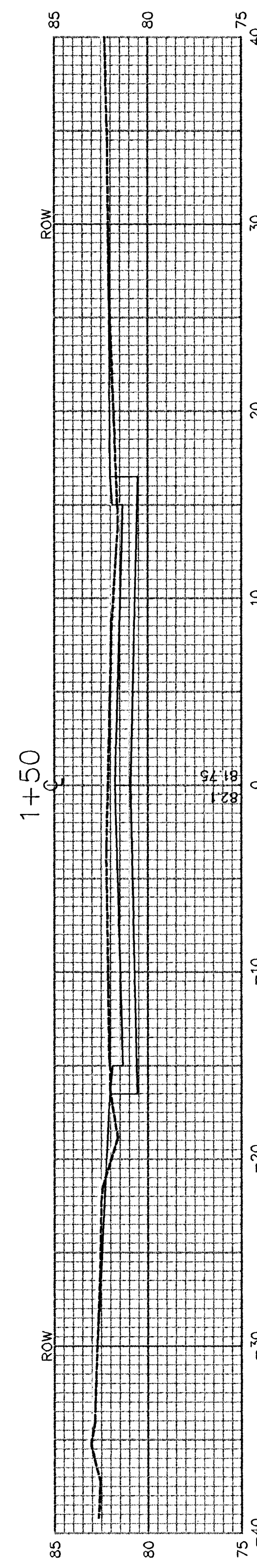
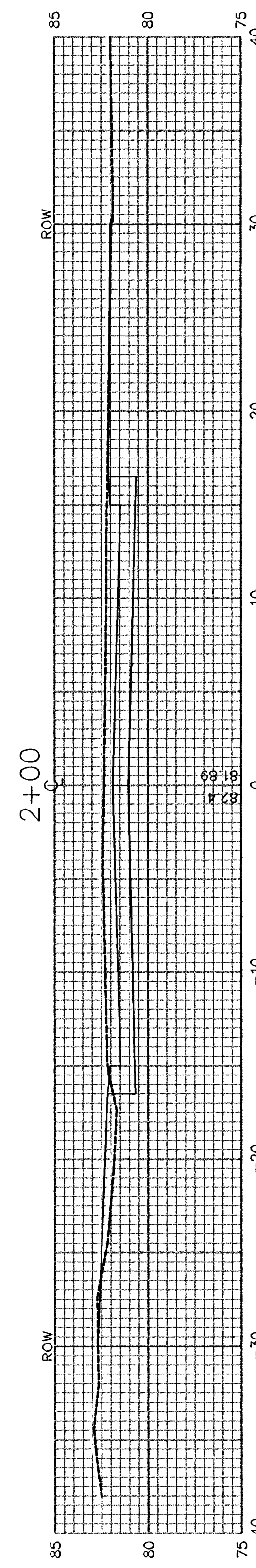
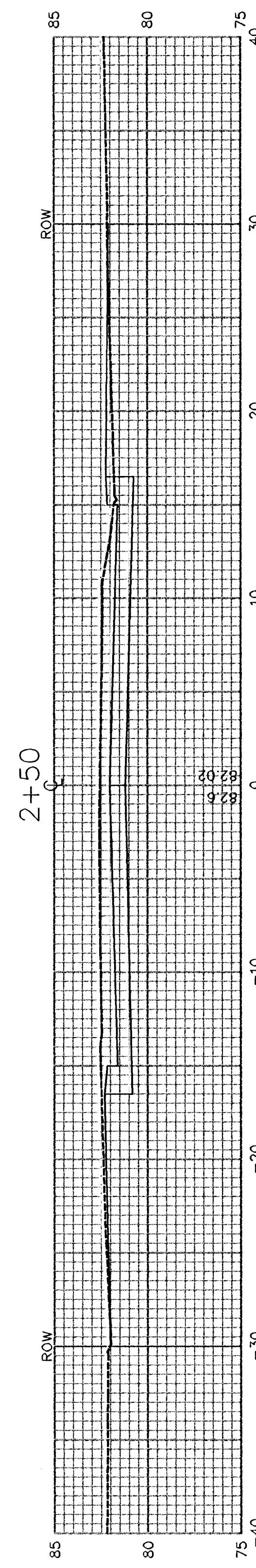
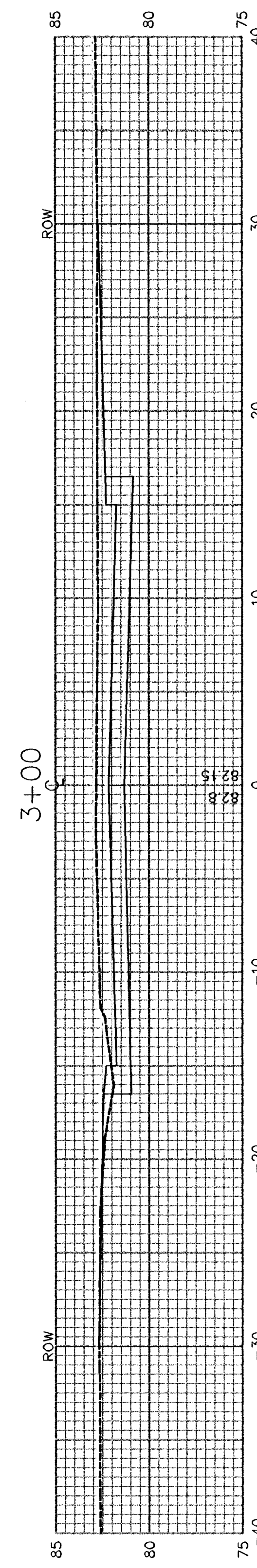
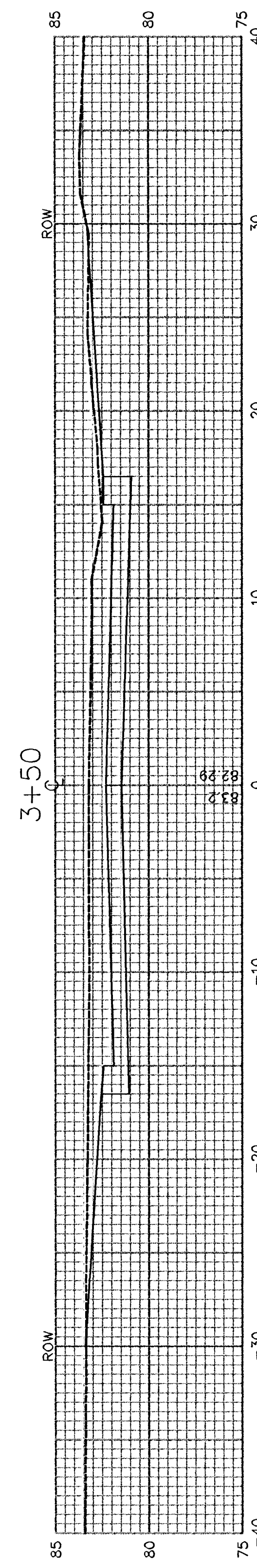
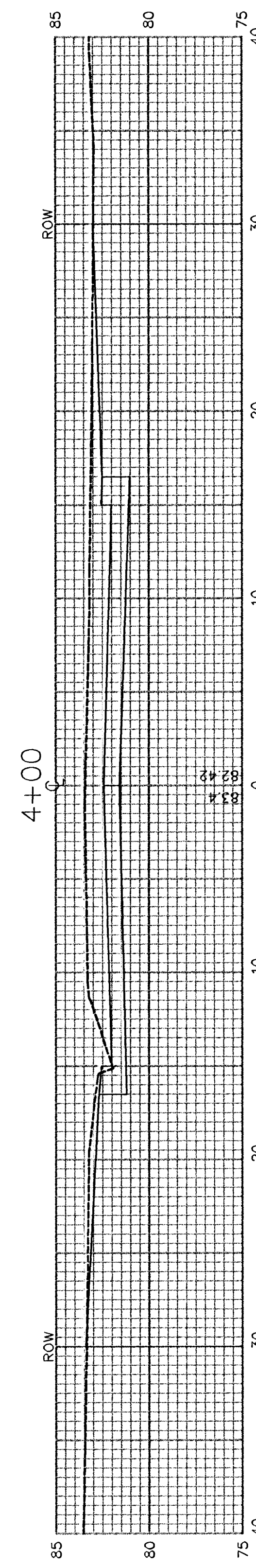
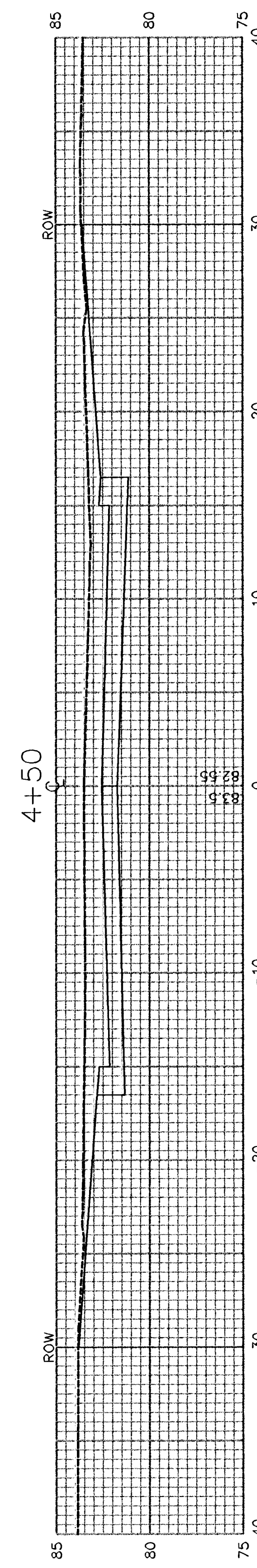
~~REVISED 12-21-1984~~

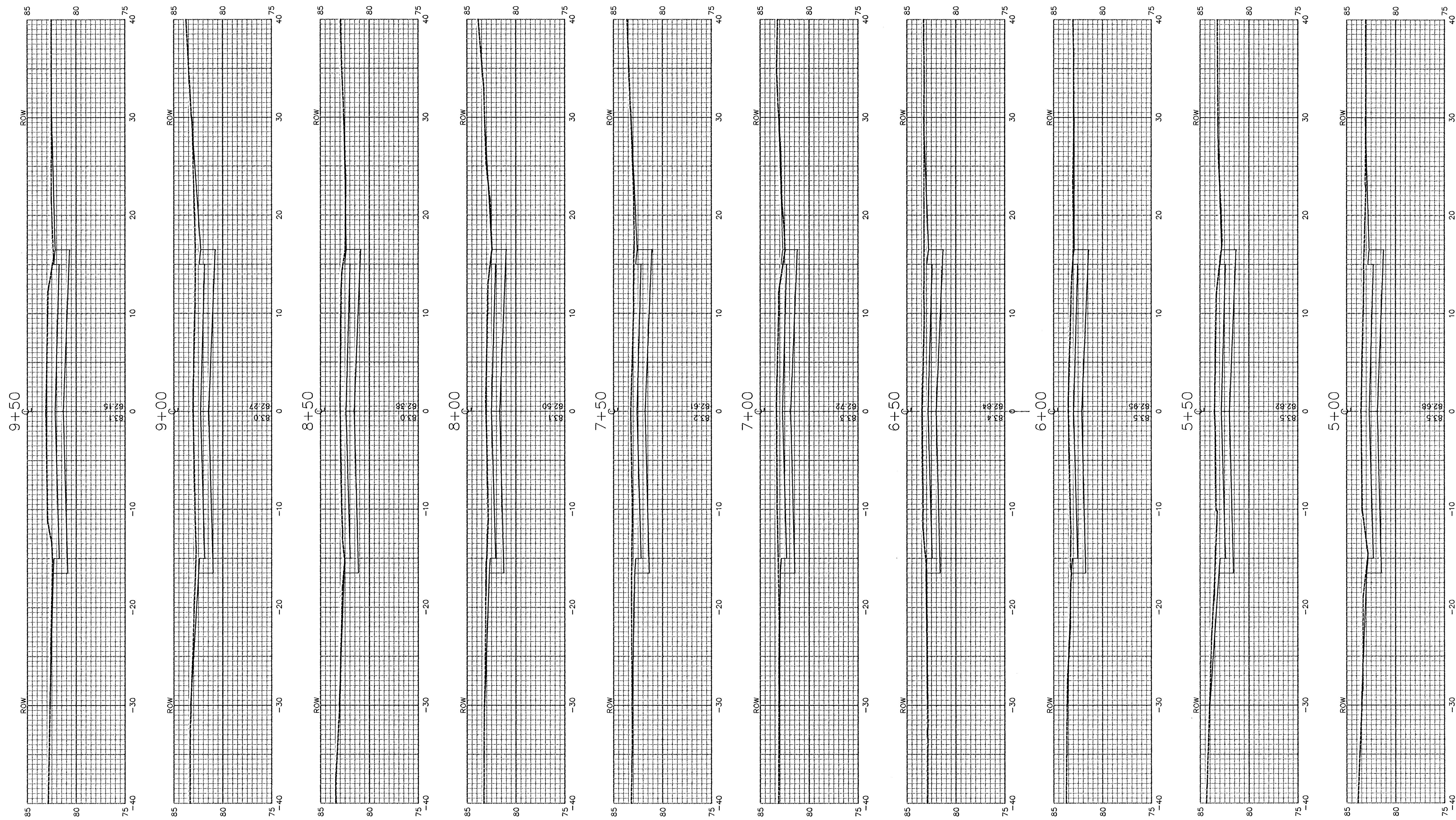
Revised 2-16-1989

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

JUNE 1984

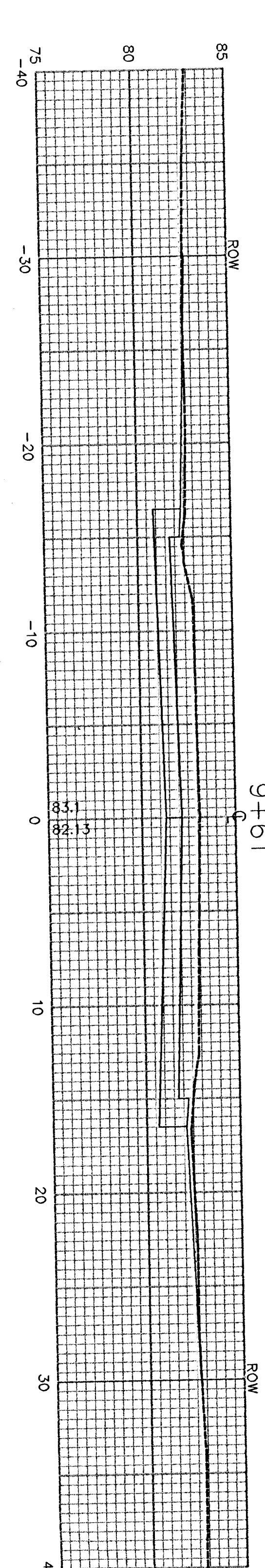
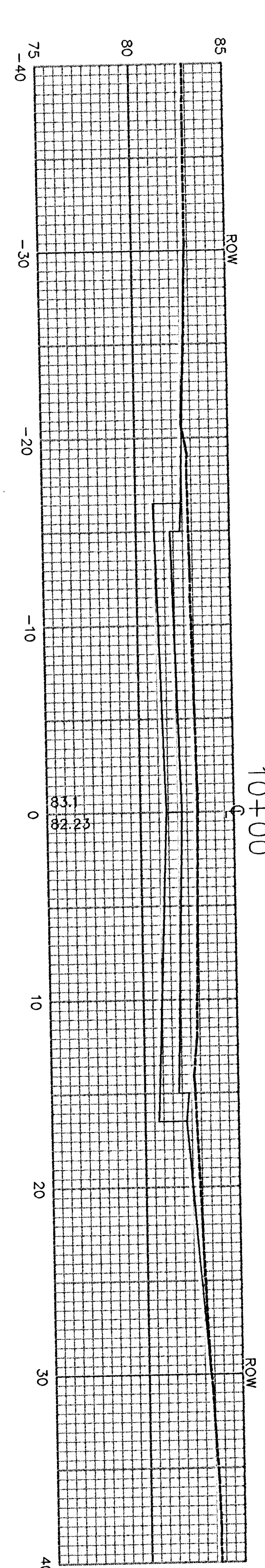
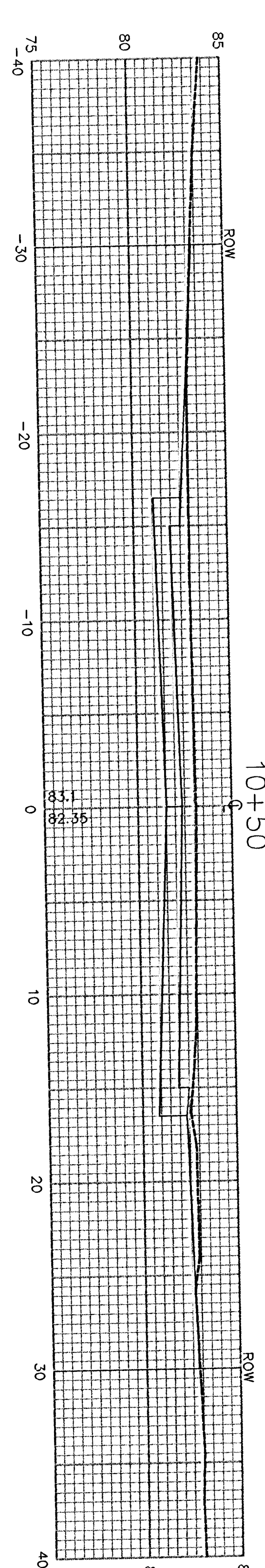
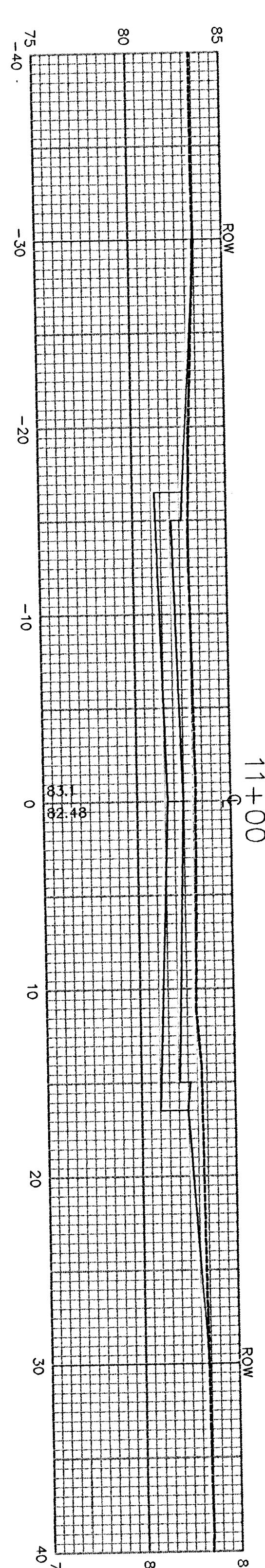
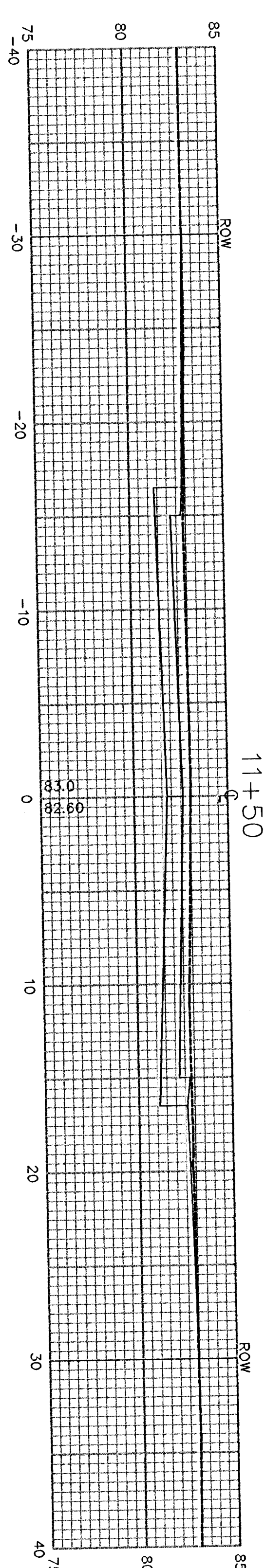
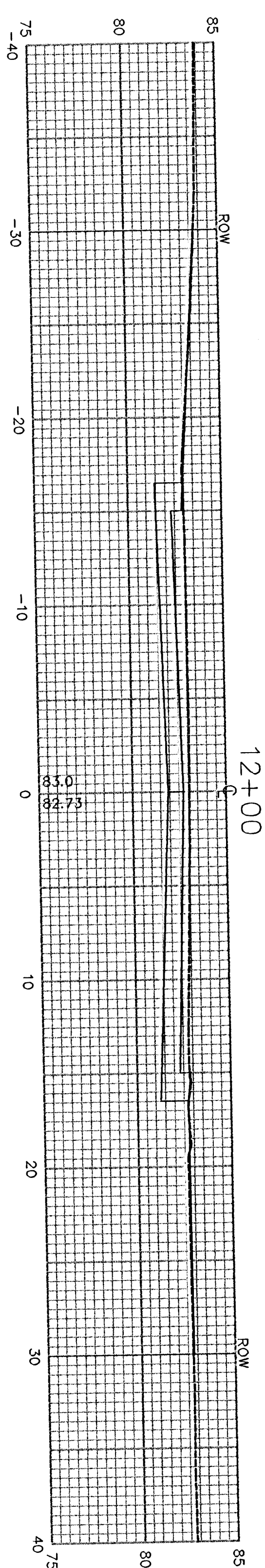
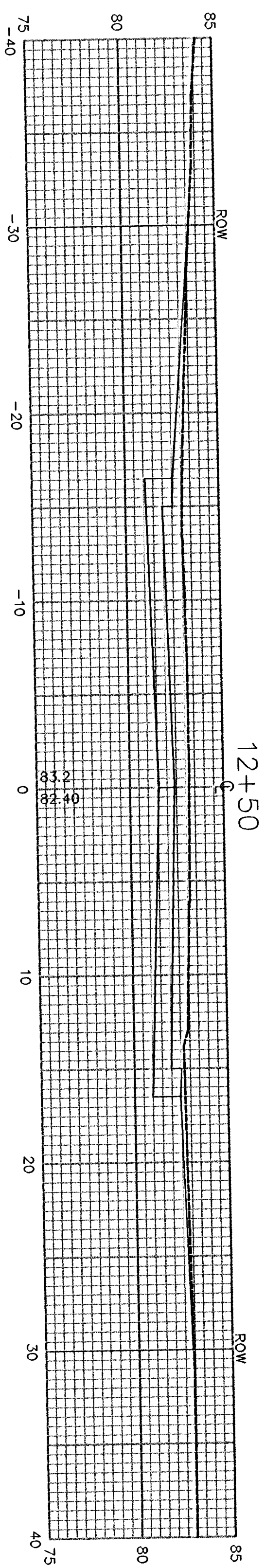
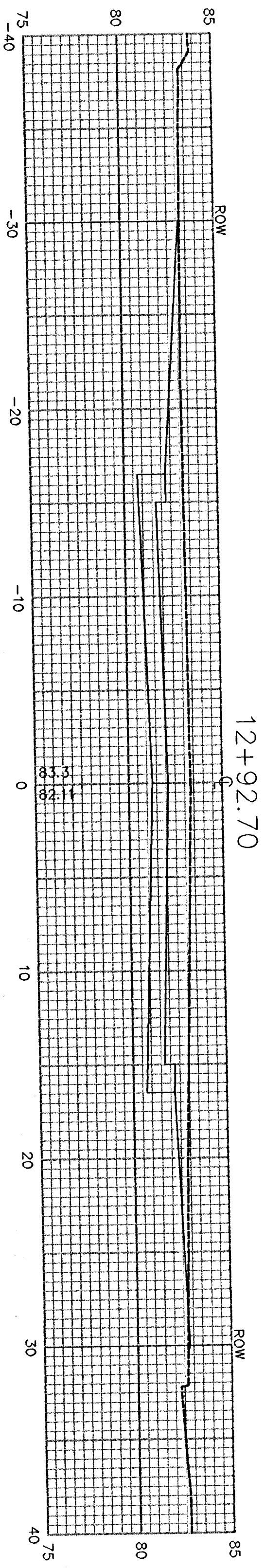
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Sheet 10 of 13

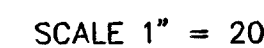




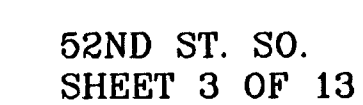
STATION	AREAS		VOLUMES		CUMULATIVE VOLUMES	
	CUT	FILL	CUT	FILL	CUT	FILL
0+53.24	31.78	1.14	9.89	0.30	9.89	0.30
0+61.57	32.31	0.80	58.36	1.70	68.27	2.00
1+00	49.73	1.58	85.87	4.18	154.14	6.17
1+50	43.01	2.93	83.63	6.39	237.76	12.57
2+00	47.30	3.98	89.25	5.87	327.01	18.43
2+50	49.09	2.36	96.75	2.96	423.76	21.39
3+00	55.40	0.84	115.15	0.83	538.91	22.22
3+50	68.96	0.06	126.06	0.08	664.97	22.30
4+00	67.18	0.03	129.15	0.03	794.13	22.33
4+50	72.31	0.00	124.01	0.17	918.13	22.50
5+00	61.62	0.18	110.80	0.52	1028.93	23.02
5+50	56.04	0.36	100.49	0.51	1129.42	23.53
6+00	50.48	0.16	97.95	0.77	1227.37	24.30
6+50	55.30	0.67	100.15	1.79	1327.52	26.09

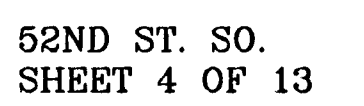
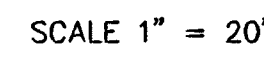
STATION	AREAS		VOLUMES		CUMULATIVE VOLUMES	
	CUT	FILL	CUT	FILL	CUT	FILL
7+00	52.85	1.26	101.63	1.17	1429.15	27.25
7+50	56.90	0.00	102.45	0.34	1531.60	27.59
8+00	53.75	0.36	99.26	0.73	1630.86	28.32
8+50	53.45	0.42	107.63	0.45	1738.49	28.77
9+00	62.79	0.06	117.19	0.07	1855.68	28.84
9+50	63.77	0.01	26.10	0.05	1881.78	28.88
9+61	64.38	0.22	92.41	0.22	1974.20	29.11
10+00	63.58	0.09	116.04	0.16	2090.24	29.27
10+50	61.74	0.08	115.01	0.16	2205.25	29.42
11+00	62.47	0.03	103.41	0.10	2308.66	29.53
11+50	49.21	0.03	86.86	0.88	2395.52	30.41
12+00	44.60	0.92	99.85	0.86	2495.37	31.26
12+50	63.24	0.00	115.46	0.07	2610.83	31.33
12+92.70	82.78	0.09	0.00	0.00	2610.83	31.33

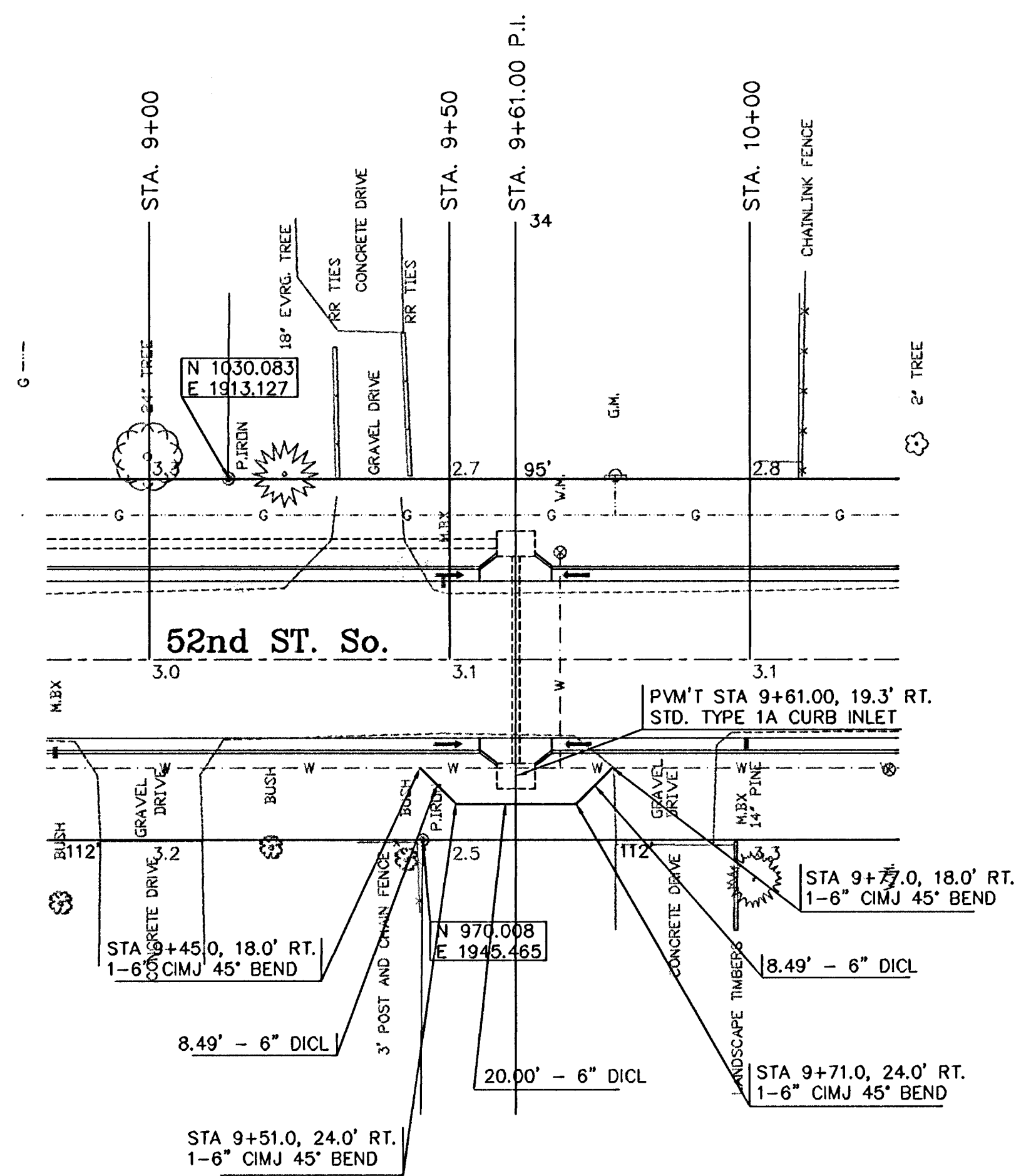




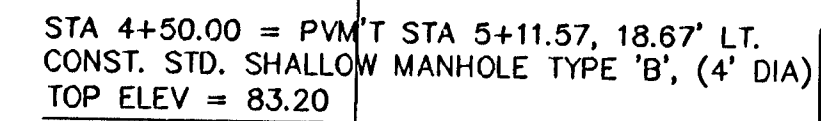
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52ND ST. SO.
SHEET 5 OF 13



HANKINS 2ND ADDITION

33 34 35 36 37

STA 0+00 LINE 1 =
STA 8+99.43 LINE 1 =
PVM'T STA 9+61.00, 18.67' LT.
CONST. STD. TYPE 1A CURB INLET
W = 4'-4", L = 6'-4"
INLET TOP ELEV = 82.33

N 1030.083
E 1913.127

N 1018.660
E 1961.005

STA 9+36.77 LINE 1 =
PVM'T STA 9+61.00, 18.67' RT.
CONST. STD. TYPE 1A CURB INLET
W = 4'-4", L = 6'-4"
INLET TOP ELEV = 82.13

N 970.008
E 1945.465

N 981.340
E 1961.005

STA 3+33.5 LINE 2 =
PVM'T STA 12+94.5, 18.67' LT.
END LINE 2
CONSTRUCT 3'x3'x6' GRAVEL PACK

N 1018.660
E 2294.500

N 999.991
E 2352.892

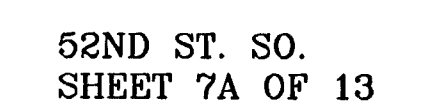
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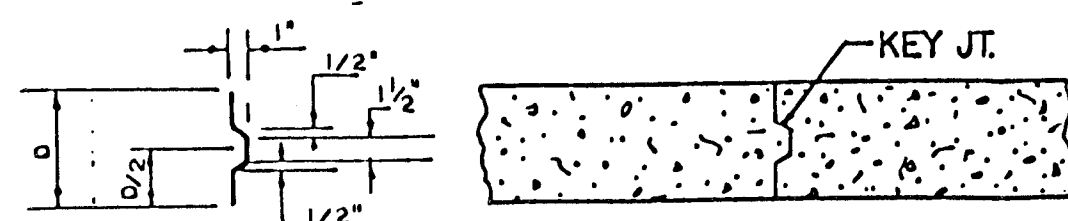
52nd ST. So.

52nd ST. So.

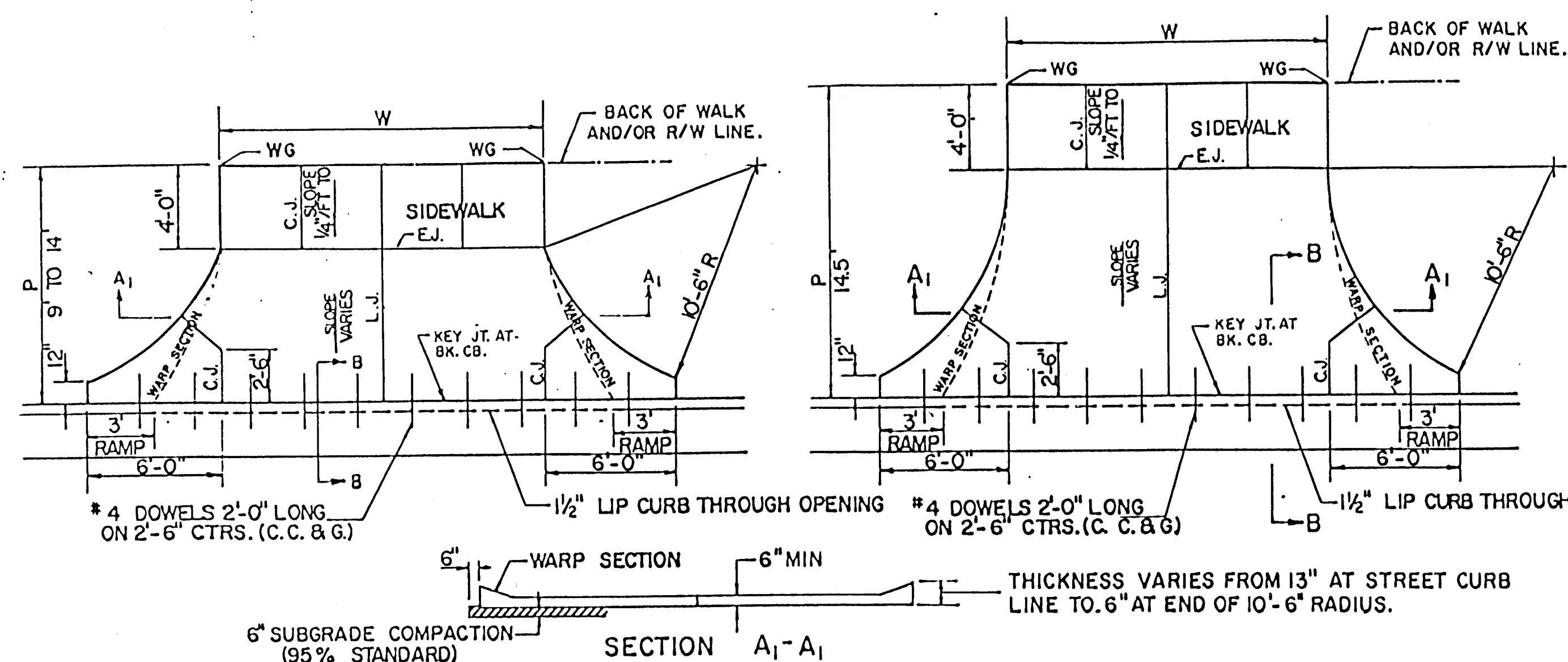
OSAGE AVE.

HANKINS 2ND ADDITION



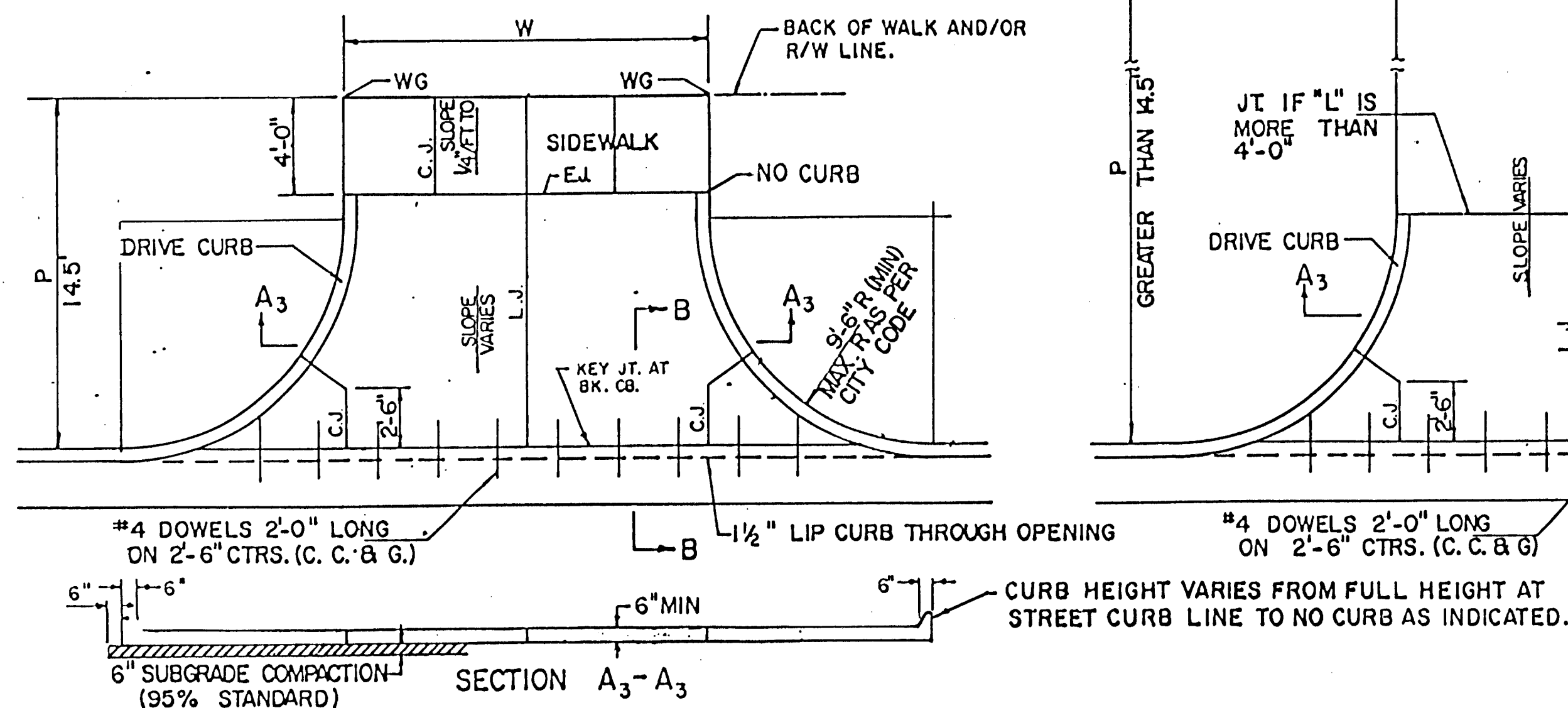


ALT. LONGITUDINAL CONSTRUCTION JOINT



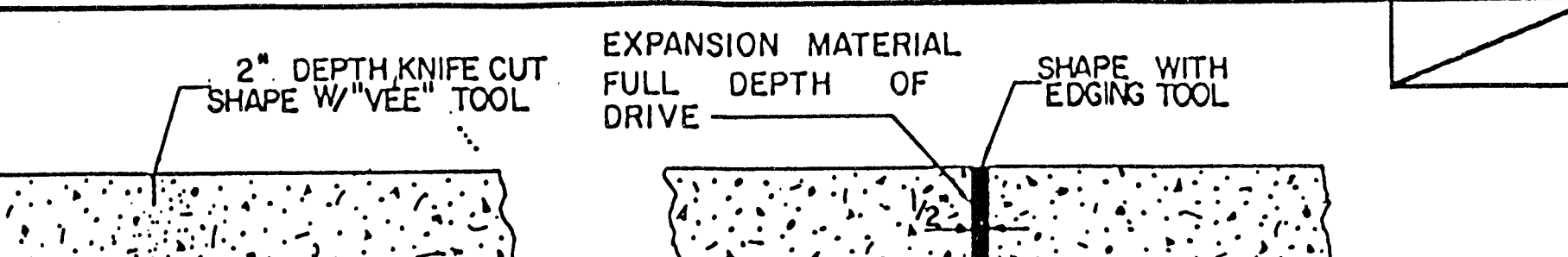
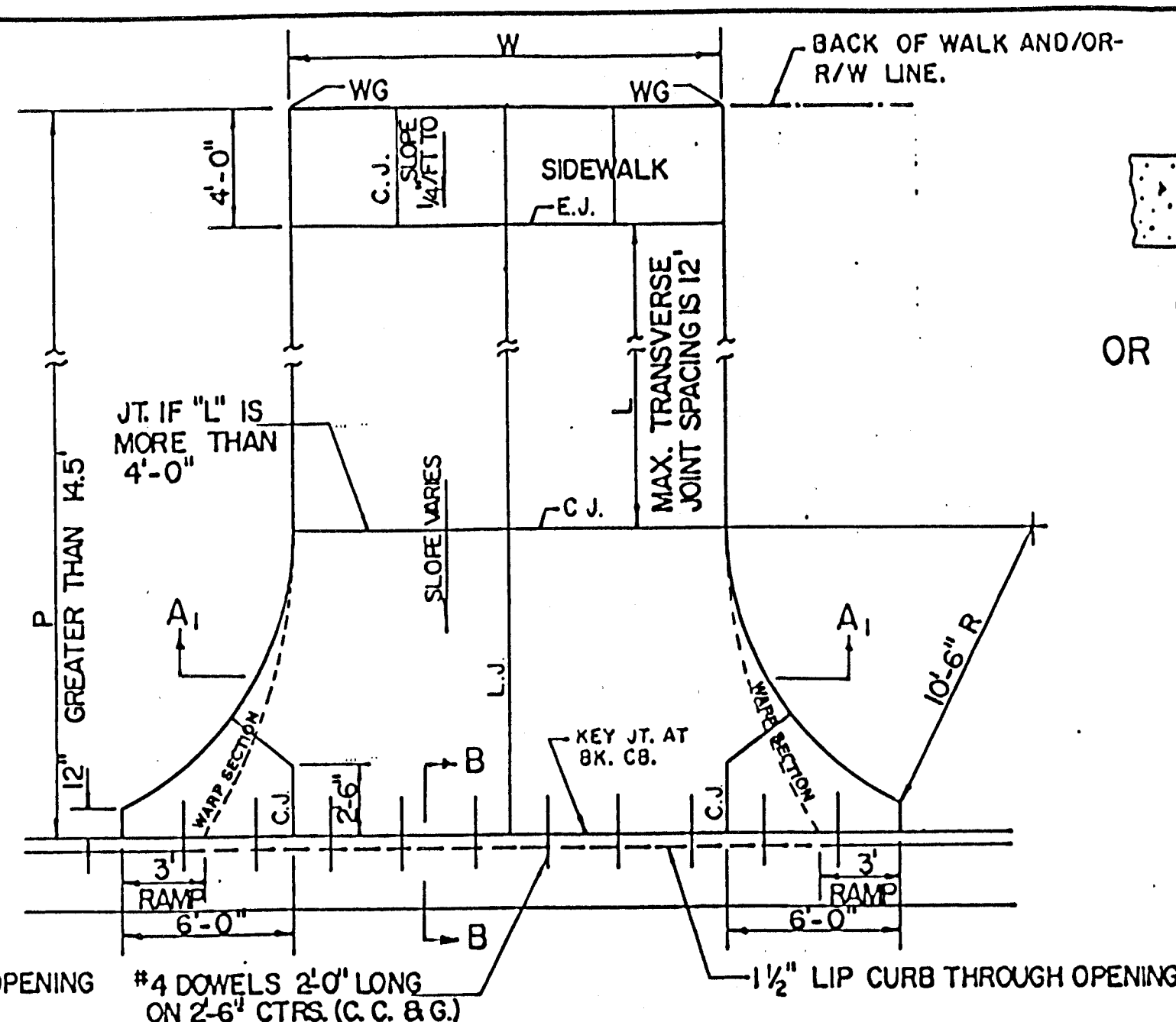
PARKING WIDTH "P"		9'	10'	11'	12'	13'	14.5'	20'	25'	30'	35'	40'	45'	50'
ABSOLUTE	MAX. DIST. OF PT. "WG" ABOVE OR BELOW TOP OF FULL CURB	0.27'	0.27'	0.32'	0.37'	0.52'	0.80'	1.35'	1.85'	2.35'	2.85'	3.35'	3.85'	4.35'
OPTIMUM	MAX. DIST. OF PT. "WG" ABOVE OR BELOW TOP OF FULL CURB	0.27'	0.27'	0.32'	0.37'	0.52'	0.82'	0.96'	1.22'	1.48'	1.74'	2.00'	2.26'	2.52'
OPTIMUM	MIN. DIST. OF PT. "WG" ABOVE OR BELOW TOP OF FULL CURB	0.19'	0.21'	0.23'	0.25'	0.27'	0.30'	0.42'	0.52'	0.62'	0.72'	0.82'	0.92'	1.02'
ABSOLUTE	MIN. DIST. OF PT. "WG" ABOVE OR BELOW TOP OF FULL CURB	-1.9'	-1.6'	-1.3'	-1.0'	-0.6'	0.00'	0.00'	0.15'	0.25'	0.35'	0.45'	0.55'	0.65'

RADIUS RAMP DRIVES (P = 9.0' & GREATER)



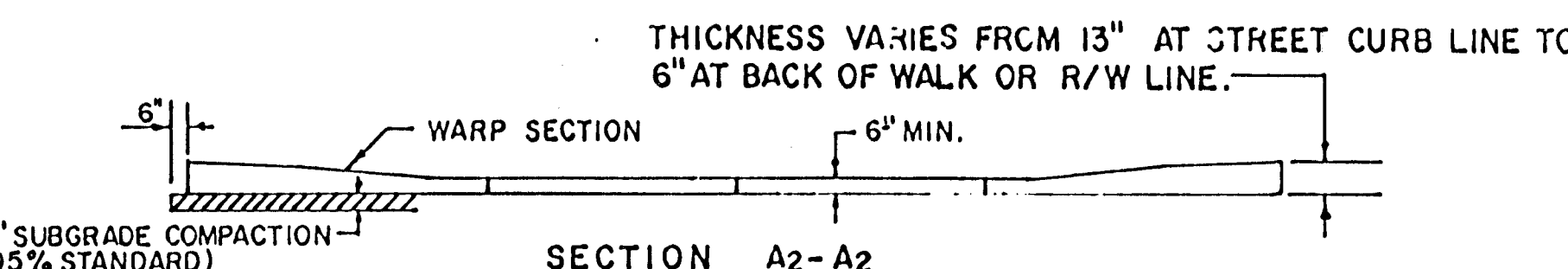
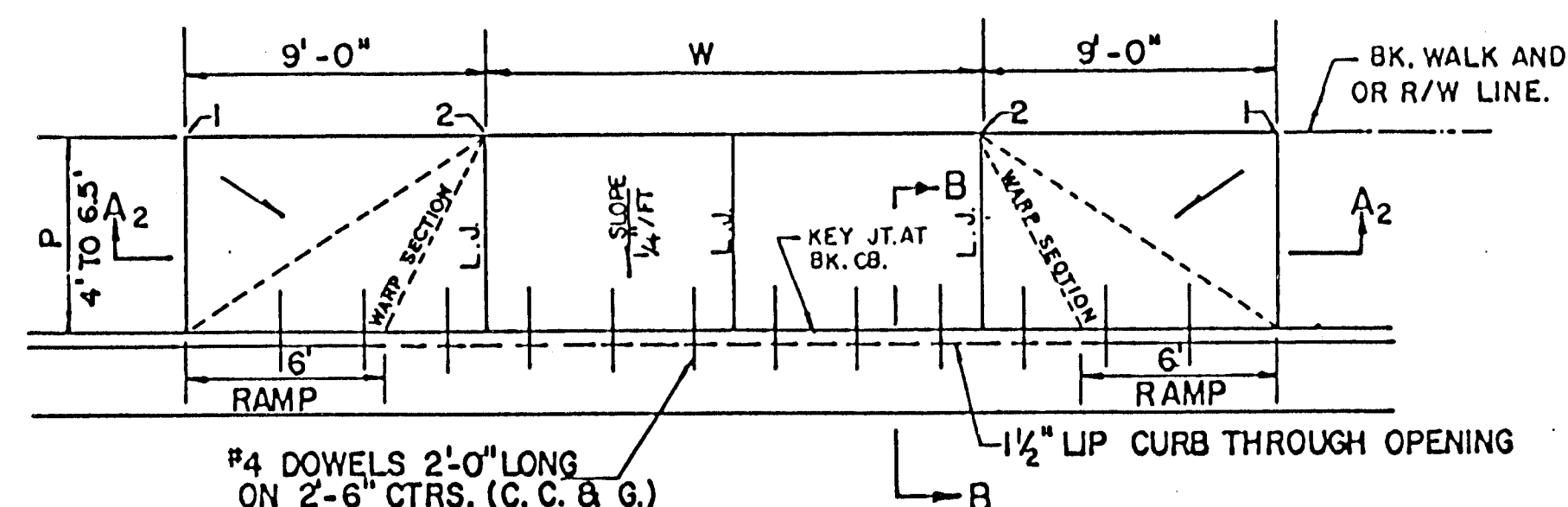
PARKING WIDTH "P"		14.5'	20'	25'	30'	35'	40'	45'	50'
ABSOLUTE	MAX. DIST. OF PT. "WG" ABOVE TOP OF FULL CB.	0.72'	1.27'	1.77'	2.27'	2.77'	3.27'	3.77'	4.27'
OPTIMUM	MAX. DIST. OF PT. "WG" ABOVE TOP OF FULL CB.	0.70'	1.04'	1.30'	1.56'	1.82'	2.08'	2.34'	2.60'
OPTIMUM	MIN. DIST. OF PT. "WG" ABOVE TOP OF FULL CB.	0.30'	0.42'	0.52'	0.62'	0.72'	0.82'	0.92'	1.02'
ABSOLUTE	MIN. DIST. OF PT. "WG" ABOVE TOP OF FULL CB.	0.00'	0.00'	0.15'	0.25'	0.35'	0.45'	0.55'	0.65'

FULL RADIUS DRIVES (P = 14.5' & GREATER)



CONTRACTION JOINT (C.J.)
OR LONGITUDINAL JOINT (L.J.)
NO SAWN JOINTS WILL
BE ALLOWED.

EXPANSION JOINT (E.J.)



PARKING WIDTH "P"		4'	4.5'	5'	5.5'	6'	6.5'
DIST. OF PT. "1" ABOVE TOP OF FULL CB.		0.08'	0.09'	0.10'	0.12'	0.13'	0.14'
DIST. OF PT. "2" BELOW TOP OF FULL CB.		-0.34'	-0.32'	-0.30'	-0.28'	-0.26'	-0.22'

FULL RAMP DRIVE (P = 4.0' TO 6.5')

GENERAL NOTES

- DRIVEWAY CONSTRUCTION DETAILED ON THIS SHEET IS FOR USE WITH FULL HEIGHT STREET CURBS AND IN AREAS WITHOUT FULL WALK CONSTRUCTION IN THE PARKING. SEE OTHER DETAIL SHEETS FOR DRIVEWAY CONSTRUCTION WITH ROLL CURB AND/OR FULL WALK.
- ONE LONGITUDINAL JOINT SHALL BE CONSTRUCTED ALONG THE CENTERLINE OF DRIVES HAVING A "W" DIMENSION OF 24' OR LESS. TWO LONGITUDINAL JOINTS SHALL BE CONSTRUCTED WITH EQUAL SPACINGS NOT TO EXCEED 10' FOR DRIVES WITH A "W" DIMENSION GREATER THAN 24'.
- DRIVEWAY WIDTH DENOTED AS "W" ON THE DETAIL DRAWINGS SHALL BE A MINIMUM OF 10' AND A MAXIMUM OF 30'. THE MAXIMUM OPENING FOR RADIUS TYPE DRIVES WITH CURBS THROUGH THE RADIUS SHALL NOT EXCEED 32' AT THE STREET CURB LINE.
- CONTRACTION JOINT SPACING IN THE DRIVEWAY WALK SECTION SHALL BE A MINIMUM OF 3' AND A MAXIMUM OF 6' AND ARE TO BE EQUALLY SPACED WITHIN THIS RANGE. WALK SECTION SHALL BE CONSTRUCTED TO THE SAME THICKNESS AS THE DRIVEWAY.
- DOWEL BARS SHALL BE OMITTED FROM THE KEYED CONSTRUCTION JOINT ALONG THE BACK OF THE STREET CURB LINE WHEN DRIVEWAYS ARE CONSTRUCTED IN CONJUNCTION WITH NEW CONCRETE PAVEMENT CONSTRUCTION.
- ADDITIONAL THICKNESS OF DRIVE AS INDICATED IN THE DRAWINGS WILL NOT BE PAID FOR DIRECTLY AND THIS COST SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE DRIVEWAY CONSTRUCTION.
- ONE HALF INCH EXPANSION JOINTS SHALL BE INSTALLED WHEREVER DRIVE CONSTRUCTION ABUTS SIDEWALK. ONE HALF INCH EXPANSION JOINTS SHALL ALSO BE INSTALLED ALONG THE PROPERTY LINE AND/OR BACK OF WALK LINE WHEN DRIVE CONSTRUCTION ALONG THIS LINE ABUTS CONCRETE PARKING LOTS OR CONCRETE DRIVE EXTENSION.
- ALL DRIVEWAYS SHALL BE A MINIMUM OF 6" IN THICKNESS AND SHALL BE WITHOUT REINFORCEMENT. DRIVEWAYS MAY BE CONSTRUCTED THICKER THAN 6" AND THEY MAY BE REINFORCED WITH 6"x12" W4-W4 WELDED WIRE FABRIC WHEN PROPERLY AUTHORIZED BY THE PROPERTY OWNER WITH THE ENGINEER'S CONCURRENCE.
- OPTIMUM DRIVEWAY ELEVATIONS SHOWN IN THE TABLES ARE TO BE USED WHEREVER POSSIBLE. ABSOLUTE MAXIMUM AND MINIMUM ELEVATIONS ARE TO BE USED ONLY WHEN THESE VALUES WILL PERMIT NEW CONSTRUCTION TO MATCH EXISTING DRIVES OR PARKING LOTS. VALUES SHOWN IN THE TABLES ARE BASED ON A FULL CURB HEIGHT ELEVATION OF 0.55' ABOVE THE GUTTER FLOW LINE AND MUST BE ADJUSTED ACCORDINGLY FOR OTHER CURB HEIGHTS. VALUES SHOWN IN THE TABLES WITH MINUS SIGNS INDICATE ELEVATIONS BELOW TOP OF FULL HEIGHT CURB.

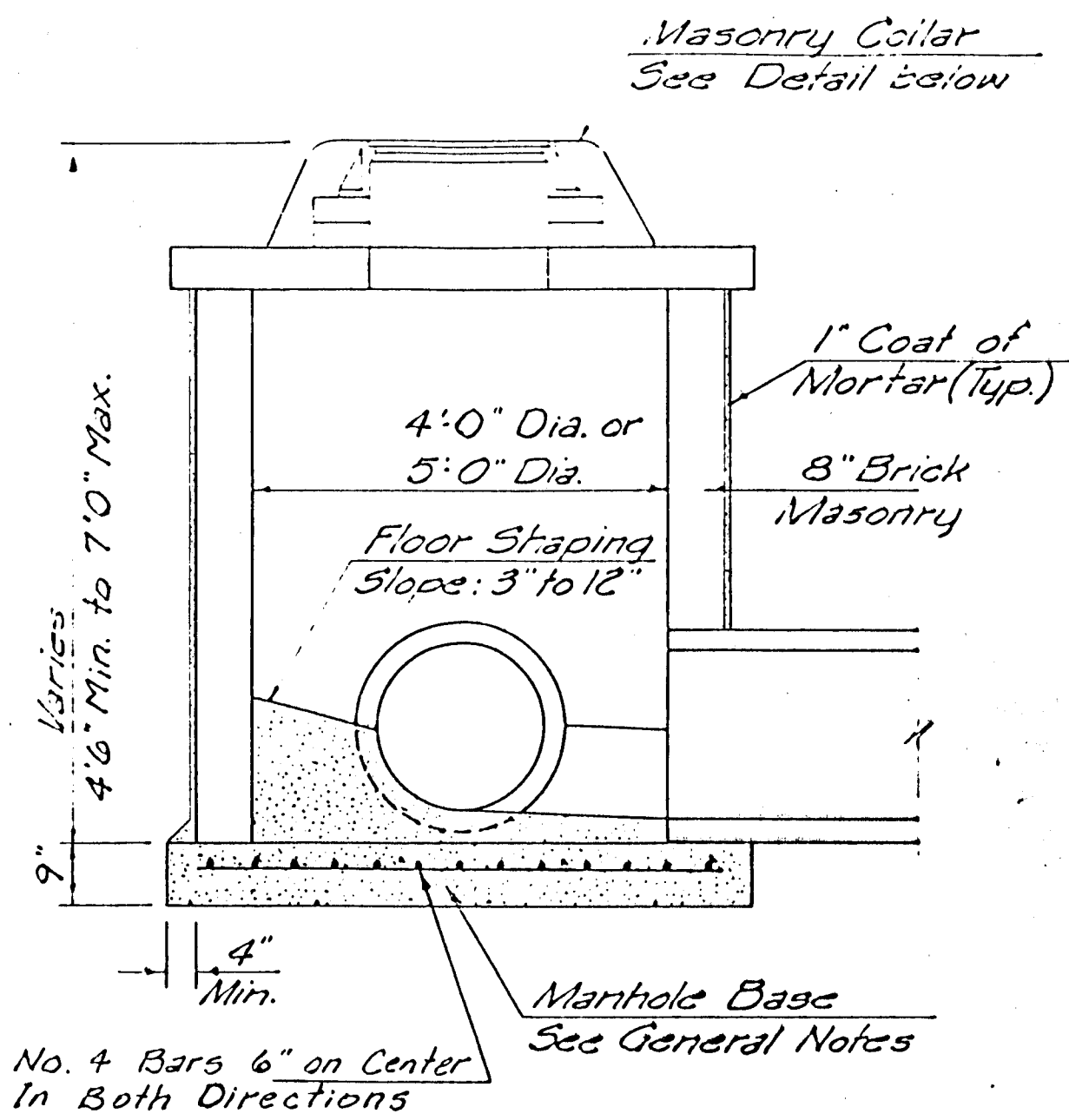
REVISED APRIL 1994 (JKB)

SCALE: 1" = 5'

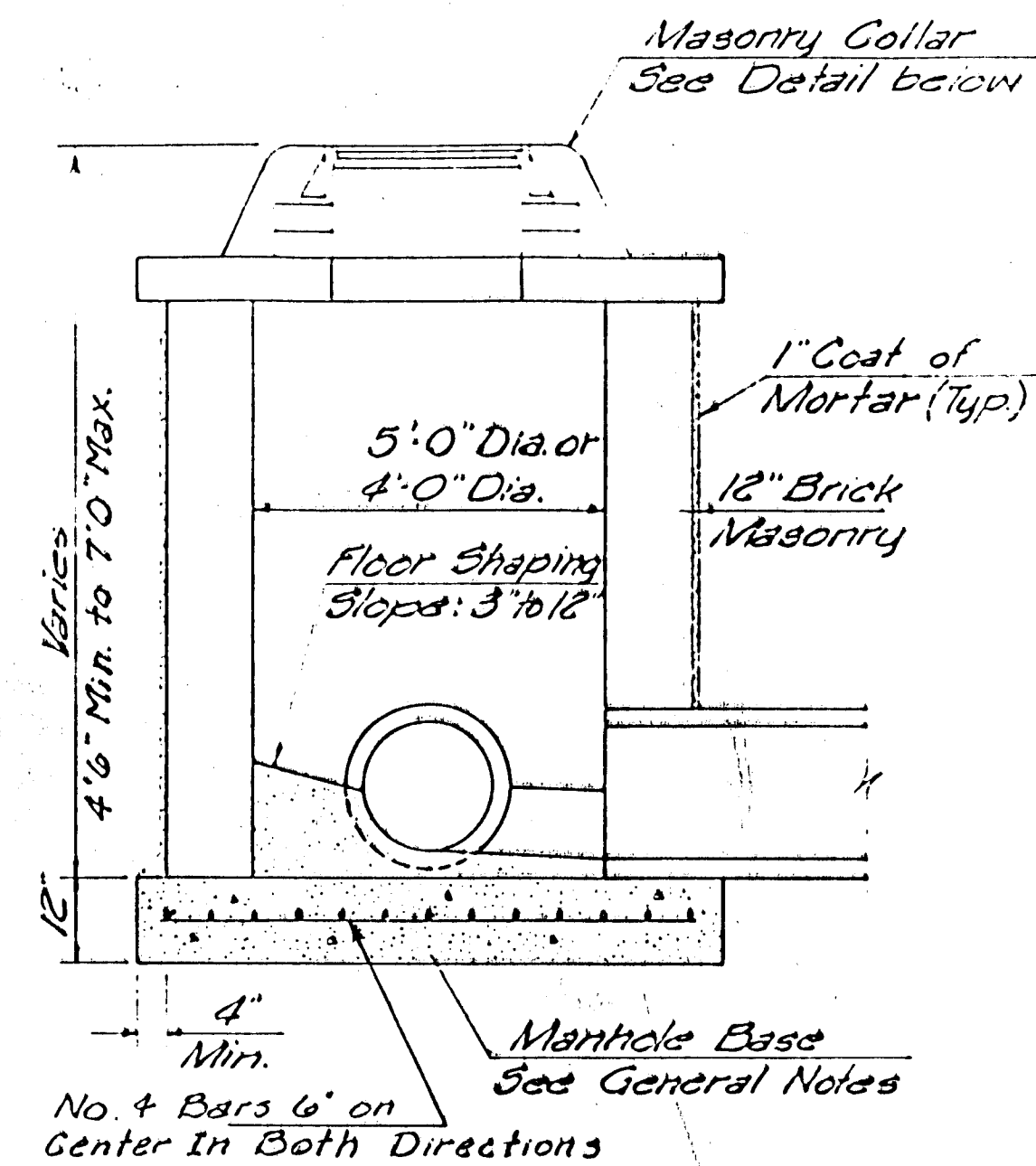
STANDARD DRIVE ENTRANCES
FULL HEIGHT CURB
CITY OF WICHITA, KANSAS

52nd St. 5a. Sheet 8 of 13

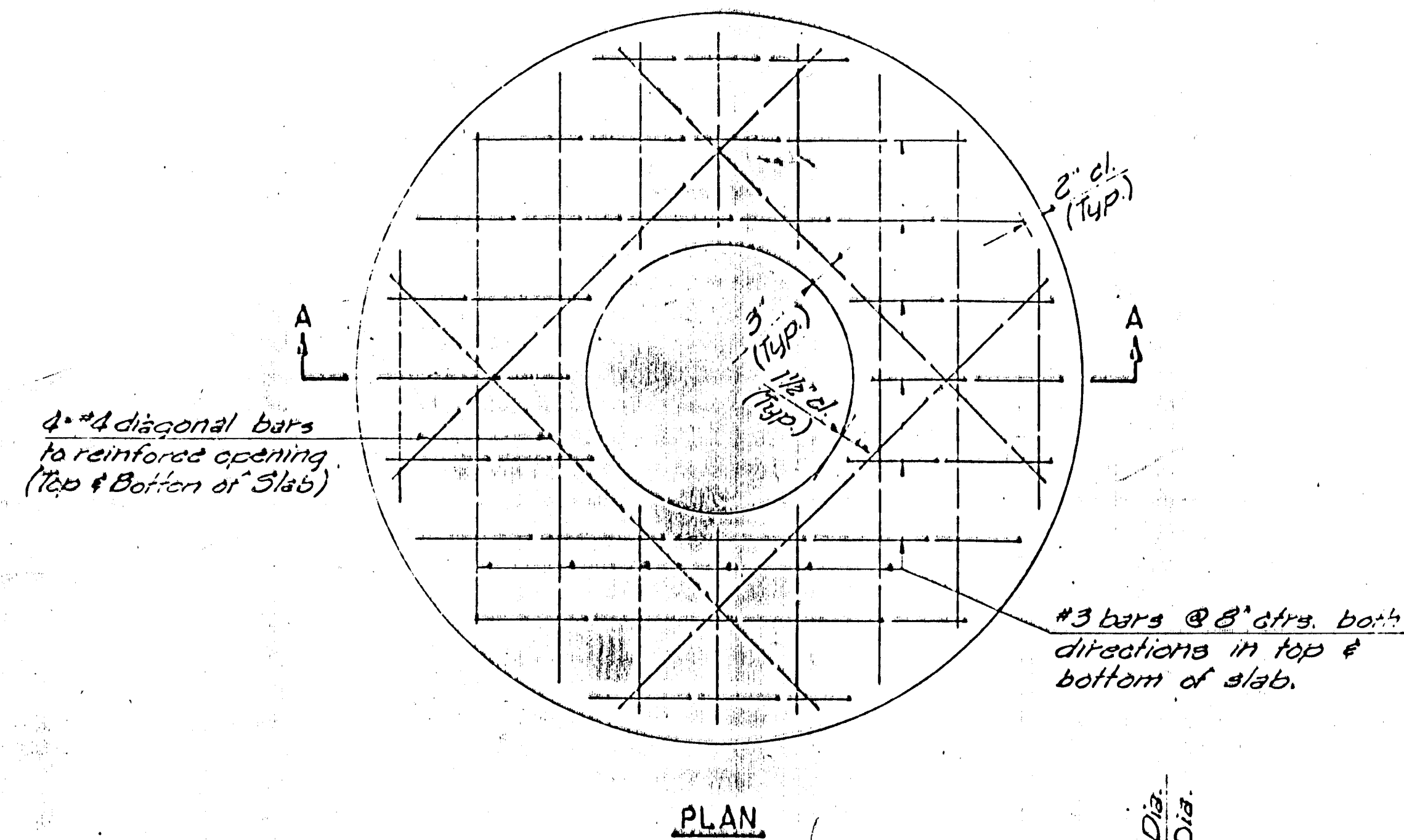
10-1-5-5



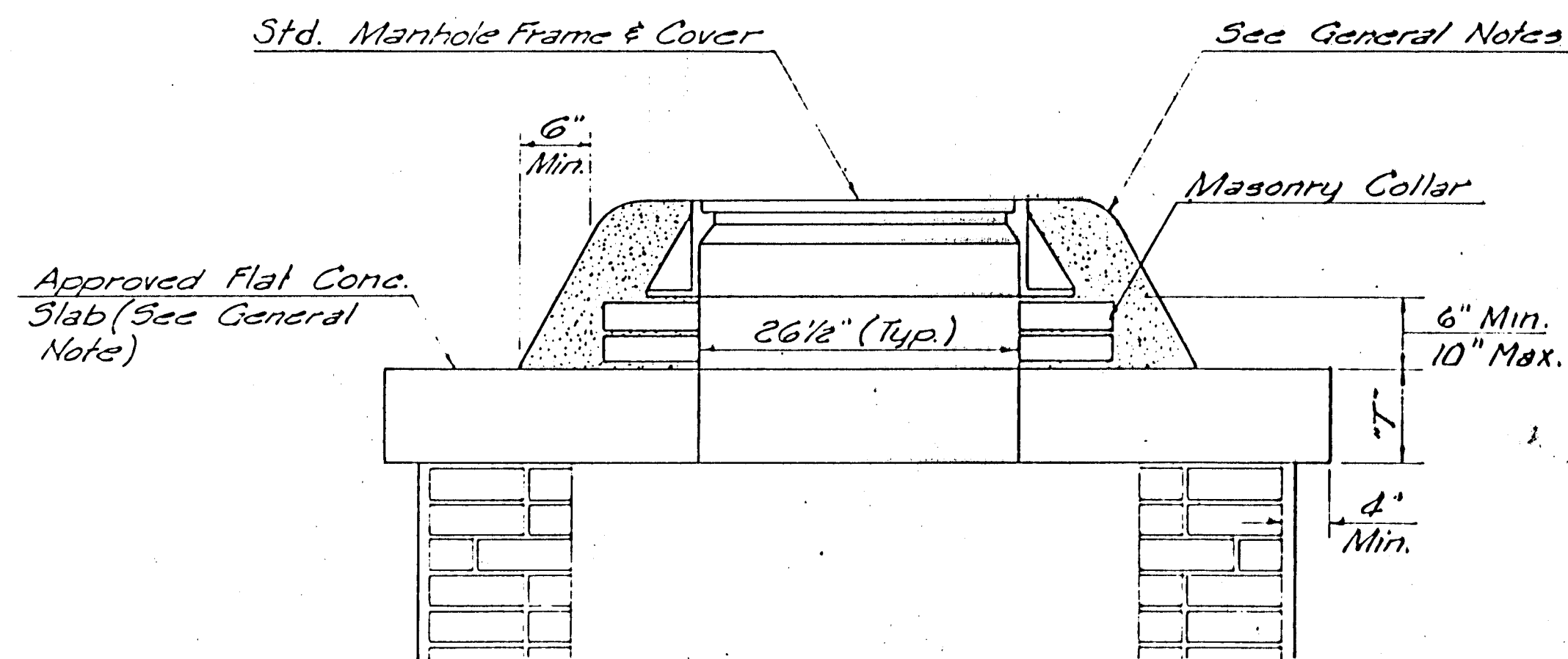
SHALLOW TYPE "A" MANHOLE



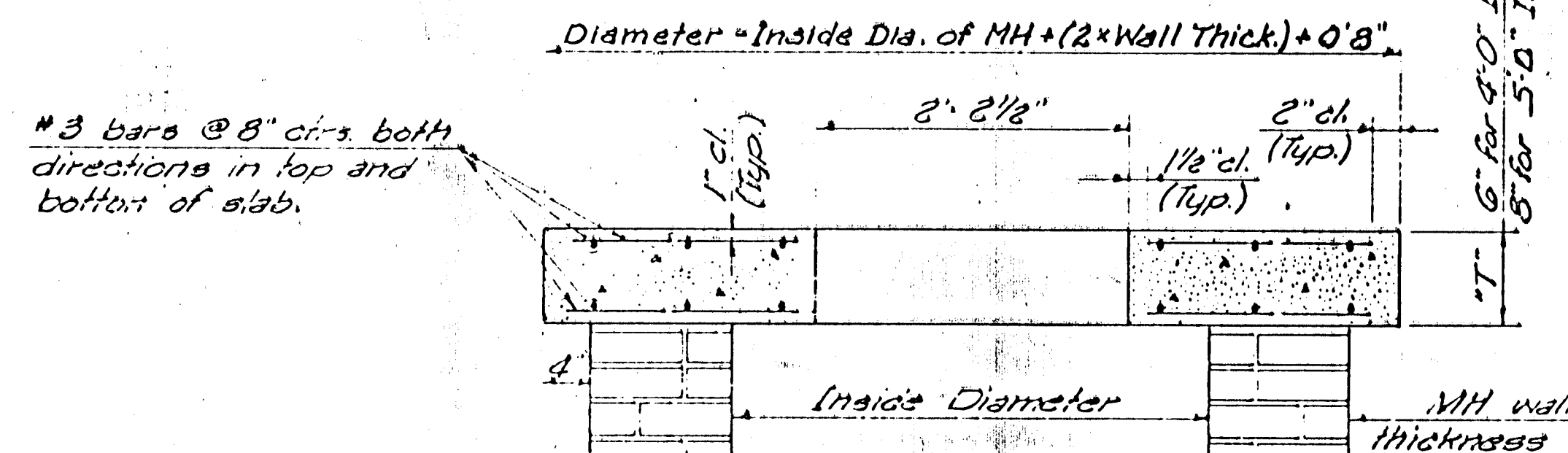
SHALLOW TYPE "B" MANHOLE



- GENERAL NOTES
- MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 SACKS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE BASES SHALL CONFORM TO THE REQUIREMENTS OF CONCRETE PAVEMENT CONSTRUCTION AS SPECIFIED IN THE CITY STANDARD PAVING SPECIFICATIONS USING CITY CONCRETE CEMENT 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 "A" SHALLOW MANHOLES CAN BE USED ON SEWERS WHEN THE MANHOLE IS NOT LOCATED WITHIN 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'. COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATER TIGHT.
 - 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.
 - 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 SEWAGE FLOWS 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 PIPE AS SHOWN BY THE DRAWINGS. 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 NEAT 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.
 - 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.
 - 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 DRAWINGS.
 - THE CROWNS OF INFLOWING PIPES SHALL NEVER BE SET LOWER THAN THE CROWN OF THE OUTFLOWING PIPE.
 - STANDARD SHALLOW MANHOLES TYPE "A" AND "B" SHALL BE PAID FOR AT THE UNIT PRICE BID PER EACH FOR THE TYPE AND DIAMETER INDICATED. STANDARD SPECIAL SHALLOW MANHOLES TYPE "A" AND "B" SHALL BE PAID FOR AT THE UNIT PRICE BID PER EACH FOR THE TYPE INDICATED. ALL STANDARD SHALLOW MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE.

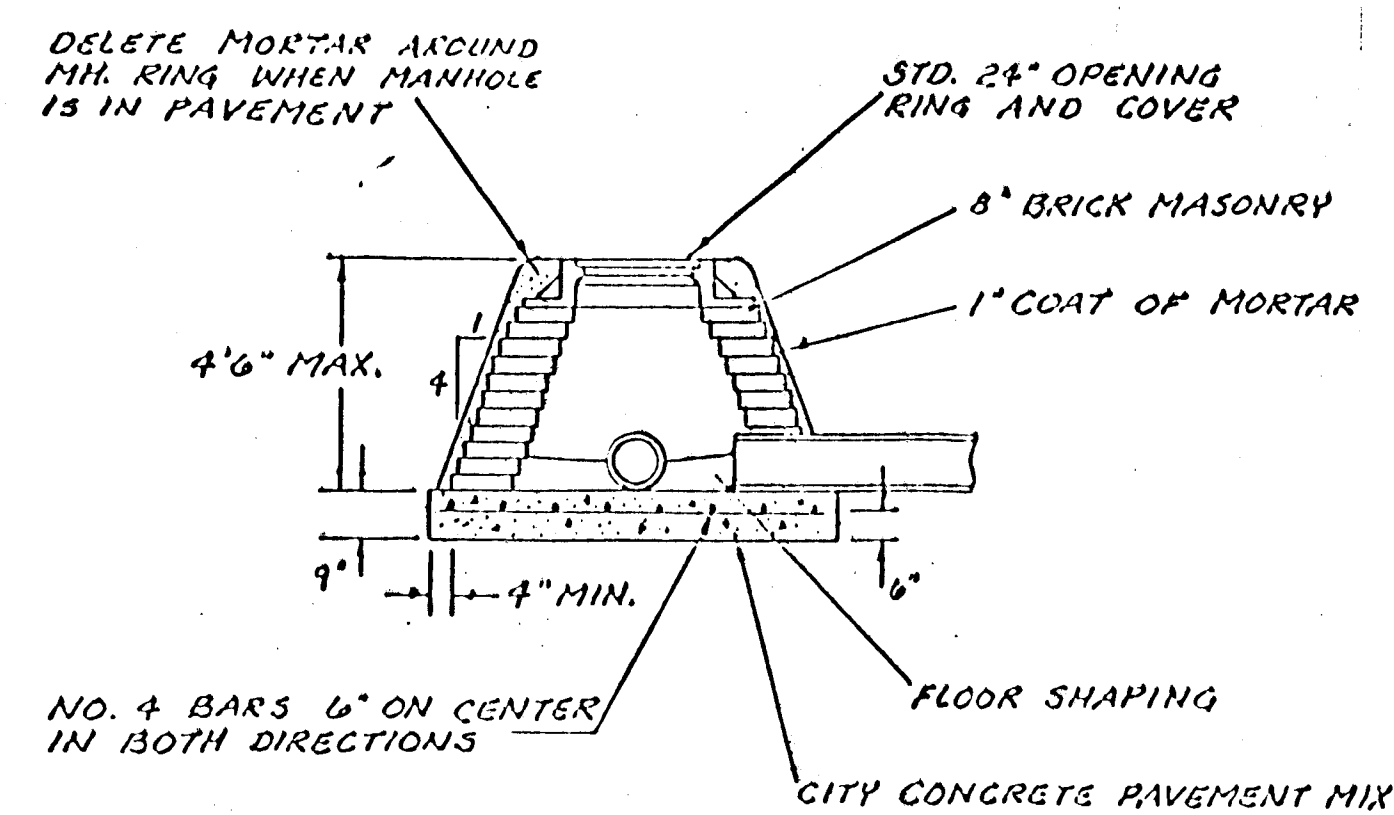


MASONRY COLLAR DETAIL

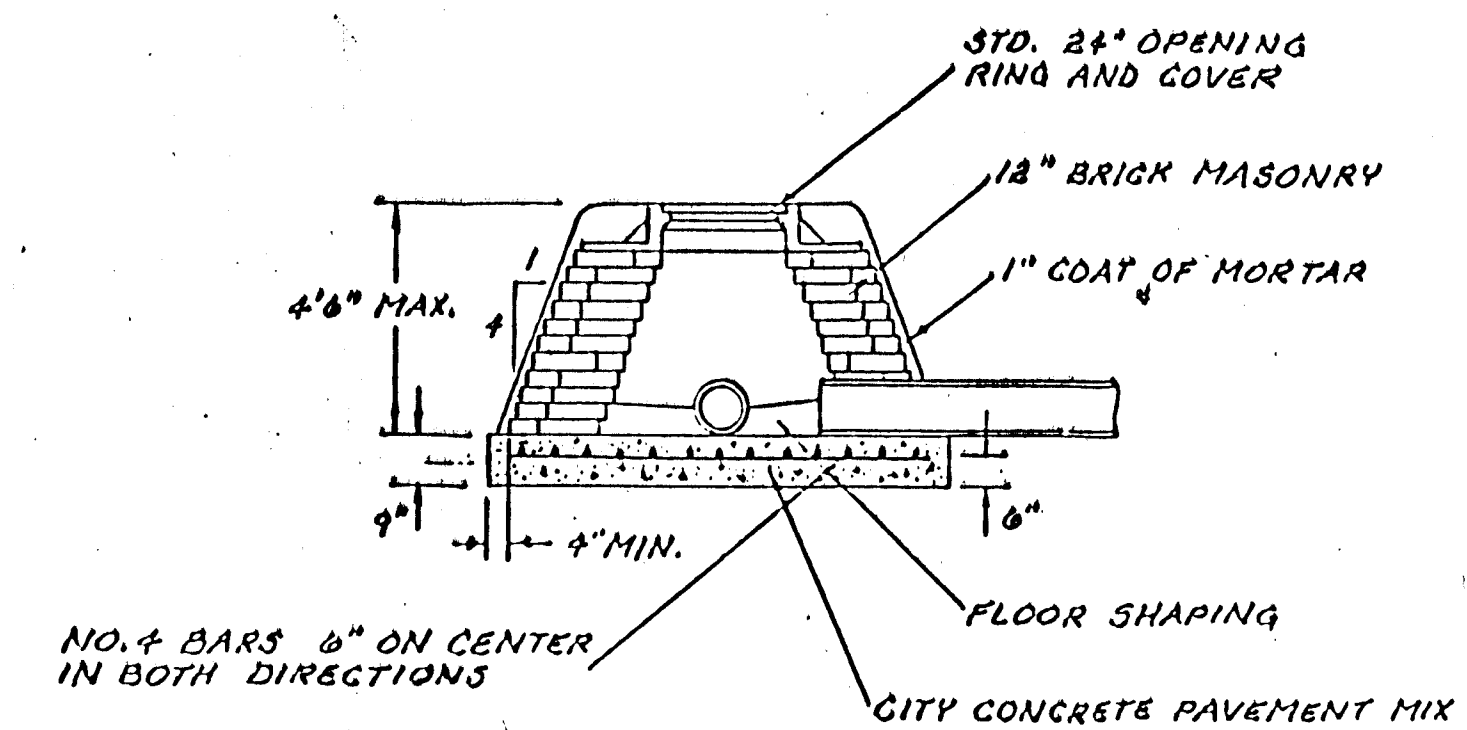


SECTION A-A

FLAT CONCRETE SLAB DETAILS



SPECIAL SHALLOW TYPE 'A' MANHOLE



SPECIAL SHALLOW TYPE 'B' MANHOLE

CITY OF WICHITA, KANSAS
STANDARD SHALLOW MANHOLES
TYPE 'A' AND TYPE 'B'

52nd St. So.
Sheet 9 of 13

Designed by	Checked by	Job No.
Drawn by	Date	

GENERAL NOTES:

- UTILITY SERVICE LINES, POLES, VALVE BOXES, METERS, AND ETCETERAS ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR OR UNLESS THE PLANS SPECIFICALLY IDENTIFY A UTILITY TO BE ADJUSTED BY ITS OWNER DURING CONSTRUCTION. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.
- THE CONTRACTOR IS SOLELY RESPONSIBLE TO NOTIFY AND TO MAKE ANY NECESSARY ARRANGEMENTS WITH UTILITY COMPANIES FOR ANY NEEDED ADJUSTMENTS OF UTILITY FACILITIES PRIOR TO START OF WORK.
- CONTRACTOR WILL BE REQUIRED TO PROVIDE AS MINIMUM ADVANCE NOTICE OF FORTY-EIGHT (48) HOURS TO UTILITY COMPANIES PRIOR TO STARTING ANY EXCAVATION AS FOLLOWS:

KANSAS ONE CALL	687-2470
SOUTHWESTERN BELL TELEPHONE COMPANY	1-316-571-2811
CABLEVISION	262-4270 OR 263-2061
KPL GAS SERVICE	283-7511
KANSAS GAS & ELECTRIC	284-1141
CITY OF WICHITA WATER DEPARTMENT	268-4908
CITY OF WICHITA SEWER DEPARTMENT	268-4071
ARKLA GAS COMPANY	942-8350 OR 263-8161
PARK DEPARTMENT FOR UTILITY LOCATION	
SUPT. OF PARK (RON HAYWORTH)	337-9225
LANDSCAPE ARCHITECT (CARISA MCMULLEN)	268-4179
- RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES AND 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.
ALL DISPOSAL SITES MUST BE APPROVED BY THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT. MATERIAL EITHER STOCKPILED OR DISPOSED OF IN A FLOOD PLAIN WOULD REQUIRE A KANSAS STATE BOARD OF AGRICULTURE PERMIT. ANY MATERIAL DUMPED IN WATERS OF THE UNITED STATES OR WETLANDS IS SUBJECT TO U.S. CORPS. OF ENGINEERS PERMITTING REGULATIONS. ANY MATERIAL BURIED OR STOCKPILED BEYOND APPROVED CONSTRUCTION LIMITS WOULD REQUIRE ADDITIONAL ARCHAEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED BORROW LOCATION. THE COST OF DISPOSING OF RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES, INCLUDING LOADING AND HAULING SHALL BE SUBSIDIARY TO THE OTHER BID ITEMS.
- THERE MAY BE UNDERGROUND SPRINKLER SYSTEMS WITHIN THE LIMITS OF THIS PROJECT WHICH CONFLICT WITH THE NEW CONSTRUCTION. CONTRACTOR WILL BE REQUIRED TO REMOVE SUCH IMPROVEMENTS SHOULD THEY NOT BE REMOVED BY THEIR OWNER AT THE TIME OF CONSTRUCTION OF THE PROJECT. THE CONTRACTOR WILL BE REQUIRED TO SALVAGE ALL SPRINKLER HEADS AND/OR VALVES AND GIVE SUCH MATERIAL TO THEIR OWNER. PORTIONS OF UNDERGROUND SPRINKLER SYSTEMS NOT IN CONFLICT WITH NEW CONSTRUCTION SHALL BE PROTECTED FROM DAMAGE AND SHALL REMAIN IN PLACE. ALL WORK IN CONNECTION WITH UNDERGROUND SPRINKLER SYSTEMS SHALL BE CONSIDERED AS SUBSIDIARY TO THE CONTRACT PAY ITEMS OF WORK.
- 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. THIS COST IS SUBSIDIARY TO OTHER BID ITEMS.
- 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.
- THE CONTRACTOR SHALL GIVE ALL PROPERTY OWNERS AND/OR TENANTS OF DEVELOPED PROPERTY ADJUTING THE PROJECT LIMITS A MINIMUM OF TEN (10) DAYS ADVANCE NOTICE PRIOR TO START OF CONSTRUCTION.
- THE CONTRACTOR MUST EXAMINE THE CONSTRUCTION SITE PRIOR TO BIDDING AND BE SATISFIED AS TO THE WORK SHOWN FOR COMPLETION. AFTER BIDS HAVE BEEN RECEIVED, THE CONTRACTOR SHALL NOT ASSERT THAT THERE WAS A MISUNDERSTANDING OF THE QUANTITIES OF WORK OR OF THE NATURE OF THE WORK TO BE COMPLETED.
- ALL CONSTRUCTION AND MATERIALS, UNLESS OTHERWISE NOTED, TO COMPLY WITH CITY OF WICHITA SPECIFICATIONS AND STANDARDS.
- THE CONTRACTOR SHALL ADJUST WATER VALVE BOXES AND FIRE HYDRANTS AS DIRECTED BY THE ENGINEER. THIS COST IS SUBSIDIARY TO OTHER BID ITEMS. THE WATER DEPARTMENT SHALL FIELD LOCATE WATER VALES ONE TIME DURING CONSTRUCTION WHEN REQUESTED BY THE CONTRACTOR. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PRESERVE SUCH FIELD LOCATIONS DURING THE CONSTRUCTION PROCESS. WATER VALVES, WATER VALVE BOXES OR FIRE HYDRANTS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.
- A SAW CUT OF AT LEAST ONE-HALF THE DEPTH OF EXISTING SURFACE COURSES OR ONE-FOURTH THE DEPTH OF THE EXISTING TOTAL PAVEMENT THICKNESS SHALL BE PROVIDED WHERE PROPOSED ABUTS AN EXISTING SURFACE COURSE OR PAVEMENT REMOVAL. SAWED JOINT TO FACILITATE REMOVAL WITHIN THREE (3) FEET OF EXISTING JOINTS WILL NOT BE PERMITTED AND FOR SUCH INSTANCES THE LIMITS OF REMOVAL SHALL EXTEND TO THE EXISTING JOINT. SUCH SAW CUTS WILL NOT BE PAID FOR DIRECTLY AND THIS COST SHALL BE CONSIDERED AS SUBSIDIARY TO THE OTHER BID ITEMS.

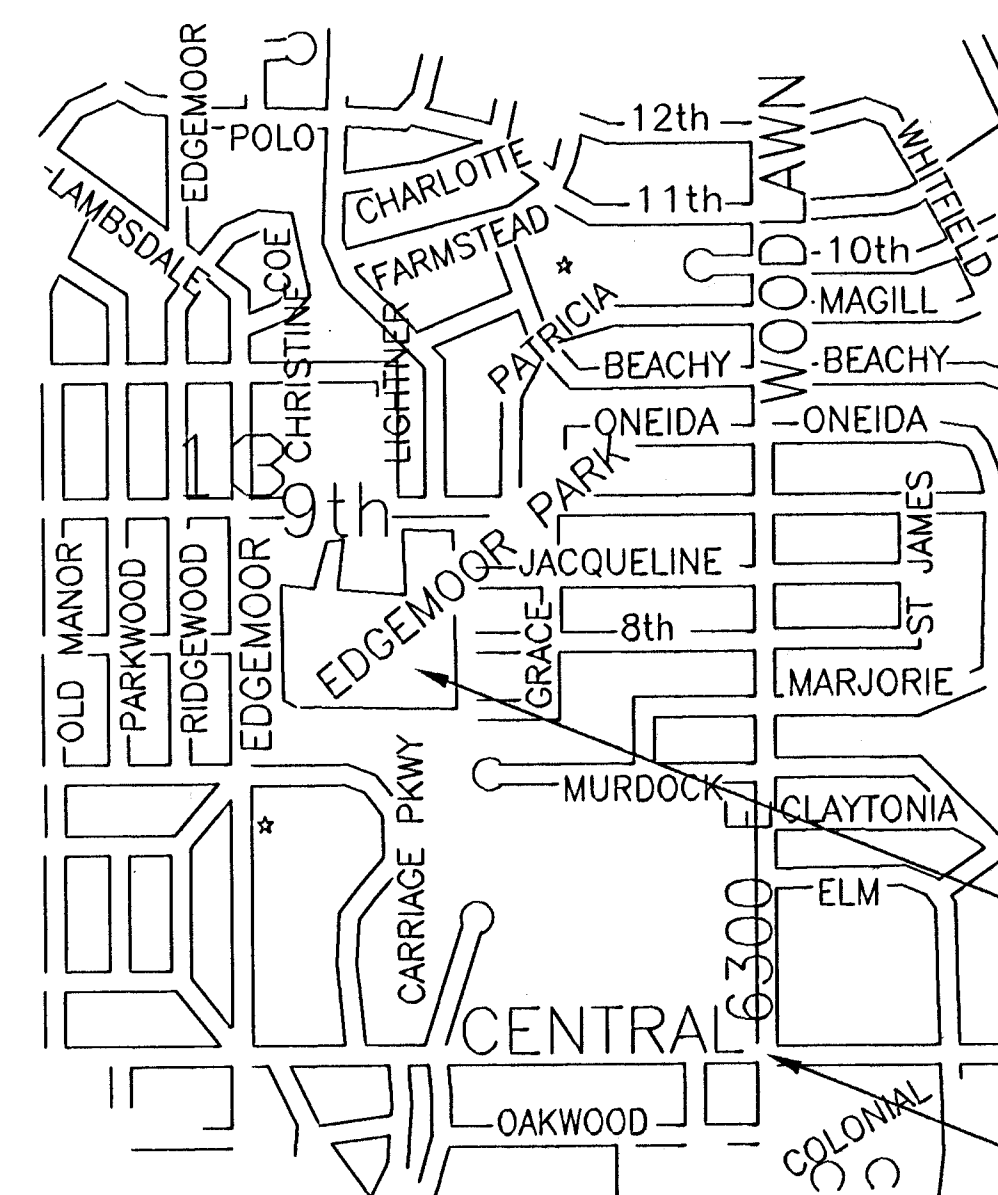
RECONSTRUCTION OF ENTRANCE TERRACE TO THE RECREATION CENTER IN EDMEMOOR PARK

INDEX NO. 785659
PROJECT NO. 472-82793

CITY OF WICHITA, KANSAS
M. E. LINDEBAK - CITY ENGINEER

INDEX OF SHEETS

SHEET	1	-	TITLE SHEET
SHEET	2	-	REMOVAL AREA & TOPO SHEET
SHEET	3	-	CONSTRUCTION SHEET



PROJECT LOCATION

NOT TO SCALE

S.E. COR. S.E. 1/4 SEC. 13,
TWP. 27 S., R. 1 E.

RECONSTRUCTION OF ENTRANCE TERRACE TO
RECREATION CENTER IN EDMEMOOR PARK
TITLE SHEET
INDEX # 785659
SHEET 1 OF 3
DRAWN: B.R. DESIGN: B.R.

9TH STREET NO.

SCALE 1" = 20'

B.M. 196.19
CUT SQUARE IN TOP STEP OF MAIN ENTRANCE
TO THE RECREATION ENTER BUILDING

REMOVE & RESET THE RR TIES TO THE NEW ELEVATION.
THIS COST IS SUBSIDIARY TO THE OTHER BID ITEMS.

AREA TO BE REMOVED.

BRICK WALL TO REMAIN
REMOVE & SALVAGE EXISTING BRICK PAVER.

RECREATIONAL CENTER BUILDING

REMOVE & SALVAGE ALL EXISTING BRICK PAVERS.

192.63
HAND RAIL FOR WHEEL CHAIR RAMP TO REMAIN

EXISTING 5" REINF. CONC. PARKING LOT

EDGEMOOR

RECONSTRUCTION OF ENTRANCE TERRACE TO
THE RECREATION CENTER IN EDMOOR PARK
REMOVAL AREA & TOPO SHEET
INDEX # 785659
SHEET 2 OF 3
DRAWN: B.R. DESIGN: B.R.

