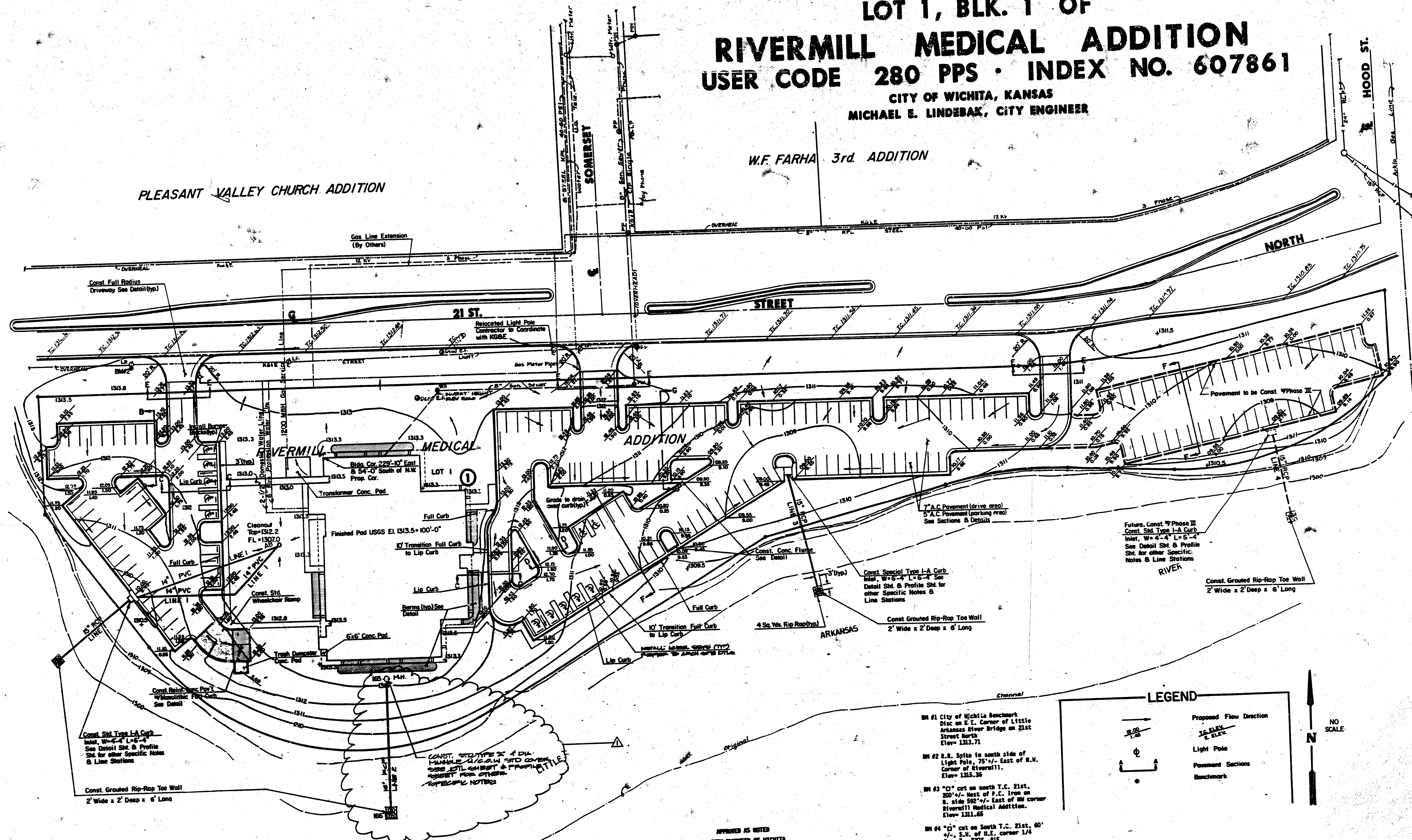


PRIVATE
STORM SEWER PLANS SERVING PART OF
LOT 1, BLK. 1 OF
RIVERMILL MEDICAL ADDITION
USER CODE 280 PPS • INDEX NO. 607861
CITY OF WICHITA, KANSAS
MICHAEL E. LINDEBAK, CITY ENGINEER

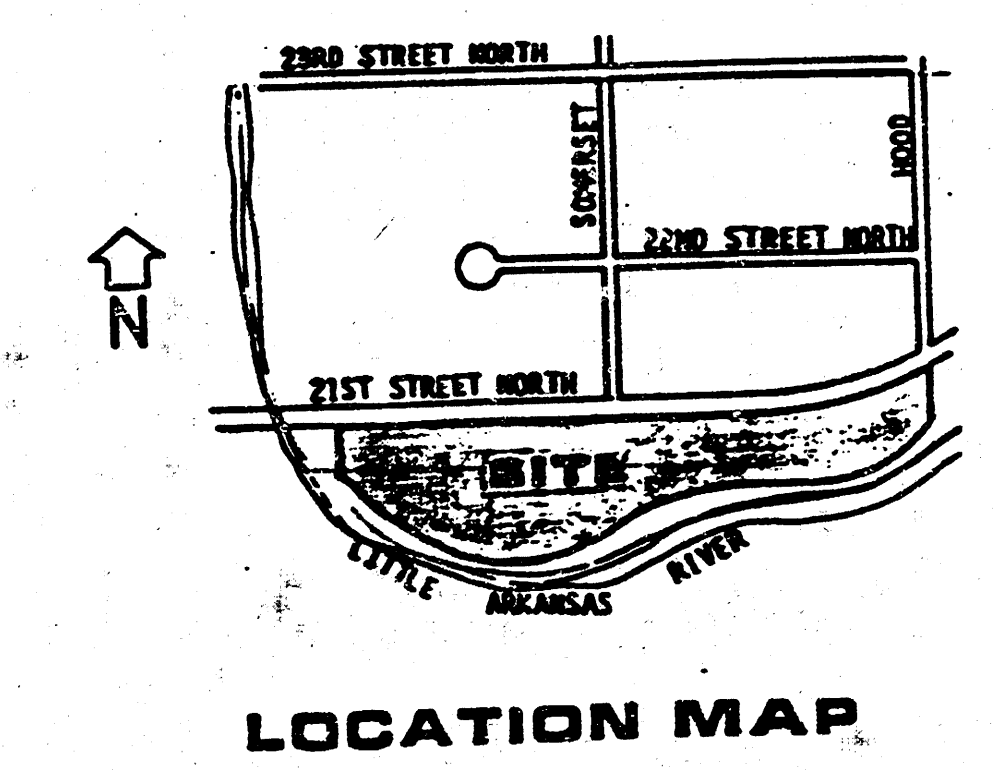


APPROVED AS NOTED
By CITY ENGINEER OF WICHITA

Sanitary Sewers _____
Storm Sewers VRH 3/13/91
Driveway Approaches _____
Meter Mains _____
Paving _____

NOTE TO CONTRACTOR
INSPECTION AND TESTING FOR THIS PROJECT IS TO BE PROVIDED BY A LICENSED CONSULTING ENGINEERING FIRM UNDER CONTRACT WITH THE CITY OF WICHITA. SAID INSPECTION IS TO BE IN ACCORDANCE WITH THE CITY OF WICHITA STANDARD CONSTRUCTION ENGINEERING PRACTICES AND CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER. NO WORK SHALL BE PERFORMED IN DESIGNATED EASEMENTS OR THE PUBLIC RIGHT-OF-WAY BY THE CONTRACTOR WITHOUT SUCH INSPECTION FOR SHALL ANY WORK BE COMPLETED IN DESIGNATED EASEMENTS OR PUBLIC RIGHT-OF-WAY WITHOUT WRITTEN AUTHORIZATION BY THE CITY ENGINEER.

- LEGEND**
- Proposed Flow Direction
 - Light Pole
 - Pavement Sections
 - Benchmark
- BM #1 City of Wichita Benchmark
 Disc on E.E. Corner of Little
 Arkansas River Bridge on 21st
 Street North
 Elev= 1313.71
 BM #2 S.R. Split on south side of
 Light Pole, 75' +/- East of N.W.
 Corner of Rivermill.
 Elev= 1313.38
 BM #3 "C" cut on south T.C. 21st.
 200' +/- West of P.C. Iron on
 N. side 582' +/- East of NW corner
 Rivermill Medical Addition.
 Elev= 1311.65
 BM #4 "C" cut on South T.C. 21st, 60'
 +/- S.W. of N.E. corner 1/4
 Sec. 7 - T27S - R1E
 Elev= 1310.67



Booked
7-91
mcb

AS-BUILT PLANS
6 - 26 - 91

ROBT MARASCO & ASSOCIATES, INC.
MEDICAL ARCHITECTS
DESIGN CONSULTANTS

18 N. SHERRA ROAD
COLORADO SPRINGS
COLORADO, 80909
(719) 538-0884

TYRONE D. ARTZ
LICENSED PROFESSIONAL ENGINEER
KANSAS
11189

Job Title
ARTZ, TYRONE D., M.D.

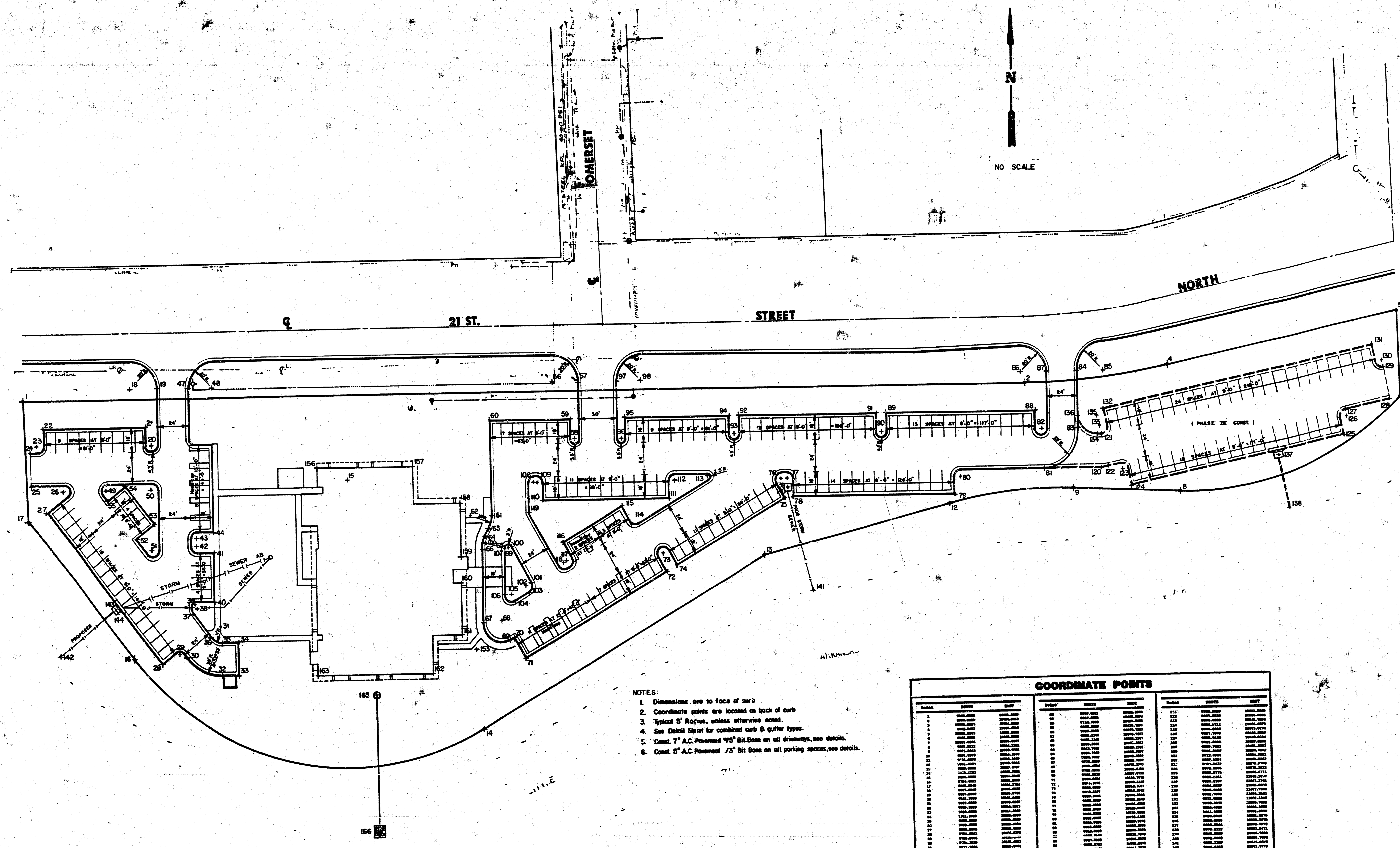
WICHITA, KS

08-296
7-20-90
7-22-90
8/24/90

DLM, EAF
GJA

Sheet Title
GRADING PLAN

Sheet Number
C2

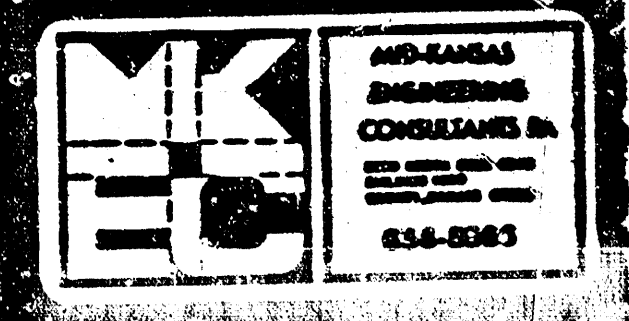


- NOTES:
1. Dimensions are to face of curb
 2. Coordinate points are located on back of curb
 3. Typical 5' Radius, unless otherwise noted.
 4. See Detail Sheet for combined curb & gutter types.
 5. Const. 7" A.C. Pavement / 5" Bit Base on all driveways, see details.
 6. Const. 5" A.C. Pavement / 5" Bit Base on all parking spaces, see details.

COORDINATE POINTS			
Station	Station	Station	Station
17	23	26	30
33	37	40	43
48	50	56	57
60	62	63	64
65	66	67	68
69	70	71	72
73	74	75	76
77	78	79	80
81	82	83	84
85	86	87	88
89	90	91	92
93	94	95	96
97	98	99	100
101	102	103	104
105	106	107	108
109	110	111	112
113	114	115	116
117	118	119	120
121	122	123	124
125	126	127	128
129	130	131	132
133	134	135	136
137	138	139	140
141	142	143	144
145	146	147	148
149	150	151	152
153	154	155	156
157	158	159	160
161	162	163	164
165	166		

RMA
ROST MARASCO & ASSOCIATES, INC.
 MEDICAL ARCHITECT / DESIGN CONSULTANTS

18 N. SIERRA MADRE
 COLORADO SPRINGS
 COLORADO, 80903
 (719) 635-0884



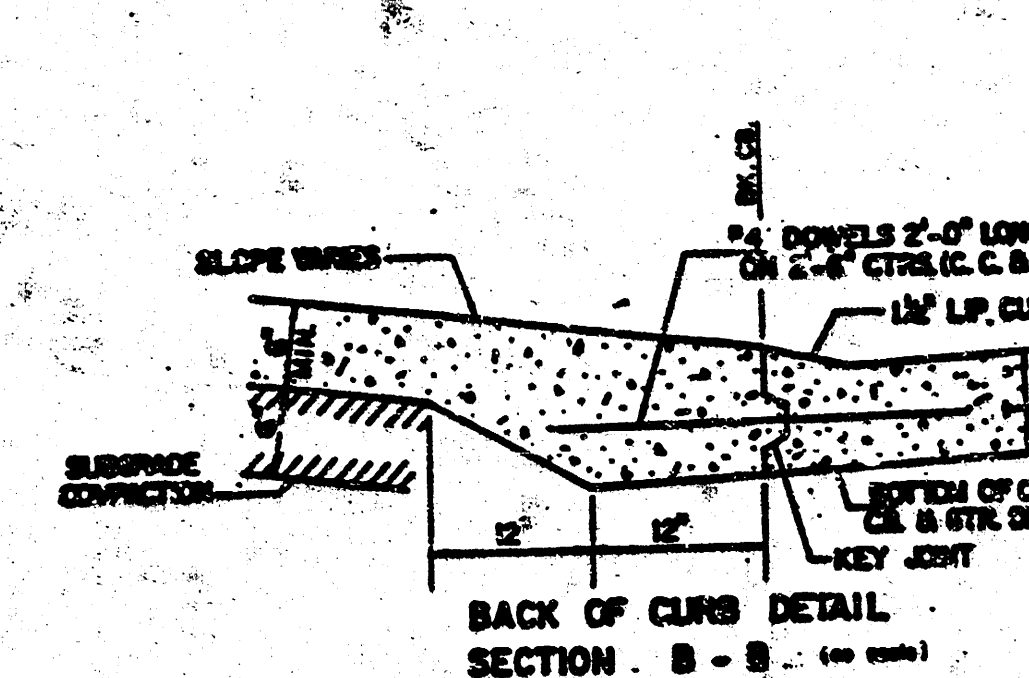
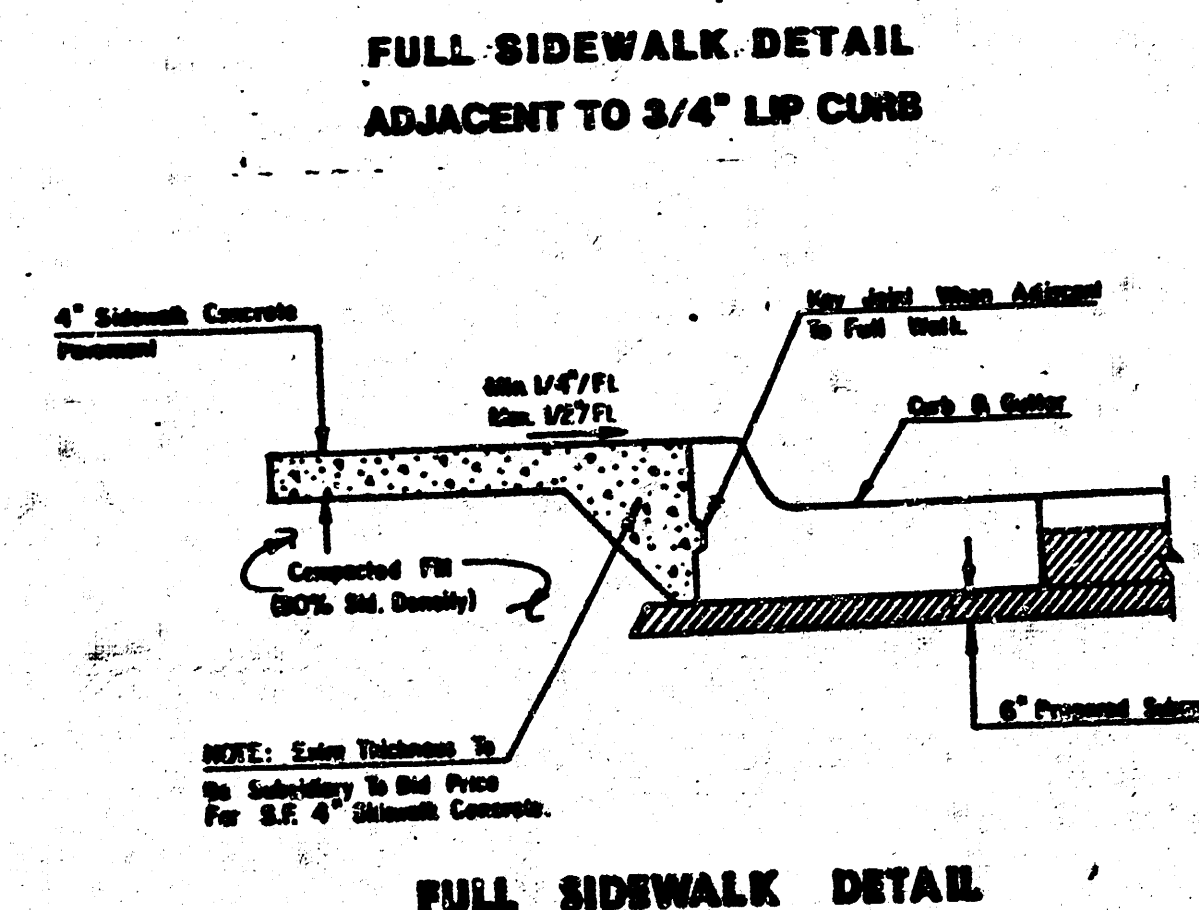
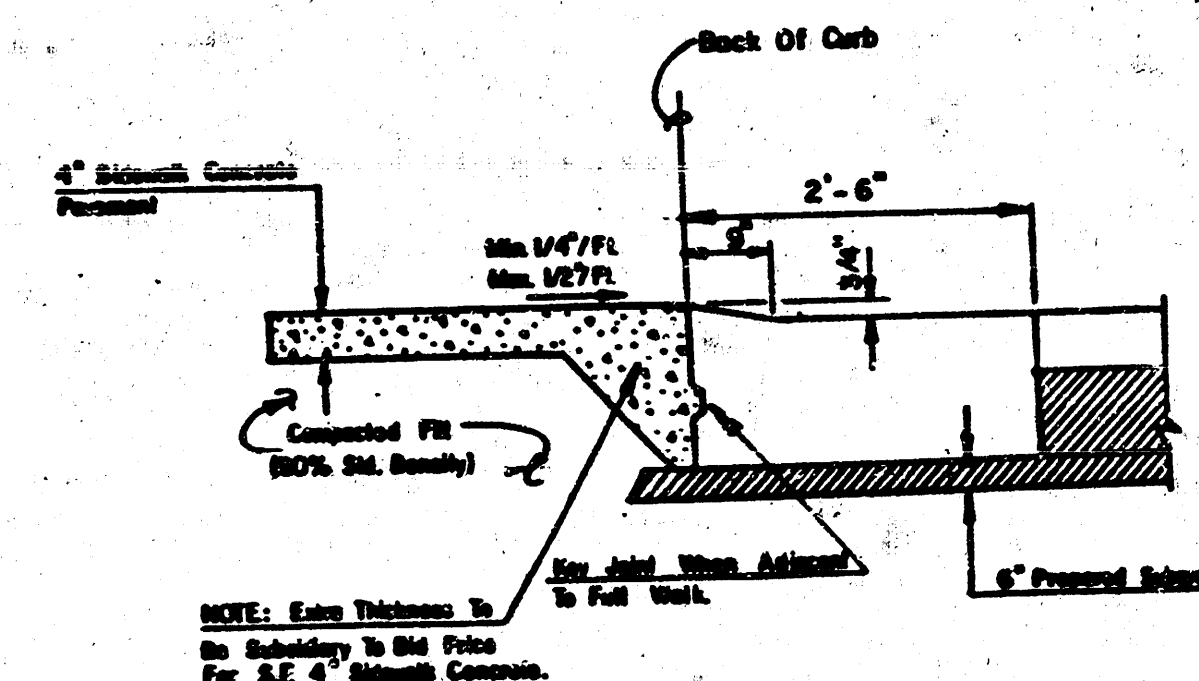
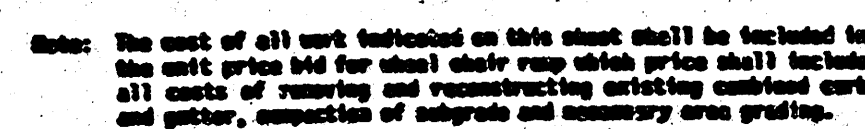
Job Title
ARTZ, TYRONE D., M.D.

WICHITA, KS

88-016
 7-20-90
 9-21-90
 DLM, EAF, DPR
 GJA

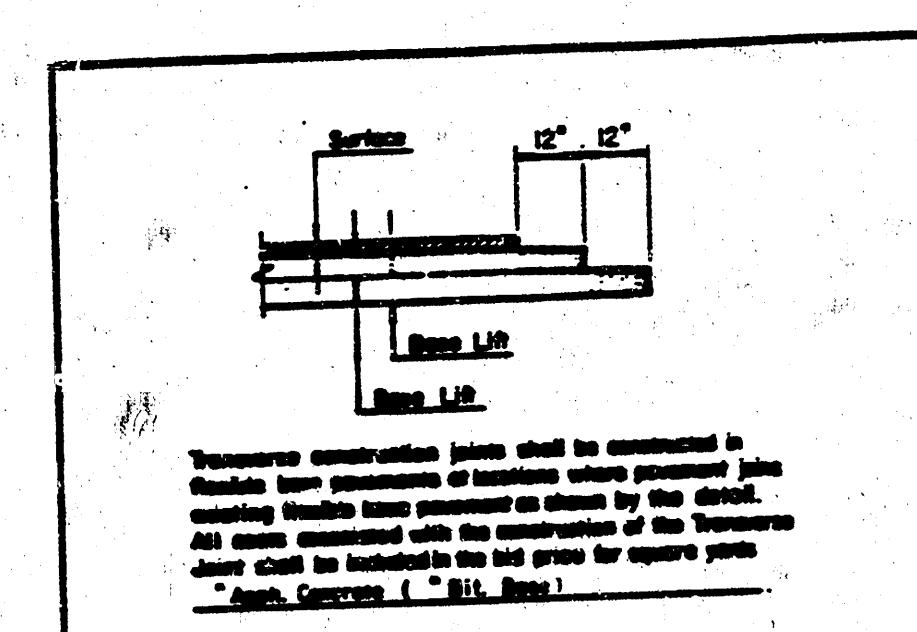
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COORDINATE POINTS

Sheet Number
CS 3

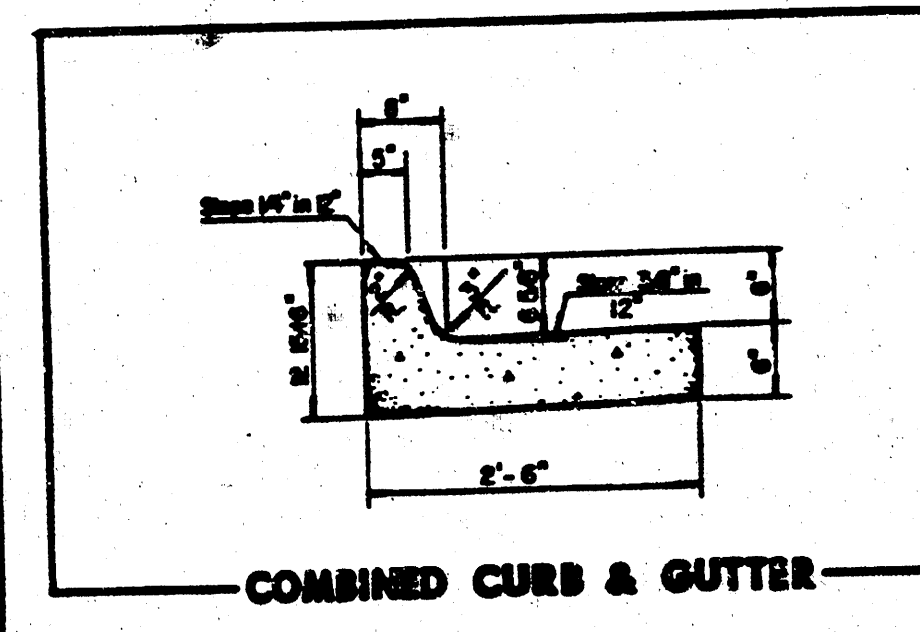
[illegible]

PARKING WIDTH "P"		15'	20'	25'	30'	35'	40'	45'	50'
ABSOLUTE	MAX. DIST. OF PT. "W" ABOVE TOP OF FULL CB.	0.80	1.36	1.85	2.35	2.85	3.39	3.82	4.34
OPTIMUM MAX.	DIST. OF PT. "W" 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. "W" 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. "W" ABOVE TOP OF FULL CB.	0.00	0.00	0.15	0.25	0.35	0.45	0.55	0.65

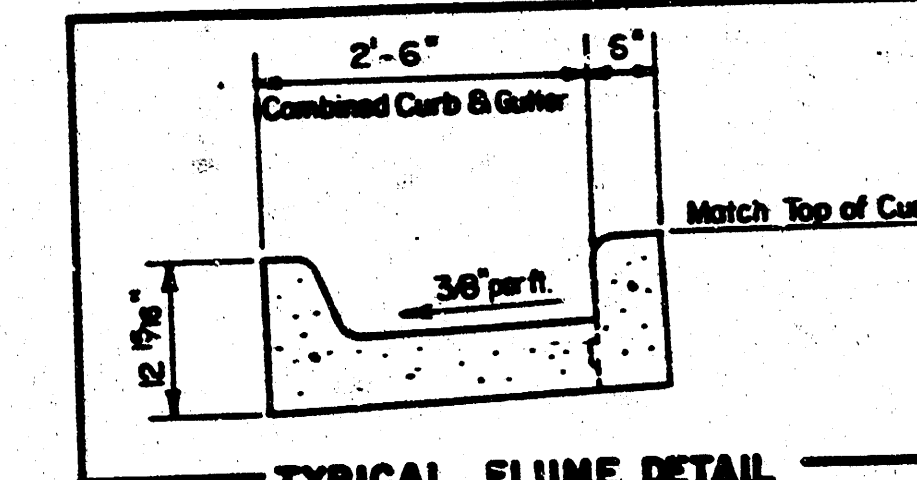
FULL RADIUS DRIVES (P=14.5' & GREATER)



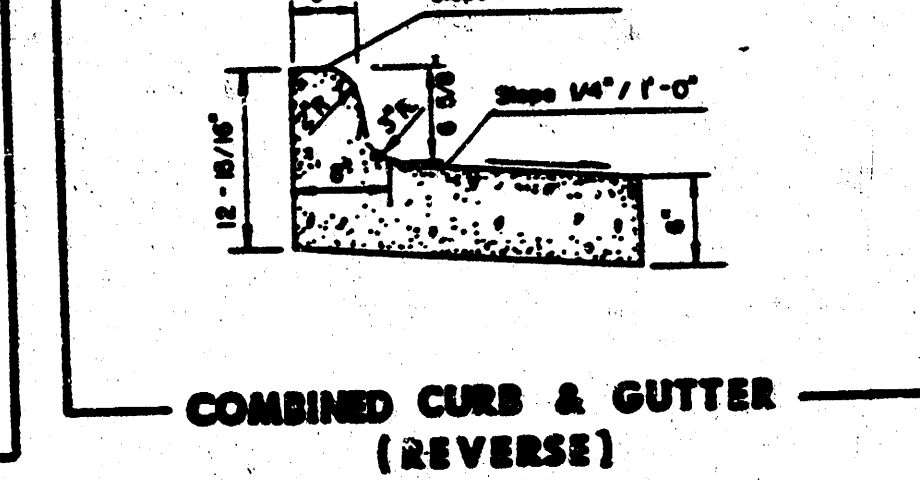
—TRANSVERSE CONSTRUCTION JOINTS



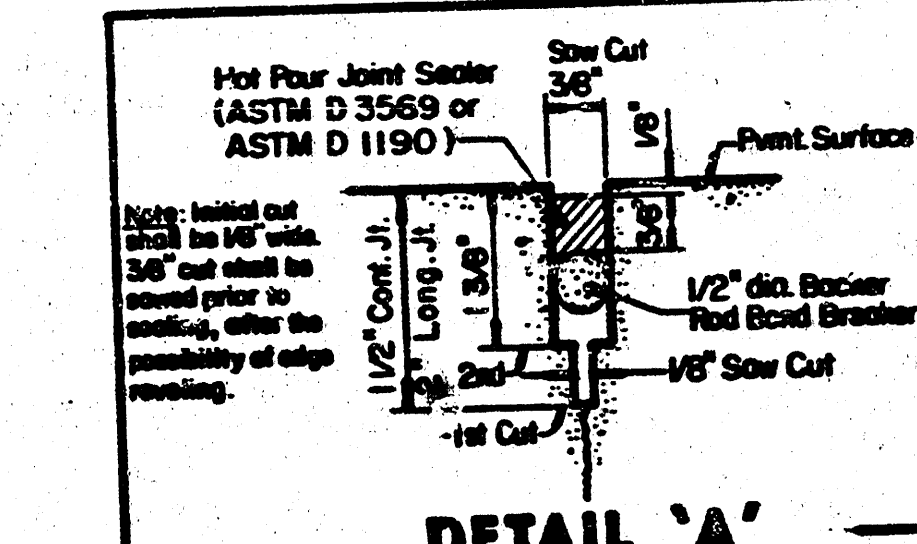
—COMBINED CURB & GUTTER



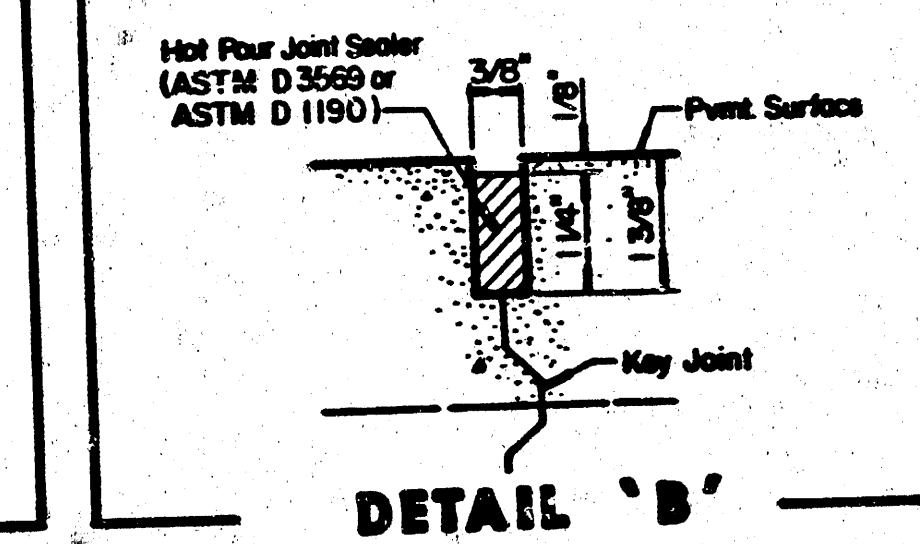
- TYPICAL FLUME DETAIL



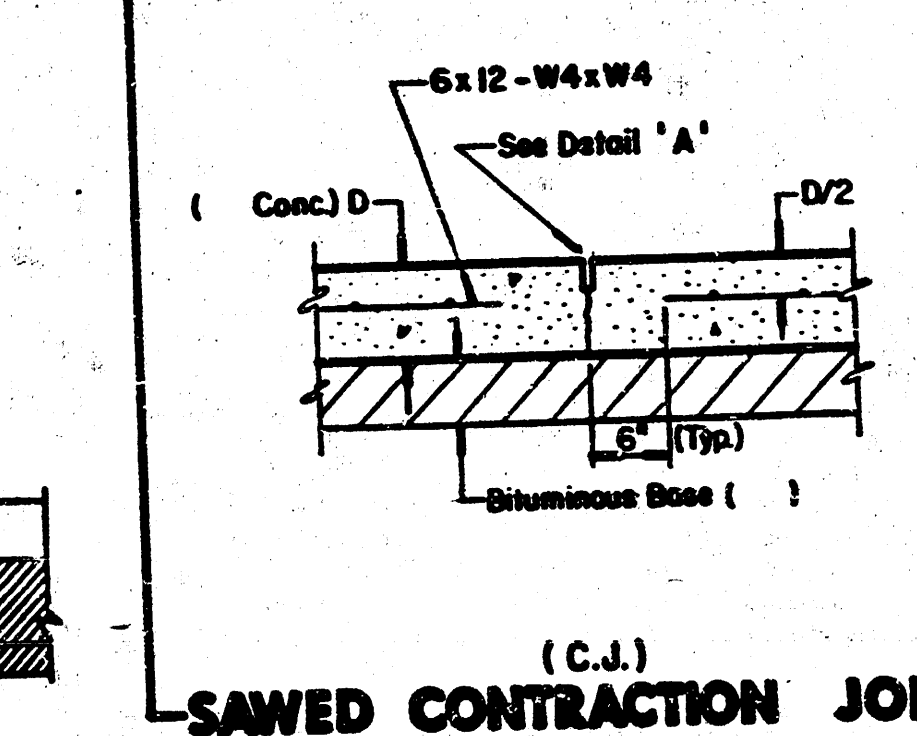
**- COMBINED CURB & GUTTER
(REVERSE)**



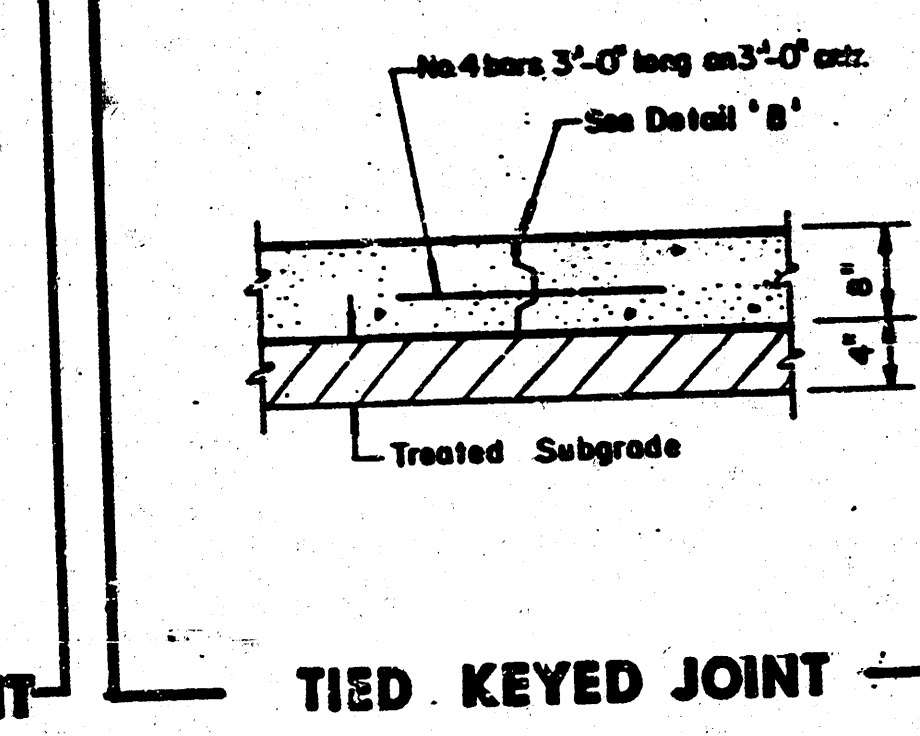
DETAIL 'A'



DETAIL 'B'



(C.J.)
-SAWED CONTRACTION JOIN



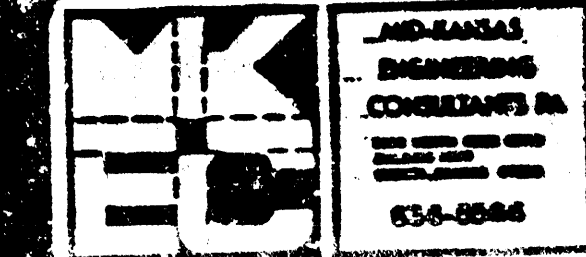
TIED KEYED JOINT

**ROBT MARASCO &
ASSOCIATES, INC.**

**MEDICAL ARCHITECTS
/ DESIGN CONSULTANTS**

18 N. SIERRA MADRE
COLORADO SPRINGS
COLORADO, 80903

(719) 635-0604



Job Title:

ARTZ, TYRONE D., M.D.

WICHITA, KS

89-716

7-20-72

4-22-74

DLM, EAF, DPS

GJA

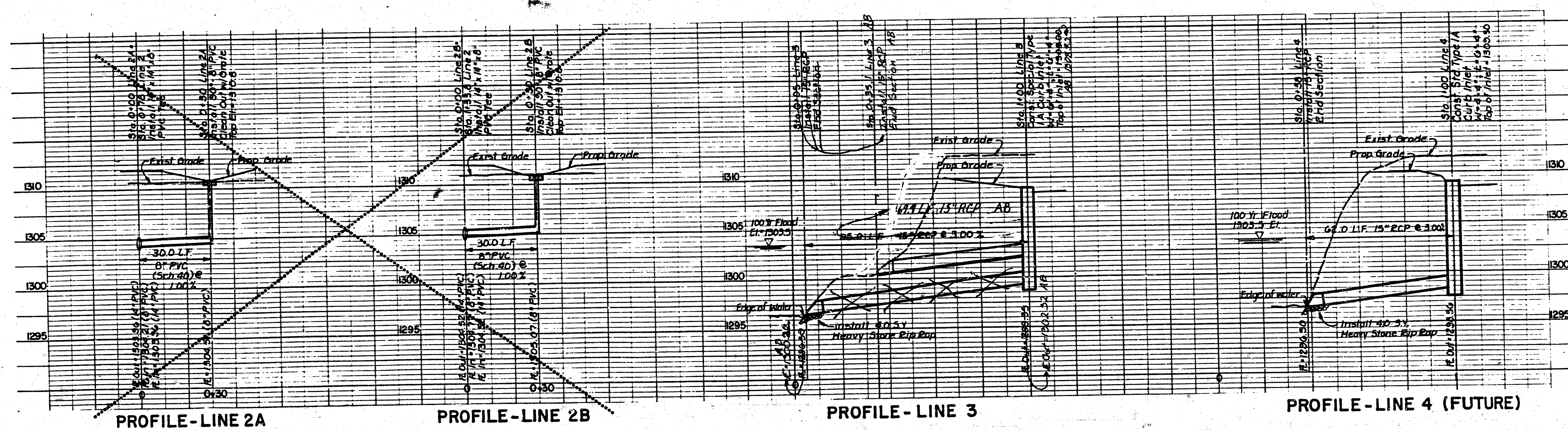
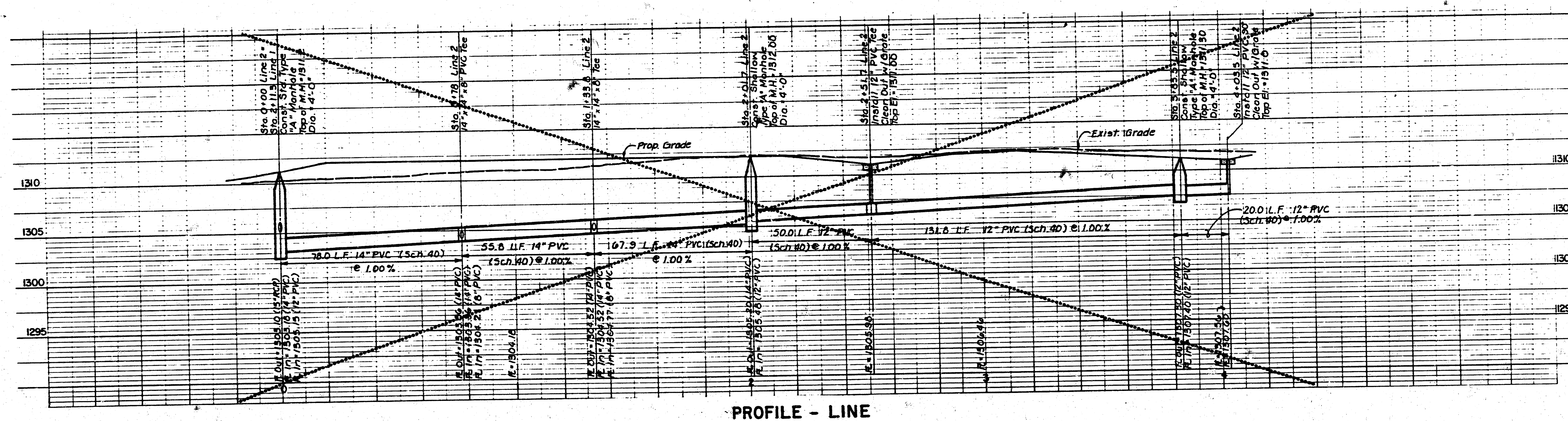
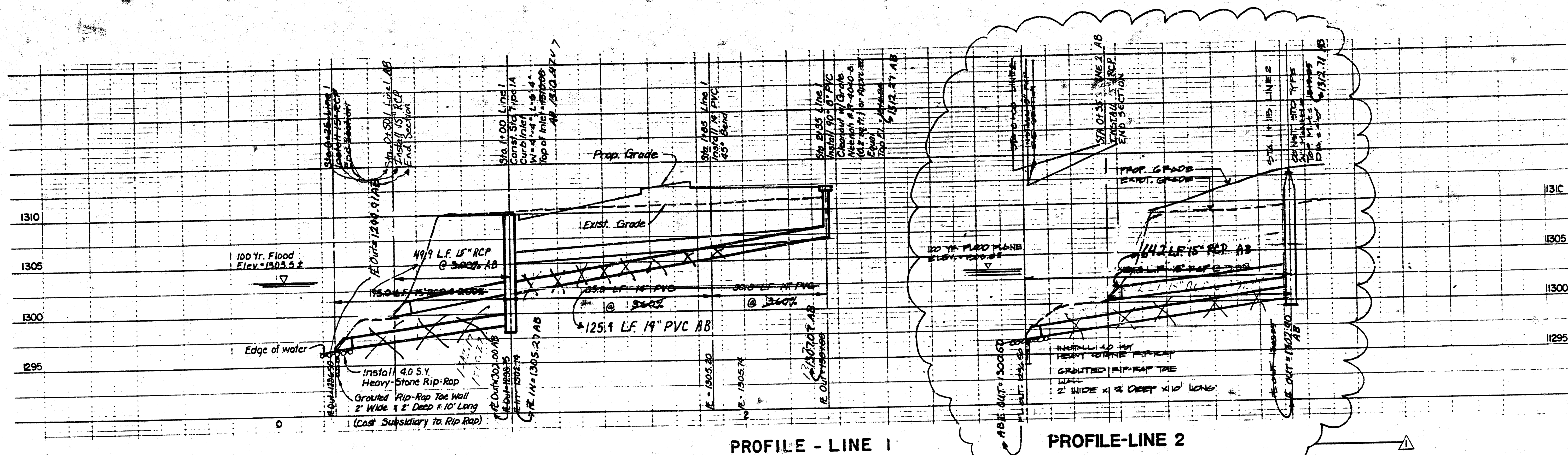
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PAVEMENT DETAILS

Sheet Number

C43

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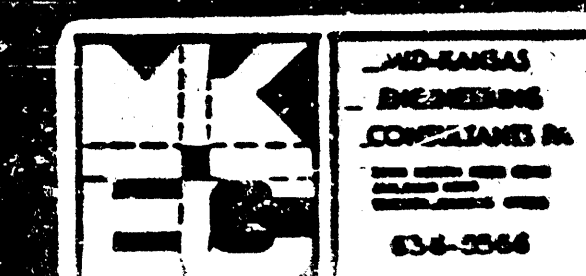


**ROBT MARASCO &
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/DESIGN CONSULTANTS**

18 N. SIERRA MADRE
COLORADO SPRINGS
COLORADO. 80803

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Job Title

ARTZ, TYRONE D., M.D.

WICHITA, KS

89-716

7-20-70

A 11/3/92

DPR

GJA

Sheet Title

STORM SEWER

PROFILE

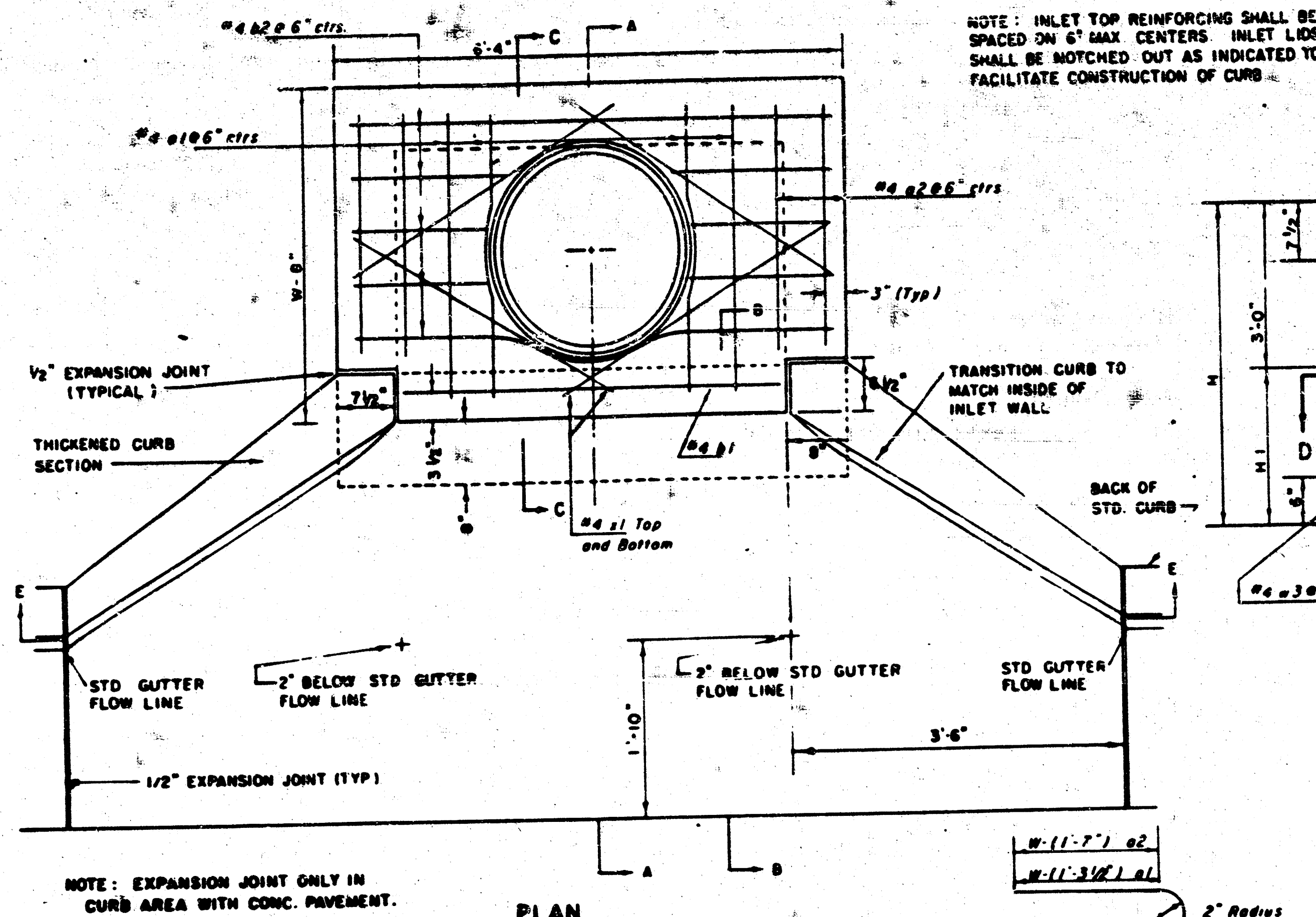
LINE 1,2,2A,2B,
3 & 4(Future)

Sheet Number.

CB 4

1

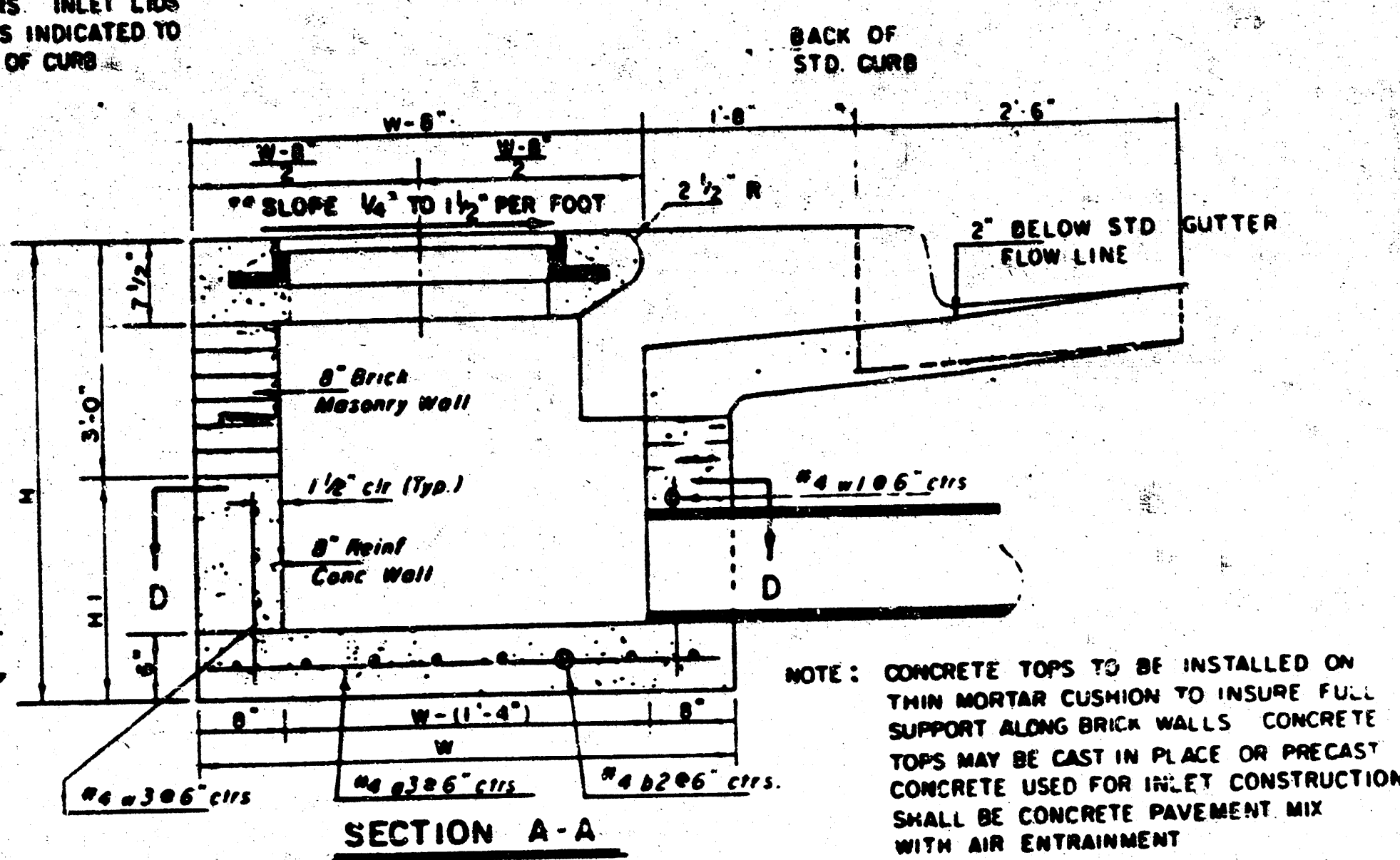
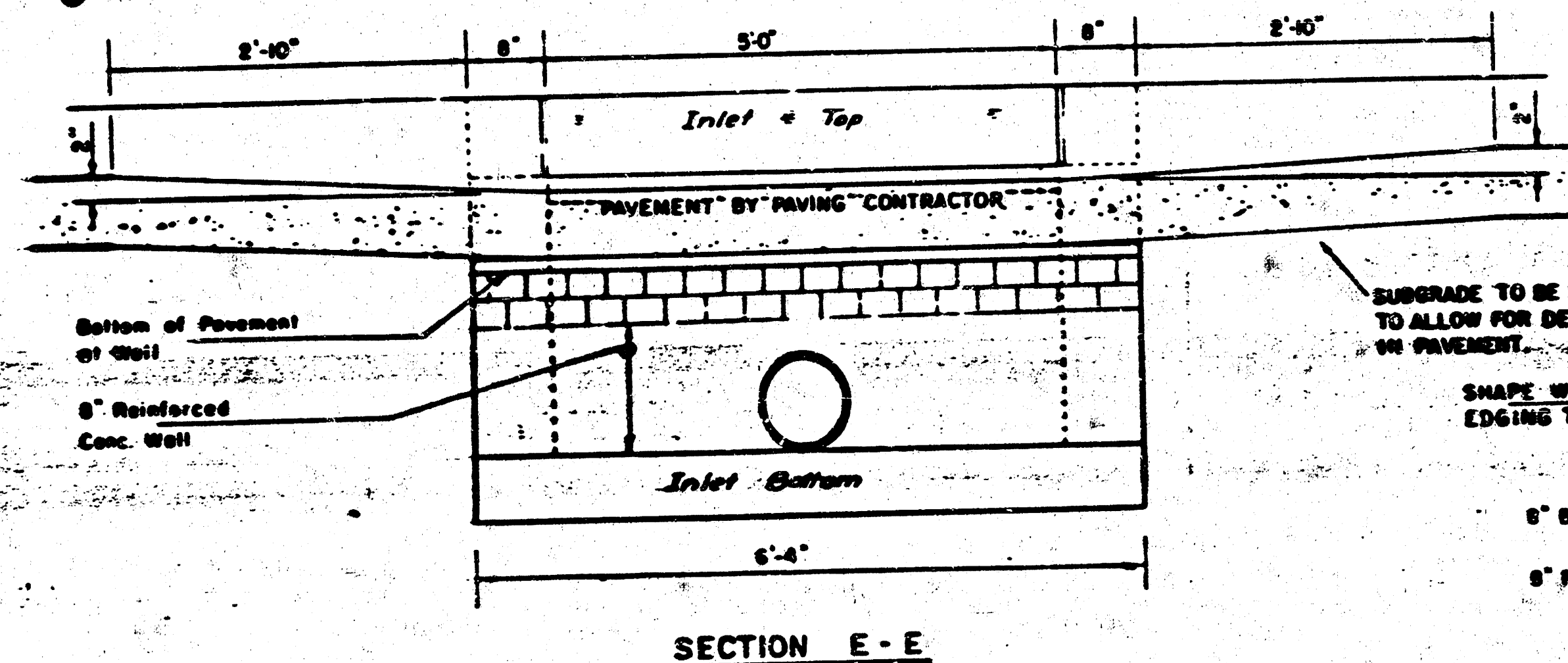
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PRECAST SLAB AND FLOOR REINFORCING									
Mark	Size	No.	Length	No.	Length	No.	Length	No.	Length
101	6"	6	6'-0"	6	6'-0"	6	10'-0"	6	12'-0"
102	6"	6	6'-0"	6	6'-0"	6	10'-0"	6	12'-0"
103	6"	13	4'-1"	13	5'-1"	13	6'-1"	13	7'-1"
104	6"	1	4'-9"	1	4'-9"	1	4'-9"	1	4'-9"
105	6"	23	6'-1"	23	6'-1"	23	6'-1"	23	6'-1"
106	6"	8	3'-10"	8	4'-2"	8	4'-6"	8	4'-10"

WALL REINFORCING									
Mark	Size	No.	Length	No.	Length	No.	Length	No.	Length
107	6"	0	6'-1"	0	6'-1"	0	6'-1"	0	6'-1"
108	6"	0	4'-1"	0	5'-1"	0	7'-1"	0	8'-1"
109	6"	32	6'-1"	32	6'-1"	32	6'-1"	32	6'-1"

* Field bond or cut reinforcing as required for clearance.
 ① (11'-12") : (11'-12") Round down to nearest 0.5"
 ② 11'-3"



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'-0" AND H = 7'-0" OR LESS.

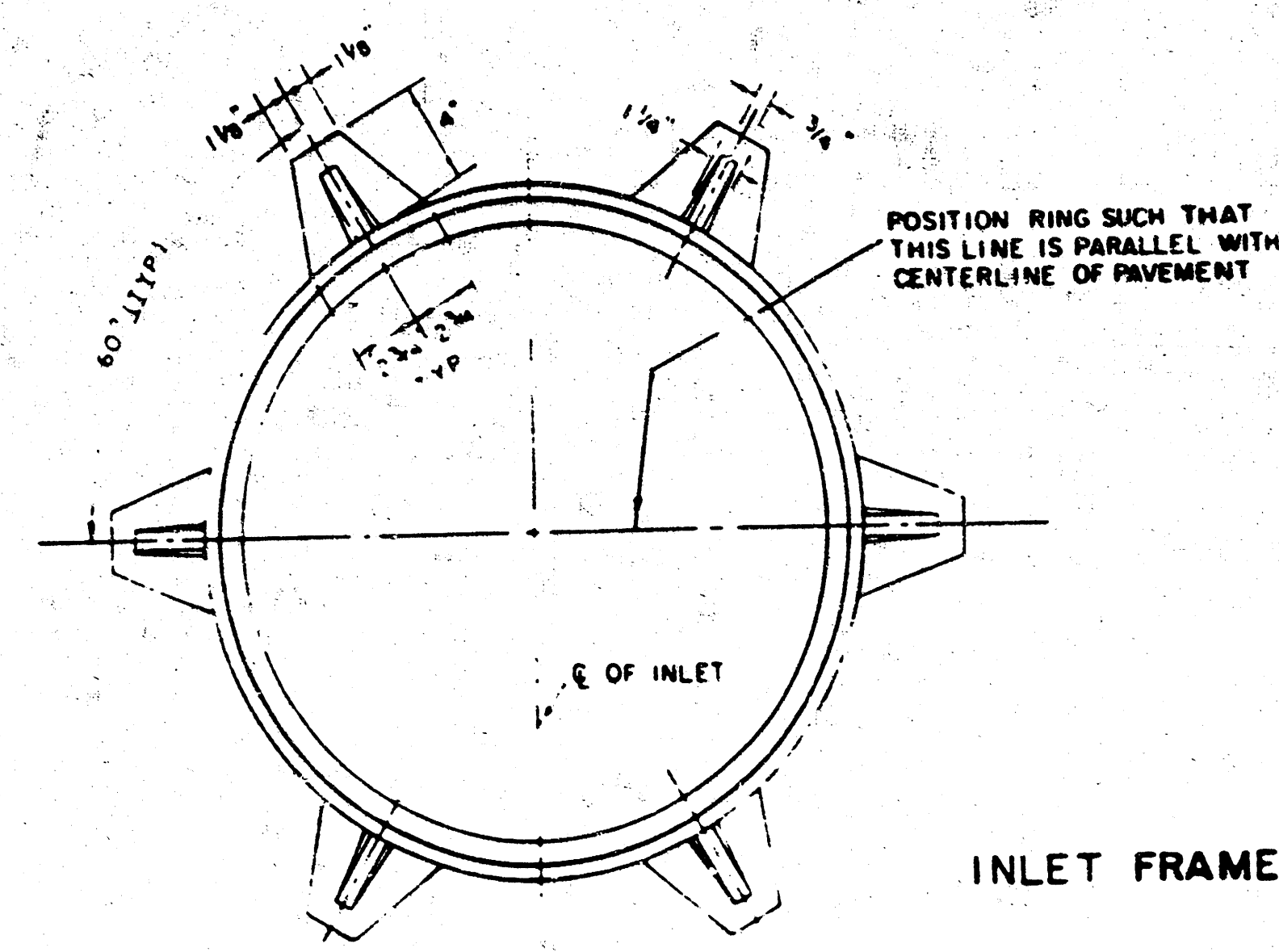
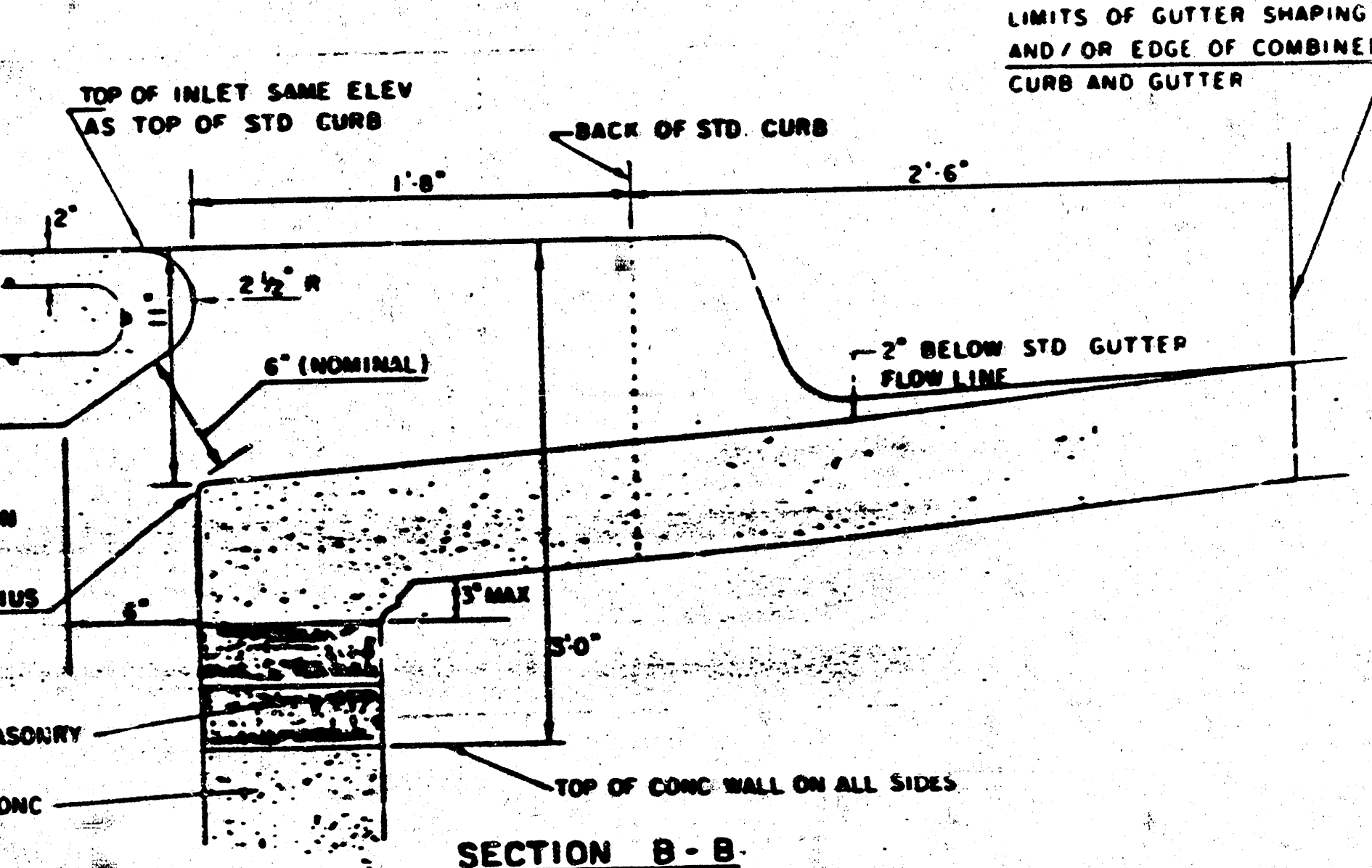
ADDITIONAL CURB AND GUTTER CONSTRUCTION NECESSARY TO CONNECT SET-BACK INLET TO PAVEMENT WILL BE PAID FOR AT THE UNIT PRICE BID FOR EACH INLET ADDUP.

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.

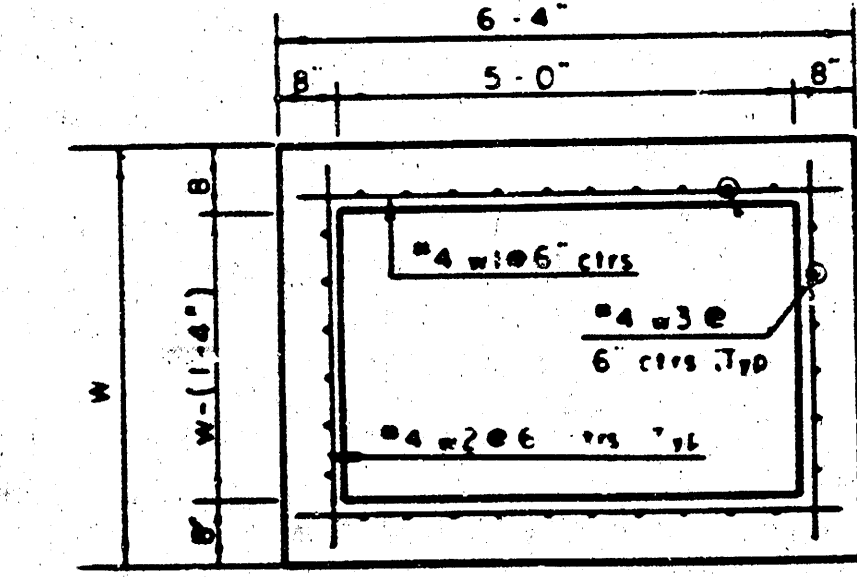
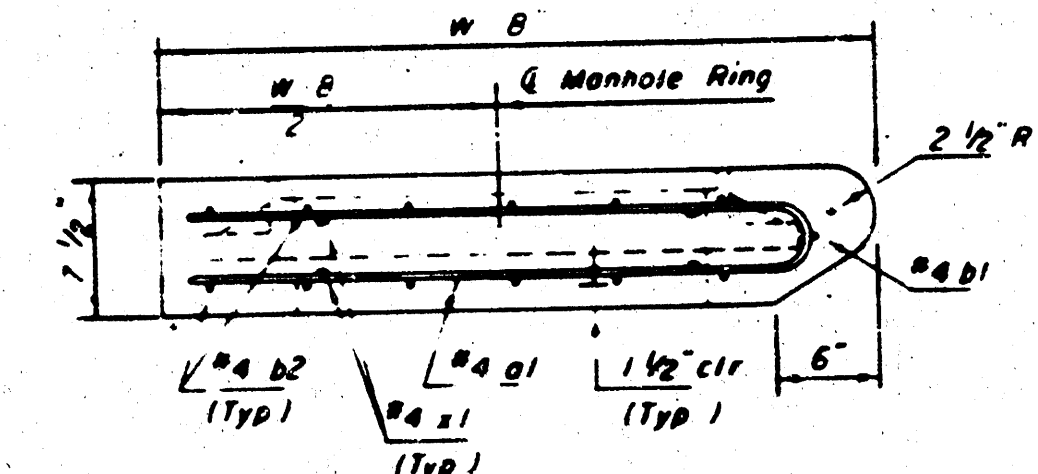
THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.

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

W	PRE-CAST TOP SIZE	PIPE SIZE	CU TO CONC.
4'-0"	18" x 18" x 12"	24" x 30"	0.38
5'-0"	18" x 18" x 12"	30" x 36"	0.51
6'-0"	18" x 18" x 12"	36" x 42"	0.64
7'-0"	18" x 18" x 12"	42" x 48"	0.77
8'-0"	18" x 18" x 12"	48" x 54"	0.90

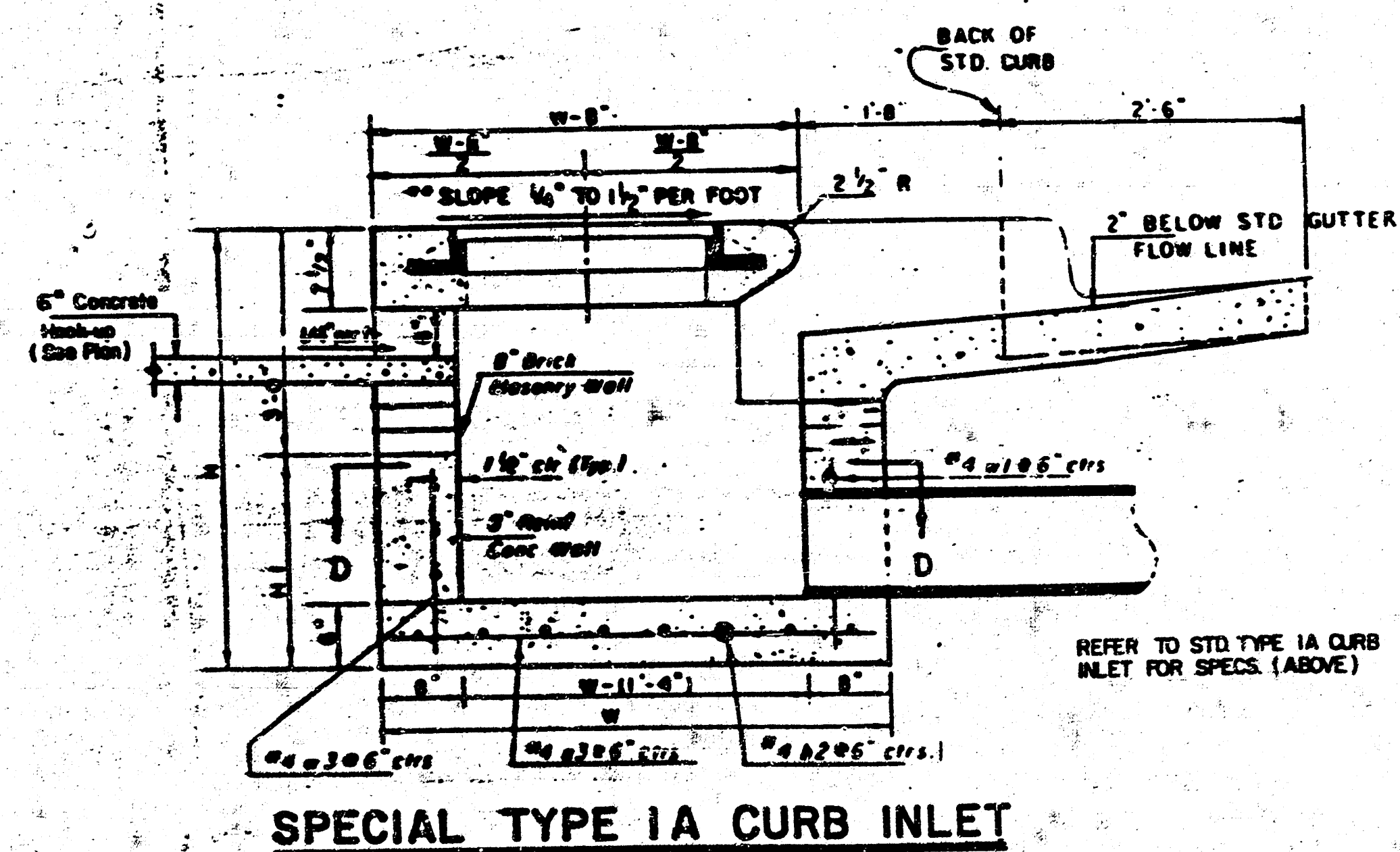


SEE CITY OF WICHITA STANDARD MANHOLE FRAME AND COVER DETAIL SHEET FOR COVER DETAILS TO BE USED WITH INLET FRAME



DETAIL STANDARD TYPE I A CURB INLET
 CITY OF WICHITA, KANSAS
 INLET OPENING = 6"x5'-0"

JUNE 1984
 Revised 2-16-89



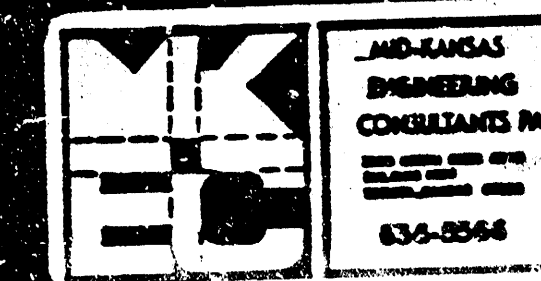
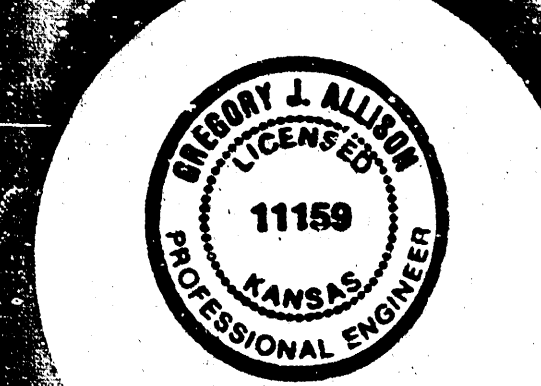
STA 1+00 LINE 4
 W=6'-4", L=6'-4"



ROBT MARASCO & ASSOCIATES, INC.

MEDICAL ARCHITECTS / DESIGN CONSULTANTS

18 N. SIERRA MADRE
 COLORADO SPRINGS
 COLORADO, 80903
 (719) 635-0884



Job Title
 ARTZ, TYRONE D., M.D.

WICHITA, KS

80-715
 7-20-79
 GJA

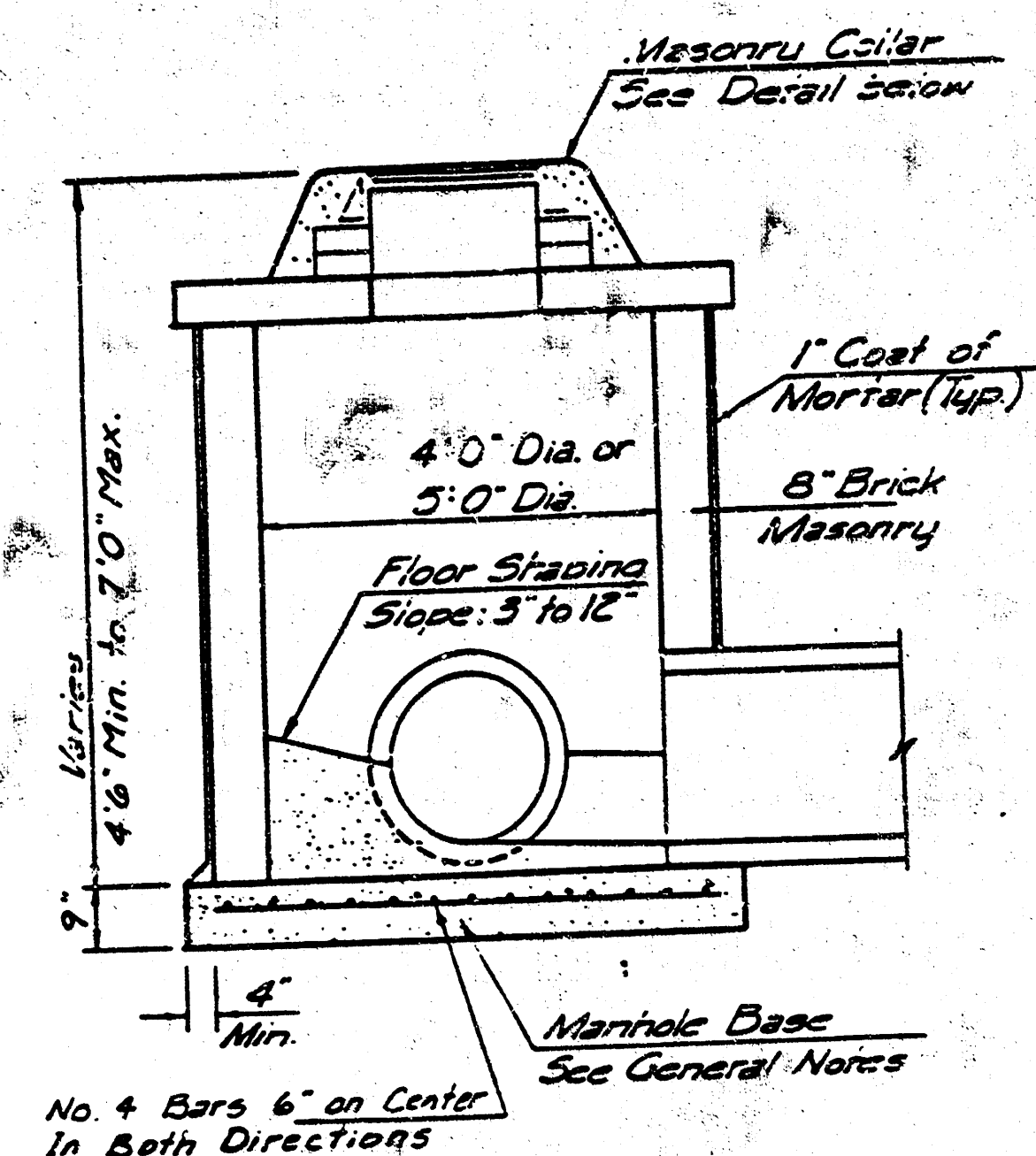
Sheet Title

STORM SEWER DETAILS

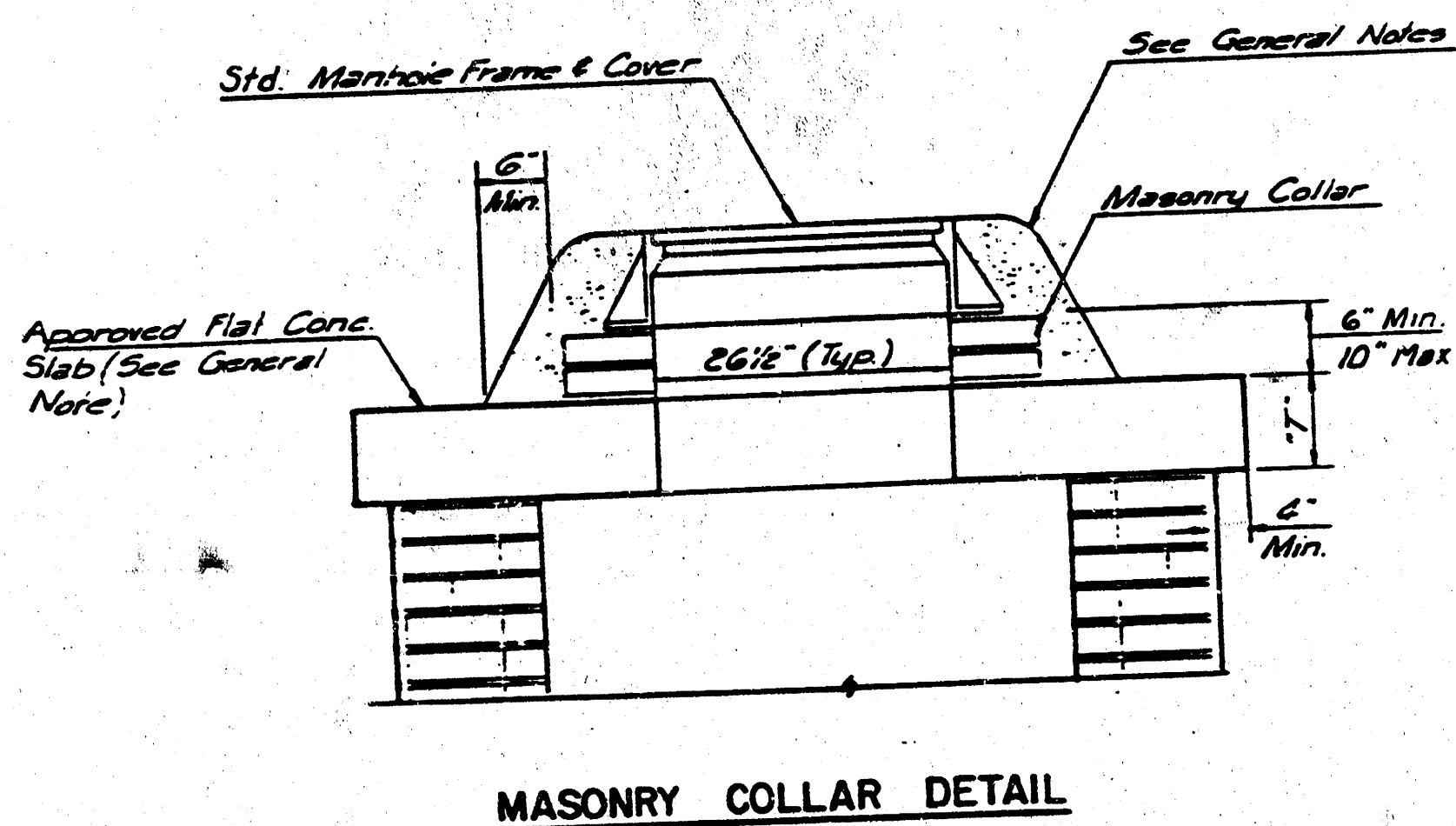
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C05

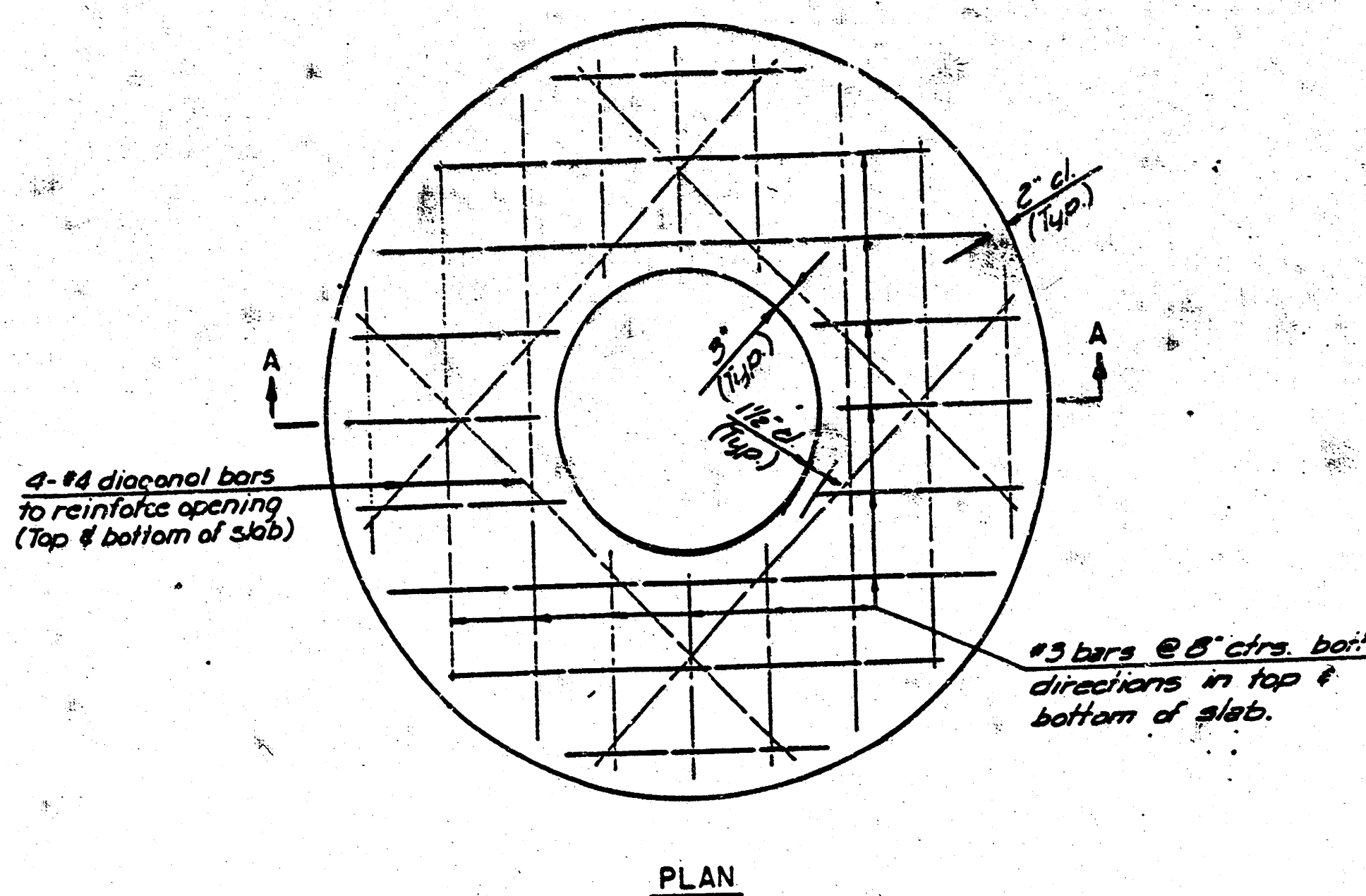
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SHALLOW TYPE "A" MANHOLE

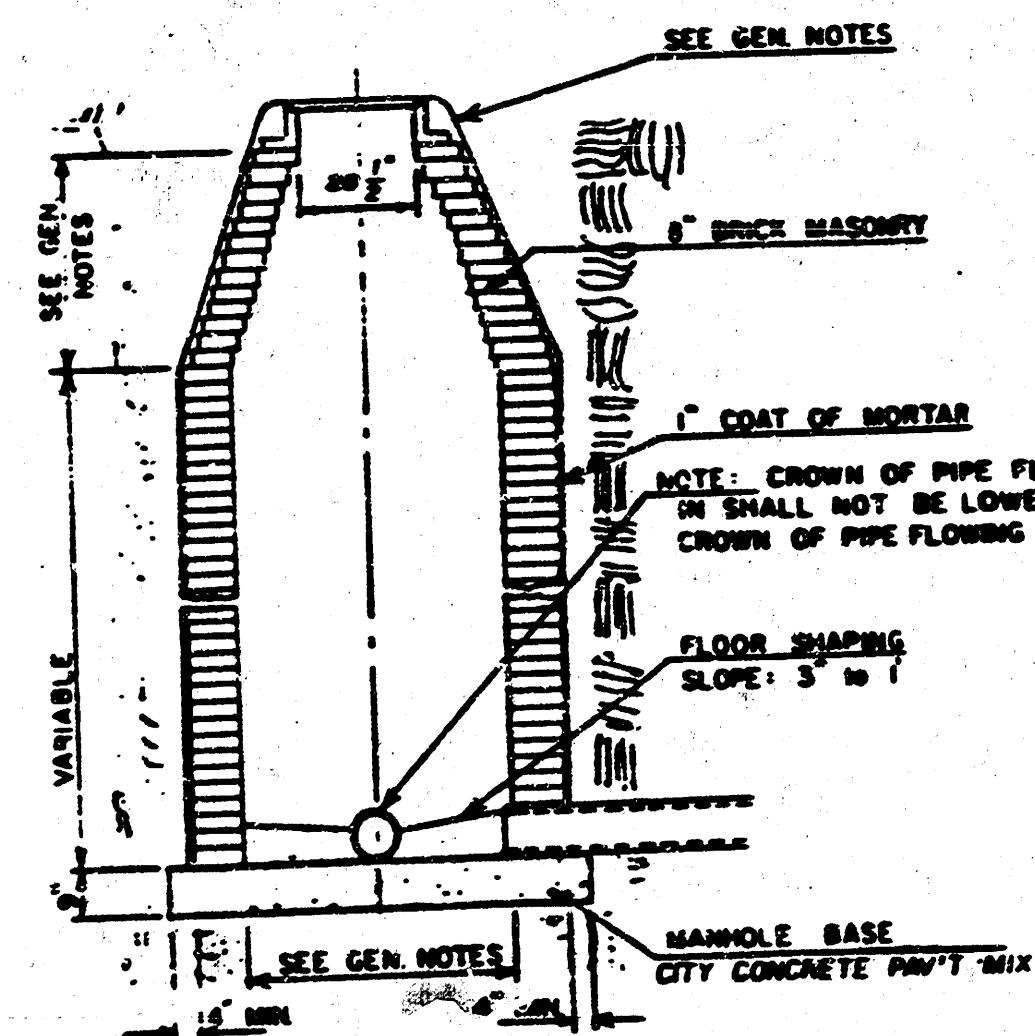


MASONRY COLLAR DETAIL

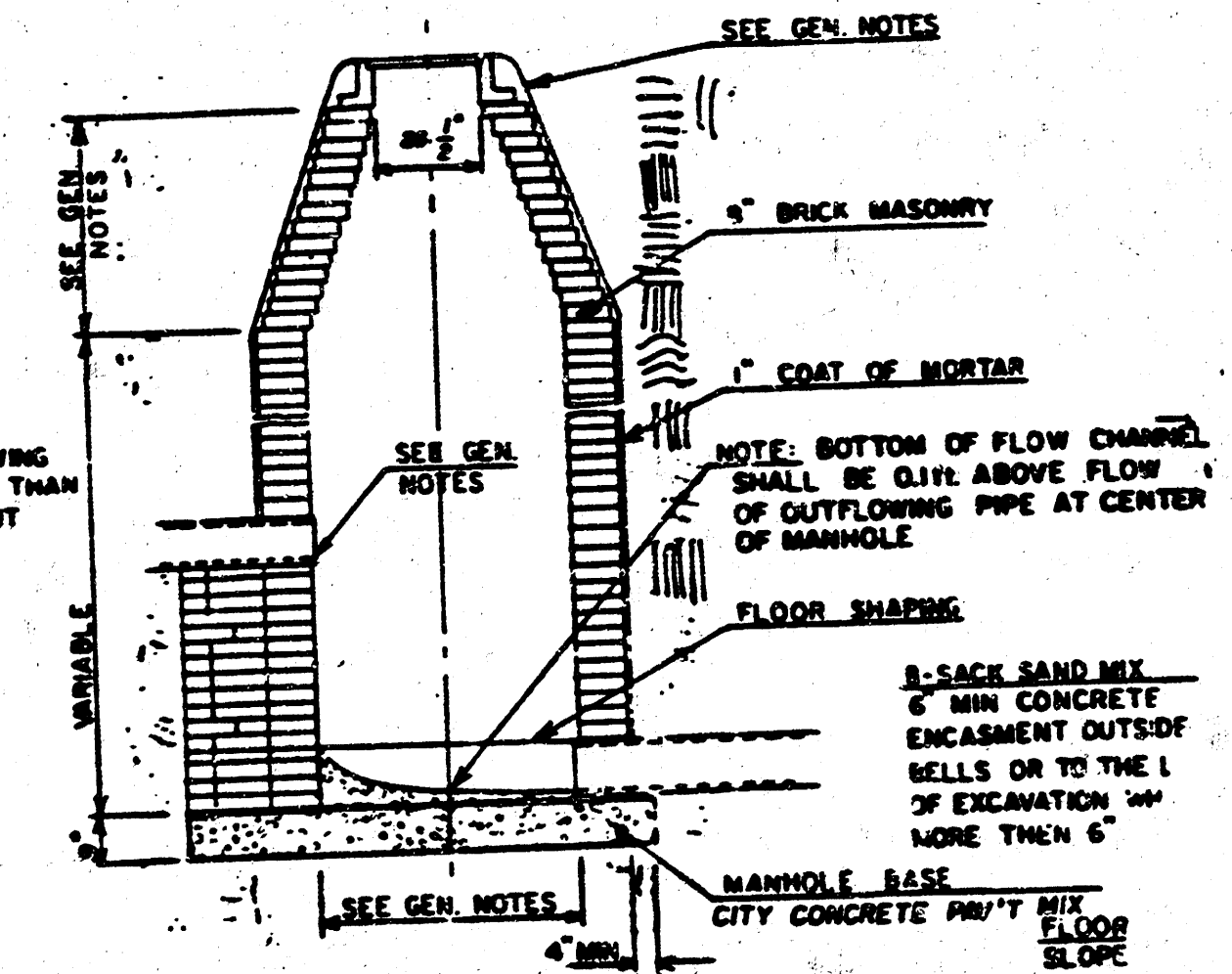


SECTION A-A
FLAT CONCRETE SLAB DETAIL

TYPE "A" MANHOLE



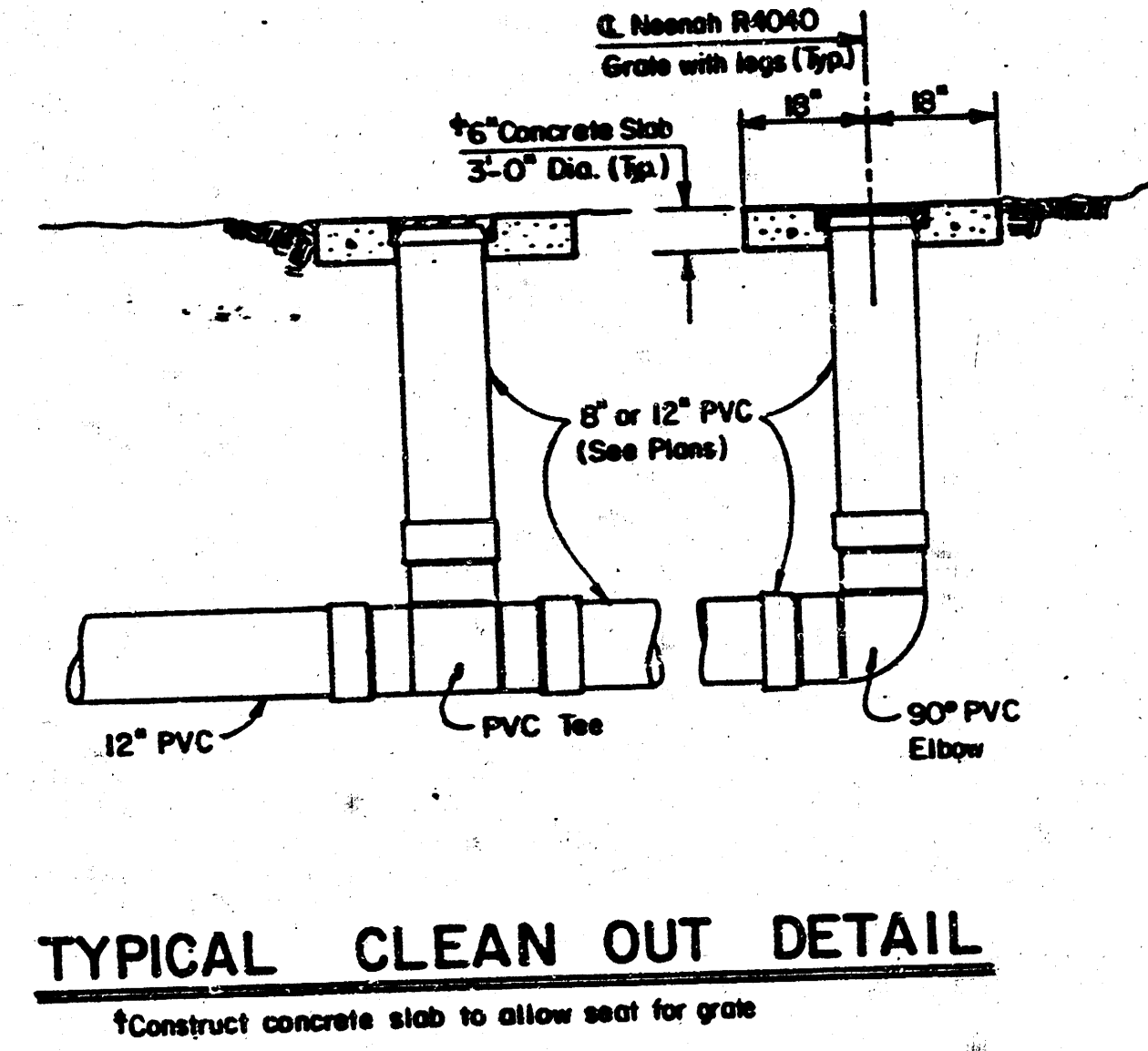
TYPE "A" INSIDE DROP MANHOLE



- GENERAL NOTES**
- 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 PAVEMENT CONSTRUCTION AS SPECIFIED IN THE CITY STANDARD PAVING SPECIFICATIONS USING CITY CONCRETE CEMENT MIX WITHOUT AIR ENTRAINING ADVERTISE. 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 24" OR LARGER 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 INFLUING PIPES AND THE OUTFLOWING PIPE AS SHOWN BY THE DRAWINGS. MANHOLE FLOORS SHALL HAVE SLOPES OF 3 INCHES PER FOOT IN THE DRAINING. MANHOLE FLOORS SHALL HAVE SLOPES OF 3 INCHES PER FOOT IN THE DRAINING. AREAS OUTSIDE OF THE FLOW CHANNELS SLOPED TOWARD THE FLOW CHANNELS. PIPES LAIN THROUGH MANHOLES SHALL HAVE THE TOP HALF REMOVED TO REVEAL 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 CHAINED WITH CONCRETE TO THE LIMITS OF THE MANHOLE EXCAVATION. WHEN CLAY PIPE IS USED, THE CHAIN SHALL EXTEND TO THE FIRST JOINT OUTSIDE THE MANHOLE. THE CHAIN SHALL BE TERMINATED AT THE CLAY PIPE JOINT IN A MANNER WHICH WILL MAINTAIN THE FLEXIBILITY OF THE JOINT. COST OF CHAIN 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 INFLUING 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 INSIDE DROP 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.

DETAIL STANDARD TYPE "A" MANHOLE
CITY OF WICHITA, KANSAS

DETAIL SHALLOW TYPE "A" MANHOLE
CITY OF WICHITA, KANSAS

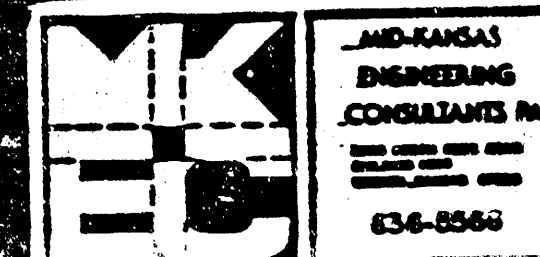
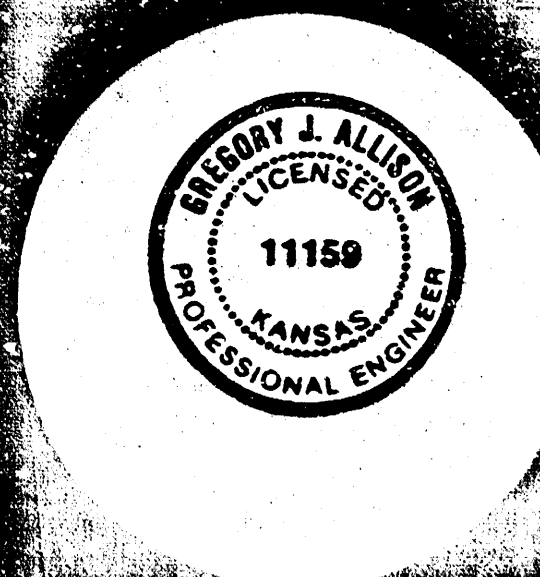


TYPICAL CLEAN OUT DETAIL
Construct concrete slab to allow seat for grate

RM
ROBT MARASCO &
ASSOCIATES, INC.

MEDICAL ARCHITECTS
/DESIGN CONSULTANTS

18 N. SIERRA MADRE
COLORADO SPRINGS
COLORADO, 80903
(719) 635-0964



Job Title
ARTZ, TYRONE D., M.D.

WICHITA, KS

Sheet Title

STORM SEWER DETAILS

Sheet Number

CP 6

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