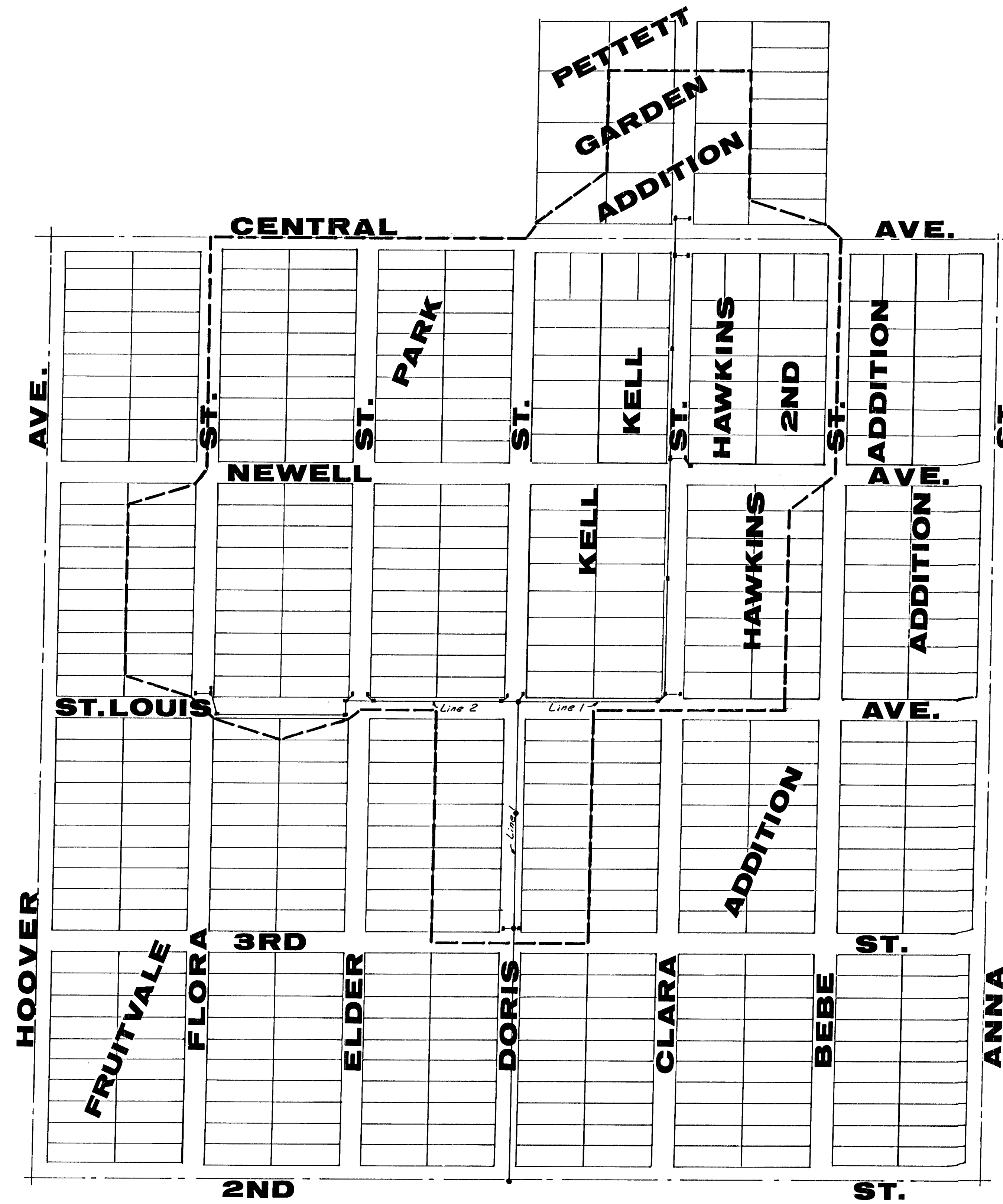


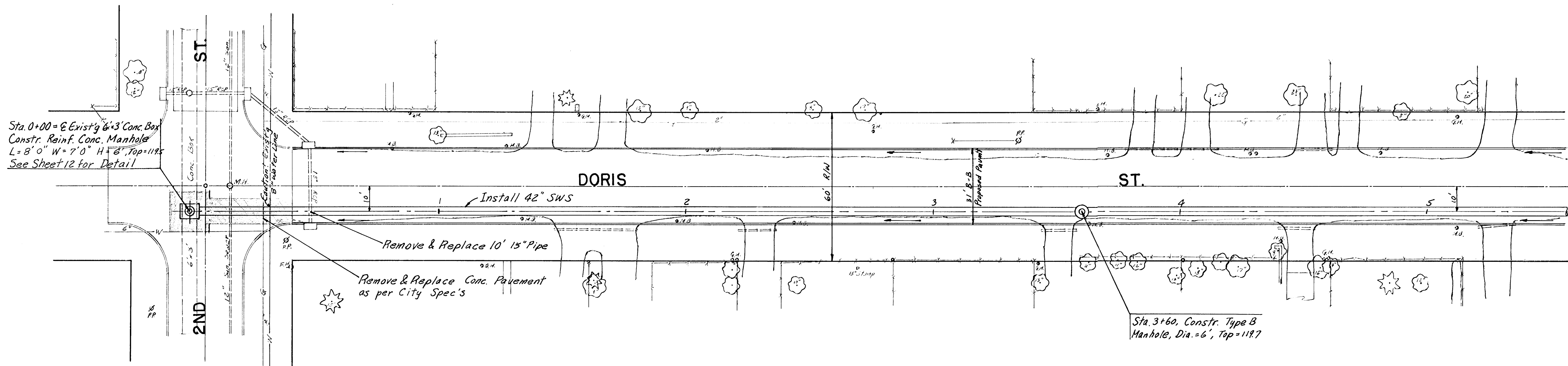
ORCHARD PARK DRAINAGE IMPROVEMENTS



Sheet	Content
1	Cover Sheet
2-8	Line 1
9-10	Line 2
11	Type IA Inlet
12	Reinf. Conc. Manhole
13	Type B Manhole

R.W. BRUGGEMAN, DIRECTOR OF ENGINEERING DEPARTMENT/
CITY ENGINEER
CITY OF WICHITA, KANSAS
PROJECT NO. 818 76 245 50208 430 000 000
DATE: _____

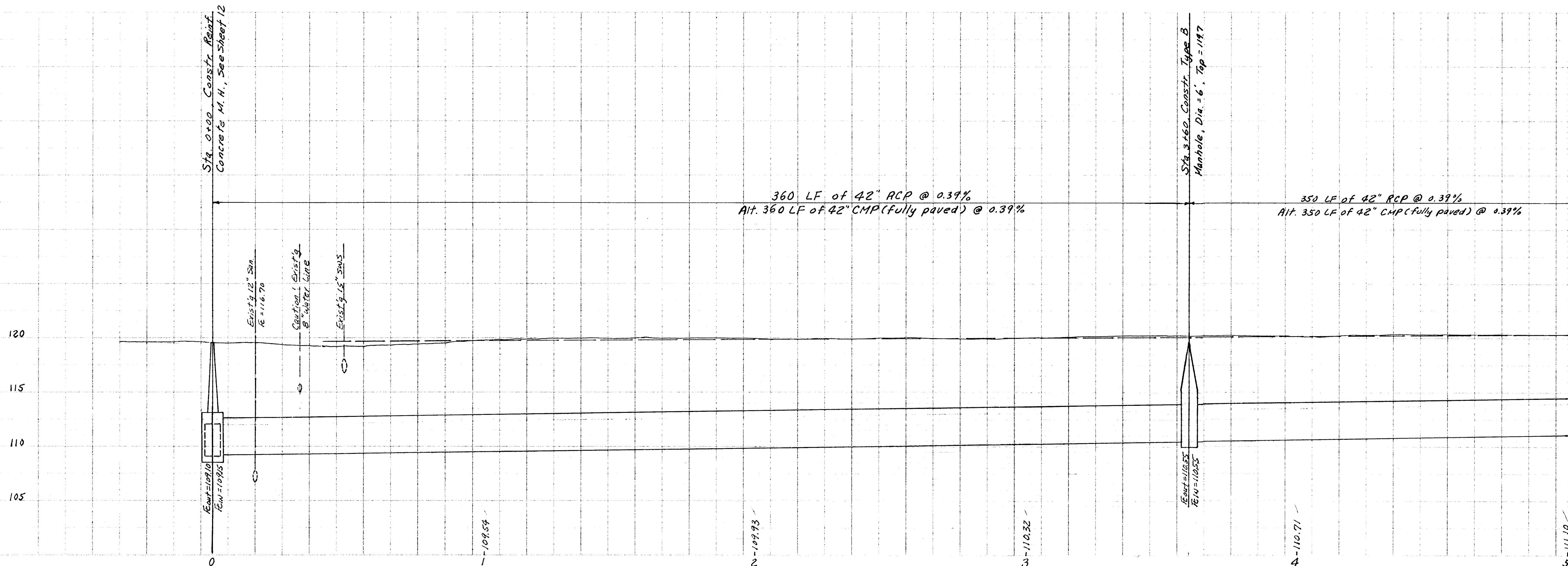
PLAN	DATE	BY	CHK
DATE	BY	CHK	
NOTE: DO NOT SCALE DRAWING			
W.D.L. 420'			



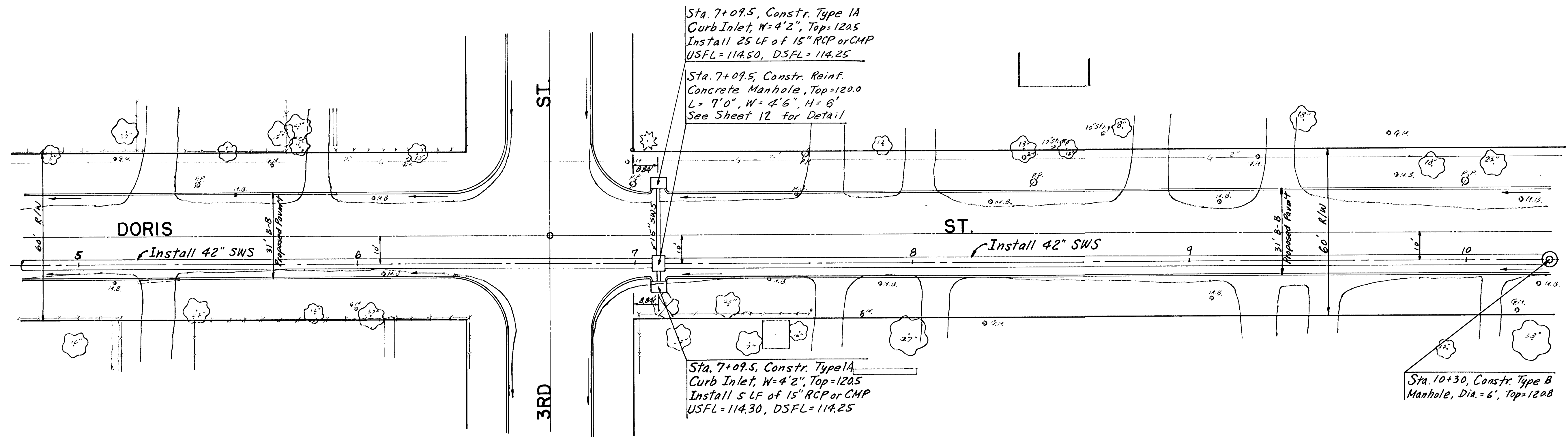
B.M. 119.60 "a" Cut top N-Cb 2nd 1 ft E. of E-End Ret.
NE Cor. 2nd & Doris

Scale: 1" = 20'

PROFILE	DATE	BY	CHK
DATE	BY	CHK	
NOTE: DO NOT SCALE DRAWING			
W.D.L. 420'			



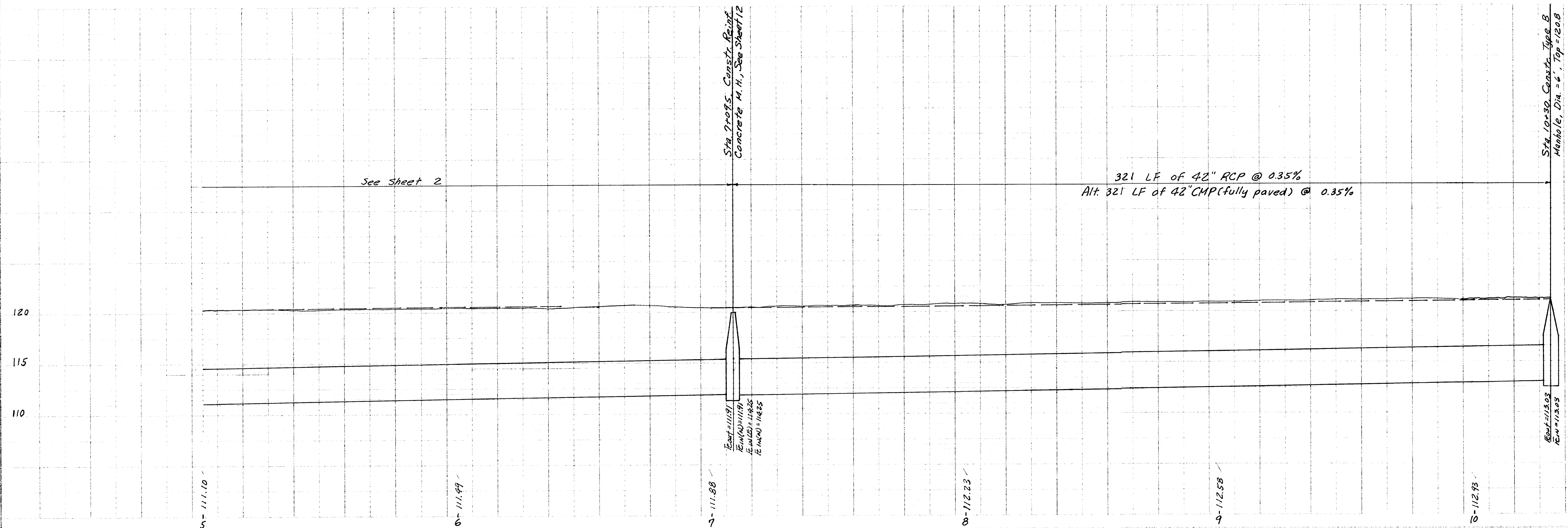
PLAN
 DATE: 10/1/11
 BY: J. K. 420
 CHECKED: J. K. 420
 NOTED: J. K. 420
 REVISIONS: J. K. 420



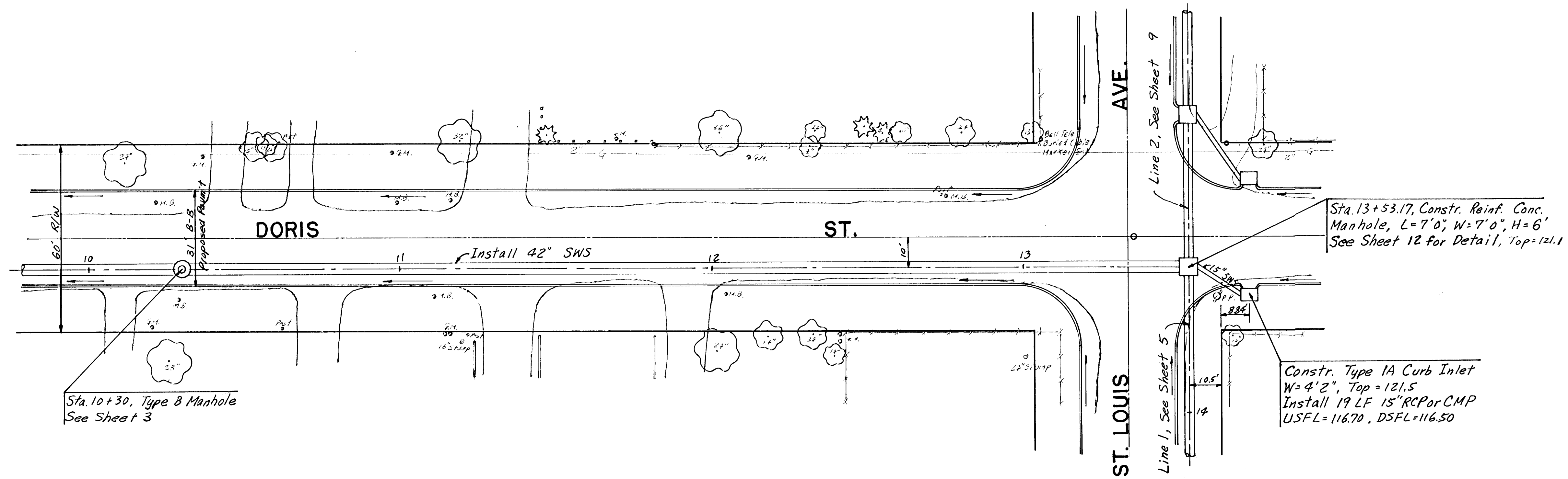
Scale: 1"=20'

B.M. 121.16 R.R. Spike SE face Street Light Pole
 NW Cor. 3rd & Doris

PROFILE
 DATE: 10/1/11
 BY: J. K. 420
 CHECKED: J. K. 420
 NOTED: J. K. 420
 REVISIONS: J. K. 420



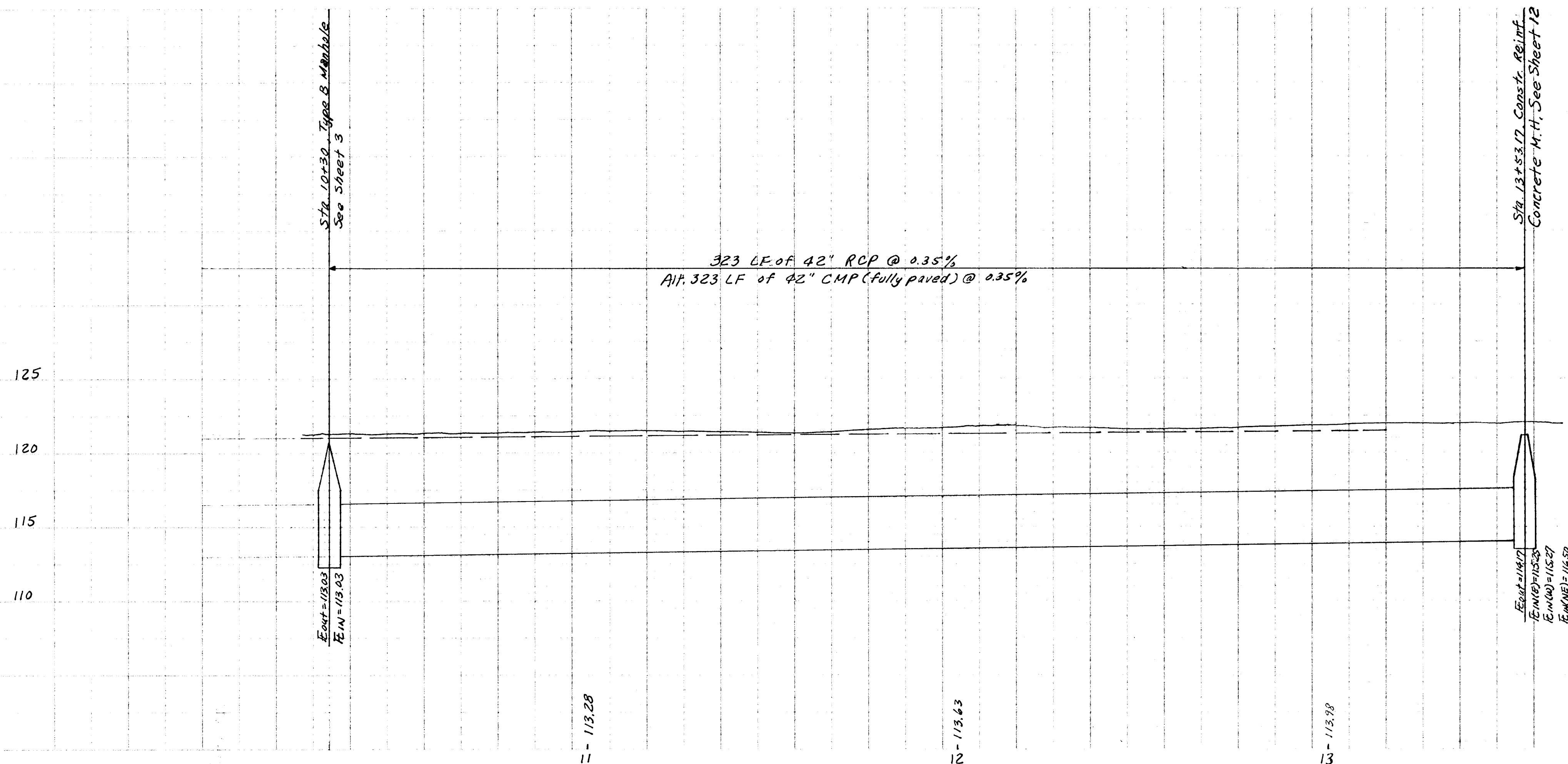
PLAN
DATE: 11/13/28
BY: [Signature]
CHECKED: [Signature]
NOTED: [Signature]
REVISIONS: [Signature]
SHEET 420



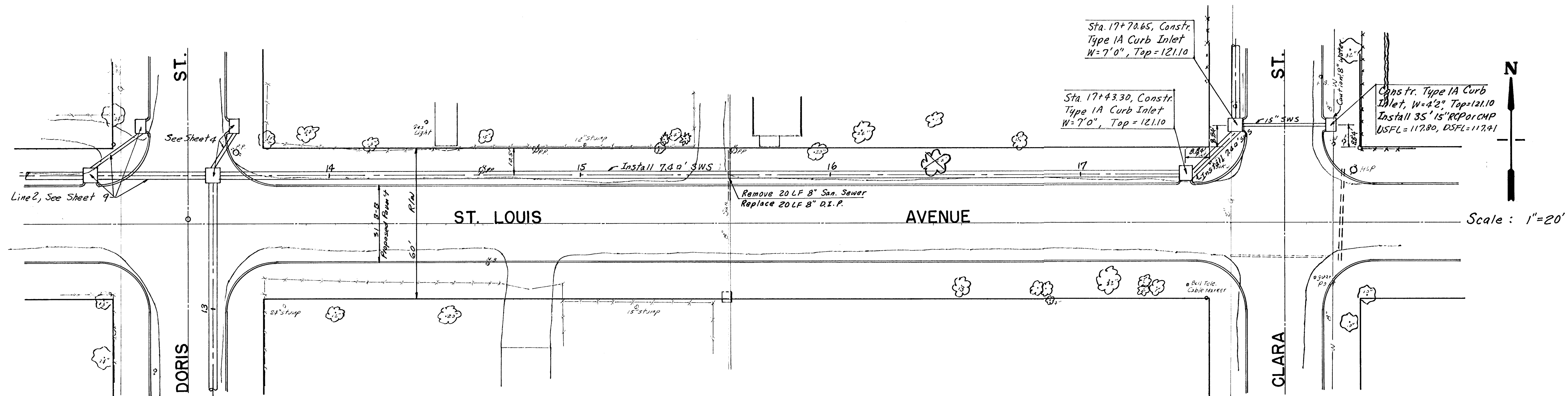
B.M. 122.86 RR Spike W. face Street Light Pole
NE Cor. St. Louis & Doris

Scale: 1"=20'

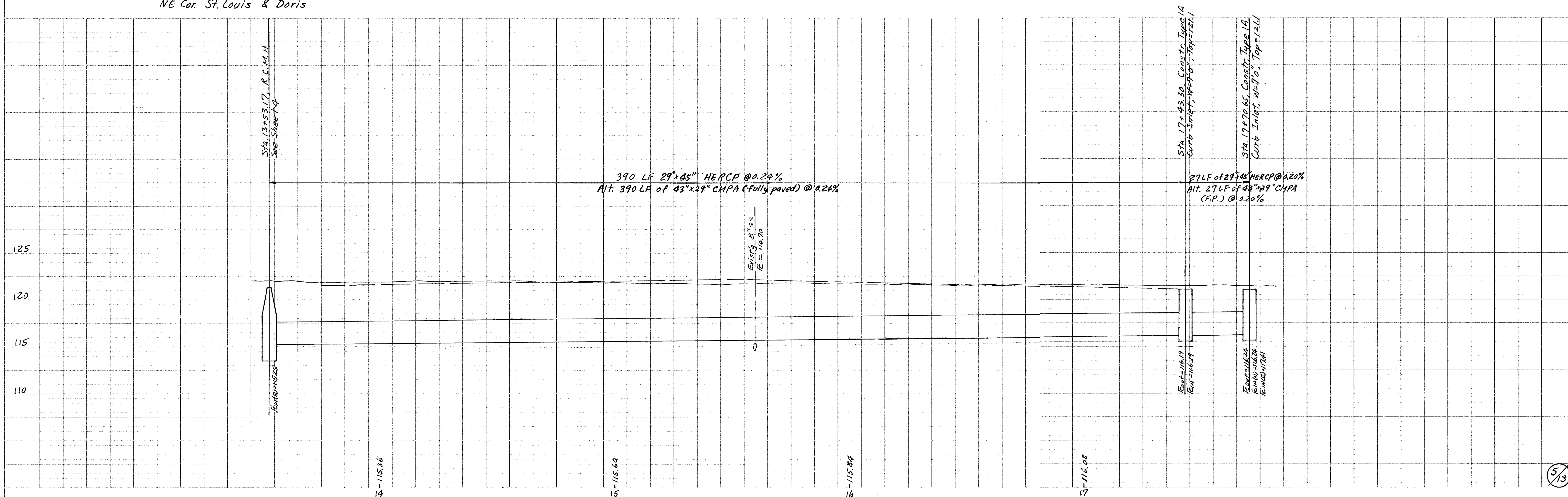
PROFILE
DATE: 11/13/28
BY: [Signature]
CHECKED: [Signature]
NOTED: [Signature]
REVISIONS: [Signature]
SHEET 420



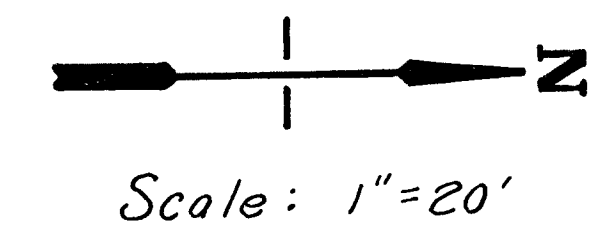
DATE	BY	PROFILE
		SURVIVED
		PLUTIED
		CHARLES CHECKED
		B. MS. NOTED
		STRUCTURE NOTING IN AO
		NOTE BOOK
		NO.



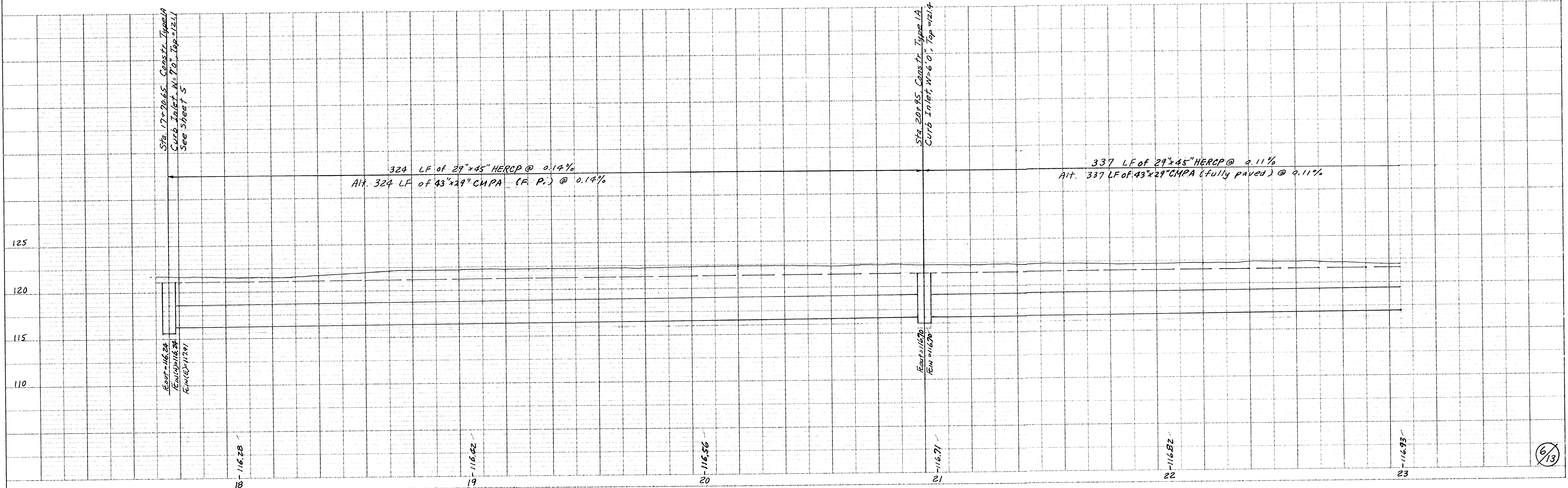
B.M. 122.86 RR Spike W. face Street Light Pole
NE Cor. St. Louis & Doris



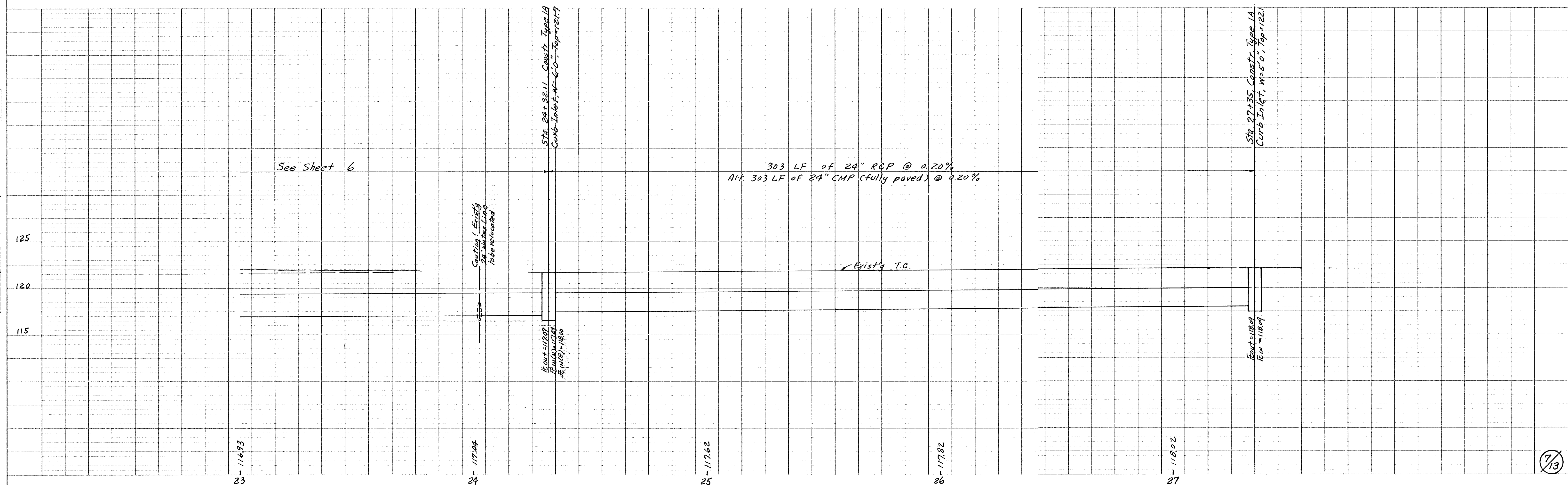
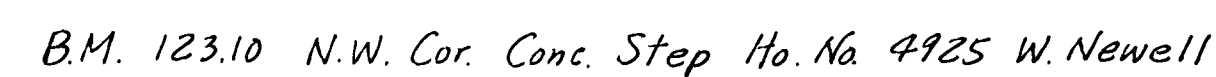
PROFILE	SUNSHED	BY	DATE
NOTE BOOK	PLUTED		
	GRADES CHECKED		
	B. M. NOTED		

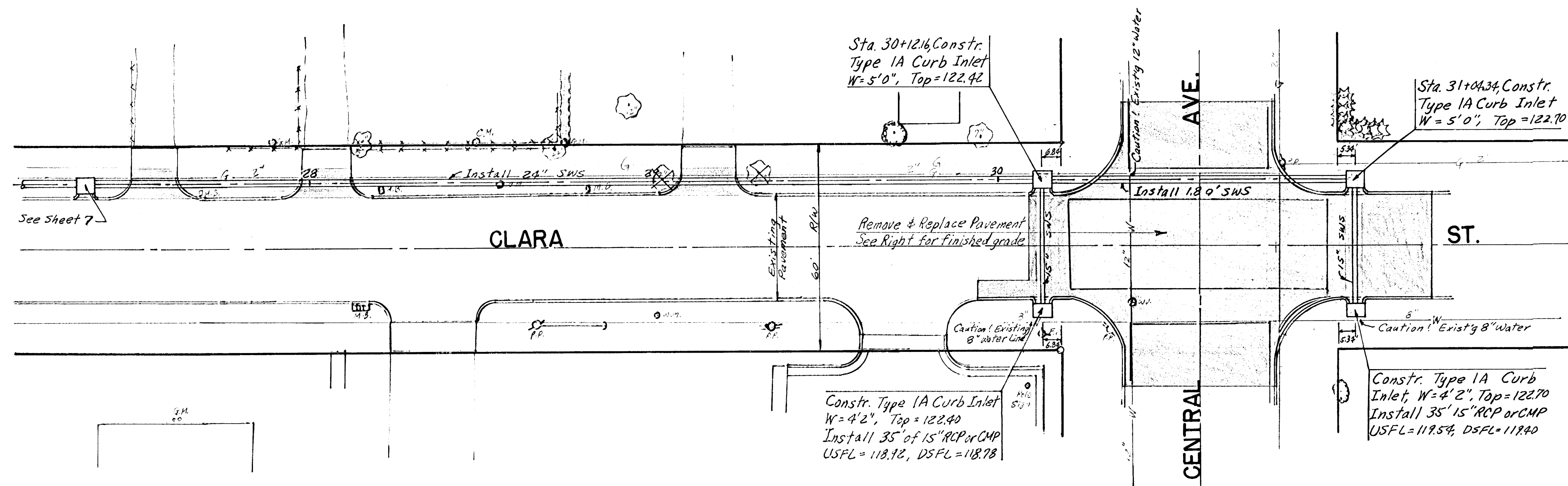


B.M. 125.01 NE Cor. Conc. Porch, Ho #505 Clara
B.M. 123.62 N.E Cor. Conc. Coping, Ho #541 Clara

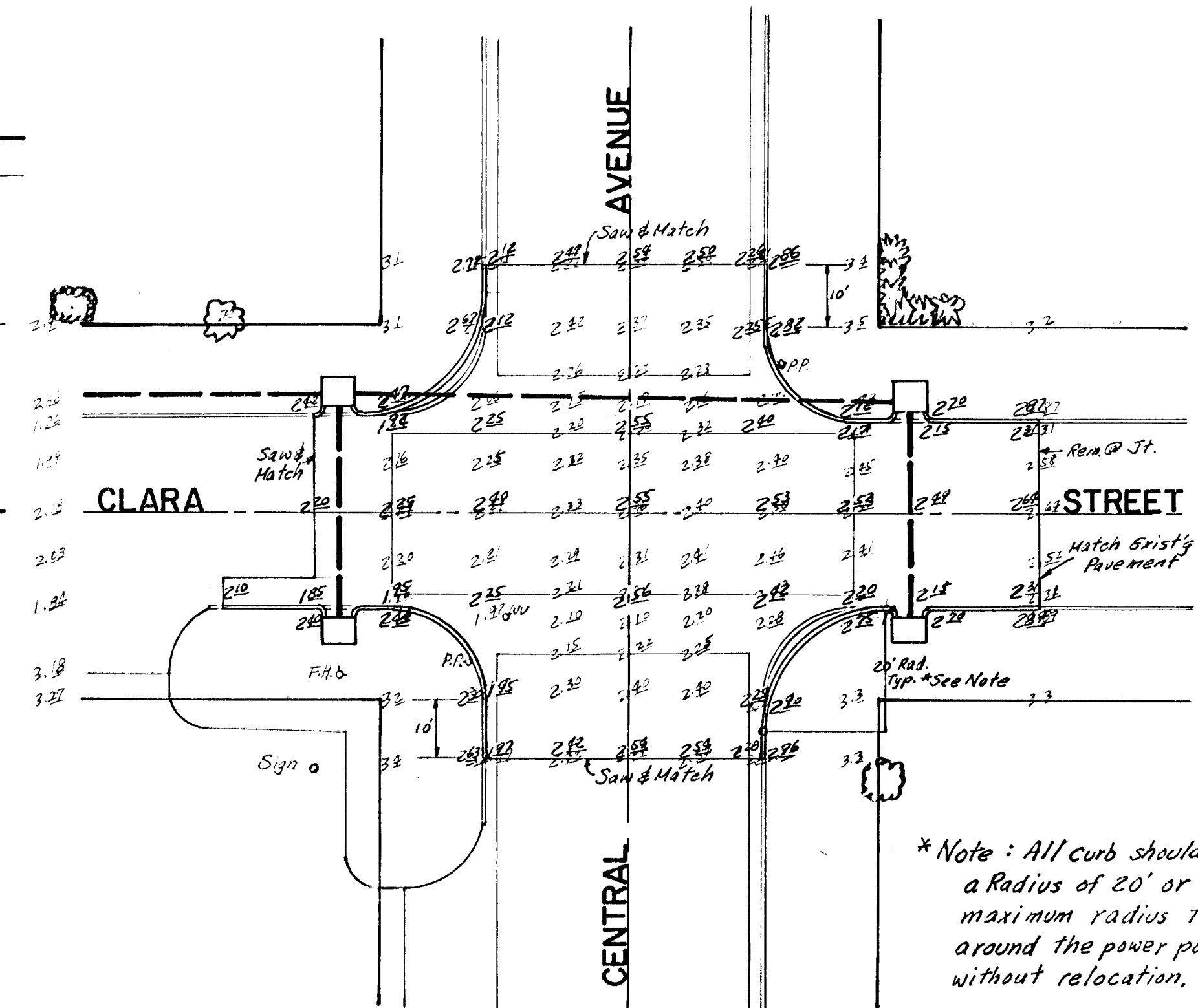


NO. _____	STRUCTURE NOTATIONS ON NO. _____	BY _____	DATE _____	SURVEYED _____
				PLOTTED _____
NO. _____	NOTE BOOK _____	SHADES CHECKED _____	B. MS. NOTED _____	

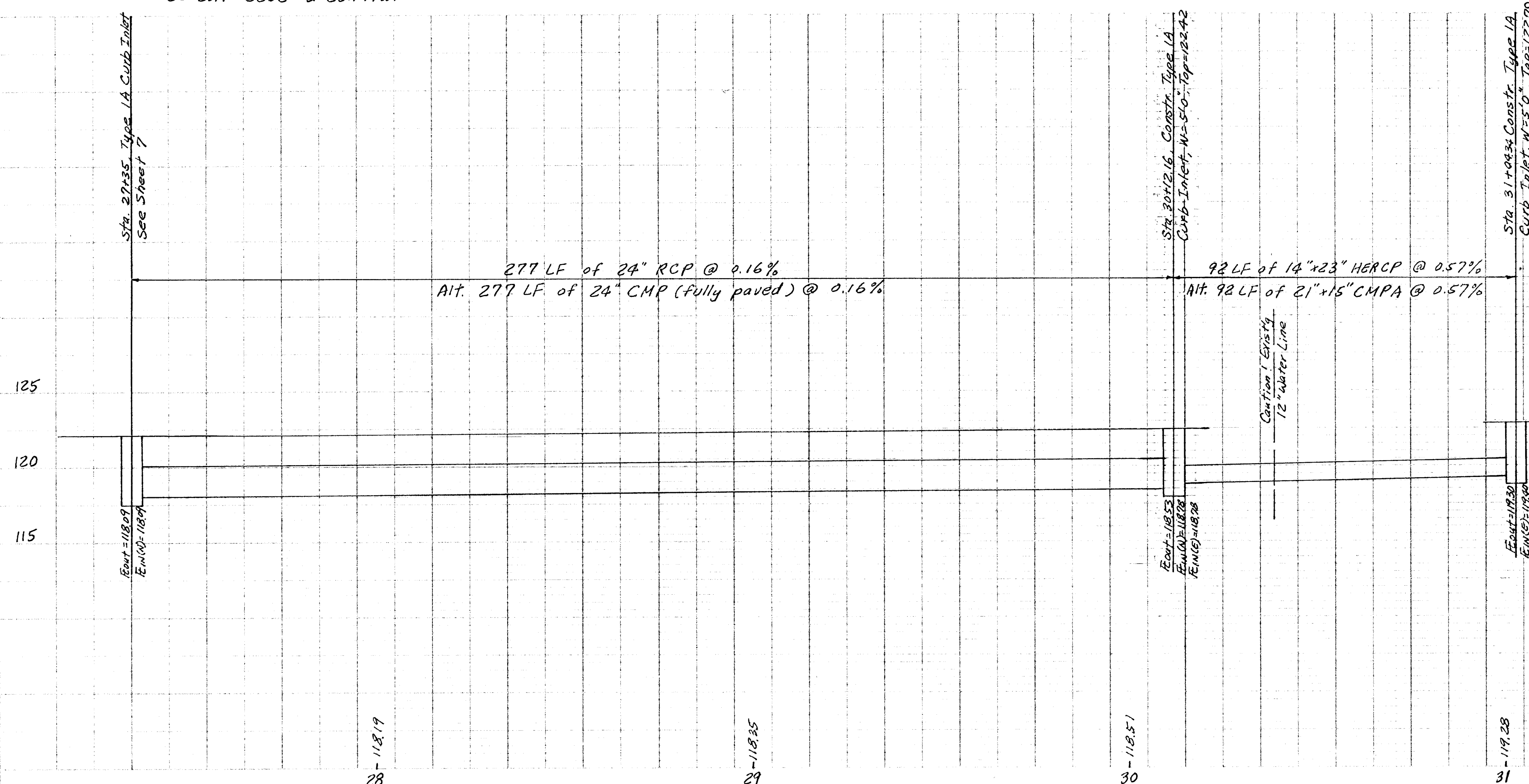




Scale: 1"=20'



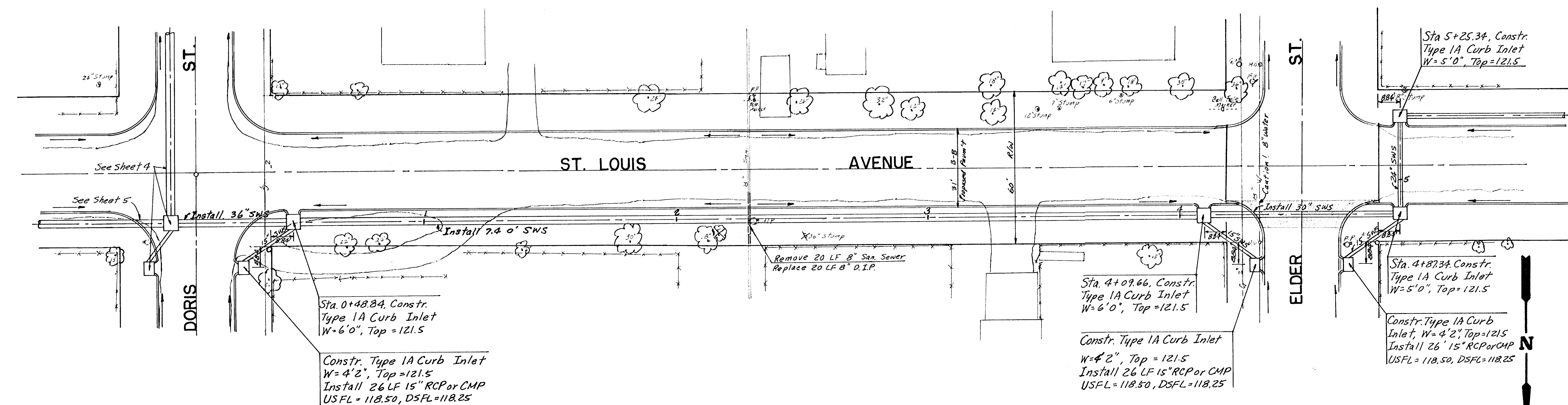
B.M. 125.32 S face Conc. wk. adj. to NW Cor. Quik Trip
4936 W. Central, SE Cor. Central & Clara
B.M. 123.90 Top E-Cb Bebe 2 ft N. of End of Rad.
SE Cor. Bebe & Central



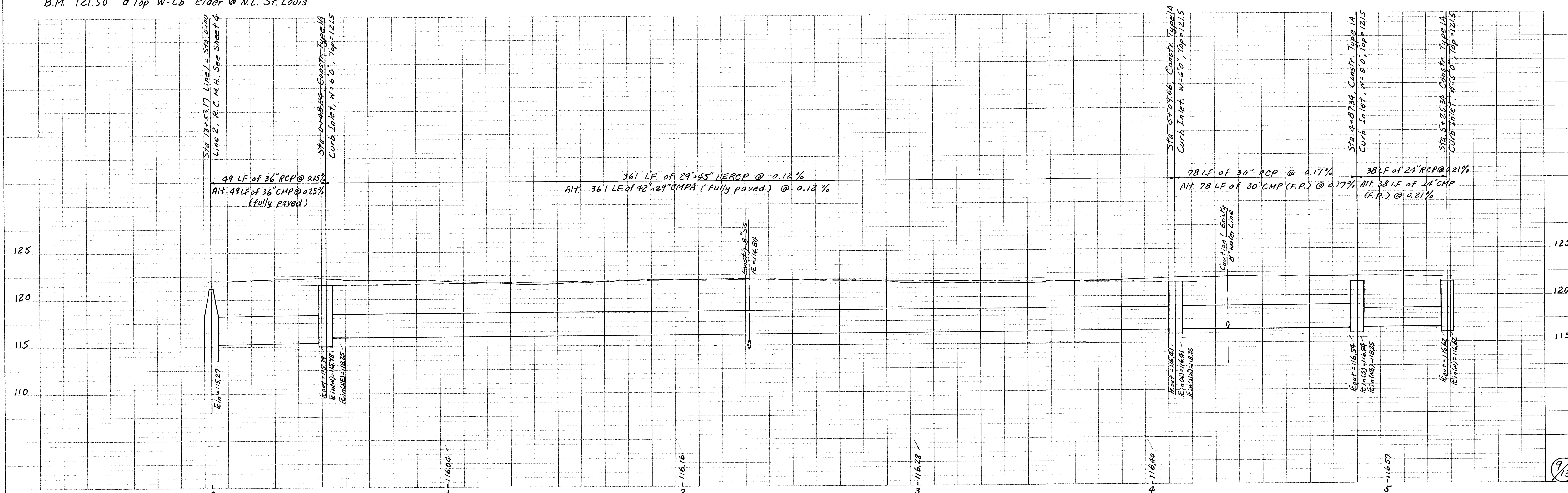
* Note: All curb should have a Radius of 20' or the maximum radius to warp around the power poles without relocation.

PLAN	DATE
REVISIONS	
NOTE BOOK	
ALIGNMENT CHECKED	
STATIONING	
DATE	

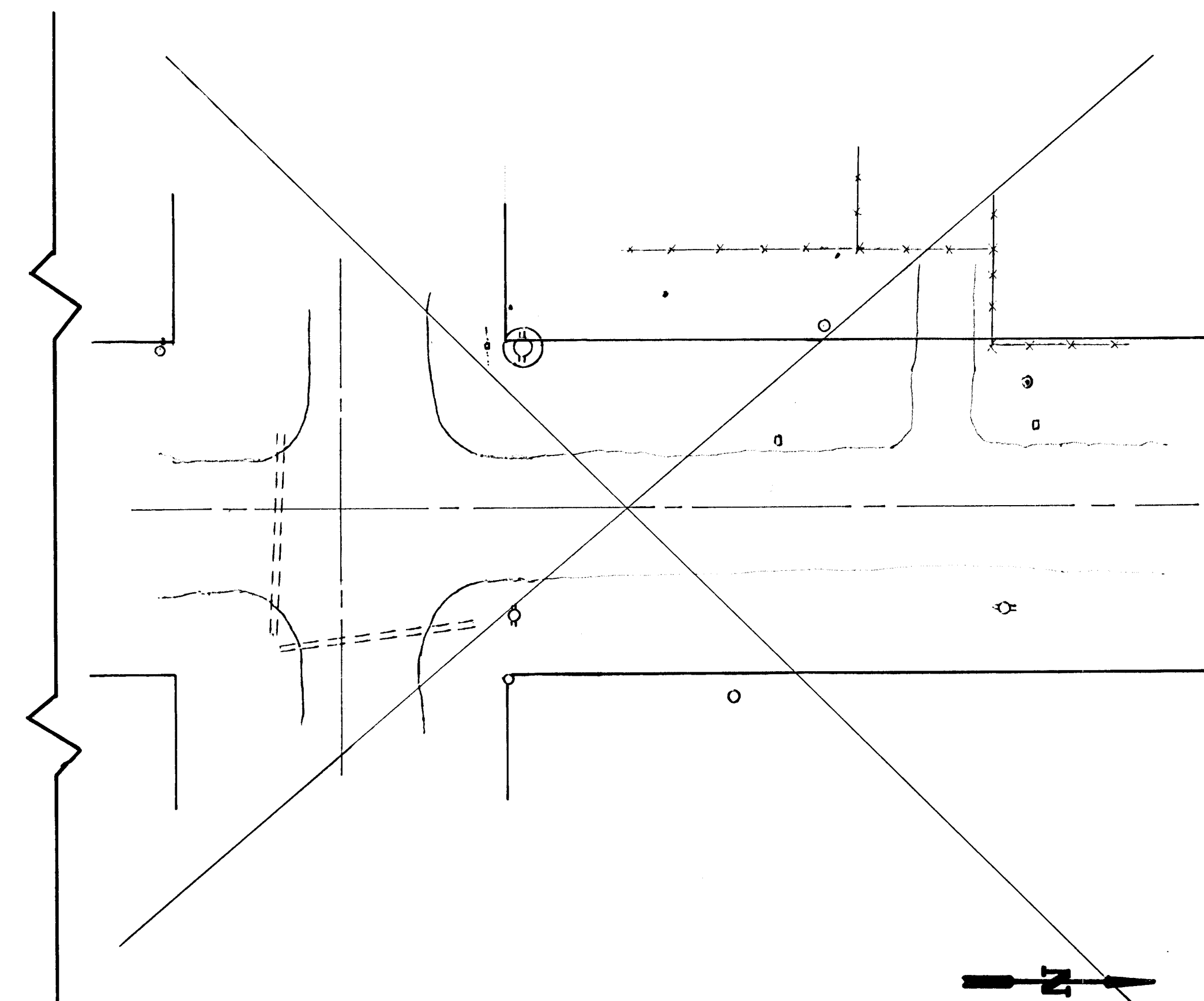
PROFILE	DATE
REVISIONS	
NOTE BOOK	
GRADING CHECKED	
STATIONING	
DATE	



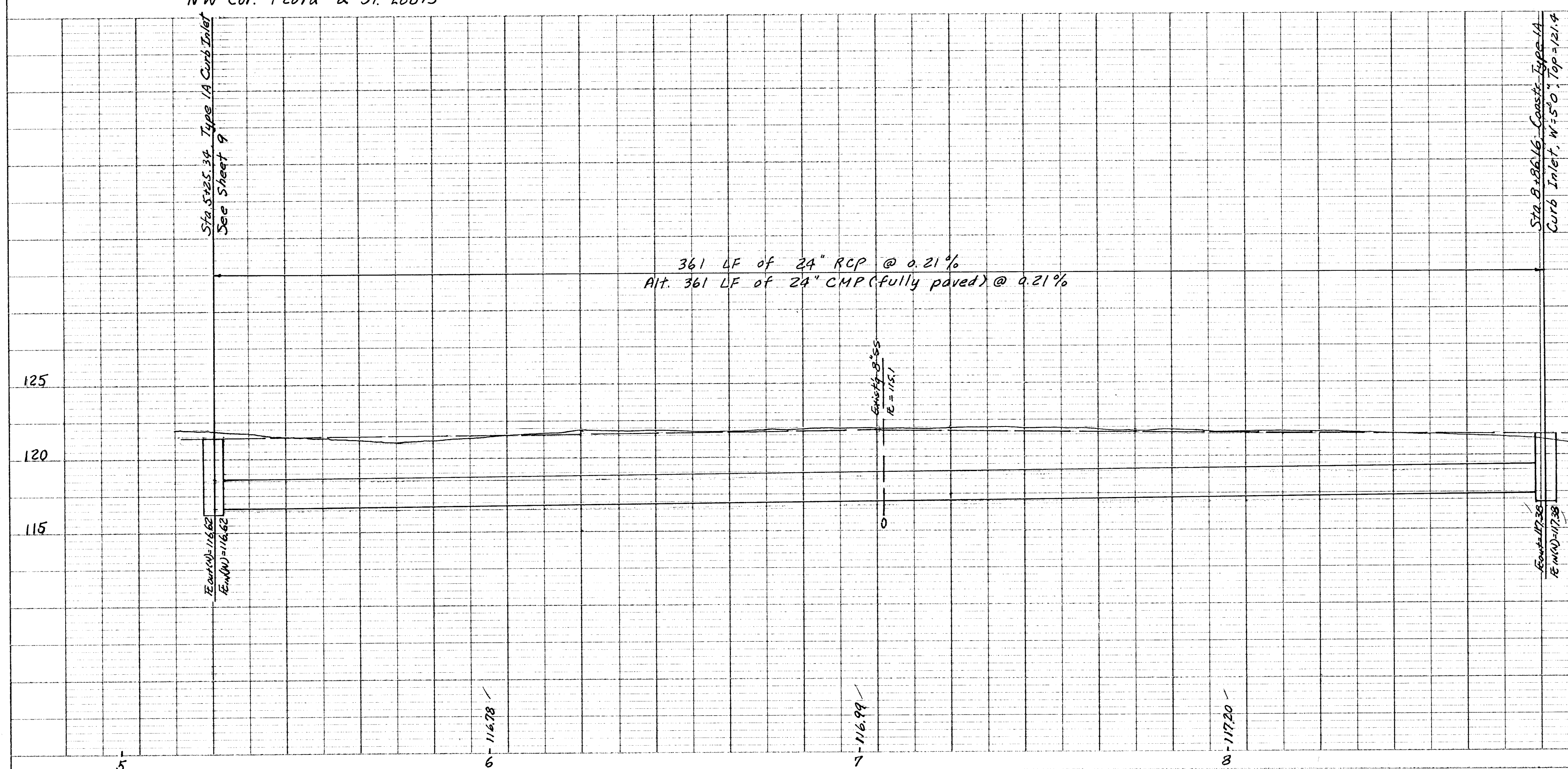
B.M. 122.86 RR Spike W-face Street Light Pole
NE Cor. Doris & St. Louis
B.M. 121.50 a Top W-Cb Elder @ N.L. St. Louis

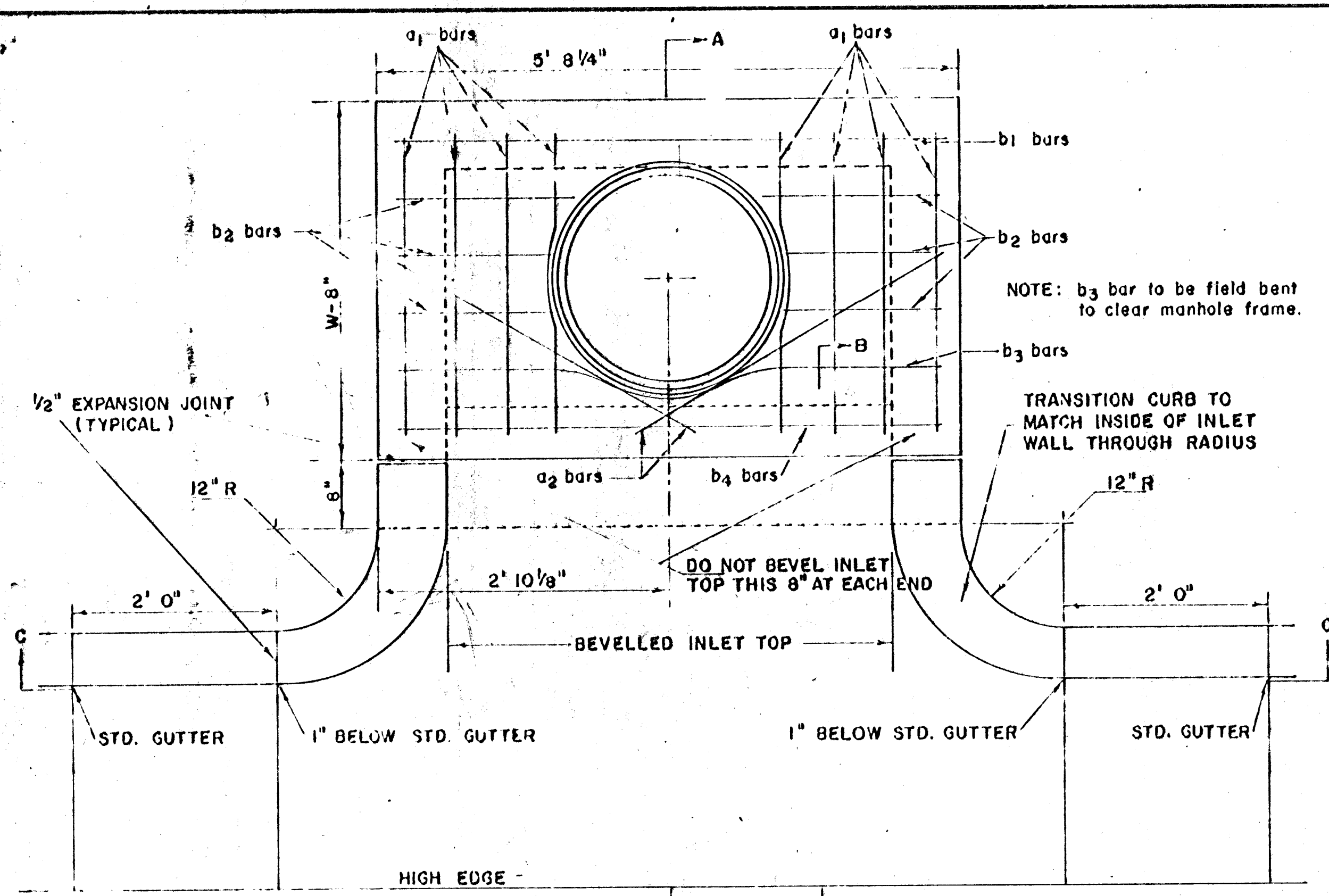


DATE	BY	
		PROFILER
		SUBMITTED
		PLATED
		GRADES CHECKED
		B. MS. NOTED
		NOTE BOOK



Scale: $1'' = 20'$





PLAN (SCALE 1" = 1' 0")

STEEL SCHEDULE

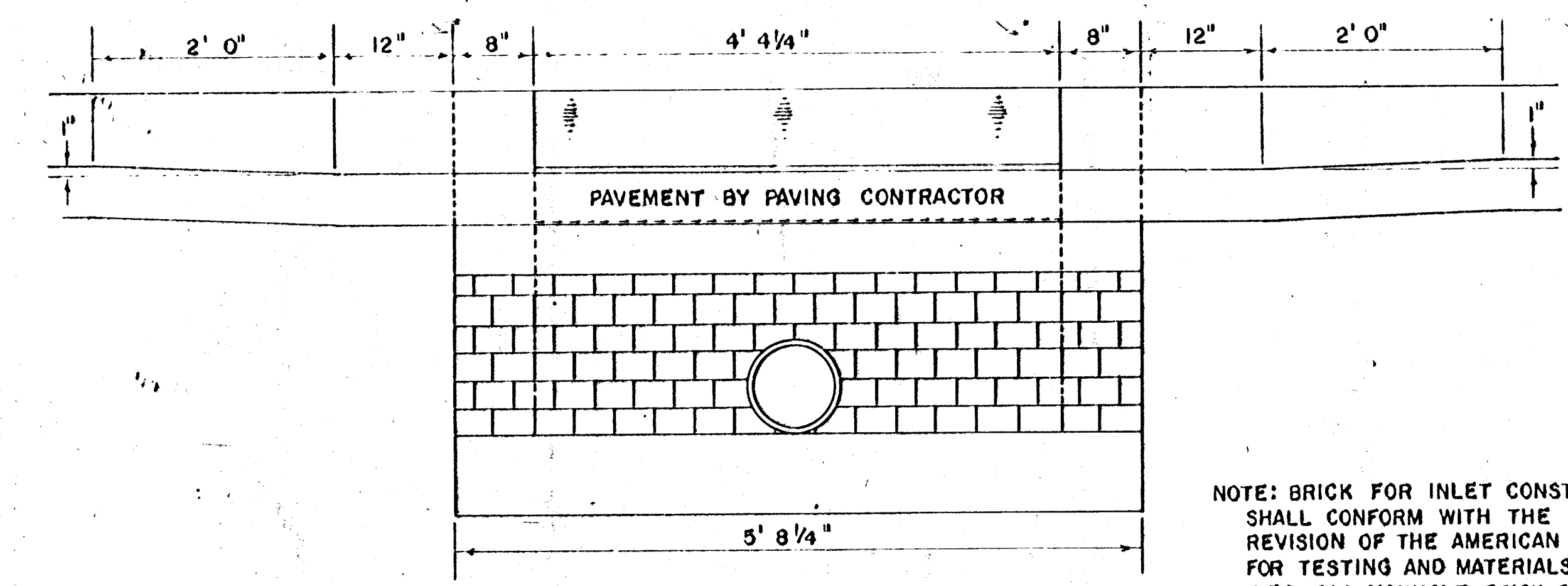
BAR	a ₁	a ₂	b ₁	b ₂	b ₃	b ₄	WT. LBS.
NUMBER	8	2	1	3	5	7	
SIZE	#4	#4	#4	#4	#4	#4	
W=4' 2"	6' 5"	3' 4"	5' 5"	-	-	-	60*
W=5' 0"	8' 1"	4' 4"	5' 5"	-	-	-	77*
W=6' 0"	10' 1"	5' 4"	5' 5"	-	-	-	97*
W=7' 0"	11' 1"	6' 4"	5' 5"	-	-	-	111*
W=8' 0"	12' 1"	7' 4"	5' 5"	-	-	-	124*

* NOTE: a₂ BARS TO BE PLACED APPROX. 2" BELOW TOP OF INLET COVER

STANDARD CURB INLET PRECAST TOPS

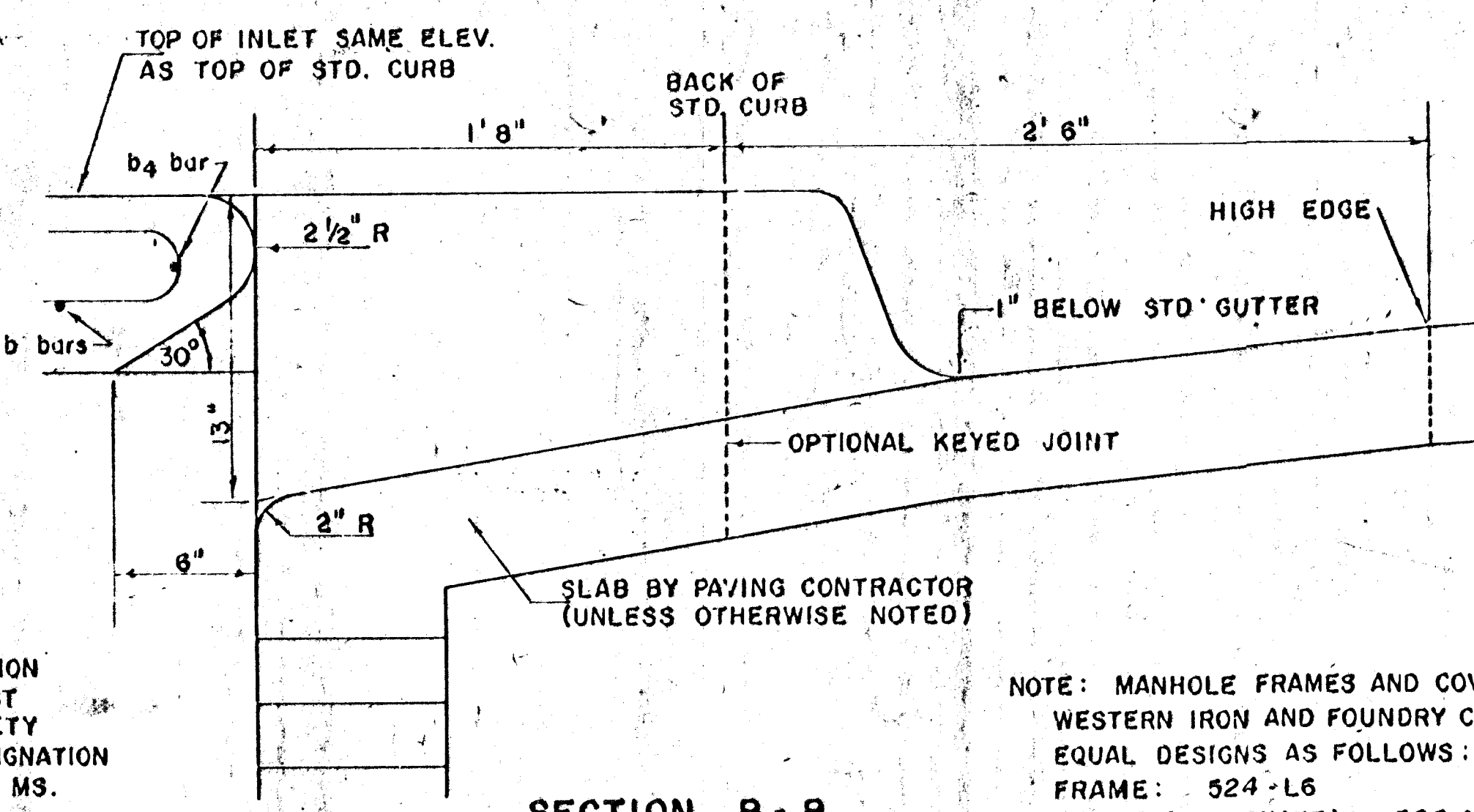
W	PRE-CAST TOP SIZE	PIPE SIZE	CU. YD. CONC.
4' 2"	36" x 5' 8 1/4" x 7 1/2"	21" & SMALLER	0.46 *
5' 0"	44" x 5' 8 1/4" x 7 1/2"	24" & 30"	0.57 *
6' 0"	54" x 5' 8 1/4" x 7 1/2"	36" & 42"	0.71 *
7' 0"	64" x 5' 8 1/4" x 7 1/2"	48" & 54"	0.84 *
8' 0"	74" x 5' 8 1/4" x 7 1/2"	60" & 66"	0.97 *

* GROSS VOLUME



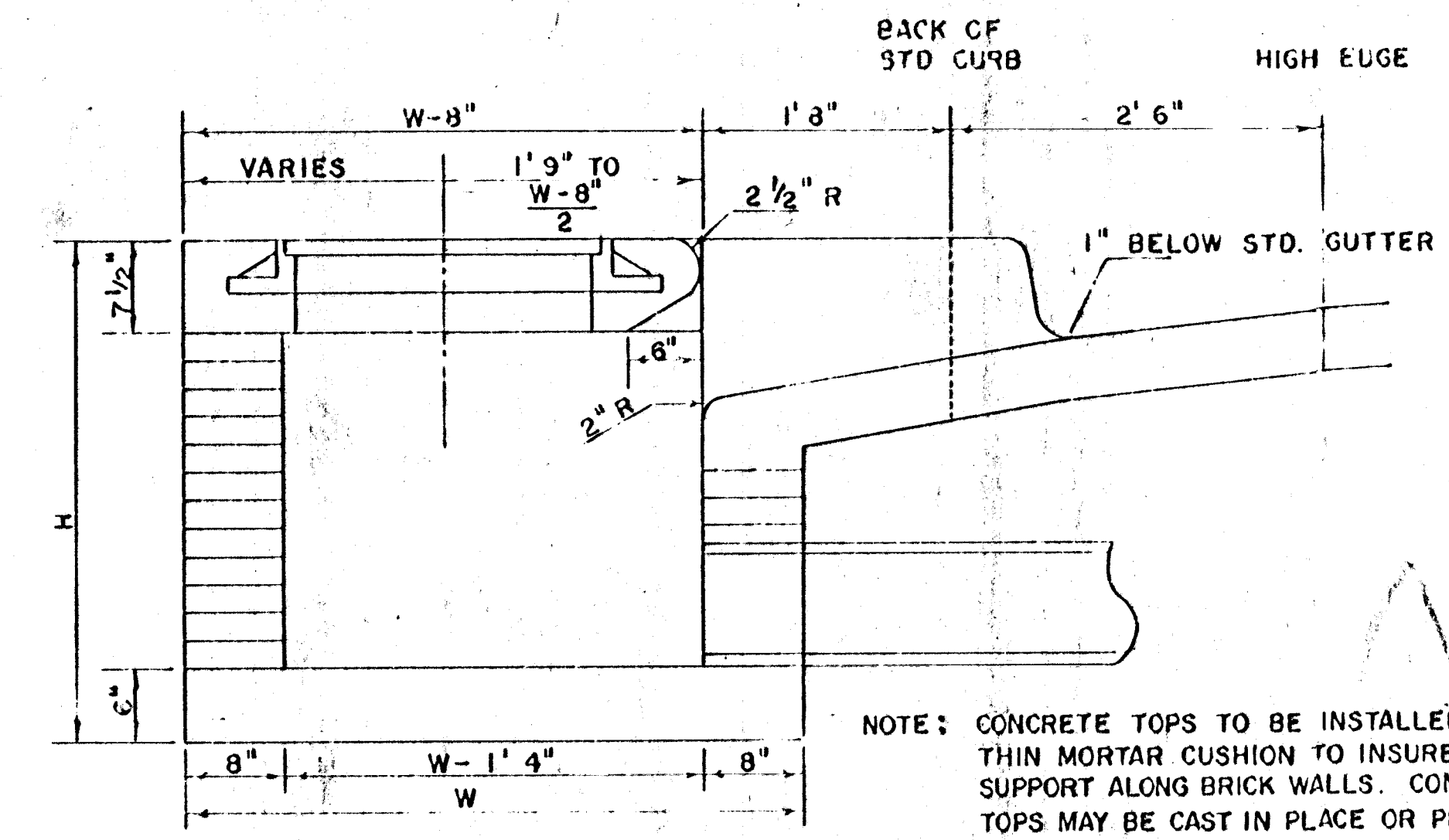
SECTION C - C
(SCALE 1" = 1' 0")

NOTE: BRICK FOR INLET CONSTRUCTION SHALL CONFORM WITH THE LATEST REVISION OF THE AMERICAN SOCIETY FOR TESTING AND MATERIALS DESIGNATION C-32 FOR MANHOLE BRICK GRADE MS.

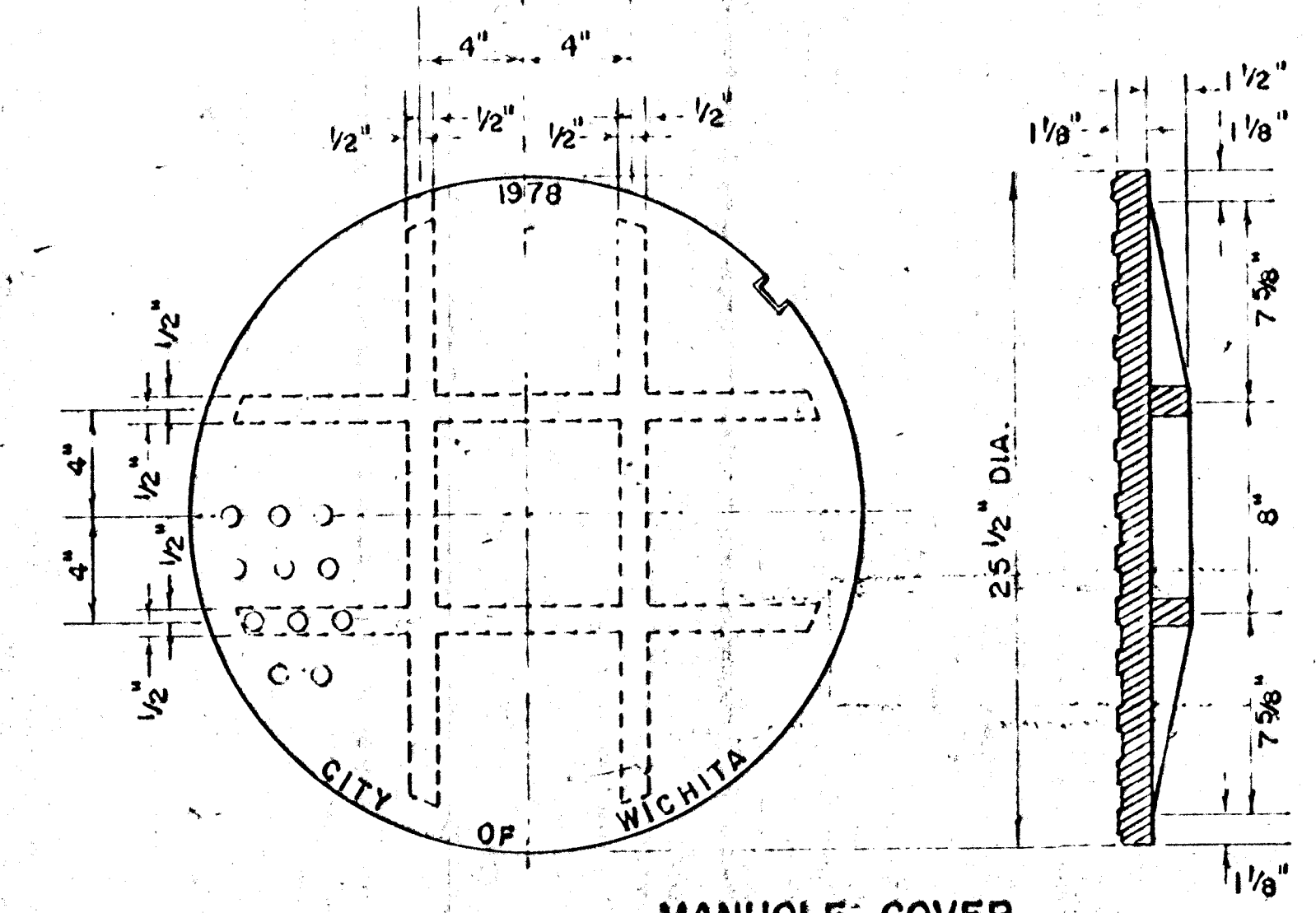


SECTION B - B
(SCALE 1" = 6")

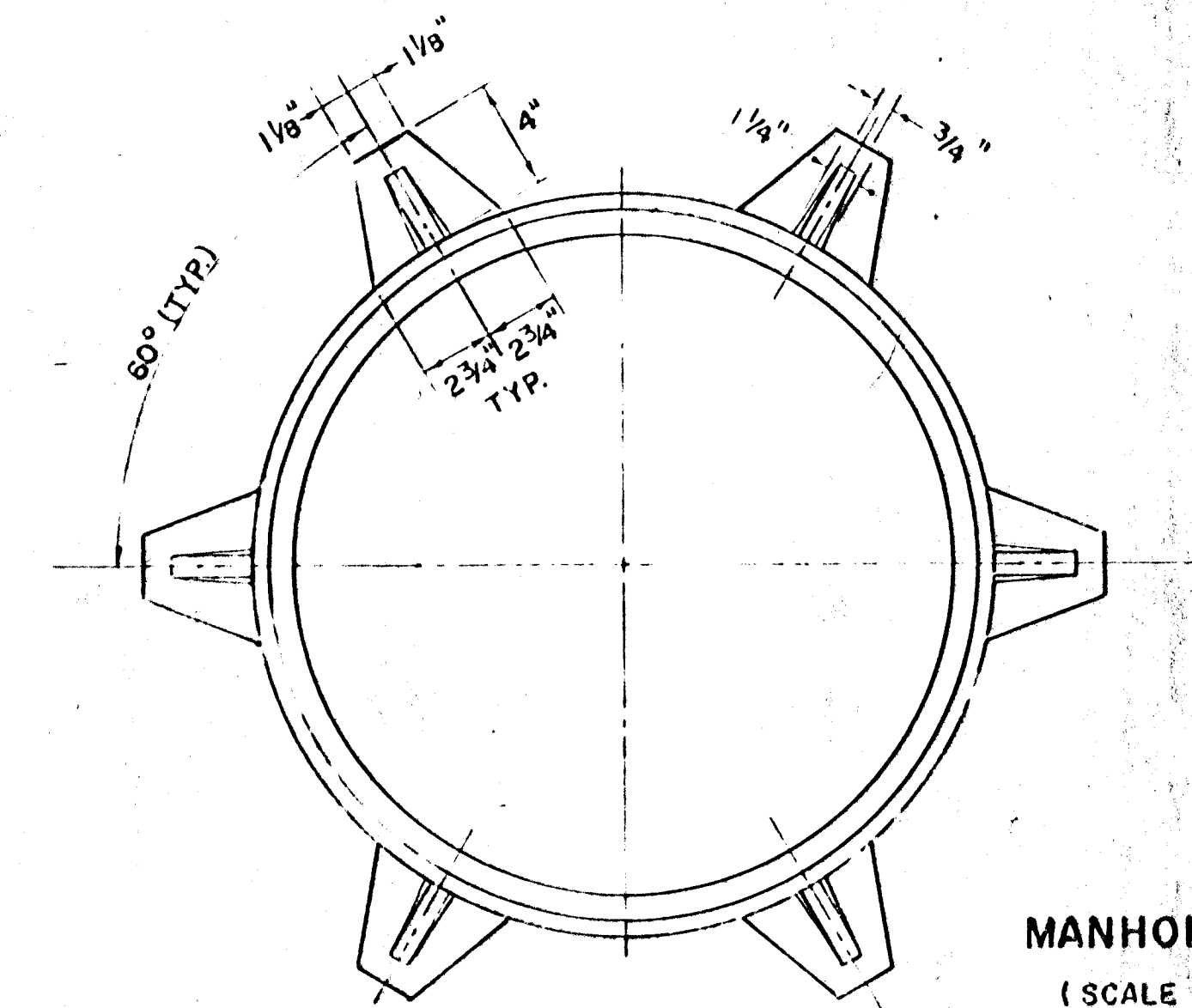
NOTE: MANHOLE FRAMES AND COVER ARE WESTERN IRON AND FOUNDRY CO. INC. OR EQUAL DESIGNS AS FOLLOWS:
FRAME: 524-L6
FRAME (ALTERNATE): 500 A4
COVER: 222 S4 "NOBBY"



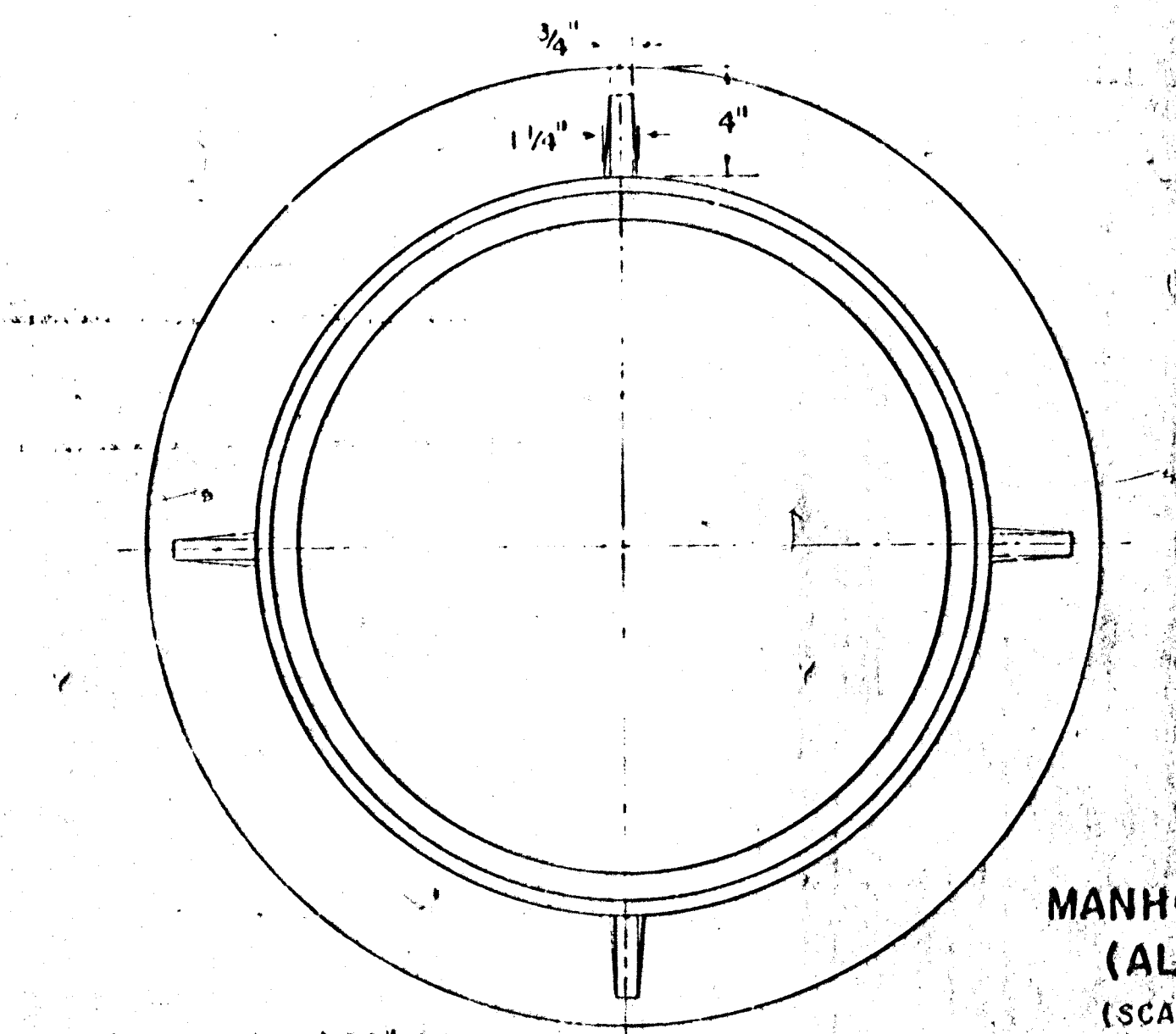
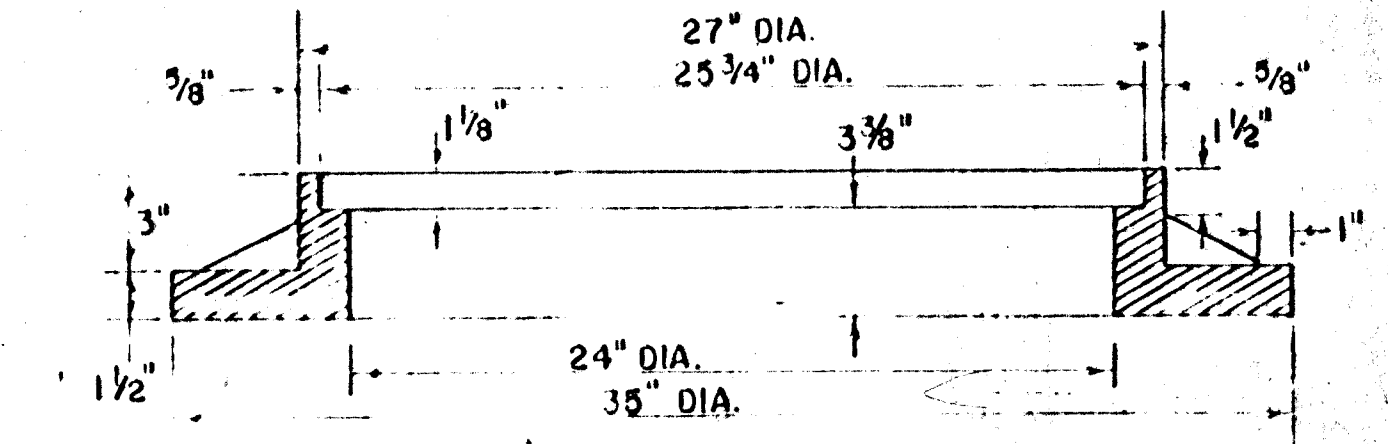
SECTION A - A
(SCALE 1" = 1' 0")



MANHOLE COVER
(SCALE 1" = 6")
WEIGHT = 170 LBS.

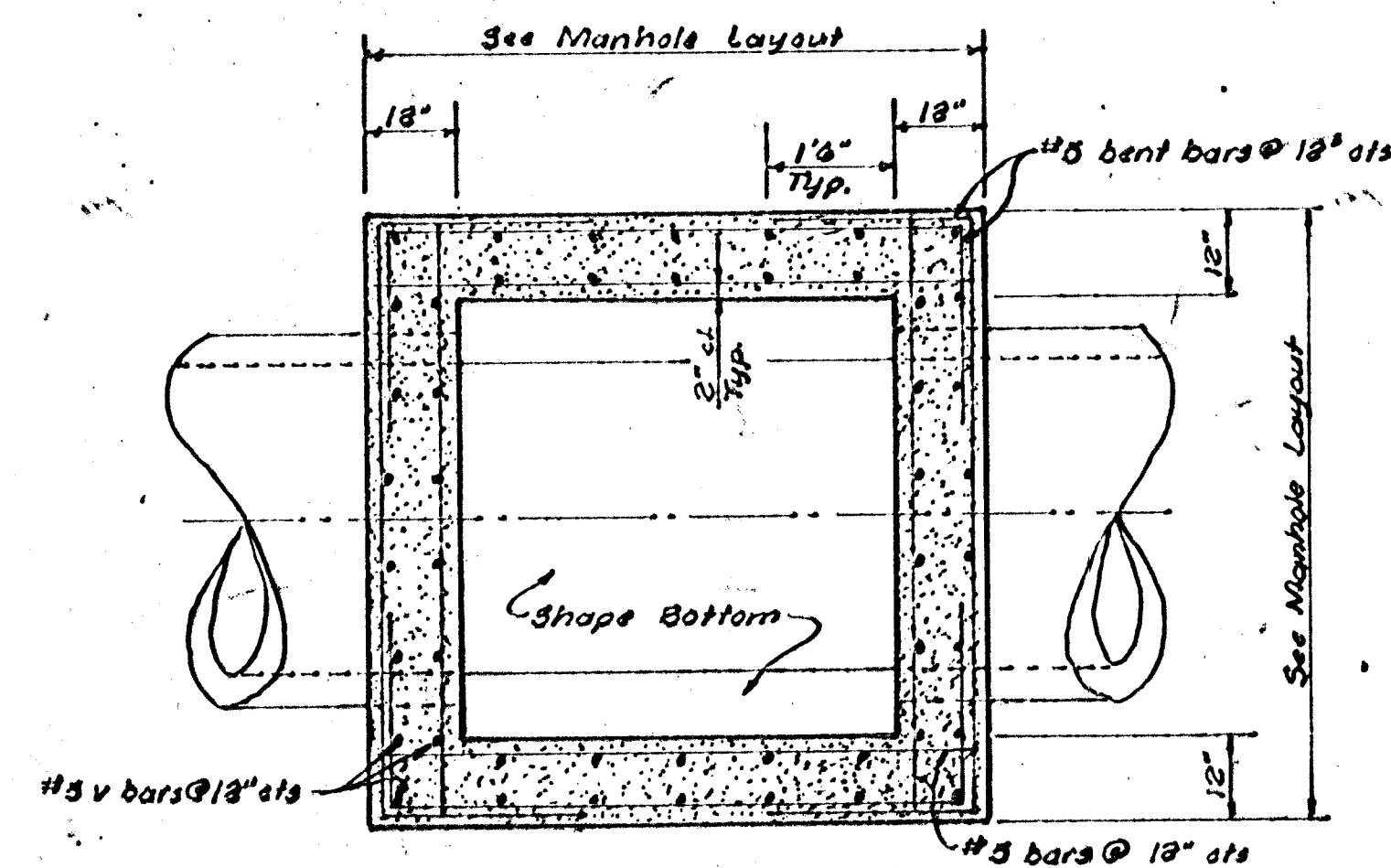


MANHOLE FRAME
(SCALE 1" = 6")
WEIGHT = 180 LBS.

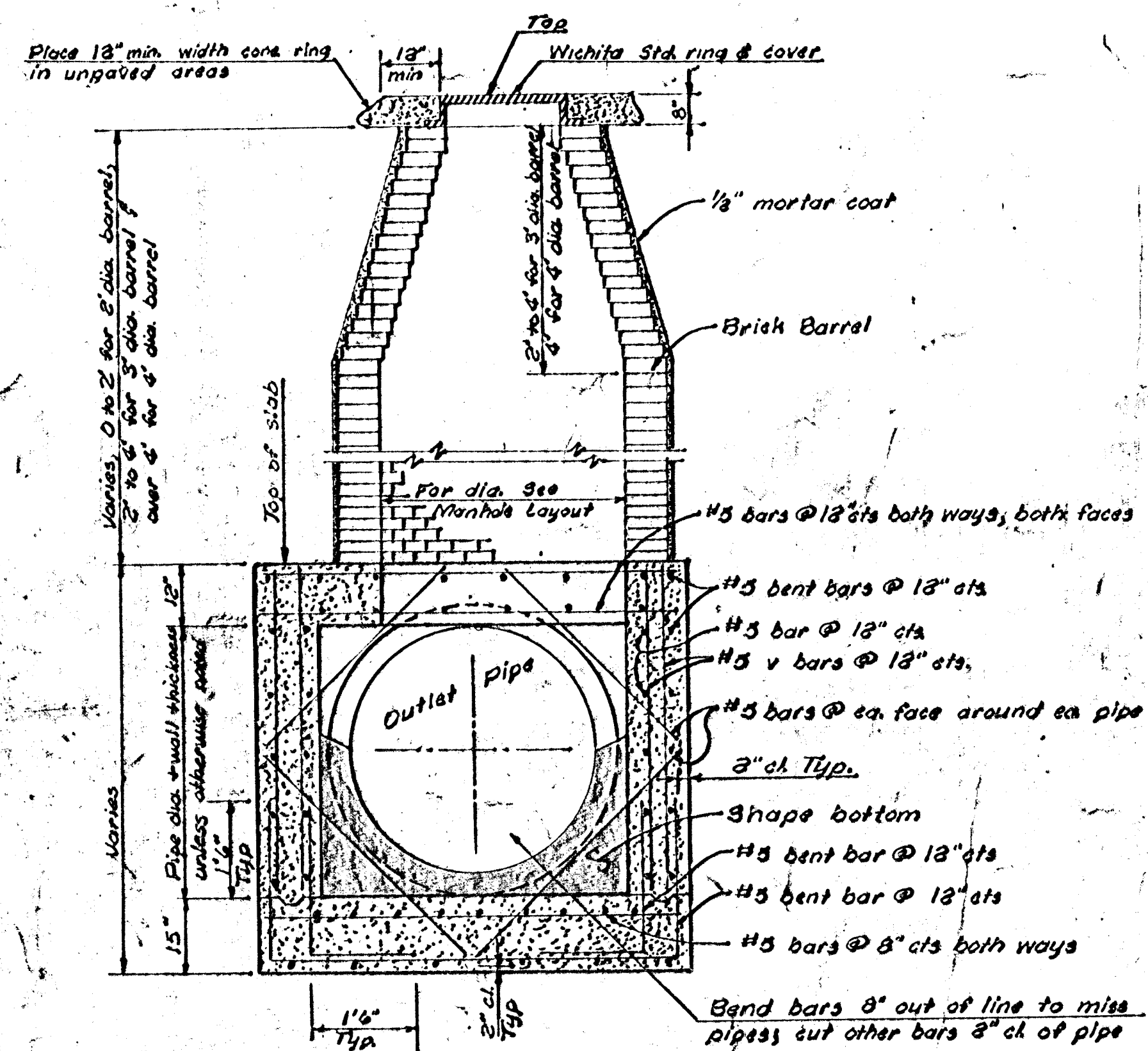


MANHOLE FRAME (ALTERNATE)
(SCALE 1" = 6")
WEIGHT = 180 LBS.

DETAIL STANDARD TYPE IA CURB INLET
CITY OF WICHITA, KANSAS
R. W. LINN - CITY ENGINEER
OCTOBER 1978



PLAN SECTION THRU WALLS
SCALE: 1/8" = 1'-0"



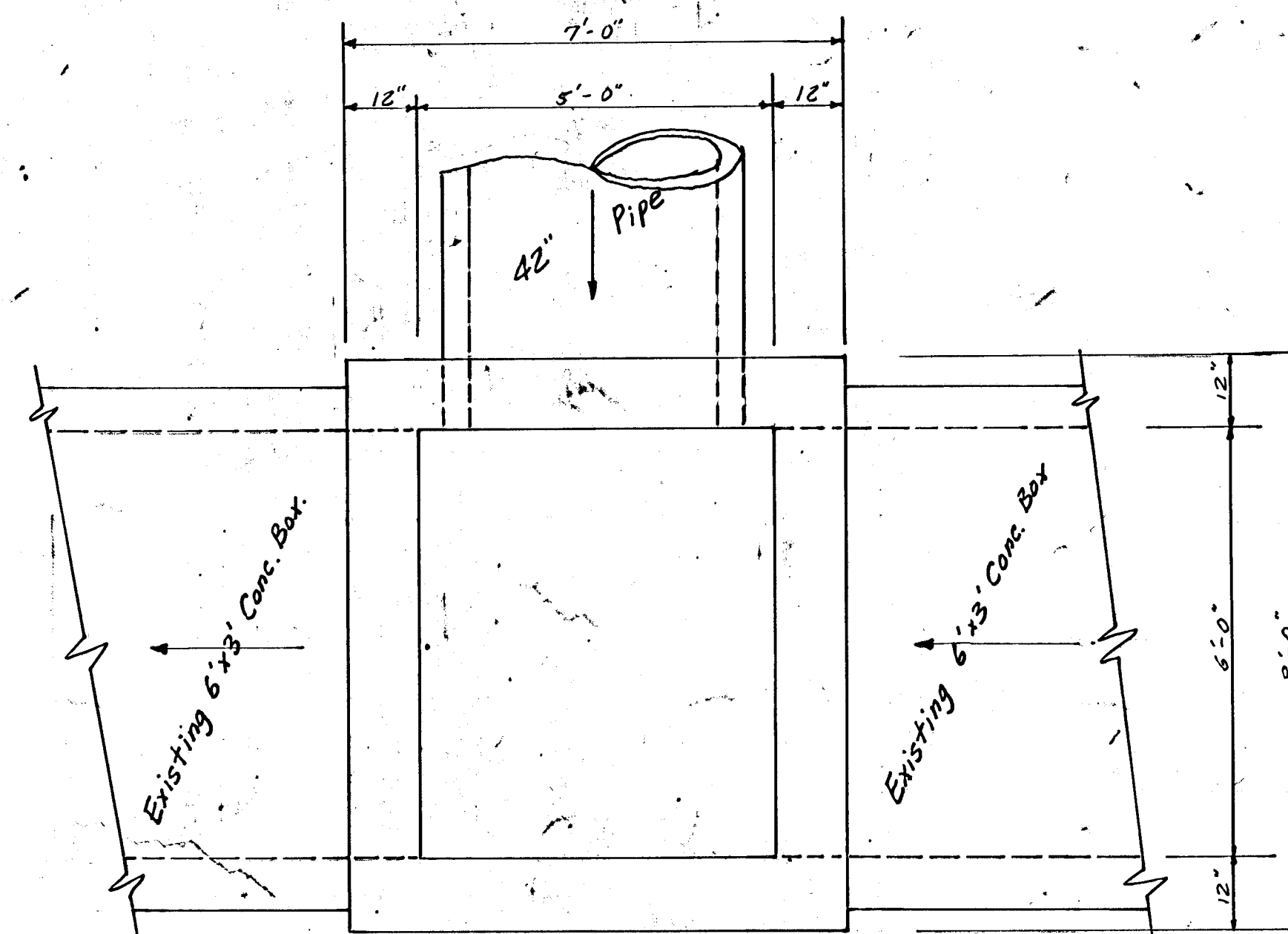
TYPICAL ELEVATION SECTION
SCALE: 1/8" = 1'-0"

STD. REINF. CONC. MANHOLE DETAILS

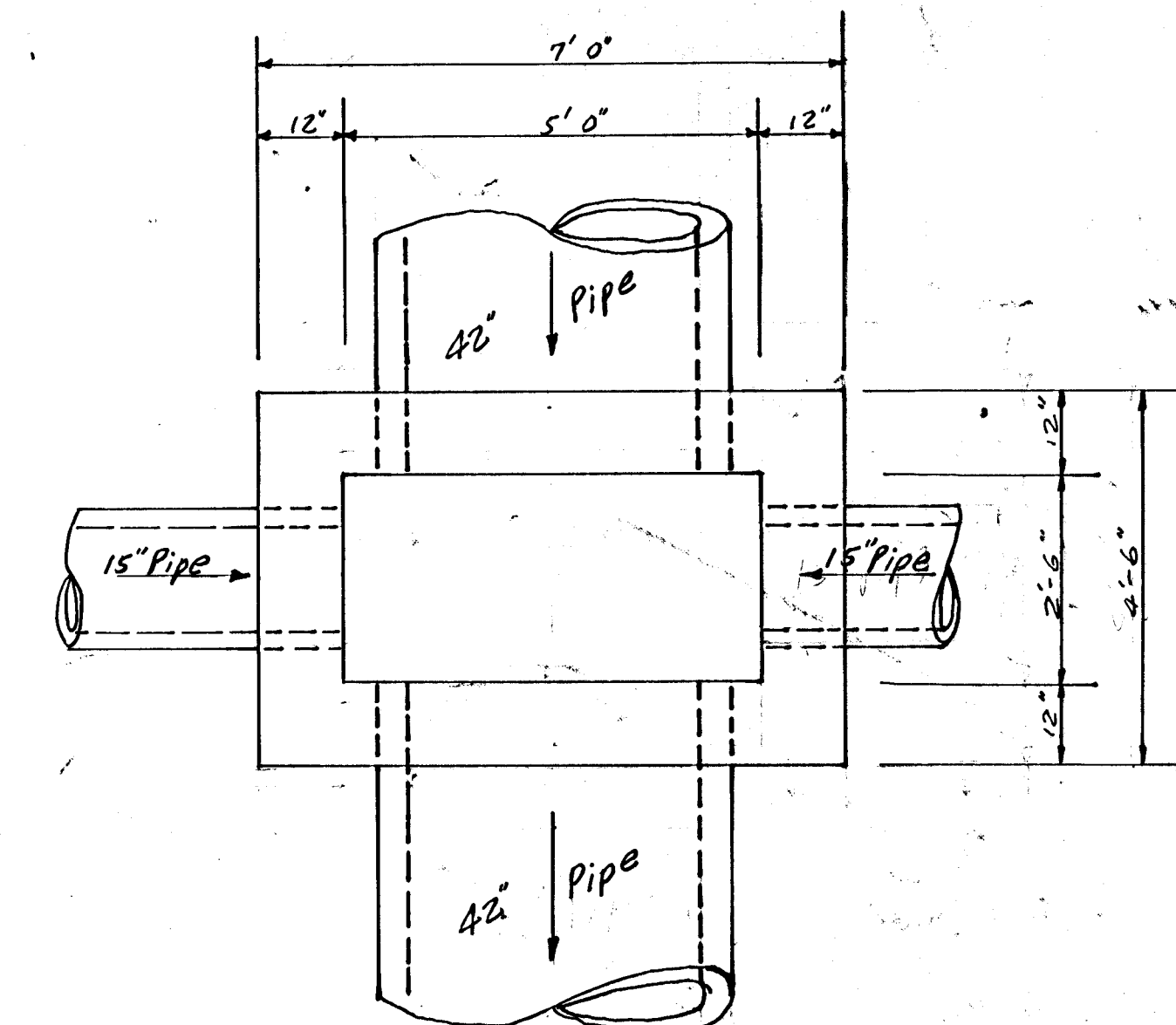
NOTE: ALL STD. REINF. CONCRETE MANHOLES TO BE AS SHOWN ABOVE AND TO BE BID AT ONE UNIT PRICE PER MANHOLE FOR ALL SUCH MANHOLES WITHIN THE PROJECT.

ALL STD. REINF. CONCRETE MANHOLES TYPE "B" TO HAVE BRICK BARRELS SAME AS FOR WICHITA STD. MANHOLE TYPE "B" MODIFIED IN DIAMETER AS SHOWN ABOVE. THE PAY FOR SUCH MANHOLE TO BE AT ONE UNIT PRICE PER MANHOLE AS BID FOR STD. REINF. CONCRETE MANHOLE TYPE "B".

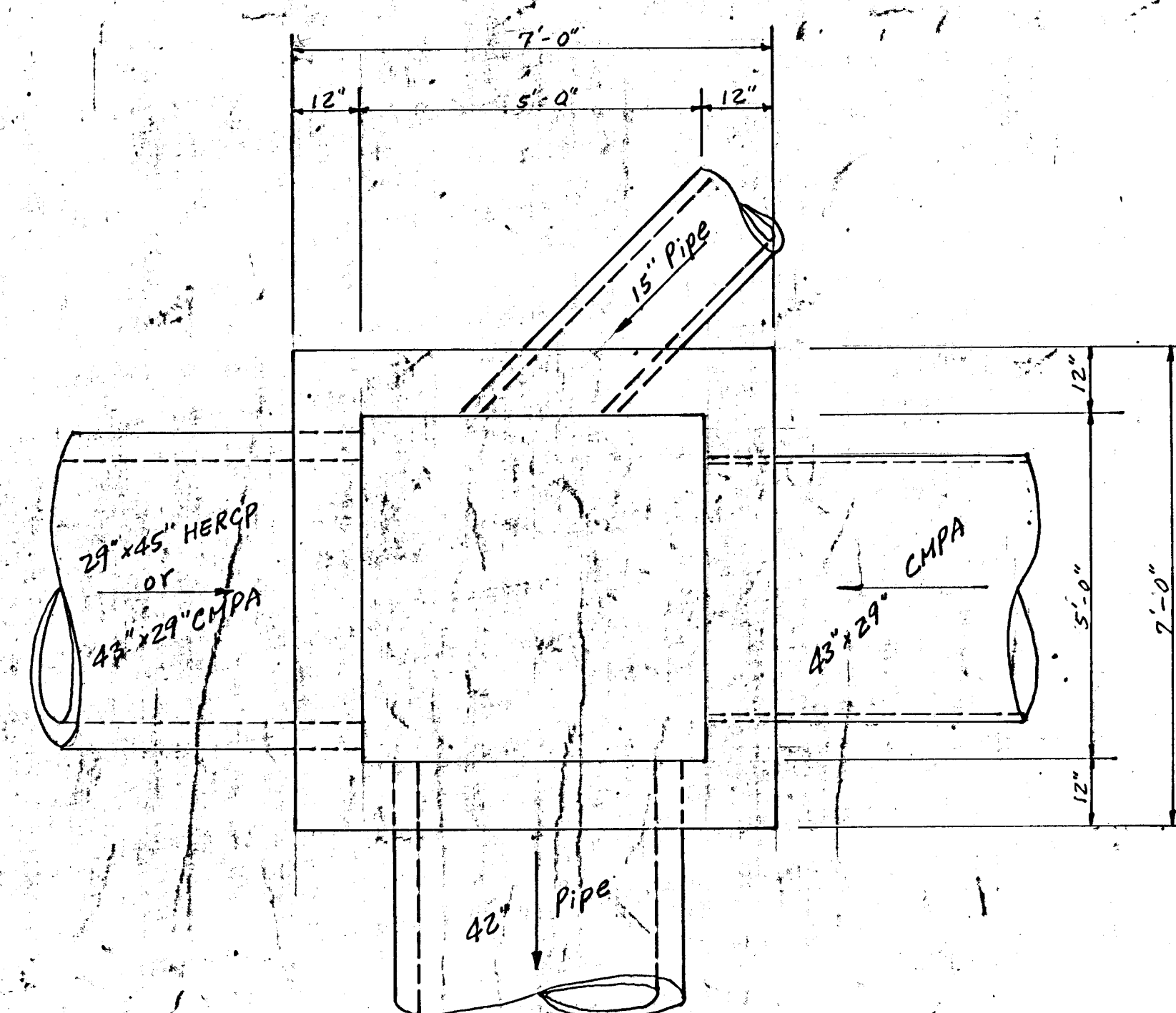
AT THE OPTION OF THE CONTRACTOR, THE REINF. CONCRETE PORTION OF THE MANHOLE MAY BE INCREASED IN HEIGHT UP TO A MAXIMUM OF 12" BELOW THE BOTTOM OF THE RING & COVER. THE BARREL DIAMETER SHALL BE PROPERLY ADJUSTED FOR SUCH ALTERATION IN ACCORDANCE WITH BARREL HEIGHT AS SHOWN ABOVE.



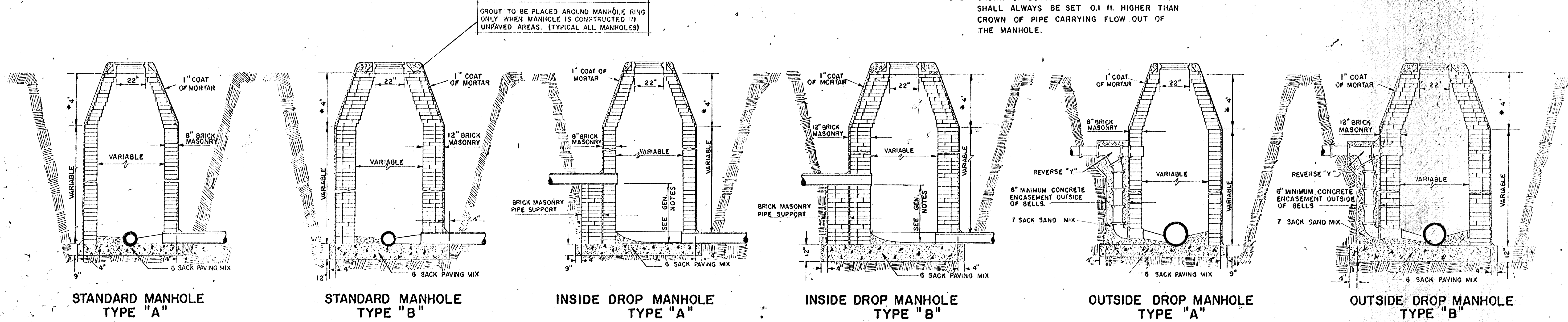
Manhole Layout : Doris & 2nd



Manhole Layout : Doris & 3rd



Manhole Layout : Doris & St. Louis



NOTE: CROWN OF BOTTOM PIPE ON OUTSIDE DROP SHALL ALWAYS BE SET 0.1 ft. HIGHER THAN CROWN OF PIPE CARRYING FLOW OUT OF THE MANHOLE.

STANDARD MANHOLE TYPE "A"

STANDARD MANHOLE TYPE "B"

INSIDE DROP MANHOLE TYPE "A"

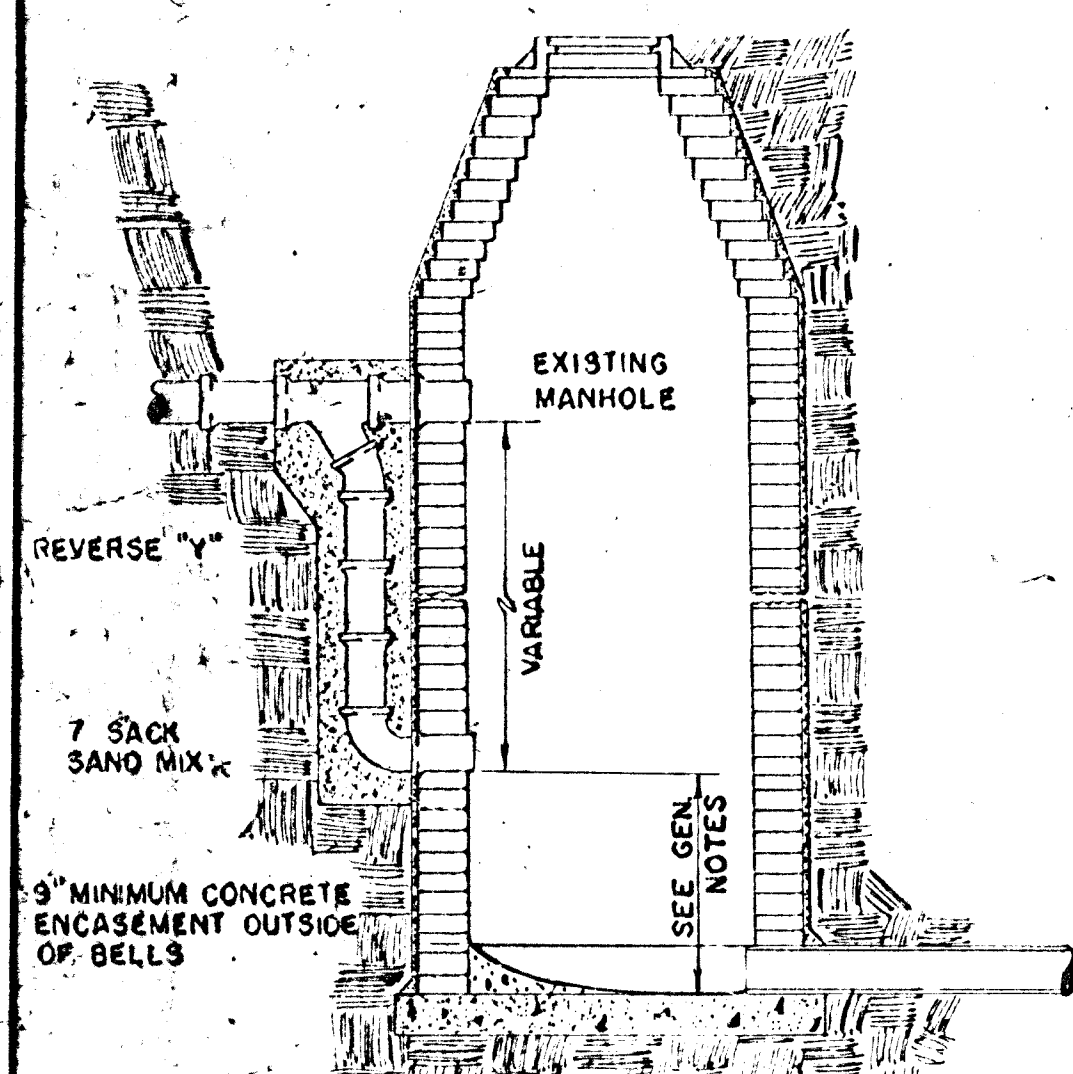
INSIDE DROP MANHOLE TYPE "B"

OUTSIDE DROP MANHOLE TYPE "A"

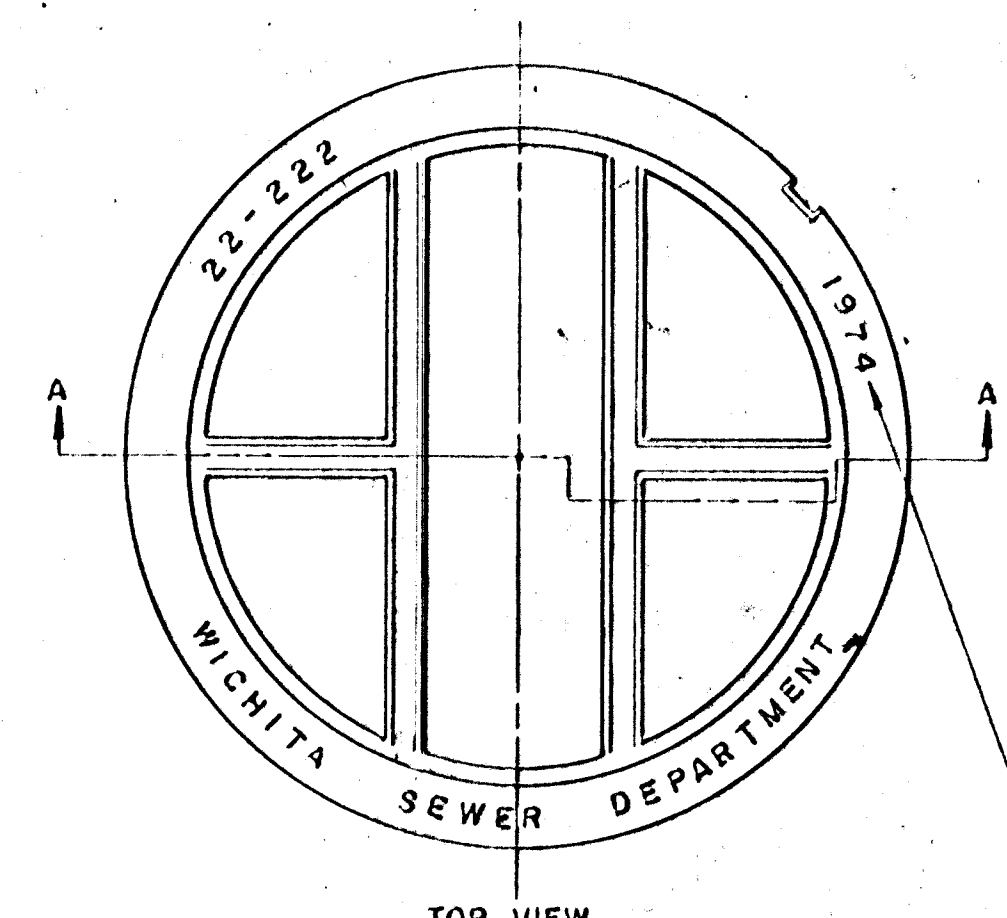
OUTSIDE DROP MANHOLE TYPE "B"

* DRAW = 6' ON 5' DIA. M.H.

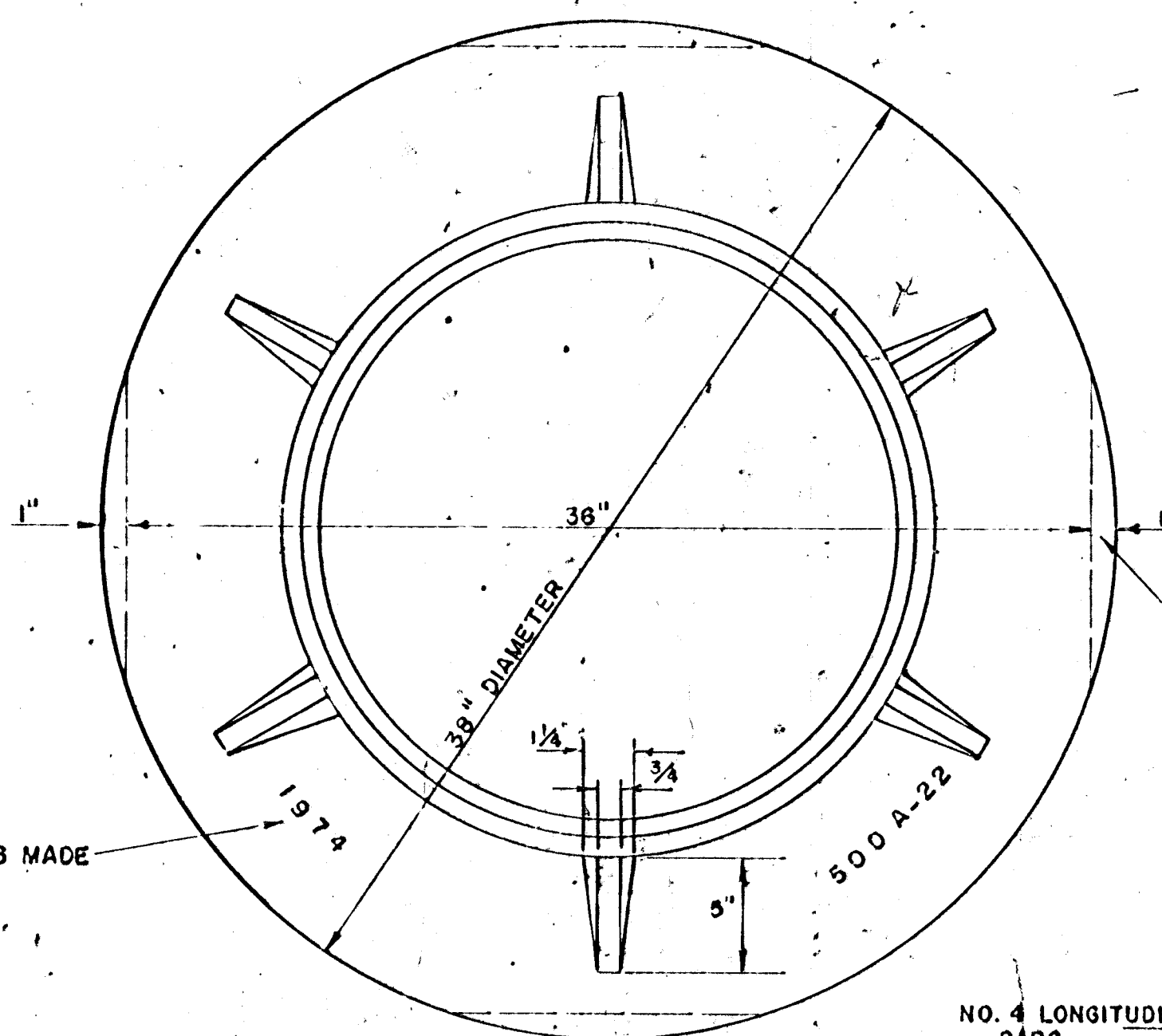
NOTE: REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASES 8" ABOVE THE BOTTOM. REINFORCING STEEL SHALL CONSIST OF NO. 4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. THE COST OF REINFORCING STEEL IS TO BE INCLUDED IN THE PRICE BID FOR THE MANHOLE.



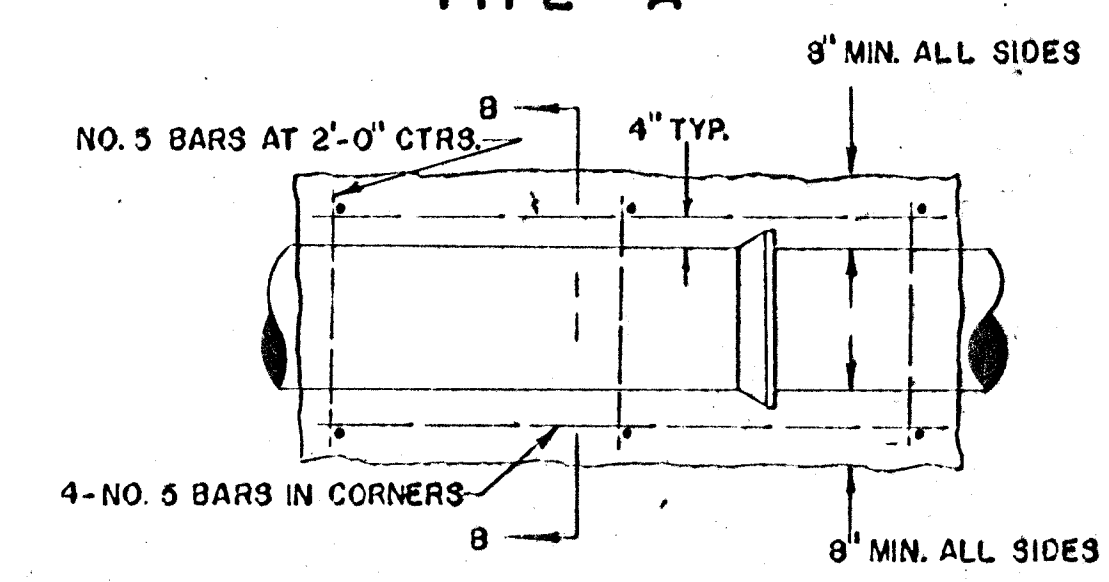
DETAIL OF OUTSIDE DROP STACK
CONSTRUCTED ON EXISTING MANHOLE (USE ONLY WHEN NO OTHER PIPE ARE FLOWING INTO MANHOLE)



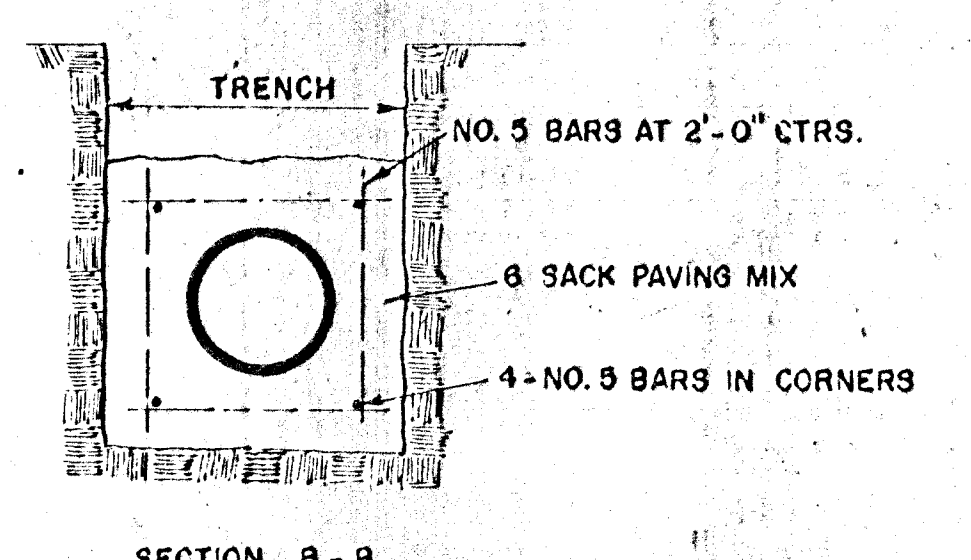
TOP VIEW
MANHOLE COVER
WEIGHT 110 LBS.



TOP VIEW
MANHOLE RING
WEIGHT 325 LBS. RING NO. 500A
WEIGHT 800 LBS. RING NO. 500AS



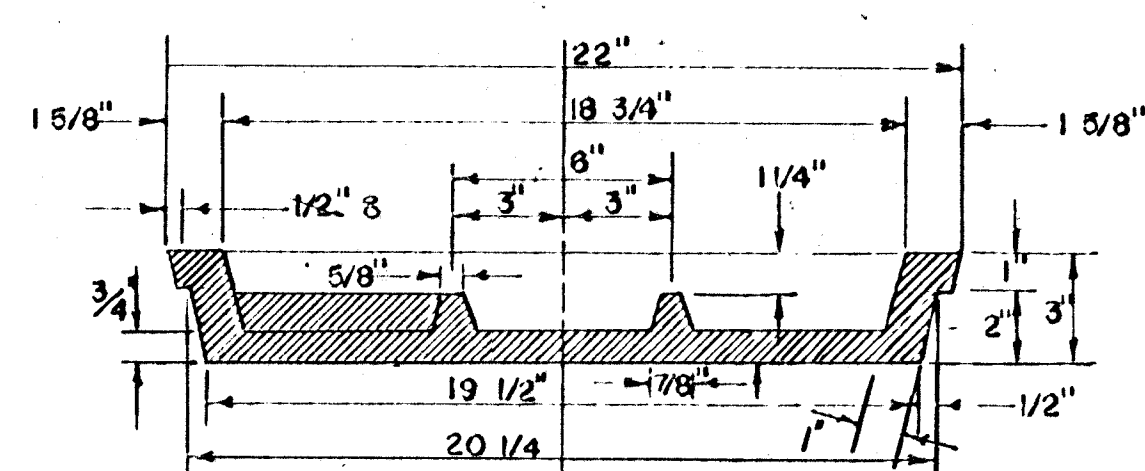
REINFORCED CONCRETE ENCASEMENT



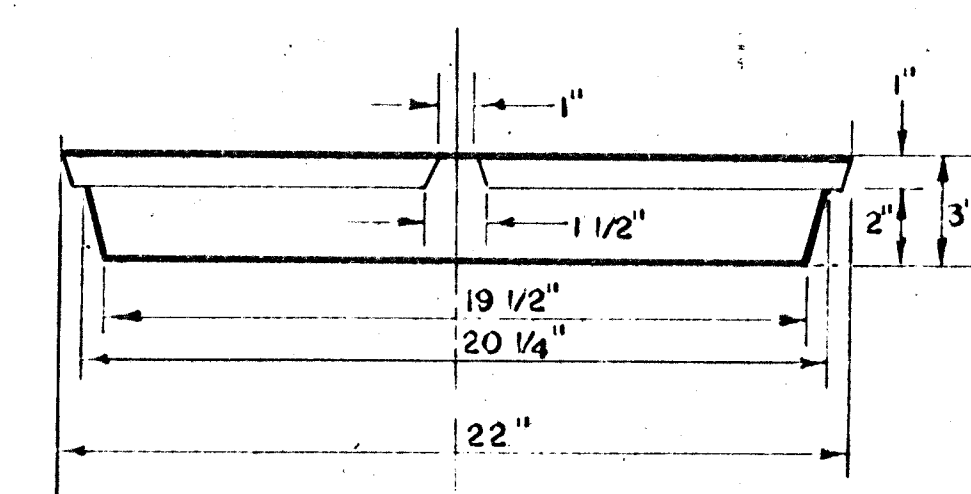
ORDINARY BEDDING METHOD
STORM SEWER PIPE

GENERAL NOTES

- MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 SACKS OF CEMENT PER CUBIC YARD.
- STANDARD MANHOLES TYPE "A" OR TYPE "B" AND STANDARD INSIDE DROP MANHOLES TYPE "A" OR TYPE "B" SHALL BE BID AS STANDARD MANHOLES FOR THE TYPE AND DIAMETER INDICATED.
- OUTSIDE DROP MANHOLES SHALL BE BID AS STANDARD OUTSIDE DROP MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE.
- MANHOLES WITH PIPE SIZES LARGER THAN 24" SHALL BE 5' DIAMETER.
- THE FLOORS OF ALL MANHOLES SHALL BE SHAPED TO INCREASE HYDRAULIC EFFICIENCY USING 8 SACK SAND MIX CONCRETE.
- PIPES INSTALLED WITHIN THE MANHOLE EXCAVATION SHALL BE CRADLED WITH CONCRETE TO THE LIMITS OF THE MANHOLE EXCAVATION. COST OF CRADLE WITHIN MANHOLE EXCAVATION SHALL BE INCLUDED IN THE PRICE BID FOR THE MANHOLE. CRADLE SHALL EXTEND TO FIRST JOINT OUTSIDE OF MANHOLE WHEN CLAY PIPE IS USED.

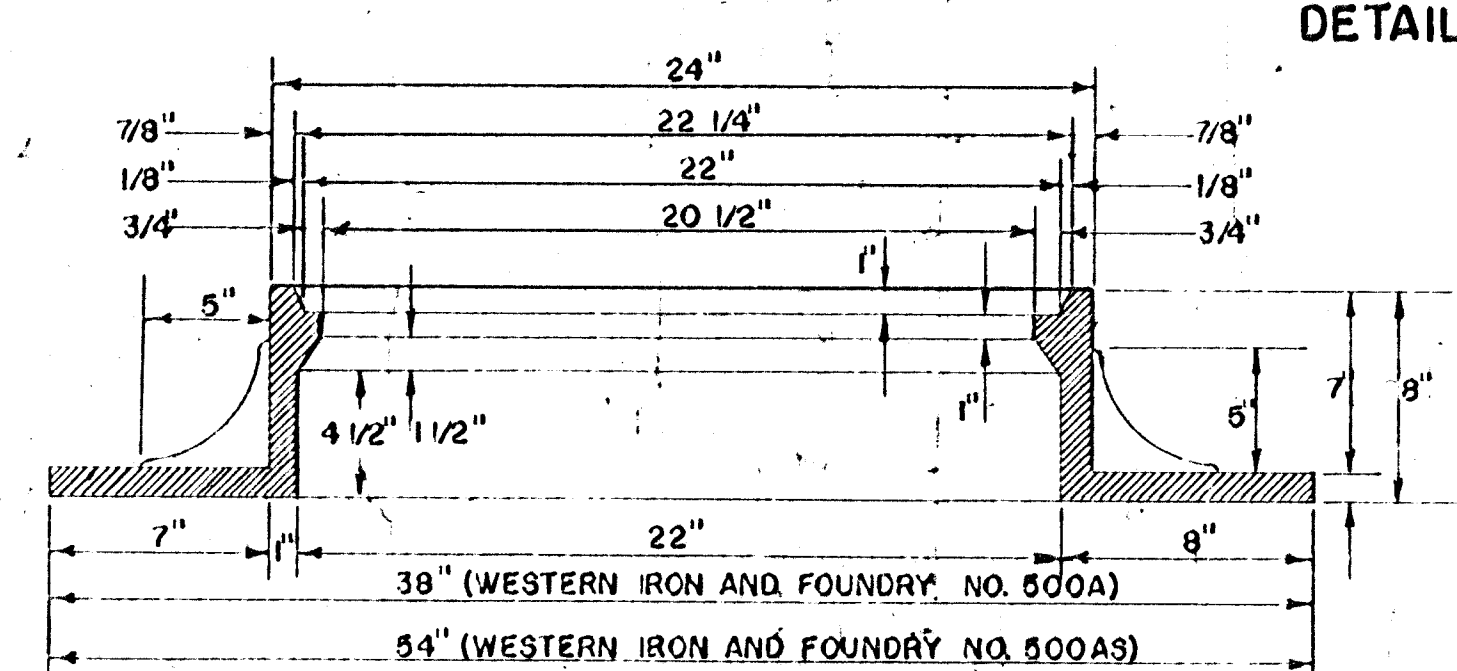


MANHOLE COVER



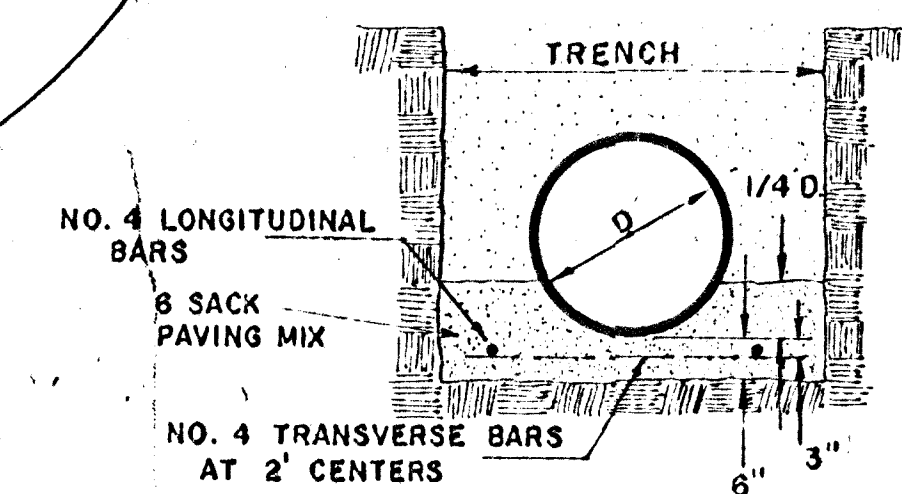
SIDE VIEW

MANHOLE COVER

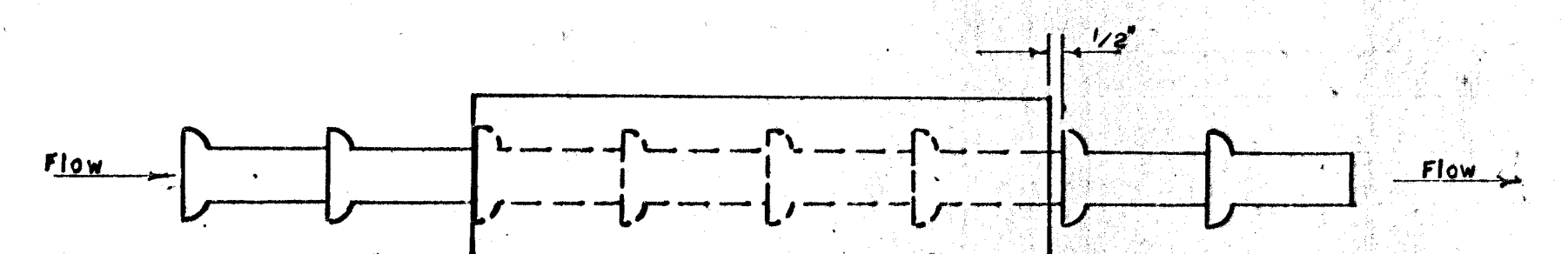


MANHOLE RING

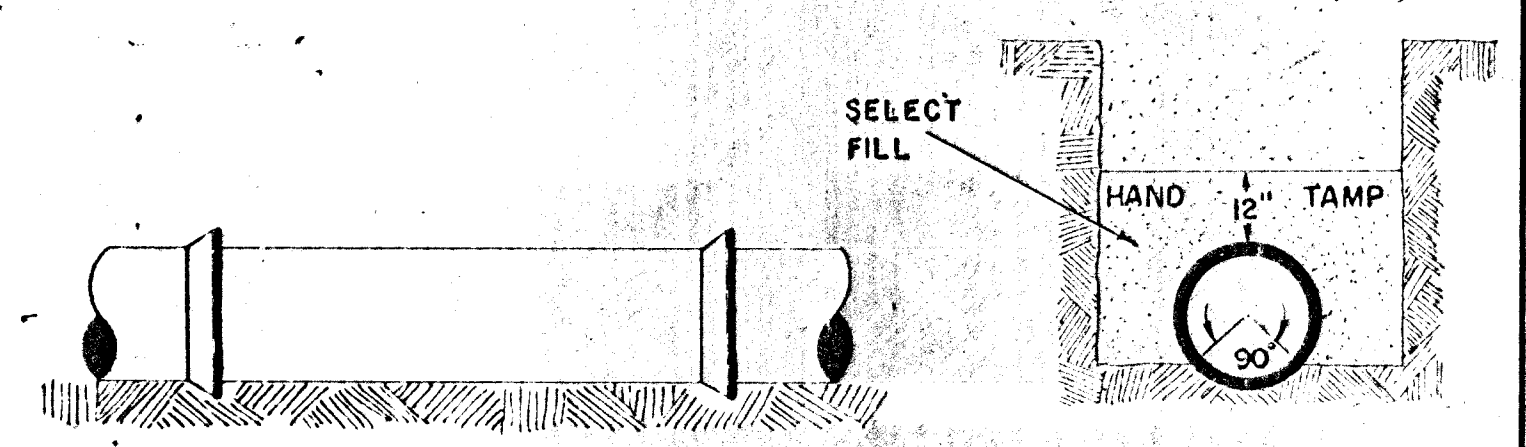
OUTSIDE CIRCUMFERENCE OF COVER AND THE INNER FACE AND SEAT OF RING TO BE MACHINE FIT.



DETAIL OF CONCRETE CRADLE



DETAIL IN CONNECTION WITH THE TERMINATION OF CONCRETE ENCASEMENT OR CRADLE FOR CLAY PIPE



ORDINARY BEDDING METHOD
STORM SEWER PIPE

REVISED 4-4-80
DETAILS OF
SEWER APPURTENANCES
ADOPTED AS STANDARD DESIGN
BY
ENGINEERING DIVISION
CITY OF WICHITA, KANSAS