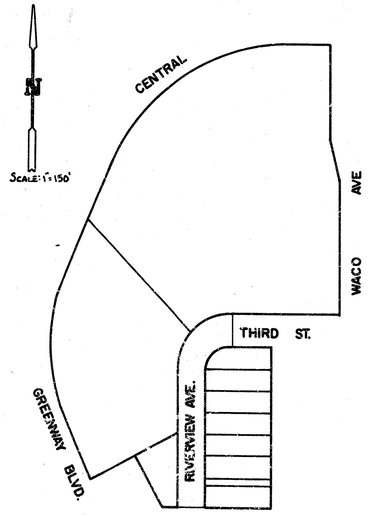
INTERSECTION OF THIRD & RIVERVIEW

RIVERVIEW AVE.

N. L. LOT 1, BLK. 2, PARK PLAZA 2ND ADDN. TO
N. L. LOT 44, ON RIVERVIEW, WATERMAN'S ADDN. TO WATERMAN'S ADDN.

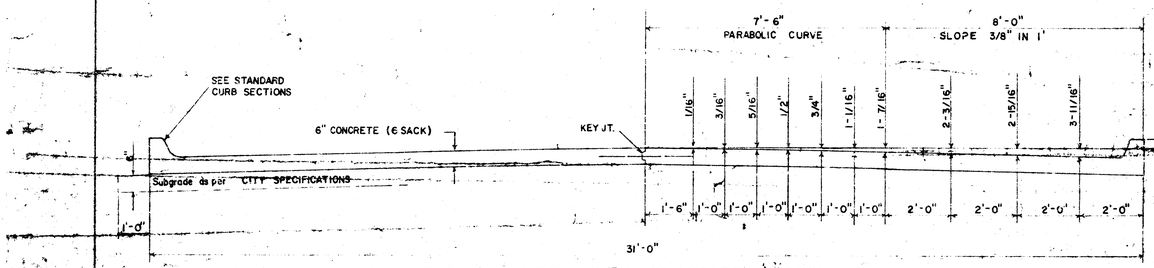
CITY OF WICHITA, KANSAS
DEPARTMENT OF ENGINEERING
R. W. BRUGGEMAN – DIRECTOR OF ENGINEERING/CITY ENGINEER
PROJ. No. 472 76 245 80943 000 000 001
DATE:



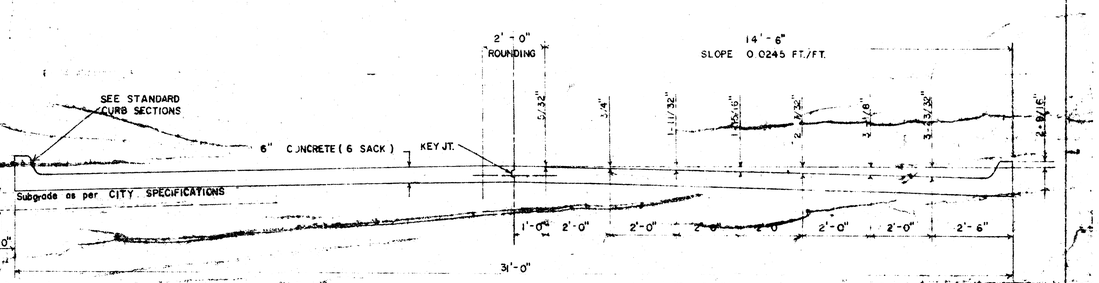
STEPHEN R. LACKEY
LICENSED
7714
KANSAS
PROFESSIONAL ENGINEER

RIVERVIEW AVE.

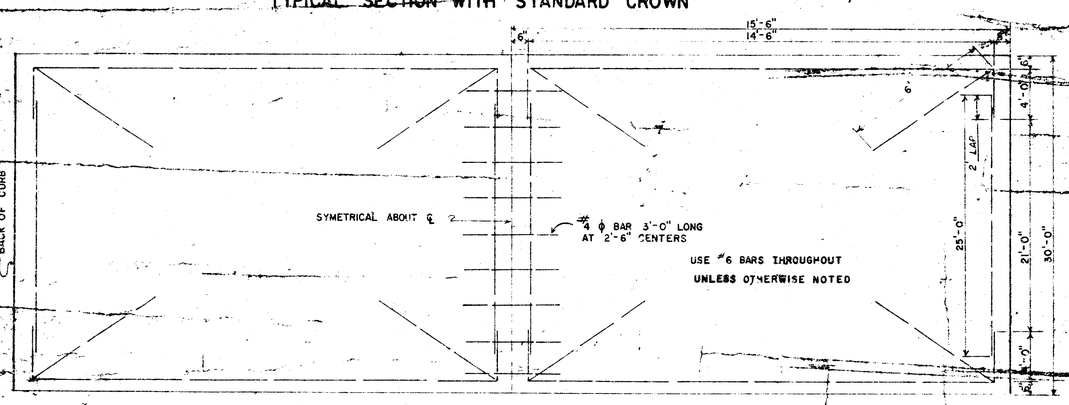
TYPICAL SECTIONS OF 30' CONCRETE PAVEMENT



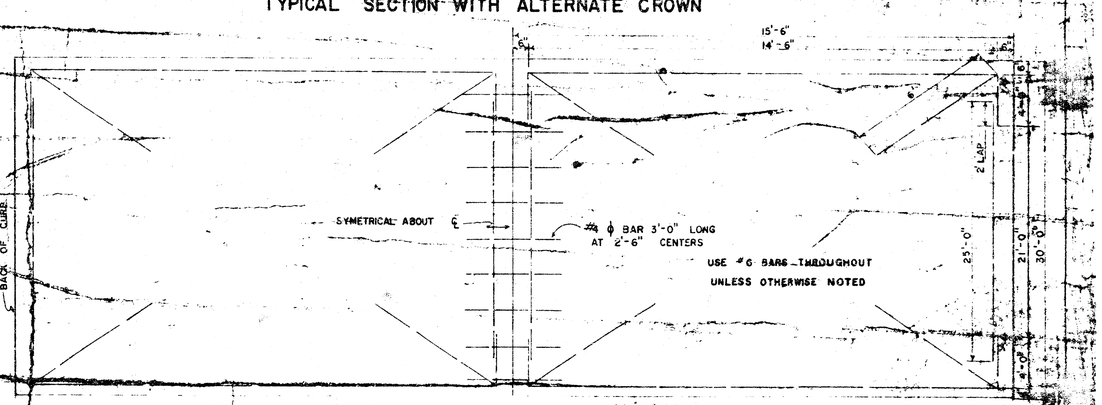
TYPICAL SECTION WITH STANDARD CROWN



TYPICAL SECTION WITH ALTERNATE CROWN

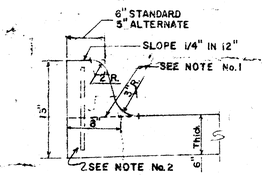


STEEL PATTERN

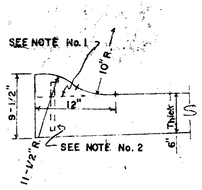


STEEL PATTERN

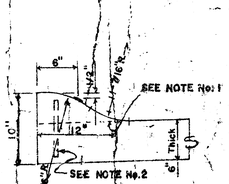
STANDARD SECTIONS OF



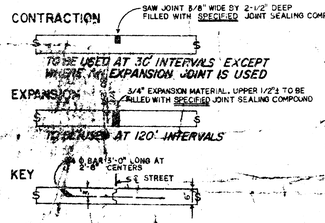
INTEGRAL CURB



ROLL—TYPE



ALTERNATE ROLL-TYPE



JOINT DETAILS

GENERAL NOTES

1. CONTRACTION JOINTS MAY BE CONSTRUCTED IN INTEGRAL CURB BY SAWING WITH AN APPROVED CONCRETE SAW. THE SAW CUT SHALL EXTEND THROUGH THE CURB TO THE PAVEMENT. SAWED CONTRACTION JOINTS SHALL HAVE A MAXIMUM SPACING OF 10'.
2. INTEGRAL CURB SHALL BE TIED TO THE PAVEMENT BASE WITH SHORT DEFORMED DOWEL BARS SPACED AT 2'-6" INTERVALS. THESE DOWEL BARS SHALL NOT BE LESS THAN 1/2" OR MORE THAN 3/4" IN DIAMETER.

CITY OF WICHITA, KANSAS
DEPARTMENT OF ENGINEERING
R. W. BRUGGEMAN - DIRECTOR OF ENGINEERING/CITY ENGINEER
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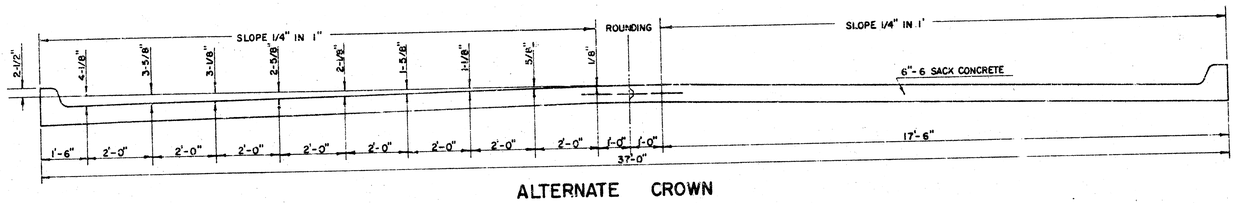
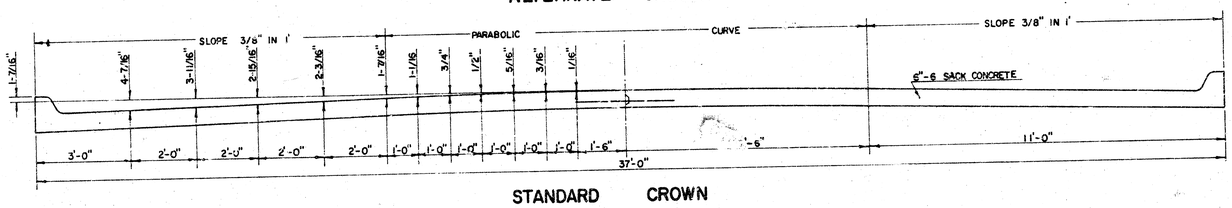
THIRD ST.

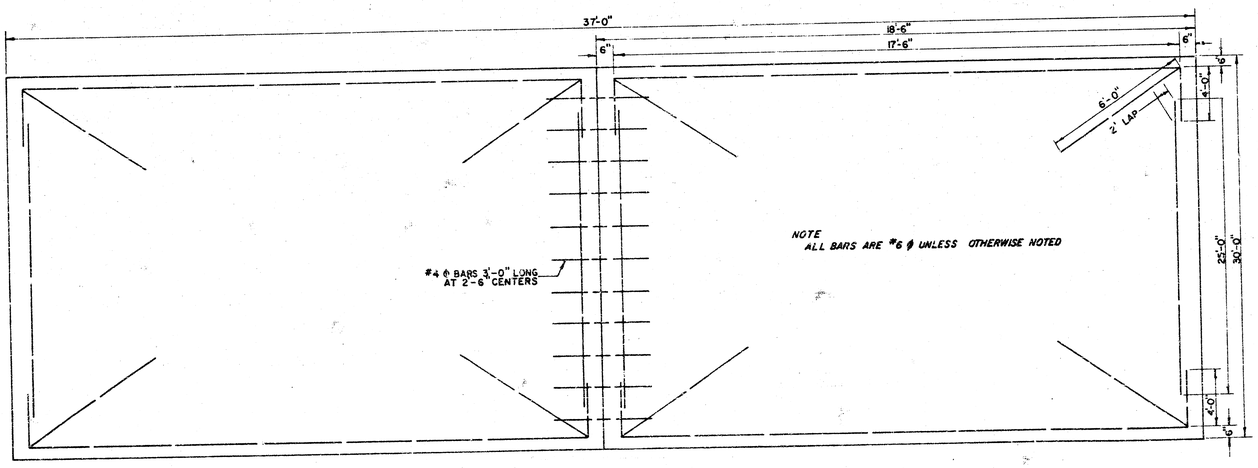


ALTERNATE CROWN



STANDARD CROWN

TYPICAL SECTION 36'-0" CONCRETE PAVEMENT



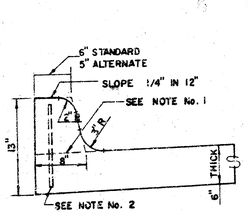
STEEL PATTERN

NO SCALE

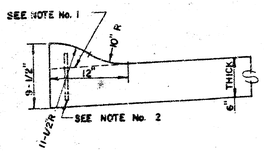
GENERAL NOTES

1. CONTRACTION JOINTS MAY BE CONSTRUCTED IN INTEGRAL CURB BY SAWING WITH AN APPROVED CONCRETE SAW. THE SAW CUT SHALL EXTEND THROUGH THE CURB TO THE PAVEMENT. SAWED CONTRACTION JOINTS SHALL HAVE A MAXIMUM SPACING OF 10'.

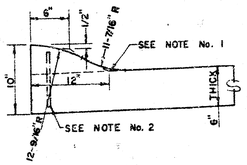
2. INTEGRAL CURB SHALL BE TIED TO THE PAVEMENT BASE WITH SHORT DEFORMED DOWEL BARS SPACED AT 2'-6" INTERVALS. THESE DOWEL BARS SHALL NOT BE LESS THAN 1/2" OR MORE THAN 3/4" IN DIAMETER.



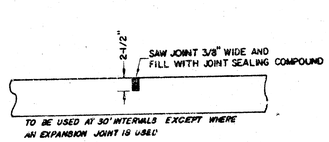
INTEGRAL CURB



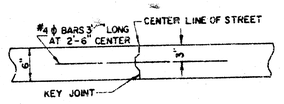
ROLL-TYPE



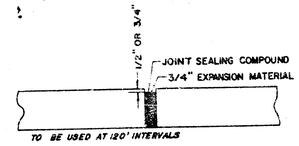
ALTERNATE ROLL-TYPE



CONTRACTION JOINT DETAIL



KEY JOINT DETAIL



EXPANSION JOINT DETAIL

6" CONCRETE PAVEMENT /w INT. CURB

CITY OF WICHITA, KANSAS

-DEPARTMENT OF ENGINEERING-

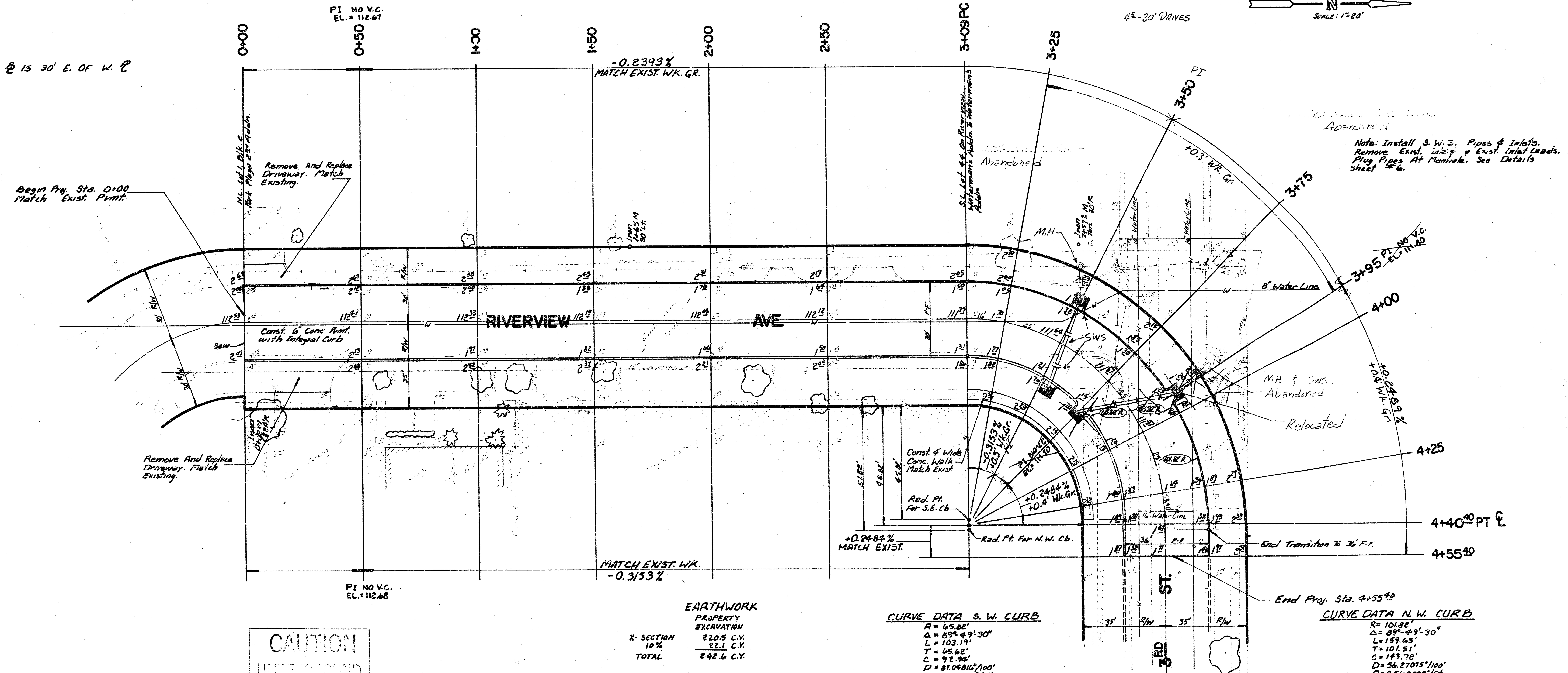
R. W. BRUGGEMAN

DIRECTOR OF ENGINEERING/CITY ENGINEER

DATE: PROJ. No. 472 76 245 80943 000 000 001

3/8

B.M.=111.75 ~ R.R. Spike N. Fc. P.P. S.E. Cor. Waco & 3RD St.
B.M.=113.87 ~ "X" On Walk N.W. Cor. Of Bldg. S.E. Cor. Main & Central.
B.M.=114.07 ~ N.E. Cor. Conc. Base R.R. Signal Box S.W. Cor. 3RD & Wichita.
B.M.=112.15 ~ R.R. Spike N. Fc. P.P. S.W. Cor. 3RD & Riverview.



PI NO V.C.
EL.=112.67
℄ IS 30' E. OF W. ℄
0+00
0+50
1+00
1+50
2+00
2+50
3+09 PC
3+25
3+50
3+75
3+95 PI
4+00
4+25
4+40.40 PT ℄
4+55.40
-0.2393%
MATCH EXIST. WK. GR.
Begin Transition From 30' F-F To 36' F-F
4 - 20' DRIVES
N
SCALE: 1"=20'
Abandoned
Note: Install S.W.S. Pipes & Inlets. Remove Exist. Inlets & Exist. Inlet Leads. Plug Pipes At Manhole. See Details Sheet #6.
Begin Proj. Sta. 0+00 Match Exist. Pvmt.
Remove And Replace Driveway. Match Existing.
RIVERVIEW
AVE.
Const. 6" Conc. Pvmt. with Integral Curb
8" Water Line
+0.3' WK. Gr.
M.H.
SWS
MH & SWS Abandoned
Relocated
+0.2489%
+0.4' WK. Gr.
Remove And Replace Driveway. Match Existing.
Const. 4' Wide Conc. Walk. Match Exist.
-0.3153%
+0.2484%
+0.4' WK. Gr.
Rad. Pt. For S.E. Cb.
+0.2484%
MATCH EXIST.
Rad. Pt. For N.W. Cb.
End Transition To 36' F-F
End Proj. Sta. 4+55.40
MATCH EXIST. WK.
-0.3153%
PI NO V.C.
EL.=112.68
3RD ST.
35'
R/W

CAUTION
UNDERGROUND CABLES

EARTHWORK

	PROPERTY EXCAVATION
X-SECTION	220.5 C.Y.
10%	22.1 C.Y.
TOTAL	242.6 C.Y.

SUB-GRADE

TYPE OF SUB-GRADE TREATMENT SHALL BE DETERMINED BY THE FIELD ENGINEER. SUB-GRADE TREATMENT MAY CONSIST OF LIME TREATMENT, CEMENT TREATMENT, SUB-GRADE MODIFICATION, OR ANY COMBINATION OF THESE.

1,724 S.Y. MANIPULATION

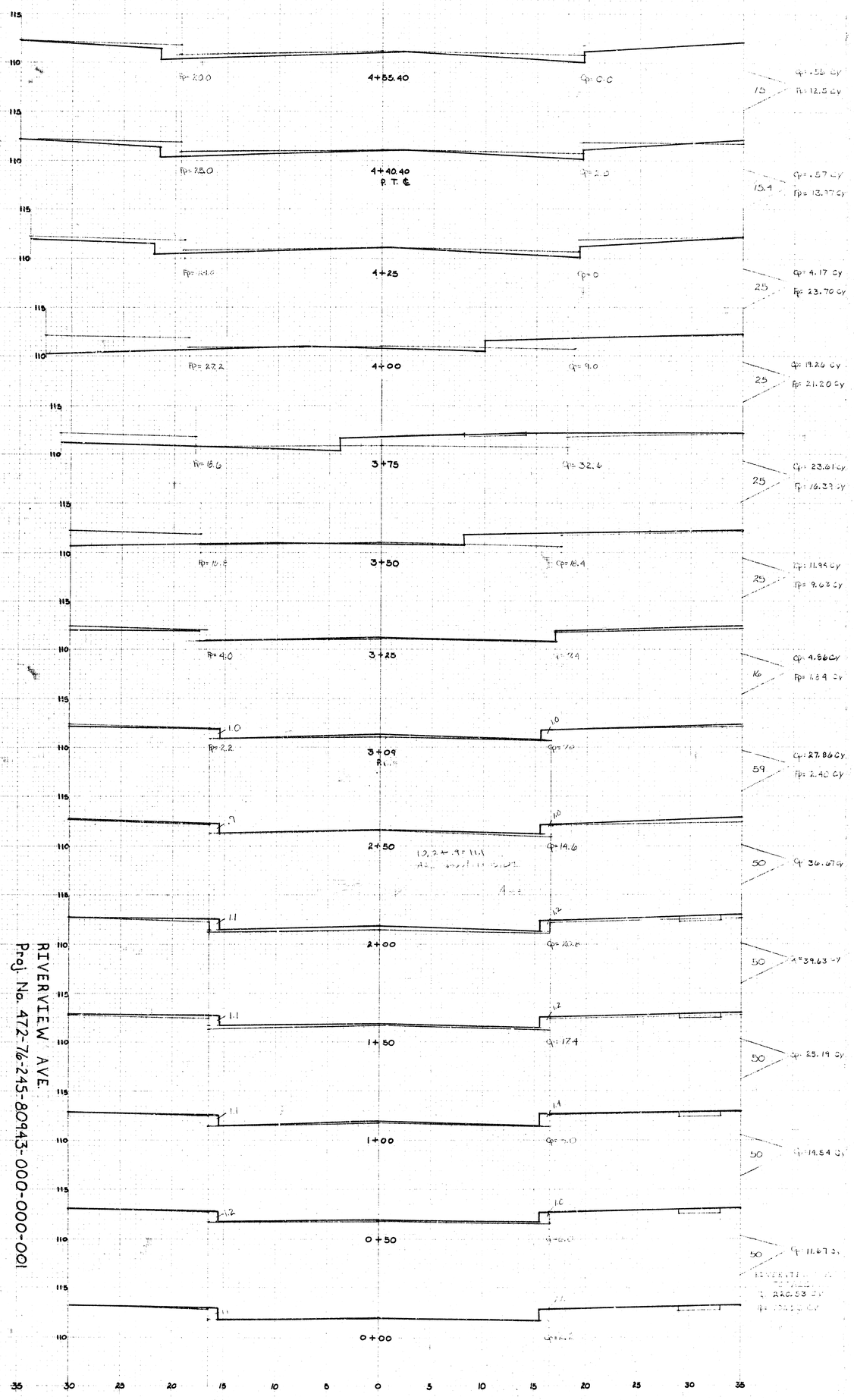
CURVE DATA S. W. CURB
R = 65.82'
Δ = 89°-49'-30"
L = 103.19'
T = 65.62'
C = 92.94'
D = 87.04816°/100'
D = 0.870416°/Ft.

CURVE DATA ℄
R = 83.82'
Δ = 89°-49'-30"
L = 131.41'
T = 83.56'
C = 118.36'
D = 68.35477°/100'
D = 0.683548°/Ft.

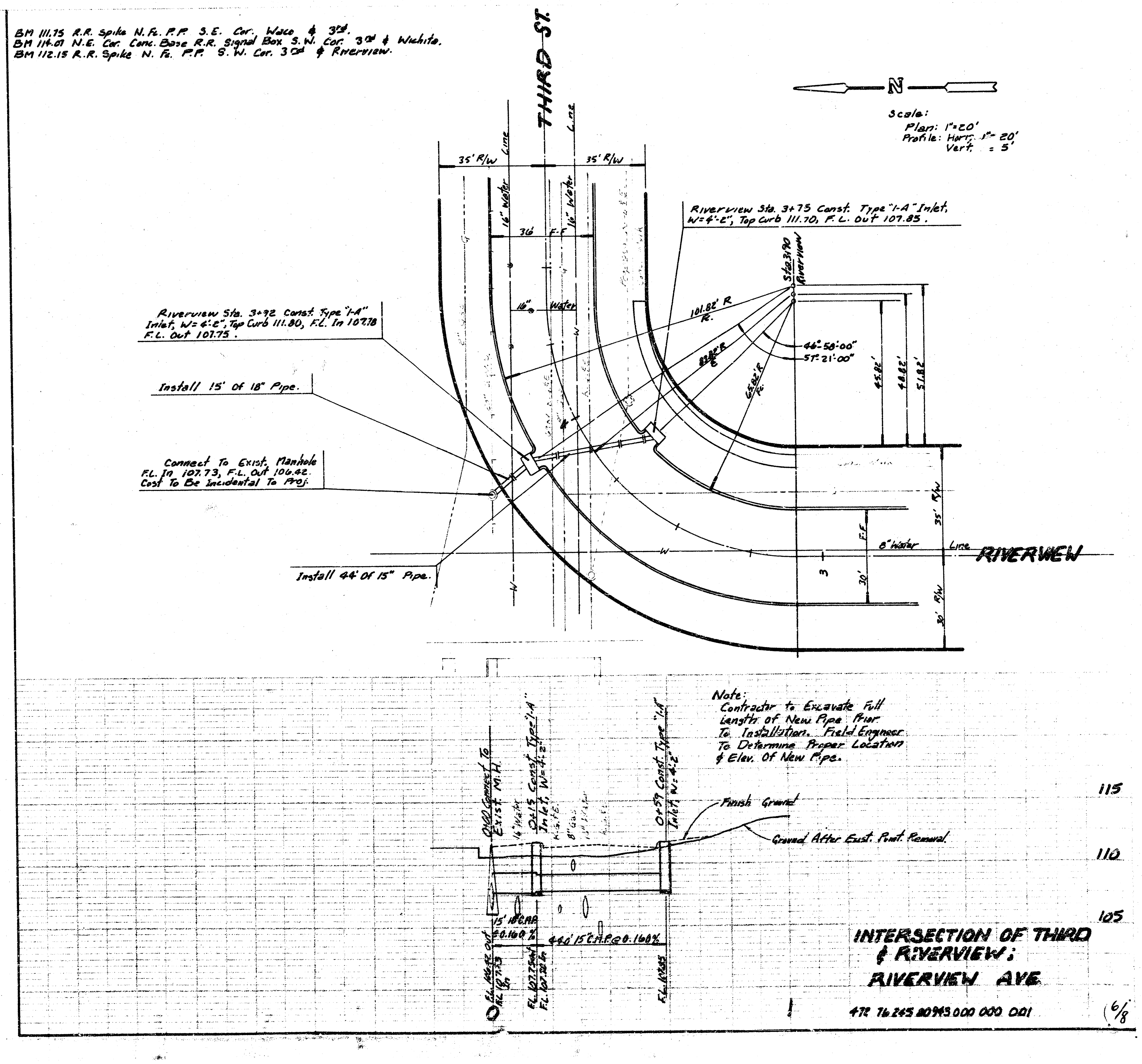
CURVE DATA N. W. CURB
R = 101.82'
Δ = 89°-49'-30"
L = 159.63'
T = 101.51'
C = 143.78'
D = 56.27075°/100'
D = 0.562708°/Ft.

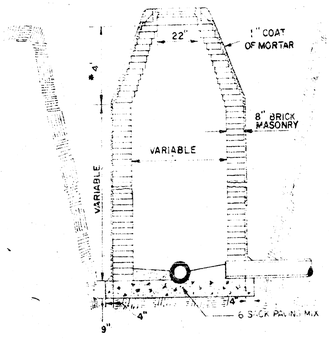
INTERSECTION OF THIRD & RIVERVIEW; RIVERVIEW AVE.

472 76 45 80943 000 000 001 4/8



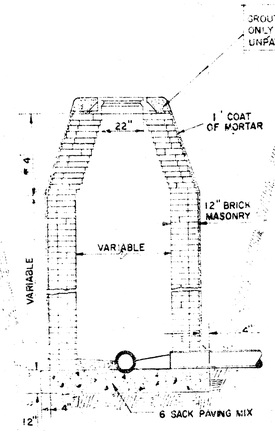
RIVERVIEW AVE.
Proj. No. 472-76-245-80943-000-000-001


BM 111.75 R.R. Spike N. Fc. P.P. S.E. Cor. Waco & 3rd.
BM 114.01 N.E. Cor. Conc. Base R.R. Signal Box S.W. Cor. 3rd & Wichita.
BM 112.15 R.R. Spike N. Fc. P.P. S.W. Cor. 3rd & Riverview.
THIRD ST.
N
Scale:
Plan: 1"=20'
Profile: Horz. 1"=20'
Vert. = 5'
35' R/W
35' R/W
Riverview Sta. 3+75 Const. Type "1-A" Inlet, W=4'-2", Top Curb 111.70, F.L. Out 107.85.
Sta. 3+90 Riverview
101.82' R
44°-58'-00"
57°-21'-00"
Riverview Sta. 3+92 Const. Type "1-A" Inlet, W=4'-2", Top Curb 111.80, F.L. In 107.78 F.L. Out 107.75.
Install 15' Of 18" Pipe.
Connect To Exist. Manhole F.L. In 107.73, F.L. Out 106.42. Cost To Be Incidental To Proj.
Install 44' Of 15" Pipe.
8" Water Line
RIVERVIEW
Note: Contractor to Excavate Full Length of New Pipe Prior To Installation. Field Engineer To Determine Proper Location & Elev. Of New Pipe.
0+59 Const. Type "1-A" Inlet W=4'-2"
Finish Ground
Ground After Exist. Pvmt. Removal.
115
110
105
INTERSECTION OF THIRD & RIVERVIEW;
RIVERVIEW AVE
472 76 245 80943 000 000 001

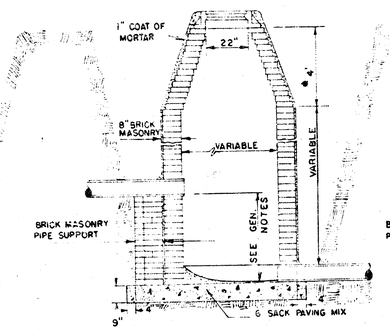


STANDARD MANHOLE
TYPE "A"

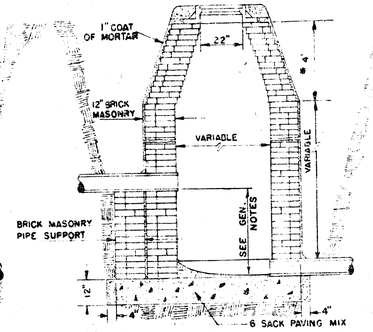
* DRAW = 6' ON 5' DIA. M.H.



STANDARD MANHOLE
TYPE "B"

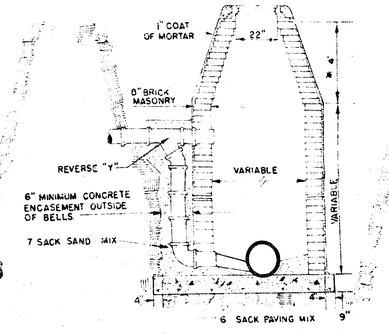


INSIDE DROP MANHOLE
TYPE "A"

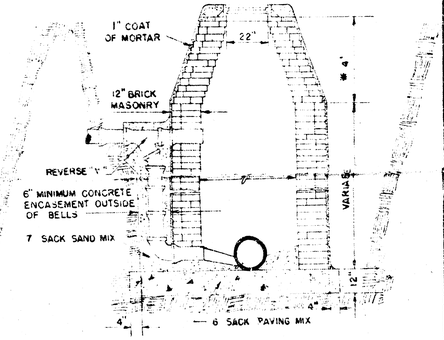


INSIDE DROP MANHOLE
TYPE "B"

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.

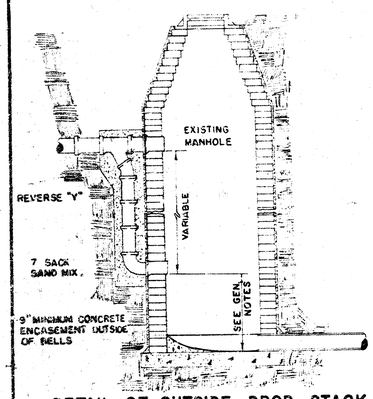


OUTSIDE DROP MANHOLE
TYPE "A"



OUTSIDE DROP MANHOLE
TYPE "B"

NOTE: REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASES 6" 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.

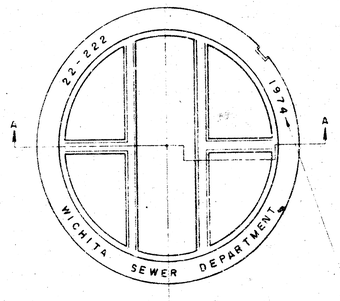


DETAIL OF OUTSIDE DROP STACK

CONSTRUCTED ON EXISTING MANHOLE (USE ONLY WHEN NO OTHER PIPE ARE FLOWING INTO MANHOLE)

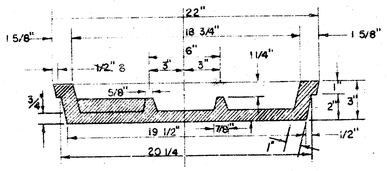
GENERAL NOTES

- MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 9 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 6 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.



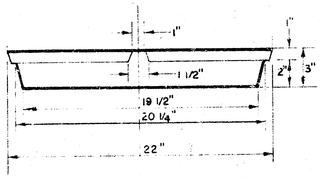
TOP VIEW

MANHOLE COVER
WEIGHT 110 LBS.



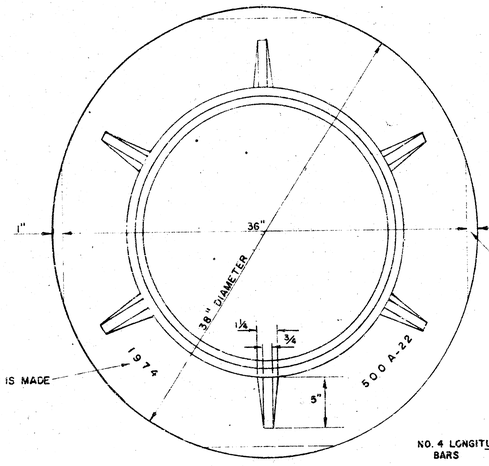
SECTION A-A

MANHOLE COVER



SIDE VIEW

MANHOLE COVER

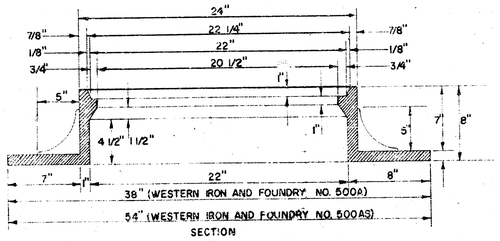


THIS PORTION OF FLANGE MAY BE OMITTED

YEAR CASTING IS MADE

TOP VIEW

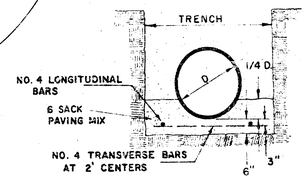
MANHOLE RING
WEIGHT 325 LBS. RING NO. 500A
WEIGHT 800 LBS. RING NO. 500AS



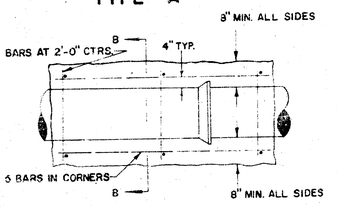
SECTION

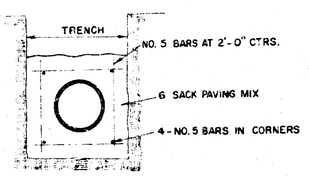
MANHOLE RING

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



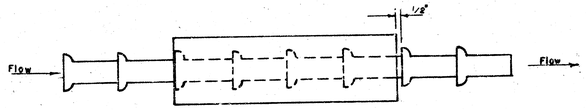
DETAIL OF CONCRETE CRADLE



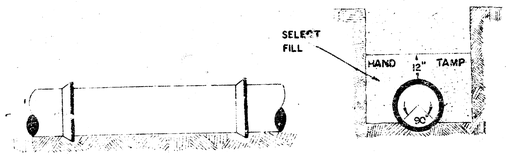


SECTION B-B

REINFORCED CONCRETE ENCASEMENT



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



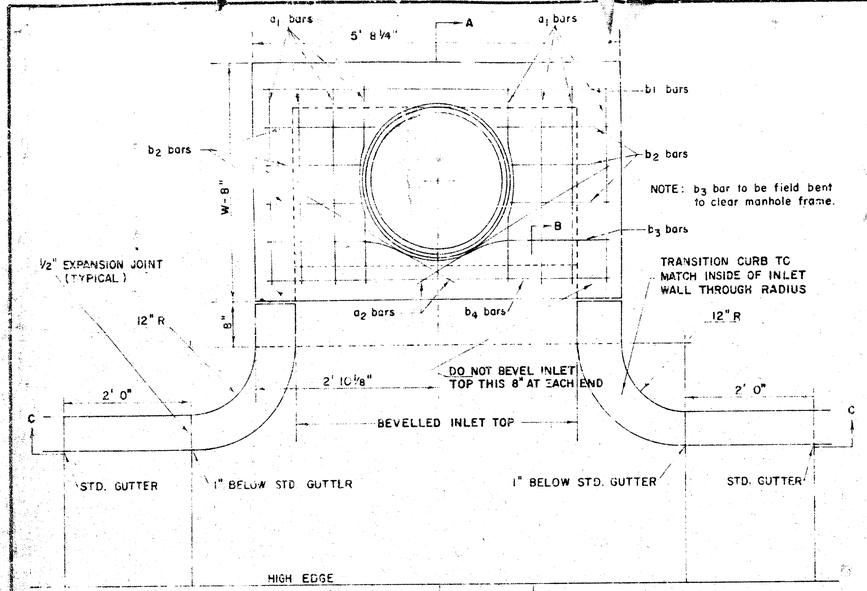
ORDINARY BEDDING METHOD
STORM SEWER PIPE

REVISED 4-4-80

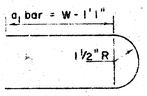
DETAILS OF
SEWER APPURTENANCES
ADOPTED AS STANDARD DESIGN
BY
ENGINEERING DIVISION
CITY OF WICHITA, KANSAS

1974

7/8



PLAN (SCALE 1" = 1'0")



BENDING DIAGRAM

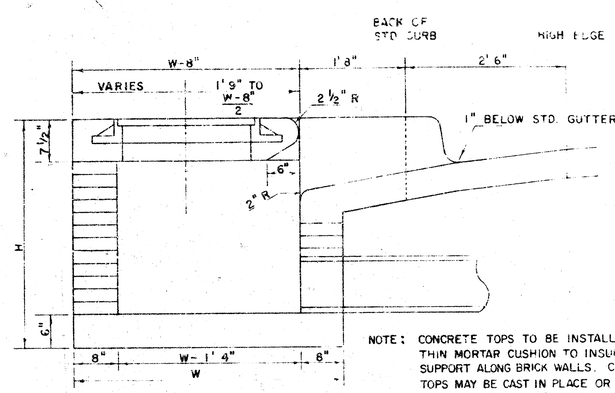
STEEL SCHEDULE

BAR	a_1	a_2 *	b_1 W=4'2"	W=5'0"	W=6'0"	W=7'0"	W=8'0"	b_2	b_3	b_4	WT. LBS.
NUMBER	8	2	1	3	5	7	9	6	1	1	
SIZE	#4	#4	#4	#4	#4	#4	#4	#4	#4	#6	
LENGTH W=4'2"	6'5"	3'4"	5'5"	–	–	–	–	1'5"	5'6"	5'5"	60 #
LENGTH W=5'0"	8'1"	4'4"	–	5'5"	–	–	–	1'5"	5'6"	5'5"	77 #
LENGTH W=6'0"	10'1"	5'4"	–	–	5'5"	–	–	1'5"	5'6"	5'5"	97 #
LENGTH W=7'0"	11'1"	6'4"	–	–	–	5'5"	–	1'5"	5'6"	5'5"	111 #
LENGTH W=8'0"	12'1"	7'4"	–	–	–	–	5'5"	1'5"	5'6"	5'5"	124 #

* NOTE: a_2 BARS TO BE PLACED APPROX. 2" BELOW TOP OF INLET COVER

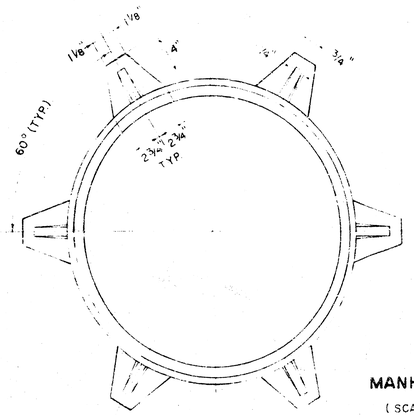
STANDARD CURB INLET PRECAST TOPS			
W	PRE-CAST TOP SIZE	PIPE SIZE	CU. YD. CONC.
4' 2"	36"x5'8 1/4"x7 1/2"	21" & SMALLER	0.46 *
5' 0"	44"x5'8 1/4"x7 1/2"	24" & 30"	0.57 *
6' 0"	54"x5'8 1/4"x7 1/2"	36" & 42"	0.71 *
7' 0"	64"x5'8 1/4"x7 1/2"	48" & 54"	0.84 *
8' 0"	74"x5'8 1/4"x7 1/2"	60" & 66"	0.97 *

* GROSS VOLUME

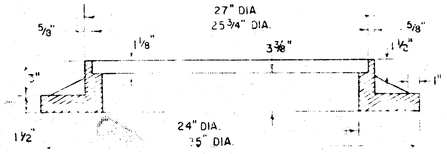


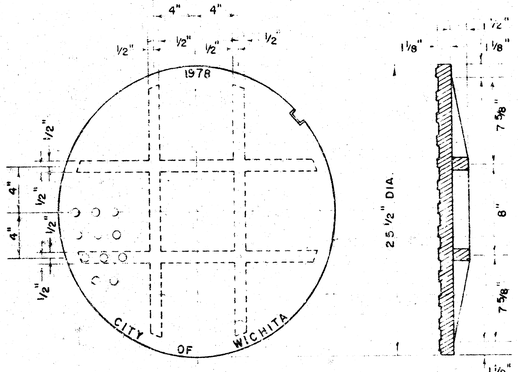
SECTION A-A
(SCALE 1" = 1'0")

NOTE: 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 FOR INLET TOPS AND FLOORS SHALL BE 6-SACK PAVING MIX.

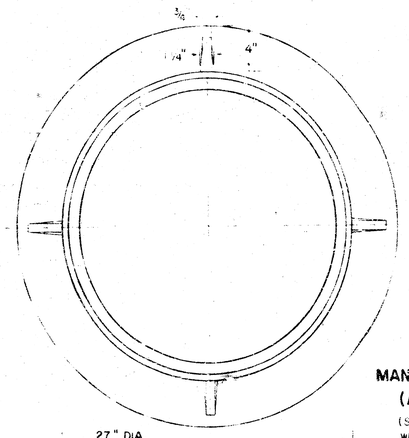


MANHOLE FRAME
(SCALE 1" = 6")
WEIGHT = 180 LBS.

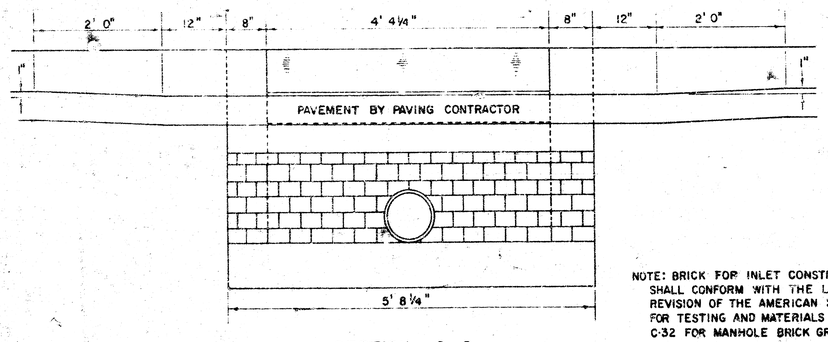




MANHOLE COVER
(SCALE 1" = 6")
WEIGHT = 170 LBS.

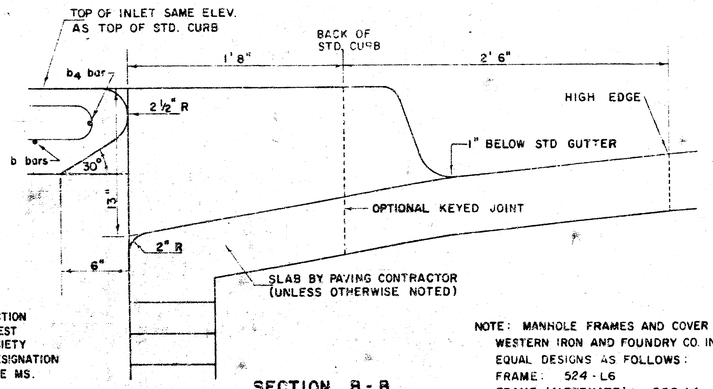


MANHOLE FRAME (ALTERNATE)
(SCALE 1" = 6")
WEIGHT = 180 LBS.



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"

DETAIL STANDARD TYPE IA CURB INLET

CITY OF WICHITA, KANSAS

R. W. LINN – CITY ENGINEER

OCTOBER 1978

8/8

18 8 3 5