PLAN AND PROFILE FOR

STORM WATER SEWER NO. 110

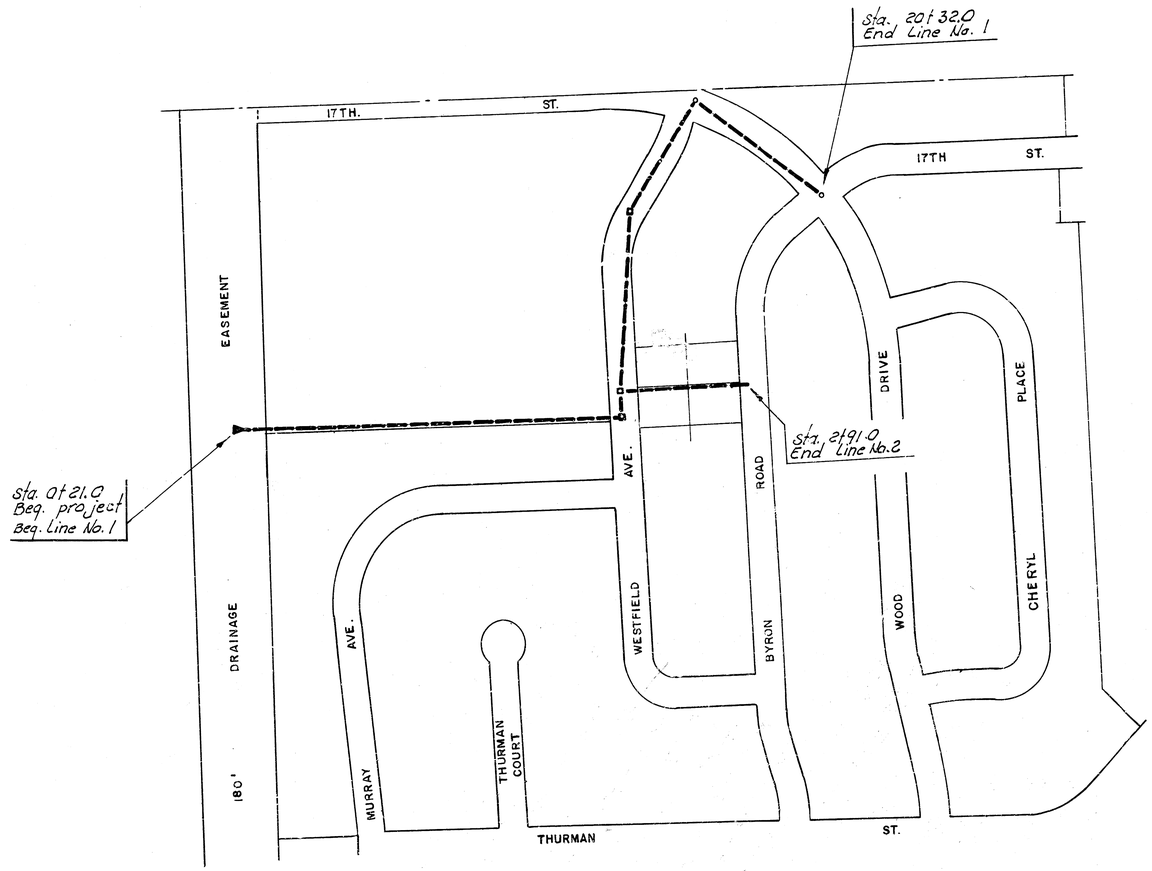
CITY OF WICHITA, KANSAS

R. W. LINN — CITY ENGINEER

JAN. 1975, PROJECT NO. DBKA574053

INDEX

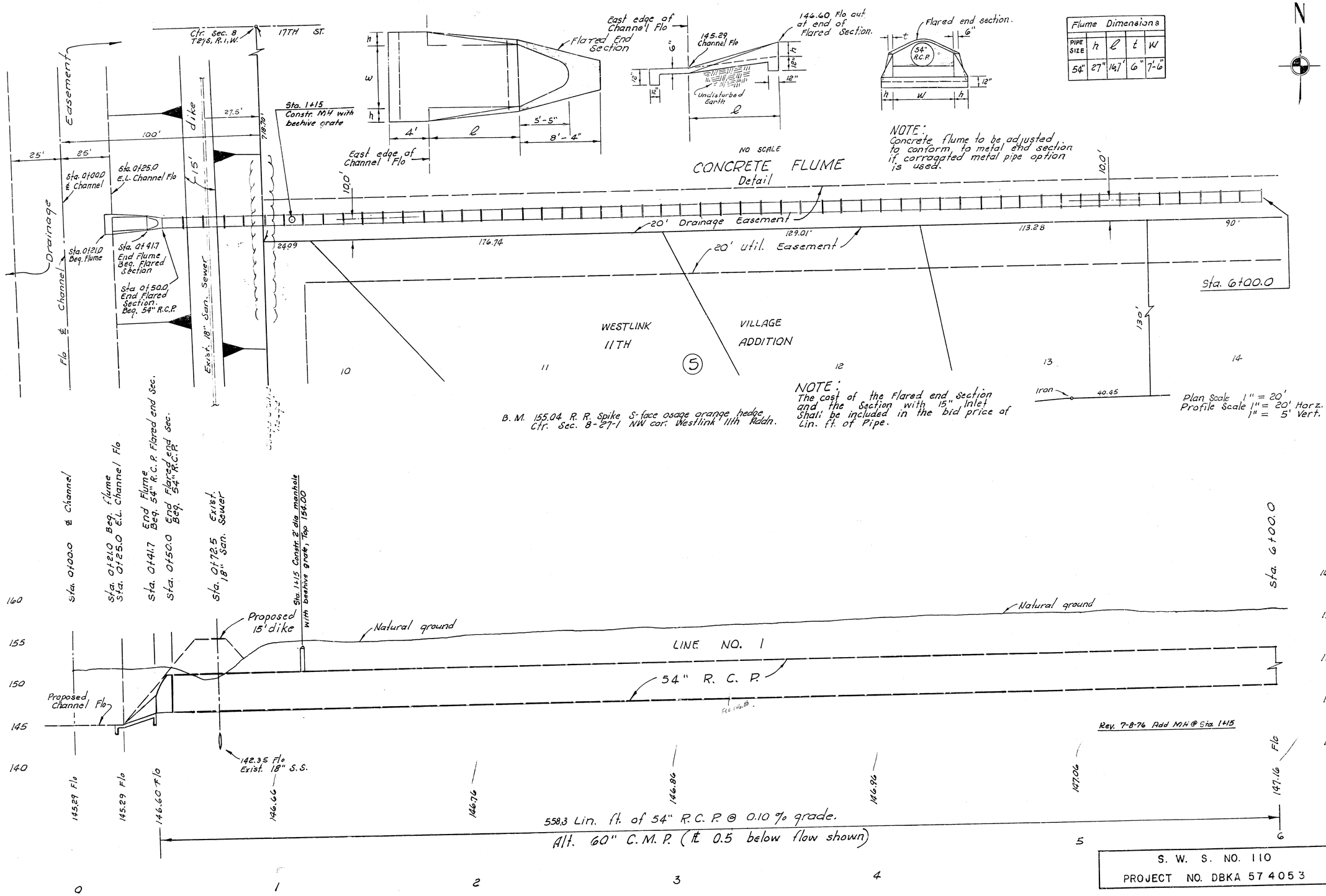
SHEET NO.	
1	TITLE & LOCATION MAP
2	CONC. FLUME DETAIL
2-6	PLAN AND PROFILE LINE NO. 1
7	PLAN AND PROFILE LINE NO. 2
8	INLET DETAIL
9	REINF. CONC. M. H. DETAIL
10	STD. BRICK M. H. DETAIL

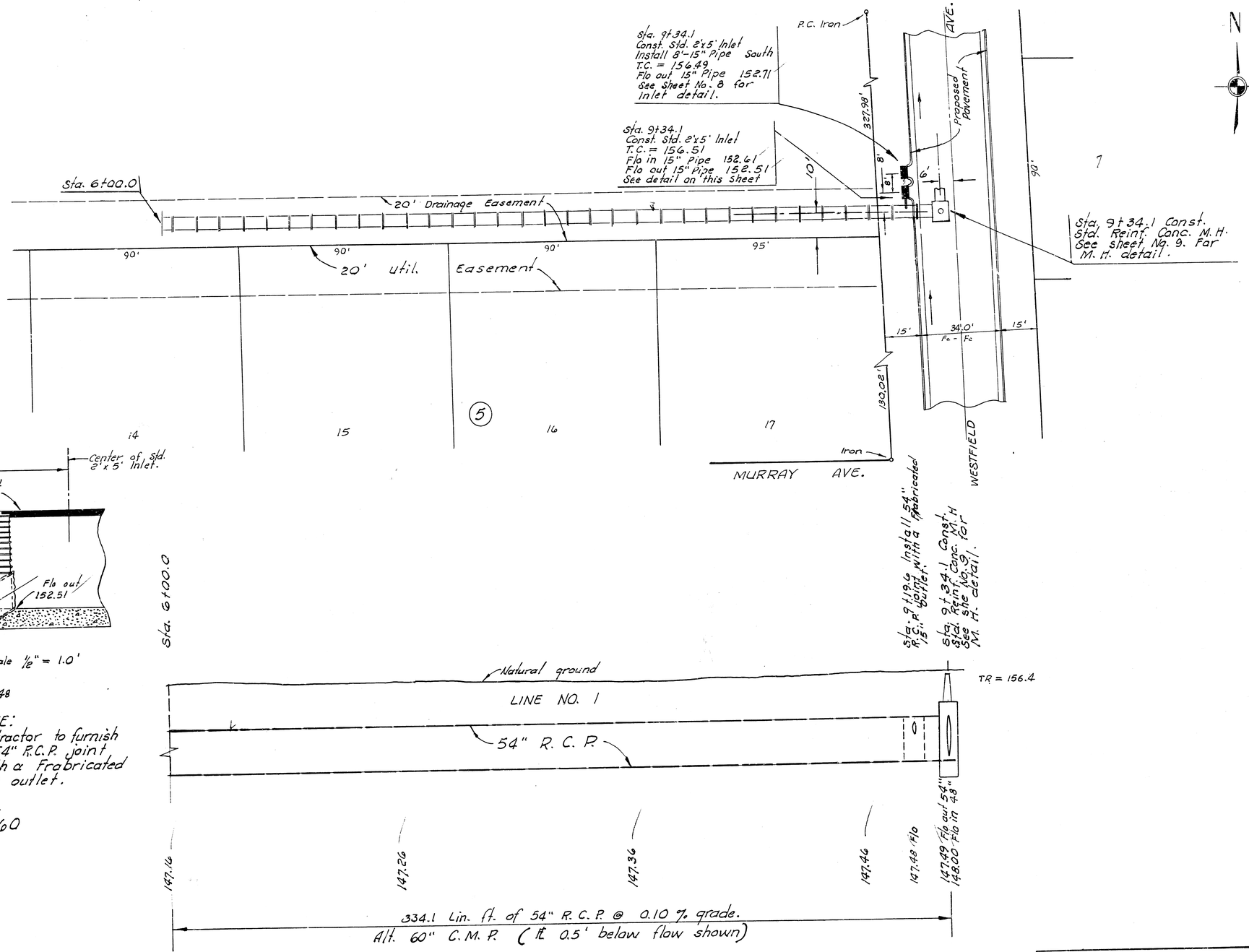


N

SCALE 1" = 150'

NOTE: PIPE FURNISHED FOR THIS PROJECT SHALL BE EITHER ALL REINFORCED CONCRETE PIPE OR ALL CORRUGATED METAL PIPE. CORRUGATED METAL PIPE SHALL CONFORM TO THE APPLICABLE SECTIONS OF SECTION 1009.05 AND 1009.07 OF THE 1973 KANSAS STATE HIGHWAY SPECIFICATIONS. CORRUGATED METAL PIPE FURNISHED FOR THIS PROJECT IS NOT REQUIRED TO BE COATED. CORRUGATED METAL PIPE HAVING DIAMETERS OF 18" OR SMALLER SHALL HAVE HELICAL CORRUGATIONS.


Ctr. Sec. 8 T2N, R.1.W.
17TH ST.
Easement
dike
27.5'
100'
25'
25'
15'
718.78'
Sta. 1+15 Constr. MH with beehive grate
Sta. 0+00.0 ℄ Channel
Sta. 0+25.0 E.L. Channel Flo
Drainage Channel
Flo ℄
Sta. 0+21.0 Beg. Flume
Sta. 0+41.7 End Flume Beg. Flared Section
Sta. 0+50.0 End Flared Section Beg. 54" R.C.P.
Exist. 18" San. Sewer
L.P.K.W.
178
h
w
h
4'
ℓ
5'-5"
8'-4"
Flared End Section
East edge of Channel Flo
NO SCALE
CONCRETE FLUME
Detail
East edge of Channel Flo
145.29 Channel Flo
146.60 Flo out at end of Flared Section.
12"
12"
12"
7½"
Undisturbed Earth
ℓ
Flared end section.
54" R.C.P.
t
6"
12"
h
w
h
Flume Dimensions
PIPE SIZE | h | ℓ | t | W
54" | 27" | 147' | 6" | 7'-6"
N
NOTE:
Concrete flume to be adjusted to conform to metal end section if corrogated metal pipe option is used.
100'
10.0'
20' Drainage Easement
20' util. Easement
176.74
129.01'
113.28
90'
24.99
Sta. 6+00.0
WESTLINK
11TH
VILLAGE
ADDITION
10
11
12
13
14
5
130'
Iron
40.45
B. M. 155.04 R. R. Spike S-face osage orange hedge
Ctr. Sec. 8-27-1 NW cor. Westlink 11th Addn.
NOTE:
The cost of the Flared end section and the Section with 15" Inlet Shall be included in the bid price of Lin. ft. of Pipe.
Plan Scale 1" = 20'
Profile Scale 1" = 20' Horz.
1" = 5' Vert.
Sta. 0+00.0 ℄ Channel
Sta. 0+21.0 Beg. Flume
Sta. 0+25.0 E.L. Channel Flo
Sta. 0+41.7 End Flume Beg. 54" R.C.P. Flared end Sec.
Sta. 0+50.0 End Flared end Sec. Beg. 54" R.C.P.
Sta. 0+72.5 Exist. 18" San. Sewer
Sta. 1+15 Constr. 2' dia. manhole with beehive grate, Top 154.00
Proposed 15' dike
Natural ground
Natural ground
Sta. 6+00.0
160
155
150
145
140
Proposed Channel Flo
LINE NO. 1
54" R. C. P.
Flo 146.60
142.35 Flo Exist. 18" S.S.
Rev. 7-8-76 Add M.H. @ Sta. 1+15
145.29 Flo
145.29 Flo
146.60 Flo
146.66
146.76
146.86
146.96
147.06
147.16 Flo
558.3 Lin. ft. of 54" R.C.P. @ 0.10 % grade.
Alt. 60" C.M.P. (ℓ 0.5 below flow shown)
0
1
2
3
4
5
6
S. W. S. NO. 110
PROJECT NO. DBKA 574053
2/10/10



DETAIL
Sta. 9+19.60

S. W. S. NO. 110	3/10/10
PROJECT NO. DBKA 574053	

MURRY AVE.

17

10'

130.07'

Iron

Sta. 9+34.1
Beg. 48" R.C.P.

Sta. 9+90.6 Const.
Std. Reinf. Conc. M.H.
See Sheet No. 9 for
M.H. detail.
Sta. 0+00.0 Line No. 2 East

327.98'

26'

WESTFIELD AVE.

P.C.

Sta. 13+88.5 Const.
Std. Reinf. Conc. M.H.
See sheet No. 9 for
M.H. detail.

158.73'

R = 364'

Proposed Pavement

Δ = 34° 27'

Const. Std. 2'x5' Inlet
Install 8'-15" Pipe (N.E.)
T.C. = 155.02
Flo out 15" 151.35

Const. Std. 2'x5' Inlet @ P.T.
Install 13'-18" Pipe (S.E.)
T.C. = 155.00
Flo in 13" Pipes 151.25
Flo out 18" R.C.P. 151.00

Const. Std. 2'x5' Inlet
Install 8'-15" Pipe (S.W.)
T.C. = 155.02
Flo out 15" 151.35

P.T.

8'

18'

26'

15'

90'

90'

90'

74.55'

Iron

25'

P.C.

R = 200'

95.25'

5'

Const. Std. 2'x5' Inlet
Install 8'-15" Pipe (N.E.)
T.C. = 155.02
Flo out 15" 151.35

3

Const. Std. 2'x5' Inlet @ P.T.
Install 25'-18" Pipe (N.W.)
T.C. 155.00
Flo in 2-15" 151.25
Flo out 18" 151.00

8'

8'

P.T.

39.58'

15

34'

2-15"

Const. Std. 2'x5' Inlet
Install 8'-15" Pipe (S.W.)
T.C. = 155.02
Flo out 15" 151.35

7 6 5 4 (7)

Sta. 9+34.1
Beg. 48" R.C.P.

Sta. 9+90.6 Const.
Std. Reinf. Conc. M.H.
See Sheet No. 9 for
M.H. Detail.
Sta. 0+00.0 for Line No. 2 East

Sta. 13+88.5 Const.
Std. Reinf. Conc. M.H.
See Sheet No. 9 for
M.H. Detail.

160
155
150
145

T.R. = 156.20

Proposed Top of curb

Natural ground

TR = 154.80

LINE NO. 1

42" R.C.P.

148.00 Flo in

148.01 Flo out 48"
148.57 Flo in 48"
150.57 Flo in 18"

148.58

148.69

148.80

148.91

150.75 Flo in 18" S.E.
150.83 Flo in 18" N.W.
149.01 Flo out 42"
149.51 Flo in 36"

56.4 Lin. ft. of 48" R.C.P.
@ 0.12 % grade.

398 Lin. ft. of 42" R.C.P. @ 0.11 % grade.

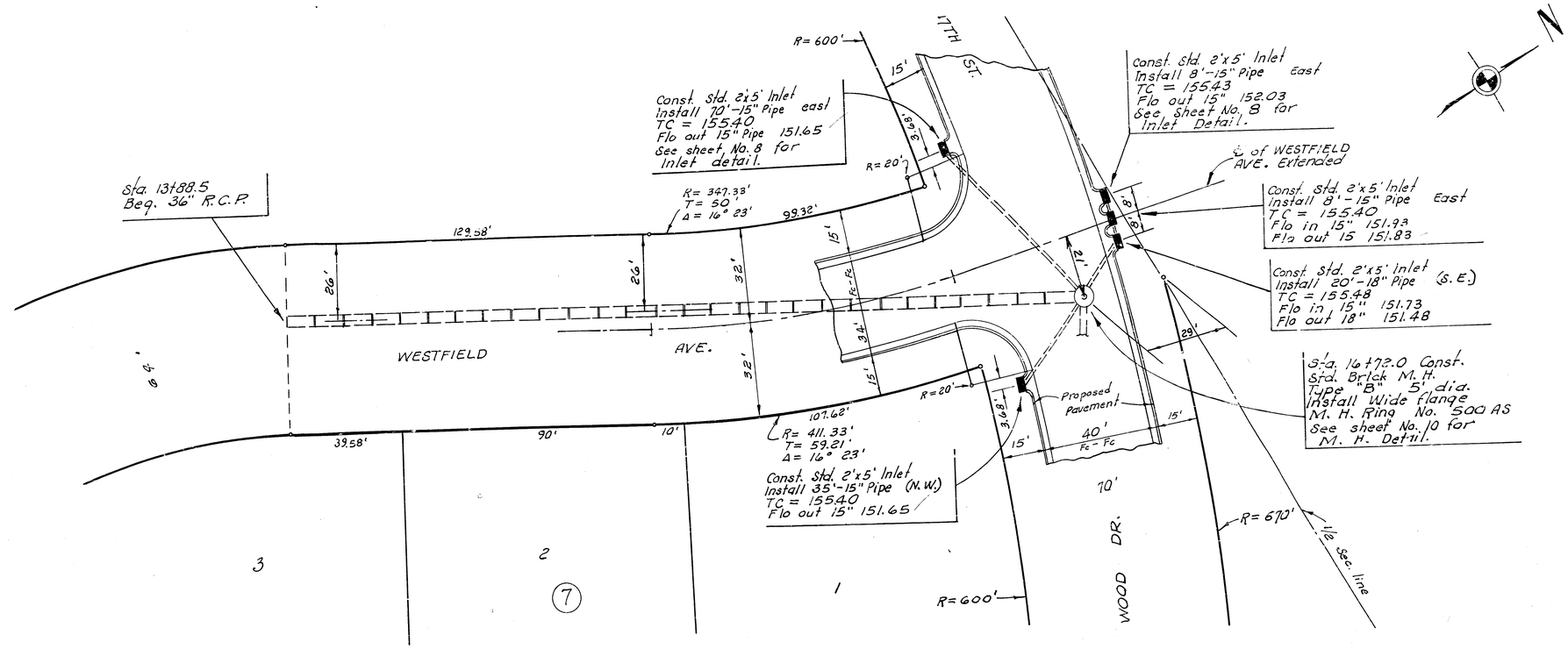
Alt. 48" C.M.P. (Ft 0.5' below Flo Shown)

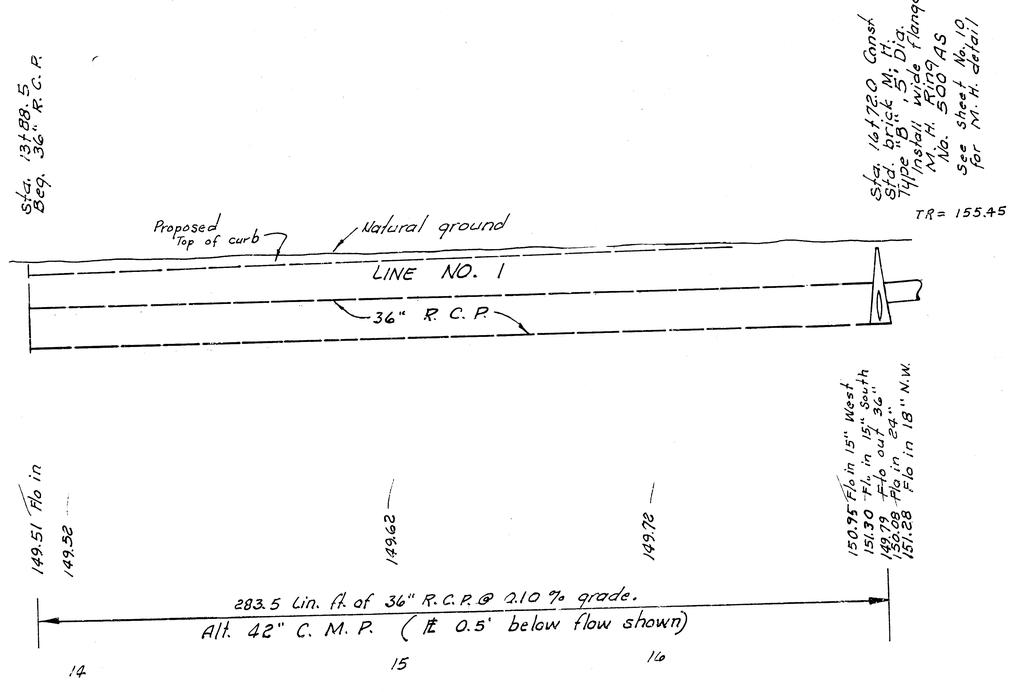
Alt. 54" C.M.P.
(Ft 0.5' below Flow
Shown.)

9 10 11 12 13

S. W. S. NO. 110
PROJECT NO. DBKA 574053

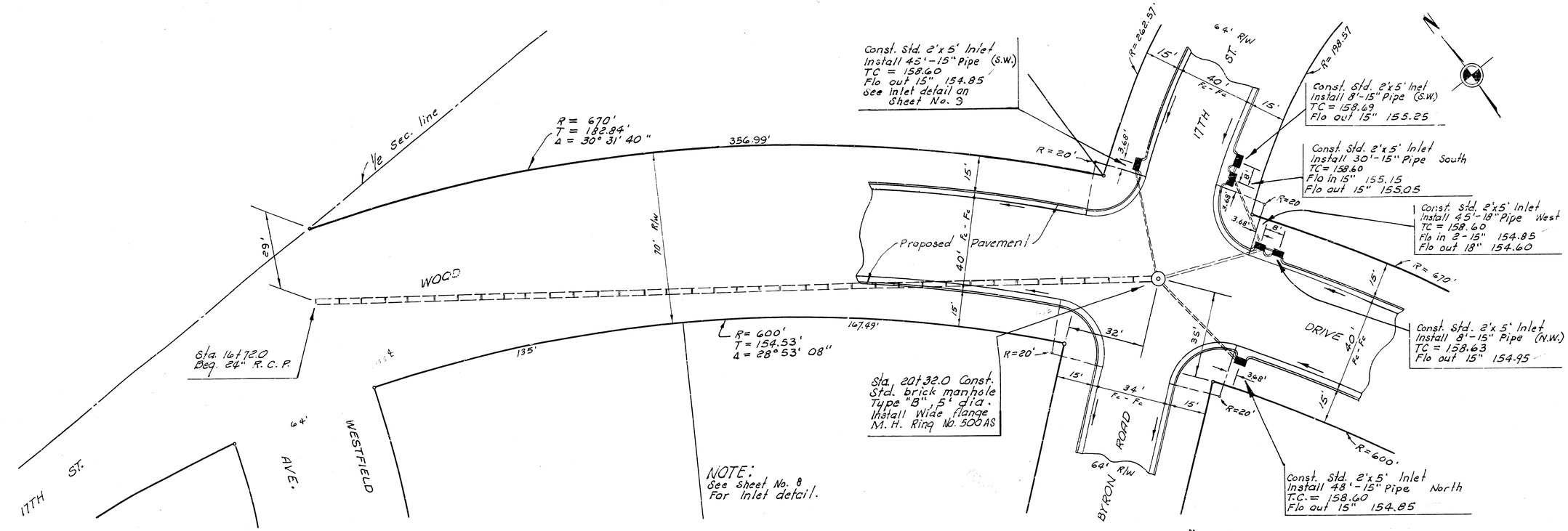
4/10
10/10

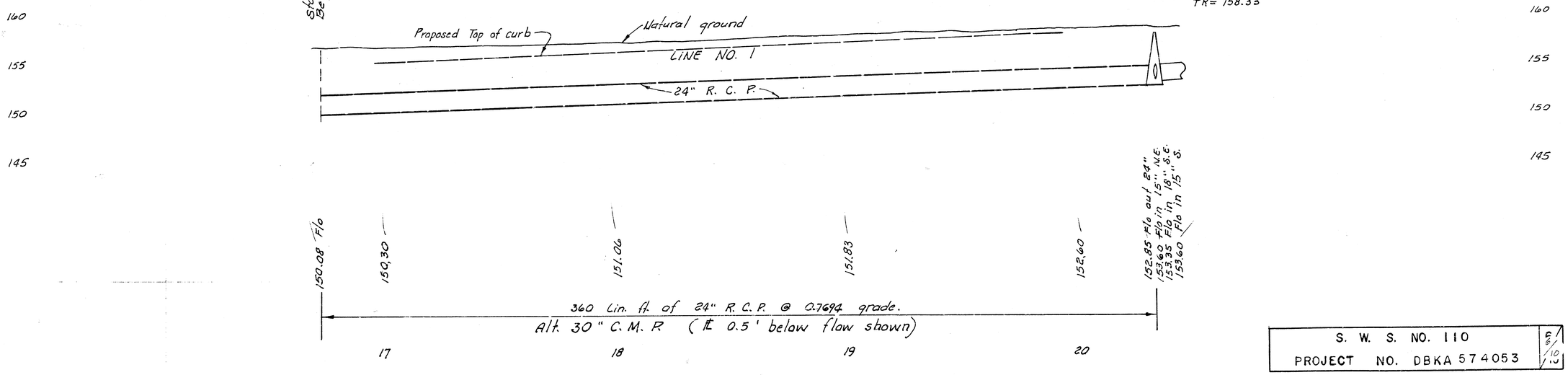




S. W. S. NO. 110
PROJECT NO. DBKA 57 4053

5/10/10



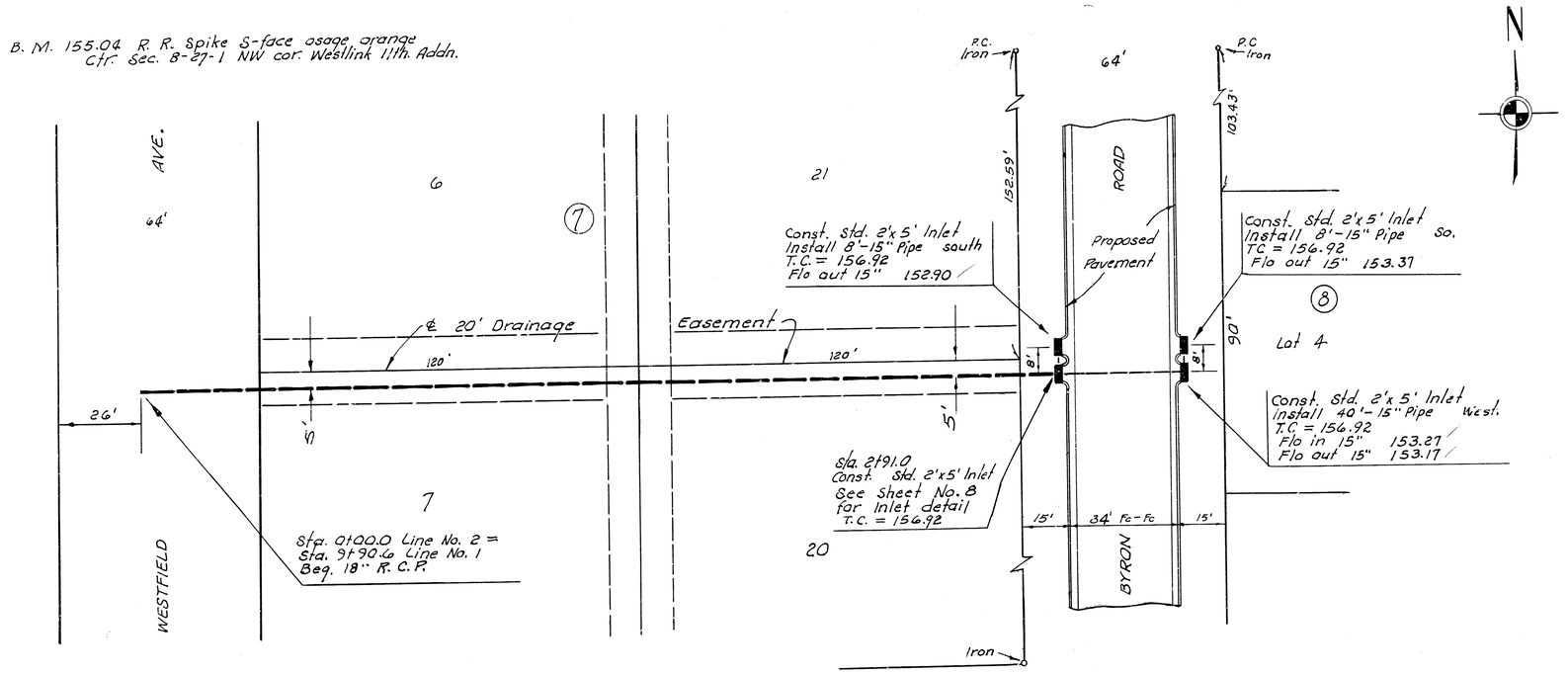


S. W. S. NO. 110

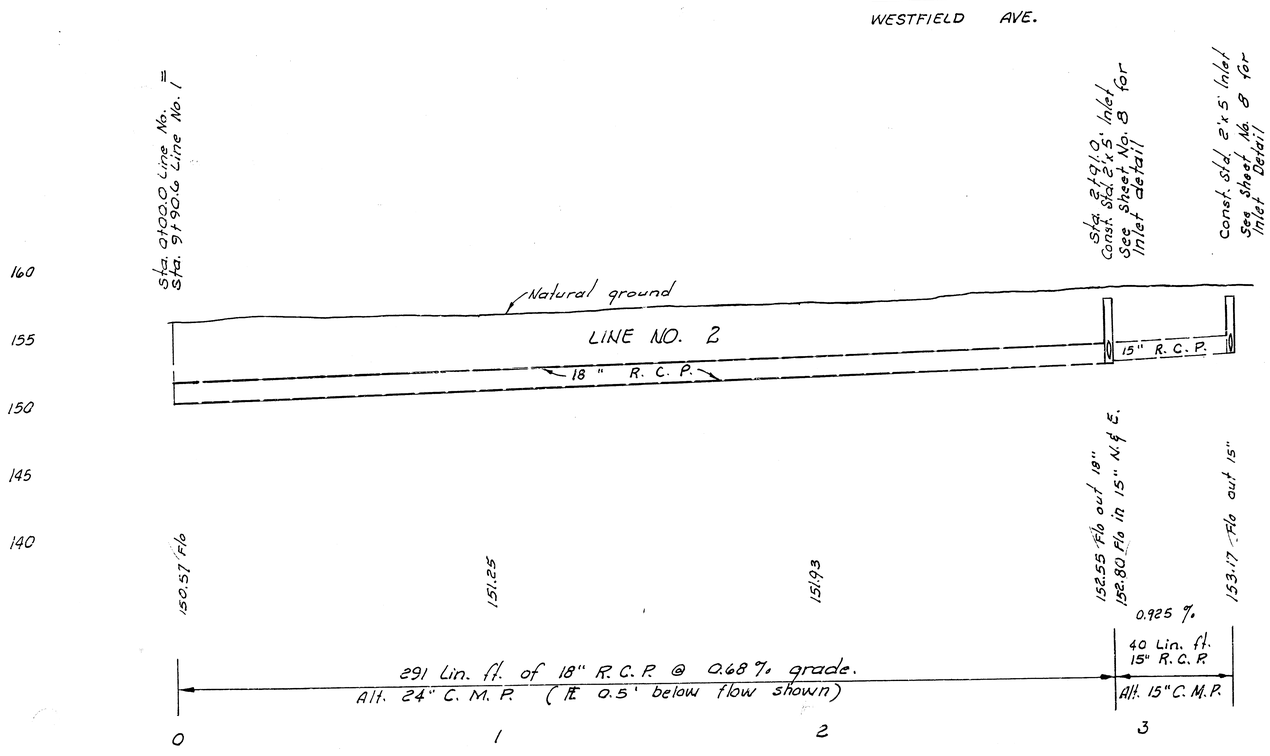
PROJECT NO. DBKA 574053

8/10/15

B. M. 155.04 R. R. Spike S-face osage orange
Ctr. Sec. 8-27-1 NW cor. Westlink 11th. Addn.



WESTFIELD AVE.



S. W. S. NO. 110
PROJECT NO. DBKA57 4053
9/10

FLAT TYPE INLET TO BE USED WHEN PAVEMENT IS ASPHALT PAVEMENT WITH ASPHALT JACK COURSE AND/OR WHEN PAVEMENTS HAVE ROLL CURB

NOTE: STRUCTURAL STEEL FOR INLET COVER WITH THE LETTERS "C.W." THE AMERICAN SOCIETY FOR TESTING AND DESIGNATION A-36

TOP OF INLET TO BE CONSTRUCTED TO GRADE ELEVATION AS STANDARD OR AS TEST ABOVE ROLL CURB

GUTTER LIP 3" BELOW TOP

GUTTER & CURB RETURNS BY PAVING CONTRACTOR

STD. GUTTER CONTINUES ACROSS INLET OPENING.

DO NOT DEPRESS GUTTER THROUGH OPENING FOR OFFSET INLET

HIGH EDGE OF GUTTER (ASPHALT PAVEMENT ONLY)

PLAN

STANDARD 2'x5' INLET AT SET-BACK LOCATION

SCALE 1"=1'-0"

1/4" PLATE STEEL

PLAN

SECTION

ELEVATION

CITY OF WICHITA STEEL INLET COVER WEIGHT 180 LBS. SHOP PAINT PRIME COAT SCALE 1"=1'-0"

ELEVATION

(ASPHALT PAVEMENT ONLY)

12" CONCRETE

V.I.P. GRADE

MORTAR

BRICK

SECTION THRU INLET

THRU INLET DETAIL

SCALE 1"=1'-0"

NOTE: BRICK FOR INLET CONSTRUCTION SHALL CONFORM WITH THE LATEST REVISION OF THE AMERICAN SOCIETY FOR TESTING AND MATERIALS DESIGNATION C32 FOR MANHOLE BRICK GRADE MS.

(X) CURB & GUTTER OR PAVEMENT THICKNESS

NOTE:
INLET COVER PLATES MUST BE MARKED TO INDICATE THEY ARE PROPERTY OF THE CITY OF WICHITA. CAST IRON INLET COVERS SHALL BE IMPRINTED ON THE TOP SURFACE WITH "CITY OF WICHITA" USING LETTERS AT LEAST 1-1/2" IN HEIGHT. STRUCTURAL STEEL INLET COVERS SHALL BE ENGRAVED WITH CAPITAL LETTERS "C.W." ON THE UNDERNEATH SIDE IN THE CORNER INDICATED BY ASTERISK WITH LETTERS AT LEAST 1-1/2" IN HEIGHT. THE LETTERS "C.W." MAY BE FORMED BY USING AN ARC WELD BEAD. OTHER METHODS OF IDENTIFICATION OF STRUCTURAL STEEL INLET COVERS MAY BE USED WHEN APPROVED BY THE ENGINEER. EQUIVALENT CAST IRON INLET COVER MAY BE SUBSTITUTED FOR STRUCTURAL STEEL COVER WHEN APPROVED BY THE ENGINEER

DETAIL STANDARD 2'x5' INLET (SET BACK LOCATION)

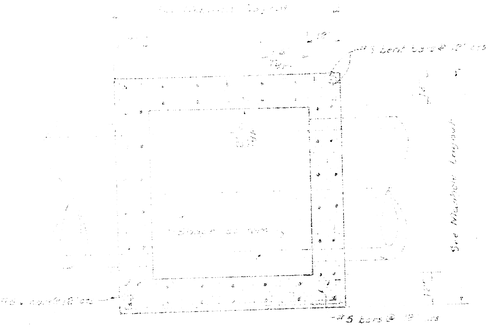
CITY OF WICHITA, KANSAS

R. W. LINN CITY ENGINEER

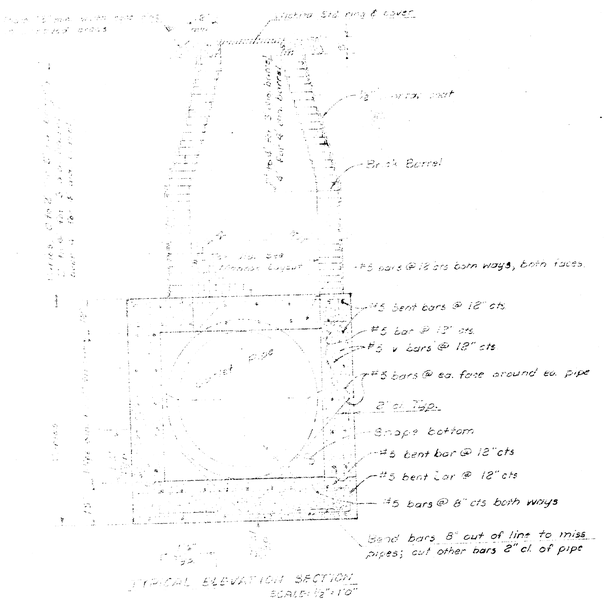
JUNE 1974

S. W. S. NO. 110
PROJECT NO. DBKA 57 4 0 53

8/10/10

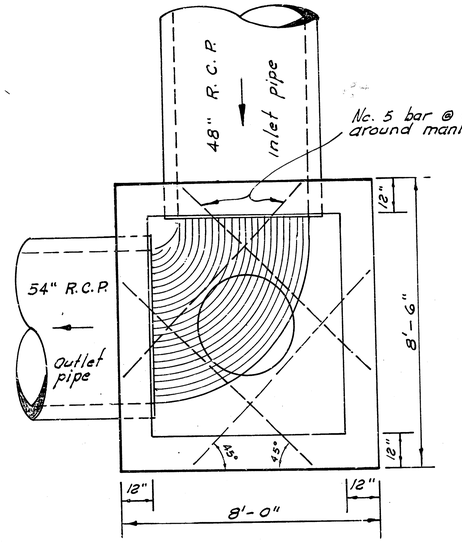


PLAN SECTION
SCALE 1"=1'0"

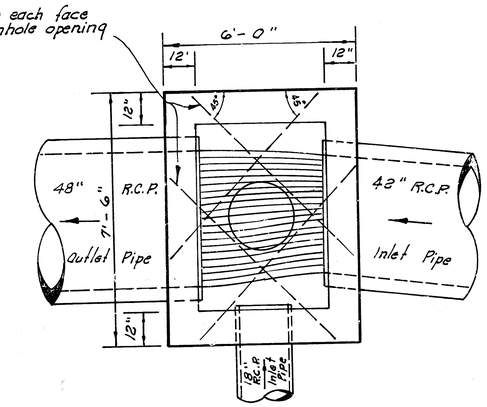


TYPICAL ELEVATION SECTION
SCALE 1/2"=1'0"

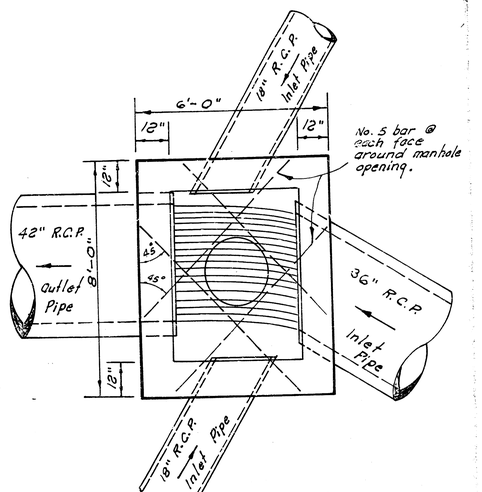
STD. REINF. CONC. MANHOLE DETAILS



PLAN SECTION
Sta. 9+34.1

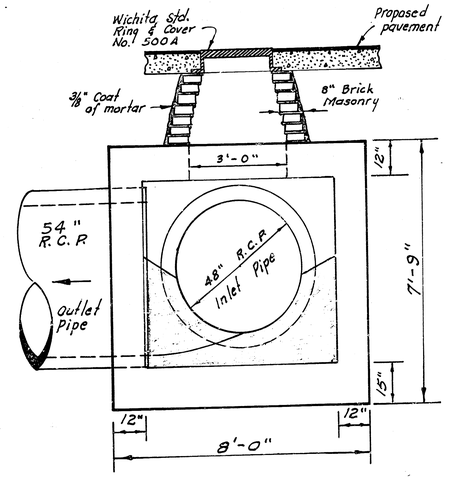


PLAN SECTION
Sta. 9+90.6

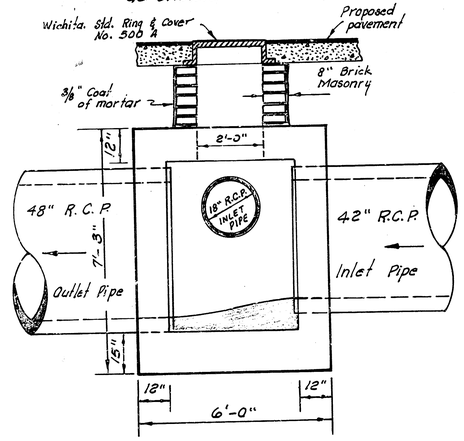


PLAN SECTION
Sta. 13+88.5

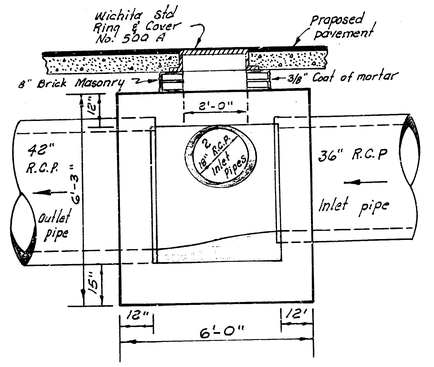
NOTE: Use the steel pattern shown in typical Section at left hand side of Sheet. Additional steel is required around manhole openings as shown.



ELEVATION SECTION
Sta. 9+34.1



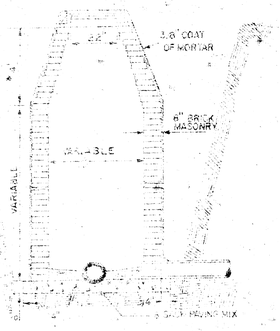
ELEVATION SECTION
Sta. 9+90.6



ELEVATION SECTION
Sta. 13+88.5

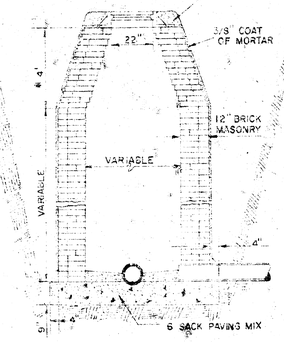
S. W. S. NO. 110
PROJECT NO. DBKA 574053

9/10

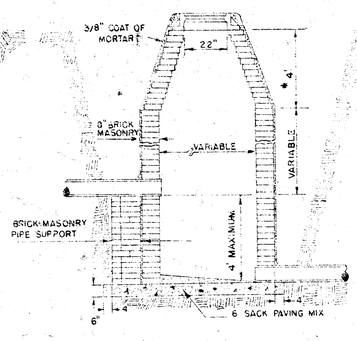


STANDARD MANHOLE
TYPE "A"

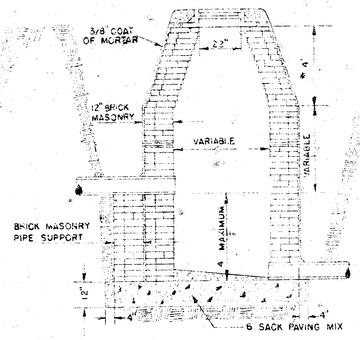
GROUT TO BE PLACED AROUND MANHOLE RING ONLY WHEN MANHOLE IS CONSTRUCTED IN UNPAVED AREAS. (TYPICAL ALL MANHOLES)



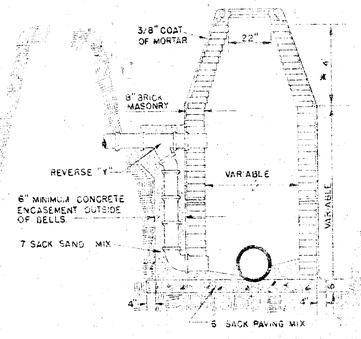
STANDARD MANHOLE
TYPE "B"



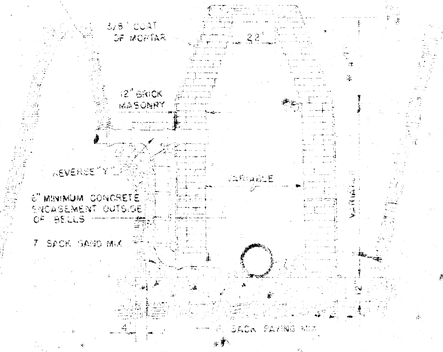
DROP MANHOLE
TYPE "A"



DROP MANHOLE
TYPE "B"

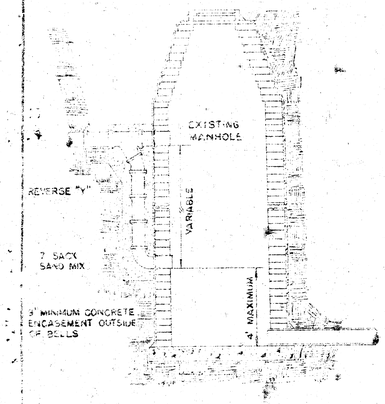


OUTSIDE DROP MANHOLE
TYPE "A"



OUTSIDE DROP MANHOLE
TYPE "B"

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

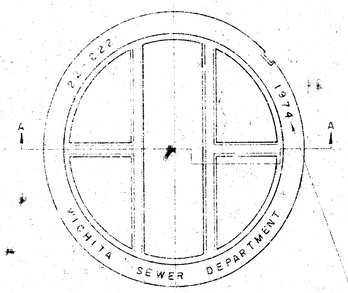


DETAIL OF DROP STACK

FOR EXISTING MANHOLES IN GROUND WATER

GENERAL NOTES

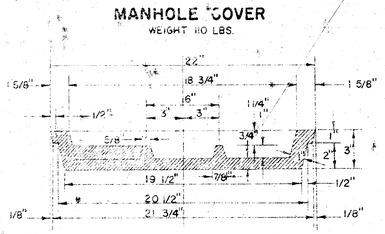
- MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 6 SACKS OF CEMENT PER CUBIC YARD.
- STANDARD MANHOLES TYPE 'A' OR TYPE 'B' AND STANDARD DROP MANHOLES TYPE 'A' OR TYPE 'B' SHALL BE BID AS STANDARD MANHOLES FOR THE TYPE AND DIAMETER INDICATED. OUTSIDE DROP MANHOLES SHALL BE BID AS STANDARD OUTSIDE 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.



TOP VIEW

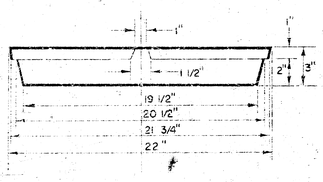
MANHOLE COVER

WEIGHT 110 LBS.



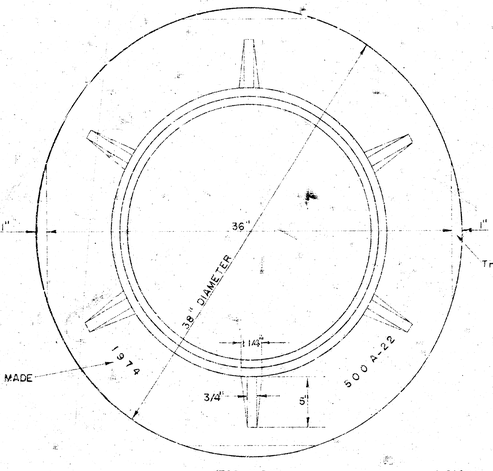
SECTION A-A

MANHOLE COVER



SIDE VIEW

MANHOLE COVER

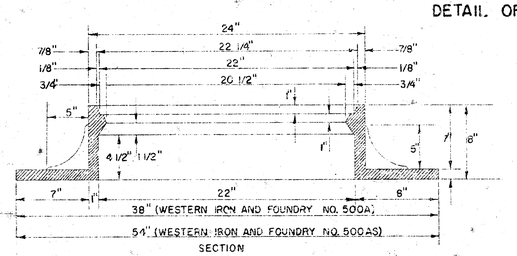


TOP VIEW

MANHOLE RING

WEIGHT 325 LBS. RING NO. 500A

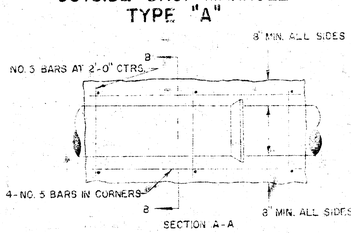
WEIGHT 800 LBS. RING NO. 500AS

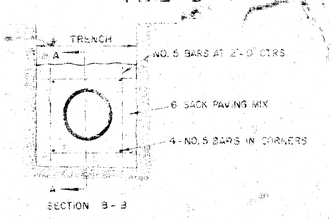


SECTION

MANHOLE RING

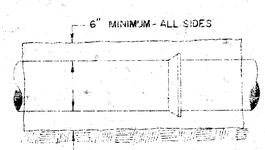
OUTSIDE CIRCUMFERENCE OF COVER AND THE INNER FACE AND SEAT OF RING TO BE MACHINE FIT.

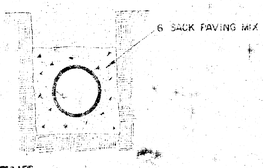




REINFORCED CONCRETE ENCASEMENT

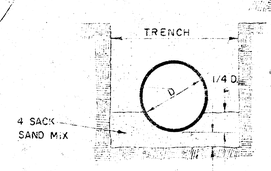
FOR STRENGTH





CONCRETE ENCASEMENT

FOR COVER

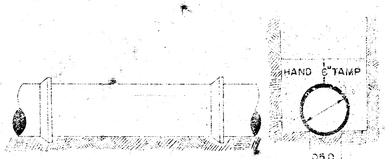


DETAIL OF CONCRETE CRADLE



ORDINARY BEDDING METOD

FOR CLAY PIPE



ORDINARY BEDDING METHOD

FOR REINFORCED CONCRETE PIPE

DETAILS OF

SEWER APPURTENANCES

ADOPTED AS STANDARD DESIGN

BY

ENGINEERING DIVISION

CITY OF WICHITA, KANSAS.

R. W. LINN CITY ENGINEER

1974

S. W. S. NO. 110

PROJECT NO. DSKA 5 74063

10/10 10