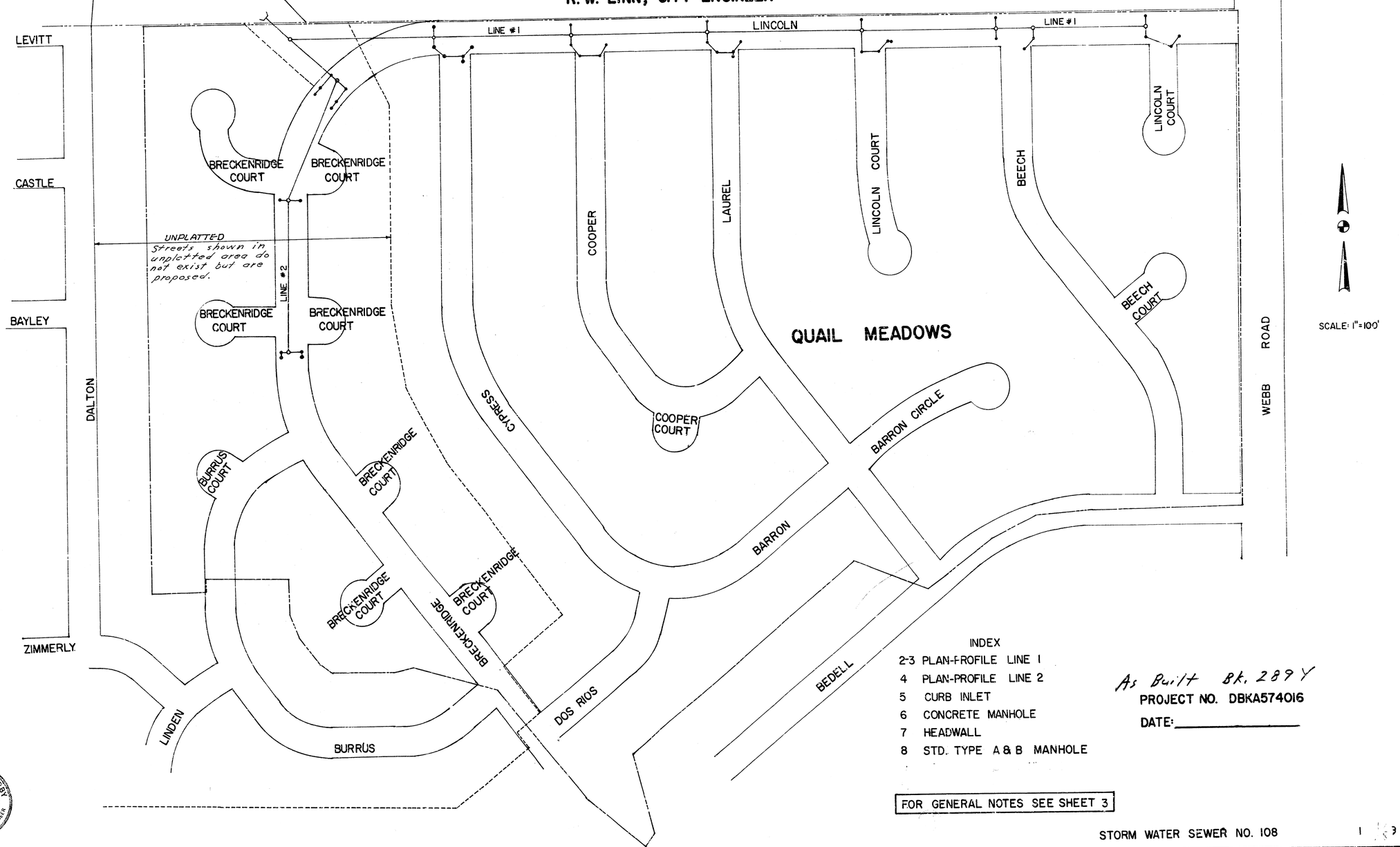
STORM WATER SEWER NO. 108

CITY OF WICHITA, KANSAS

R. W. LINN, CITY ENGINEER



INDEX

2-3 PLAN-PROFILE LINE 1
4 PLAN-PROFILE LINE 2
5 CURB INLET
6 CONCRETE MANHOLE
7 HEADWALL
8 STD. TYPE A & B MANHOLE

As Built Bk. 289 Y

PROJECT NO. DBKA574016

DATE: _____

FOR GENERAL NOTES SEE SHEET 3

WILLIAM S. KERBY LICENSED 2146 KANSAS PROFESSIONAL ENGINEER

BM 141.75 RR Spike & Face Light Pole SW Cor, Lincoln & Dalton

Construct Headwall
See Sheet 7

DRAINAGE DEDICATION

(Channel by Others)

Sta. 0+30 Face of Headwall
Start Pipe

2-36" RCP (5'-2" between cts.)

43.94

43°-12'-29" RCP

Line 2

1+02.6
Manhole Sta. ~~1+00~~ Line 1
Sta. 0+00 Line 2

DRAINAGE RES.

5'

35'

10" S.S.

10" S.S.

2-36" RCP (5'-2" between cts.)

LINCOLN MEADOWS ADD'N
Sec. 29, T27S, R2E

2'x5' Inlet, Top 156.40
15"x72' RCP, USFL 152.90, DSFL 151.80

Manhole Sta. ~~4+00.0~~ 4+23.5

2'x5' Inlet, Top 156.40
24"x28' RCP, USFL 152.10, DSFL 151.10

2'x5' Inlet, Top 157.40
18"x38' RCP, USFL 153.65, DSFL 153.05

2'x5' Inlet, Top 157.40
15"x30' RCP, USFL 154.30, DSFL 154.00

36" RCP

10"55

8.7'

8'

35' 8-8

64'

8.7'

CYPRESS

2'x5' Inlet, Top 157.46
15"x4' RCP, USFL 154.10
DSFL 154.00

2'x5' Inlet, Top 154.90
18"x30' RCP, USFL 152.95, DSFL 152.50

QUAIL MEADOWS ADD'N
Sec. 29, T27S, R2E

2'x5' Inlet, Top 159.80
15"x22' RCP, USFL 156.30, DSFL 156.00

Manhole Sta. ~~7+06.8~~ 7+27.0

2'x5' Inlet, Top 160.80
12"x22' RCP, USFL 156.40, DSFL 156.20

2'x5' Inlet, Top 160.60
15"x38' RCP, USFL ~~157.10~~ 157.20, DSFL ~~156.80~~ 156.90

2'x5' Inlet, Top 160.60
15"x30' RCP, USFL 157.70, DSFL 157.40

36" RCP

LINCOLN

COOPER

2'x5' Inlet, Top 160.60
18"x30' RCP, USFL ~~155.10~~ 156.90, DSFL ~~156.40~~ 156.50

NOTE: All inlet at set-back location

2'x5' Inlet, Top 161.50
15"x22' RCP USFL 158.00, DSFL 157.70

Manhole, Sta. ~~10+30.8~~ 10+30.5

2'x5' Inlet, Top 162.00
24"x22' RCP, USFL 157.75, DSFL 157.50

2'x5' Inlet, Top 162.40
18"x38' RCP, USFL 158.65, DSFL 158.30

2'x5' Inlet, Top 162.40
15"x30' RCP, USFL 159.50, DSFL 159.20

30" RCP

35'

8" S.S.

61' 8/8

70'

10"55 S.S.

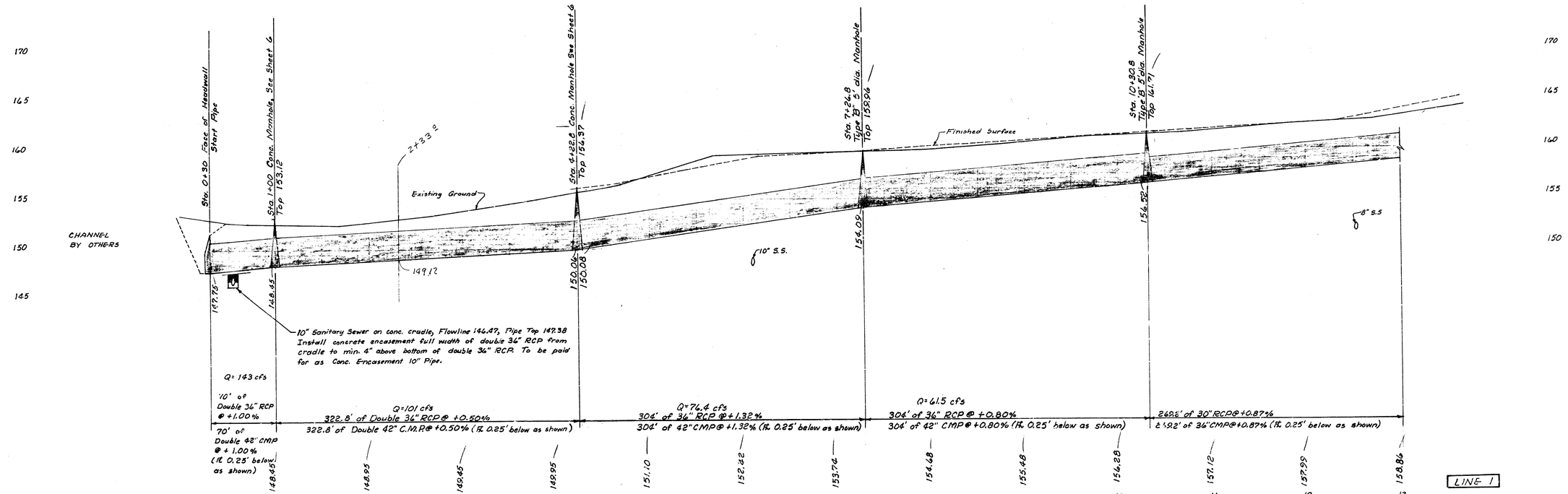
LAUREL

2'x5' Inlet, Top 162.51
15"x4' RCP, USFL 159.30, DSFL 159.20

2'x5' Inlet, Top 162.40
18"x30' RCP, USFL 158.20, DSFL 157.90

SCALE: Hor. 1"=50'
Ver. 1"=5'

D.K. 191, JFR 235
W.S.K.



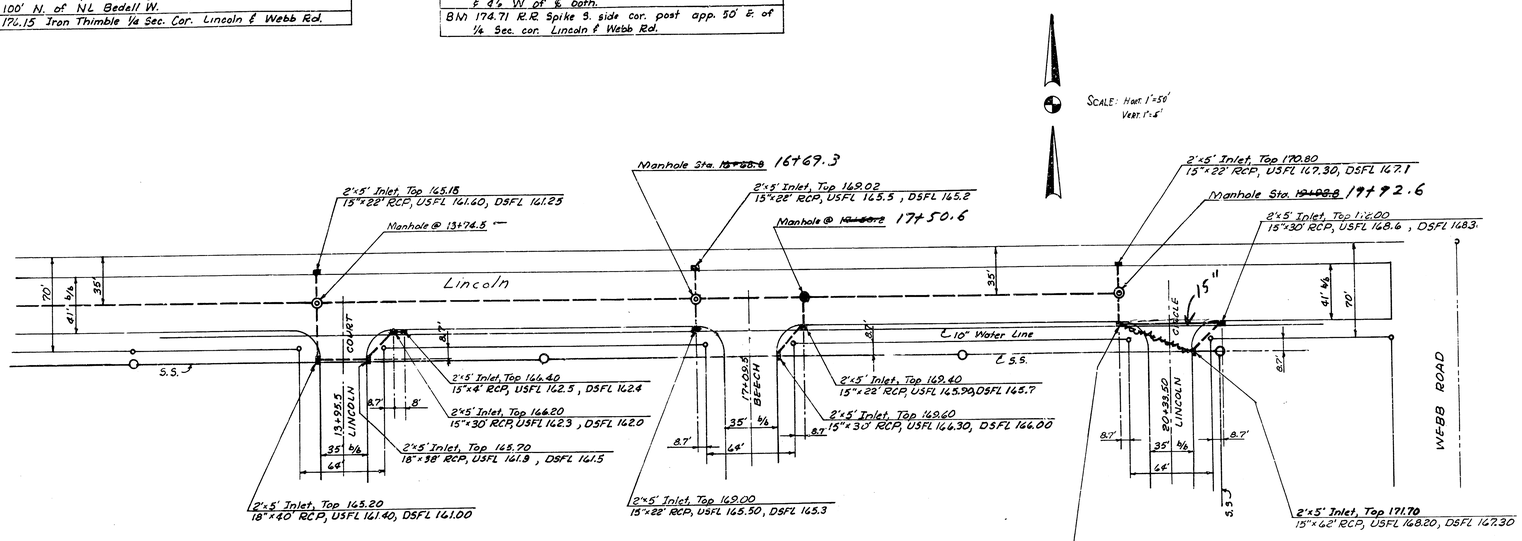
S. W. S. #108 PROJ. NO. DBKA574016 SHEET 7 & 8

BM 184.60 R.R. Spk. Top 2" guard pole E. side Webb Rd. opp. 100' N. of NL Bedell W.

BM 170.15 Iron Thimble ¼ Sec. Cor. Lincoln & Webb Rd.

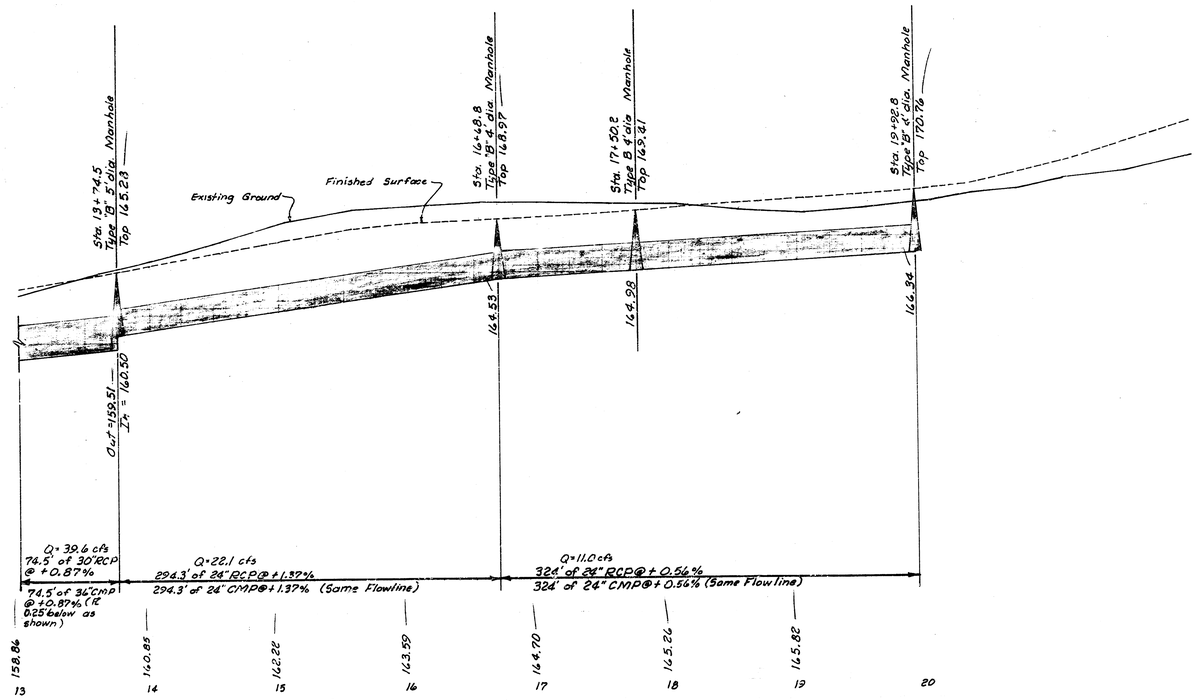
BM 172.03 Webb Rd & Harry Cofw B.M. Disc 48' So. & 4½' W of ℄ both.

BM 174.71 R.R. Spike S. side cor. post opp. 50' E. of ¼ Sec. cor. Lincoln & Webb Rd.



NOTE: All inlets at set-back location

2'×5' Inlet, Top 170.80
18"×22' RCP, USFL 167.1, DSFL 164.9



GENERAL NOTES

1. THE PRICE BID FOR CLEARING RIGHT OF WAY SHALL INCLUDE ALL COST FOR WORK NECESSARY TO CLEAR THE RIGHT OF WAY TO FACILITATE CONSTRUCTION OF THE STORM SEWER. TREES ARE NOT SHOWN ON THE PLAN AND THE CONTRACTOR WILL BE REQUIRED TO INSPECT THE SITE TO DETERMINE THE EXTENT OF TREE REMOVAL. ALL TREES NOT IN CONFLICT WITH CONSTRUCTION OF THE SEWER SHALL BE SAVED.

2. PIPE FURNISHED FOR THIS PROJECT SHALL EITHER BE ALL REINFORCED CONCRETE PIPE OR CORRUGATED METAL PIPE. CORRUGATED METAL PIPE SHALL CONFORM TO THE APPLICABLE SECTIONS OF SECTION 1009.05 AND SECTION 1009.07 OF THE 1973 KANSAS STATE HIGHWAY SPECIFICATIONS. CORRUGATED METAL PIPE FURNISHED FOR THIS PROJECT SHALL BE COATED IN ACCORDANCE WITH TYPE "B" OF SECTION 1009.07.

3. ALL CURB INLETS ARE TO BE CONSTRUCTED AT A SET BACK LOCATION. SEE SHEET NO. 5 FOR DETAILS. CONSTRUCTION NOTES FOR EACH INLET GIVE THE SIZE AND LENGTH OF THE OUTFLOW PIPE FROM THE INLET, THE UPSTREAM FLOW ELEVATION OF THE OUTFLOW PIPE (U.S.F.L.), AND THE DOWNSTREAM FLOW ELEVATION OF THE OUTFLOW PIPE (D.S.F.L.). FLOW ELEVATIONS SHOWN ON PLANS ARE FOR REINFORCED CONCRETE PIPE. FLOW ELEVATIONS MUST BE ADJUSTED AS INDICATED WHEN CORRUGATED METAL PIPE IS USED.

6. CONTRACTOR MUST USE SPECIAL CARE WHILE CONSTRUCTING INLETS ADJACENT TO WATERLINE OR WHILE CROSSING WATERLINE WITH STORM SEWER PIPE ON THE SOUTH SIDE OF LINCOLN.

7. MANHOLE RINGS HAVING A DIAMETER OF 54" SHALL BE USED WITH ALL 5' DIAMETER TYPE "B" MANHOLES.

LINE 1

BM 161.75 RR spike & face Light Pole on SW Cor. Lincoln & Dalton

CYPRESS

P.C.

Curve #1
Curve Data: (Left ROW)
Δ = 89°43'07" R=300' L=469.77
(Distance PCC to PT = 215.98')

Curve #2
Curve Data: (Street centerline)
Δ = 38°26'19" R=485' L=325.38'

NOTE: All inlets at set-back location.

Manhole Sta. ~~1+78.5~~ 1+22.4

2'x5' Inlet, Top 153.58
18"x22" RCP, USFL 149.70, DSFL 149.50

2'x5' Inlet, Top 153.56
18"x11" RCP, USFL 149.90, DSFL 149.80

2'x5' Inlet, Top 153.59
15"x11" RCP, USFL 150.30, DSFL 150.20

2'x5' Inlet, Top 153.50
Sta. ~~0+77.5~~ 0+98.5

Manhole Sta 0+00 Line 2
Sta. 1+00 Line 1

70'

41' B/B

15' 15'

PCC

Curve #1

2-36" RCP Line 1

45"x29" RCEP

45"x29" RCEP

23" RCEP

Proposed BRECKENRIDGE COURT

P.T.

301.37'

P.C.

2'x5' Inlet, Top 157.20
15"x28" RCP, USFL 153.70, DSFL 153.38

Manhole 4' Rt Street ℄
Sta. ~~7+00.0~~ 3+87.6

Stubbs at BRECKENRIDGE COURT

60'

8'

2'x5' Inlet, Top 163.10
18"x28" RCP, USFL 159.10, DSFL 158.90

2-2'x5' Inlets Top 163.18
2-15"x4" RCP, USFL 159.40, DSFL 159.30

P.T.

70'

41' B/B

Curve #2

Drainage Easement

Prop. BURRUS

70' Drainage Easement

30" RCP

BRECKENRIDGE (Proposed)

24" RCP

Prop. BRECKENRIDGE COURT

2'x5' Inlet, Top 153.50
15"x11" RCP
USFL 150.20, DSFL 150.10

2'x5' Inlet, Top 153.48
18"x11" RCP, USFL 150.00, DSFL 149.90

2'x5' Inlet, Top 157.20
15"x16" RCP, USFL 153.70, DSFL 153.38

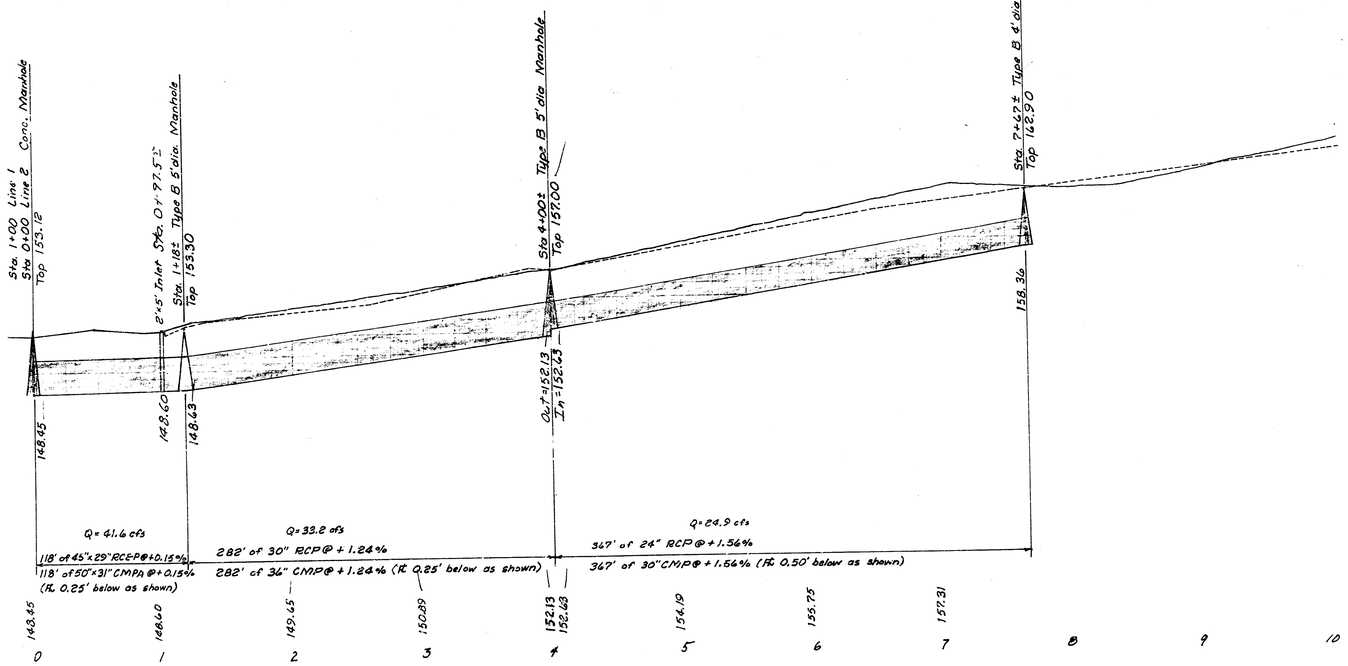
Prop. BRECKENRIDGE COURT

2'x5' Inlet, Top 163.10
18"x16" RCP, USFL 159.10, DSFL 158.90

Manhole 4' Rt. Street ℄
Sta. ~~7+00.0~~ 7+51.5

DRAINAGE DEDICATION

SCALE: HORT: 1"=50'
VERT: 1"=5'

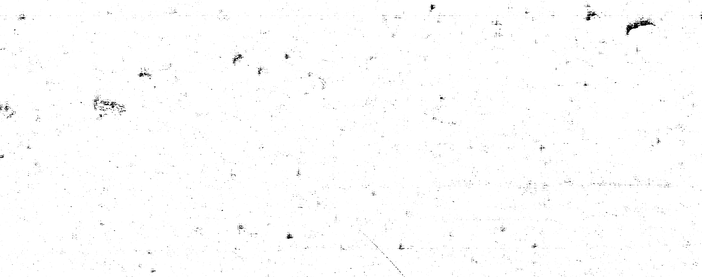


LINE 2

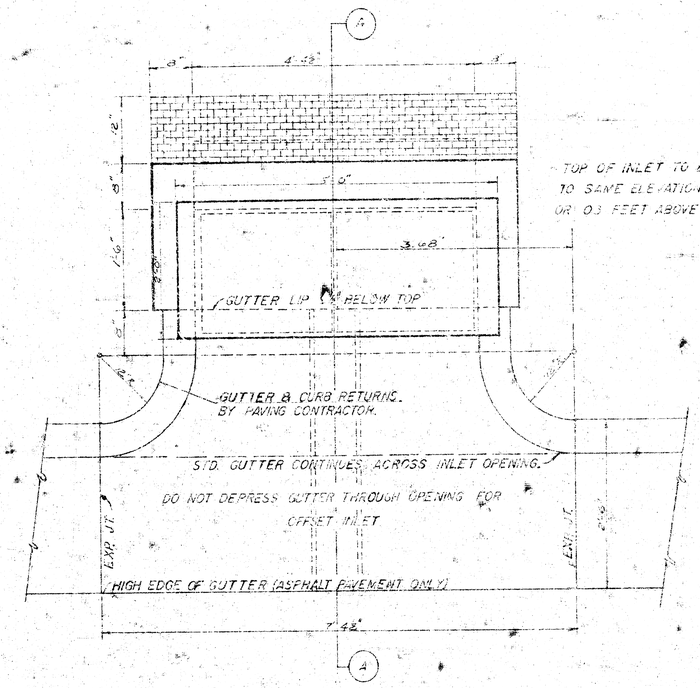
STORM WATER SEWER NO. 108 PROJ. NO. DBKA574016
SHEET 4 OF 8

THIS TYPE INLET TO BE USED WHEN PAVEMENT IS ASPHALT PAVEMENT WITH ASPHALT BASE COURSE AND/OR WHEN PAVEMENTS HAVE ROLL CURB.

NOTE: STRUCTURAL STEEL FOR INLET COVER SHALL CONFORM WITH THE LATEST REVISION OF THE AMERICAN SOCIETY FOR TESTING AND MATERIALS DESIGNATION A36.



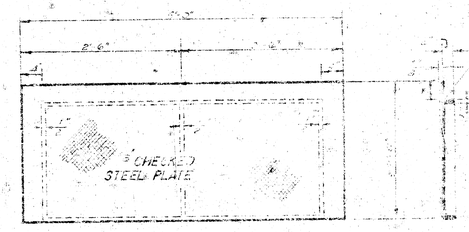
ELEVATION



PLAN

STANDARD 2'x5' INLET AT SET-BACK LOCATION

SCALE 1"=1'-0"

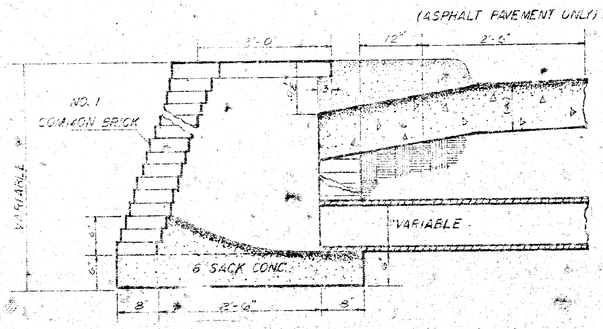


PLAN SECTION

ELEVATION

CITY OF WICHITA
STEEL INLET COVER
WEIGHT = 206 LBS.
SHOP PAINT = BLACK ASPH.
SCALE 1"=1'-0"

(ASPHALT PAVEMENT ONLY)



(A/A) SECTION THRU INLET

2'x5' 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.

(*) CURB & GUTTER OR PAVEMENT THICKNESS

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

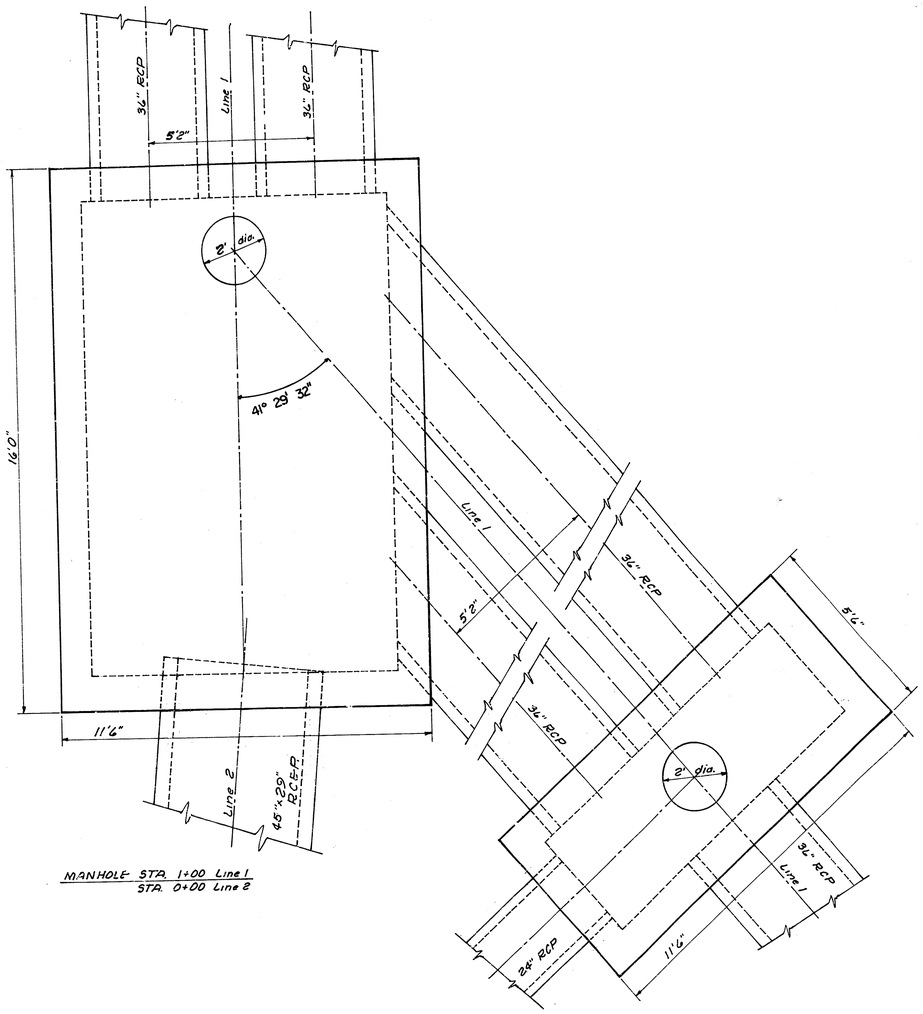
CITY OF WICHITA, KANSAS

R. W. LINN CITY ENGINEER

JUNE 1974

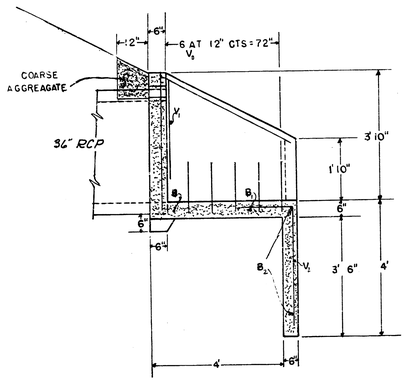
S. W. S. #108 PROJ. NO. DBKA574016 SHEET 5 OF 8

5/8

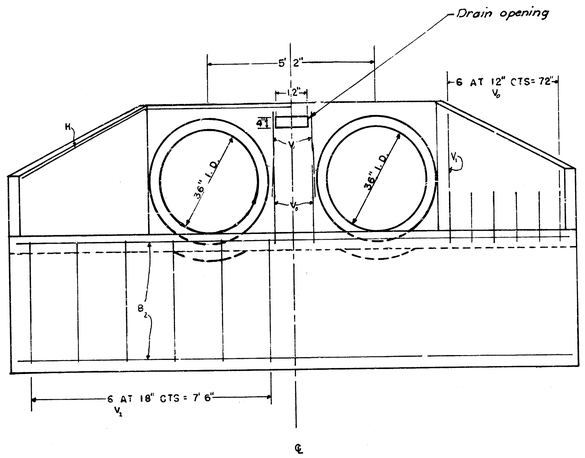


MANHOLE STA. 1+00 Line 1
STA. 0+00 Line 2

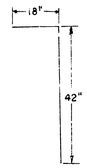
MANHOLE STA. 4+22.8 Line 1

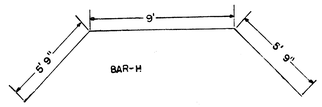


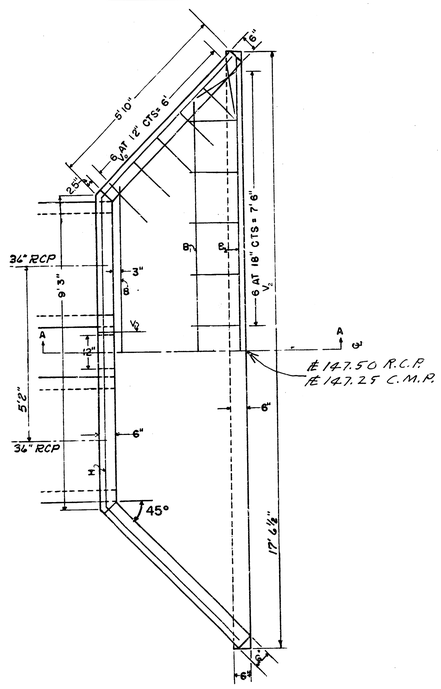
SECTION A-A



℄
END ELEVATION







PLAN
Scale: 1/8"=1'0"

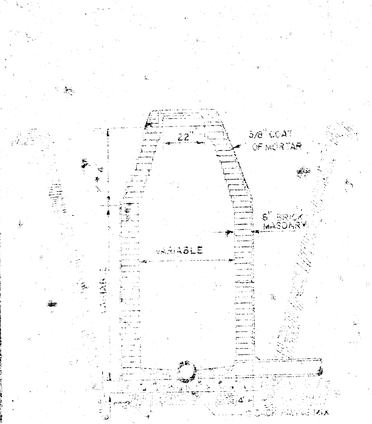
REINFORCED CONCRETE HEADWALL FOR

2 36" DIAMETER R.C. PIPE

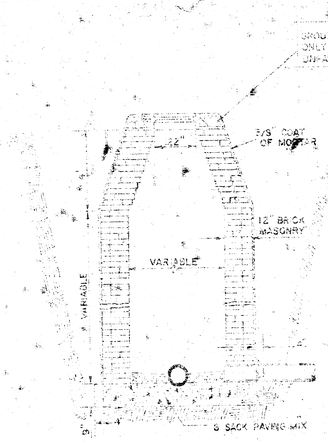
QUANTITIES

NO. OF ITEM	MATERIAL	LENGTH / ITEM	TOTAL LENGTH
3.5	CONCRETE	CU. YDS.	3.5 CU. YDS.
	REINF. STEEL	LIN. FT.	LIN. FT.
1	H-BAR	20.5	20.5
1	B-BAR	9.75	9.75
1	B_1-BAR	14.5	14.5
2	B_2-BAR	17.0	34.0
14	V_6-BAR	3.0	42.0
4	V_2-BAR	3.5	14.0
12	V_1-BAR	5.0	60.0
	TOTAL		195.0
		LBS/FT.	LBS.
195	STEEL	0.668	131

1. ALL REINFORCING STEEL SHALL BE #4 DEFORMED BAR.
2. ALL REINFORCING STEEL SHALL BE COVERED BY AT LEAST 2" OF CONCRETE.
3. IF SPLICING IS USED A LAP OF 20 DIAMETERS WILL BE USED, AT CONTRACTOR'S EXPENSE.
4. ALL CONCRETE WILL BE STANDARD PAVING MIX.
5. EMBANKMENT SLOPE ABOVE HEADWALL SHALL BE 2:1 OR FLATTER.

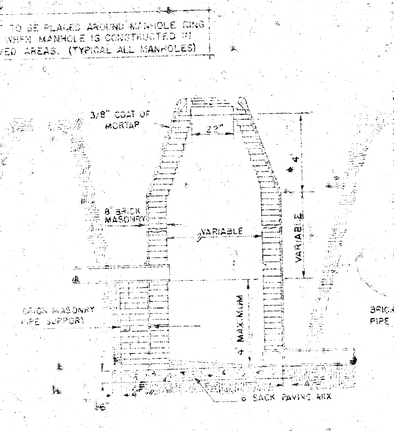


STANDARD MANHOLE
TYPE "A"

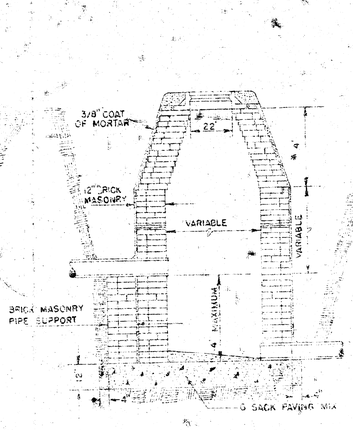


STANDARD MANHOLE
TYPE "B"

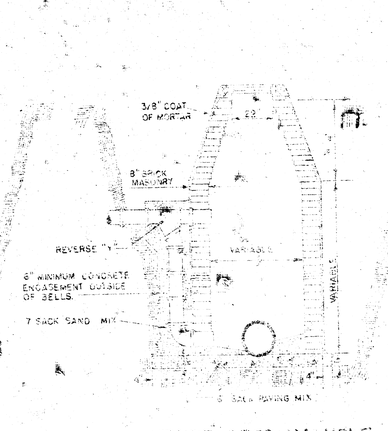
DRAW = 6' ON 5' DIA. M.H.



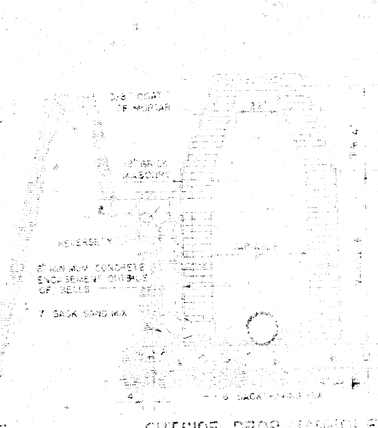
DROP MANHOLE
TYPE "A"



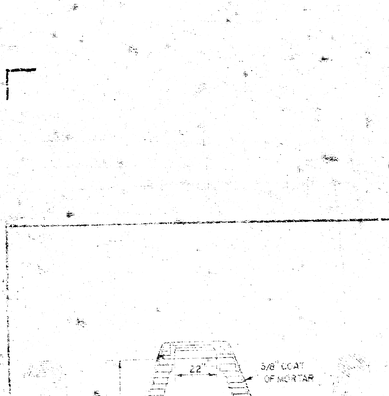
DROP MANHOLE
TYPE "B"



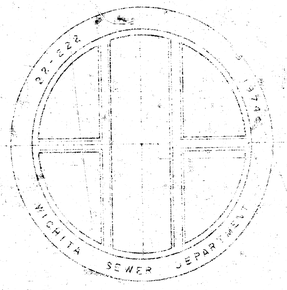
OUTSIDE DROP MANHOLE
TYPE "A"



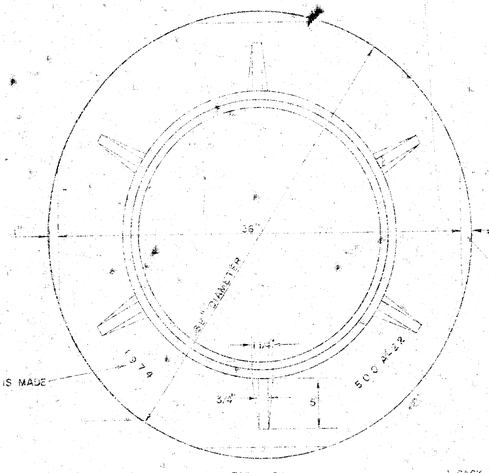
OUTSIDE DROP MANHOLE
TYPE "B"



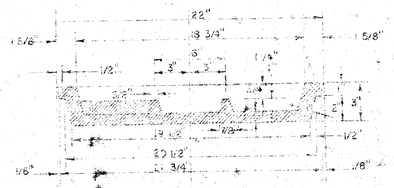
DETAIL OF DROP STACK
FOR EXISTING MANHOLES IN GROUND WATER



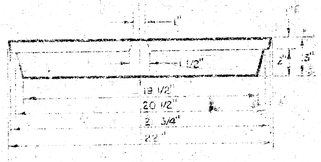
TOP VIEW
MANHOLE COVER
WEIGHT 310 LBS.



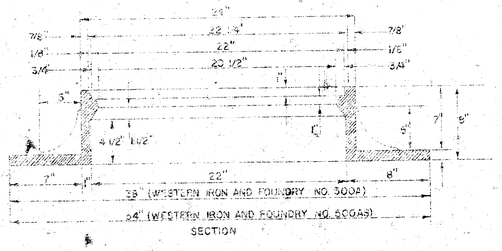
TOP VIEW
MANHOLE RING
WEIGHT 525 LBS. R/W NO. 500A
WEIGHT 500 LBS. RING NO. 500AS



SECTION A-A
MANHOLE COVER

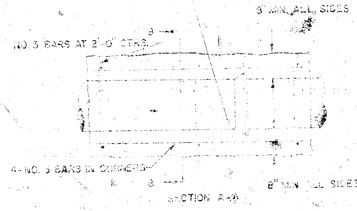


SIDE VIEW
MANHOLE COVER

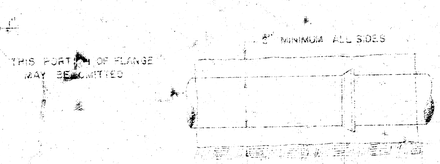


SECTION
MANHOLE RING

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



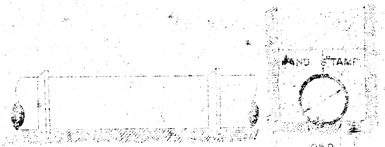
REINFORCED CONCRETE ENCASEMENT
FOR STRENGTH



CONCRETE ENCASEMENT
FOR COVER

DETAIL OF CONCRETE CRADLE

ORDINARY BEDDING METHOD
FOR CLAY PIPE



ORDINARY BEDDING METHOD
FOR REINFORCED CONCRETE PIPE

GENERAL NOTES

- MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 5 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 21" OR LARGER THAN 24" SHALL BE 5' DIAMETER.
- THE FLOORS OF ALL MANHOLES SHALL BE SHAPED TO INCREASE HYDRAULIC EFFICIENCY USING A DARK SAND MIX CONCRETE.

DETAILS OF
SEWER APPURTENANCES
ADOPTED AS STANDARD DESIGN
BY
ENGINEERING DIVISION
CITY OF WICHITA, KANSAS
R. W. LINK CITY ENGINEER
1974

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