MAIN 5, SOUTHWEST INTERCEPTOR SEWER
PARTS I & II

PROJ. NO. DBKM572018

CITY OF WICHITA, KANSAS

INDEX OF SHEETS

PLANS PREPARED BY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION
CITY OF WICHITA, KANSAS
R. W. BRUGGEMAN, DIRECTOR OF PUBLIC WORKS
R. W. LINN, CITY ENGINEER

R W Linn DATE:
R.W. LINN CITY ENGINEER

R. W. LINN LICENSED 3064 PROFESSIONAL ENGINEER STATE OF KANSAS

As Built 1-10-76

RIDGE
BOYTENBERG
ADDITION
QUEEN'S LAKE ADDITION
ROAD
MARCUS ADD.
SCALE 1" = 200'
N
COUNTRY ACRES FOURTH AND FOURTH "B" ADDITIONS
STREET
AVENUE
1855.43'
S 89° 10' W
EXISTING 18" SEWER
EXISTING 30" SEWER
TEMPORARY EASEMENT
TEMPORARY EASEMENT
STA. 0+00 EXISTING MANHOLE. BEGIN PART I.
UNPLATTED
LAKEVIEW DEVELOPMENT CO., INC.
P. O. BOX 4048
HERSHEL B. COOK
1405.5
44.42'
528.14'
1800'
751.15'
862'
261.87'
PERMANENT EASEMENT
MYRON C. WILBUR
943 WILBUR LANE
375'
150'
100'
NEW 30" SEWER
30'
224.8'
310.44'
238'
NEW 30" SEWER
TEMPORARY EASEMENT
PERMANENT EASEMENT
N 2° 37' W
534.92'
N 2° 19' E
551.64'
N 7° 22' E
552.20'
N 12° 22' E
552.20'
WESTERLY FLOOD CONTROL R/W LINE
N 17° 22' E
552.20'
N 22° 22' E
552.20'
499.38'
526.38'
1/4 SECTION CORNER
CENTER OF SECTION 15, T 27 S, R I W OF THE 6TH P. M.
WICHITA - VALLEY CENTER
CENTRAL
LAKEVIEW DEVELOPMENT CO., INC.
P. O. BOX 4048
660'
MARCUS D. GOW
6601 W. 13th. ST.
330'
10' TEMPORARY EASEMENT
TEMPORARY EASEMENT
NEW 30" SEWER
75'
150'
75'
660'
240'
1/4 SECTION CORNER
PERMANENT EASEMENT
TEMPORARY EASEMENT
N 27° 21' E
552.20'
RICHARD CLUPNY
6225 W. 13th. ST.
745'
ALOYSIUS CLUPNY
6213 W. 13th. ST.
TRACTS
N 32° 21' E
552.20'
N 37° 21' E
552.20'
FLOOD CONTROL
N 40° 47' E
208.07'
N 41° 44' E
346.38'
N 0° 12' W
248.15'
THIRTEENTH
310'
STA 53+47 END PART I AT SOUTH BK. 13th. STREET. STA. 0+00 BEGIN PART II AT SOUTH LINE OF 13th STREET.
LOCATION MAP PART I
MAIN 5, S. W. INT. SEWER
SH. NO. 2 OF 17

SEDGWICK COUNTY ZOO

SCALE 1"=200'

N

CENTER OF SEC. 10, T27S, R1W OF 6TH P.M.

S. 1/4 COR. SEC. 10, T27S, R1W OF 6TH P.M.

N. 1/4 COR. OF SEC. 10, T27S, R1W OF 6TH P.M.

ST. NO.

13TH

NEW 30" SEWER

20' SEWER EASEMENT

LOT 2

BLOCK "A"

STA. 49+43 END PART II.

STA. 53+47 END PART I AT SOUTH LINE OF 13th. STREET. EQUATION STA. 53+47 BK. AHEAD STA. 0+00 BEGIN PART II AT SOUTH LINE OF 13th STREET.

20' UTILITY EASEMENT

30' SEWER EASEMENT

50' PIPELINE EASEMENT

30' UTILITY EASEMENT

NEW 24" SEWER

BASE LINE FOR 50' PIPELINE EASMT.

EXISTING 10" SEWER

EXISTING 10" SEWER

EXISTING 8" SEWER

LOT 1

WINDMILL RD.

21ST.

SECOND ADDN.

SECTION CORNER

1/4 SECTION CORNER

SECTION CORNER

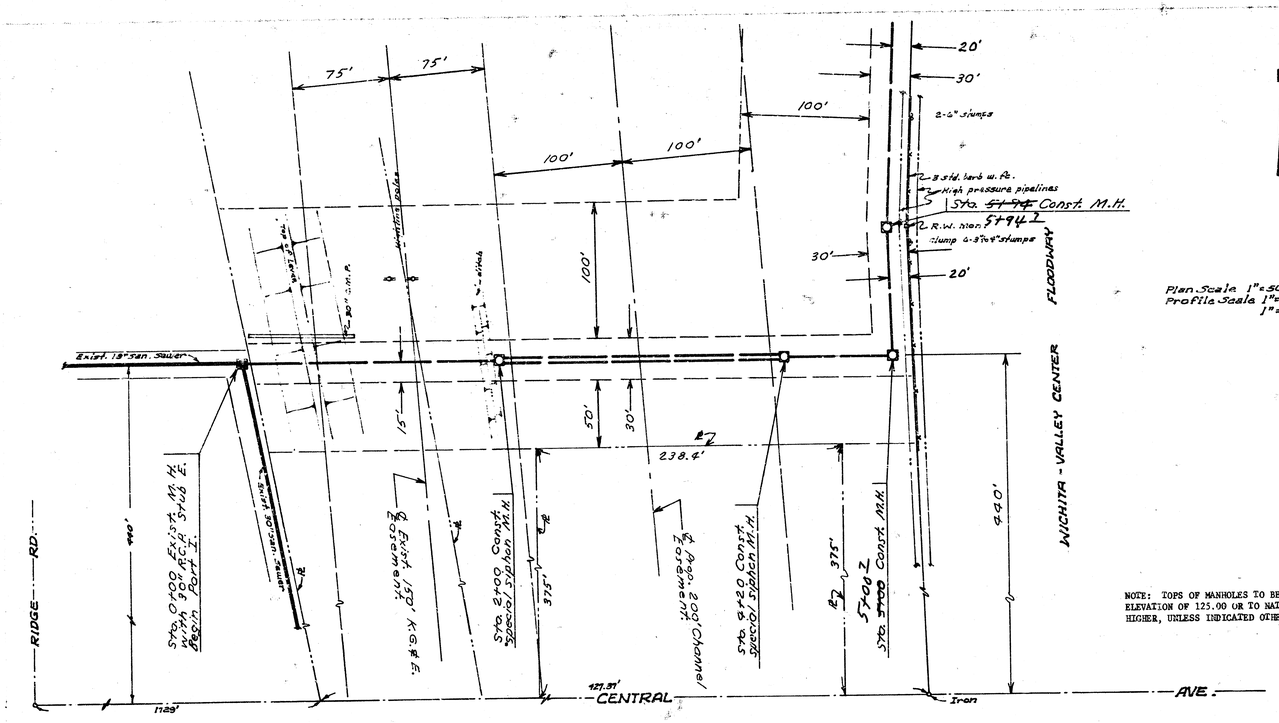
ZOO BLVD.

MO. PAC. R.R.

LOCATION MAP PART II

MAIN 5, S. W. INT. SEWER
SH. NO. 3 OF 17

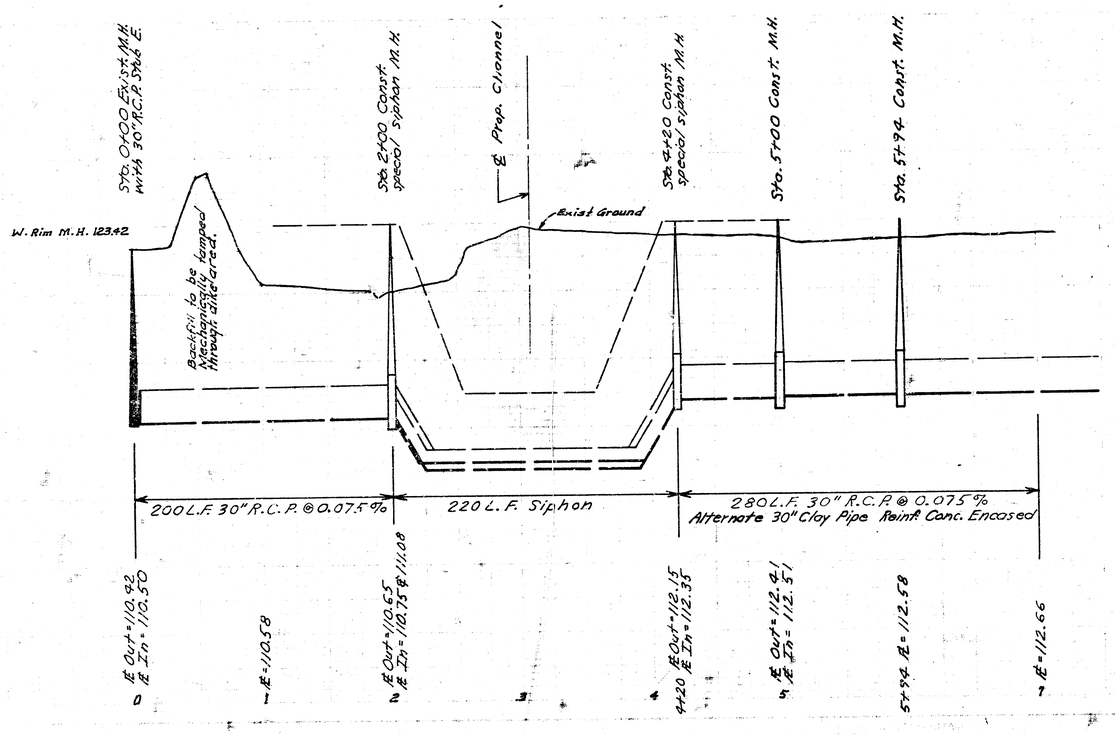
3/17



Plan Scale 1"=50'
Profile Scale 1"=50' Hor.
1"=5' Vert.

NOTE: TOPS OF MANHOLES TO BE CONSTRUCTED TO A MINIMUM ELEVATION OF 125.00 OR TO NATURAL GROUND, WHICHEVER IS HIGHER, UNLESS INDICATED OTHERWISE BY PLANS.

B.M. 133.39 "X" on Bridge deck N.W. cor. conc. Bridge @ Central & Big Ditch
B.M. 128.69 R.R. Spike S.W. Side P.P. Front of dog & cat Hosp. 6408 W. Central



GENERAL NOTES

1. REINFORCED CONCRETE PIPE FOR SANITARY SEWER SHALL BE LINED WITH PLASTIC EXCEPT FOR THE BOTTOM SEGMENT SUBTENDED BY A 60° ANGLE. SEE SHEET NO. 16 FOR DETAIL SHOWING PLASTIC LINING. PLASTIC LINING SHALL BE AMER-PLATE T-LOCK LINER PLATE AS MANUFACTURED BY AMERON CORPORATION, LOK-RIB KOROSEAL CONCRETE PIPE LINING AS MANUFACTURED BY B. F. GOODRICH, OR AN APPROVED EQUAL.

2. SHOP DRAWINGS FOR CONCRETE PIPE AND PRECAST MANHOLES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

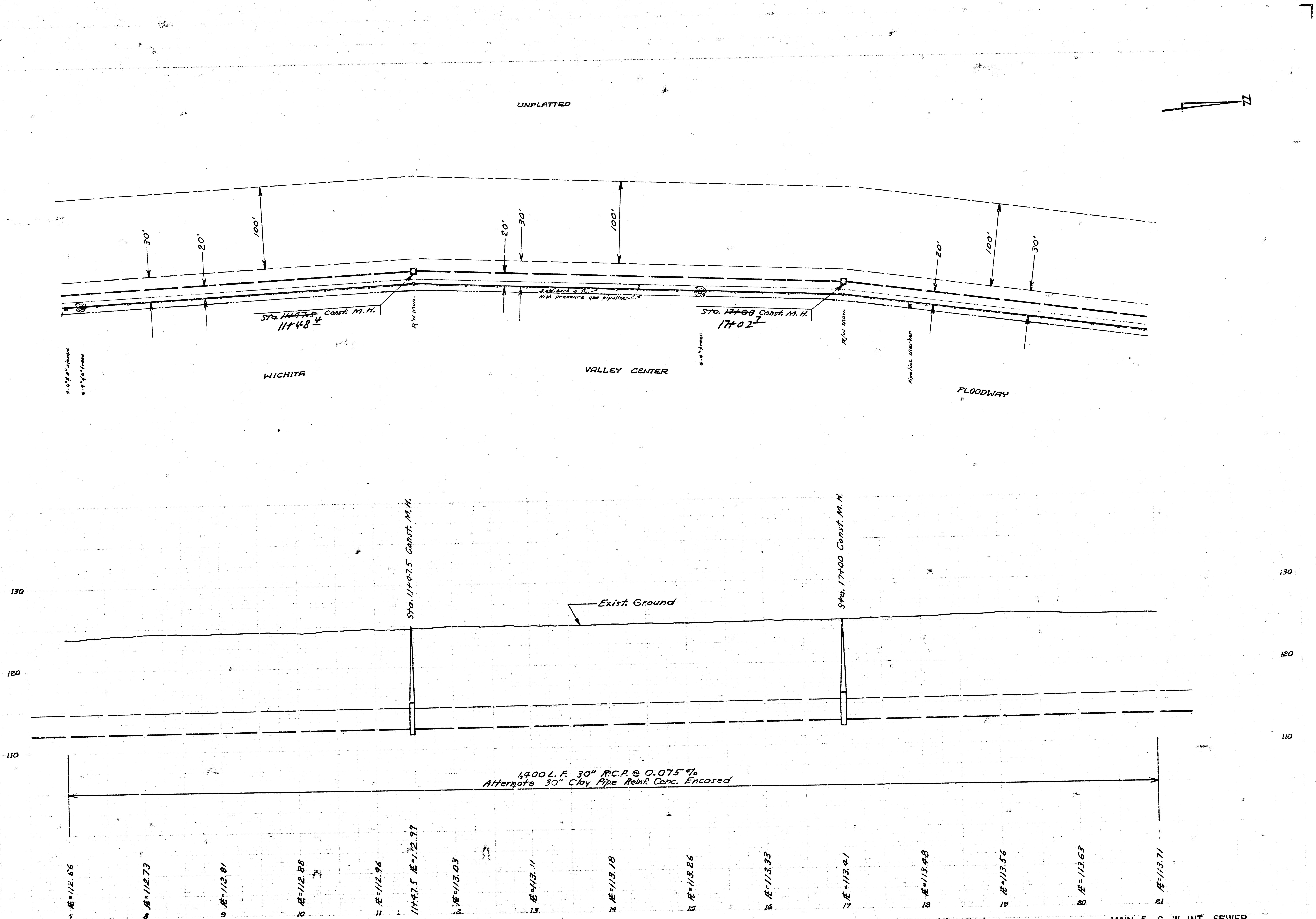
3. FLOORS OF ALL CAST IN PLACE CONCRETE MANHOLES AND ALL BRICK MANHOLES ARE TO BE SHAPED TO INCREASE HYDRAULIC EFFICIENCY USING CONCRETE FILL. CONCRETE FILL SHALL CONTAIN FINE AGGREGATE ONLY AND EIGHT SACKS OF CEMENT PER CUBIC YARD.

4. ALL COSTS FOR REMOVING AND REPLACING FENCES WILL NOT BE PAID FOR DIRECTLY AND THIS COST SHALL BE CONSIDERED AS SUBSIDIARY TO THE OTHER ITEMS OF WORK.

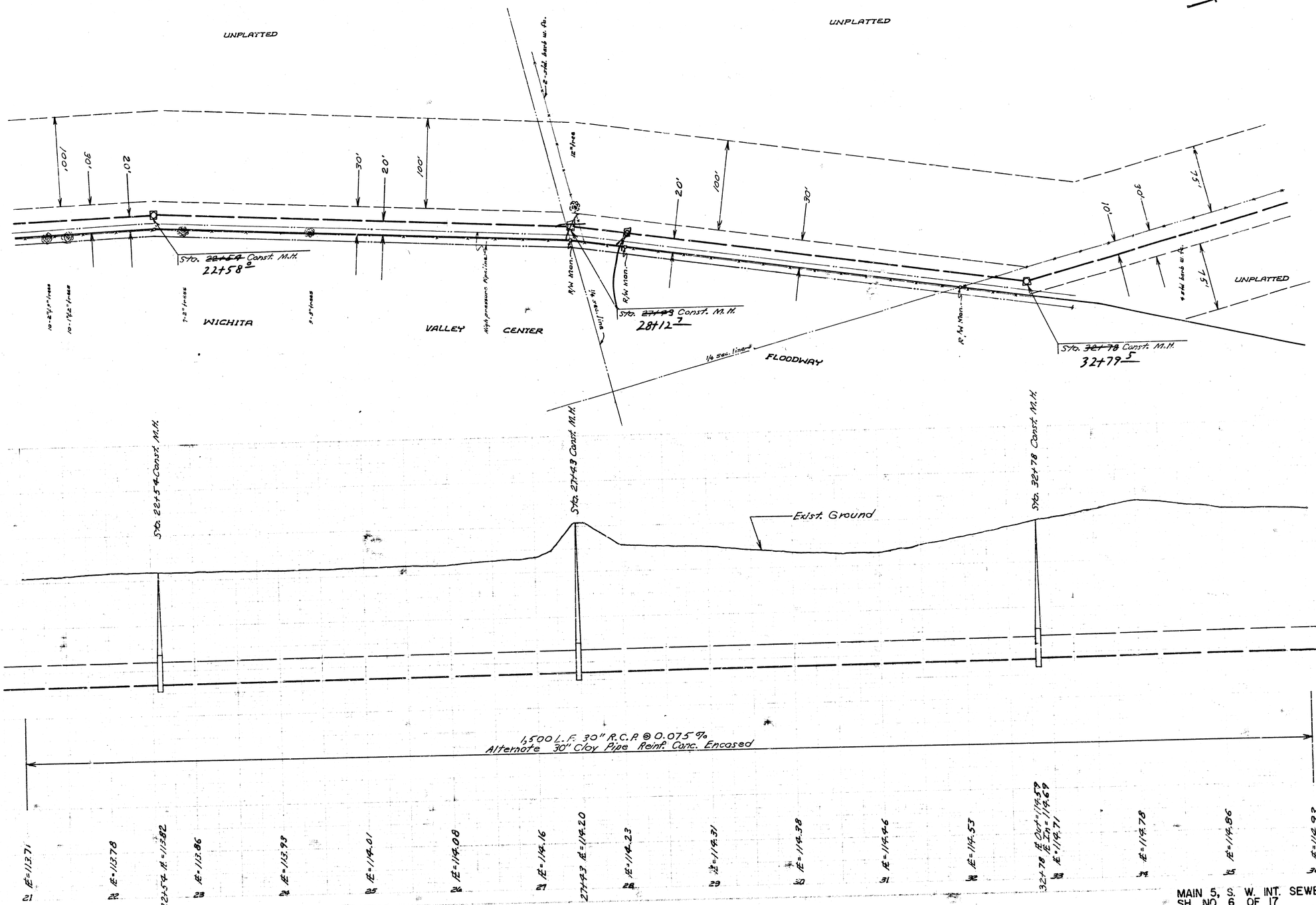
5. CLAY PIPE 30" AND 24" IN DIAMETER SHALL BE STANDARD STRENGTH. CLAY PIPE 8" AND 10" IN DIAMETER SHALL BE EXTRA STRENGTH.

MAIN 5, S. W. INT. SEWER
SH. NO. 4 OF 17

4/17



MAIN 5, S. W. INT. SEWER
SH. NO. 5 OF 17



MAIN 5, S. W. INT. SEWER
SH. NO. 6 OF 17

6/17

UNPLATTED

Caution: Do not disturb walnut trees.

75'
30'
10'
5'
200'
660'

Sta. ~~38+00~~ Const. M.H.
38+02

Sta. ~~43+00~~ Const. M.H.
43+02

Sta. ~~47+41~~ Const. M.H.
47+44

UNPLATTED

Sta. 38+00 Const. M.H.

Sta. 43+00 Const. M.H.

Sta. 47+41 Const. M.H.

Exist. Ground

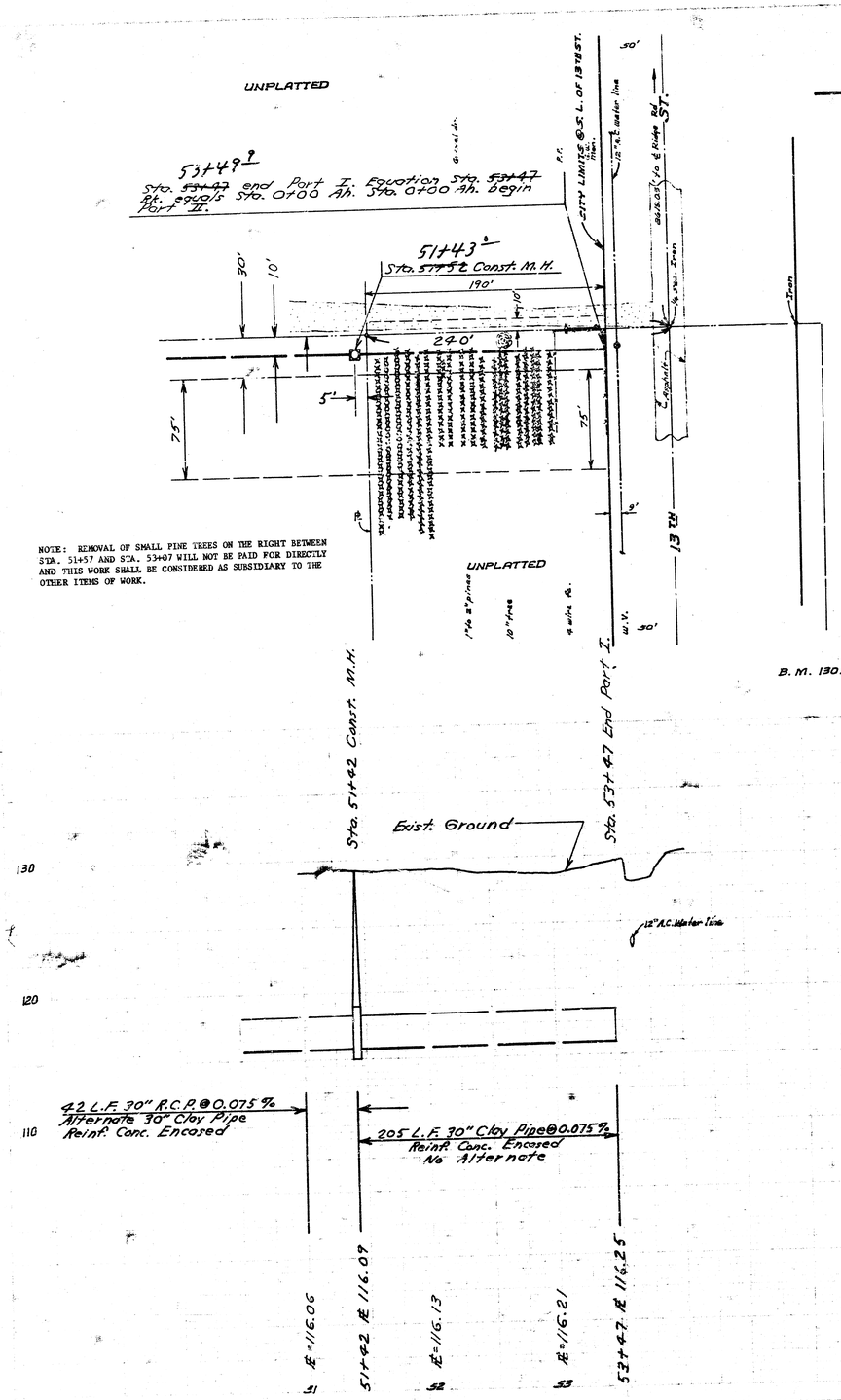
130
120
110

1,500 L.F. 30" R.C.P. @ 0.075%
Alternate 30" Clay Pipe Reinf. Conc. Encosed

	E=115.01	E=115.08	E=115.16	E=115.23	E=115.31	E=115.38	E=115.46	E=115.53	E=115.61	E=115.68	E=115.76	47+41 E=115.79	E=115.83	E=115.91	E=115.98	E=116.06
36	37	38	39	40	41	42	43	44	45	46	47		48	49	50	51

MAIN 5, S. W. INT. SEWER
SH. NO. 1 OF 17

7/19

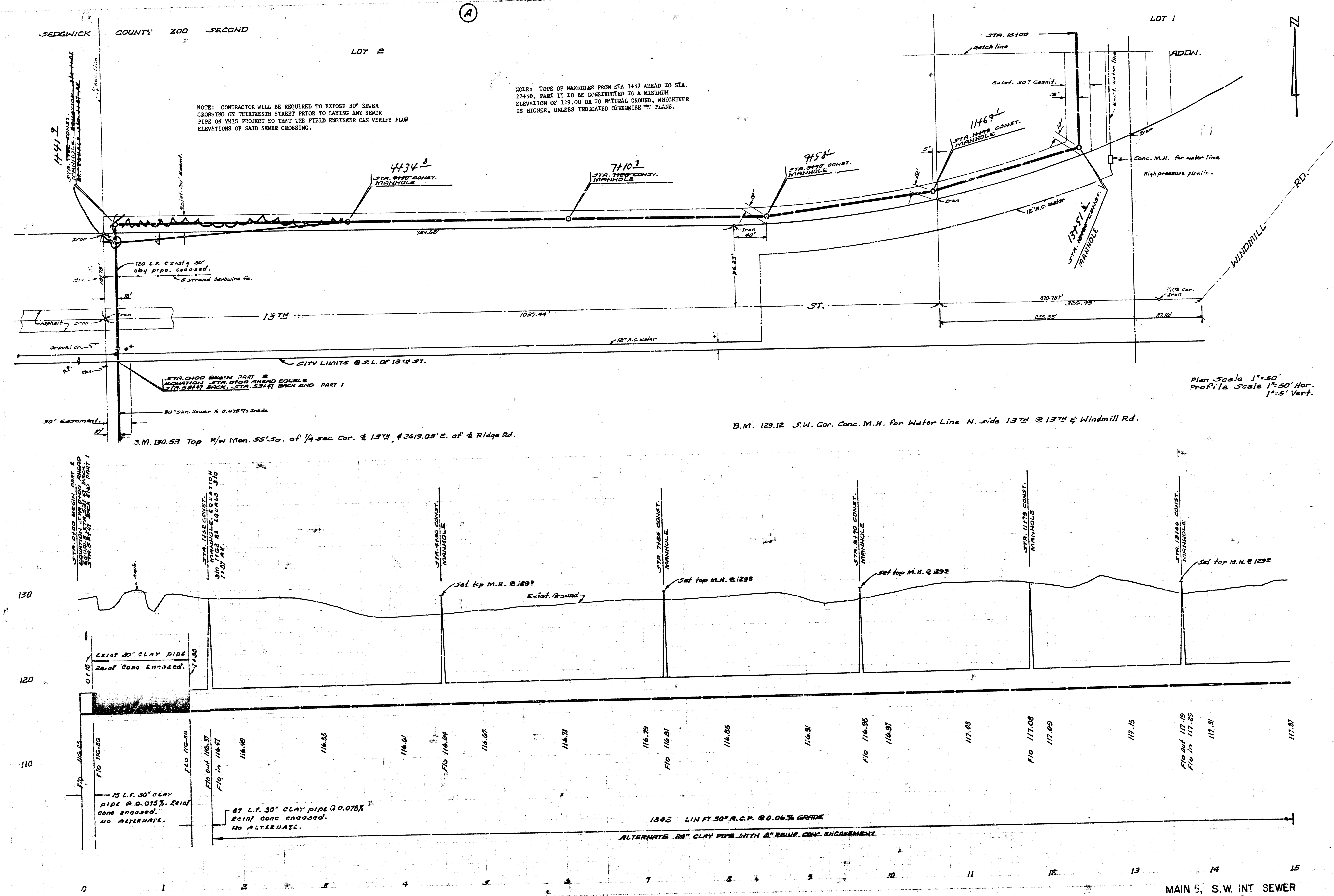


Manhole Schedule Part I

Location	Type	Location of Openings for Future Sewers
2+00.00	Special Reinf. Conc. No Alternate	None
4+20.00	Special Reinf. Conc. No Alternate	8" South Æ=114.18
5+00.00	Reinf. Conc. Alternate 5' Dia. Type B	8" South Æ=114.34
5+79.00	Reinf. Conc. Alternate 5' Dia. Type B	8" West Æ=114.91
11+47.50	Reinf. Conc. Alternate 5' Dia. Type B	8" West Æ=114.83
17+00.00	Reinf. Conc. Alternate 5' Dia. Type B	8" West Æ=115.24
22+54.00	Reinf. Conc. Alternate 5' Dia. Type B	8" West Æ=115.95
27+93.00	Special Reinf. Conc. Alternate 5' Dia. Type B	10" West Æ=116.70
32+78.00	Reinf. Conc. Alternate 5' Dia. Type B	8" West Æ=116.52
38+00.00	Structural Tee Alternate 5' Dia. Type B	8" West & 8" East Æ=116.91
43+00.00	Structural Tee Alternate 5' Dia. Type B	8" West & 8" East Æ=117.29
47+41.00	Structural Tee Alternate 5' Dia. Type B	8" West & 8" East Æ=117.63
51+52.00	Structural Tee Alternate 5' Dia. Type B	8" West & 8" East Æ=117.93

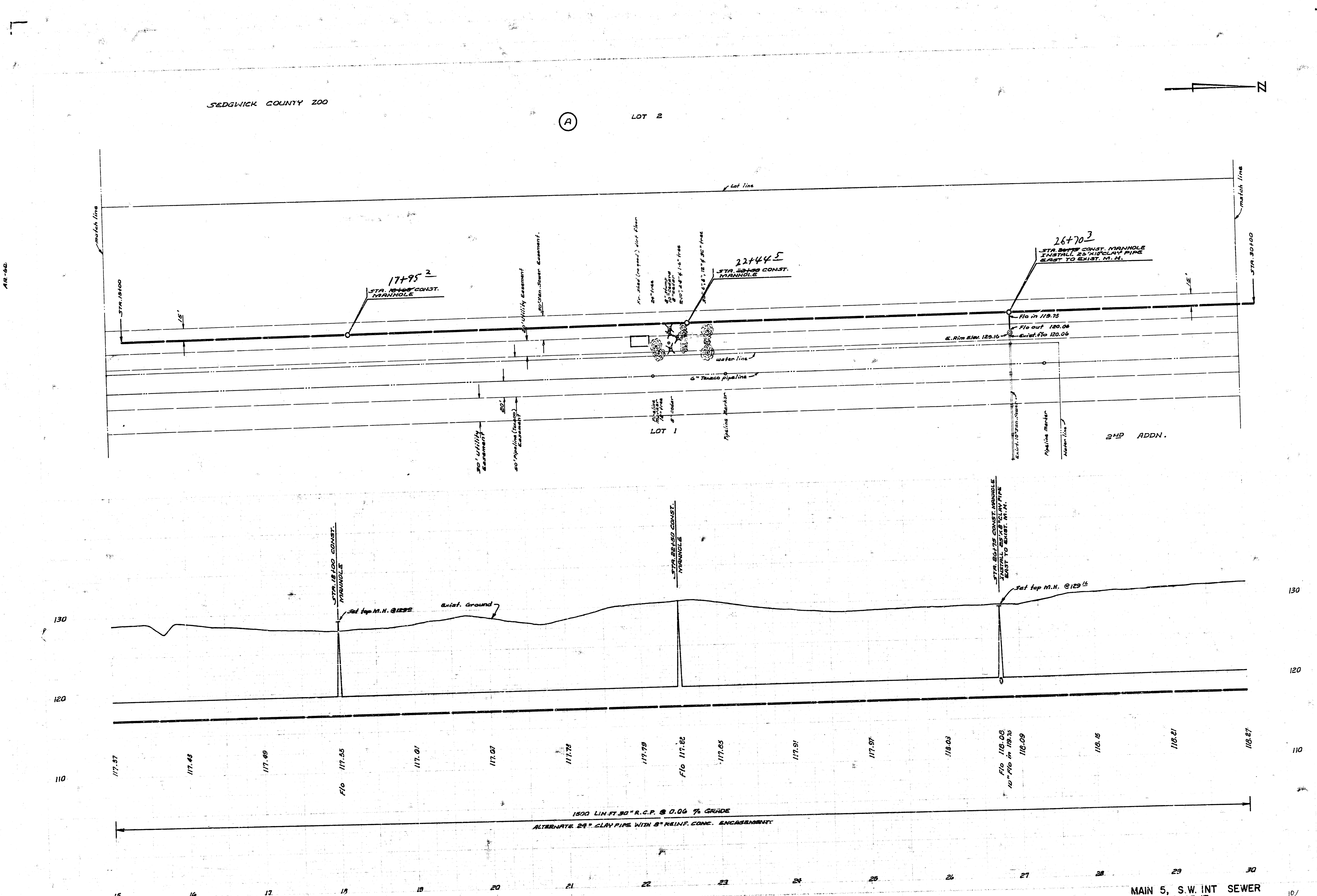
NOTE: ALL STUBS AND OPENINGS FOR FUTURE 8" SEWER CONNECTIONS SHALL BE INSTALLED TO PERMIT CONSTRUCTION OF THE FUTURE 8" SEWERS ON A 0.4% GRADE. ALL STUBS AND OPENINGS FOR FUTURE 10" SEWER CONNECTION SHALL BE INSTALLED TO PERMIT CONSTRUCTION OF THE FUTURE 10" SEWERS ON A 0.3% GRADE. ALL WORK AND MATERIALS NECESSARY TO CONSTRUCT OPENINGS OR STUBS FOR FUTURE SEWER CONNECTIONS WILL NOT BE PAID FOR DIRECTLY AND SHALL BE CONSIDERED AS SUBSIDIARY TO THE OTHER ITEMS OF WORK. ALTERNATE BRICK MANHOLES TO BE USED ONLY WITH REINFORCED CONCRETE ENCASED CLAY PIPE.

NOTE: CONTRACTOR SHALL CONSTRUCT AND MAINTAIN A TEMPORARY GRAVEL DRIVE TO PROVIDE ACCESS TO HOUSE LEFT OF STA. 50+40 WHILE CONSTRUCTING SEWER ADJACENT TO THIS PROPERTY. TEMPORARY DRIVE SHALL BE REMOVED AND THE PREMISES RESTORED TO THE ORIGINAL CONDITION UPON COMPLETION OF THE WORK. CONTRACTOR SHALL CONSTRUCT AN ASPHALT DRIVEWAY TWELVE (12) FEET WIDE TO REPLACE THE ORIGINAL GRAVEL DRIVE. THE DRIVEWAY SHALL CONSIST OF 4" COMPACTED ASPHALT PLACED IN TWO 2" LIFTS. ASPHALT DRIVEWAY CONSTRUCTION SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE CITY OF WICHITA STANDARD SPECIFICATIONS FOR ASPHALT PAVEMENT. ASPHALTIC MATERIALS SHALL CONFORM TO THE REQUIREMENTS SPECIFIED FOR ASPHALT SURFACE COURSE (TYPE SC-1). THE APPROXIMATE QUANTITY OF ASPHALT DRIVEWAY CONSTRUCTION IS 500 SQ. YDS. THE WORK CONSISTING OF CONSTRUCTION AND MAINTENANCE OF A TEMPORARY GRAVEL DRIVE; REMOVAL OF TEMPORARY GRAVEL DRIVE; RESTORATION OF AREA TO ORIGINAL CONDITION; AND CONSTRUCTION OF ASPHALT DRIVE TO REPLACE ORIGINAL GRAVEL DRIVE WILL NOT BE PAID FOR DIRECTLY AND THIS WORK SHALL BE CONSIDERED AS SUBSIDIARY TO THE OTHER ITEMS OF WORK.



MAIN 5, S.W. INT SEWER
SH. NO. 9 OF 17

9/17



MAIN 5, S.W. INT SEWER
SH. NO. 10 OF 17

10/17

SEDGWICK COUNTY ZOO

(A) LOT 2

B.M. 132.74 Brass Disc, Top conc. Mon. on ¼ sec. line & on Lot line (see below)

N

Conc. Mon. with Brass disc. (marked 1319.969)

¼ sec. line

Lot line

match line

STA. 30+00

STA. 31+18.8 CONST. MANHOLE

15'

20' Utility Easement

10' San. Sewer Easement

STA. 35+69.6 CONST. MANHOLE

Sta. land w. Pc. 150.8'

8"ø Fiber 0.4% Elm

6" ø 8" Fiber

STA. 40+25.4 CONST. MANHOLE

STA. 42+54.6 CONST. OUTSIDE DROP MANHOLE, INSTALL 24"x10" CLAY PIPE EAST TO EXIST. M.H.

match line

STA. 45+00

Flo in 124.28

Flo out 124.68

East Rim Elev. 130.62

Exist. Flo in 124.65

6" Texaco Pipeline

30' Utility Easement

20'

30' Pipeline (Texaco) Easement

28" Elm Pipeline Marker

Iron oven pipeline

2ND ADDN.

F.H. S+4

Exist. 10" San. Sewer

Maintainer Pole

AR-60

STA. 31+25 CONST. MANHOLE

STA. 35+05 CONST. MANHOLE

STA. 40+81 CONST. MANHOLE

STA. 42+81 CONST. OUTSIDE DROP MANHOLE, INSTALL 24"x10" CLAY PIPE EAST TO EXIST. M.H.

Exist. Ground

Sat top M.H. @ 129.58

Sat top M.H. @ 130.00

Sat top M.H. @ 130.42

Sat top M.H. @ 130.63

10" Flo in 124.28

10" Drop in 120.70

130

120

110

118.27 118.43 118.35 118.39 118.45 118.41 118.57 118.62 118.63 118.65 118.75 118.51 118.87 118.89 118.83 118.99 119.03 119.05 119.11 119.17

Flo 118.35 Flo 118.62 Flo 118.89 Flo 119.03 10" Flo in 124.28

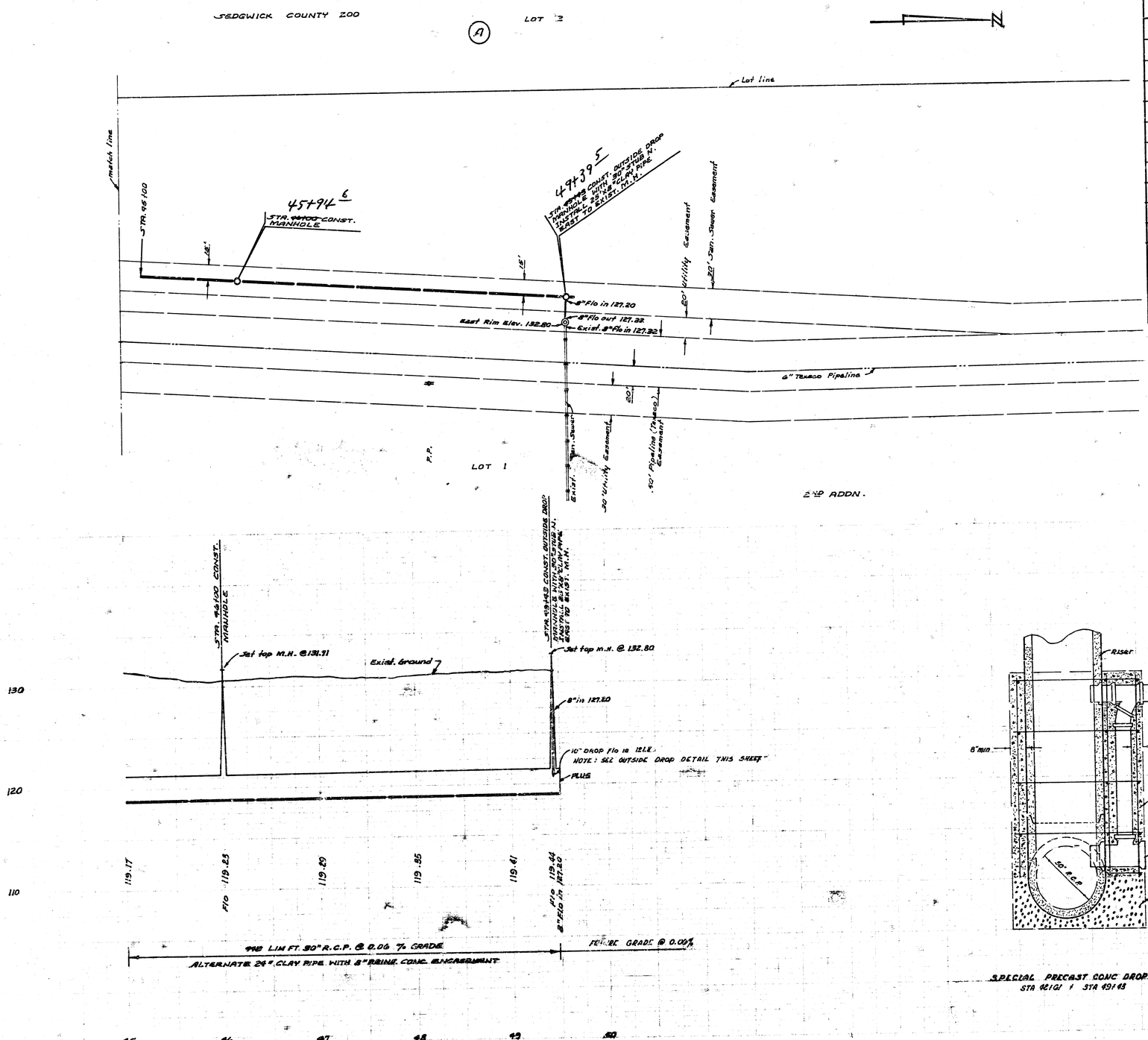
1500 LIN FT 30" R.C.P. @ 0.06 % GRADE

ALTERNATE 24" CLAY PIPE WITH 8" REINF. CONC. ENCASEMENT

30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

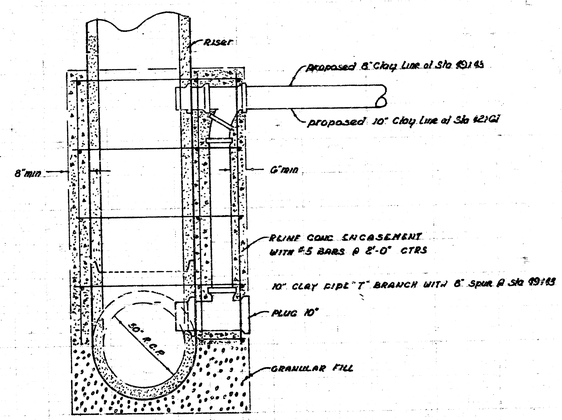
MAIN 5, S.W. INT SEWER
SH. NO. 11 OF 17

11/17



MANHOLE SCHEDULE PART II		
LOCATION	TYPE	LOCATION of OPENINGS for FUTURE SEWERS.
1+02	REINF CONC - Alternate 5' Dia, Type B	Block out for future 8" West.
4+50	STRUCTURAL TEE - Alternate 5' Dia Type B	8" North E. = 118.97
7+25	STRUCTURAL TEE - Alternate 5' Dia Type B	8" North E. = 118.64
9+70	REINF CONC - Alternate 5' Dia Type B	8" North E. = 118.78
11+79	REINF CONC - Alternate 5' Dia Type B	———
13+00	REINF CONC - Alternate 5' Dia Type B	———
18+00	STRUCTURAL TEE - Alternate 5' Dia Type B	8" West E. = 119.39
22+50	STRUCTURAL TEE - Alternate 5' Dia Type B	8" West E. = 119.45
Eq+75	STRUCTURAL TEE - Alternate 5' Dia Type B	10" East E. = 119.75 8" West E. = 119.91
31+25	STRUCTURAL TEE - Alternate 5' Dia Type B	8" West E. = 120.18
35+75	STRUCTURAL TEE - Alternate 5' Dia Type B	8" West E. = 120.45
40+31	REINF CONC - Alternate 5' Dia Type B	8" West E. = 120.72
42+61	STRUCTURAL TEE - OUTSIDE DROP Alternate 5' Dia Type B OUTSIDE DROP	8" West E. = 120.86 - 10" East E. = 129.98 10" East OUTSIDE DROP 120.70 E.
46+00	STRUCTURAL TEE - Alternate 5' Dia Type B	8" West & East E. = 120.06
49+93	STRUCTURAL TEE - OUTSIDE DROP Alternate 5' Dia Type B OUTSIDE DROP	8" West & 12127 - 8" East E. = 127.80 10" East OUTSIDE DROP E. = 121.11

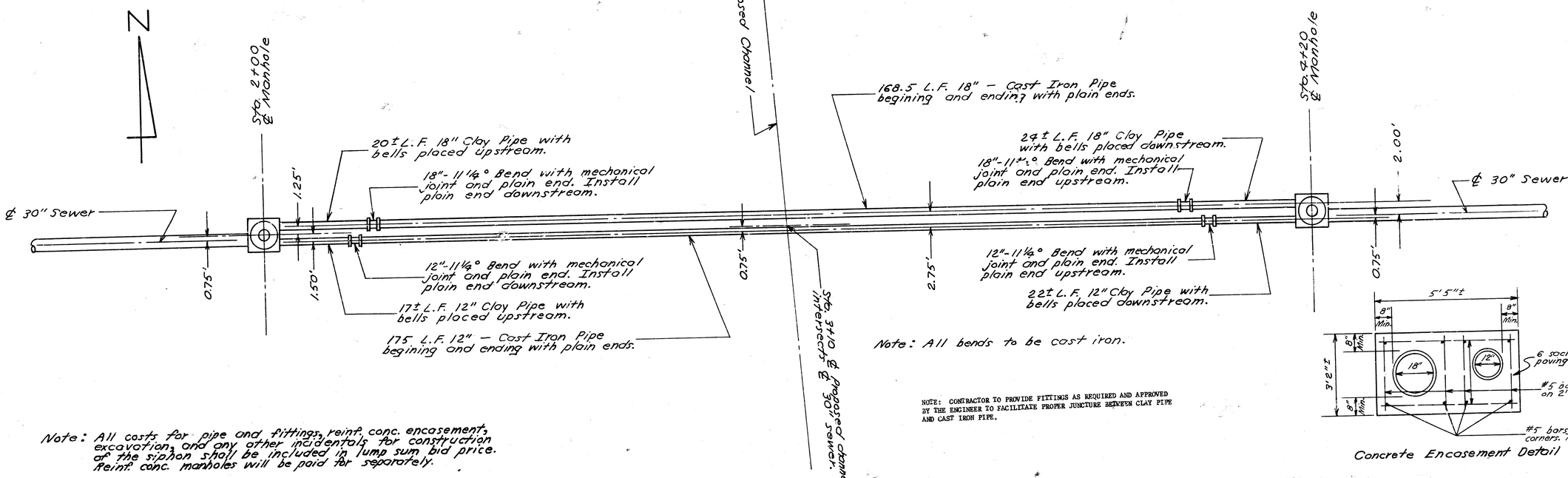
NOTE: ALL STUBS AND OPENINGS FOR FUTURE 8" SEWER CONNECTIONS SHALL BE INSTALLED TO PERMIT CONSTRUCTION OF THE FUTURE 8" SEWERS ON A 0.4% GRADE. ALL STUBS AND OPENINGS FOR FUTURE 10" SEWER CONNECTIONS SHALL BE INSTALLED TO PERMIT CONSTRUCTION OF THE FUTURE 10" SEWERS ON A 0.3% GRADE. ALL WORK AND MATERIALS NECESSARY TO CONSTRUCT OPENINGS OR STUBS FOR FUTURE SEWER CONNECTIONS WILL NOT BE PAID FOR DIRECTLY AND SHALL BE CONSIDERED AS SUBSIDIARY TO THE OTHER ITEMS OF WORK. ALTERNATE BRICK MANHOLES TO BE USED ONLY WITH REINFORCED CONCRETE ENCASED CLAY PIPE.



SPECIAL PRECAST CONC DROP MANHOLE
STA 42+61 & STA 49+43

MAIN 5, S.W. INT SEWER
SH. NO. 12 OF 17

12/17

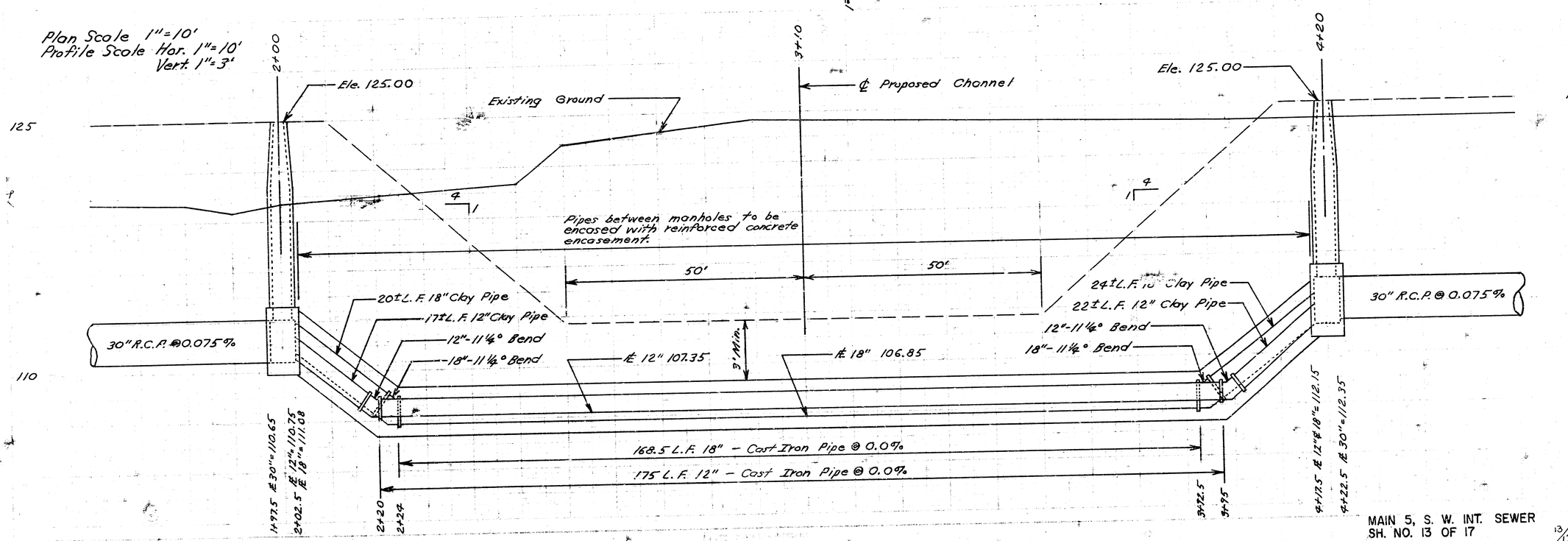


Note: All costs for pipe and fittings, reinf. conc. encasement, excavation, and any other incidentals for construction of the siphon shall be included in lump sum bid price. Reinf. conc. manholes will be paid for separately.

Note: All bends to be cast iron.

NOTE: CONTRACTOR TO PROVIDE FITTINGS AS REQUIRED AND APPROVED BY THE ENGINEER TO FACILITATE PROPER JUNCTURE BETWEEN CLAY PIPE AND CAST IRON PIPE.

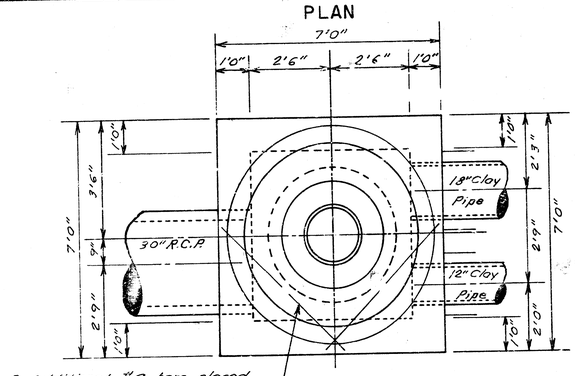
Concrete Encasement Detail



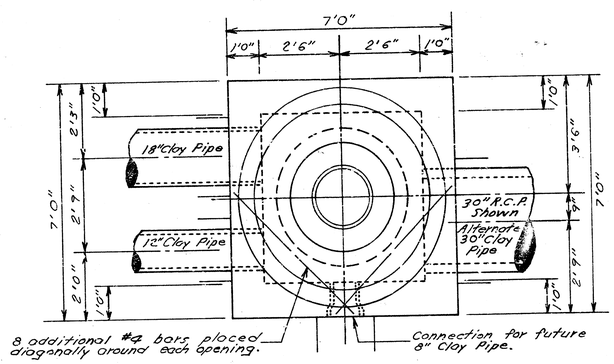
MAIN 5, S. W. INT. SEWER
SH. NO. 13 OF 17

13/17

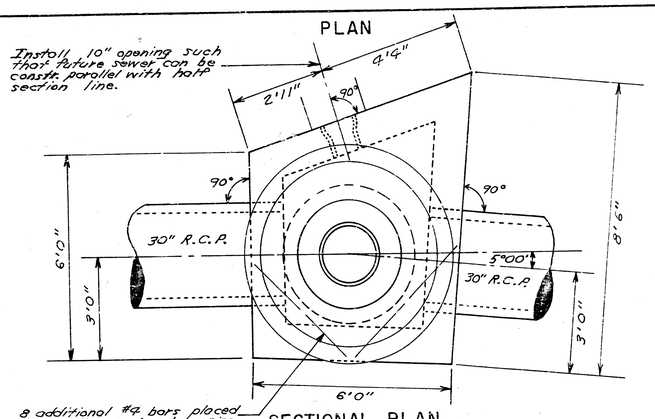
PLAN



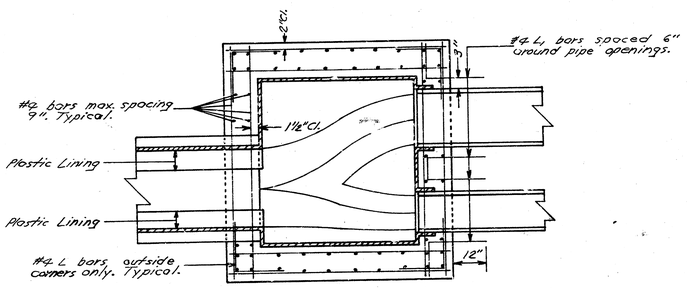
PLAN



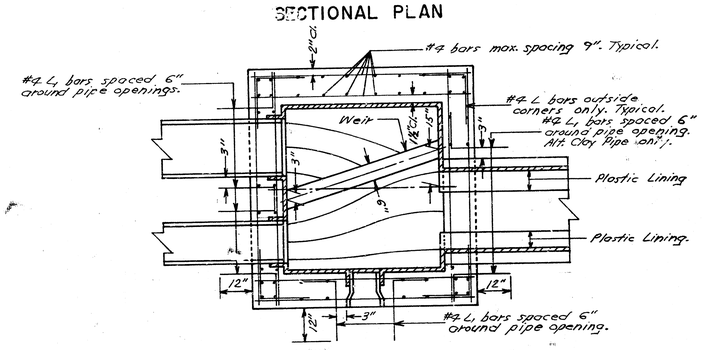
PLAN



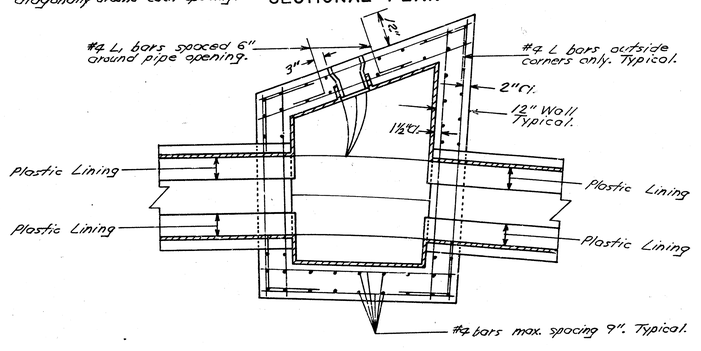
SECTIONAL PLAN



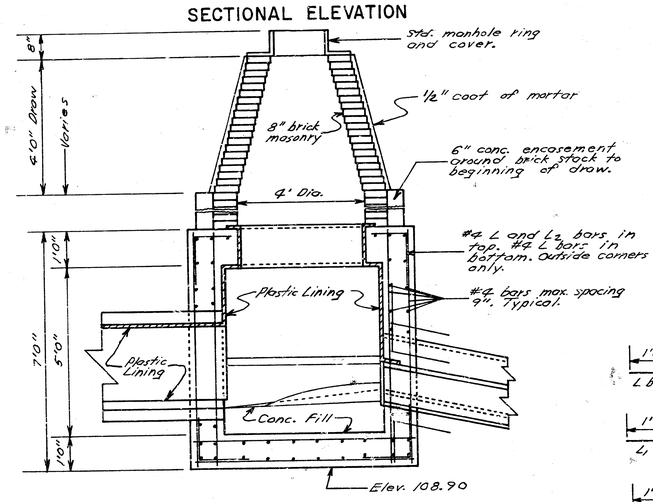
SECTIONAL PLAN



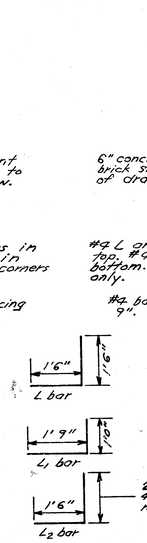
SECTIONAL PLAN



SECTIONAL ELEVATION

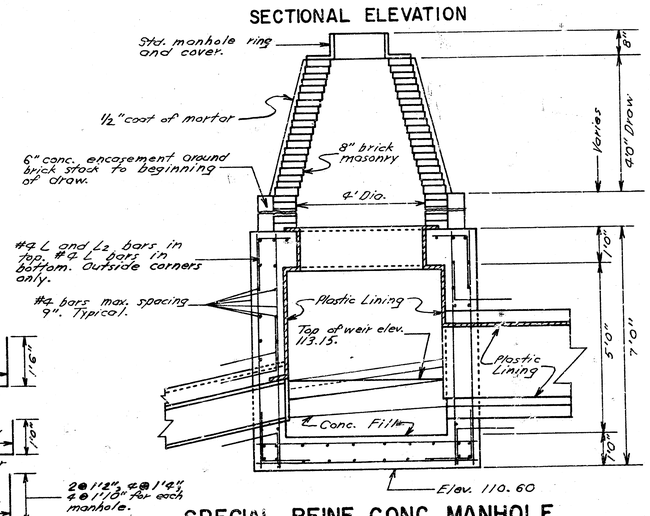


SPECIAL REINF. CONC. MANHOLE
STA. 2+00
PHASE I



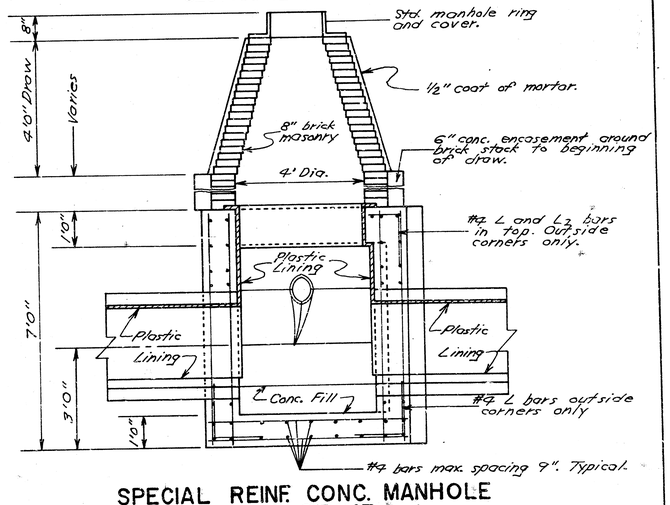
Bar Bending Diagram

SECTIONAL ELEVATION



SPECIAL REINF. CONC. MANHOLE
STA. 4+20
PHASE I

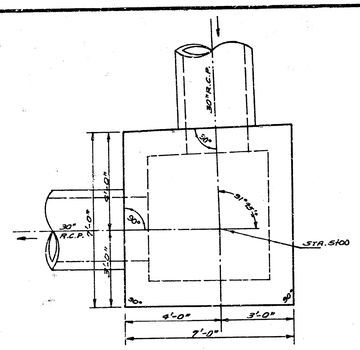
SECTIONAL ELEVATION



SPECIAL REINF. CONC. MANHOLE
STA. 27+43
PHASE I

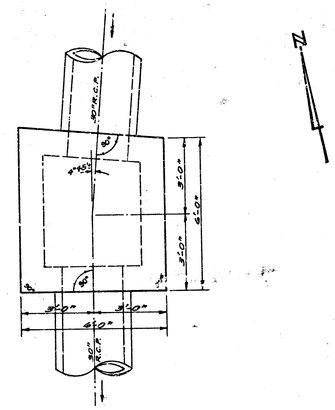
Note: Contractor may construct poured concrete manholes as shown, or at his option, the poured concrete manholes may be constructed to a minimum of one foot above water table elev. and conc. encasement omitted around brick stock.

17/17



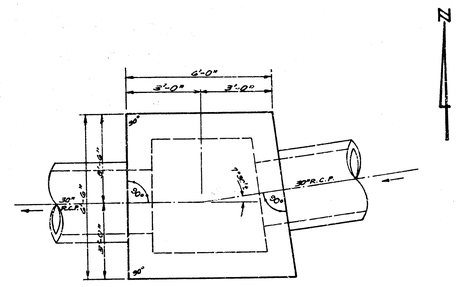
SECTIONAL PLAN OF SPECIAL REINF. CONC. M.H. STA. 5100 (PHASE I).

Scale 3/8" = 1'-0"



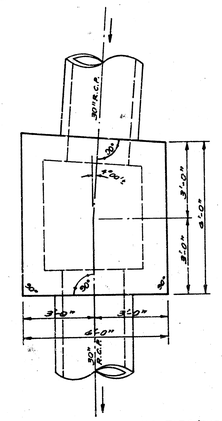
SECTIONAL PLAN OF SPECIAL REINF. CONC. M.H. STA. 22+54 (PHASE I)

Scale 3/8" = 1'-0"



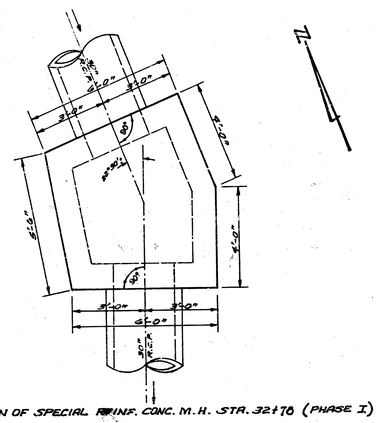
SECTIONAL PLAN OF SPECIAL REINF. CONC. M.H. STA. 9+70 (PHASE II).

Scale 3/8" = 1'-0"



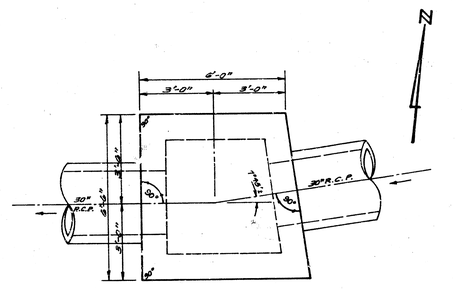
SECTIONAL PLAN OF SPECIAL REINF. CONC. M.H. STA. 5+94 (PHASE I) & STA. 40+31 (PHASE II).

Scale 3/8" = 1'-0"



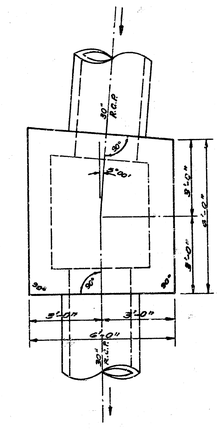
SECTIONAL PLAN OF SPECIAL REINF. CONC. M.H. STA. 32+78 (PHASE I).

Scale 3/8" = 1'-0"



SECTIONAL PLAN OF SPECIAL REINF. CONC. M.H. STA. 11+79 (PHASE II).

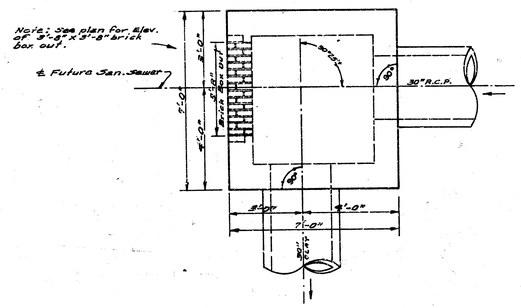
Scale 3/8" = 1'-0"



SECTIONAL PLAN OF SPECIAL REINF. CONC. M.H. STA. 11+47 & STA. 17+05 (PHASE I).

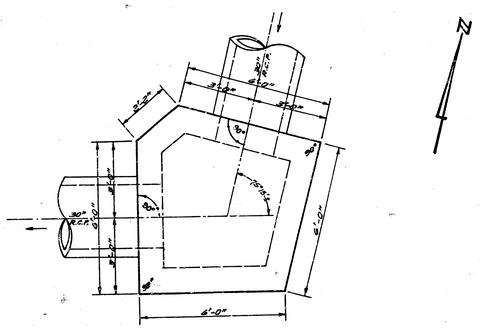
Scale 3/8" = 1'-0"

NOTE: SEE SHEET 14, STA 27+43 FOR REINF CONC MANHOLE DETAILS OF TYPICAL STEEL PATTERNS, WALL THICKNESS AND DIMENSIONS, BRICK STACK, ETC FOR MANHOLES ON THIS SHEET.



SECTIONAL PLAN OF SPECIAL REINF. CONC. M.H. STA. 1+62 BK. & STA 1+87 AH (PHASE II).

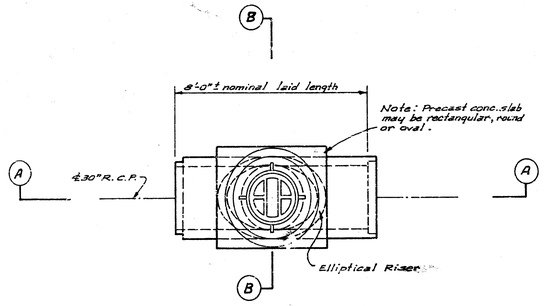
Scale 3/8" = 1'-0"



SECTIONAL PLAN OF SPECIAL REINF. CONC. M.H. STA. 13+66 (PHASE II).

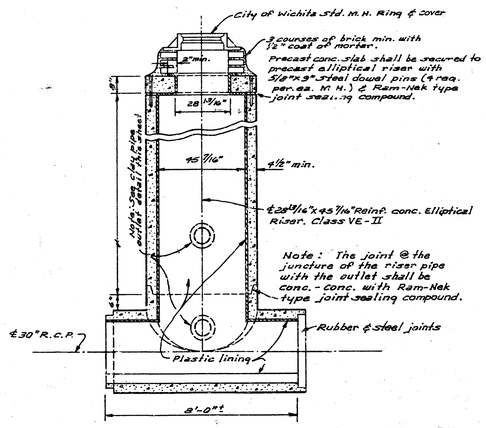
Scale 3/8" = 1'-0"

MAIN 5, S.W. INT SEWER
SH. NO. 15 OF 17 15/17



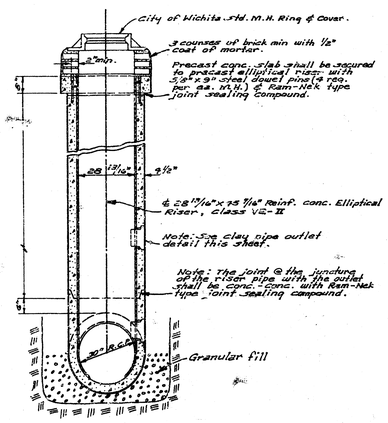
PLAN

Scale 3/8"=1'-0"



SECTION AA

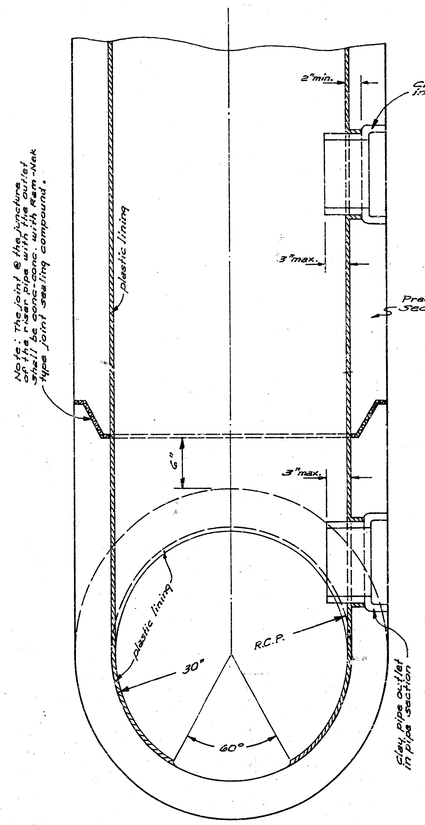
Scale 3/8"=1'-0"



SECTION BB

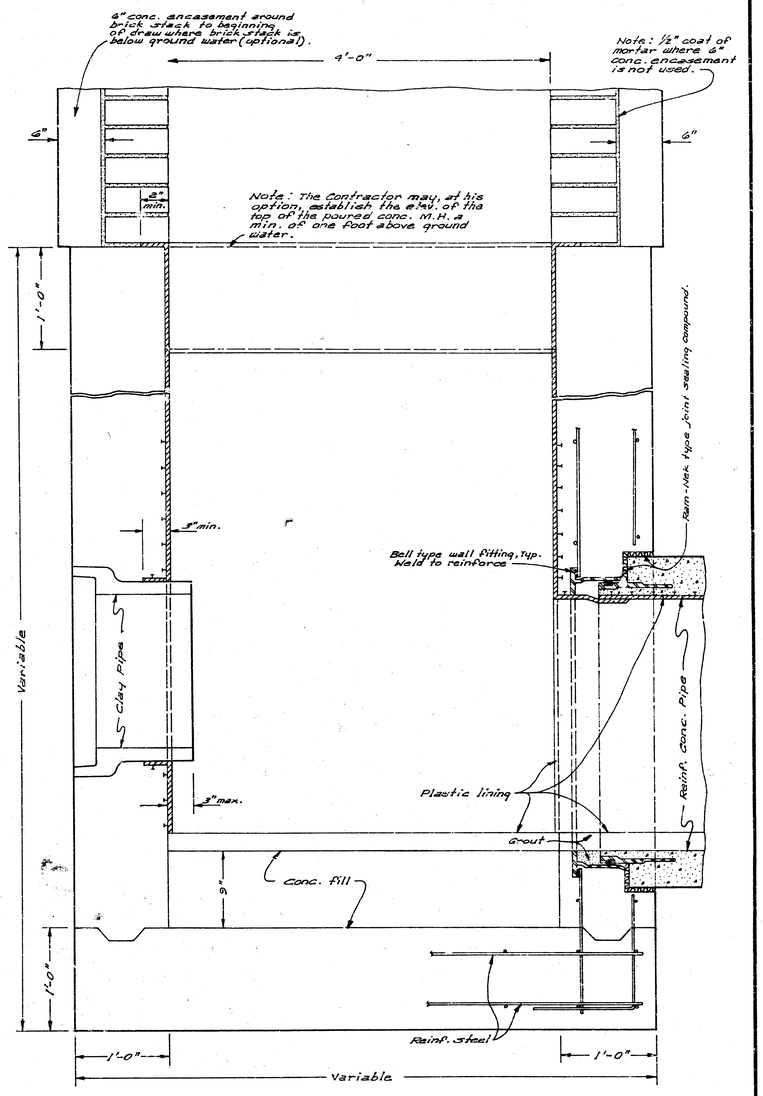
ALTERNATE PRECAST CONC. M.H. FOR 30" R.C.P.

Scale 3/8"=1'-0"



PRECAST MANHOLE OUTLET DETAIL

Scale 1½"=1'-0"

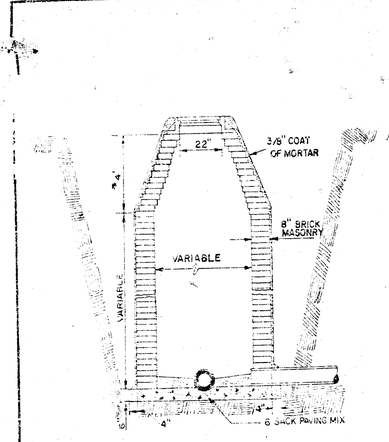


POURED IN PLACE MANHOLE OUTLET DETAIL

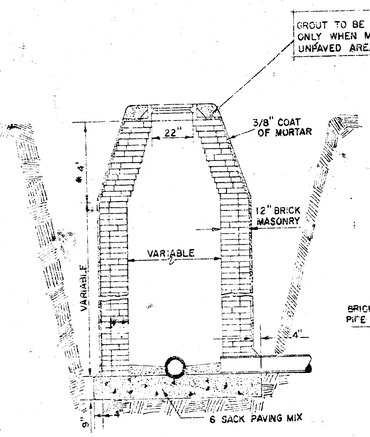
Scale 1½"=1'-0"

MAIN 5, S.W. INT SEWER

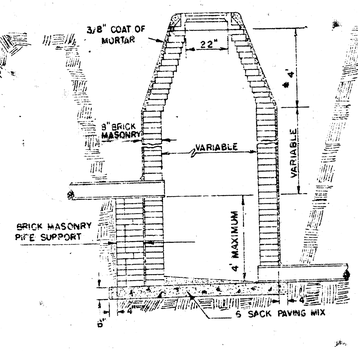
SH NO. 16 OF 17 16/17



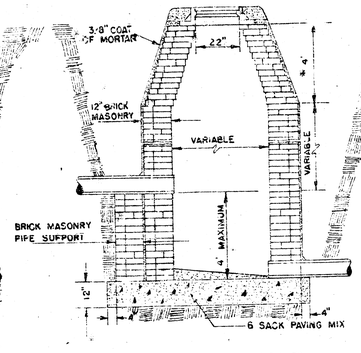
STANDARD MANHOLE
TYPE "A"



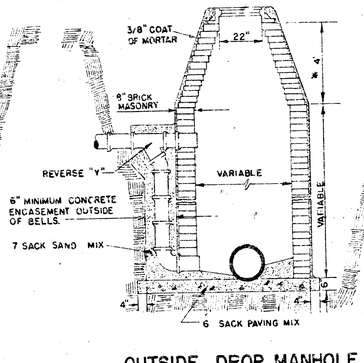
STANDARD MANHOLE
TYPE "B"



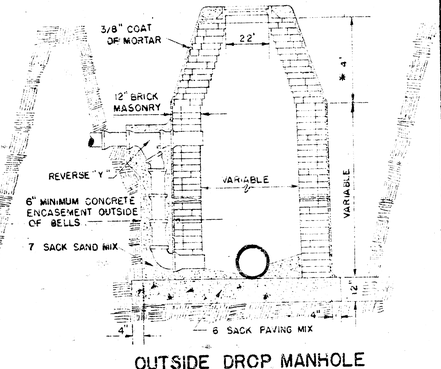
DROP MANHOLE
TYPE "A"



DROP MANHOLE
TYPE "B"



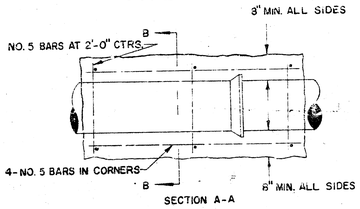
OUTSIDE DROP MANHOLE
TYPE "A"



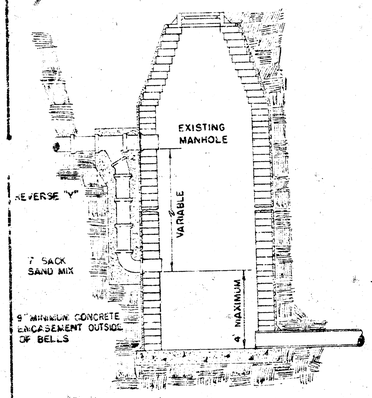
OUTSIDE DROP MANHOLE
TYPE "B"

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

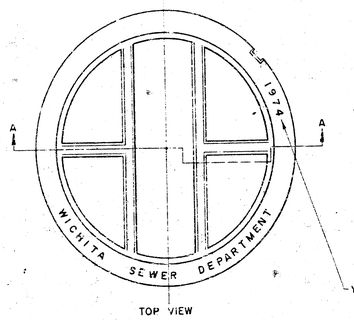
NOTE: ALL BRICK MANHOLES SHALL BE ENCASED WITH 6" CONCRETE ENCASEMENT TO A MINIMUM ELEVATION OF 1 FOOT ABOVE THE WATER TABLE ELEVATION AS DETERMINED BY THE ENGINEER. CONCRETE ENCASEMENT TO BE INCLUDED IN THE BID PRICE OF BRICK MANHOLE.



REINFORCED CONCRETE ENCASEMENT
FOR STRENGTH

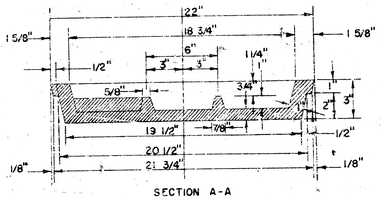


DETAIL OF DROP STACK
FOR EXISTING MANHOLES IN GROUND WATER



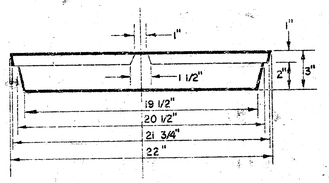
TOP VIEW

MANHOLE COVER
WEIGHT 110 LBS.



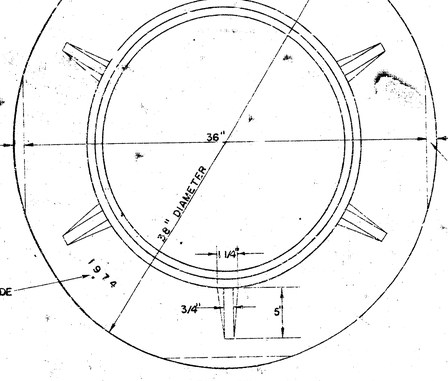
SECTION A-A

MANHOLE COVER



SIDE VIEW

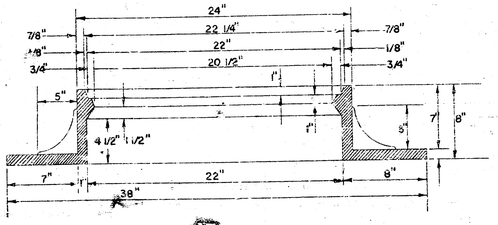
MANHOLE COVER



THIS PORTION OF FLANGE MAY BE OMITTED

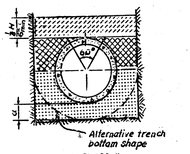
TOP VIEW

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

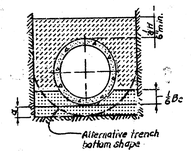


MANHOLE RING

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



CLASS B
FIRST CLASS BEDDING



CLASS C
ORDINARY BEDDING

NOTES:
Granular fill to be crushed stone or sea gravel with not less than 95% passing 1/2", not less than 75% passing #4 and not less than 35% to be retained on a #8 sieve to be placed in not more than 6" layers and compacted by stirring with a shovel.

Tamped backfill shall be finely divided, job excavated inorganic silt free from debris, organic material, and stones, compacted to 95% maximum density as determined by AASHO Standard, Method T-99. Granular fill may be substituted for all or part of tamped backfill.

Hand placed backfill shall be finely divided material free from debris and stones.

LEGEND
- Bc Outside diameter of pipe
- H Backfill cover above top of pipe
- D Nominal pipe size
- a Fill below pipe (See table)

Hand placed backfill
Tamped backfill
Granular fill
Concrete

EMBEDMENTS FOR CONDUITS

TABLE OF FILL UNDER THIS BELOW PIPE

D	a Min. Soil	a Min. Rock
27" & smaller	3"	6"
30" to 60"	4"	9"
66" & larger	6"	12"

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 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.

NOTE: VOID IN TOP OF MANHOLE COVER TO BE FILLED WITH HOT ASPHALTIC MATERIAL CONFORMING TO CITY OF WICHITA STANDARD SPECIFICATIONS FOR ASPHALTIC PAVEMENT SURFACE COURSE. ASPHALTIC MATERIAL TO BE COMPACTED IN PLACE USING HAND METHODS.

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

MAIN 5, S. W. INT. SEWER
SHEET NO. 17 OF 17 14 5 51