PLANS

# SANITARY SEWER EXTENSIONS

# PINAIRE MOBILE HOME PARK

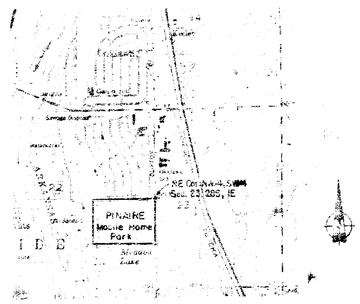
## PHASE I

## OAKLAWN IMPROVEMENT DISTRICT

## SEDGWICK COUNTY, KANSAS

## 1982

FINAL MEAS. IN BOOK PCD-203




VICINITY MAP
Scale: 1" = 200'

NOTE TO CONTRACTOR

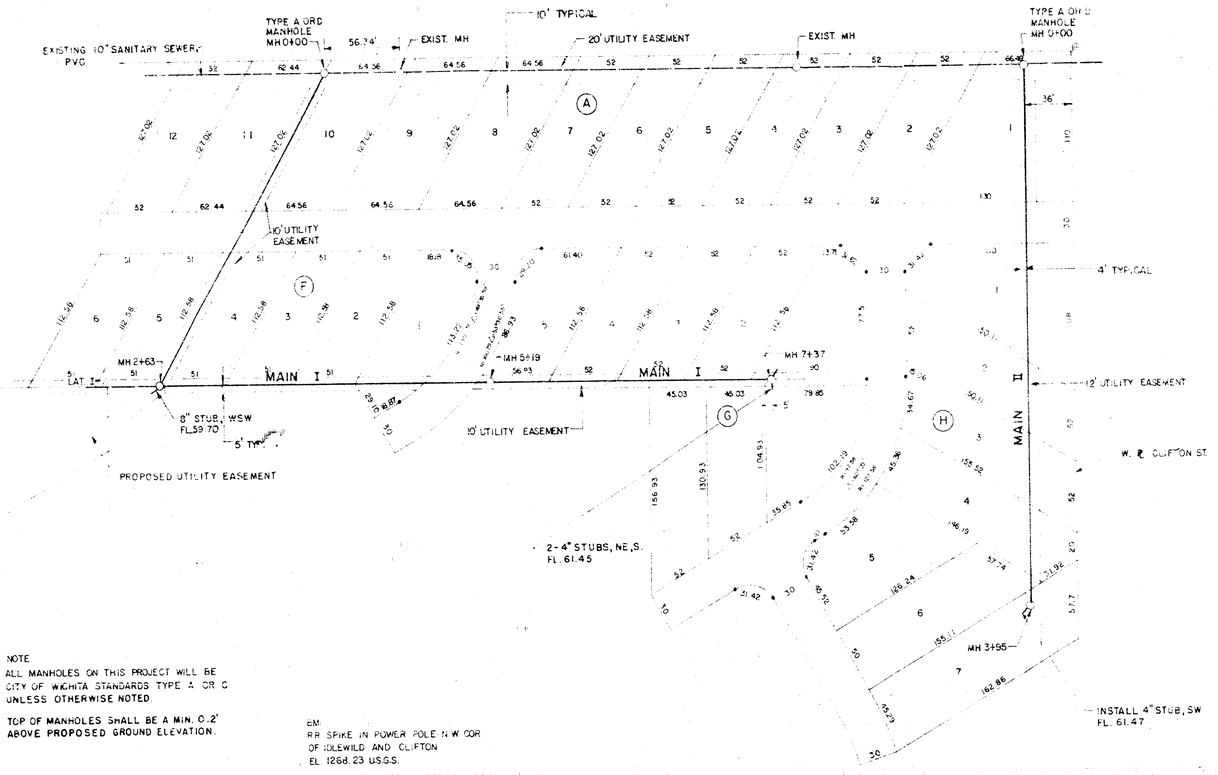
This project will be constructed under the supervision of the CITY ENGINEER and conforming to the SPECIFICATIONS of the CITY OF WICHITA. The CONTRACTOR will pay the City of Wichita for all costs of inspection.

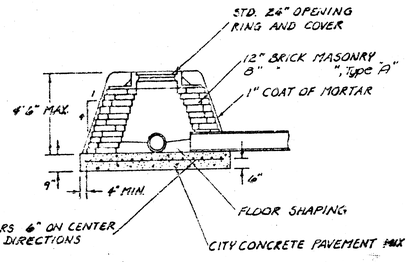
THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE TO PROPERTY CORNERS. NO PROPERTY CORNER SHALL BE REMOVED TO FACILITATE ANY PROPERTY CORNER WHICH ARE DAMAGED OR DESTROYED AS A RESULT OF THE CONSTRUCTION OF EASEMENTS SHALL BE RE-ESTABLISHED BY A DULY REGISTERED LAND SURVEYOR OR A LICENSED PROFESSIONAL ENGINEER IN ACCORDANCE WITH STATE LAWS.

APPROVED AS NOTED
by CITY ENGINEER OF WICHITA
Courtesy Copy
Director of Public Works
Date
Drawings Approved


BEISS & GOODNESS ENGINEERS
1120 WEST 29TH STREET
WICHITA, KANSAS 67204
(316) 832-0180


| REVISION | DRAWN BY | CHECKED BY | DESIGNED BY | PROJECT | CUSTOMER | SCALE NONE | DRG. NO. 1/8 |
|---|---|---|---|---|---|---|---|
| | | | | | | DATE 10-23-82 | |



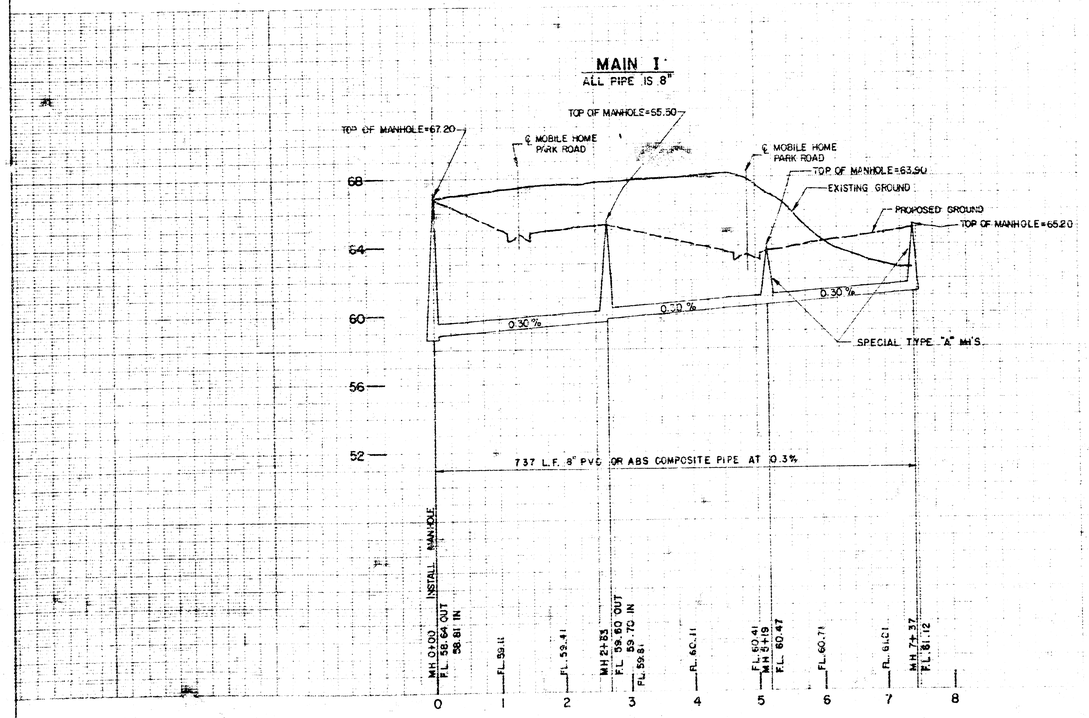

SPECIAL TYPE "A" MANHOLE DETAIL

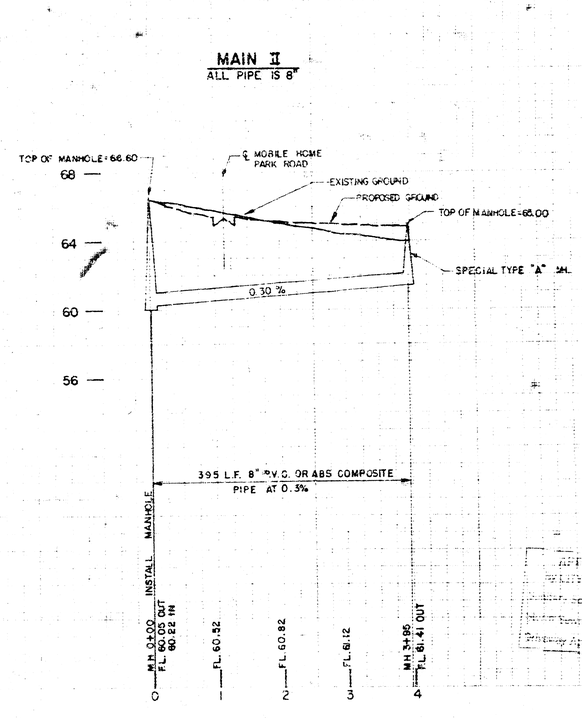
NOTE
ALL MANHOLES ON THIS PROJECT WILL BE CITY OF WICHITA STANDARDS TYPE A OR C UNLESS OTHERWISE NOTED.

TOP OF MANHOLES SHALL BE A MIN. 0.2' ABOVE PROPOSED GROUND ELEVATION.

BM:
RR SPIKE IN POWER POLE N W COR OF IDLEWILD AND CLIFTON
EL 1268.23 U.S.G.S.

SCALE
PLAN 1" = 50'
PROFILE
HORIZ 1" = 50
VERT 1" = 4'



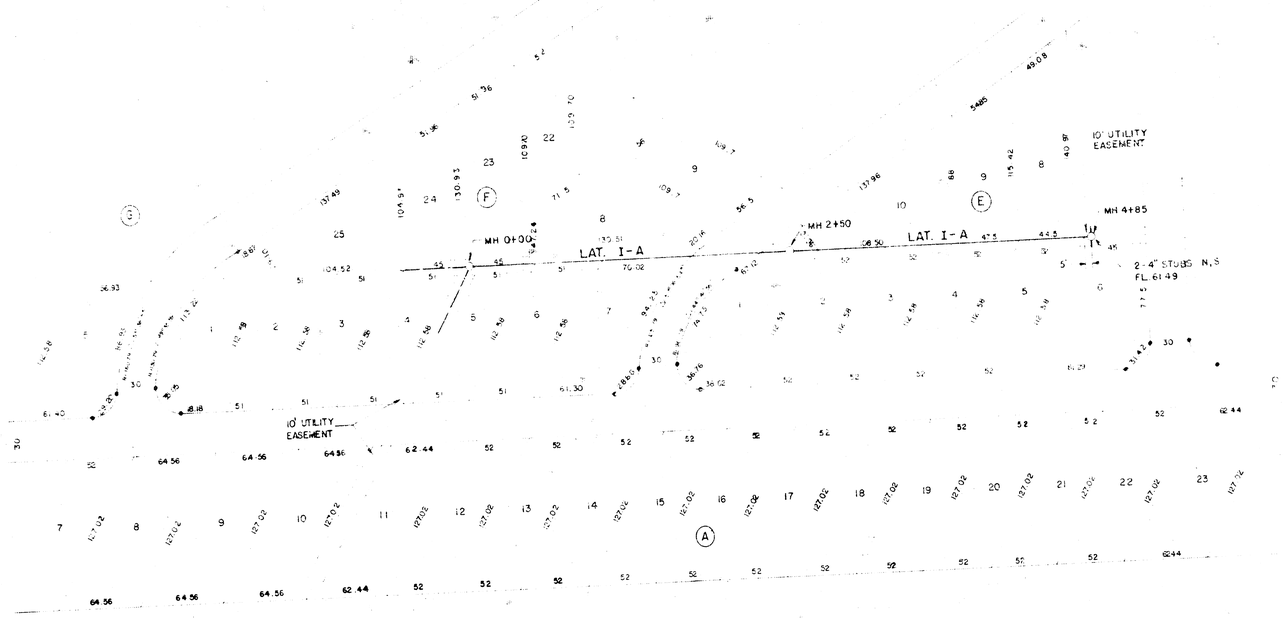




REVISION | DRAWN BY | CHECKED BY | DESIGNED BY | PROJECT

# SANITARY SEWER EXTENSION

# PINAIRE MOBILE HOME PARK

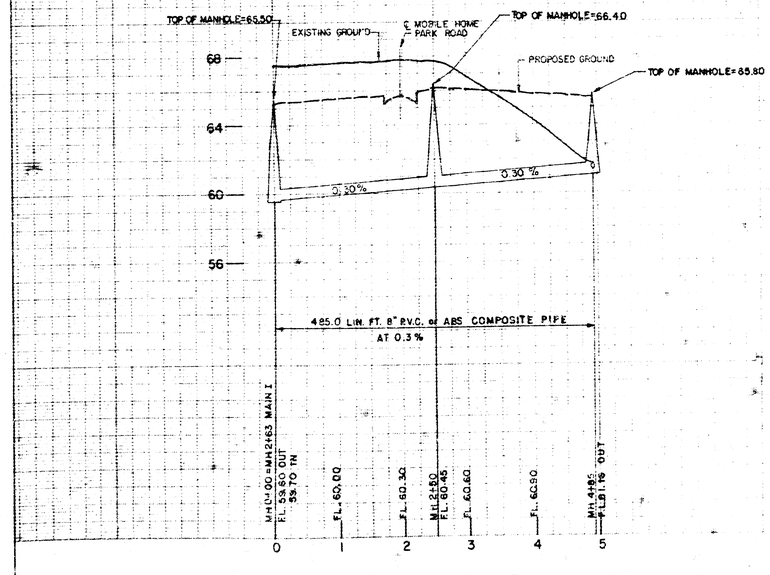
PROJECT NO. NS 388
SHEET 2 OF 8




NOTE:
ALL MANHOLES ON THIS PROJECT WILL BE CITY OF WICHITA STANDARDS TYPE A ORC UNLESS OTHER WISE NOTED.
TOP OF MANHOLE SHALL BE A MINIMUM OF 0.2' ABOVE PROPOSED GROUND ELEVATION.

## LAT. I-A

ALL PIPE IS 8"




SCALE
PLAN 1"=50'
PROFILE HOR. 1"=100'
VERT. 1"=4'

REISS & CORPORON ENGINEERS
3300 WEST [illegible]
WICHITA, KANSAS [illegible]
[illegible]

3/8

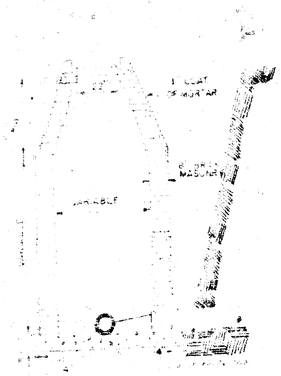
REVISION | DRAWN BY | CHECKED BY | DESIGNED BY | PROJECT

# SANITARY SEWER EXTENSION

# PINAIRE MOBILE HOME PARK

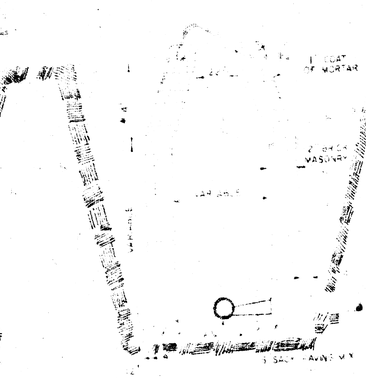
DATE NOTED | PROJECT NO. 65-31e
SHEET 3 OF 7

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



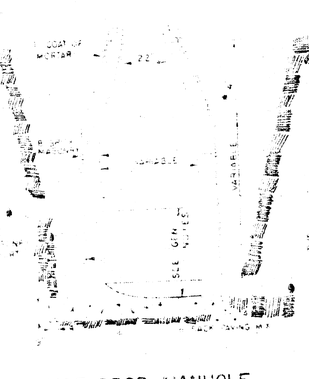
STANDARD MANHOLE TYPE "A"

* DRAW = 6' ON 5' DIA MH.



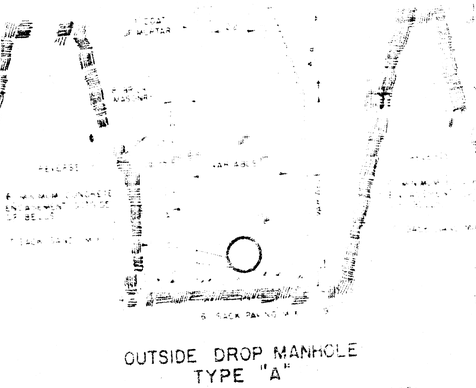
STANDARD MANHOLE TYPE "B"

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.

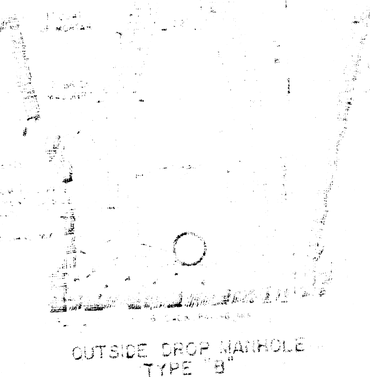


INSIDE DROP MANHOLE TYPE "A"

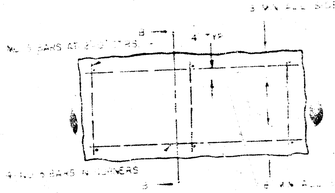
INSIDE DROP MANHOLE TYPE "B"



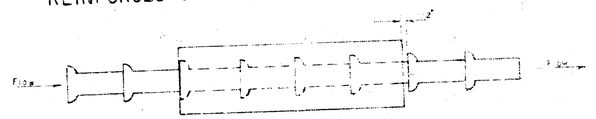
OUTSIDE DROP MANHOLE TYPE "A"



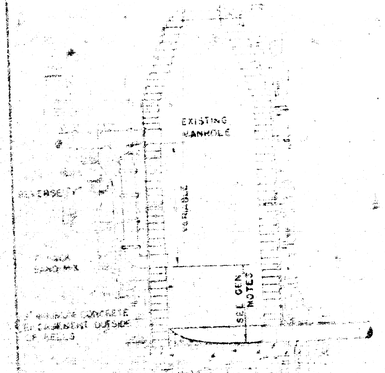
OUTSIDE DROP MANHOLE TYPE "B"



REINFORCED CONCRETE ENCASEMENT



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



DETAIL OF OUTSIDE DROP STACK

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

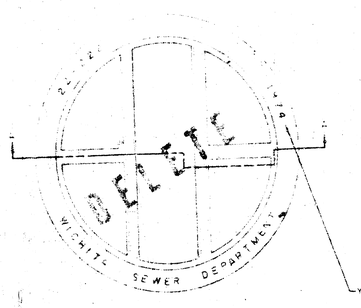
## GENERAL NOTES

MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 6 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 SEPARATE ITEMS FOR EACH 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 INSURE MAXIMUM EFFICIENCY USING 6 SACK SAND MIX CONCRETE.

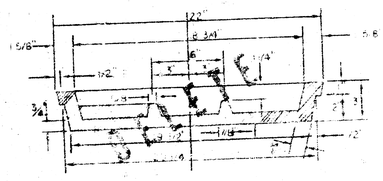
PIPES INSTALLED WITHIN THE MANHOLE EXCAVATION SHALL BE CRADLED WITH CONCRETE TO THE LIMITS OF THE MANHOLE EXCAVATION. COST OF CRADLE WITHIN MANHOLE EXCAVATION SHALL BE INCLUDED IN THE PRICE BID FOR THE MANHOLE. CRADLE SHALL EXTEND TO FIRST JOINT OUTSIDE OF MANHOLE WHEN CLAY PIPE IS USED.




TOP VIEW

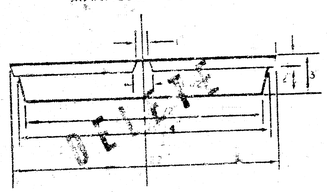
MANHOLE COVER

WEIGHT 0 LBS.



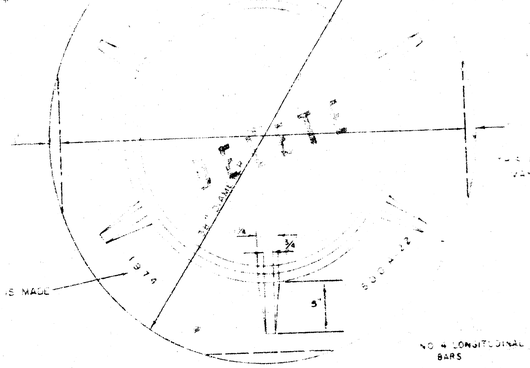
SECTION A-A

MANHOLE COVER



SIDE VIEW

MANHOLE COVER

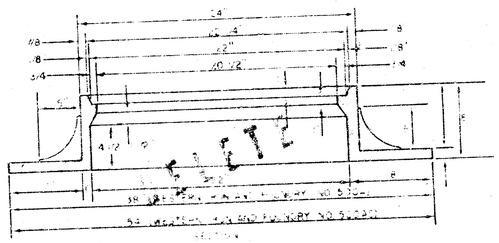


TOP VIEW

MANHOLE RING

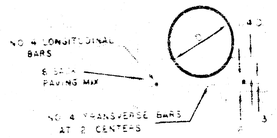
WEIGHT 525 LBS RING NO 500A

WEIGHT 800 LBS RING NO 500B

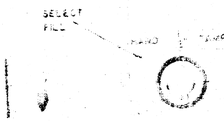


MANHOLE RING

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



DETAIL OF CONCRETE CRADLE



ORDINARY BEDDING METHOD

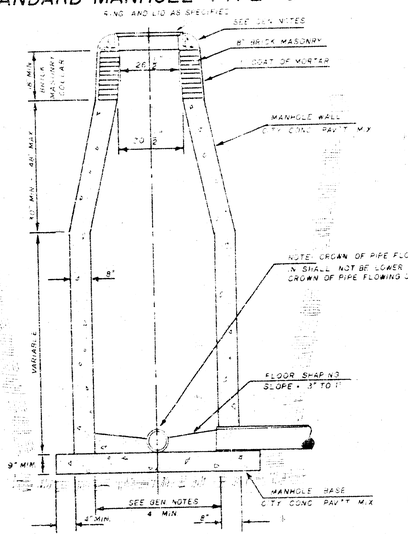
STORM SEWER PIPE

# SEWER APPURTENANCES DETAILS

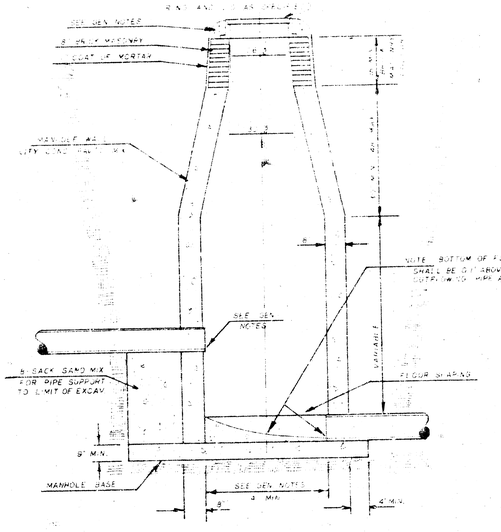
## ADOPTED AS STANDARD DESIGN
## BY

## City of Wichita, Kansas

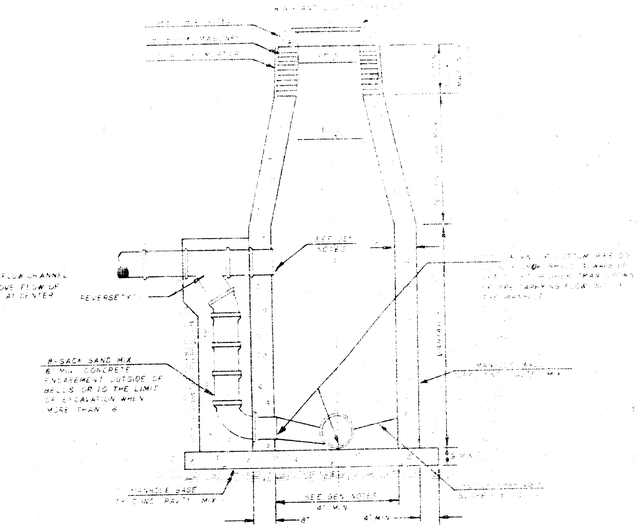
STANDARD MANHOLE TYPE "C"




INSIDE DROP MANHOLE TYPE "C"




OUTSIDE DROP MANHOLE TYPE "C"




GENERAL NOTES

1. BOTTOM SECTION SHALL BE CONCRETE MONOLITHIC WITH CONCRETE BASE OF MANHOLE AS SHOWN THEREON. CONCRETE USED FOR MANHOLE WALLS AND BASES SHALL CONFORM TO THE REQUIREMENTS OF CONCRETE FOR STRUCTURES CONTAINED IN THE CITY STANDARD PAVING SPECIFICATIONS USING CITY CONCRETE MIXTURE NO. 4 EXCEPT AS OTHERWISE NOTED. CONCRETE SHALL BE PLACED AGAINST UNDISTURBED EARTH WHERE POSSIBLE. FORMS SHALL BE USED WHERE NECESSARY. MANHOLE FLOW TO BE SHOWN BY THE SMOOTH AND ACCURATE FINISH OF CONCRETE IN THE CHANNELS. TYPE "A" MANHOLES SHALL BE CONSTRUCTED WITH A CONCRETE BENCH AS SHOWN ON THE PLANS. THE INSIDE DIAMETER OF THE MANHOLE SHALL BE NOT LESS THAN 4'-0". THE INSIDE DIAMETER OF TYPE "B" MANHOLES SHALL BE NOT LESS THAN 5'-0". MANHOLES SHALL BE CIRCULAR IN SHAPE WITH CONCRETE CONE AND WATER TIGHT.

2. REINFORCING STEEL SHALL BE ASTM-A15 GRADE 60. REINFORCING STEEL SHALL BE FREE FROM MILL SCALE, RUST, OIL, GREASE OR OTHER FOREIGN MATERIAL WHICH WILL REDUCE THE BOND BETWEEN THE REINFORCING STEEL AND THE CONCRETE. REINFORCING STEEL SHALL BE PLACED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. COST OF FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.

3. AN OPENING SHALL BE CUT IN THE MANHOLE WALL FOR THE UPPER INLET PIPE AND INSIDE AND OUTSIDE DROP CHAMBERS. THE UPPER INLET PIPE SHALL BE INSERTED INTO THIS OPENING WITH RUN-RING MORTAR. THE EXTENSION OF THE CHAMBER CONNECTION SHALL BE SEALED WITH AN APPROVED WATERPROOF COATING SO THAT THE CONNECTION WILL BE WATER TIGHT.

4. THE FLOOR OF ALL MANHOLES SHALL BE SHAPED WITH FLOW CHANNELS SUCH THAT THE SEWAGES WILL BE SELF CLEANING AND FREE OF SOLID MATTER WHICH SHALL TEND TO BE DEPOSITED IN SEWAGE FLOW THROUGH THE MANHOLE FROM INLET PIPES TO THE OUTLET PIPE. FLOW CHANNELS SHALL BE SHAPED TO GIVE THE BOTTOM SHAPE OF THE CONNECTING PIPES AND THE SIDE WALLS SHALL BE CARRIED UP THE VERTICAL FOR EACH FOR INSIDE DROP CHAMBERS. FLOW CHANNELS FOR INSIDE DROP MANHOLES SHALL BE CONSTRUCTED AS INDICATED. THE UPPER [illegible]

5. [illegible] FLOW CHANNELS SHALL BE [illegible] THE CENTER LINE OF THE MANHOLE. THE [illegible] SHALL BE [illegible] THE CENTER LINE OF THE MANHOLE. THE [illegible] SHALL BE [illegible] THE CENTER LINE OF THE MANHOLE.

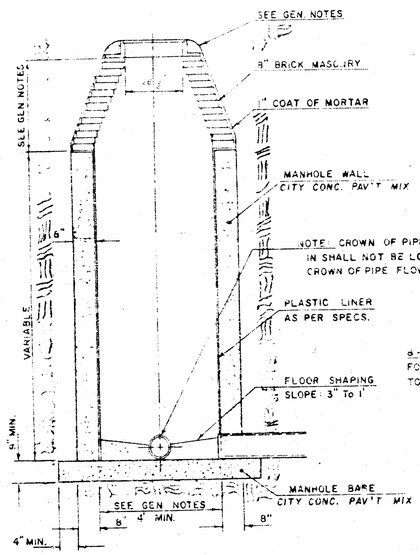
6. [illegible] THE REQUIREMENTS OF [illegible] THE [illegible] SHALL BE [illegible] THE [illegible] SHALL BE [illegible] THE [illegible] SHALL BE

# SEWER APPURTENANCES DETAILS

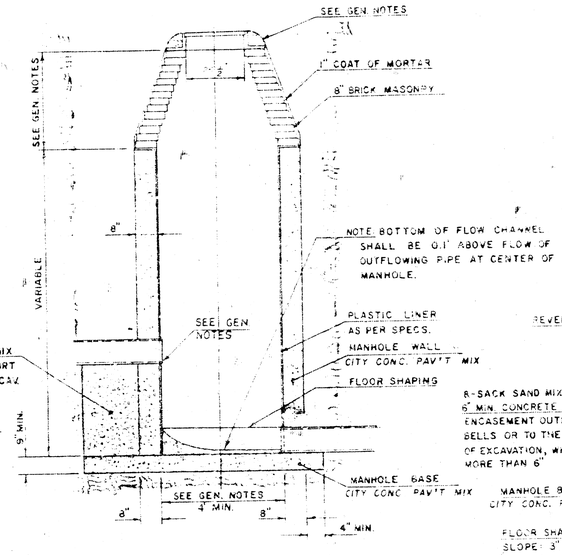
## ADOPTED AS STANDARD DESIGN
## BY

## CITY OF WICHITA, KANSAS

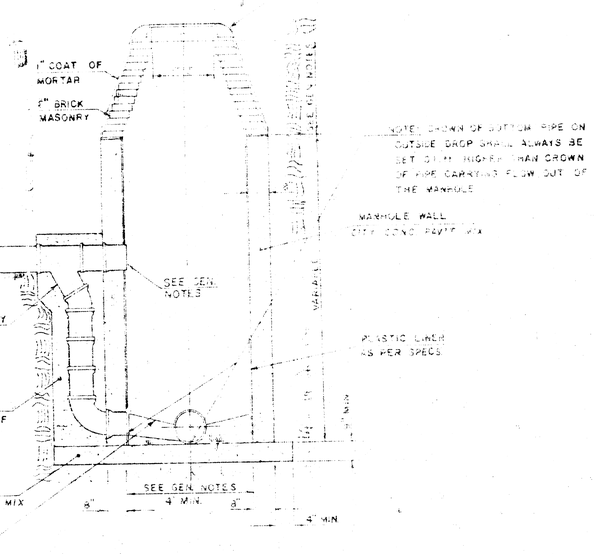
TYPE "D" MANHOLE




TYPE "D" INSIDE DROP MANHOLE




TYPE "D" OUTSIDE DROP MANHOLE




GENERAL NOTES

1. MORTAR USED IN MANHOLE CONSTRUCTION SHALL CONTAIN SACKS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE WALLS AND BASES SHALL CONFORM TO THE REQUIREMENTS OF CONCRETE FOR CONCRETE PAVEMENT CONSTRUCTION AS SPECIFIED IN THE CITY STANDARD PAVING SPECIFICATIONS USING CITY CONCRETE PAVEMENT MIX WITHOUT AIR ENTRAINING ADMIXTURE. MORTAR SHALL BE PLACED AROUND MANHOLE RING AS SHOWN ON THE DRAWINGS WHEN MANHOLES ARE CONSTRUCTED IN PAVED AREAS. PLASTIC LINING INSIDE THE MANHOLE SHALL CONFORM TO THE REQUIREMENTS SPECIFIED IN THE STANDARD SPECIFICATIONS FOR PLASTIC LINING FOR REINFORCED CONCRETE PIPE FOR SANITARY SEWER CONSTRUCTION. ALL INSIDE SURFACES OF THE MANHOLE WALL WHICH WOULD BE EXPOSED TO SEWAGE SHALL BE PROTECTED BY THE PLASTIC LINING. TYPE "D" MANHOLES MAY BE USED ON PIPE SIZES 12" TO 20" WHEN THE MANHOLE DEPTH EXCEEDS FIVE FEET AS MEASURED FROM A POINT AT 1' PLUS THE OUTSIDE DIAMETER OF THE LARGEST PIPE IN THE MANHOLE. MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE SMALLER THAN 24" SHALL HAVE A DIAMETER OF 4'-0". MANHOLES CONSTRUCTED WHERE THE PIPE SIZES ARE 24" OR LARGER SHALL HAVE A DIAMETER OF 5'-0". THE INVERT OF THE CHANNEL ON 4' DIAMETER MANHOLES SHALL BE 3" HIGHER THAN THE INVERT OF THE OUTFLOW PIPE. MANHOLES HAVING A DIAMETER OF 5' SHALL HAVE THE INVERT OF THE CHANNEL 6" HIGHER THAN THE INVERT OF THE OUTFLOW PIPE. COMPLETED MANHOLE SHALL BE AIRTIGHT TO PREVENT LEAKS AND ABNORMAL INFILTRATION.

2. REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASES. REINFORCING STEEL SHALL CONSIST OF TWO (2) BARS PLACED ON 6" CENTERS IN EACH WAY TO FULL DEPTH OF THE SLAB. SUCH BARS SHALL BE PLACED AT RIGHT ANGLES TO EACH OTHER. ONE (1) REINFORCING BAR INSTALLED AS SPECIFIED FOR STEEL SHALL BE PLACED IN THE WALL OF THE MANHOLE.

3. AN OPENING SHALL BE LEFT IN THE MANHOLE WALL FOR EACH PIPE TO BE CONNECTED. THE OPENING SHALL BE SUFFICIENTLY LARGE SO THAT PIPE SHALL BE UNIFORMLY EMBEDDED IN THE CONCRETE WALL. THE DIAMETER OF THE OPENING SHALL BE AT LEAST 6" GREATER THAN THE OUTSIDE DIAMETER OF THE PIPE. THE OPENING SHALL BE SEALED WITH AN APPROVED NON-SHRINK MORTAR AND SHALL BE FINISHED SMOOTH ON THE INSIDE OF THE MANHOLE. [illegible]

4. [illegible]

5. [illegible]

6. [illegible]

7. [illegible]

8. [illegible]

9. [illegible]

10. [illegible]

11. [illegible]

12. [illegible]

13. [illegible]

14. [illegible]

15. [illegible]

16. [illegible]

17. [illegible]

18. [illegible]

19. [illegible]

20. [illegible]

21. [illegible]

JULY 6, 1959

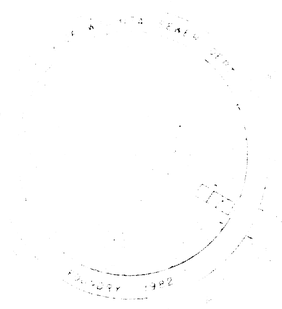
# MANHOLE FRAME AND COVER DETAIL

## ADOPTED AS STANDARD DESIGN

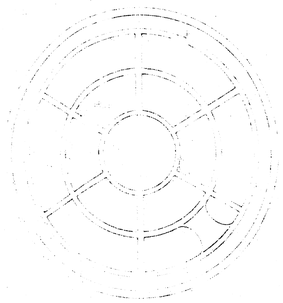
## BY

## City of Wichita, Kansas

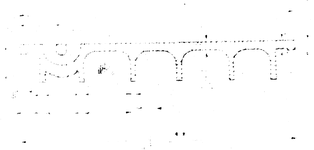
MANHOLE COVER



TOP VIEW

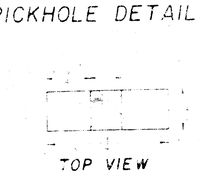


BOTTOM VIEW



SECTION VIEW

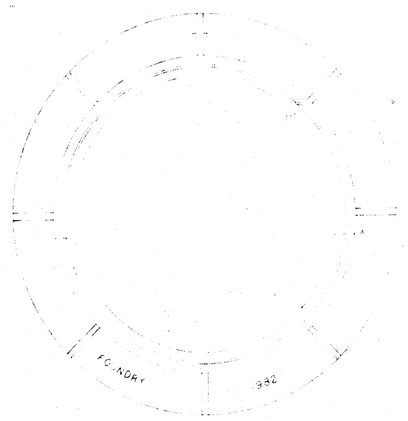
PICKHOLE DETAIL



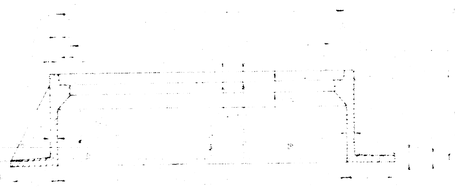
TOP VIEW

SECTION VIEW

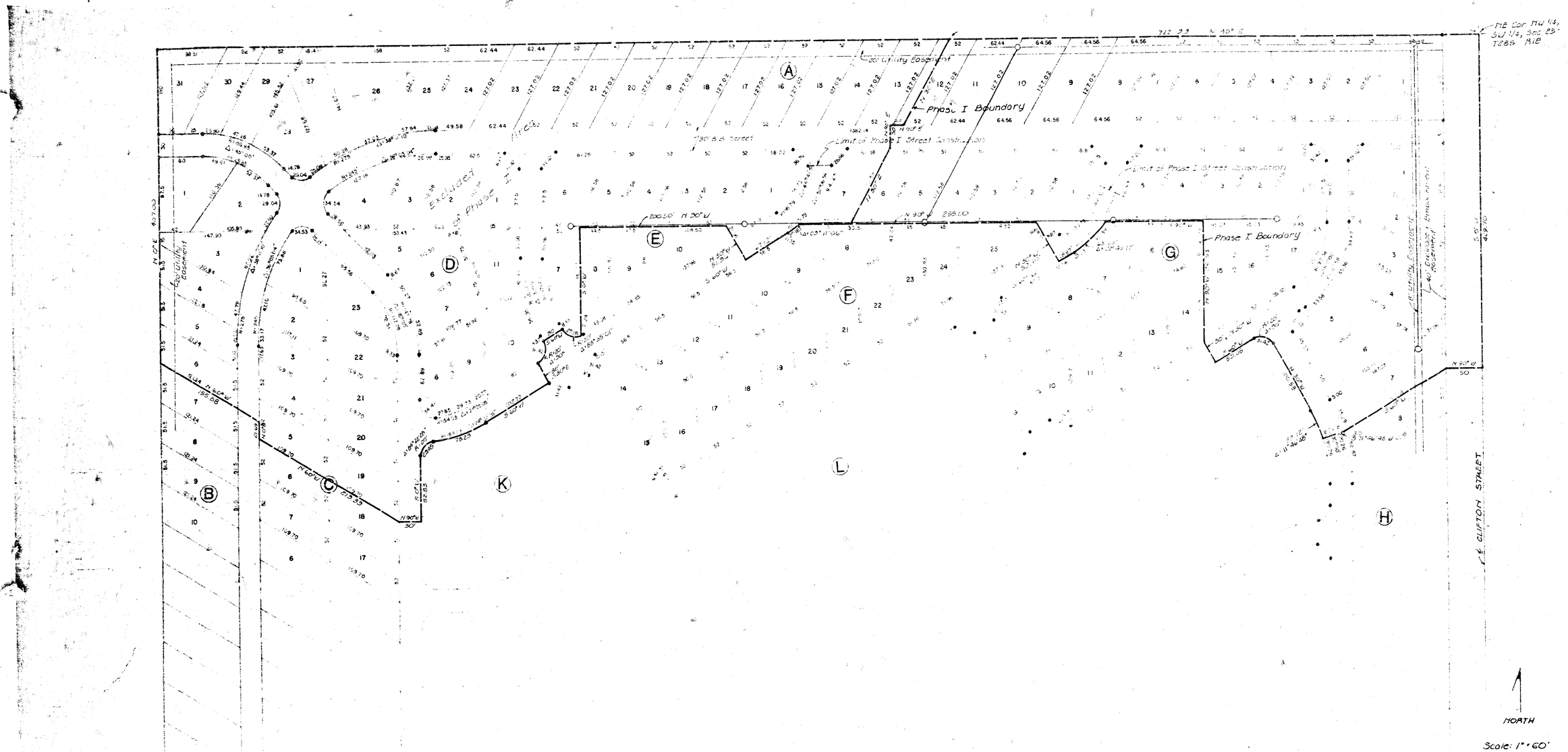
MANHOLE FRAME




TOP VIEW



SECTION A-A




NORTH

Scale: 1" = 60'

**PHASE 1 - Pinaire Mobile Home Park**

Sedgwick County, Kansas

2-16-83

8 8/8

18 5 5 18