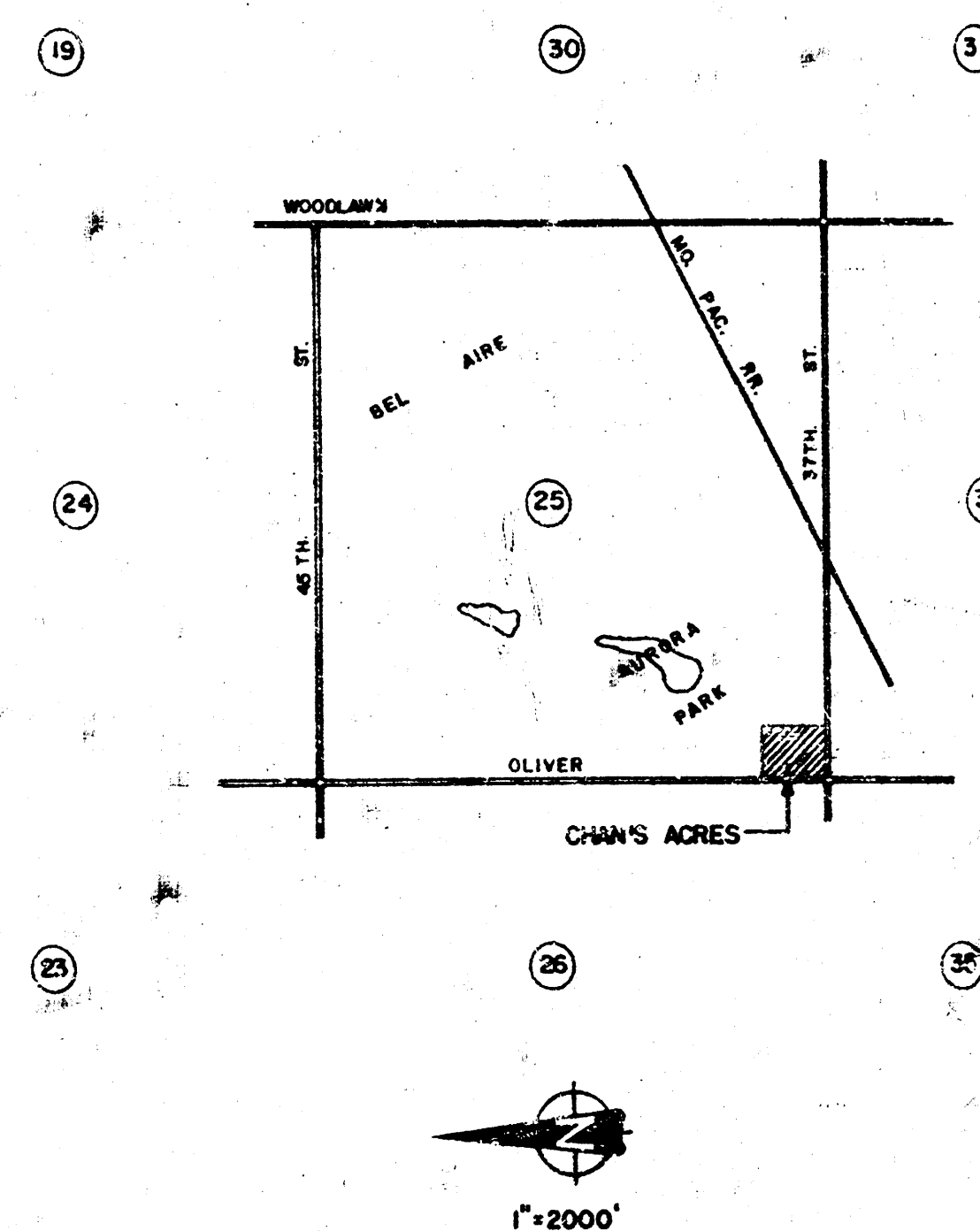


PLANS
FOR
WATER and SANITARY SEWER EXTENSIONS
CHAN'S ACRES
CITY OF BEL AIRE, KANSAS
1982



THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY LINES. THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN ANY EXISTING UTILITY LINES. THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN ANY EXISTING UTILITY LINES. THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN ANY EXISTING UTILITY LINES.

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 provide the City of Wichita for all costs of inspection.

CITY OF WICHITA

APPROVED: Approval does not relieve the contractor from any responsibility for errors or omissions from the contract requirements of the city engineer.

Date: 11/16/82

Engineering Div. [Signature]

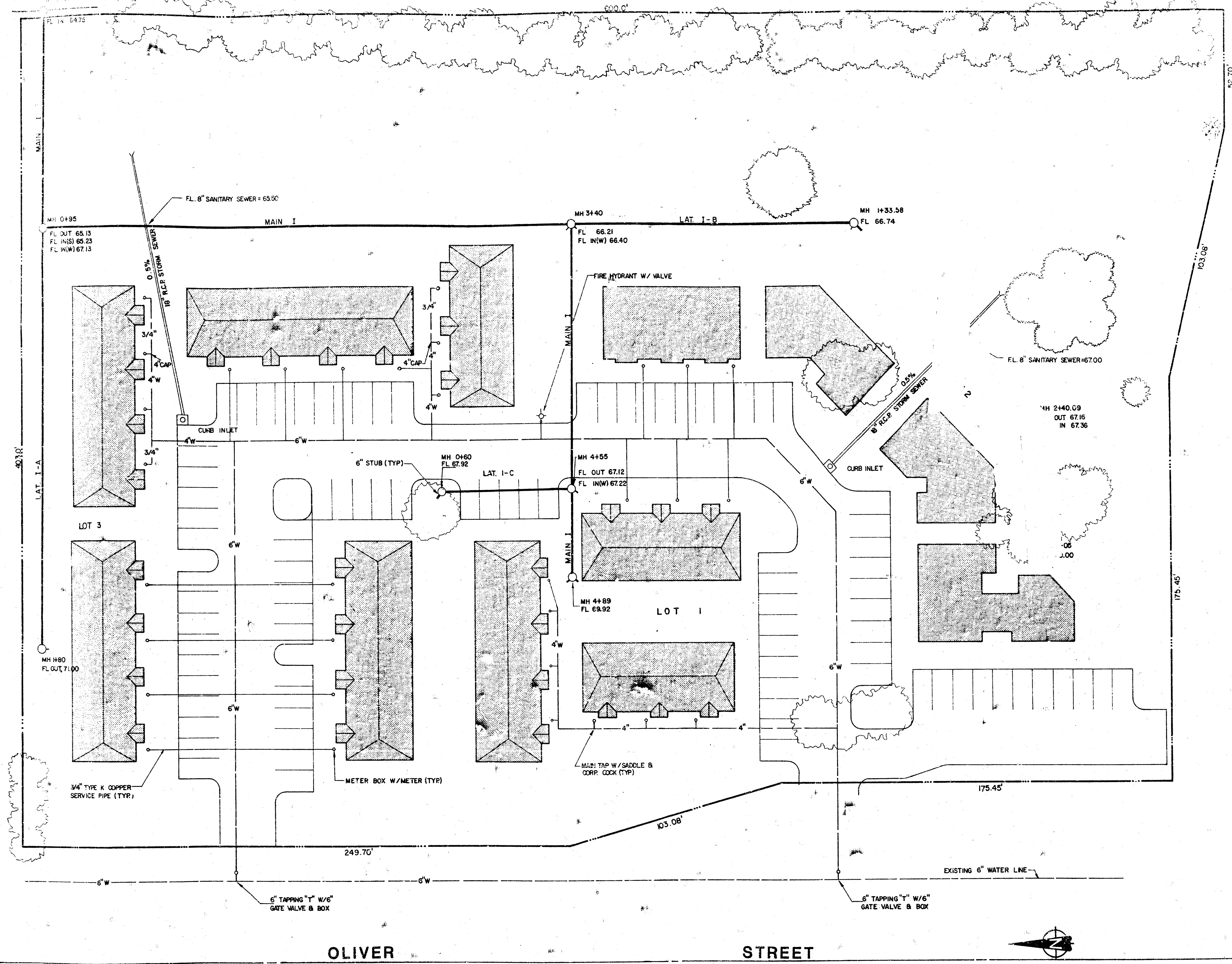
Charles M. Johnson

DEISS & GOODNESS ENGINEERS
2100 WEST 21ST STREET
WICHITA, KANSAS 67204
(316) 632-0213

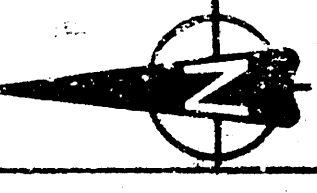
WICHITA PROJ. NO. 468-76-245-80000-000-000-008

REVISION	DRAWN BY	CHECKED BY	DESIGNED BY	PROJECT	CUSTOMER	SCALE GIVEN	DATE	PROJECT NO.	SHEET NO.
							9-22-82	1	1 OF 7

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NORTH STREET 37th.



SCALE: 1"=20'

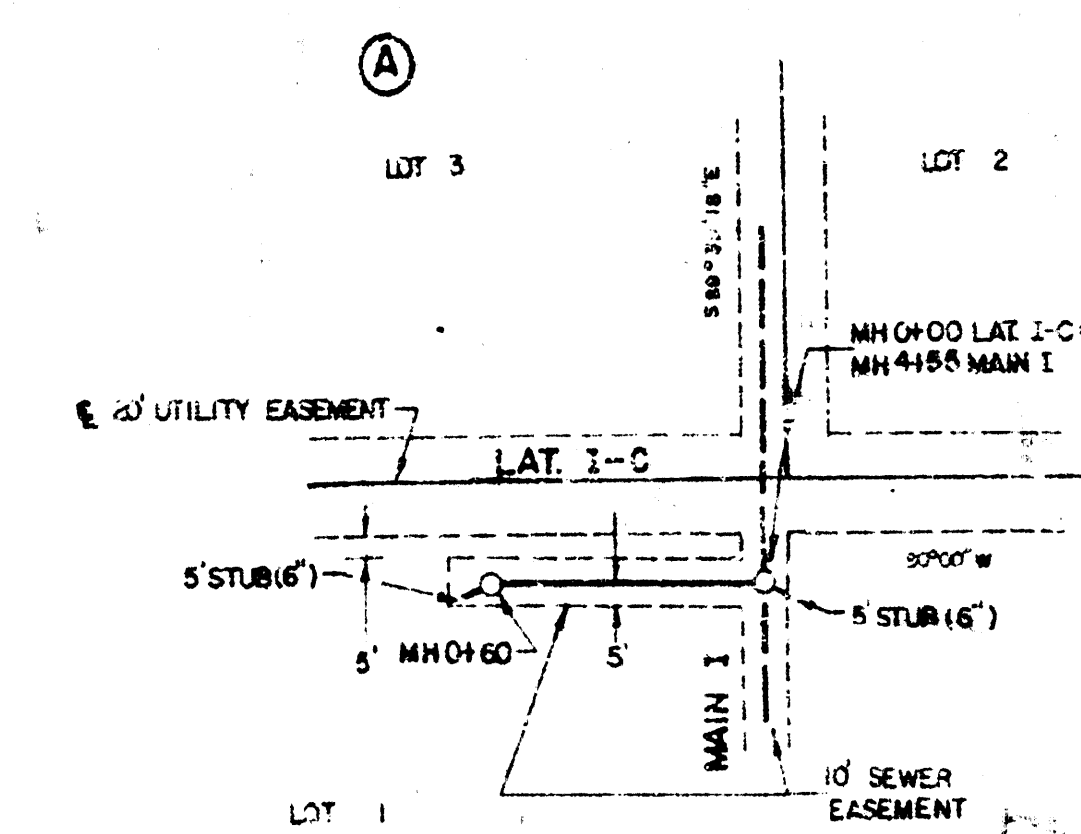
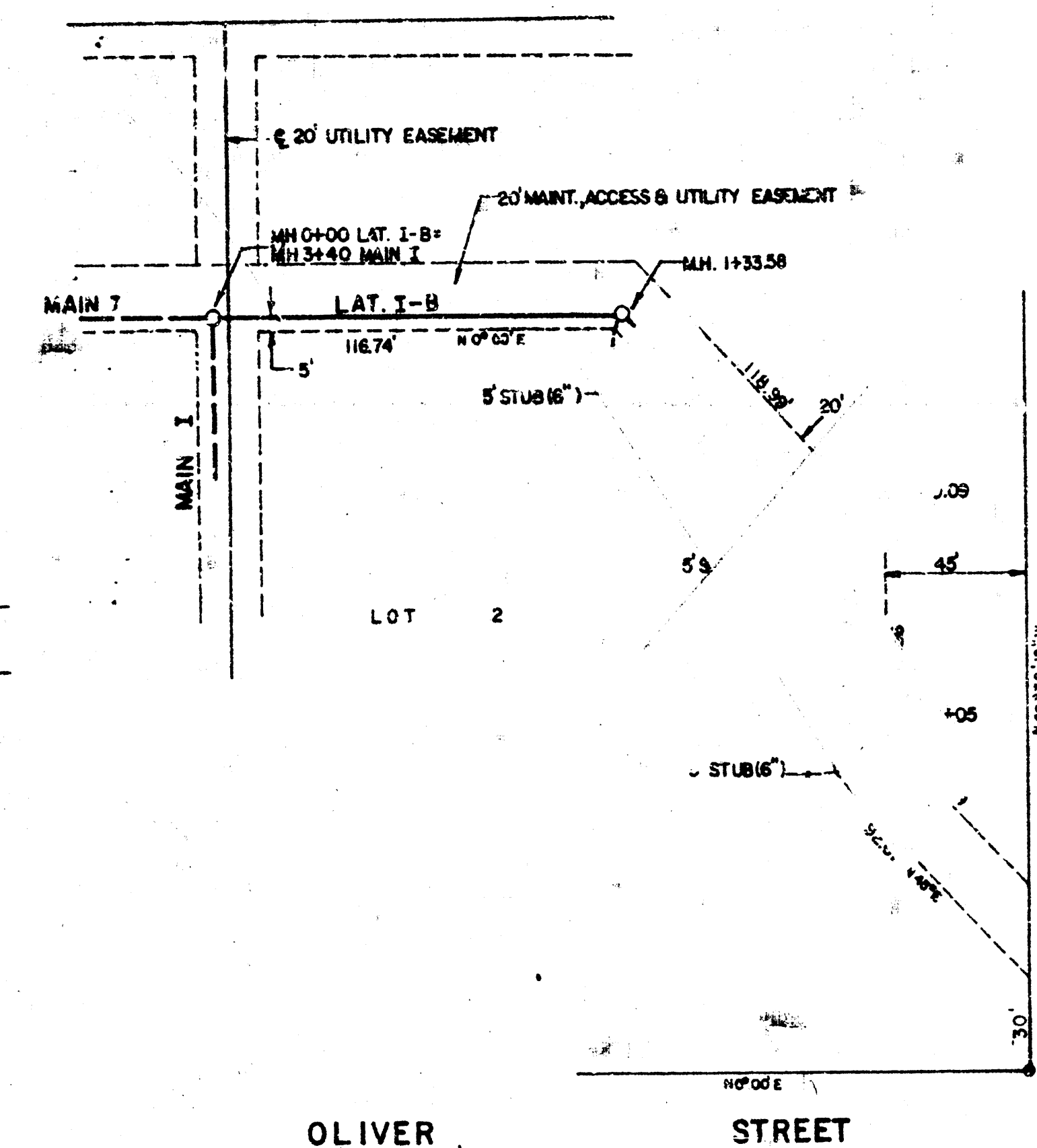
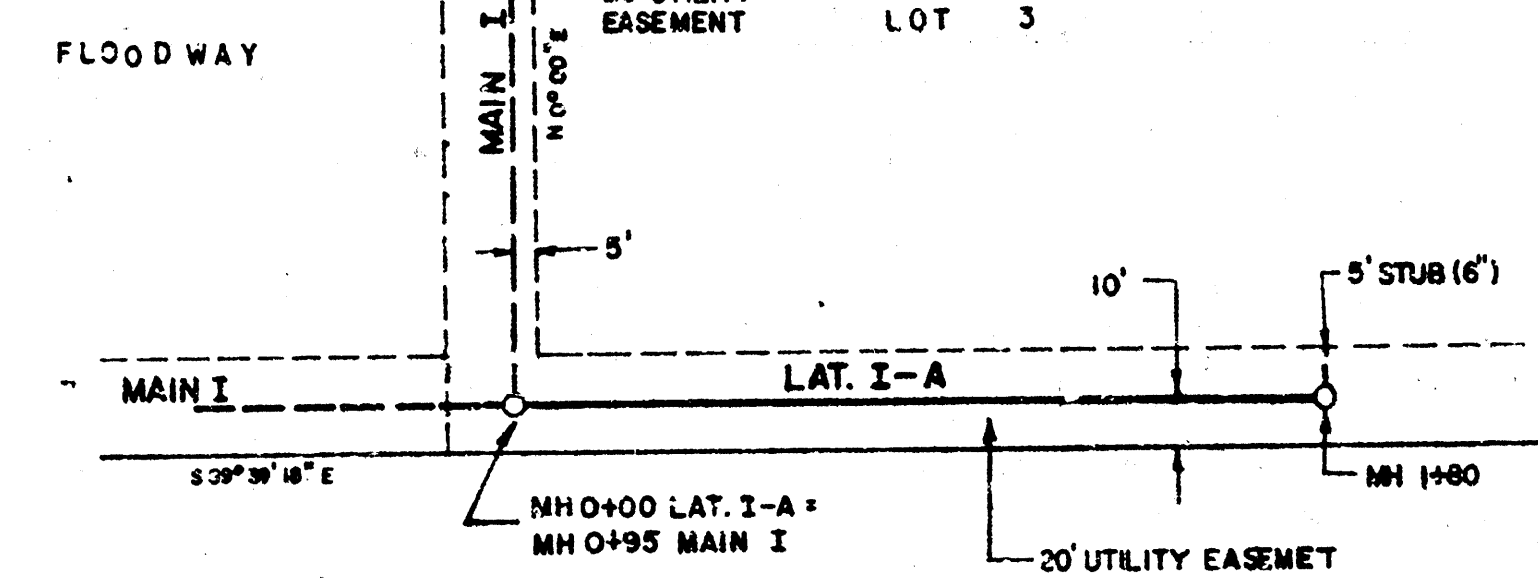
WICHITA PROJ. NO. 468-76-245-80000-000-000-008

REISS & GOODNESS ENGINEERS
 2100 WEST 21ST STREET
 WICHITA, KANSAS 67204
 (316) 832-0233

REVISED 11-5-82
 SCALE GIVEN PROJECT NO. MS 7
 DATE 9-22-82 SHEET 2/7

REVISION	DRAWN BY	CHECKED BY	DESIGNED BY	PROJECT	CUSTOMER
				CHAN'S ACRES	BEL AIRE SEDGWICK COUNTY, KANSAS

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SCALE: 1"=5'

BM
CITY STD. BRASS CAP IN SE HUB GUARD
OF R.C.B. ON SW COR. OLIVER & 37 TH. ST. NO.
EL. 1371.96
ADD 1300.00 TO ELEVATIONS SHOWN HEREON

SCALE: 1" = 50'

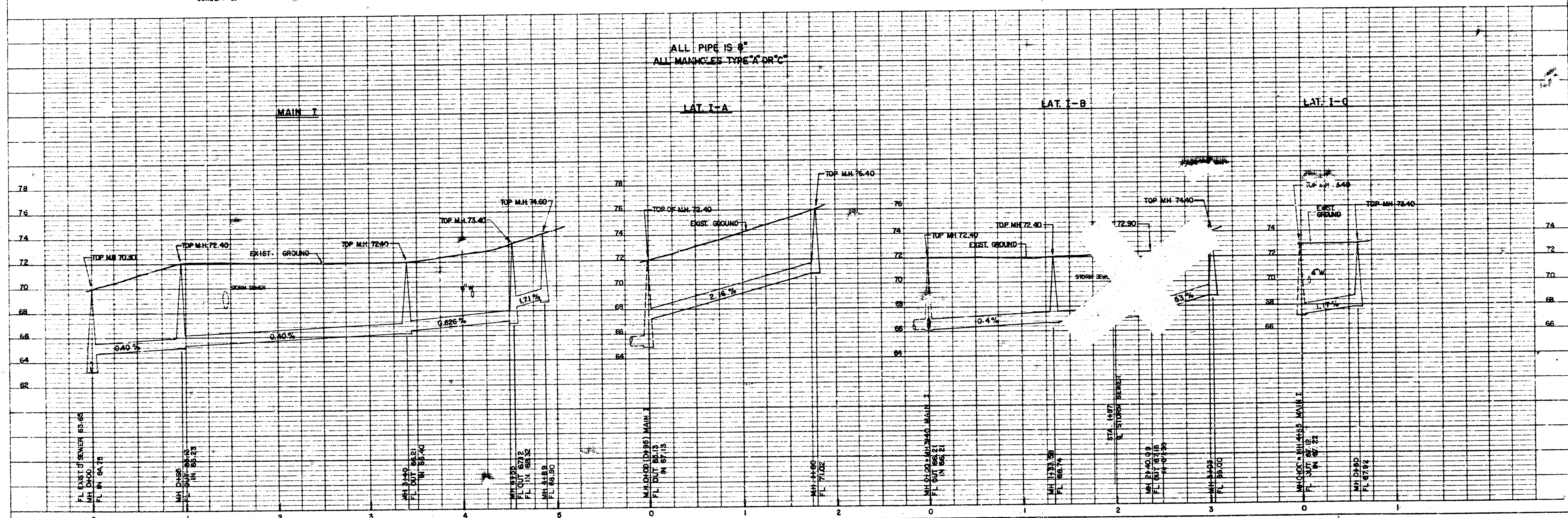
OLIVER



SCALE: 1" =



SCALE: 1" = 1 mi



ALL PIPE IS 8"
ALL MANHOLES TYPE "A" OR "C"

WICHITA PROJ. NO. 468-76-245-80000-000-000-008

REVISED 11-3-82

REISS & GOODNESS ENGINEERS

2100 WEST 21ST STREET
WICHITA, KANSAS 67203
(316) 832-0223



REVISION		DRAWN BY		CHECKED BY	DESIGNED BY	PROJECT

SANITARY SEWER EXTENSIONS

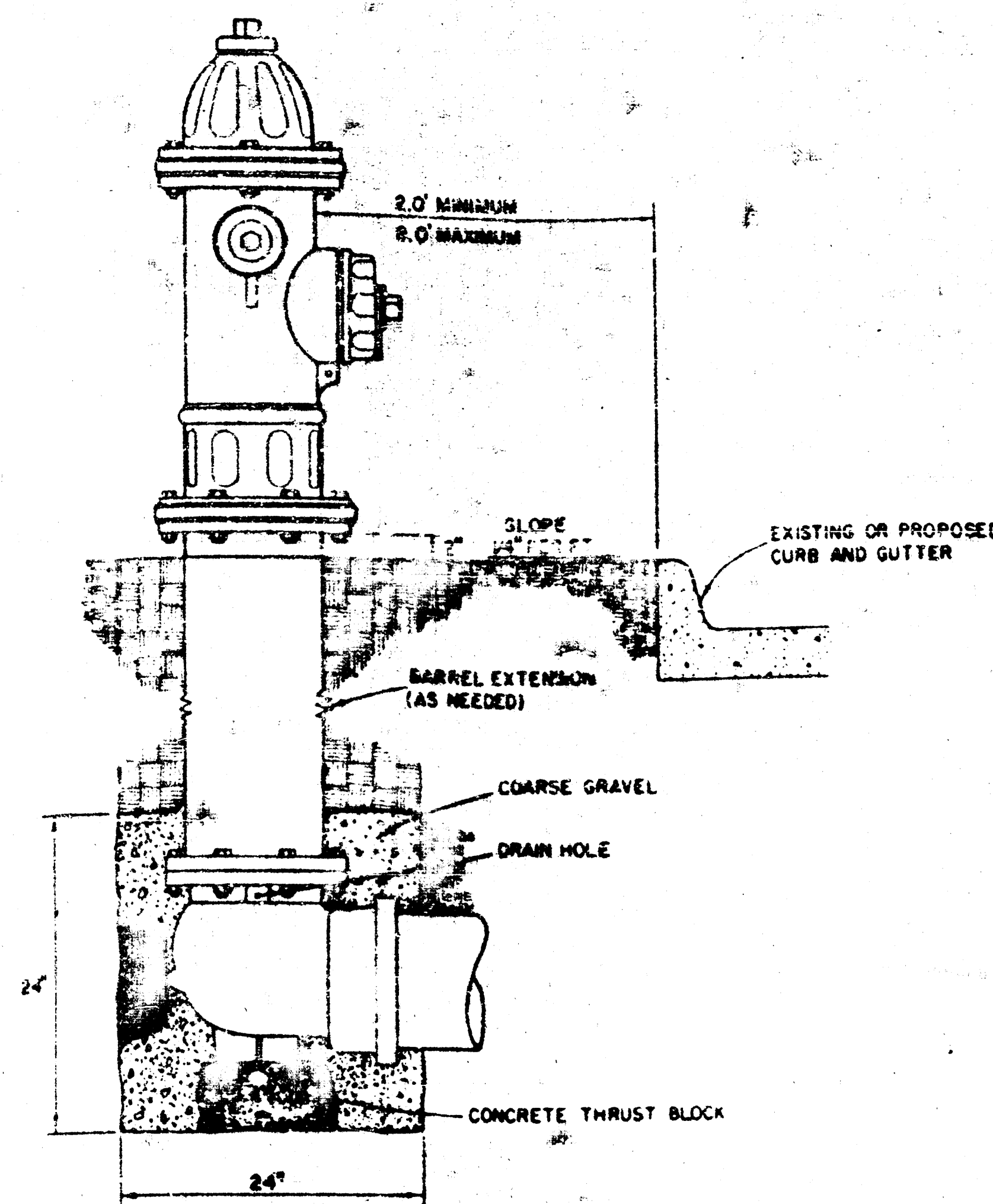
CUSTOMER	
----------	--

CHAN'S ACRES

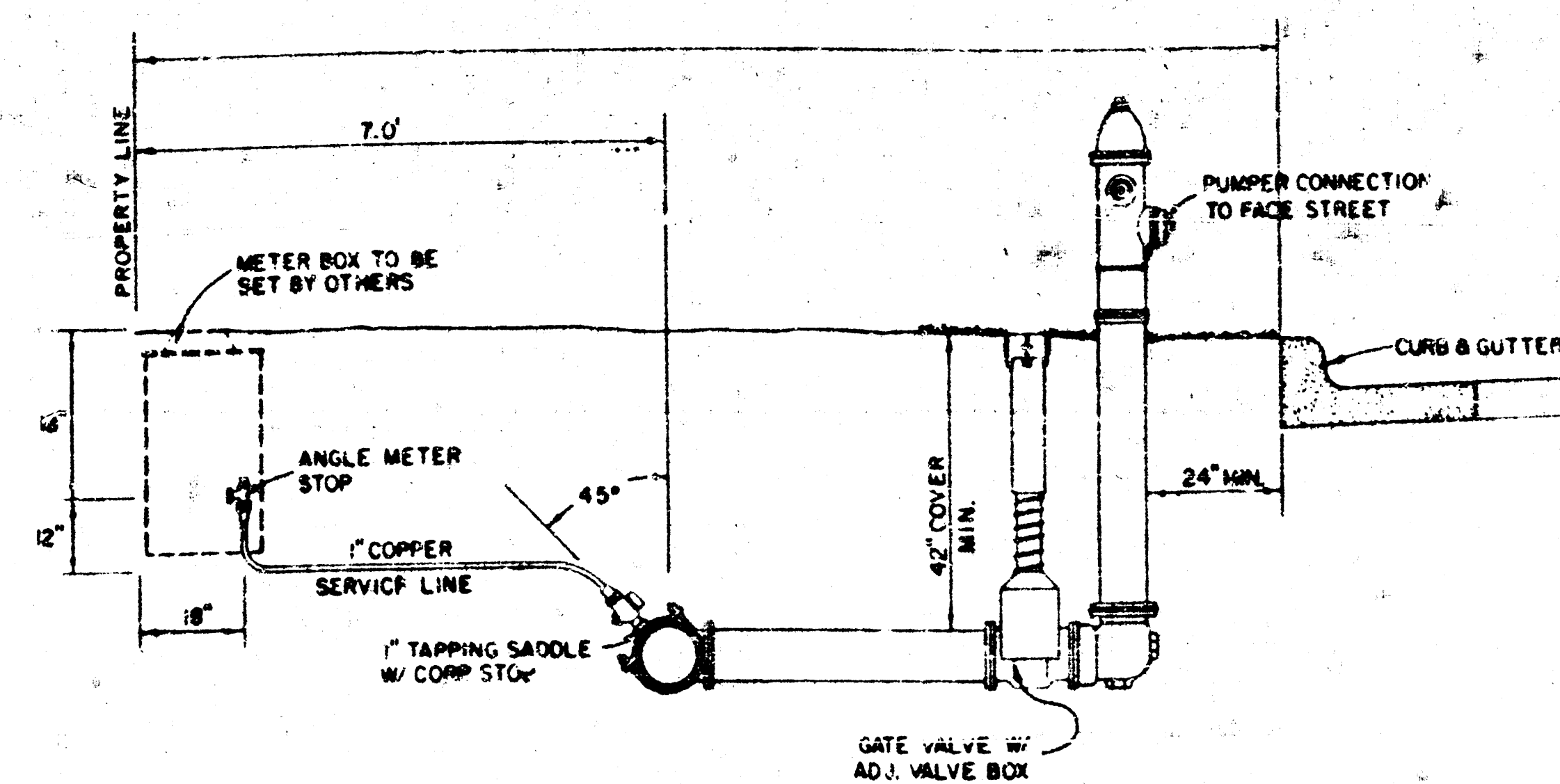
BEL AIRE , KANSAS

SCALE GIVEN	PROJECT NO HS 1582
DATE 9-22-82	SHEET 3 OF 7

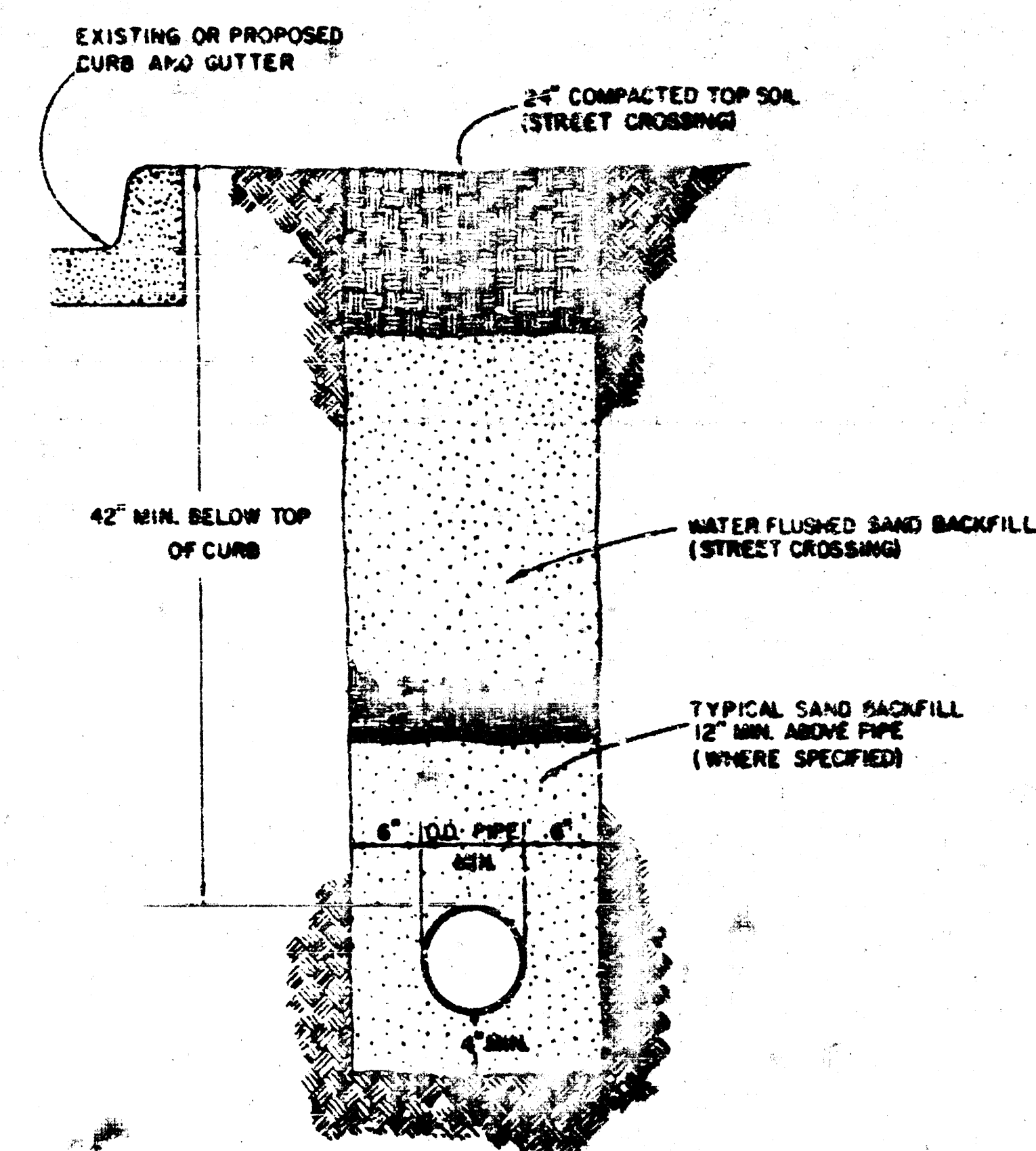
**FILMED FROM THE BEST
AVAILABLE COPY**



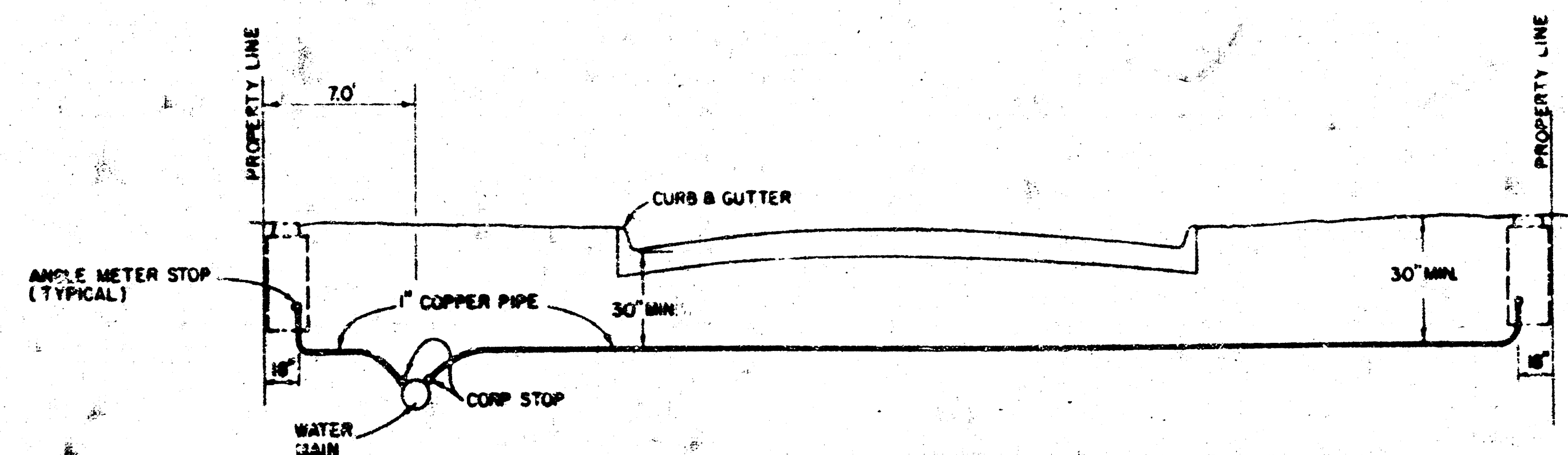
FIRE HYDRANT SETTING DETAIL



TYPICAL SERVICE & FIRE HYDRANT LOCATION

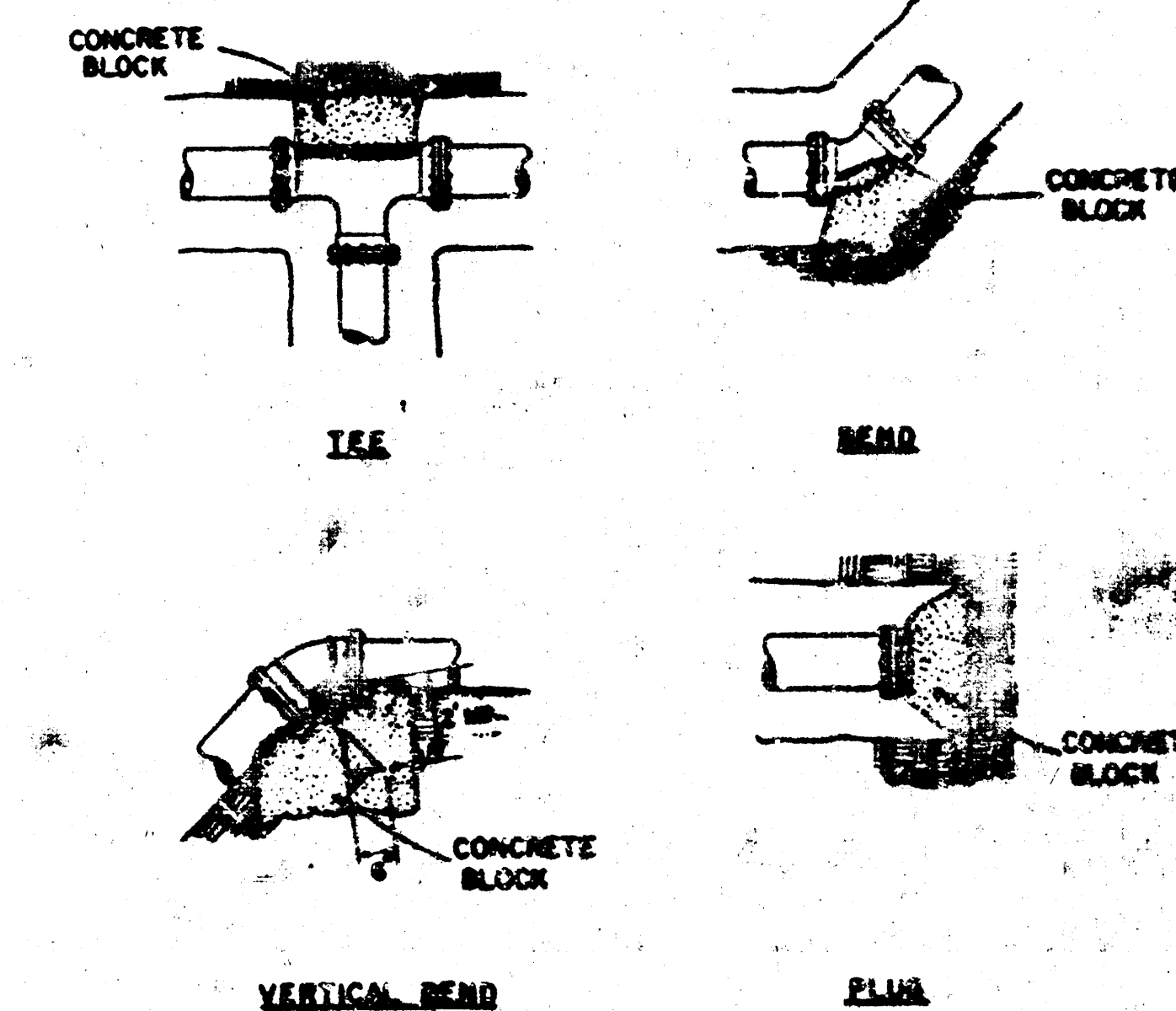


TRENCH DETAIL



TYPICAL SERVICE INSTALLATION

NOTE
TRENCH TO BE FILLED WITH FLUSHED AND VIBRATED SAND TO WITHIN 12" OF FINISHED GROUND ELEVATION OR TO PAVEMENT BASE UNDER PAVEMENT.



PIPE SIZE	THRUST AT FITTINGS IN TONS (AT 90° / 100' P.)					
	PLUG	90°	45°	22 1/2°	11 1/4°	TEE
6"	2.8	3.95	2.15	1.09	.55	2.0
8"	4.9	6.95	3.75	1.90	.96	4.0
12"	11.4	16.1	8.75	4.45	2.25	11.4
16"	20.15	28.5	15.4	7.85	3.90	20.15
20"	31.15	44.0	23.85	12.15	6.1	31.15
24"	44.95	65.0	34.1	17.4	8.75	44.95

THRUST BLOCKS

DESS & GOODNESS ENGINEERS
2160 WEST 31ST STREET
MICHIGAN, KANSAS CITY, MO 64111
(816) 435-0025

DESIGNED BY: _____ CHECKED BY: _____ DRAWN BY: _____ PROJECT: _____

WATER SYSTEM IMPROVEMENTS

SCALE: _____ DATE: _____

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City of Wichita, Kansas

STANDARD

RING AND LID AS SPECIFIED

SEE GEN NOTES

6" BRICK MASONRY

1" COAT OF MORTAR

HANDHOLE WALL
CITY CONC PAVT MIN.

NOTE: CROWN OF IN SHALL NOT BE CROWN OF PIPE F

FLOOR SHAPING
SLOPE - 3" TO 1"

MANHOLE BASE
CITY CONC PAVT MIN.

30" MIN - 48" MAX

30" MIN - 48" MAX

VARIABLE

5" MIN

26" ±

30" ±

8"

4" MIN

SEE GEN NOTES

4" MIN

8"

TECHNICAL DRAWING OF A MANHOLE STRUCTURE:

- Labels and Materials:**
 - SEE GEN NOTES
 - 8" BRICK MASONRY
 - COAT OF MORTAR
 - MANHOLE WALL
 - CITY CONC PAVT MIX
 - 8" SALK SAND MIX FOR PIPE SUPPORT TO LIMIT OF EXCAV
 - MANHOLE BASE
- Dimensions and Measurements:**
 - 26" 2
 - 30" 2
 - 8"
 - 13" MIN 48" MAX
 - VARIABLE
 - 4" MIN
 - 4" MIN
 - 4" MIN
- Notes:**
 - NOTE: SHOWN ON PLAN
 - NOTE: SEE GEN NOTES

Technical drawing of a manhole structure, showing a cross-section and elevation view. The drawing includes various annotations and dimensions:

- Annotations:**
 - SEE GEN NOTES
 - 12" MIN BRICK MASONRY COLLAR
 - COAT OF MORTAR
 - 26" ±
 - 30" ±
 - SEE GEN NOTES
 - 8"
 - 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.
 - REVERSE "Y"
 - BACK SAND MIX
 - 4" CONCRETE
 - CEMENT OUTSIDE OF S OR TO THE LIMIT EXCAVATION WHEN DEPTH IS MORE THAN 6'
 - MANHOLE WALL
 - CITY CONC PAV'T MIX
 - MANHOLE BASE
 - CITY CONC PAV'T MIX
 - SEE GEN NOTES
 - 4" MIN
 - 6" MIN
 - FLOOR SHAPING
 - SLOPE: 3" TO 1"
- Dimensions:**
 - 12" MIN
 - 50" MIN - 48" MAX
 - VARIABLE
 - 19" MIN

[illegible]

MANHOLE FRAME AND COVER DETAIL

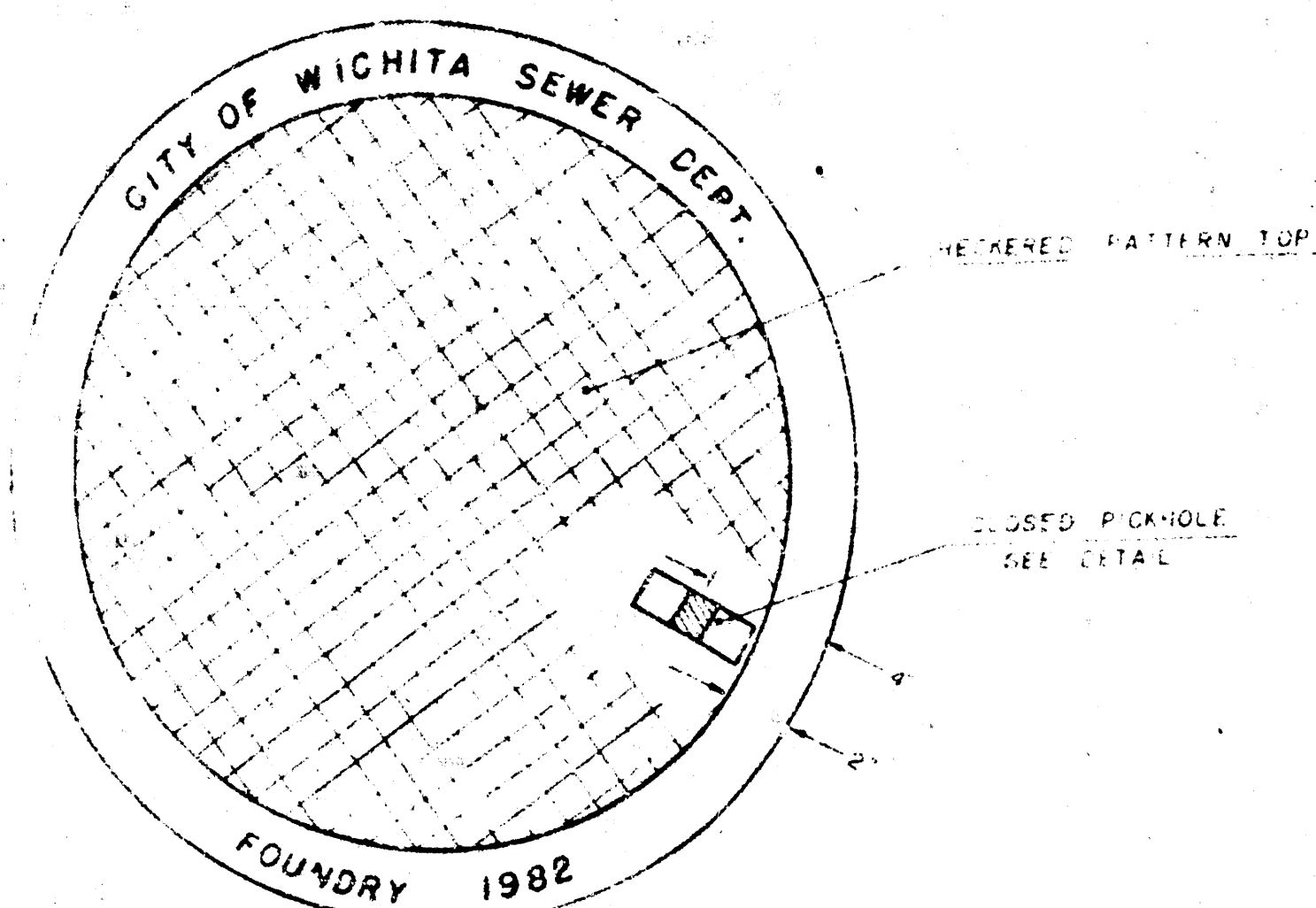
ADOPTED AS STANDARD DESIGN

BY

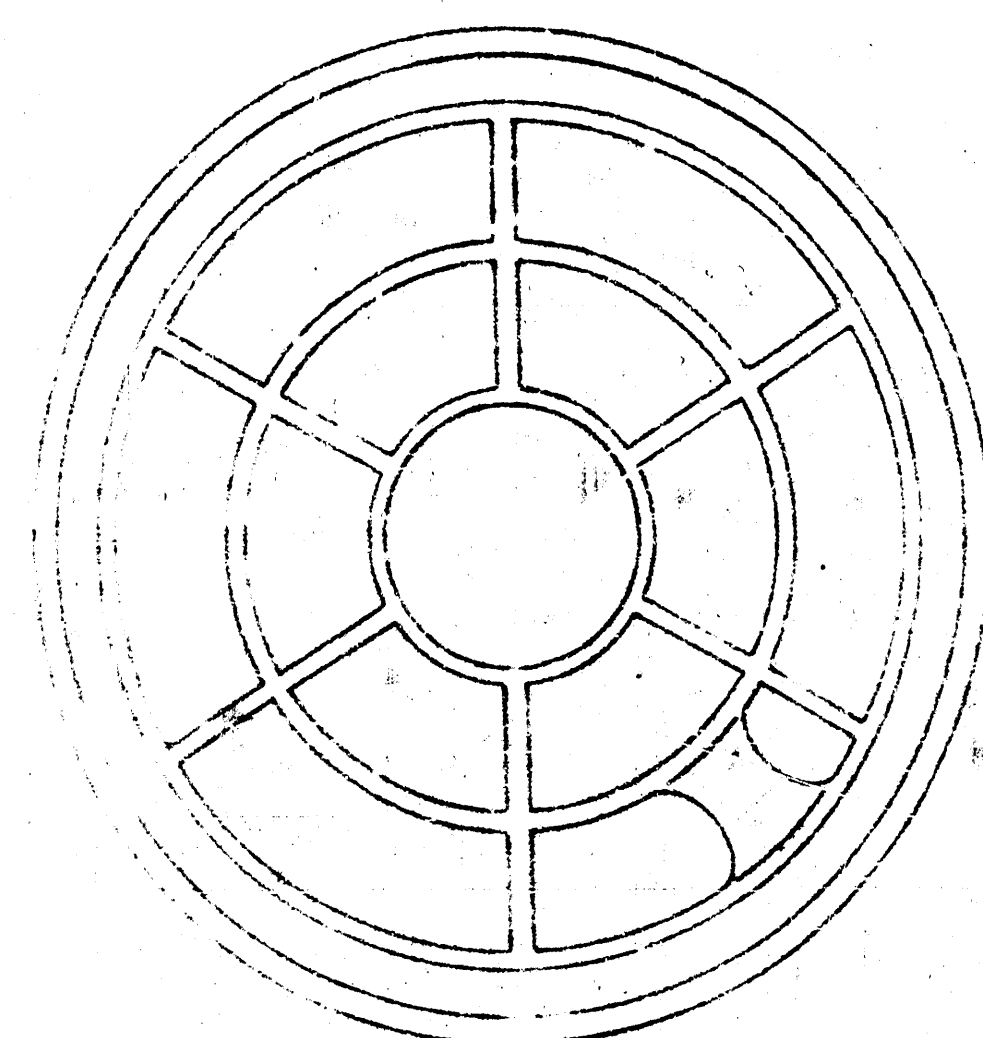
City of Wichita, Kansas

MANHOLE COVER

Weight: 180 Lbs.

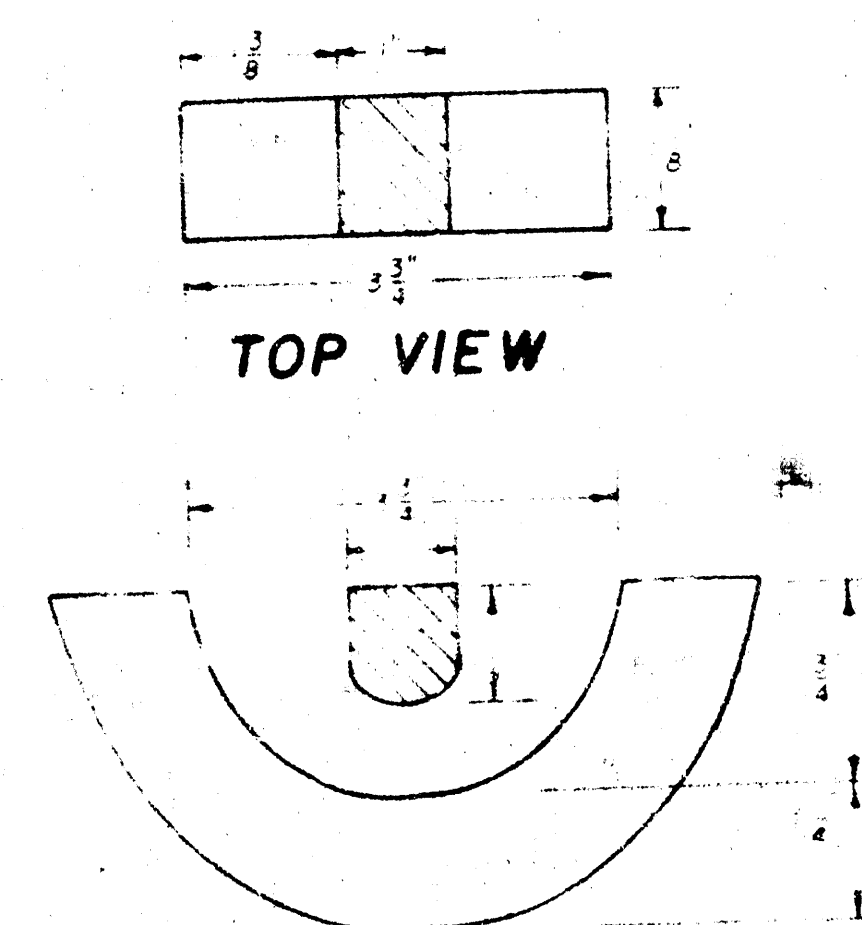


TOP VIEW



BOTTOM VIEW

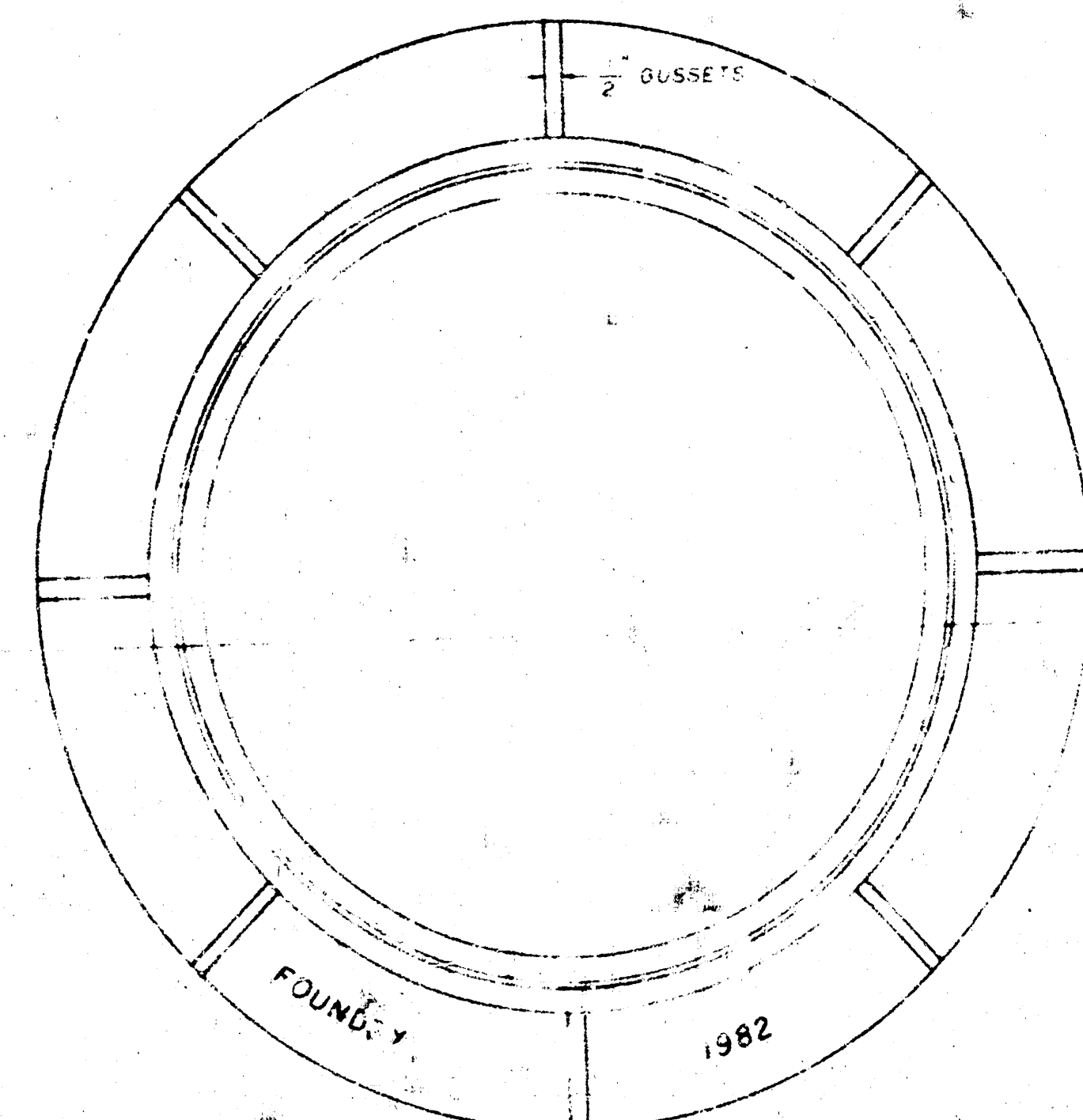
PICKHOLE DETAIL



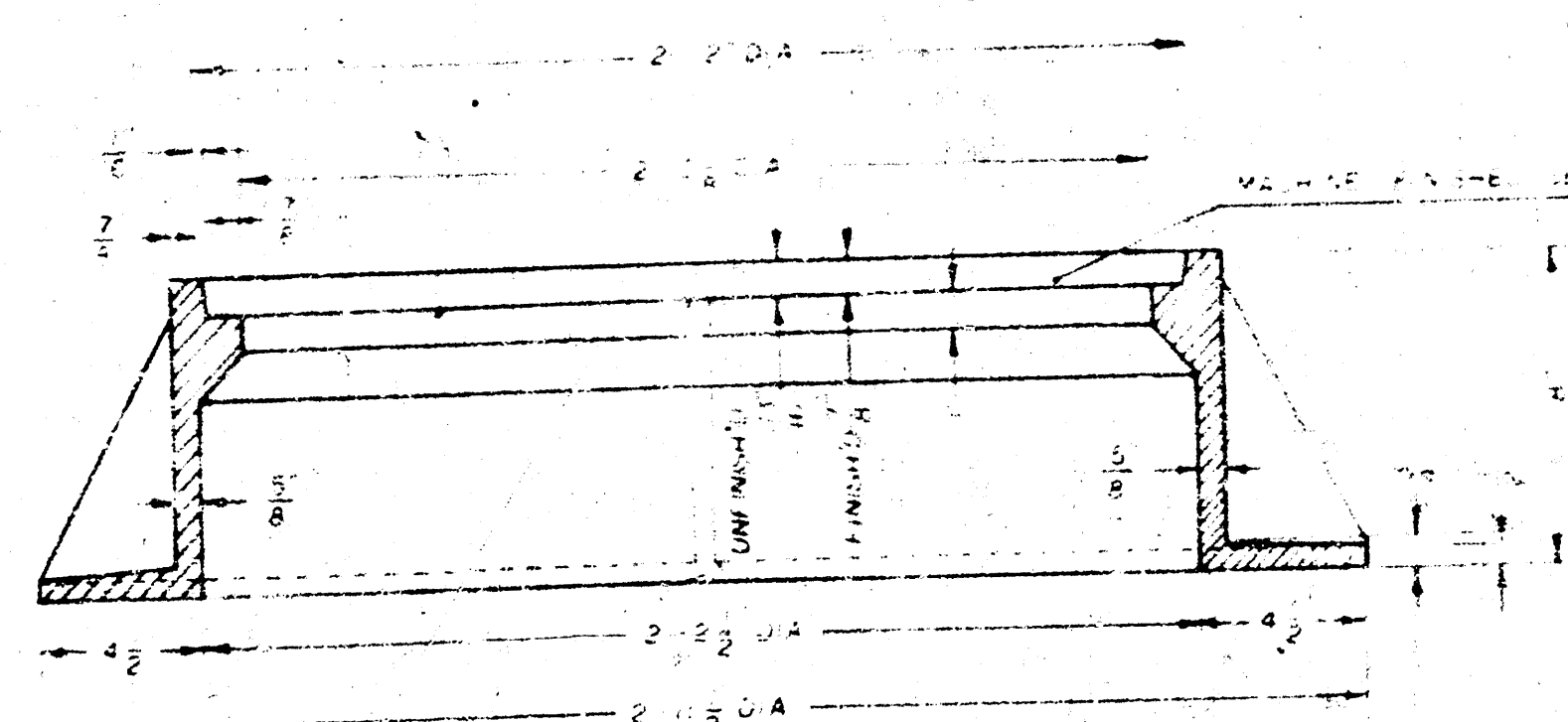
SECTION VIEW

MANHOLE FRAME

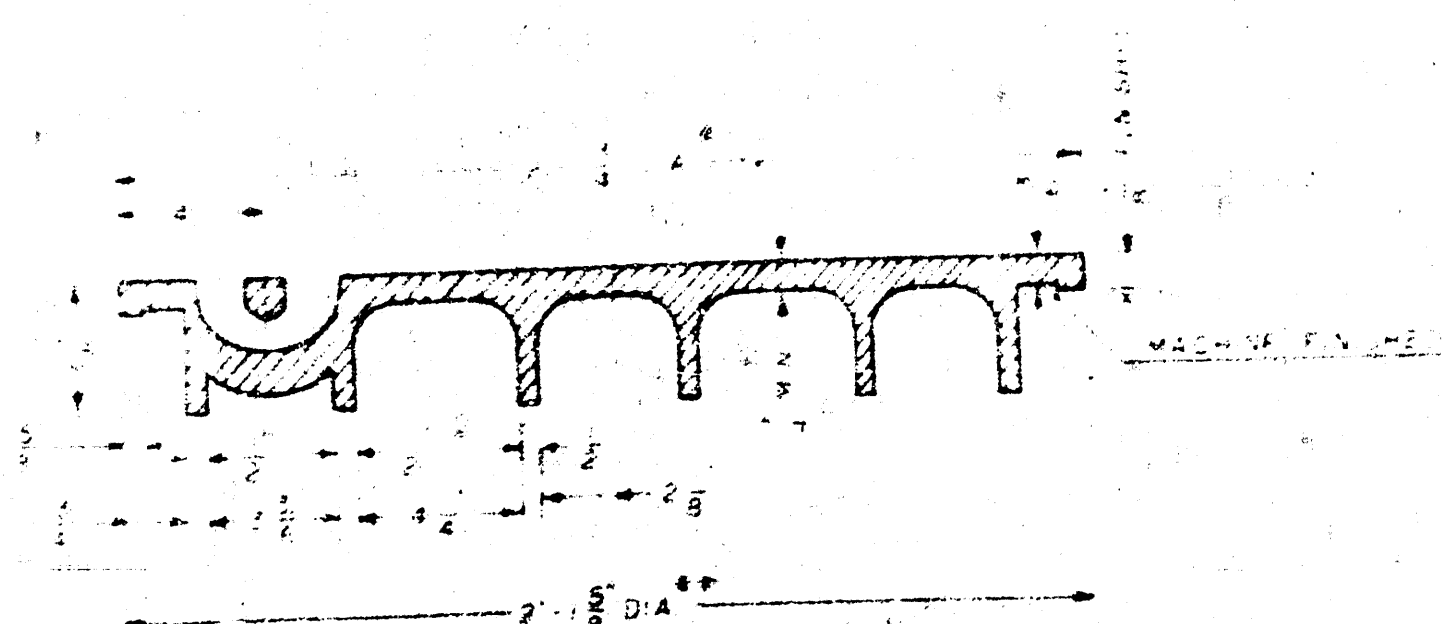
Weight: 240 Lbs.



TOP VIEW



SECTION A-A



SECTION VIEW

* OUTSIDE DIA. TOP OF COVER
** OUTSIDE DIA. BOTTOM OF COVER

GENERAL NOTES

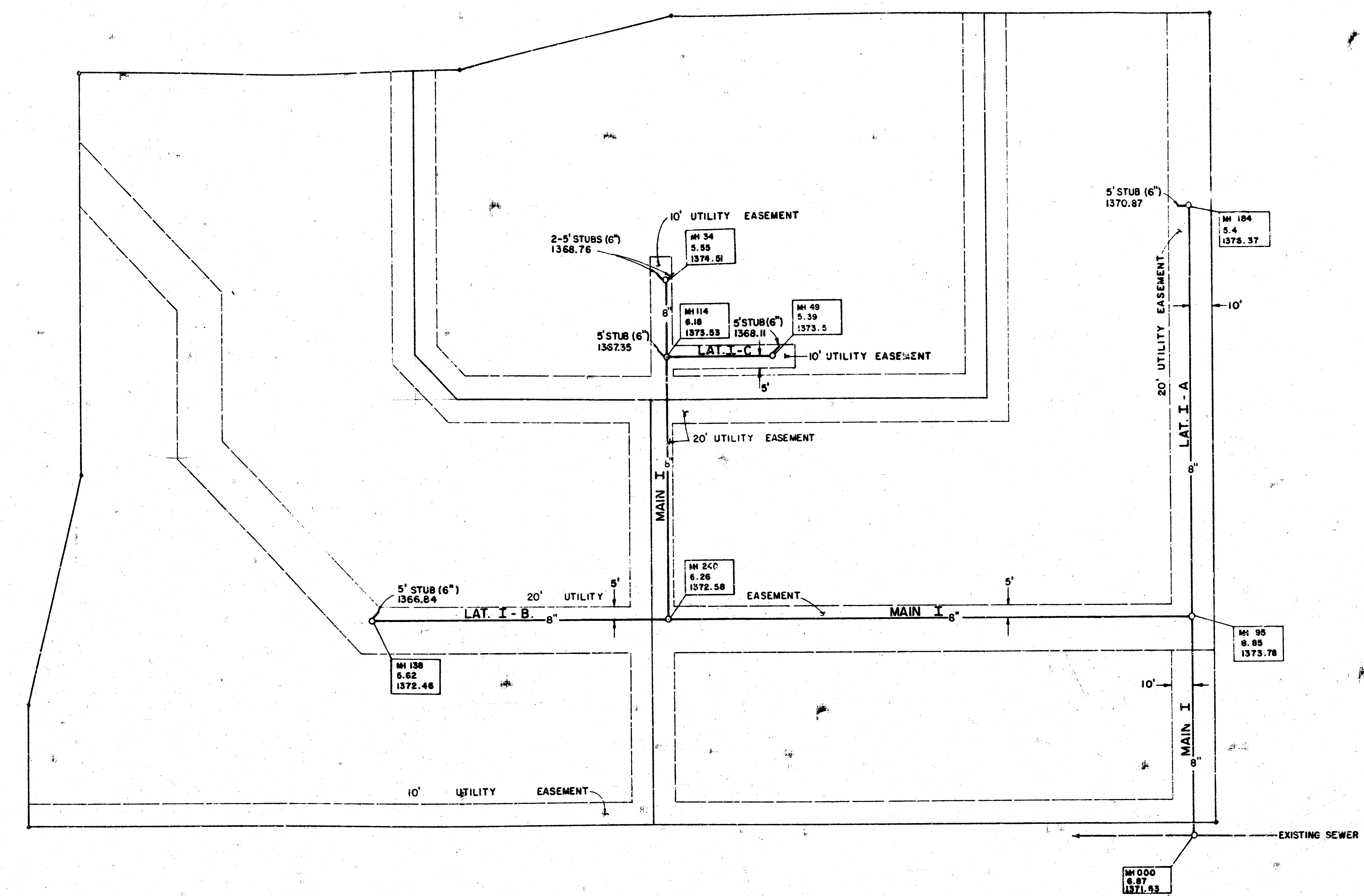
1. MANHOLE CASTINGS SHALL BE MANUFACTURED USING GRADE 48,000 PSI STEEL. DIMENSIONS AND WEIGHTS SHALL BE AS SHOWN. DIMENSIONS SHALL BE CONSIDERED AS MINIMUM REQUIREMENTS. DIMENSIONS SHALL BE THE DIMENSIONS SHOWN MUST BE SPECIFICALLY APPLIED. THE FINISHED CASTINGS SHALL BE OF UNIFORM QUALITY, FREE FROM BLOWHOLES, POROSITY, LACES, SCABS, CRACKS, OR OTHER DEFECTS.
2. MANHOLE CASTINGS SHALL BE COATED WITH AN ASPHALT PAINT RESISTING IN A WEAR SURFACE AND TENSILES LAMING WHICH IS NOT BRITTLE OR TACKY.
3. MANHOLE CASTINGS SHALL BE MANUFACTURED SUCH THAT A COVER MANUFACTURED BY ONE FOUNDRY WILL FIT INTERCHANGEABLY INTO A FRAME MANUFACTURED BY ANOTHER FOUNDRY AND STILL MEET ALLOWABLE CLEARANCES AND NON-SEIZING REQUIREMENTS. THIS WILL REQUIRE MATCHING OF THE MATCHING FACES ON THE COVER AND THE FRAME TO CLOSE TOLERANCES.
4. THE INTERFERENCE OF THE VERTICAL FACE OF THE COVER AND THE INNER CIRCUMFERENCE OF THE VERTICAL FACE IN THE FRAME SHALL BE AS SHOWN. THE INTERFERENCE SHALL BE SUCH THAT THE CLEARANCE BETWEEN THE COVER AND FRAME WILL BE MAINTAINED IN ANY CITY. THE INTERFERENCE OF THE COVER. THE MATCHING SURFACES BETWEEN THE COVER AND FRAME SHALL BE MACHINED SUCH THAT THESE SURFACES SHALL MAINTAIN CONTACT IN ALL DIRECTIONS TO PREVENT THE COVER FROM MOVING IN THE FRAME.
5. THE MANHOLE FRAME AND COVER SHALL BE MARKED WITH LETTERING IDENTIFYING THE NAME OF THE FOUNDRY AND THE YEAR WHEN THE COVER OR FRAME WAS CAST. THE LETTERING SHALL BE EASILY IDENTIFIED WITH REGARD TO OWNERSHIP USING LETTERS AT LEAST 1/2 IN. HIGH. THIS IDENTIFICATION SHALL BE "CITY OF WICHITA SEWER DEPARTMENT". THE WORD "MANUFACTURED" MAY BE IDENTIFIED. THE TEXTURE OF THE TOP SURFACE OF THE COVER SHALL BE MANUFACTURED IN A RECESSED PATTERN DESIGN AS INDICATED ON THE DRAWING. RECESSED SURFACES SHALL BE SUFFICIENT TO PREVENT THE LETTERING ON THE COVER SURFACE. THE TOTAL AREA OF RECESSED SURFACES SHALL NOT EXCEED THE AREA AS INDICATED ON THE DRAWING. POSITIONING OF SURFACES, LETTERING AND LETTERING MAY VARY FROM THAT SHOWN ON THE DRAWING.

10 1 4 14

S.W. COR. SEC. 23
T26S, R1E

OLIVER STREET

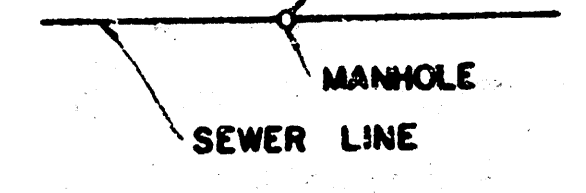
37 TH ST. NORTH



LEGEND

MH 123
3.45
1456.78

DISTANCE TO DOWNSTREAM MANHOLE
MEASUREMENT (RING TO FL. OUT)
TOP OF MANHOLE RING (U.S.G.S. DATUM)



SCALE: 1" = 30'

REISS & GOODNESS ENGINEERS
2100 WEST 21ST STREET
WICHITA, KANSAS 67203
(316) 632-0213

REVISION	DRAWN BY	CHECKED BY	DESIGNED BY	PROJECT	CUSTOMER
				"AS BUILT" SEWER SYSTEM - CHAN'S ACRES	BEL AIRE, KANSAS

SCALE	PROJECT NO.
DATE	SHEET 1 OF 1

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