

CONSTRUCTION PLANS FOR SANITARY SEWER SYSTEM EXTENSIONS

THE CITY OF WICHITA, KANSAS

MICHAEL E. LINDEBAK, P.E.-CITY ENGINEER

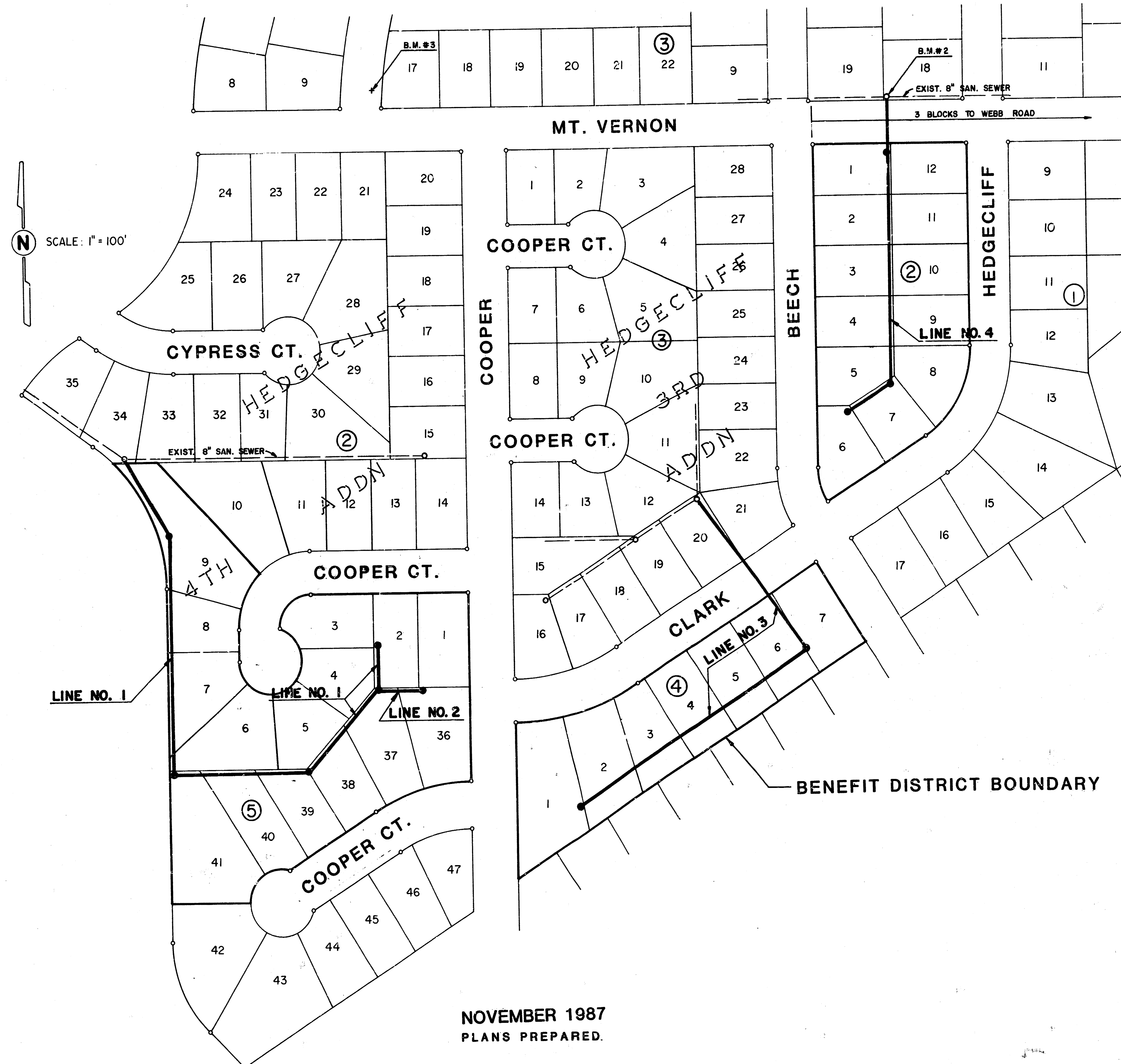
LATERAL 94, WAR INDUSTRIES SEWER

PROJECT NO. 468-76-245-81736-000-000-001

HEDGECLIFF 3rd AND 4th ADDITIONS

GENERAL NOTES:

- Underground utility service lines and overhead utility pole lines are to be adjusted as necessary by others prior to construction unless the plans specifically call for their adjustment by the Contractor or unless the plans specifically identify a utility to be adjusted by its owner during construction. Existing utilities and their location, as shown on the plans, represent the best information obtainable for design. The Contractor will be required to work around existing utilities within the right-of-way which do not conflict with proposed construction.
- Rubble from the removal of miscellaneous structures and excess excavation which is to be wasted shall be disposed of on sites to be provided by the Contractor. These sites shall be approved by the Engineer as to suitability, appearance and site location. Locations that, in the opinion of the Engineer, will leave an unsightly appearance will not be approved.
- The Contractor shall be responsible for maintaining continuous flow of sewage through construction. Contractor's proposed method for maintaining sewage flow shall be approved by the Engineer. Cost of maintaining flow of sewage through construction will not be paid for directly and this cost shall be considered as subsidiary to the other pay items of work.
- The Contractor shall be responsible for preserving property irons. The Contractor will be required to re-establish any property irons which are damaged or destroyed by his construction operations. Such irons shall be re-established by a licensed land surveyor or a licensed professional engineer in accordance with state laws.
- The Contractor shall complete the construction and testing of that part of Line No. 3 and 4 that crosses street right-of-way before proceeding with the remaining sewer line construction.



INDEX:

TITLE SHEET
LINE NO. 1 & 2
LINE NO. 3
LINE NO. 4
STANDARD MANHOLE TYPE "P"
STANDARD MANHOLE TYPE "C"

SHEET 1
SHEET 2
SHEET 3
SHEET 4
SHEET 5
SHEET 6

AS BUILT
RDL
3-9-88

BENCH MARKS

- B.M. 182.477 Std. City of Wichita disc 47' W. & 44' N. 1/4 Cor. @ Webb & Mt. Vernon.
- B.M. 172.40 "x" Cut on N. side MH Ring SE Cor. Lot 22 BIK. 3 2ND Addn. to Cedar Ridge.
- B.M. 168.67 "x" Cut on N. End E. Return Cooper St. and Mt. Vernon.
- B.M. 166.52 "x" Cut on N. end of NE Return of Cypress & Mt. Vernon.

NOVEMBER 1987
PLANS PREPARED.

BY:

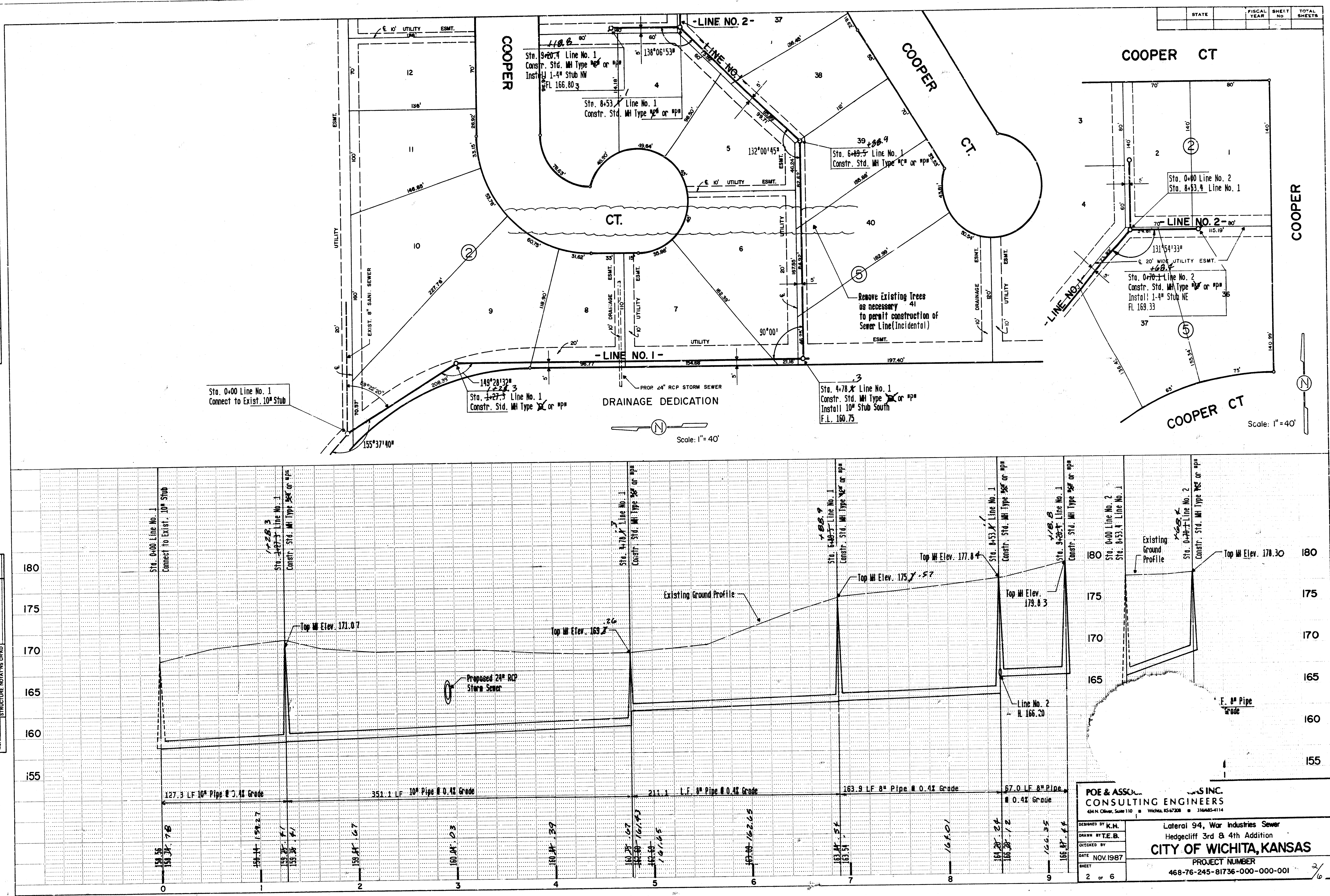
POE & ASSOCIATES OF KANSAS INC.
CONSULTING ENGINEERS
434 N. Oliver, Suite 110 ■ WICHITA, KS 67208 ■ 316/685-4114

SHEET 1 OF 6

1/6

PLAN	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
	GRADES CHECKED		
	STRUCTURE NOTATIONS OK'D		

PROFILE	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
	GRADES CHECKED		
	STRUCTURE NOTATIONS OK'D		



POE & ASSOCIATES INC.
CONSULTING ENGINEERS
404 N. Oliver, Suite 110 • Wichita, KS 67208 • 316-625-4114

DESIGNED BY: K.H.
DRAWN BY: T.E.B.
CHECKED BY:
DATE: NOV. 1987
SHEET: 2 OF 6

Lateral 94, War Industries Sewer
Hedgecliff 3rd & 4th Addition
CITY OF WICHITA, KANSAS
PROJECT NUMBER
468-76-245-81736-000-000-001

STATE	FISCAL YEAR	SHEET NO.	TOTAL SHEETS

PLAN	DATE	BY
SURVEYED		
PLOTTED		
CHECKED		
NO.		

Sta. 2+01.9 Line No. 3
Constr. Std. Mt. Type "C" or "P"

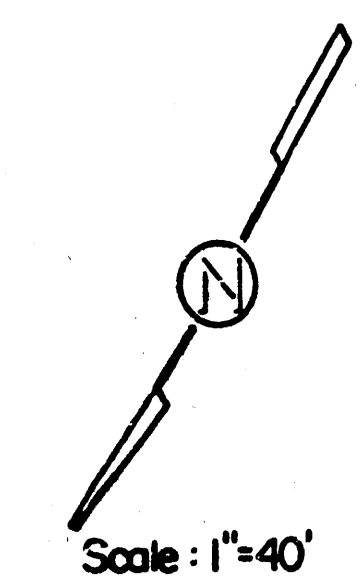
BEECH

CLARK

COOPER

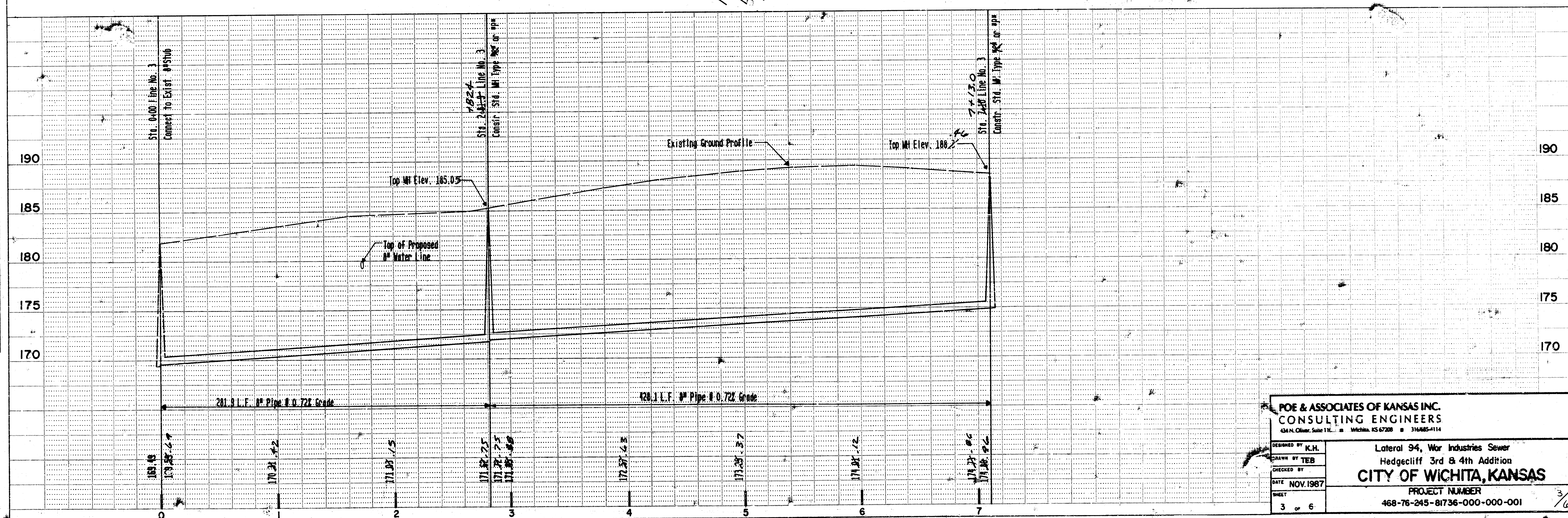
LINE NO 3-

Sta. 7+40 Line No. 3
Constr. Std. Type Mt. 180' or "P"
Install 4" Stub W/ FL 175.13



Scale: 1"=40'

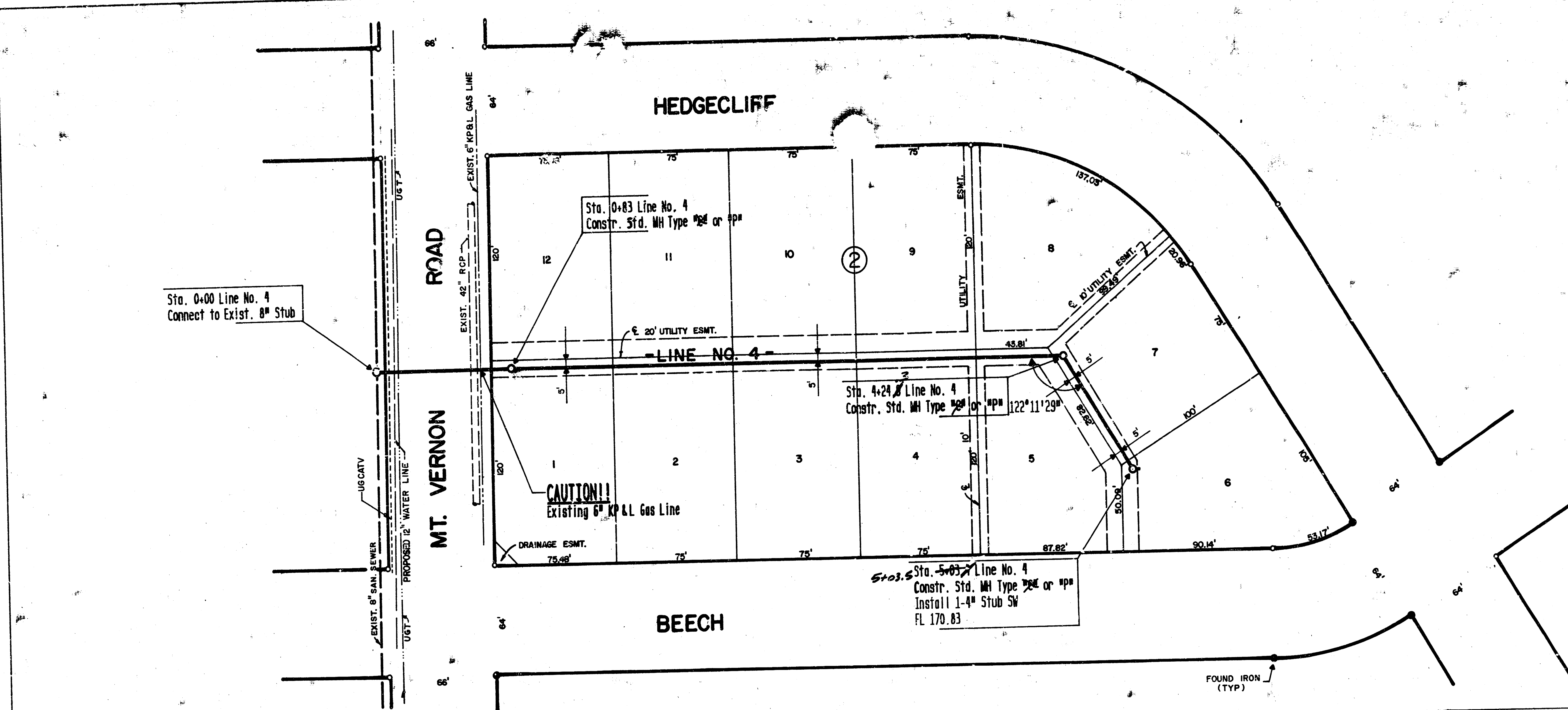
PROFILE	DATE	BY
SURVEYED		
PLOTTED		
CHECKED		
NO.		



POE & ASSOCIATES OF KANSAS INC. CONSULTING ENGINEERS 434 N. Oliver, Suite 111, Wichita, KS 67208 316-885-1114	
DESIGNED BY: K.H. DRAWN BY: TEB CHECKED BY: DATE: NOV 1987 SHEET: 3 OF 6	Lateral 94, War Industries Sewer Hedgecliff 3rd & 4th Addition CITY OF WICHITA, KANSAS PROJECT NUMBER 468-76-245-81736-000-000-001

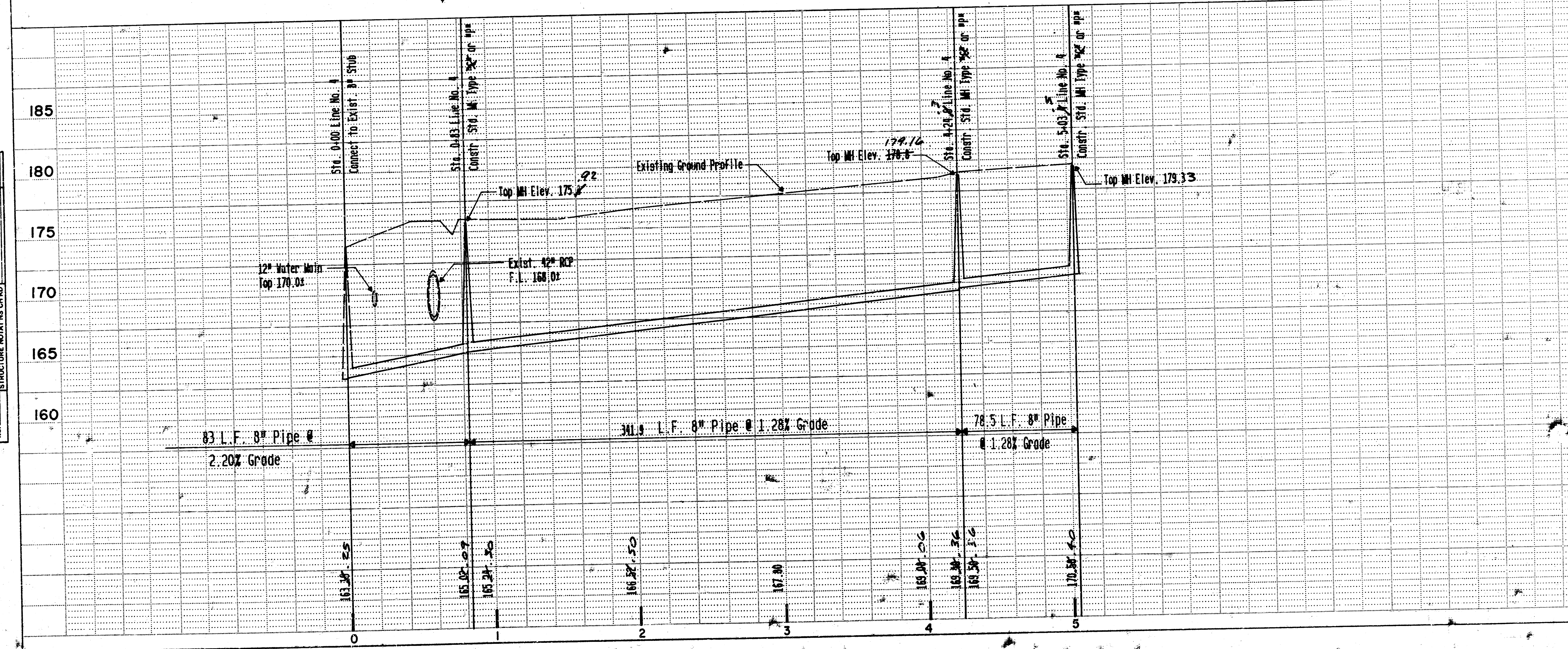
STATE	FISCAL YEAR	SHEET NO	TOTAL SHEETS

PLAN	DATE
DESIGNED BY	
CHECKED BY	
NOTE BOOK NO.	



Scale: 1" = 40'

PROFILE	DATE
DESIGNED BY	
CHECKED BY	
NOTE BOOK NO.	

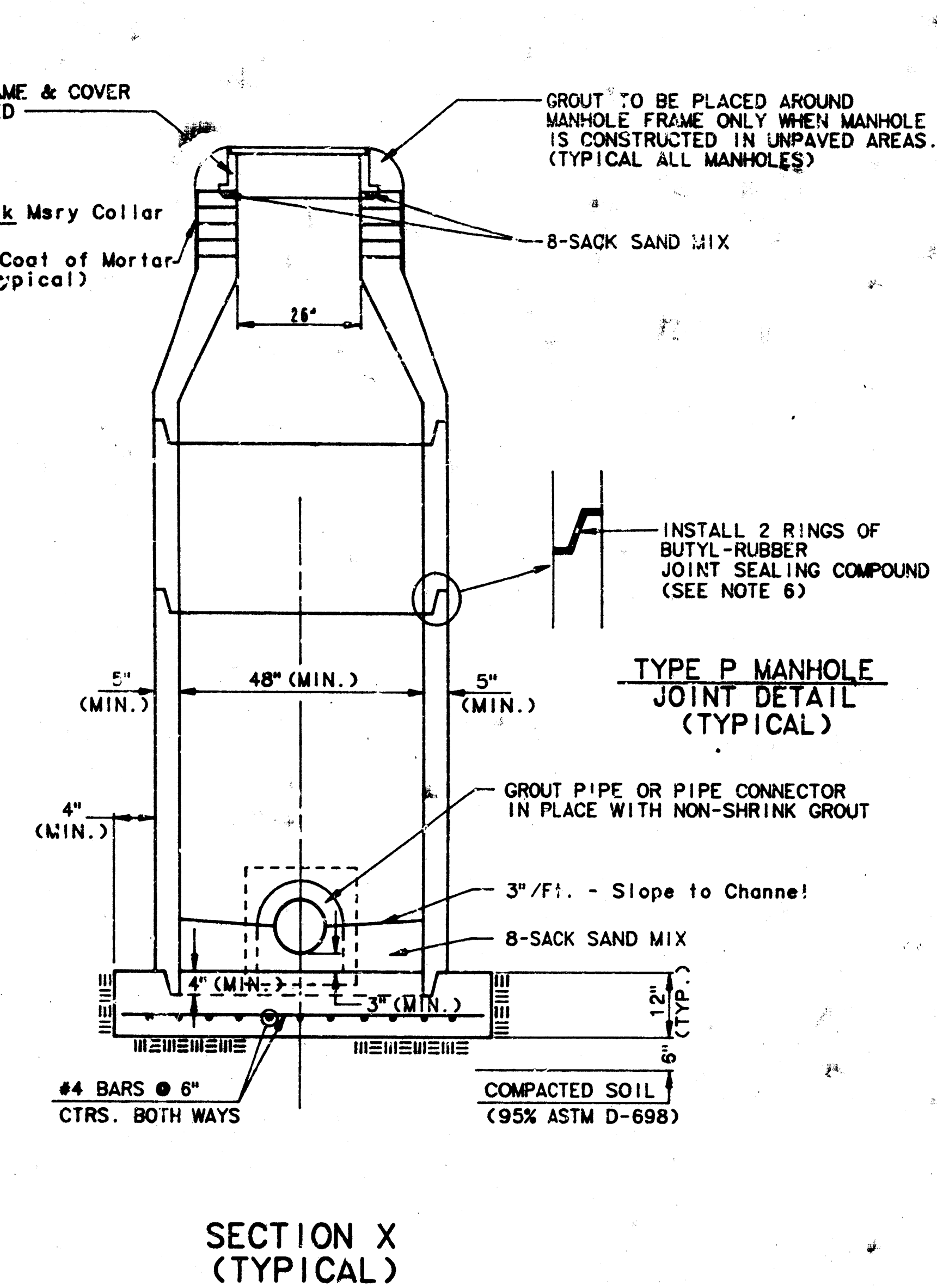


PGE & ASSOCIATES OF KANSAS INC.
CONSULTING ENGINEERS
434 N. Oliver, Suite 110 • Wichita, KS 67206 • 316-265-4114

DESIGNED BY: KHL
DRAWN BY: TEB
CHECKED BY:
DATE: NOV 1987
SHEET: 4 OF 6

Lateral 94, War Industries Sewer
Hedgecliff 3rd & 4th Addition
CITY OF WICHITA, KANSAS
PROJECT NUMBER
468-75-245-81736-000-000-001

7



15. MANHOLE COVER CASTINGS AND MANHOLE FRAME CASTINGS SHALL CONFORM TO THE REQUIREMENTS AS INDICATED IN THE STANDARD SPECIFICATIONS AND AS SHOWN IN THE STANDARD DETAIL DRAWING.
16. THE VERTICAL DROP IN INSIDE DROP MANHOLES SHALL NOT EXCEED 4" FOR INFLOWING PIPES SIZED 12" OR SMALLER AND 2" FOR INFLOWING PIPES LARGER THAN 12". THE CROWNS OF INFLOWING PIPES SHALL NEVER BE SET LOWER THAN THE CROWN OF THE OUTFLOWING PIPE.
17. STANDARD MANHOLES AND STANDARD INSIDE DROP MANHOLES SHALL BE BUILT AS STANDARD MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL INSIDE DROP MANHOLES AS WELL AS ALL INSIDE DROP MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL MANHOLE DIAMETERS WILL BE 4" UNLESS INDICATED OTHERWISE.
18. A BRICK MASONRY COLLAR SHALL BE INSTALLED BETWEEN THE CAST IRON FRAME AND THE CONCRETE CONE. THE COLLAR WILL HAVE 6" WALLS AND A VERTICAL RISE OF 12" MINIMUM. THE INSIDE OF THE COLLAR COAT OF MORTAR WILL BE PLASTERED ON THE OUTSIDE OF THE COLLAR.

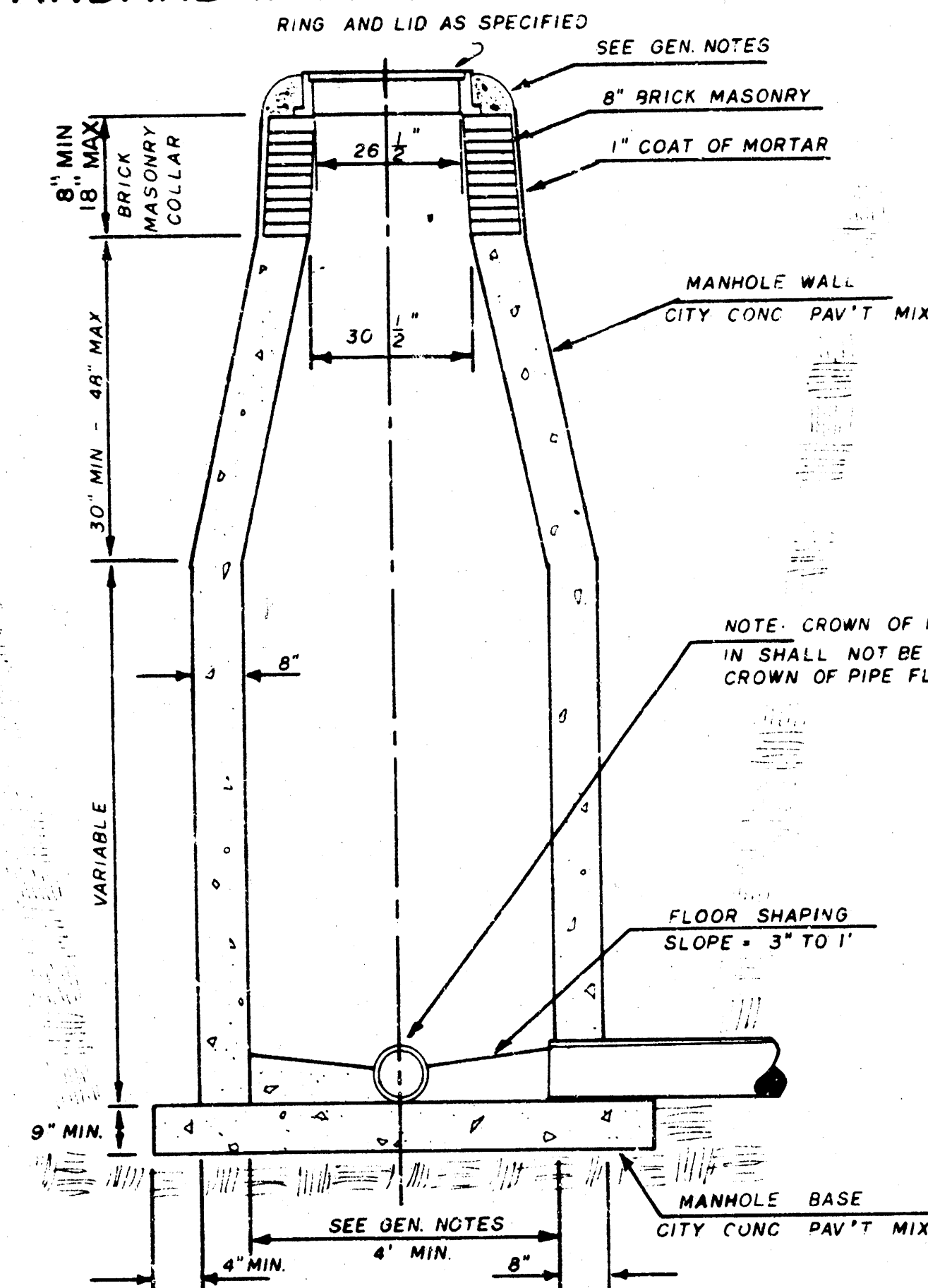
SEWER APPURTENANCES DETAILS

ADOPTED AS STANDARD DESIGN

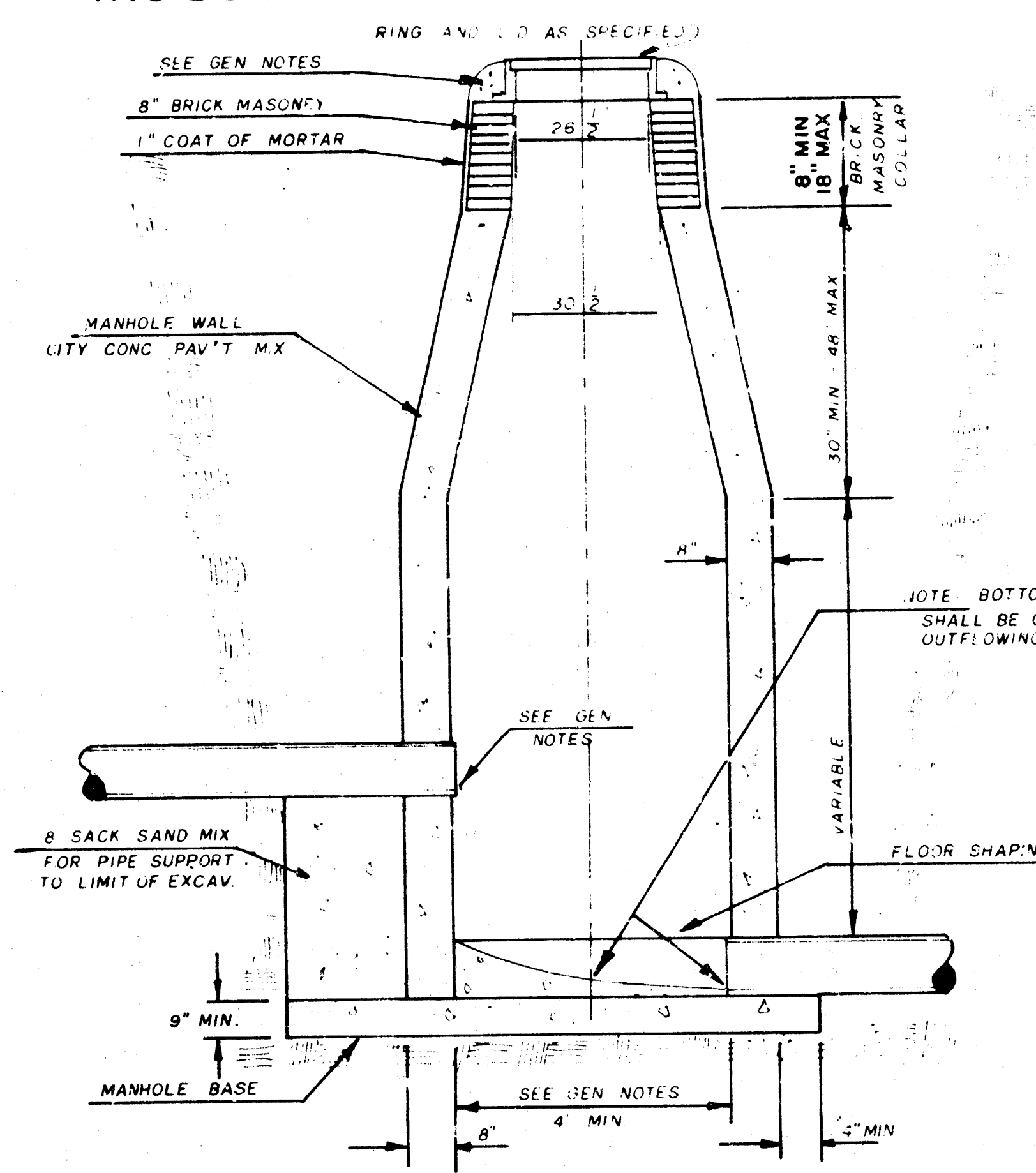
BY

City of Wichita, Kansas

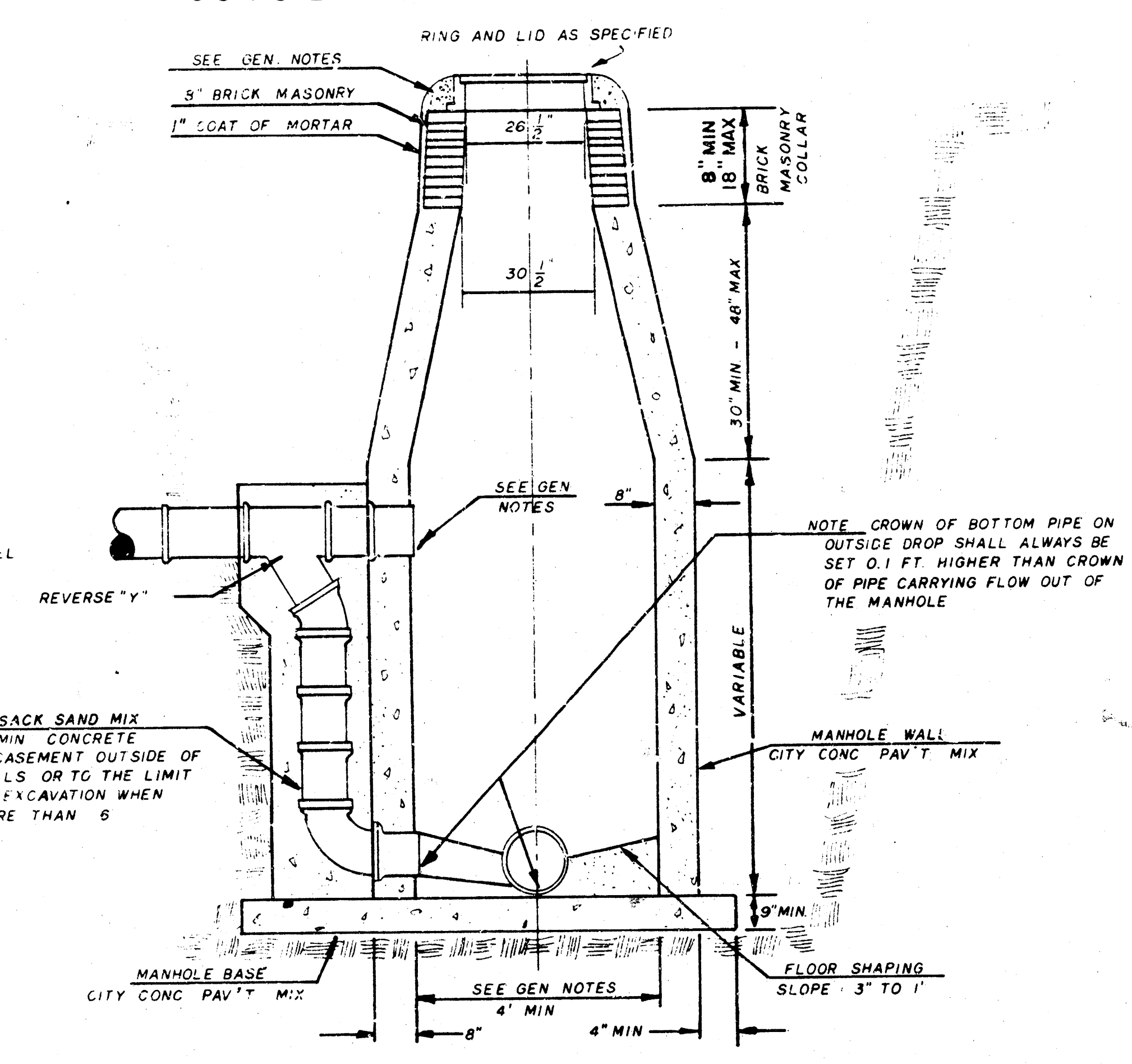
STANDARD MANHOLE TYPE "C"



INSIDE DROP MANHOLE TYPE "C"



OUTSIDE DROP MANHOLE TYPE "C"



GENERAL NOTES

- MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 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 THE MANHOLE RING AS SHOWN ON THE DRAWINGS WHEN MANHOLES ARE CONSTRUCTED IN UNPAVED AREAS. TYPE "C" MANHOLES CAN BE CONSTRUCTED ONLY WHERE PIPE SIZES ARE 8" OR SMALLER. THE INSIDE DIAMETER OF TYPE "C" MANHOLES SHALL BE 4'. COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATER TIGHT.
- REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASE. REINFORCING STEEL SHALL CONSIST OF NO. 4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. REINFORCING STEEL SHALL BE PLACED 6" ABOVE THE BOTTOM OF THE MANHOLE BASE. COST OF FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
- AN OPENING SHALL BE CUT IN THE MANHOLE WALL FOR THE UPPER INLET PIPE FOR INSIDE AND OUTSIDE DROP MANHOLES. THE UPPER INLET PIPE SHALL BE GROUTED INTO THIS OPENING WITH NON-SHRINK GROUT. THE EXTERIOR OF THIS COMPLETED CONNECTION SHALL BE SEALED WITH AN APPROVED BITUMINOUS COATING SUCH THAT THE CONNECTION WILL BE WATER TIGHT.
- THE FLOORS OF ALL MANHOLES SHALL BE SHAPED WITH FLOW CHANNELS SUCH THAT THE MANHOLES WILL BE SELF CLEANING AND FREE OF AREAS WHERE SOLIDS COULD BE DEPOSITED AS SEWAGE FLOWS THROUGH THE MANHOLE FROM ALL INLET PIPES TO THE OUTLET PIPE. FLOW CHANNELS SHALL BE FORMED TO MATCH THE BOTTOM HALVES OF THE INFLOWING PIPES AND THE OUTFLOWING PIPE AS SHOWN BY THE DRAWINGS EXCEPT FOR INSIDE DROP MANHOLES. FLOW CHANNELS FOR INSIDE DROP MANHOLES SHALL BE CONSTRUCTED AS INDICATED BY

THE DRAWING. MANHOLE FLOORS SHALL HAVE SLOPES OF 3 INCHES PER FOOT IN THE AREAS OUTSIDE OF THE FLOW CHANNELS SLOPED TOWARD THE FLOW CHANNELS. PIPES LAID THROUGH MANHOLE SHALL HAVE THE TOP HALF REMOVED TO NEAT LINES FOR THE FULL INSIDE DIAMETER OF THE MANHOLE. MANHOLE FLOORS SHALL THEN BE SHAPED AROUND THE BOTTOM HALF OF THE PIPE WHICH FORMS THE FLOW CHANNEL.

5. PIPES INSTALLED WITHIN THE EXCAVATION MADE FOR THE MANHOLE SHALL BE CRADLED WITH CONCRETE TO THE LIMITS OF THE MANHOLE EXCAVATION. WHEN CLAY PIPE IS USED, THE CRADLE SHALL EXTEND TO THE FIRST JOINT OUTSIDE THE MANHOLE. THE CRADLE SHALL BE TERMINATED AT THE CLAY PIPE JOINT IN A MANNER WHICH WILL MAINTAIN THE FLEXIBILITY OF THE JOINT. COST OF CRADLE WITHIN MANHOLE EXCAVATION OR TO CLAY PIPE JOINTS ADJACENT TO MANHOLE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.

6. MANHOLE COVER CASTINGS AND MANHOLE FRAME CASTINGS SHALL CONFORM TO THE REQUIREMENTS AS INDICATED IN THE STANDARD SPECIFICATIONS AND AS SHOWN IN THE STANDARD DETAIL DRAWINGS.

7. THE VERTICAL DROP IN INSIDE DROP MANHOLES SHALL NOT EXCEED 4' FOR INFLOWING PIPES SIZED 12" OR SMALLER AND 2' FOR INFLOWING PIPES LARGER THAN 12". THE LENGTH OF INFLOWING PIPE SHALL NEVER BE SET LOWER THAN THE CROWN OF THE OUTFLOWING PIPE.

8. STANDARD MANHOLES TYPE "C" AND STANDARD INSIDE DROP MANHOLES TYPE "C" SHALL BE BID AS STANDARD MANHOLES FOR THE TYPE AND DIAMETER INDICATED. OUTSIDE DROP MANHOLES TYPE "C" SHALL BE BID AS STANDARD OUTSIDE DROP MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE.