

CONSTRUCTION PLANS
SANITARY SEWER EXTENSIONS
TURTLE RUN 3RD ADDITION - PHASE 2
 TO
THE CITY OF WICHITA, KANSAS
LATERAL 132, WAR INDUSTRIES SEWER

MICHAEL E. LINDEBAK, P.E. - CITY ENGINEER
 PROJECT NO. 468-82589
 INDEX CODE 743443

GENERAL NOTES:

- Existing utility lines 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.

All disposal sites must be approved by the Kansas Department of Health and Environment. Material either stockpiled or disposed of in a flood plain would require a Kansas State Board of Agriculture permit. Any material dumped in waters of the United States or wetlands is subject to U.S. Corps. of Engineers permitting regulations. Any material buried or stockpiled beyond approved construction limits would require additional archaeological investigations unless buried in a previously approved borrow location.

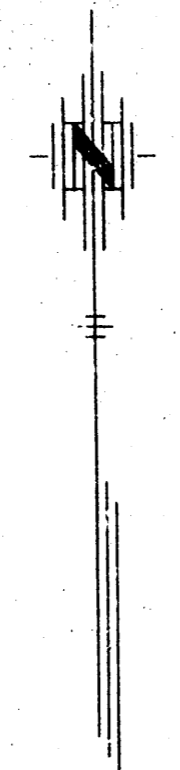
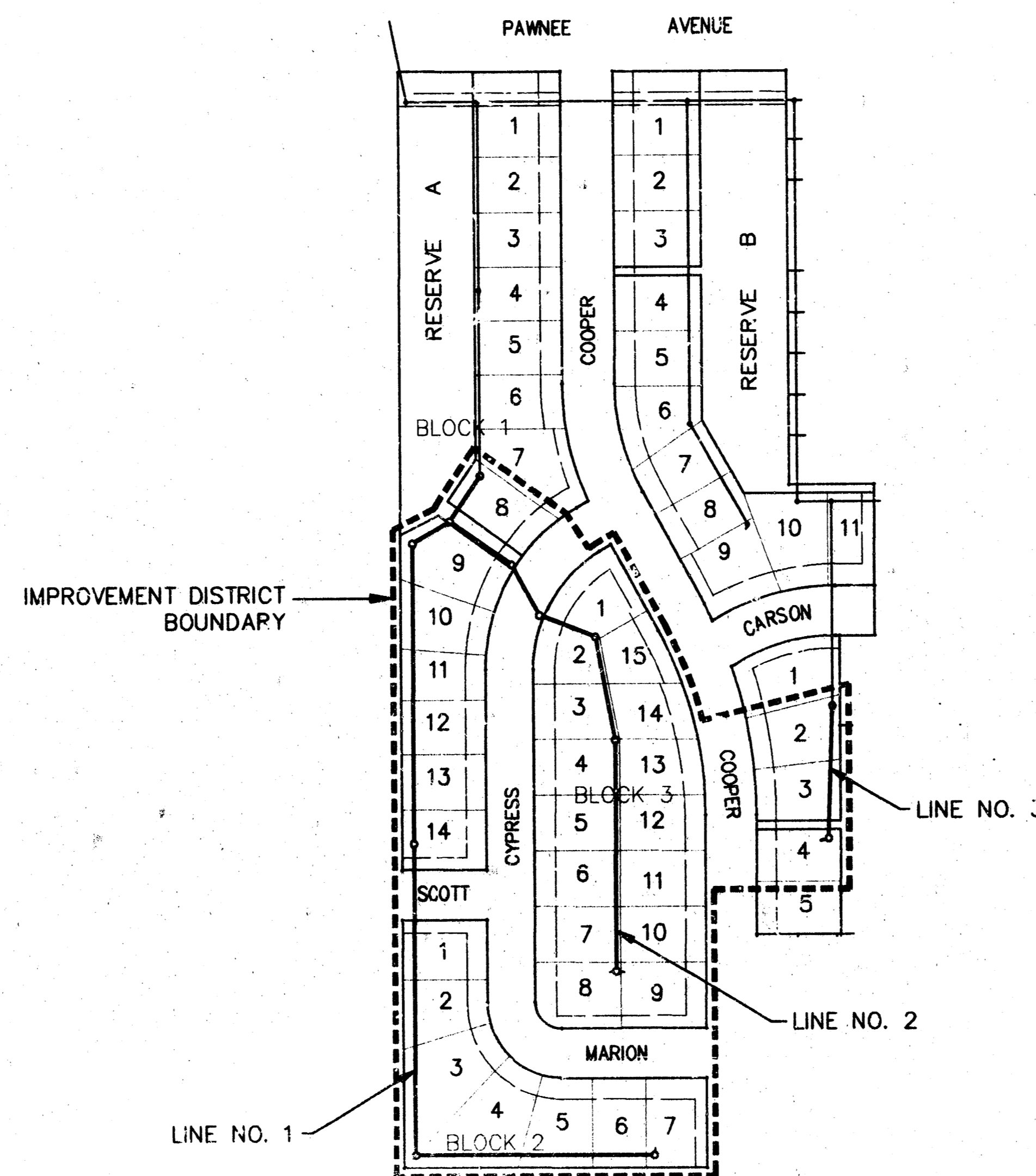
- The Contractor shall be responsible for maintaining continuous flow of sewage through construction. Contractor's proposed method for maintaining sewage flow shall be approved by the Engineer. Cost of maintaining flow of sewage through construction will not be paid for directly and this cost shall be considered as subsidiary to the other pay items of the 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 in accordance with state laws.

- Trees and shrubs in public right-of-way which are in direct conflict with proposed new construction shall be removed by the Contractor with the Engineer's approval. Trees and shrubs which are not in direct conflict with the proposed new construction shall be saved and protected from damage.

- Temporary seeding (Rye Grass) shall be applied at a rate of 200 lbs. per acre at all disturbed areas.

- Contractor shall grade easements and dispose of earthwork as shown on Sheet 7. Paid as lump sum.



Scale 1" = 150'

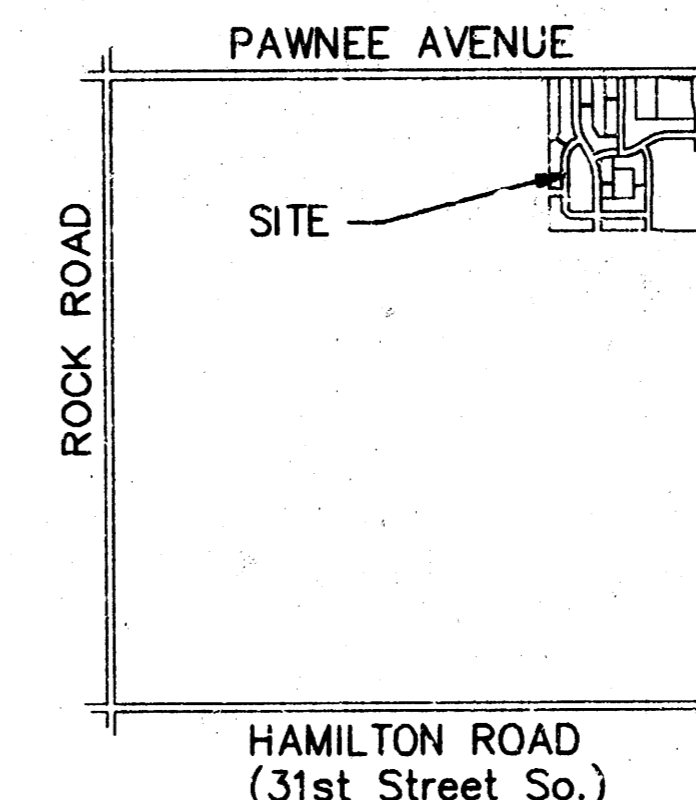
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BENCH MARKS

(U.S.G.S. Datum)

- 1" cut in concrete curb 2' N. of S. end of existing pavement in front of Lot 7, Block 2 Turtle Run 2nd Addition. Elev. 1324.79
- 1" cut in concrete curb 2' N. of S. end of existing pavement in front of Lot 5, Block 4 Turtle Run 2nd Addition. Elev. 1330.20
- 1" cut on headwall (SE corner S. headwall) 5'x5' RCB under approx. 1300' W. of NE. corner Sec. 5-28S-2E. Elev. 1374.34
- 80d nail in 6" hackberry 15' S. of SE. corner of Lot 1, Block 5 Turtle Run 2nd Addition. Elev. 1328.79
- 40d nail in service pole approx. 1330' S. and W. of NE corner Sec. 5-28S-2E. Elev. 1392.09
- City of Wichita Std. BM disc at Webb & Pawnee. 53' S. and 47' W. of centerline of both. Elev. 1393.08



LOCATION MAP
No Scale

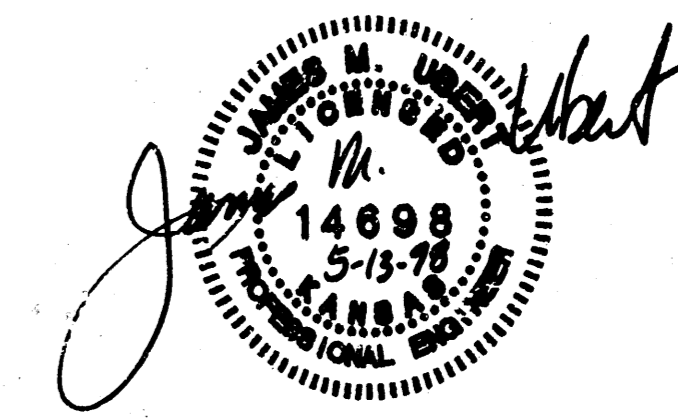
MAY 1998

PLANS PREPARED
BY

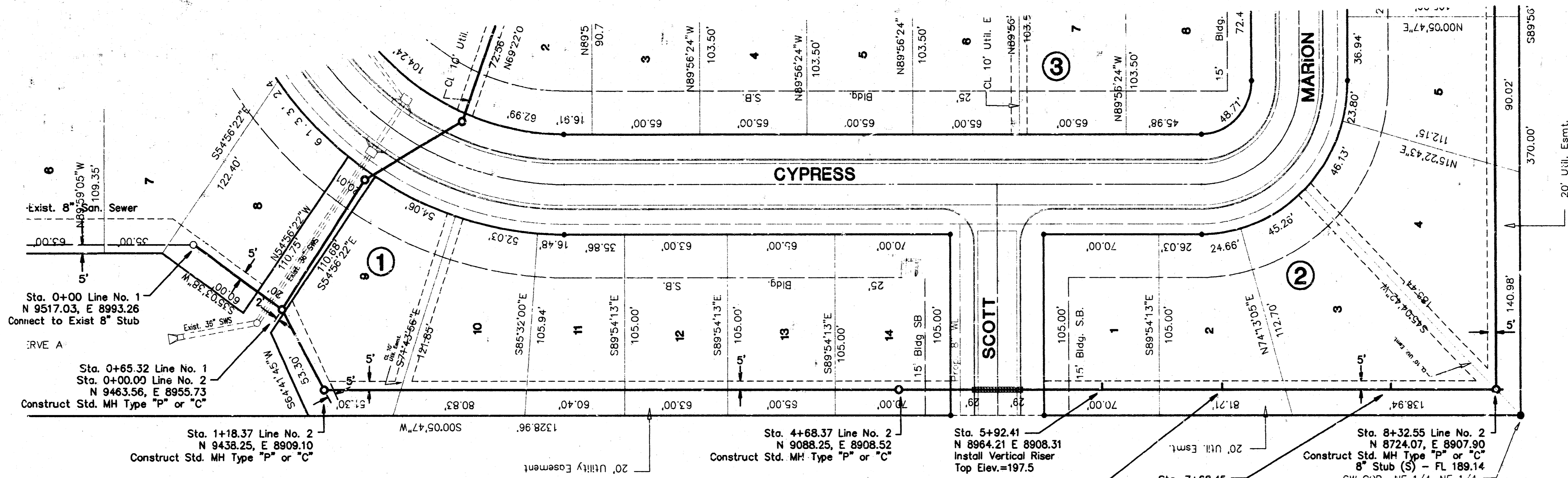


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 CONSULTING ENGINEERS
 1040 E. Central, Suite 200 • Wichita, KS 67208 • 316/685-4114 • Fax 316/685-4444

*Booked
P-46
12-4-98
Per Plan
R.D.L.*

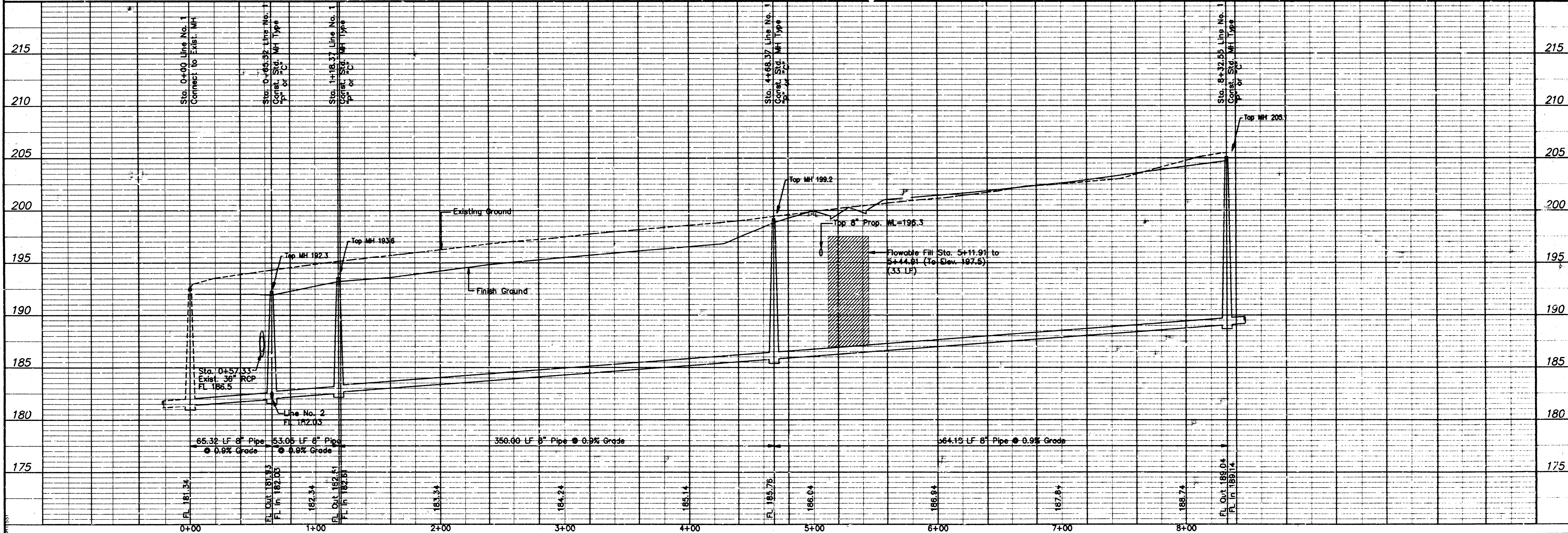
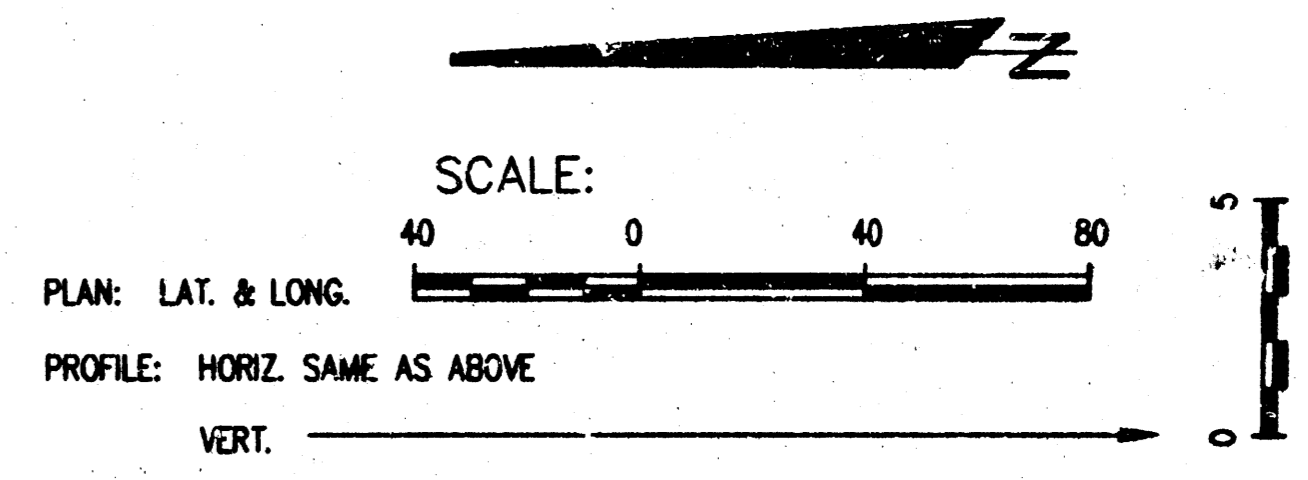


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Riser Summary (See Detail Sheet 6)

No.	Line	Sta./Dir.	Lot No.	Block No.	Saddle Size	8" Main FL	Information Only		Record Information		
							Approx. Length	4" Pipe	Top Elev. Proposed/Actual	(To Be Completed By Inspector) Distance from Nearest Manhole	
							Vert.	Horiz.	Upstream	Downstream	
1	1	5+92.49/Lt	1	1	9"x4"	186.88	11'	4'	197.5/		
2	1	6+65.88/Lt	1	1	8"x4"	187.54	10'	4'	198.0/		
3	1	7+68.45/Lt	1	1	8"x4"	188.46	11'	4'	199.5/		
4	1	8+97.59/Lt	1	1	8"x4"	190.23	11'	4'	201.0/		
5	1	10+05.58/Lt	1	1	8"x4"	192.03	9'	4'	201.0/		



LATERAL 132, WAH INDUSTRIES SEWER LINE NO. 1

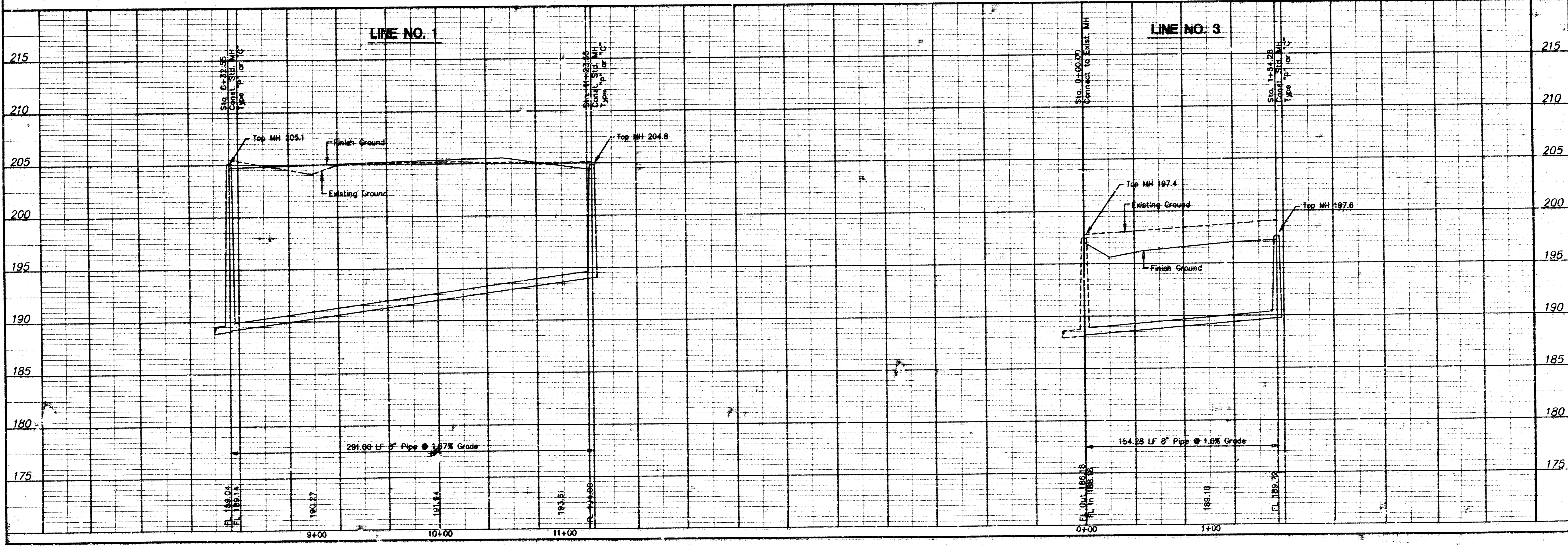
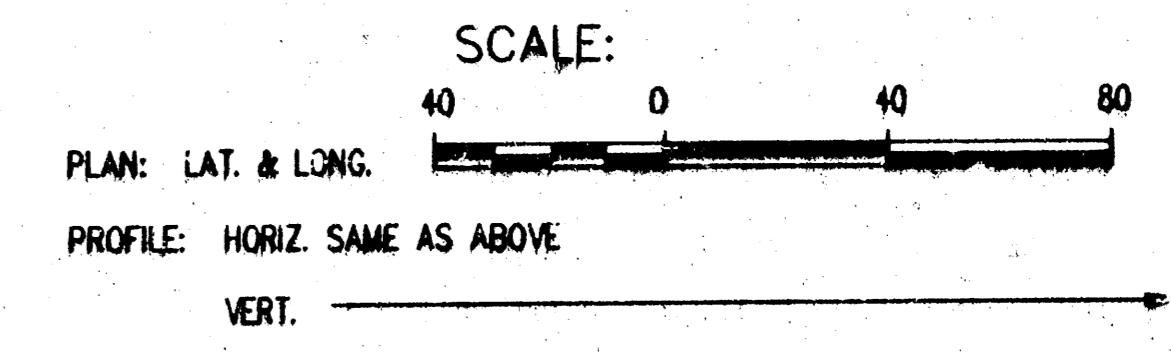
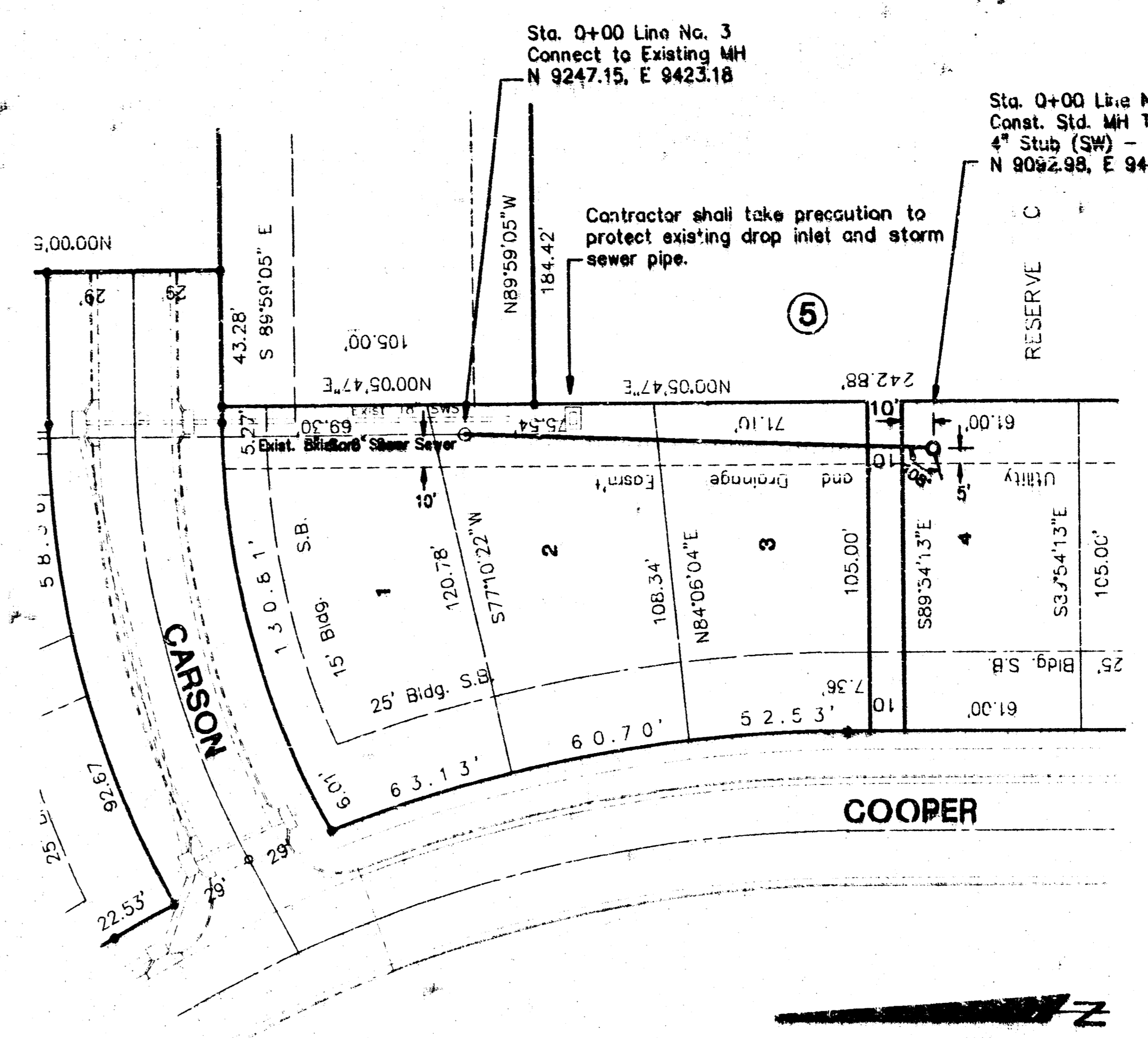
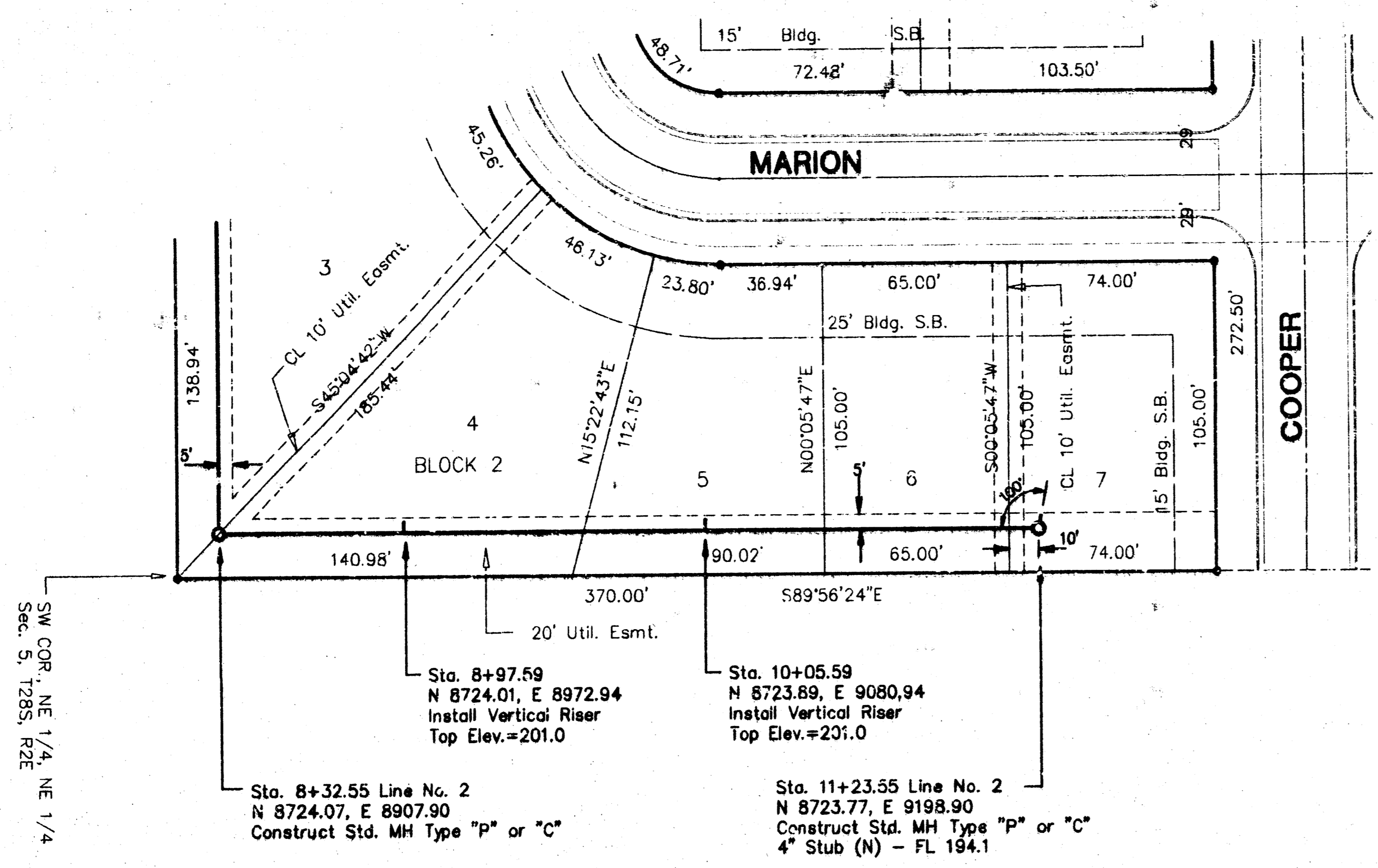
City of Wichita, Kansas
 Michael E. Lindorfski, P.E. - City Engineer
 C.O.P. Proj. No. 465-42588 Index Code 743443

FINAL

Designed By: J. Ubert
 Drawn By: J. Ubert
 P.E. Job No.: 1640
 Date: May 1998

2 of 9

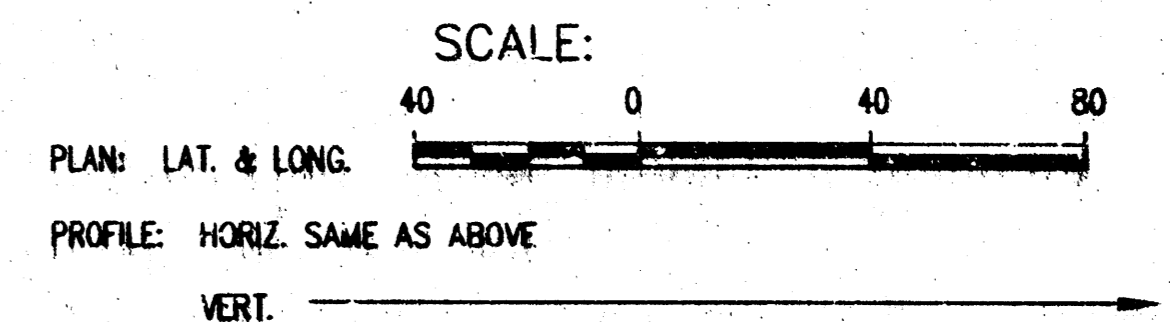
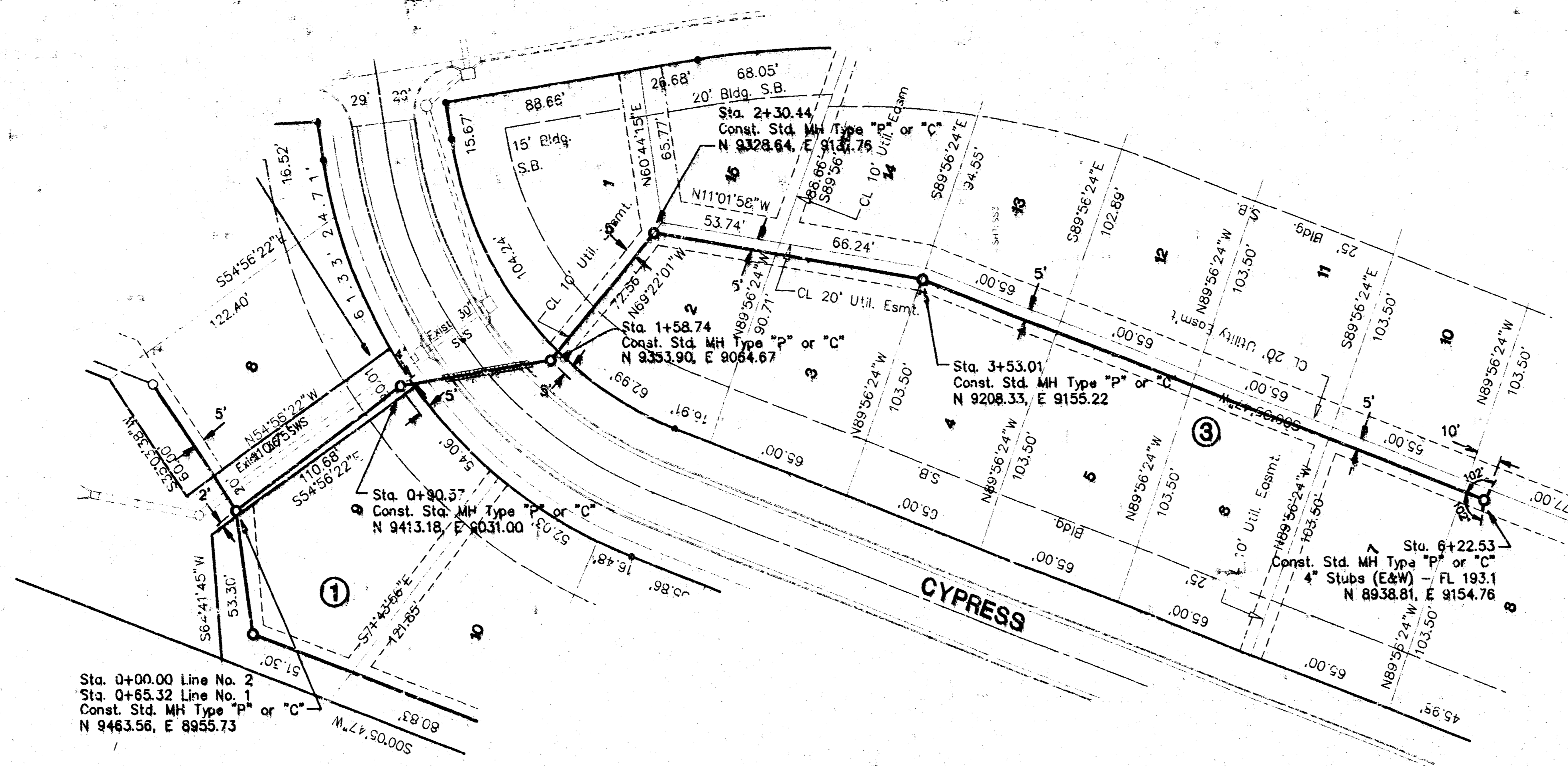
F:\PDS\DCAP\640\Draw-p12.dwg Wed May 13 08:23:45 1998 James M. Libert, Poe & Associates of Kansas, Inc.



LATERAL 132, MAR INDUSTRIES SEWER
LINE NO. 1 & 3
 CITY OF WICHITA, KANSAS
 MICHAEL E. UNDERKILL, P.E. - CITY ENGINEER
 C.O.W. Proj. No. 468-82589 Issue Code 74343

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CONSULTING ENGINEERS
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 1001 S. Lincoln, Suite 200 • Wichita, KS 67202 • 316-261-1111 • Fax 316-261-1144

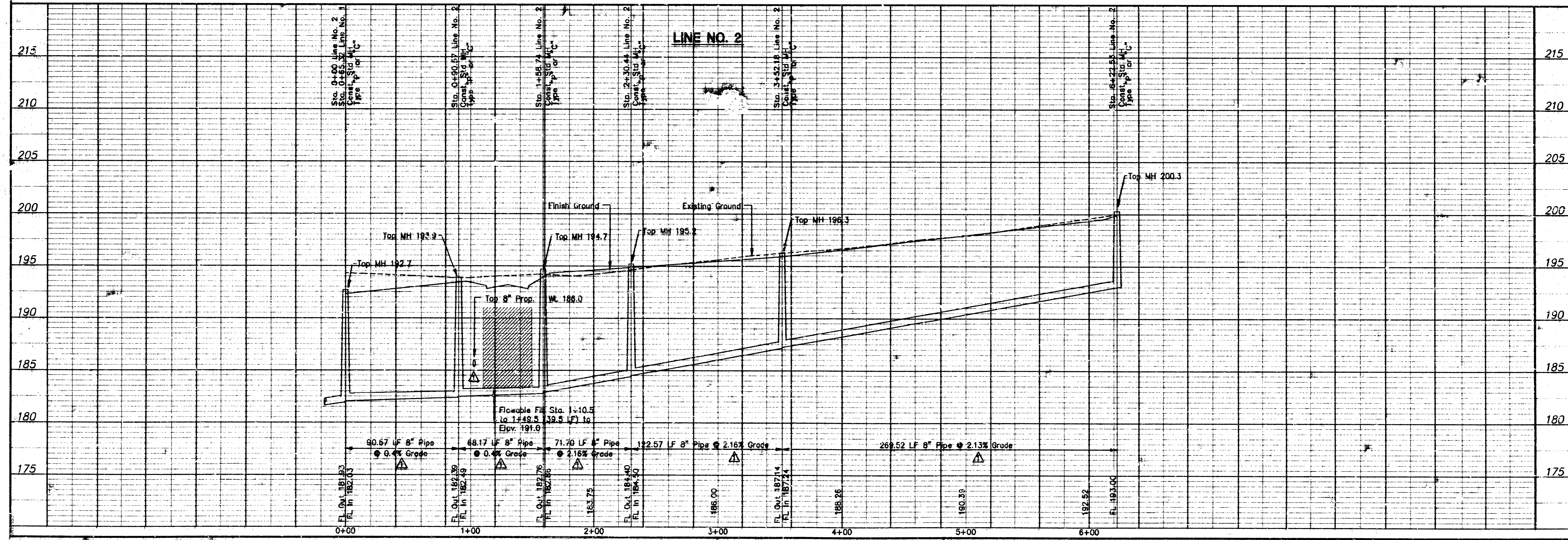
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 Drawn By: J. Libert
 For Job No.: 1640
 Date: May, 1998



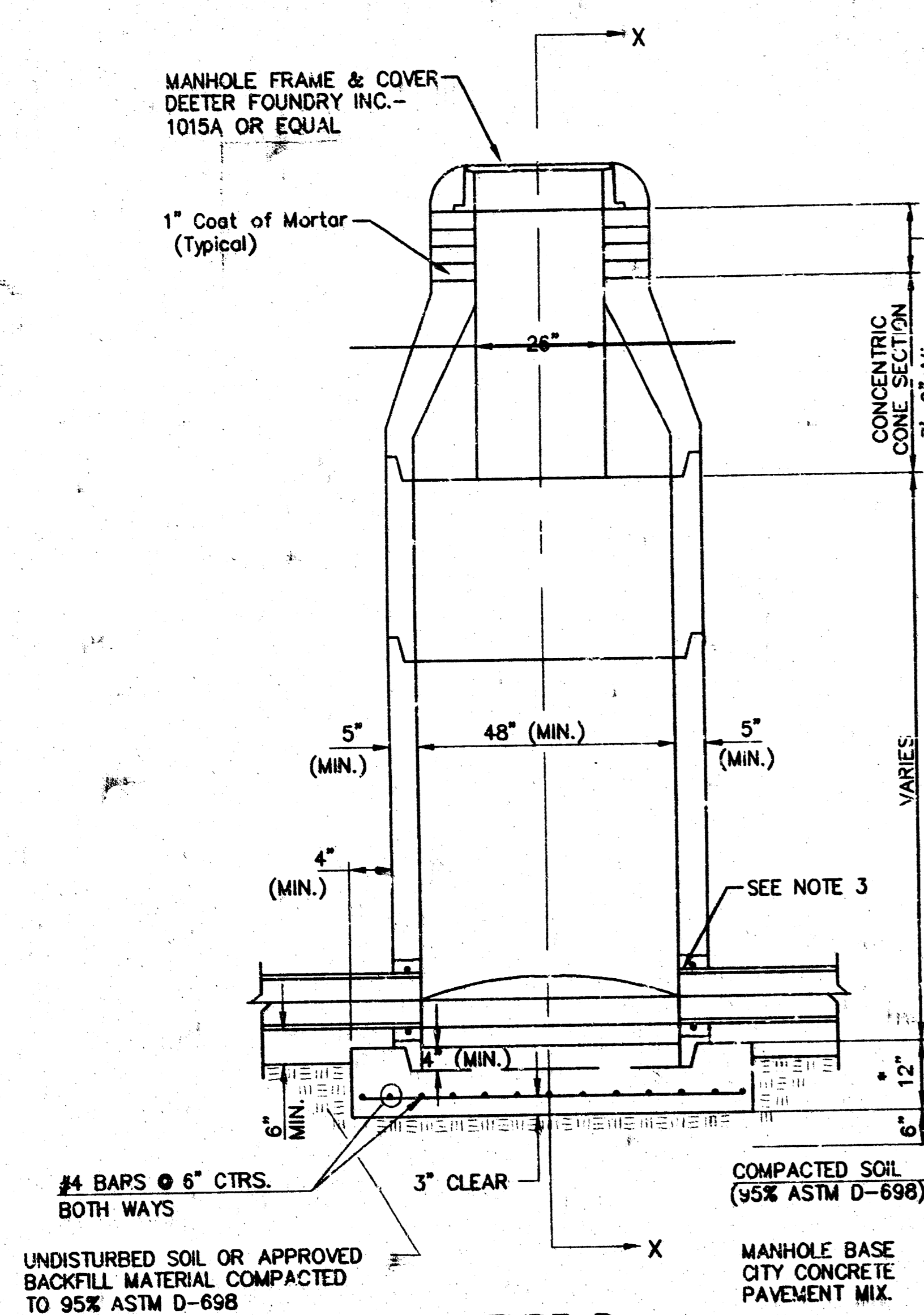
LATERAL 12, MANUFACTURES SEWER
LINE NO. 2
 CITY OF WICHITA, KANSAS
 MICHAEL E. UNDESKA, P.E. - CITY ENGINEER
 C.O.W. Proj. No. 48-82588 Indus Code 74-443

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 CONSULTING ENGINEERS
 MICHAEL E. UNDESKA, P.E. License No. 34468-11-12-31488-1444
 1001 S. LINCOLN, SUITE 200 W. WICHITA, KS 67202-1114

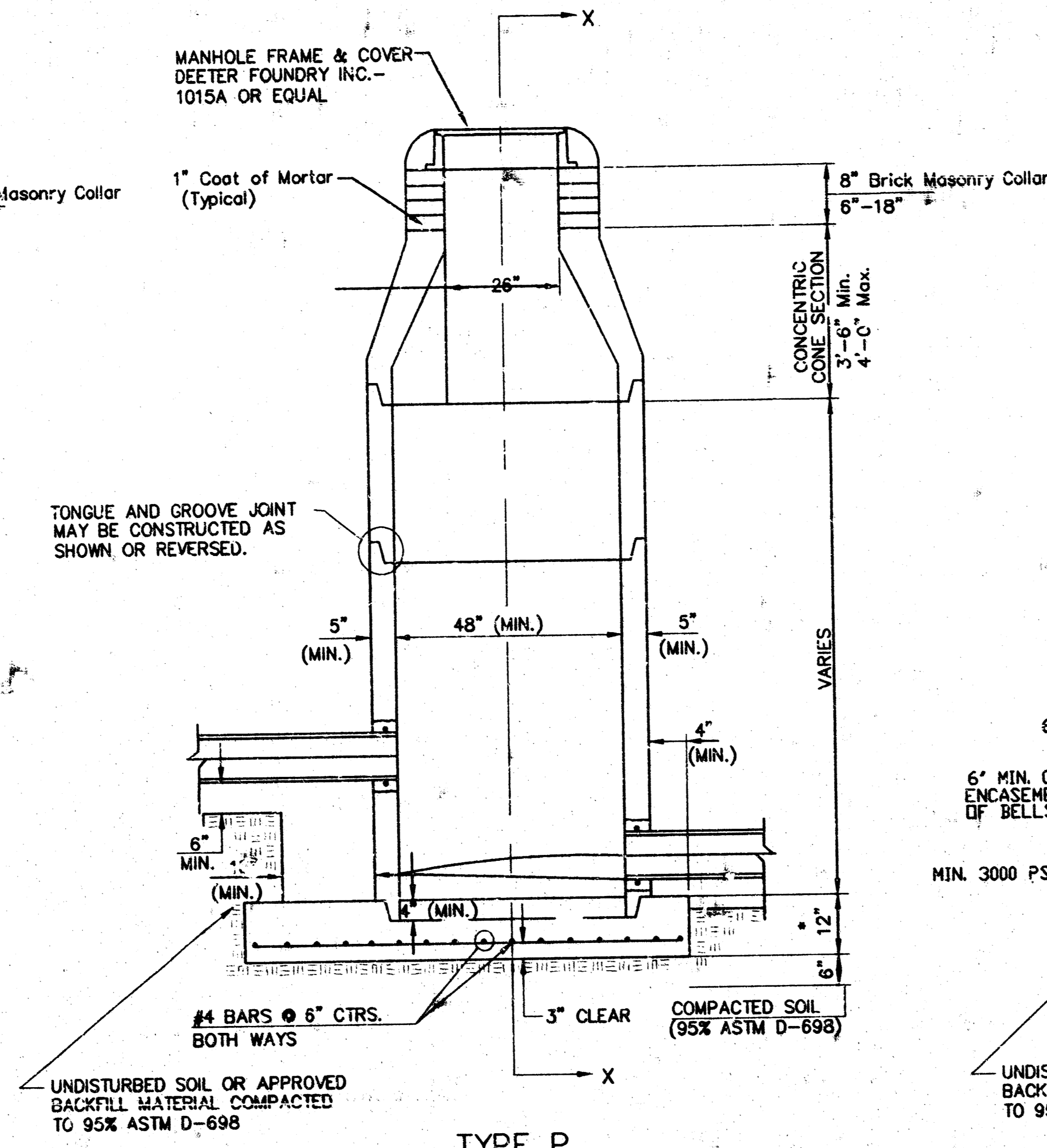
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 Designed By: J. Ubert
 Drawn By: J. Ubert
 Proj. Job No.: 1640
 Date: May 1998
 Sheet 4 of 9



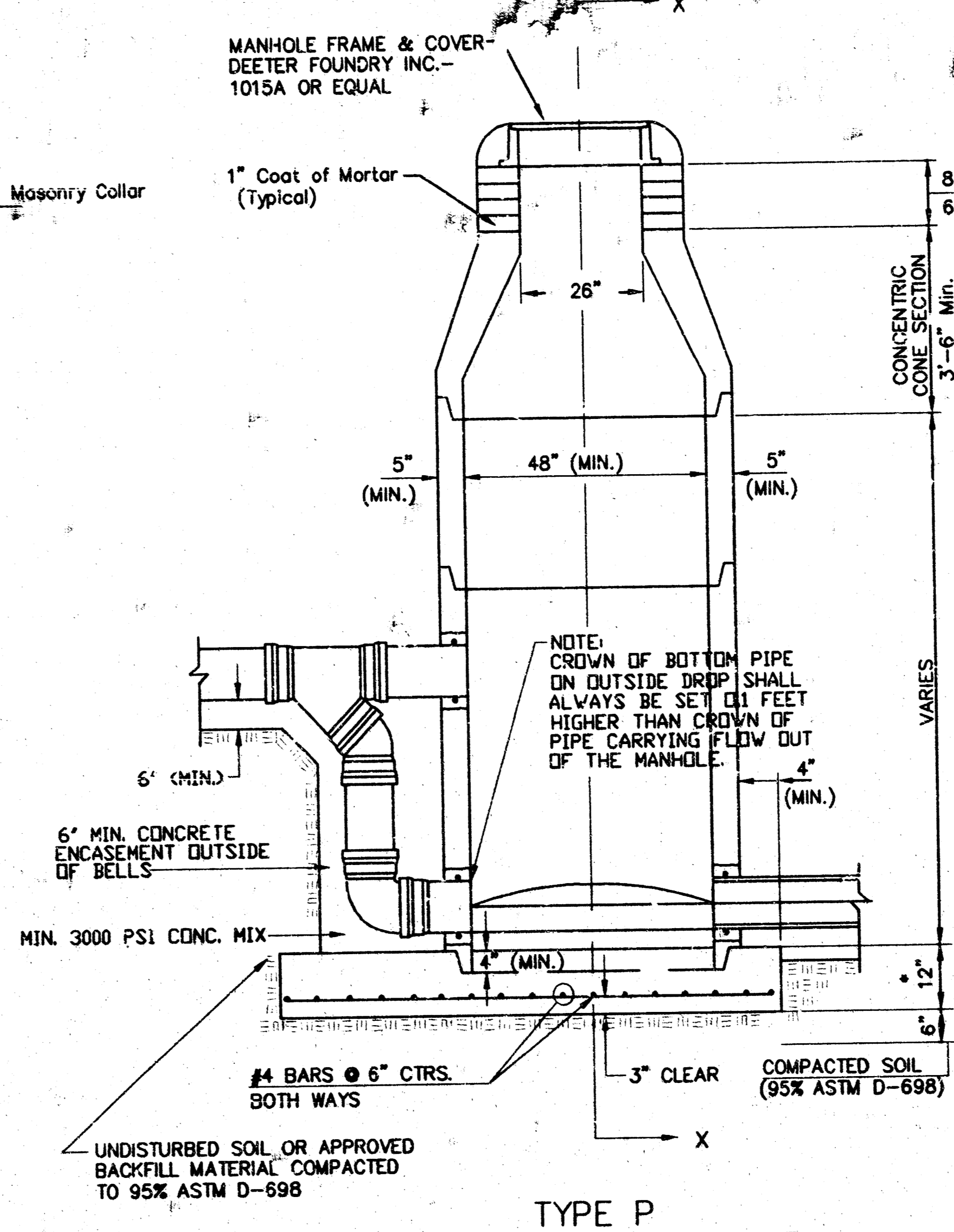
SEWER APPURTENANCES DETAILS



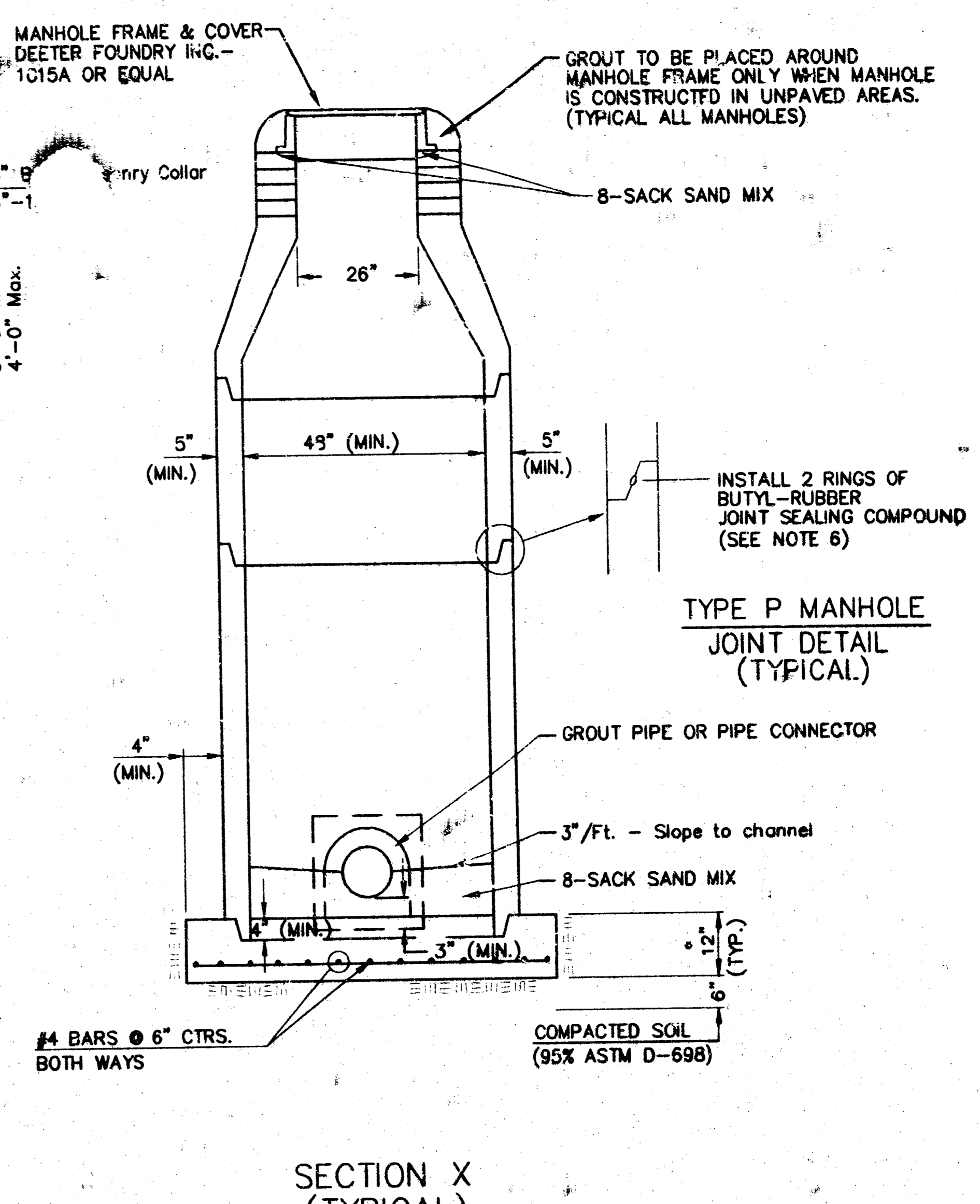
**TYPE P
STANDARD MANHOLE**



**TYPE P
INSIDE DROP MANHOLE**



**TYPE P
OUTSIDE DROP MANHOLE**



**SECTION X
(TYPICAL)**

GENERAL NOTES
PRECAST MANHOLE NOTES

- ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISIONS OF A.S.T.M. C478 AS MODIFIED BY THE SPECIFICATIONS.
- NON-SHRINK GROUT SHALL BE NON-METALLIC TYPE.
- APPROVED FLEXIBLE WATERSTOP GASKETS SHALL BE INSTALLED TO JOIN THE SEWER TO THE MANHOLE WALL WHEN A.B.S. COMPOSITE PIPE OR P.V.C. PIPE IS USED. FOR OTHER TYPES OF PIPE THE SEWER SHALL BE GROUTED IN PLACE WITH NON-SHRINK GROUT. THE SEWER PIPE SHALL BE SUPPORTED WITH CONCRETE ENCASEMENT A MINIMUM OF 3 FEET FROM THE MANHOLE WALL AND TO THE FIRST JOINT FOR V.C.P. SUCH THAT THE JOINT REMAINS FLEXIBLE.
- ALL INSIDE SURFACES OF THE CONCRETE MANHOLE WHICH WOULD BE EXPOSED TO SEWER GAS SHALL BE COATED WITH 2 COATS TNEMC SERIES 66 HI-BUILD EPOXYLINE, DRY THICKNESS OF 8 MILS (MIN.)
- EXTERIOR MANHOLE WALLS SHALL BE COATED WITH 1 COAT MOBILARMA 633 BITUMINOUS COATING.
- JOINT SEALING COMPOUND SHALL BE KENT SEAL NO. 2 OR APPROVED EQUAL.
- PRECAST MANHOLES SHALL BE SET AT LEAST 4 INCHES INTO THE MANHOLE BASE.
- TOP OF MANHOLE FLOOR SLAB SHALL BE AT LEAST 3 INCHES BELOW THE FLOW LINE OF THE OUTLET PIPE TO INSURE SUFFICIENT MINIMUM THICKNESS OF SHAPED INVERT.
- LIFTING HOLES SHALL BE FILLED WITH NON-SHRINK GROUT AND THE INTERIOR SURFACE COATED AS SPECIFIED.
- MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 SACKS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE 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. MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE SMALLER THAN 24" SHALL HAVE AN INSIDE DIAMETER OF 4". MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE 24" OR LARGER SHALL HAVE AN INSIDE DIAMETER OF 5". COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATER TIGHT.

- REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASES AND SHALL CONSIST OF NO. 4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. THE MANHOLE BASE REINFORCEMENT SHALL BE PLACED AT LEAST 3" ABOVE THE BOTTOM OF THE MANHOLE BASE. ALL COSTS FOR FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
- OPENINGS SHALL BE CUT INTO THE MANHOLE WALL WHEN OUTSIDE DROPS ARE CONSTRUCTED ON EXISTING MANHOLES. SUCH OPENINGS CUT INTO EXISTING MANHOLES SHALL BE AS SMALL AS PRACTICAL TO FACILITATE INSTALLING AND GROUTING THE NEW PIPE IN PLACE. WATERSTOP GASKETS SHALL BE USED WITH P.V.C. AND A.B.S. COMPOSITE PIPE. THE NEW PIPE SHALL BE GROUTED INTO THE OPENING USING AN APPROVED NONSHRINK GROUT FOR THE FULL MANHOLE WALL THICKNESS. THE EXTERIOR OF THE COMPLETED CONNECTION SHALL BE SEALED WITH AN APPROVED BITUMINOUS COATING SUCH THAT THE CONNECTION WILL BE WATER TIGHT. FLOOR OF MANHOLE SHALL BE MODIFIED TO FORM NEW FLOW CHANNEL FOR THE NEW CONNECTION AS INDICATED BY THE DRAWING. THIS WORK, INCLUDING MODIFICATION OF MANHOLE FLOOR, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR OUTSIDE DROP STACK CONSTRUCTED ON EXISTING MANHOLE.
- 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 MANHOLES SHALL HAVE THE TOP HALF REMOVED TO NEAR 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.
- 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.

- 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.
- THE VERTICAL DROP IN INSIDE DROP MANHOLES SHALL NOT EXCEED 2' 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.
- STANDARD MANHOLES AND STANDARD INSIDE DROP MANHOLES 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.
- A BRICK MASONRY COLLAR SHALL BE INSTALLED BETWEEN THE CAST IRON FRAME AND THE CONCENTRIC CONE. THE COLLAR WILL HAVE 8" WALLS AND A VERTICAL HEIGHT OF 6" MINIMUM AND 18" MAXIMUM. A 1" COAT OF MORTAR WILL BE PLASTERED ON THE OUTSIDE OF THE COLLAR. THE USE OF PRE-CAST CONCRETE SPACERS FOR MANHOLE TOP ADJUSTMENT IS ALSO ALLOWED.
- ALL MANHOLE BASE CONSTRUCTION THAT OCCURS IN THE FIELD MUST HAVE A MINIMUM OF EIGHT INCHES OF CONCRETE BELOW THE MANHOLE WALL AND THE WALL SECTION SHOULD EXTEND FOUR INCHES INTO THE BASE RESULTING IN A MINIMUM TOTAL BASE THICKNESS OF 12 INCHES. MONOLITHIC BASE SECTIONS CONSTRUCTED IN THE FACTORY AND CURED AS PER ASTM C478 MUST HAVE A MINIMUM EIGHT INCH THICK CONCRETE BASE. BASE SECTIONS CONSTRUCTED IN THE FACTORY UTILIZING A PREVIOUSLY MANUFACTURED MANHOLE WALL SECTION, AS OUTLINED IN THE ABOVE PARAGRAPH, MUST HAVE A MINIMUM BASE THICKNESS OF EIGHT INCHES WITH THE WALL SECTION EXTENDING FOUR INCHES INTO THE BASE AND BE MANUFACTURED IN COMPLIANCE WITH ASTM C478.

TURTLE RUN 3RD ADDITION - PHASE II
SANITARY SEWER EXTENSIONS
LATERAL 132, WAR INDUSTRIES SEWER

Revised Manhole Base See Note 19

<p>THE CITY OF WICHITA</p> <p>CITY ENGINEER'S OFFICE CITY HALL, SECONDO FLOOR 100 N. MAIN STREET WICHITA, KANSAS 67202 PHONE 268-5114 FAX 268-5114</p>	STANDARD TYPE 'P' MANHOLES	
	M. E. LINDEPAK P.E. - CITY ENGINEER	
	PROJECT NUMBER 468-82589	DIST CODE 743443
	DATE MAY 98	SHEET 5 OF 9

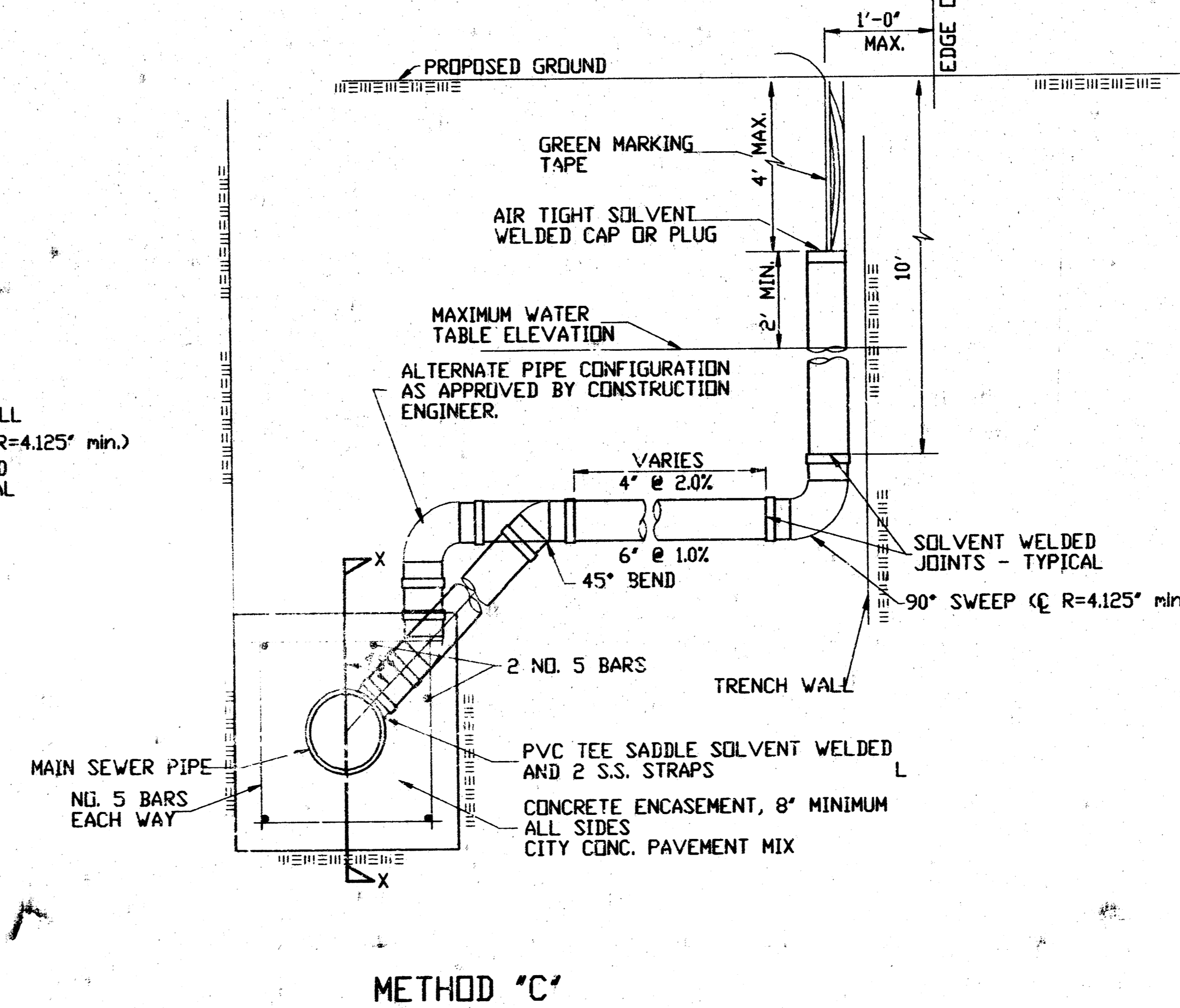
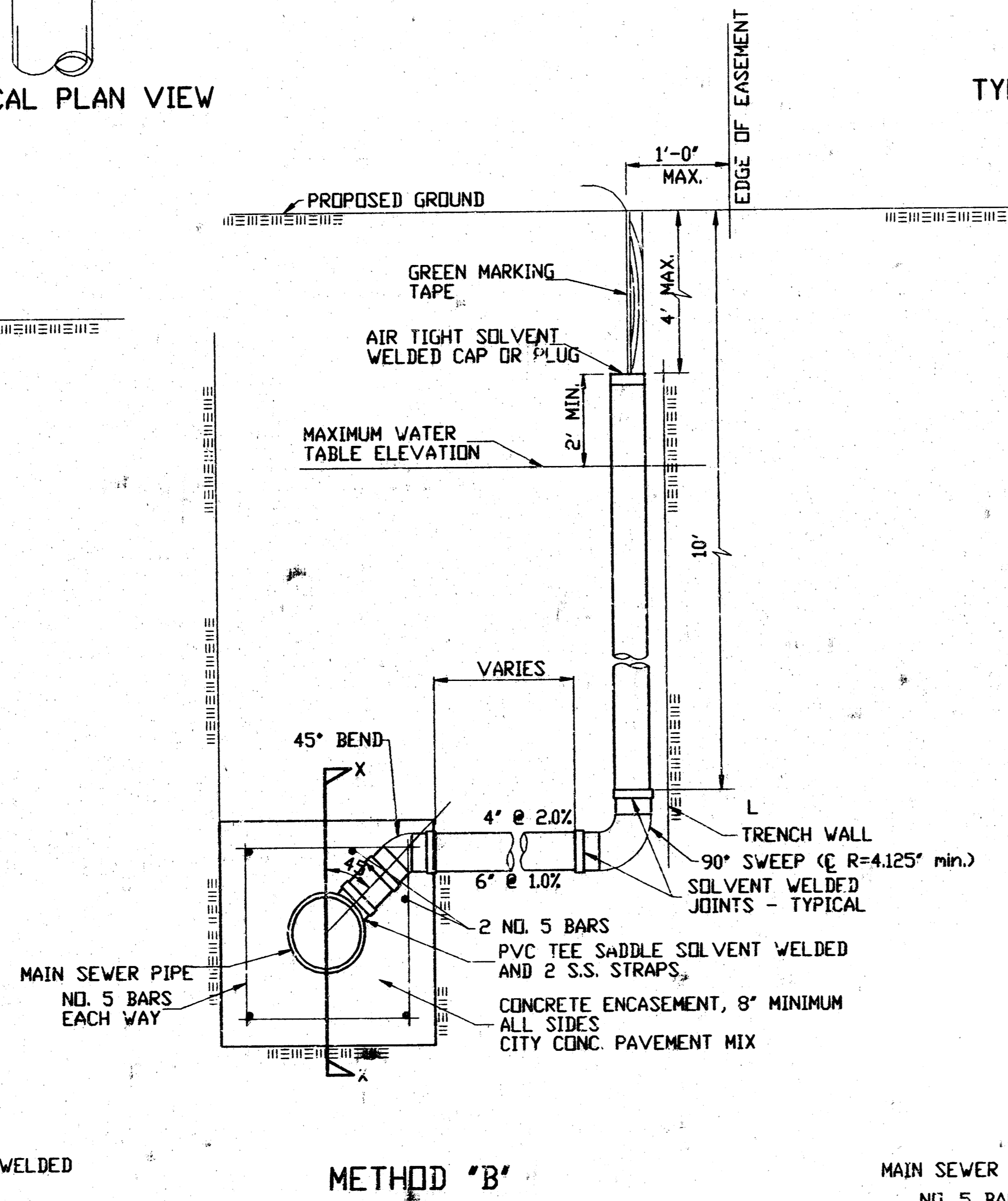
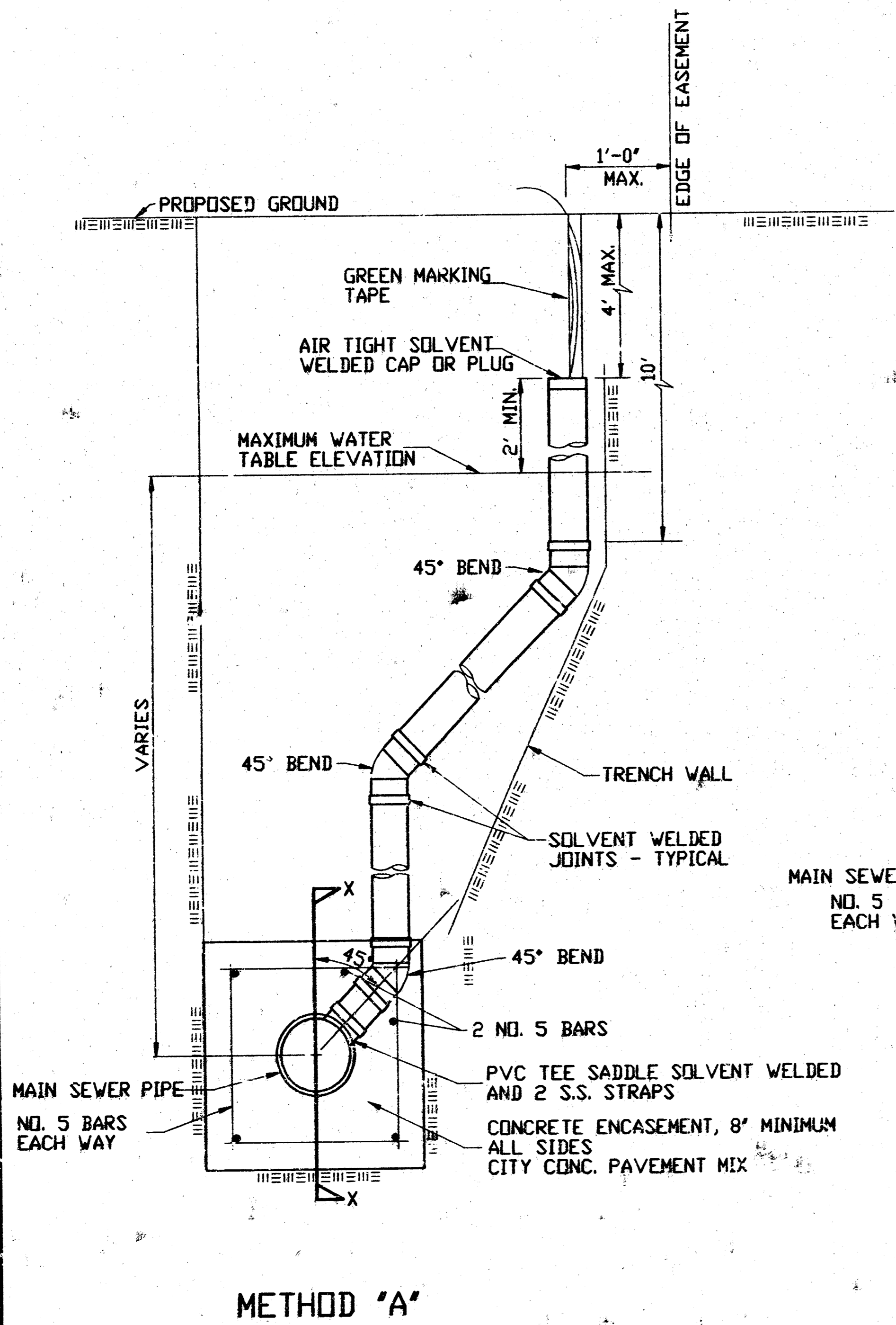
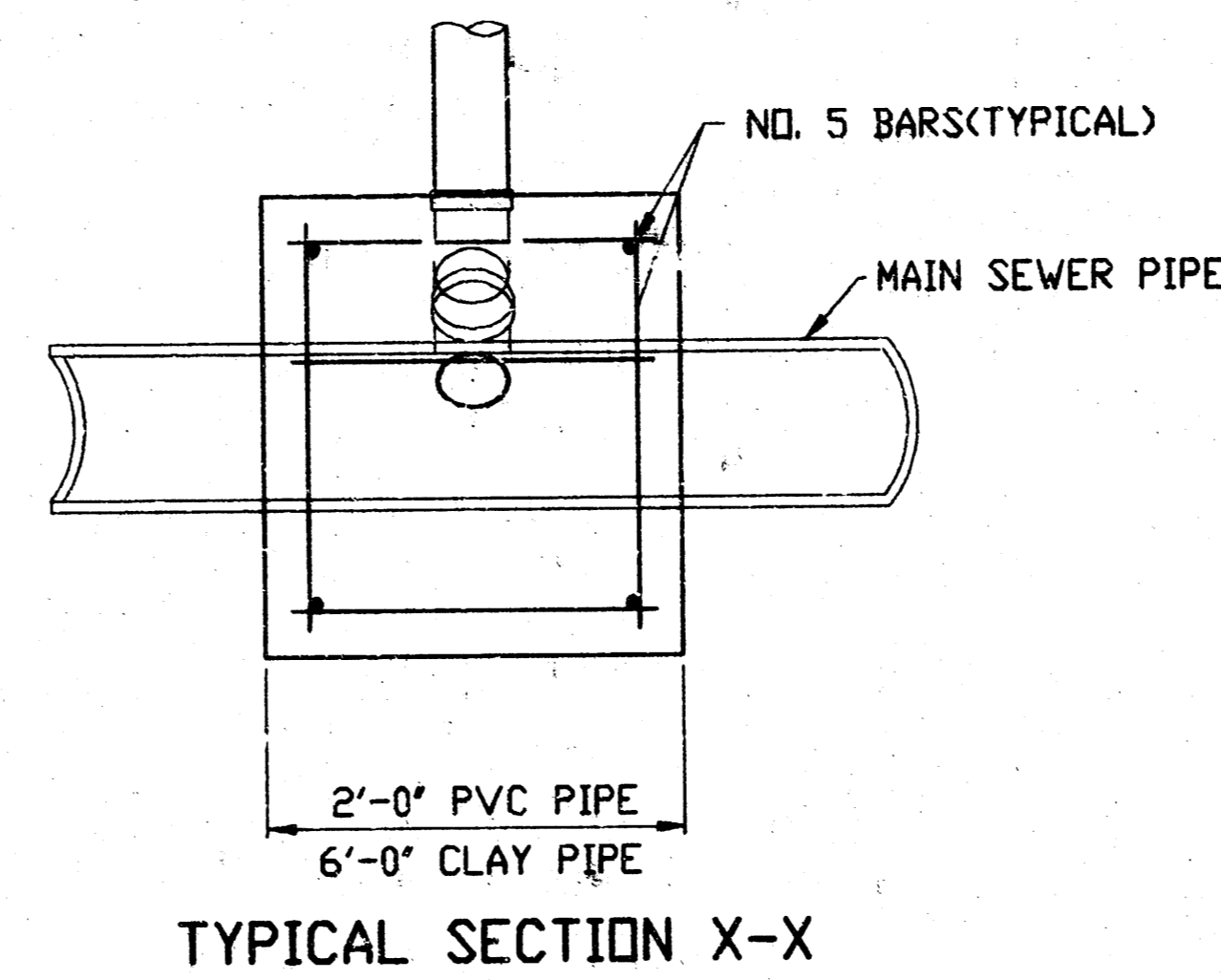
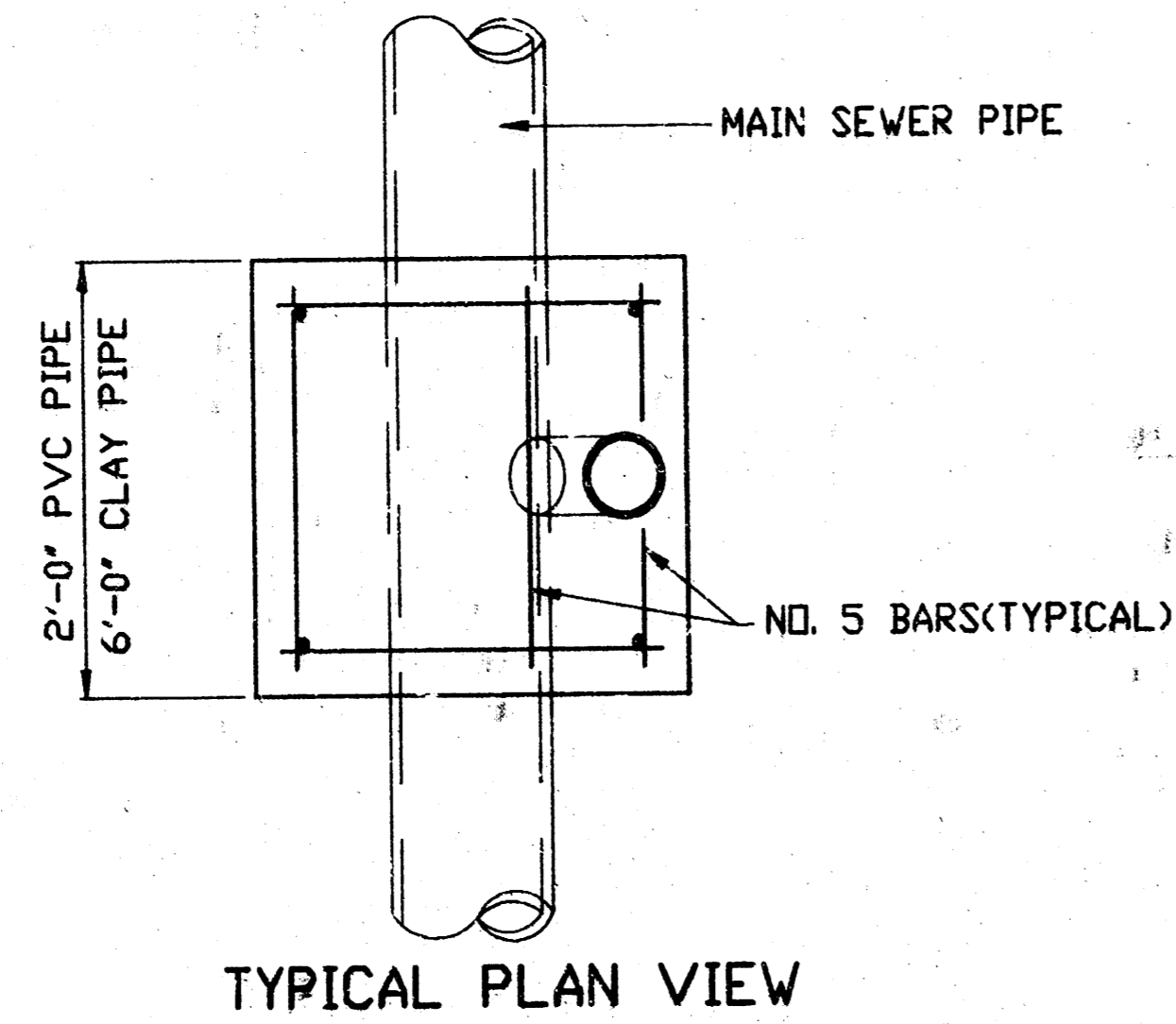
VERTICAL RISER DETAILS

ADOPTED AS STANDARD DESIGN

BY

CITY OF WICHITA, KANSAS

OCTOBER 1992



NOTE: RISER PIPE REQUIREMENTS AT MANHOLE STUBS SHALL BE SIMILAR TO THOSE SHOWN ABOVE.

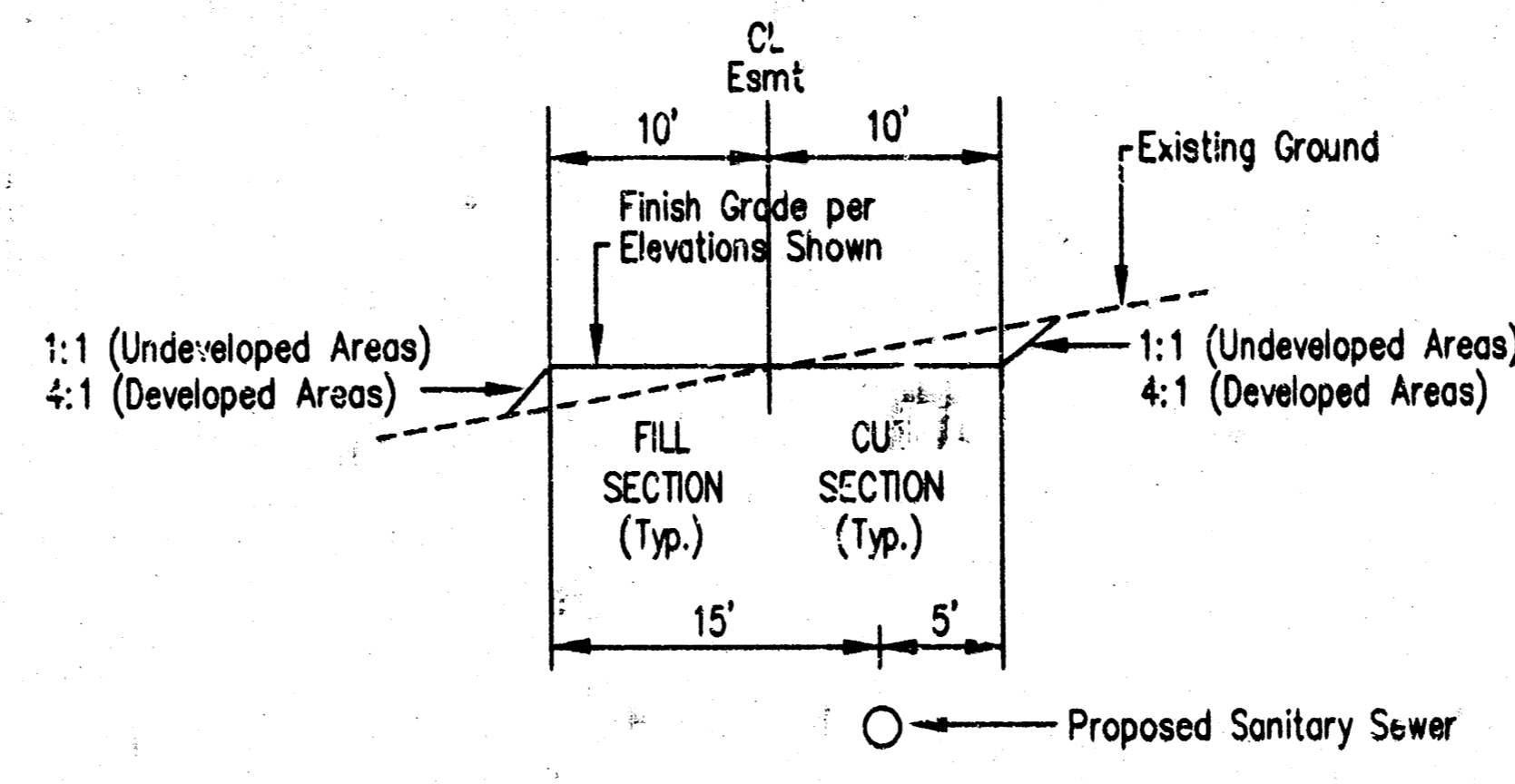
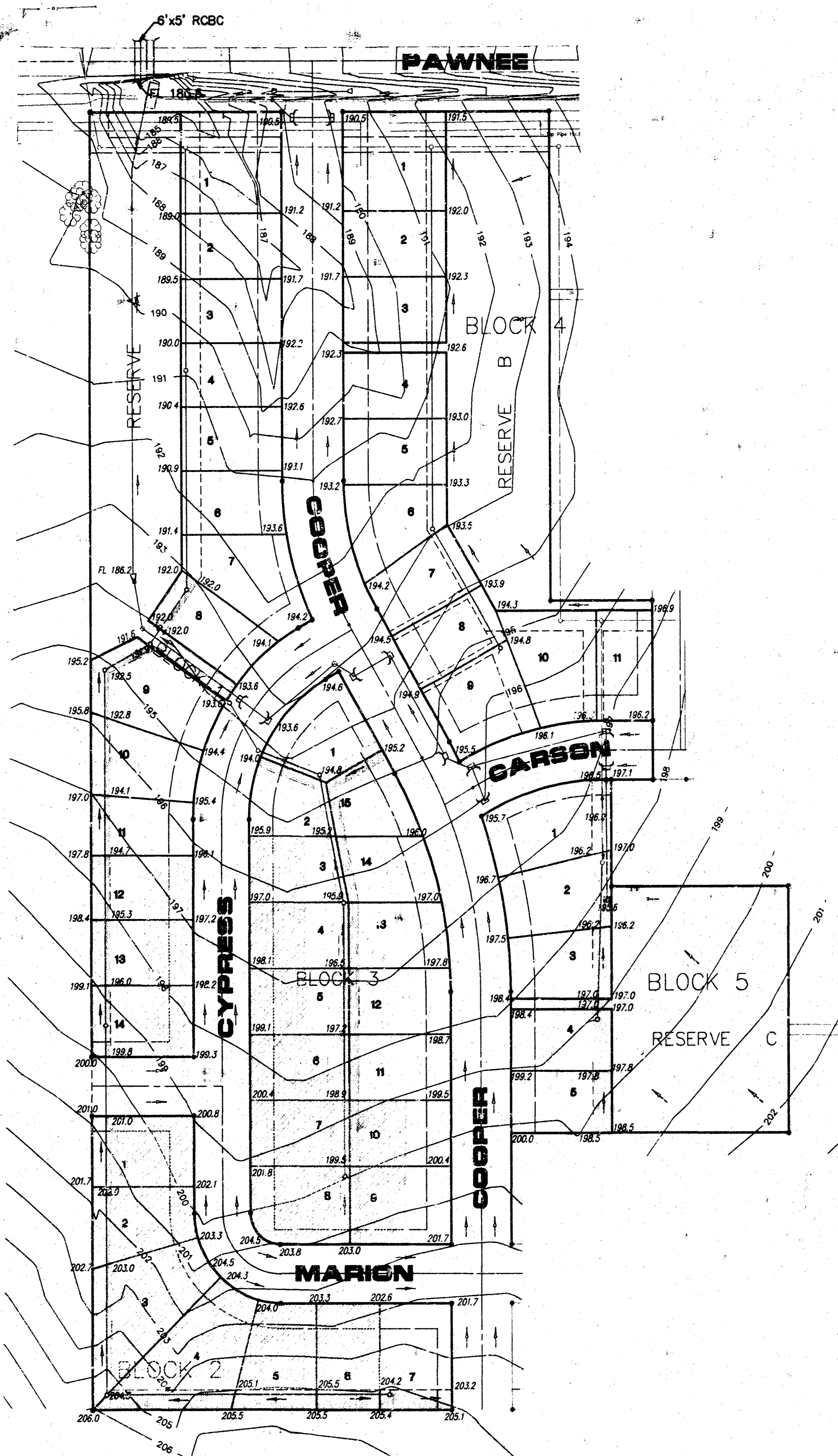
GENERAL NOTES

1. **RISERS.** Risers shall be installed to serve all lots or tracts where the sanitary sewer main is below the water table. Risers shall also be installed to serve all lots or tracts where the sanitary sewer main depth is greater than 12 feet below the proposed ground elevation. Installation of risers because of field conditions shall be as approved by the Construction Engineer. The location of the risers to serve developed property shall be approved by the property owner and the Construction Engineer.
2. **PIPE STUBS.** Pipe stubs shall be installed in manholes where locations of manholes will provide satisfactory service connection as determined by the Construction Engineer. The vertical distance between the flowline of the manhole pipe stub and the flowline of the sanitary sewer main out of the manhole shall not exceed 2 feet. Risers shall be utilized at manhole pipe stubs as indicated in Note 1. Manhole pipe stubs shall be set such that the top of the stub is not lower than the top of the sanitary sewer main.
3. **SIZING.** Pipe stubs and risers shall be sized according to the plans and riser table where risers are indicated by the plans. Where risers or pipe stubs are required because of field conditions, the risers and stubs shall be six-inch diameter for commercial or industrial properties and 4" or 6" diameter for residential properties, based on lot size and sanitary sewer main depth. Sizing of risers and stubs shall be approved by the Construction Engineer prior to installation.
4. **RISER OR STUB MATERIAL.** Risers and stubs shall be constructed of Schedule 40 PVC Pipe, meeting the requirements of the latest revision of A.S.T.M. All pipe joints shall be solvent welded.
5. **REINFORCEMENT CONCRETE ENCASEMENT.** Riser connections to clay pipe sanitary sewers shall be reinforced concrete encased both ways from the riser centerline. The reinforced concrete encasement shall extend three feet from the riser centerline or stop at the first sanitary sewer pipe joint within three feet of the riser centerline. Riser connections to PVC Sanitary Sewer mains shall be reinforced concrete encased one foot each way from the riser centerline. The concrete encasement shall be reinforced using reinforcing steel as shown in the appropriate drawing. The concrete shall conform to the City Standard Specifications for concrete pavement.
6. **BEDDING.** Bedding around the sanitary sewer riser shall be compacted Pipe Bedding Type 1 or 2. The bedding shall be placed and compacted to the depth of the sanitary sewer main to the top of the sanitary sewer riser pipe. Compacted Pipe Bedding Type 1 or 2 shall be required for all risers whether constructed in vertical wall or sloped wall trenches. Bedding material and construction practices shall be approved by the Construction Engineer prior to installation.
7. **SUPPORT OF RISERS.** Sanitary sewer riser pipe shall be supported during trench backfill. The riser pipe shall be held in a vertical position at all times until trench backfill and compaction has been completed. Contractor's methods for supporting and backfilling the riser pipe shall be approved by the Construction Engineer.
8. **PLUGGING.** The ends of the riser pipes and manhole stubs shall be plugged using an airtight solvent welded cap or plug. Cap or plug fittings shall be approved by the Construction Engineer prior to installation. Caps or plugs which do not provide an airtight seal will not be accepted.
9. **TOP OF THE RISER PIPE.** The top elevation of the sanitary sewer riser pipe shall be built per plan elevations, unless otherwise directed by the Construction Engineer. Where riser elevations are not shown on the plans, the top of the risers shall be set at an elevation four feet below the proposed ground surface. If ground water is encountered, the top of the riser pipe shall be set at an elevation two feet (min) above the maximum water table elevation, regardless of the riser elevation shown on the plans.
10. **MARKING.** Locations of the ends of the sanitary sewer riser pipe shall be marked by fastening green colored plastic tape to the end of the riser. The tape shall be supported by a length of wooden 2 x 4, extending from the top of the riser pipe to the proposed ground surface. The green tape shall be visible and extend one foot above the proposed ground surface. The green tape shall be 4 mil Polyethylene film with a minimum width of three inches, specifically manufactured for the purpose of identification of underground sewers.
11. **LOCATION MEASURES.** The project inspector shall record and document the location of all risers constructed as measured from the nearest manhole, indicating the direction from the manhole, the direction and distance from the main, riser size, and elevation of the top of the riser.
12. **RISER LOCATION.** The riser shall be located per plan if shown. If not shown on the plan, the riser shall be located at the center of the lot, within one foot of the property side of the easement for the lot being served. All riser locations shall be approved by the Construction Engineer prior to installation.
13. **PAYMENT.** "Sanitary sewer risers" shall be paid for at the contract unit price per each, which price shall be full compensation for all pipe, fittings, marking tape, length of wooden 2 x 4, reinforced concrete encasement, support during backfill, backfill, labor, site restoration, and any other items necessary to complete the work.
"Manhole stubs" shall be paid for at the contract unit price per each, which shall be full compensation for all labor, material, and incidentals necessary to complete the work including all pipe, fittings, reinforced concrete encasement, and all other items as required and listed for "Sanitary Sewer Risers".

<p style="font-size: small;">THE CITY OF WICHITA CITY ENGINEER'S OFFICE CITY HALL - 3RD FLOOR 100 NORTH MAIN STREET WICHITA, KANSAS 67202 (316) 268-7871 (316) 268-3114 FAX</p>	VERTICAL RISER DETAIL	
	M. E. LINDEBAK P.E. - CITY ENGINEER	
	PROJECT NUMBER	SHEET CODE
	468-82589	743443
DATE	SHEET 6 OF 9	
MAY 93		

REV: 4/16/98 GAM (Removed SDR 35)

ELEVATIONS SHOWN AT STREET R/W ARE STREET R/W ELEVATIONS NOT TOP OF CURB. TOP OF CURB ELEVATIONS ARE 0.5' LOWER THAN STREET R/W.



TYPICAL SECTION
 Note: Easements are to be graded flat, except where noted by differing elevations at easement edges.

NOTES

1. THIS GRADING PLAN IS SUBJECT TO CHANGE TO MATCH FINAL PAVING AND DRAINAGE PLANS.
2. FRONT LOT CORNER ELEVATIONS ARE SHOWN IN STREET. FRONT LOT CORNER ELEVATIONS ARE 0.5 FEET ABOVE TOP OF CURB ELEVATION. (TOP OF CURB ELEVATIONS ARE NOT SHOWN!!!)
3. GARAGE FLOOR ELEVATIONS ARE SET 3' ABOVE HIGHEST FRONT LOT CORNER ELEVATION (TYPICALLY).

LEGEND

- G = GARAGE FLOOR ELEVATION
- F = TOP OF FOUNDATION WALL ELEVATION
- R = REAR WALL ELEVATION (NEW OUT)
(REAR WALL IS 3.5' ABOVE BASEMENT FLOOR)
- ⊖ = NO VIEW OUT
- ⊕ = VIEW OUT

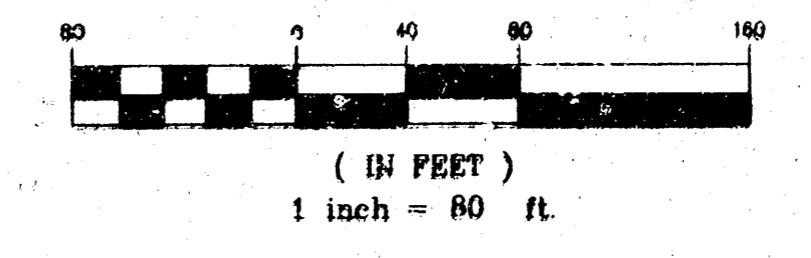
- ▭ = EASEMENTS THAT CONTRACTOR SHALL GRADE TO ELEVATIONS SHOWN.
- ▭ = WASTE AREAS

NOTE: Contractor shall temporary seed (Rye grass) at a rate of 200 lbs/acre at disturbed areas, cost subsidiary to easement grading.

BENCHMARKS

- (City of Wichita Datum)
1. City of Wichita Std. BM disc at Webb & Pawnee. 5.5' S. & 47' W. centerline of both. Elev. 205.68
 2. "a" on headwall (SE corner South Headwall) 5'x 5' RCB under Pawnee approximately 1300' W. of NE Corner Sec. 5-285-2E. Elev. 186.94
 3. 40d nail in service pole approximately 1330' S. and 150' W. of NE Corner Sec. 5-285-R2E. Elev. 204.69

GRAPHIC SCALE



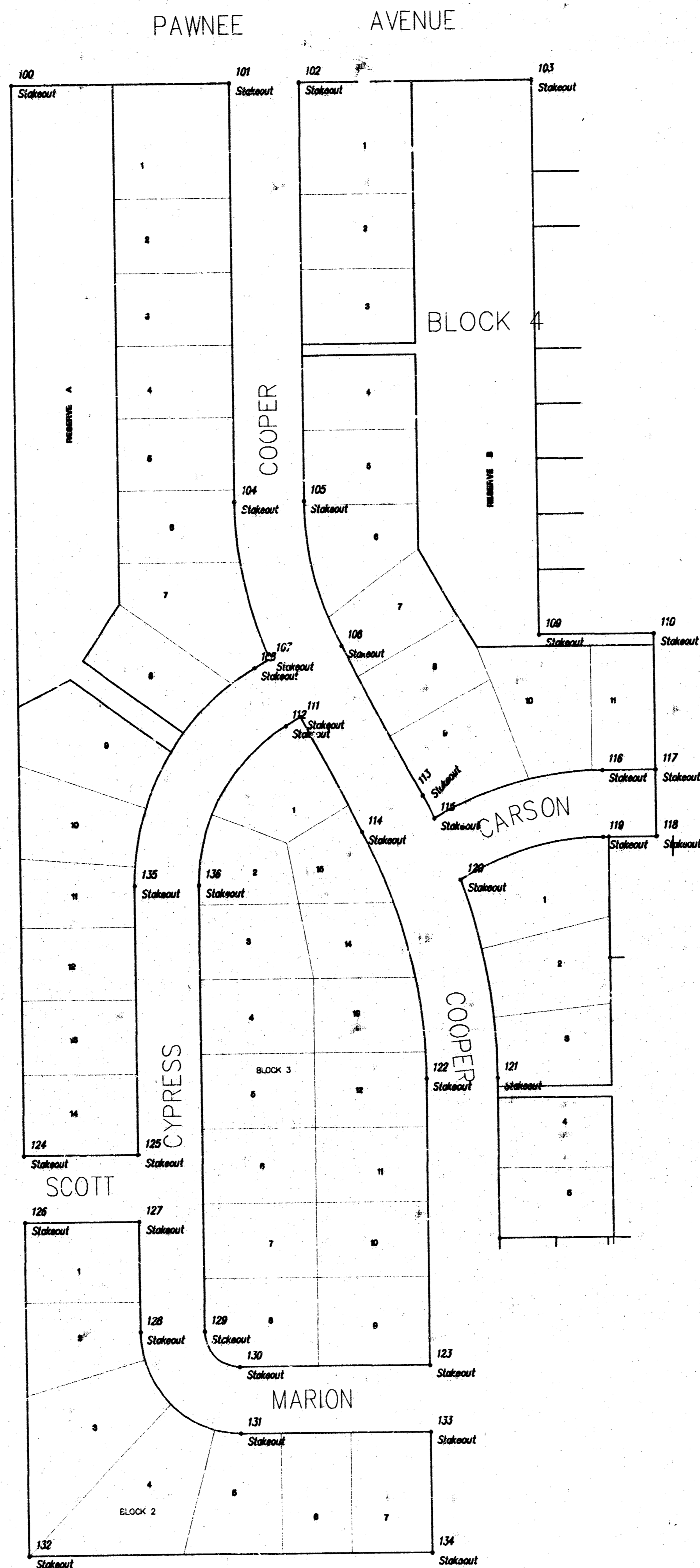
LOT GRADING PLAN
TURTLE RUN 3RD ADDITION
TO WICHITA, SEDGWICK COUNTY, KANSAS NE 1/4, SECTION, T28S, R2E

REVISED: APRIL 19, 1998
 FEBRUARY 2, 1998



LATERAL 132, WAR INDUSTRIES SEWER
 PROJECT NO. 468-82589
 INDEX CODE 743443 Sheet 7 of 9

Current Coordinate Listing by Point Range				
Point	Northing	Easting	Elevation	Description
100	9988.0470	8895.0292		Stakeout
101	9987.9945	9093.3798		Stakeout
102	9987.9775	9157.3798		Stakeout
103	9987.9209	9371.3798		Stakeout
104	9623.7438	9093.2834		Stakeout
105	9623.7269	9157.2834		Stakeout
106	9497.5451	9190.2070		Stakeout
107	9487.0725	9123.6874		Stakeout
108	9478.9959	9108.2730		Stakeout
109	9505.1675	9371.2520		Stakeout
110	9505.1397	9478.2520		Stakeout
111	9436.0585	9151.2870		Stakeout
112	9478.3973	9137.6240		Stakeout
113	9366.7193	9263.5104		Stakeout
114	9335.4355	9207.6775		Stakeout
115	9346.8268	9274.0773		Stakeout
116	9356.9060	9427.8640		Stakeout
117	9386.8931	9478.2207		Stakeout
118	9378.8931	9478.2054		Stakeout
119	9328.9060	9427.6487		Stakeout
120	9293.2307	9297.2236		Stakeout
121	9120.4915	9327.5703		Stakeout
122	9120.5991	9263.5704		Stakeout
123	8871.7012	9263.1517		Stakeout
124	9057.2373	9893.4633		Stakeout
125	9057.0698	8893.4631		Stakeout
126	8999.2374	8893.3657		Stakeout
127	8999.0607	8998.3656		Stakeout
128	8903.0352	8997.3910		Stakeout
129	8902.9376	9056.2039		Stakeout
130	8871.8855	9087.1714		Stakeout
131	8813.8855	9087.1107		Stakeout
132	8708.0668	8892.8776		Stakeout
133	8813.7012	9263.0541		Stakeout
134	8708.7014	9262.8775		Stakeout
135	9290.9232	8998.8566		Stakeout
136	9290.8256	9056.8565		Stakeout



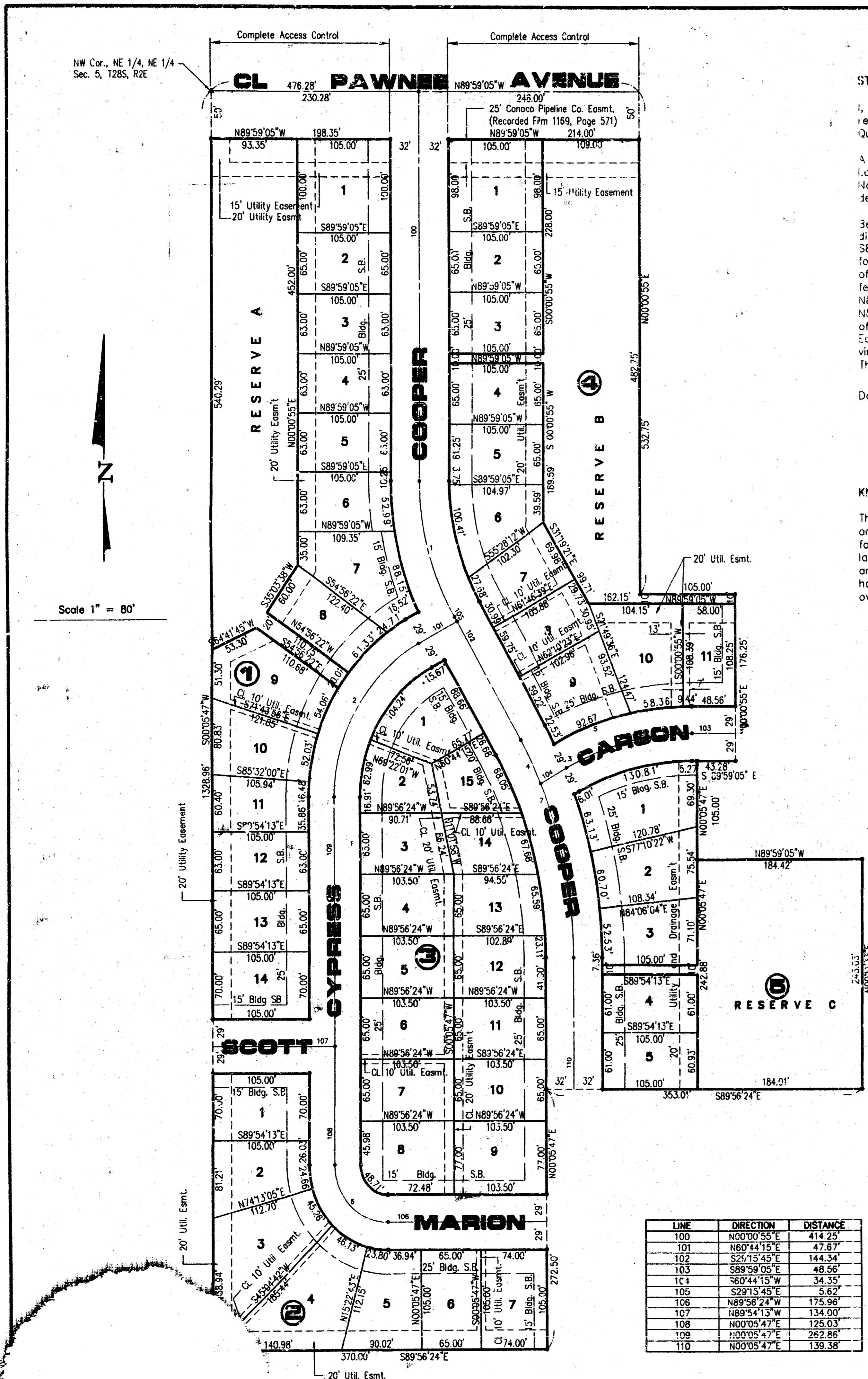
DATE	BY	APPROVED

TURTLE HILL 3RD ADDITION - PHASE 2
COORDINATE POINT LISTING
 CITY OF WICHITA, KANSAS
 MICHAEL E. UNDEBAK, P.E. - CITY ENGINEER
 C.O.M. Proj. No. 469-82369 Index Sheet 743443

POE & ASSOCIATES OF KANSAS, INC.
 CONSULTING ENGINEERS
 840 E. Central, Suite 200, Wichita, KS 67208-3110 (316) 261-1111



FINAL
 Designed By: J. Uberl
 Drawn By: J. Uberl
 Sheet No. 1840



LINE	DIRECTION	DISTANCE
100	N00°00'55"E	414.25'
101	N60°44'15"E	47.67'
102	S25°15'45"E	144.34'
103	S89°59'05"W	48.56'
104	S60°44'15"W	34.35'
105	S29°15'45"E	5.62'
106	N89°59'05"W	175.96'
107	N89°59'05"W	134.00'
108	N00°05'47"E	125.03'
109	N00°05'47"E	262.86'
110	N00°05'47"E	136.38'

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
1	280.00'	148.19'	75.75'	148.58'	S14°37'25"E	2916.40'
2	187.00'	197.92'	109.36'	188.81'	S30°25'01"W	6036.28'
3	285.00'	145.83'	74.44'	144.05'	S75°22'35"W	2916.40'
4	470.00'	51.62'	22.84'	51.60'	N26°06'57"W	6817.35'
5	314.00'	180.47'	82.03'	158.73'	S75°22'28"W	2916.52'
6	60.00'	94.29'	60.00'	84.86'	S44°51'18"E	3092.11'
7	470.00'	188.51'	95.90'	187.53'	N17°26'11"W	2303.53'

STATE OF KANSAS, COUNTY OF SEDGWICK: ss.

I, Kenny E. Hill, being a duly licensed Land Surveyor in said County and State, do hereby certify that I have been in responsible charge of surveying and platting "TURTLE RUN THIRD ADDITION" to Wichita, Kansas, located in the Northeast Quarter of Section 5, Township 28 South, Range 2 East of the 6th P.M. Sedgwick County, Kansas, more particularly described as follows:

A replat of Lots 1 through 18, Block 1; Lots 1 through 14, Block 2; Lots 1 through 20, Block 4; Lots 5 through 11, Block 5; Lots 1 through 10, Block 7, and Reserves A, B, and C, Cottage Gardens in addition to Wichita, Kansas located in the Northeast Quarter of Section 5, Township 28 South, Range 2 East of the 6th P.M. Sedgwick County, Kansas, more particularly described as follows:

Beginning at the Northwest Corner of the Northeast Quarter of said Northeast Quarter, thence S00°05'47"W for a distance of 1328.96 feet to the Southwest Corner of the Northeast Quarter of said Northeast Quarter; thence S89°56'24"E along the South line of Cottage Gardens Addition for a distance of 370.00 feet; thence N00°05'47"E for a distance of 272.50 feet; thence S89°56'24"E for a distance of 353.01 feet; thence N00°11'33"E for a distance of 243.03 feet; thence N89°59'05"W for a distance of 184.42 feet; thence N00°03'47"E for a distance of 105.00 feet; thence S89°59'05"E for a distance of 43.28'; thence N00°00'55"E for a distance of 176.25 feet; thence N89°59'05"W for a distance of 105.00 feet; thence N00°00'55"E for a distance of 532.75 feet; thence N59°59'05"W along the North line of the Northeast Quarter of the Northeast Quarter of Sec. 5, Township 28 South, Range 2 East of the 6th P.M. Sedgwick County, Kansas, for a distance of 476.28 feet to the point of beginning.

Easements and other public reservations are hereby vacated to conform to those shown on this plat by virtue of KSA 12-512(b) as amended.

The accompanying plat is a true and correct exhibit of property surveyed.

Dated this 5th day of MARCH, 1996.

Kenny E. Hill, L.S. 984

KNOW ALL MEN BY THESE PRESENTS:

That we, the undersigned, have caused the land described in the Surveyor's Certificate to be platted into lots, blocks, streets and reserves. The streets are hereby dedicated to and for the use of the public. Easements are hereby granted as indicated for the construction and maintenance of drainage and utilities. Reserves A, B, and C shall permit lighting, drainage, landscaping, utilities, sidewalks, fencing, recreation facilities, irrigation systems and open space. All reserves are to be owned and maintained by a property owners association, its successors and assigns. The minimum lot opening elevation for the homes built in this addition shall be 190.0 (City of Wichita Datum). All abutters' rights of access to or from Pawnee Avenue over and across the North line of Reserve A and B; Lot 1, Block 1; and Lot 1, Block 4 are hereby granted to the City of Wichita.

Pawnee Development, Inc.

Devoe Treadwell
Devoe Treadwell, President

Theo Treadwell
Theo Treadwell, Secretary

KNOW ALL MEN BY THESE PRESENTS:

That we, Bank IV, N.A., holders of a mortgage on the property described in the Surveyor's Certificate, do hereby consent to the plat of Turtle Run 3rd Addition.

Thomas J. McGrath
Thomas J. McGrath, Assistant Vice-President

STATE OF KANSAS, COUNTY OF SEDGWICK: ss.

This instrument was acknowledged before me on this 5th day of March, 1996, for Bank IV, N.A., by Thomas J. McGrath, Assistant Vice-President.

Sheila Thrush
Notary Public

My appointment expires: Sept. 23, 1999

STATE OF KANSAS, COUNTY OF SEDGWICK: ss.

This instrument was acknowledged before me on this 11th day of March, 1996, for Pawnee Development, Inc. by Devoe Treadwell, President and Theo Treadwell, Secretary.

Carol A. Barnes
Notary Public
CAROL A. BARNES

My Appointment Expires: _____

This plat of TURTLE RUN 3RD ADDITION to Wichita, Kansas has been submitted to and approved by this WICHITA-SEDGWICK COUNTY METROPOLITAN AREA PLANNING COMMISSION, Wichita, Kansas.

Dated this 31st day of August, 1996.

LIBRARY COPY
SEDGWICK COUNTY, KANSAS
REGISTER OF DEEDS

This plat approved and all dedications shown hereon accepted by the City Council of the City of Wichita, Kansas, this 2nd day of APRIL, 1996.

WICHITA SEDGWICK COUNTY METROPOLITAN AREA PLANNING COMMISSION

Susan Osborne
Susan Osborne - Howes, Chairman

Marvin S. Kroul
Marvin S. Kroul, Secretary

Entered on transfer record this 21th day of June, 1996.

Bob Knight
Bob Knight, Mayor

Pat Burnett
Pat Burnett, Deputy City Clerk

This is to certify that this instrument was filed for record in the Register of Deeds Office at 10:00 A.M. on the 21th day of JUNE, 1996.

Pat Kettler
Pat Kettler, Register of Deeds

Diana Manheimer
Diana Manheimer, DEPUTY

#1537766

TURTLE RUN 3RD ADDITION

TO WICHITA - SEDGWICK COUNTY, KANSAS

Proj. No. 468-82589
Index Code 743443
Sheet 9 of 9