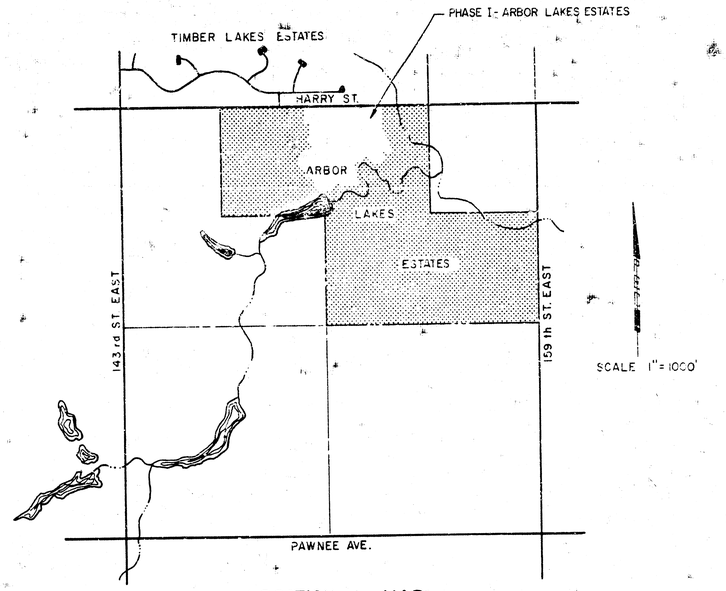
INDEX OF SHEETS

SHEET NO. 1	TITLE SHEET
SHEET NO. 2	KEY MAP & SCHEDULE
SHEET NO. 3-4	SANITARY SEWER DETAILS
SHEET NO. 5-7	PLAN PROFILES

DEPARTMENT OF PUBLIC WORKS

SEDGWICK COUNTY



LOCATION MAP

CONSTRUCTION PLANS FOR SANITARY SEWER IMPROVEMENTS IN ARBOR LAKES ESTATES TO SEDGWICK COUNTY, KANSAS

PHASE I

JAN. 1977

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.

ENGINEERS

WICHITA, KANSAS

PROJECT NO. 30-76303-2-024

APPROVED

CITY ENGINEER OF WICHITA, KANSAS

DATE 1/5/78

FILED

THE SEDGWICK COUNTY CLERK

COUNTY CLERK — DATE 1-12-78

APPROVED

COUNTY ENGINEER/DIRECTOR OF PUBLIC WORKS

DATE 1-15-78

APPROVED — DATE

CHAIRMAN
BOARD OF COUNTY COMMISSIONERS

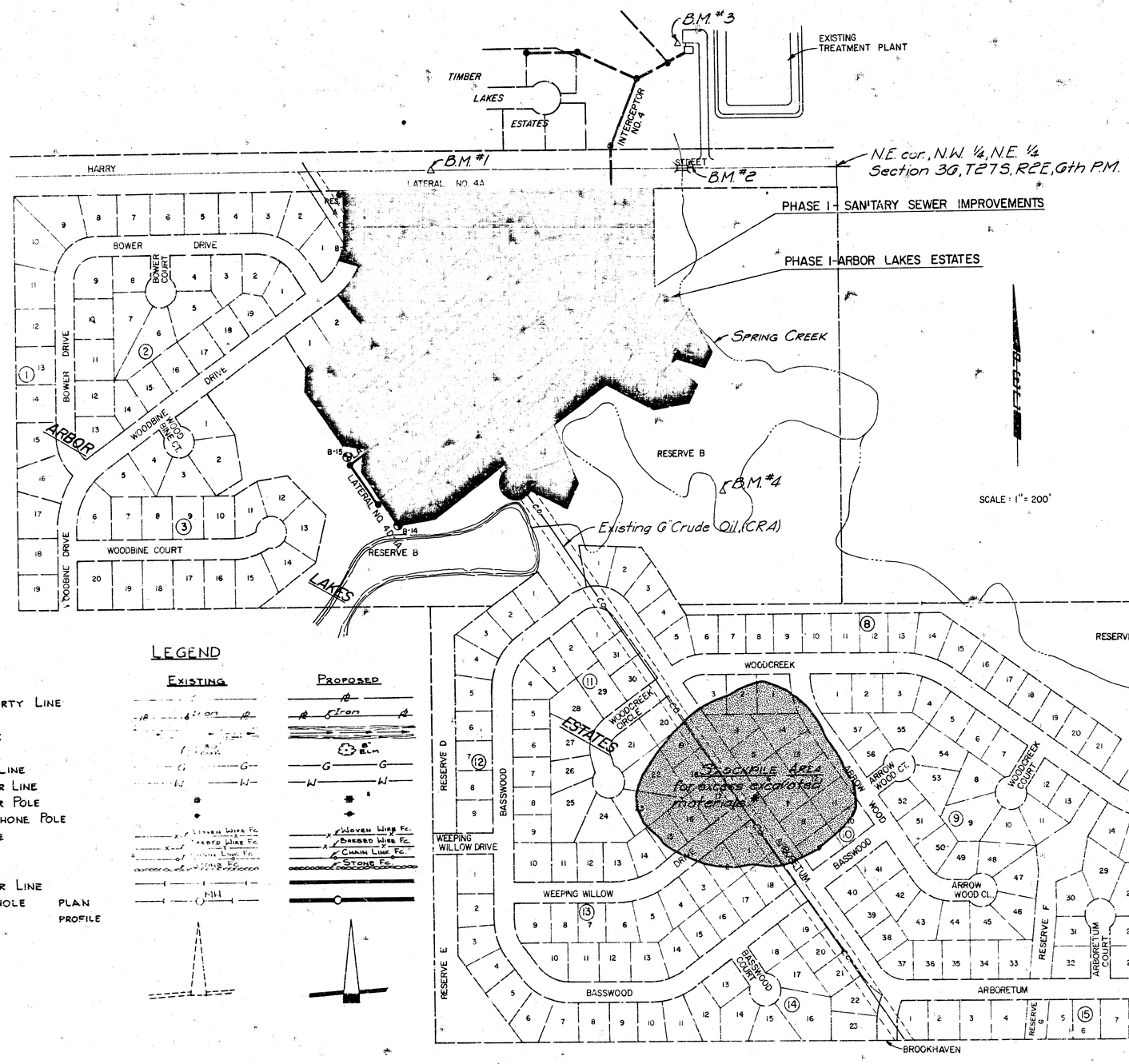
APPROVED — DATE

WICHITA SEDGWICK COUNTY
DEPARTMENT OF COMMUNITY HEALTH

JAN 12 1978

JAN 12 1978

4 1



SEWER LINE SCHEDULE	
LINE NO.	SHEET NO.
INTERCEPTOR NO. 4D	5
LATERAL NO. 4A	6
LATERAL NO. 4A-1	6
LATERAL NO. 4A-2	6
LATERAL NO. 4B	6
LATERAL NO. 4C	7
LATERAL NO. 4D	7
LATERAL NO. 4D-1	7
LATERAL NO. 4D-1A	7

LEGEND

	Existing	Proposed
Property Line		
Iron		
Creek		
Tree		
Gas Line	G	G
Water Line	W	W
Power Pole		
Telephone Pole		
Fence	Woven Wire Fc., Barbed Wire Fc., Chain Link Fc., Stone Fc.	Woven Wire Fc., Barbed Wire Fc., Chain Link Fc., Stone Fc.
Sewer Line		
Manhole plan	MH	
Manhole profile		

BENCH MARK LIST

B.M. #1 - TOP OF PIPE IN THIMBLE AT THE N.W. CORNER OF THE N.E. 1/4 OF SECTION 36, T27S, R2E OF THE 6TH P.M. ELEV. 1295.10 (MSL)

B.M. #2 - S.E. CORNER OF N. WHEEL GUARD OF BRIDGE ON HARRY STREET OVER SPRING CREEK. ELEV. 1288.75 (MSL)

B.M. #3 - R.R. SPIKE IN ROOT OF THE NORTHEASTERLY SIDE 42" DIA. COTTONWOOD TREE AT THE W. SIDE TREATMENT PLANT AREA, 60' ± W.N.W. OF LIFT STATION. ELEV. 1289.24 (MSL)

B.M. #4 - TOP OF PICNIC TABLE, MOST SOUTHERLY CORNER IMMEDIATELY NORTH OF E. END OF BRIDGE AT CONCESSION STAND ELEV. 1284.48 (MSL)

* Stockpile area shall provide for positive drainage as directed by the engineer

GENERAL NOTES

1. THE CONTRACTOR SHALL CONTAIN HIS OPERATIONS TO PERMIT TRAFFIC THROUGH AND ACROSS CONSTRUCTION ON HARRY AT ALL TIMES. THE CONTRACTOR SHALL EPECT WARNING SIGNS, FLASHING LIGHTS, AND BARRICADES TO ENSURE SAFETY AS DIRECTED IN ARTICLE 18 OF THE GENERAL CONDITIONS. THE CONTRACTOR SHALL LIMIT THE EXTENT OF TRENCH TO REMAIN OPEN OVERNIGHT AND WEEKENDS TO LESS THAN 50 FEET.

2. THE CONTRACTOR WILL BE REQUIRED TO NOTIFY EACH OF THE FOLLOWING UTILITY COMPANIES PRIOR TO THE BEGINNING OF CONSTRUCTION AND SHOULD REQUEST THAT ANY EXISTING LINES BE FLAGGED.

   KANSAS GAS & ELECTRIC COMPANY
   1900 EAST CENTRAL
   264-1111 (Ext. 248) JERRY LANE

   GAS SERVICE COMPANY
   1021 EAST 26TH STREET NORTH
   263-7511 ENGINEERING DEPARTMENT

   CITY OF WICHITA WATER DEPARTMENT
   455 NORTH MAIN STREET
   268-4557 BENNY GEGEN

   SOUTHWESTERN BELL TELEPHONE COMPANY
   154 NORTH BROADWAY
   262-5500

   C.R.A., INC.
   UNION CENTER BLDG.
   276-4211 CASKELL STALLARD

3. THE CONTRACTOR MUST ALSO NOTIFY THE TELEPHONE COMPANY 24 HOURS PRIOR TO BEGINNING ANY CONSTRUCTION WORK NEAR BURIED TELEPHONE LINES.

4. WHERE REMOVAL OF EXISTING FENCES PARALLEL TO THE CONSTRUCTION IS DEEMED NECESSARY BY THE CONTRACTOR, THE CONTRACTOR SHALL COORDINATE REMOVAL WITH ADJACENT PROPERTY OWNERS. ALL REMOVAL AND RESETTING OF FENCES WILL NOT BE PAID FOR SEPARATELY AND SHALL BE CONSIDERED SUBSIDIARY TO THE INSTALLATION OF THE PIPE.

No.	Revision	By	Date

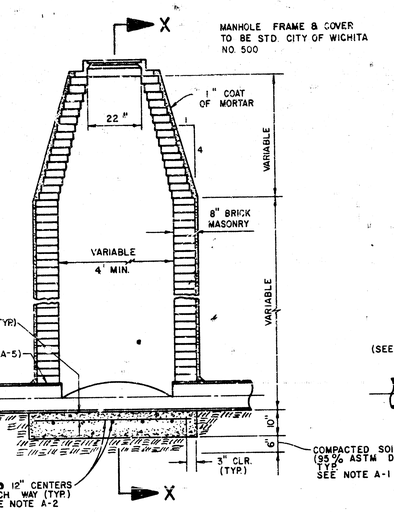
SEDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS
G.C. McLURE, JR., P.E. DIRECTOR & COUNTY ENGINEER

KEY MAP & SCHEDULE

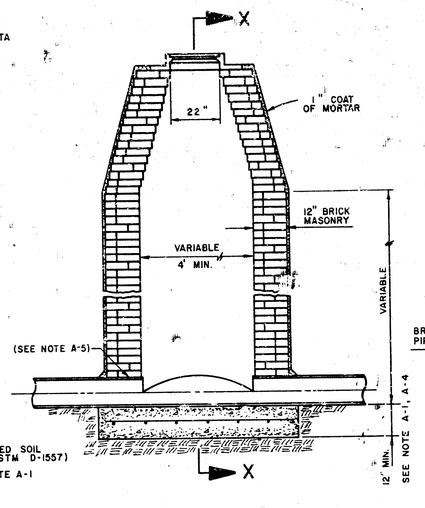
SANITARY SEWER IMPROVEMENTS
ARBOR LAKES ESTATES TO SEDGWICK COUNTY, KANSAS

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

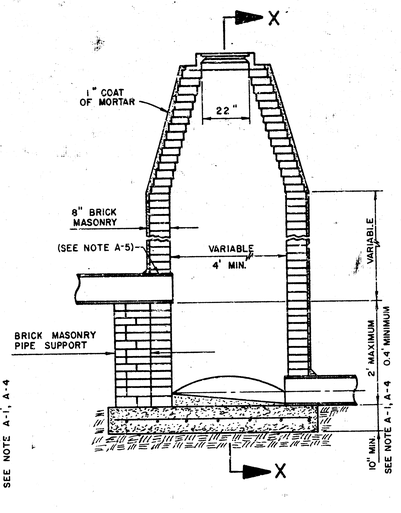
Designed by WHK, MDS | Job No. 30-763036 | Sht. 2 of 7
Drawn by TS | Date Oct 1977



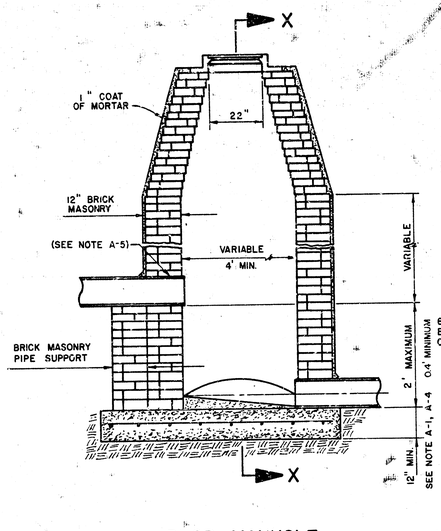
STANDARD MANHOLE
TYPE A



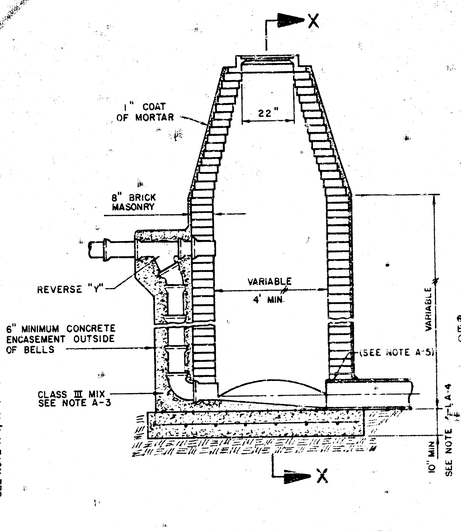
STANDARD MANHOLE
TYPE AA



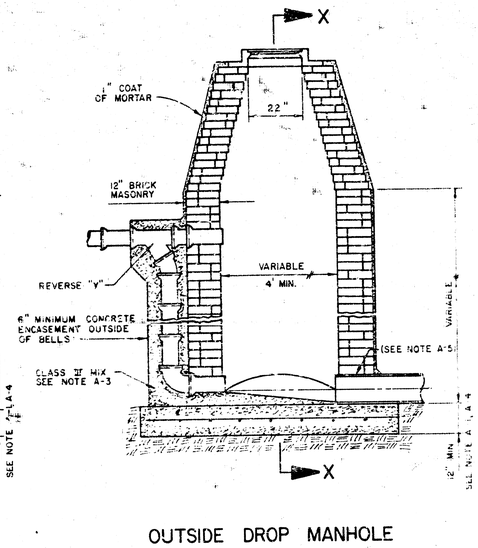
DROP MANHOLE
TYPE B



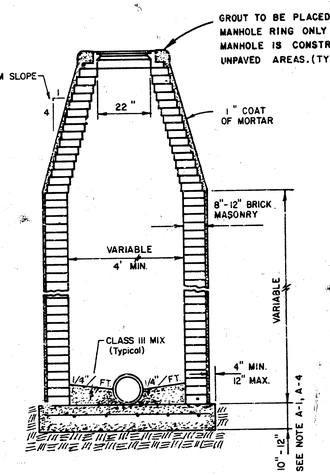
DROP MANHOLE
TYPE BB



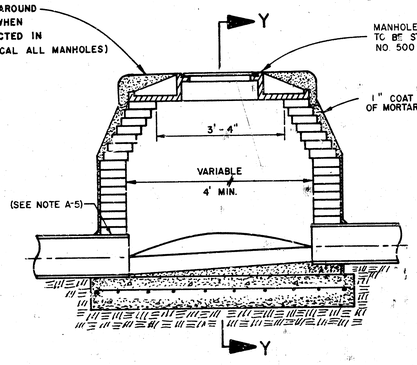
OUTSIDE DROP MANHOLE
TYPE C



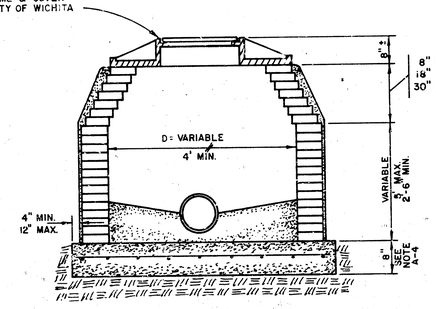
OUTSIDE DROP MANHOLE
TYPE CC



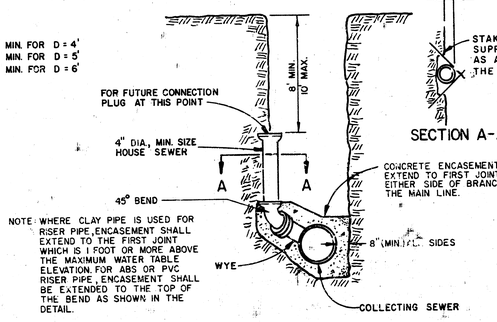
SECTION X



SHALLOW MANHOLE
TYPE D

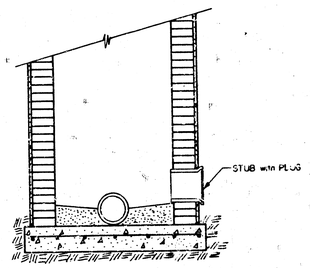


SECTION Y



RISER DETAIL

SECTION A-A



STUB DETAIL

NOTES

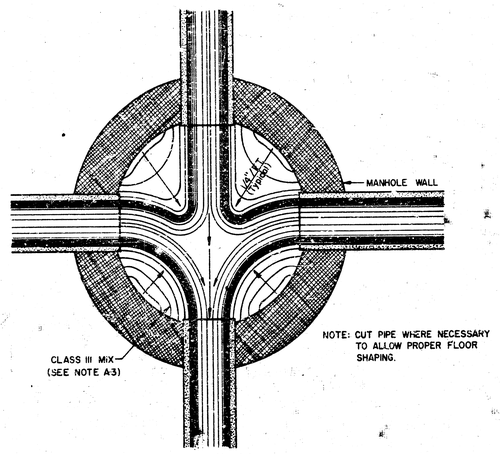
A. MANHOLES
1. IF, IN THE OPINION OF THE ENGINEER, THE MANHOLE SUBGRADE APPEARS UNSTABLE, THE CONTRACTOR HAS THE OPTION TO COMPACT SUBGRADE AS SHOWN OR INCREASE THE THICKNESS OF THE MANHOLE BASE AS DIRECTED BY THE ENGINEER.
2. STEEL REINFORCING IS REQUIRED IN ALL MANHOLE BASES.
3. MORTAR USED IN MASONRY CONSTRUCTION TO BE CLASS III MIX.
4. ALL MANHOLE BASES TO BE CLASS I MIX.
5. APPROVED FLEXIBLE WATERSTOP GASKETS SHALL BE INSTALLED TO JOIN THE SEWER TO THE MANHOLE WALL WHEN A.B.S. COMPOSITE PIPE, POLYETHYLENE PIPE, OR P.V.C. PIPE IS USED. FOR OTHER TYPES OF PIPE THE SEWER EXTENDING FROM MANHOLES SHALL BE SUPPORTED WITH CONCRETE TO THE FIRST JOINT OF PIPE FROM THE MANHOLE WALL. CONCRETE SUPPORTS MAY BE DELETED PROVIDED AN APPROVED FLEXIBLE WATERSTOP GASKET IS INSTALLED TO JOIN THE SEWER TO THE MANHOLE WALL.
6. PIPE PLUGS SHALL BE AS MANUFACTURED BY PIPE SUPPLIER WHEN AVAILABLE.

RISER LOCATION TABLE

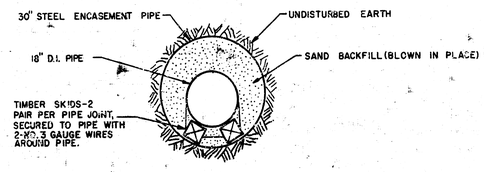
WYE NO.*	LOCATION			PIPE RISER	DISTANCE FROM MANHOLE**	
	LAT. NO.	STATION	DIRECTION	(L.F.)	UPSTREAM	DOWNSTREAM
1	4C	1+10±	LEFT	5.0		
2	4D	0+80±	LEFT	10.0		
3	4D	2+65±	LEFT	7.0		
4	4D	2+70±	RIGHT	7.0		
5	4D	3+90±	LEFT	11.0		
6	4D	3+95±	RIGHT	8.0		
7	4D	5+70±	LEFT	6.0		
8	4D	5+75±	RIGHT	6.0		
9	4D-1	1+35±	LEFT	6.0		
10	4D-1	1+40±	RIGHT	11.0		

*ALL WYES SHALL BE 4" x 8" UNLESS OTHERWISE NOTED.

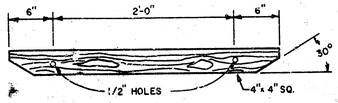
**THIS ITEM TO BE COMPLETED BY THE RESIDENT INSPECTOR AT TIME OF INSTALLATION.



TYPICAL MANHOLE
FLOOR SHAPING



BORING ENCASEMENT DETAIL



TIMBER SKID DETAIL

No.	Revision	By	Date

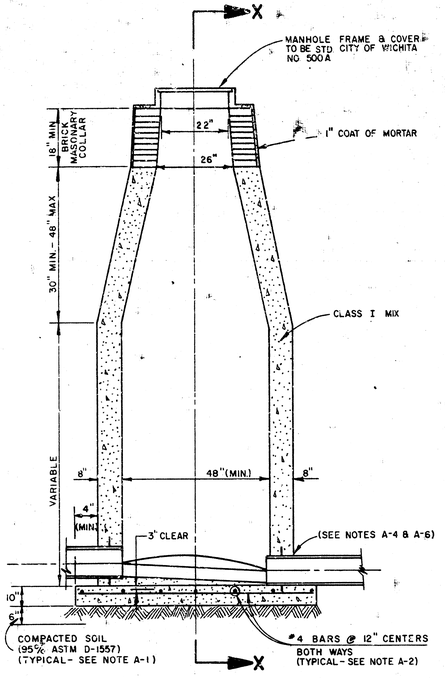
SEDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS
G.C. McLURE, JR., P.E. DIRECTOR & COUNTY ENGINEER

SANITARY SEWER DETAILS

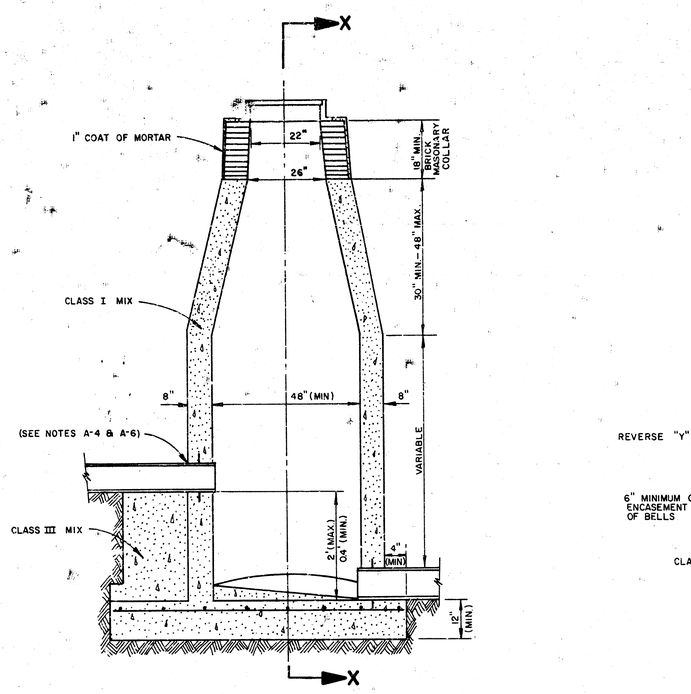
SANITARY SEWER IMPROVEMENTS
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PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

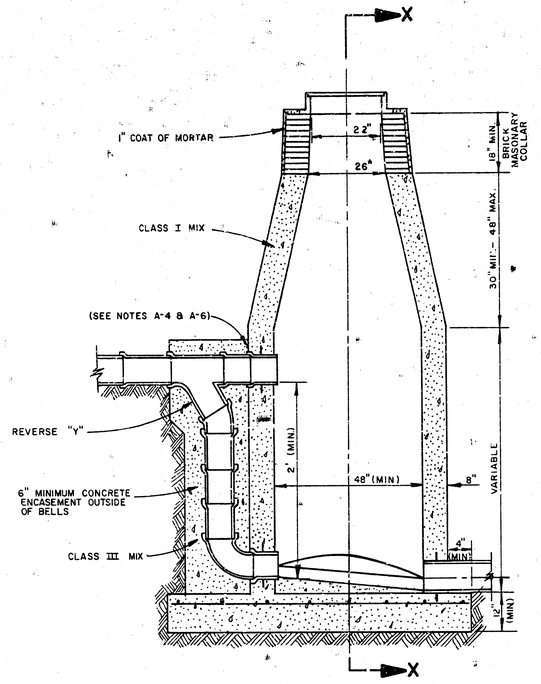
Designed by WHK, MDS | Job No. 30-76303-E | Sht. 3 of 7



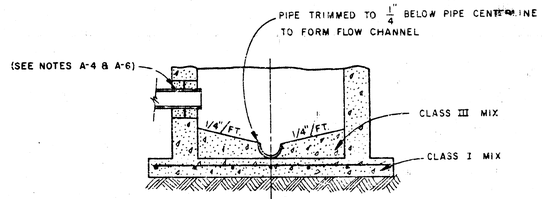
CAST IN PLACE
STANDARD MANHOLE
TYPE "E-A"



CAST IN PLACE
DROP MANHOLE
TYPE "E-B"



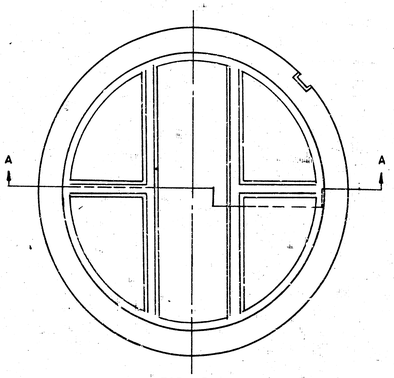
CAST IN PLACE
OUTSIDE DROP MANHOLE
TYPE "E-C"



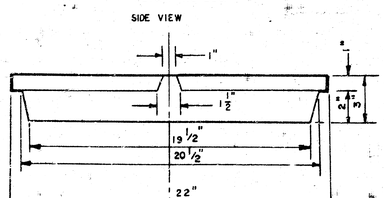
SECTIONAL ELEVATION- INVERT

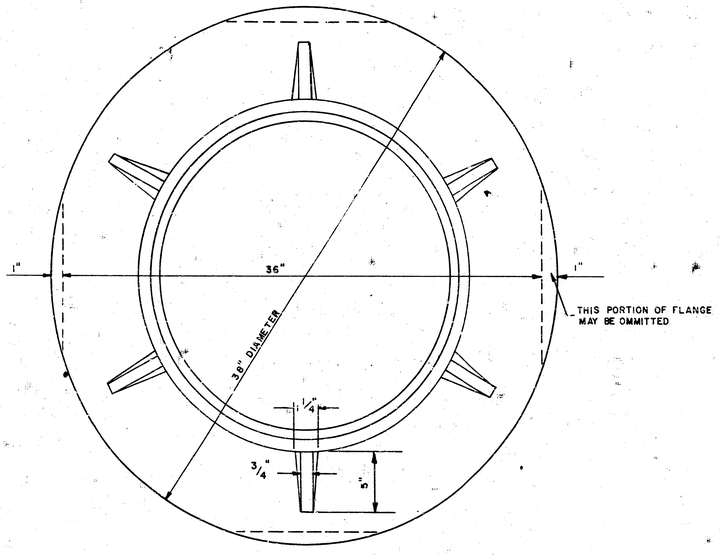
PRECAST MANHOLES

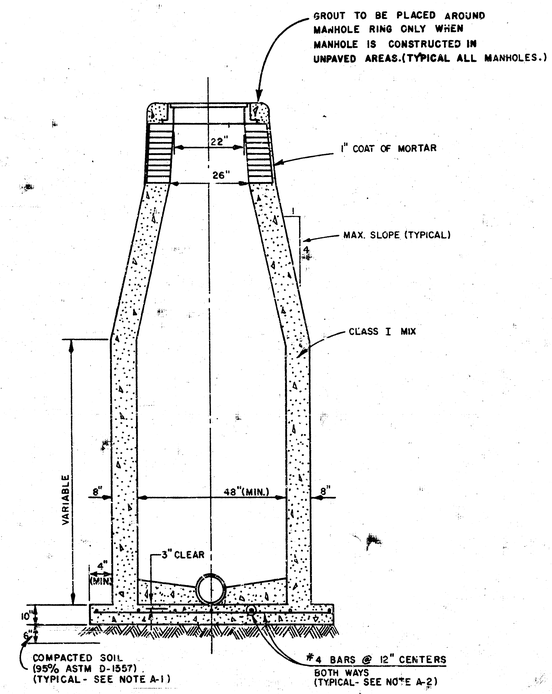
PRECAST MANHOLES MAY BE SUBSTITUTED FOR THE 8" THICK CAST-IN-PLACE MANHOLES. THE MANHOLE BASE AND OUTSIDE MANHOLE PIPE SUPPORTS FOR PRECAST MANHOLES WILL BE THE SAME AS SHOWN FOR CAST-IN-PLACE MANHOLES.



MANHOLE COVER
WEIGHT 110 LBS.







SECTION X

NOTES

A. MANHOLES

1. IF, IN THE OPINION OF THE ENGINEER, THE MANHOLE SUBGRADE APPEARS UNSTABLE, THE CONTRACTOR HAS THE OPTION TO COMPACT SUBGRADE AS SHOWN OR INCREASE THE THICKNESS OF THE MANHOLE BASE AS DIRECTED BY THE ENGINEER.
2. STEEL REINFORCING WILL BE REQUIRED IN ALL MANHOLE BASES.
3. MORTAR USED IN MASONRY CONSTRUCTION TO BE CLASS III MIX.
4. WHEN OPENINGS ARE CUT IN MANHOLE WALL FOR PIPE, THE PIPE WILL BE GROUTED IN PLACE WITH NON-SHRINKING GROUT. EXTERIOR OF COMPLETED CONNECTION TO BE SEALED WITH APPROVED COATING.
5. CAST-IN-PLACE CIRCULAR CONCRETE MANHOLES ARE TO BE CONSTRUCTED ONLY ON SEWERS NOT SUBJECT TO DETERIORATION DUE TO FORMATION OF HYDROGEN SULFIDE GAS AND IN LOCATIONS WHERE IT IS OBVIOUS THAT ANY ADJUSTMENT OF THE MANHOLE TOP ELEVATION WHICH MAY BE NECESSARY WILL NOT REQUIRE MODIFICATION OF THE CONCRETE BASE.
6. APPROVED FLEXIBLE WATERSTOP GASKETS SHALL BE INSTALLED TO JOIN THE SEWER TO THE MANHOLE WALL WHEN A.B.S. COMPOSITE PIPE, POLYETHYLENE PIPE, OR P.V.C. PIPE IS USED. FOR OTHER TYPES OF PIPE THE SEWER EXTENDING FROM MANHOLES SHALL BE SUPPORTED WITH CONCRETE TO THE FIRST JOINT OF PIPE FROM THE MANHOLE WALL. CONCRETE SUPPORTS MAY BE DELETED PROVIDED AN APPROVED FLEXIBLE WATERSTOP GASKET IS INSTALLED TO JOIN THE SEWER TO THE MANHOLE WALL.
7. PRECAST MANHOLES SHALL BE SET 4 INCHES INTO THE MANHOLE BASE.

STANDARD MANHOLES TYPE "E-A", "E-B", AND "E-C" MAY BE BID IN LIEU OF STANDARD MANHOLES "A and AA", "B and BB", AND "C and CC", RESPECTIVELY.

No.	Revision	By	Date

SEDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS
G.C. McLURE, JR., P.E. DIRECTOR & COUNTY ENGINEER

SANITARY SEWER DETAILS

SANITARY SEWER IMPROVEMENTS
ARBOR LAKES ESTATES TO SEDGWICK COUNTY, KANSAS

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

Sta. 0+00.00
Break into Existing MH
See note below

130° 0' 36"

Install 242.50 L.F. 10" Pipe

Construct 44.00 L.F. Boring and 30" Steel Encasement See Profile below for location See Detail Sht. No. 3.

Install 203.47 L.F. 18" Pipe

Install 1-4" Stub

Install 100.00 L.F. 18" Pipe

Install 2-4" Stubs

Install 1-4" Stub

Install 92.00 L.F. 18" Pipe

Lateral No. 4C See Sht. No. 7

Install 1-4" Stub

Sta. 8+87.62 Const. MH 6 Type AA, Brick

Install 1-4" Stub

Install 2-4" Stubs

Sta. 11+00.00 Const. MH 7 Type AA, Brick

Interceptor See below

Sta 12+15.00 Const MH 8 Type BB, Brick

Interceptor No. 4

Identical Points

62° 40' 57"

64° 33' 24"

78° 10' 16"

180° 00"

Lateral No. 4D See Sht. No. 7

Sta. 2+42.50 Const. MH 1 Type A, Brick

Install 113.00 L.F. 18" DI Pipe

Lateral No. 4A See Sht. No. 6

Sta. 3+55.50 Const. MH 2 Type BB, Brick

Sta. 5+58.07 Const. MH 3 Type AA, Brick

Sta. 6+58.07 Const MH 4 Type CC, Brick

Sta. 7+51.06 Const. MH 5 Type BB, Brick

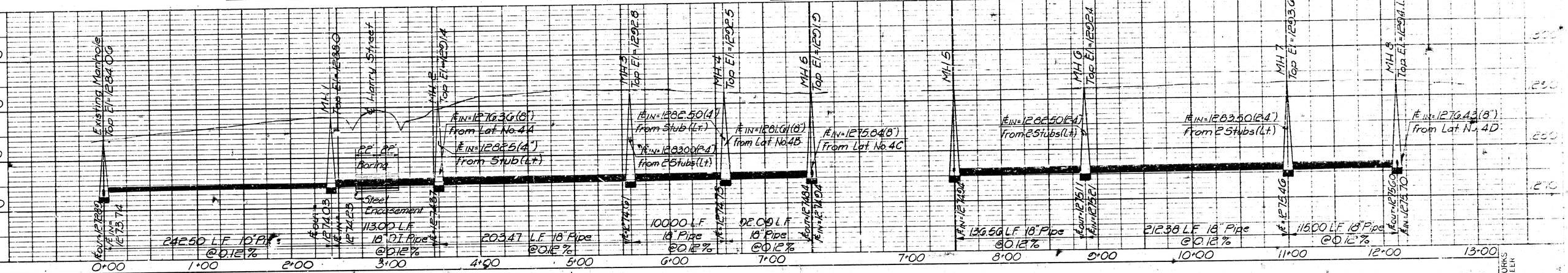
Lateral No. 4B See Sht. No. 6

Install 130.56 L.F. 18" Pipe

Install 212.38 L.F. 18" Pipe

Install 115.00 L.F. 18" Pipe

Note: All work required to break into Existing Manhole, install water stop, and regrouting water tight with nonshrink grout, shall be considered subsidiary to the installation of 10" Pipe.



Sta 12+15.00
MH 8

Install 192.85 L.F. 18" Pipe

Install 2-4" Stubs

Interceptor No. 4

78° 10' 15"

45° 00'

45° 00'

26° 25' 03"

Sta. 14+07.85 Const. MH 9 Type AA, Brick

Sta. 15+04.73 Const. M.H. 10 Type

Sta. 18+32.07 Const. M.H. 11 Type

Proposed Dam

Install 327.34 L.F. 18" D.I. Pipe

Install 1-8" Stub

Install 1-10" Stub

73° 53' 08"

12° 17' 10"

Lateral No. 4D See Sht. No. 7

Install 1-18" Stub End Project

To be constructed under separate project

Construct 327.34 L.F. Concrete Encasement See Specs.-Figure 2-1

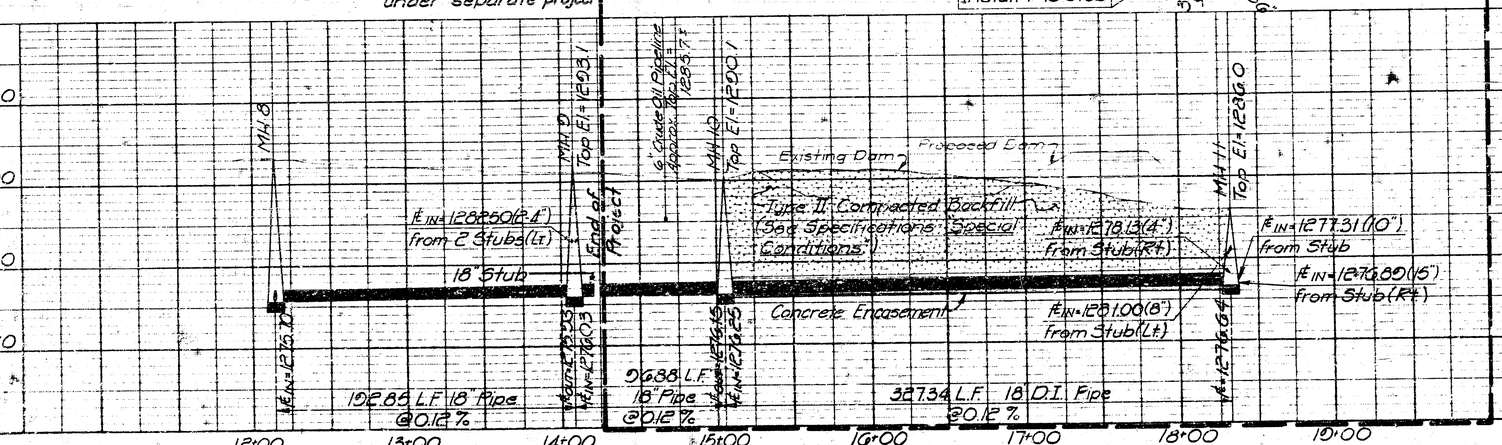
Install 1-4" Stub

Install 1-16" Stub

23° 13' 24"

30°00'

14° 48' 52"



Note

The contractor will be required to construct Brick manholes on the 18" line.

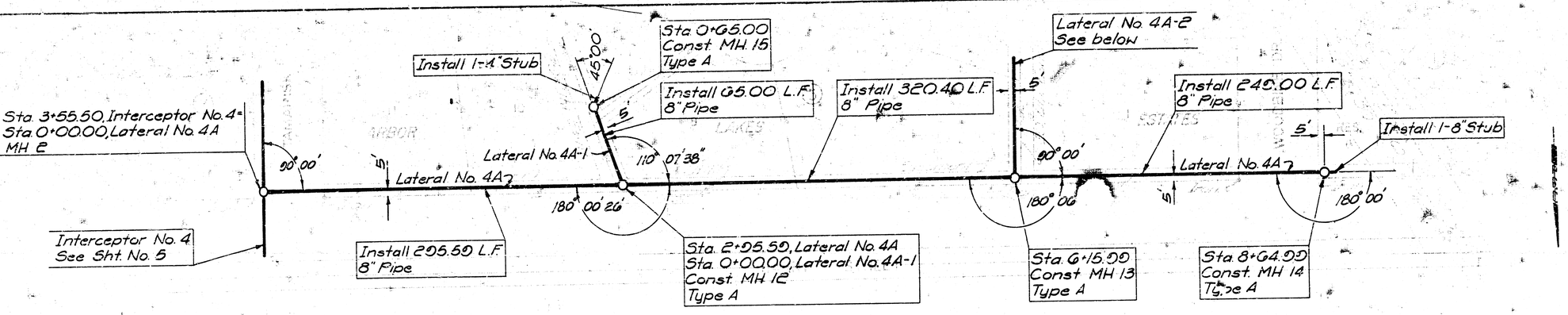
SCALE
TYPICAL ALL PLAN PROFILE SHEETS
PLAN: Lat. & Long. 0 50 100
PROFILE: Horiz. same as above
Vertical 10 5 0

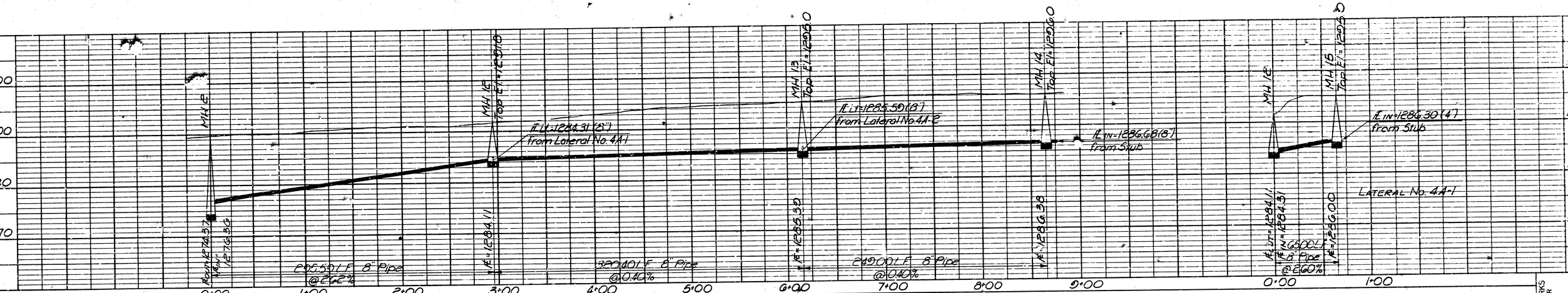
SEDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS
G.C. McGUIRE, JR., P.E. DIRECTOR & COUNTY ENGINEER

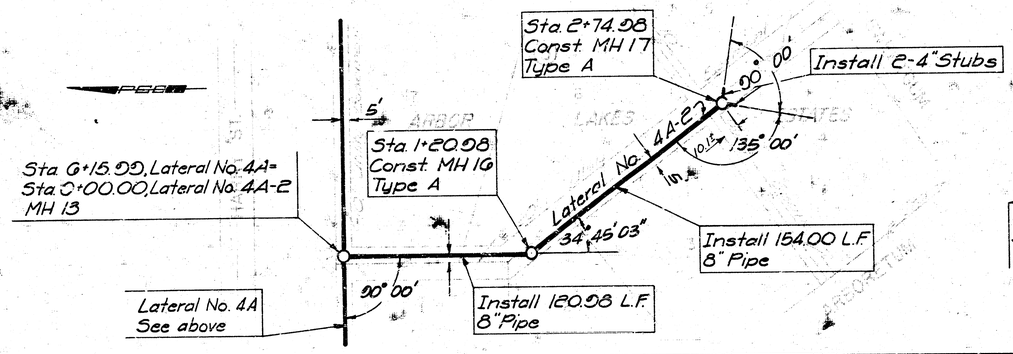
INTERCEPTOR NO. 4

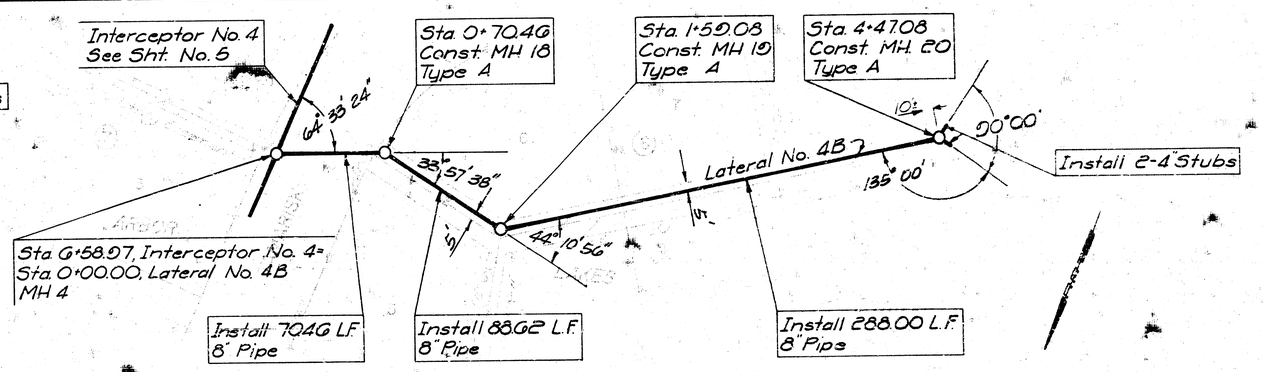
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
WICHITA, KANSAS

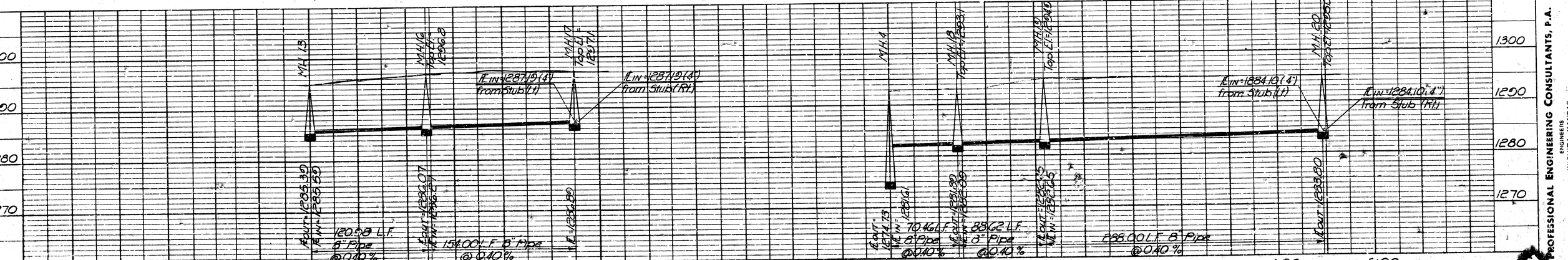
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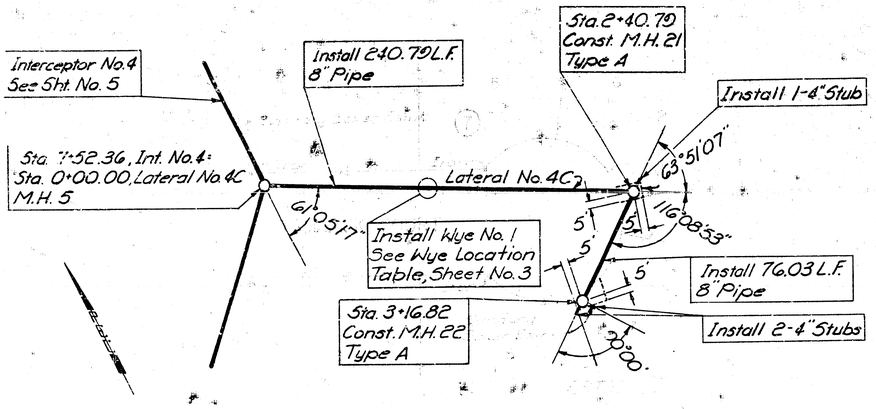
SEDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS
G.C. McCLURE, JR., P.E. DIRECTOR & COUNTY ENGINEER

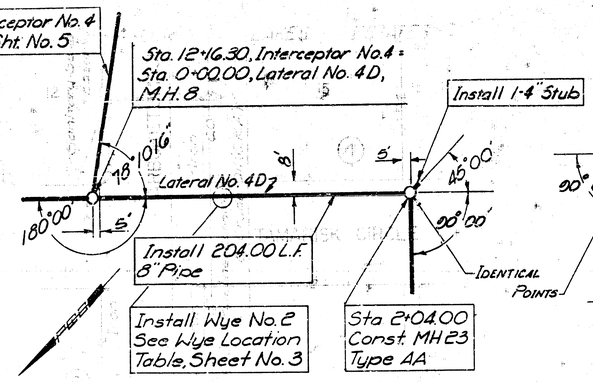
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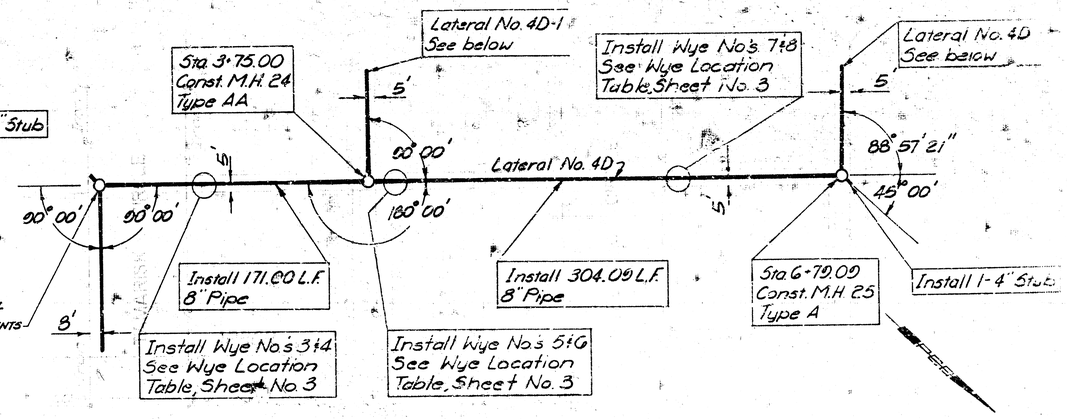
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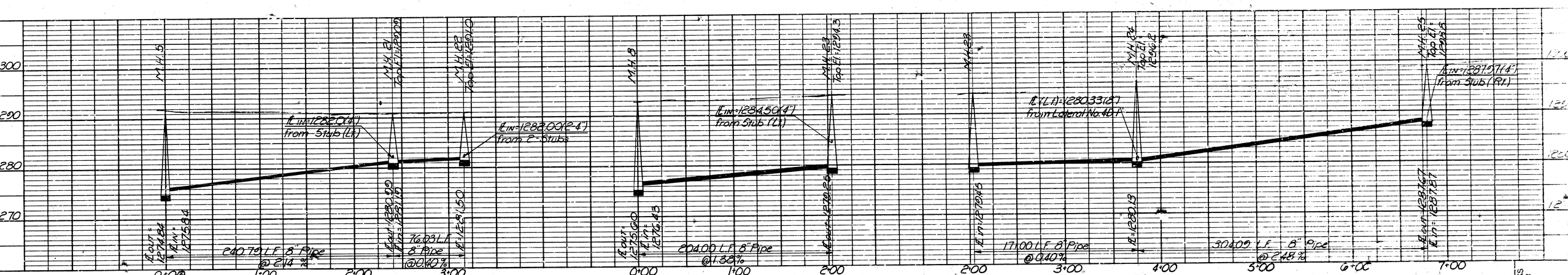
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

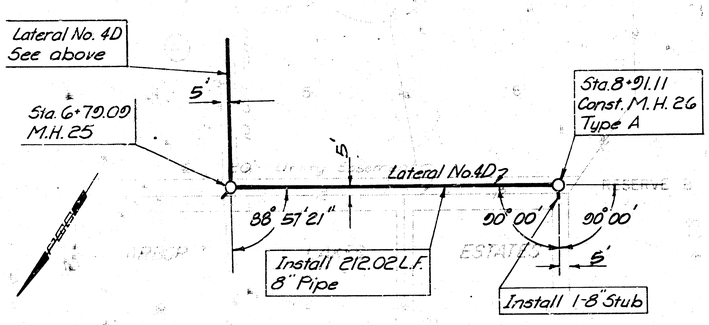
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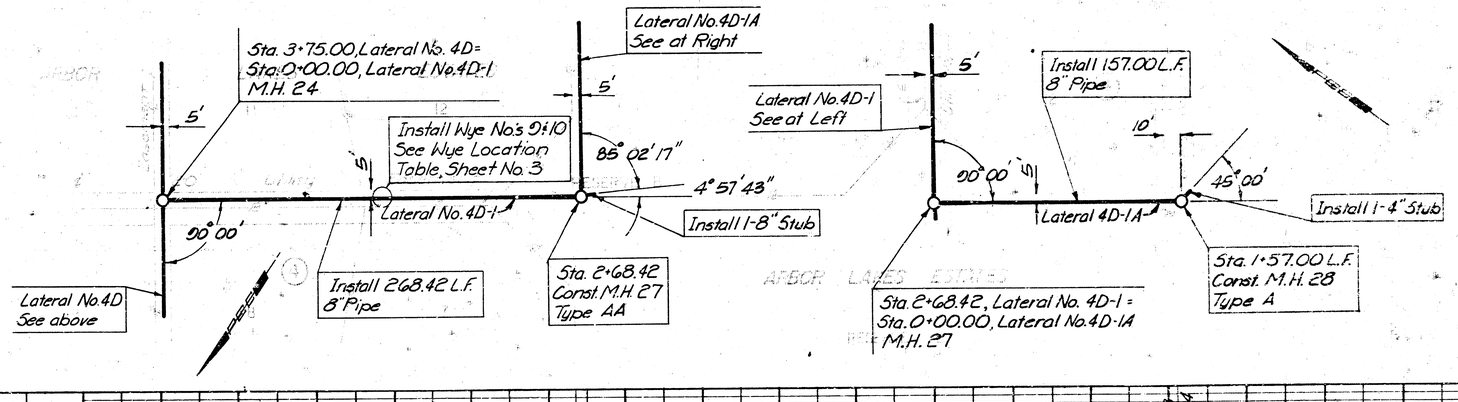


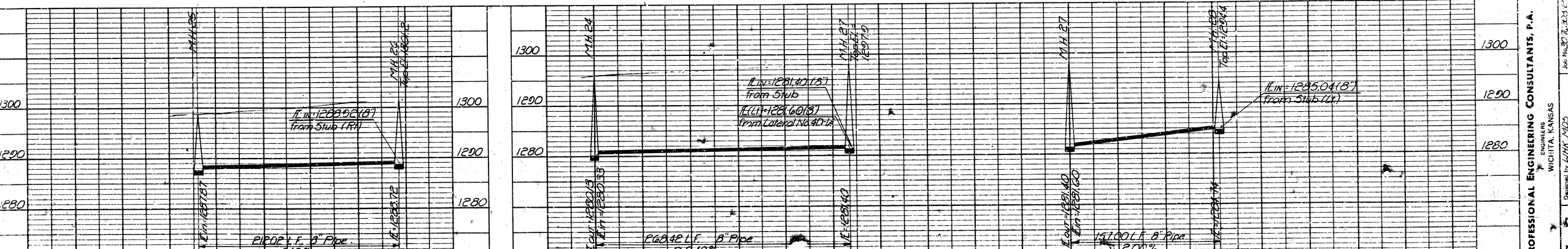












SEDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS
G.C. McLURE, JR., P.E. DIRECTOR & COUNTY ENGINEER

LATERAL NO.'s 4C, 4D, 4D-1, & 4D-1A

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

Designed by LHK, MDS
Drawn by RPT, TS
Job No. 30 7.3.3.2.2
Date 10/31/77

7 of 7