

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. Location information has been obtained from the various utility companies and is either from company record drawings or company-provided field locations. 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 permitting regulations. Any material buried or stockpiled beyond approved of Engineers construction limits would require additional archeological investigations unless buried in a previously approved borrow location.

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 proposed new construction shall be saved and protected from damage.

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.

Contractor will be required to provide a minimum advance notice of twenty-four (24) hours to utility companies prior to starting any excavation as follows:

Kansas One-Call	687-2470
The Contractor must notify the following in case of an emergency:	
Cablevision	262-4270 or 263-2061
K.G.&E. Gas	383-8650
K.G.&E. Electric	383-8600
Peoples Natural Gas Company	942-8350 or 263-8161
Southwestern Bell Telephone Company	1-571-2611
City of Wichita Water Department	268-4908
City of Wichita Sewer Maintenance	268-4071

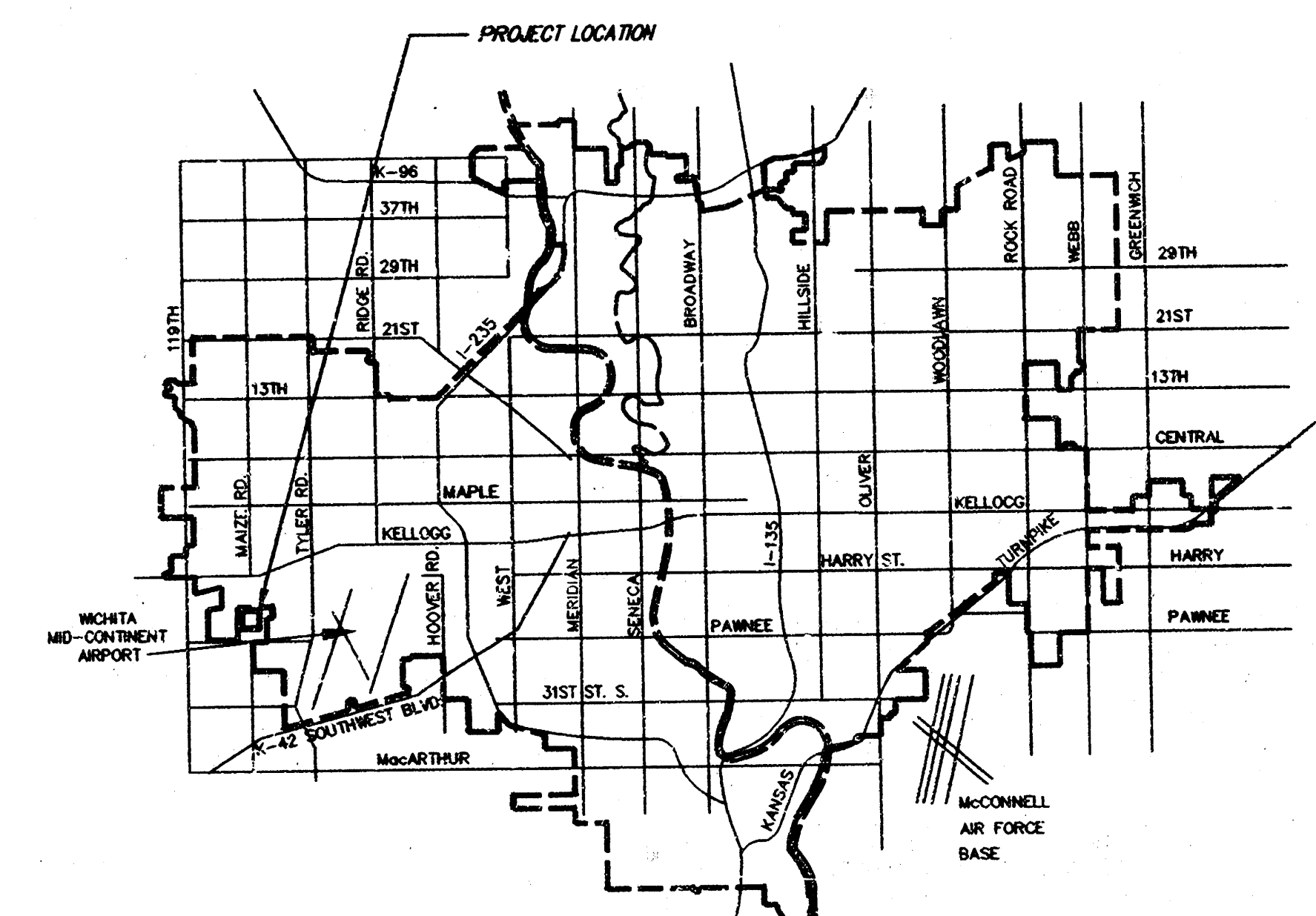
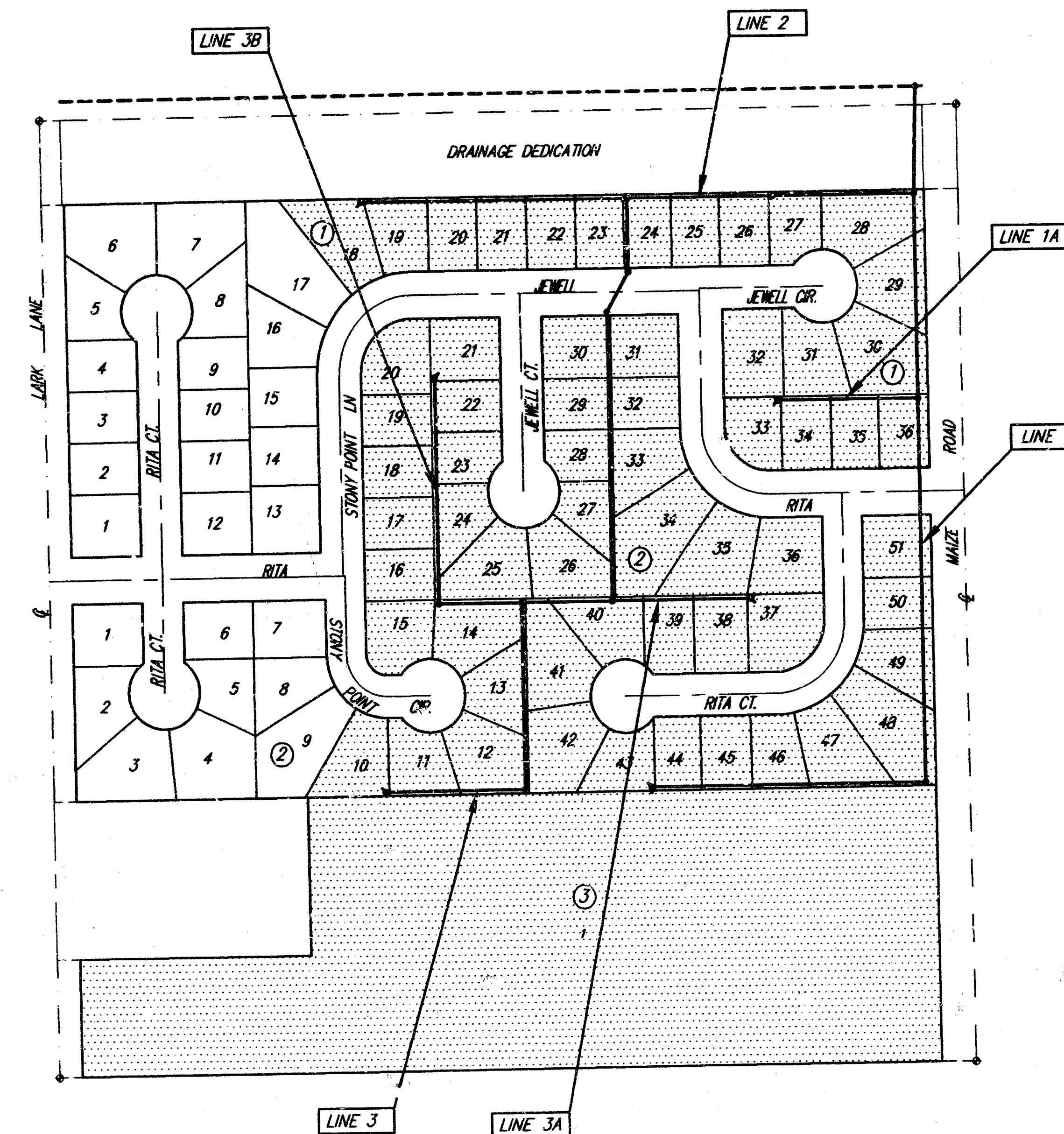
PHASE 2 SANITARY SEWER IMPROVEMENTS LINDSAY'S ORCHARD ADDITION LATERAL 422, S.W.I. PROJECT NO. 468-82943 INDEX CODE 743791

BENCH MARKS

BM #1 - COW BENCH MARK, NORTH END, WEST HEADWALL
R2BC UNDER LARK LANE, 1/2 MILE NORTH OF
PAWNEE
ELEV. = 139.20

INDEX OF SHEETS

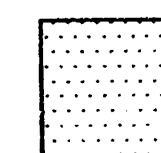
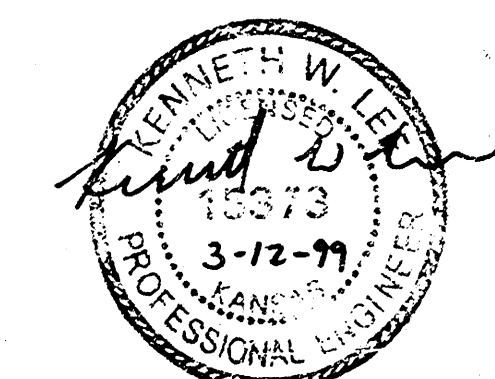
1. TITLE SHEET
2. TYPE P MANHOLE DETAILS
3. MANHOLE RING AND COVER
4. SERVICE RISER DETAILS
- 5-10. PLAN AND PROFILE
11. EASEMENT GRADING PLAN
12. EASEMENT GRADING EARTHWORK SUMMARY
13. PLAT COPY



VICINITY MAP

As-built Plans: 07/22/99

Booked
P. 95
R.O.C.
9-13-99

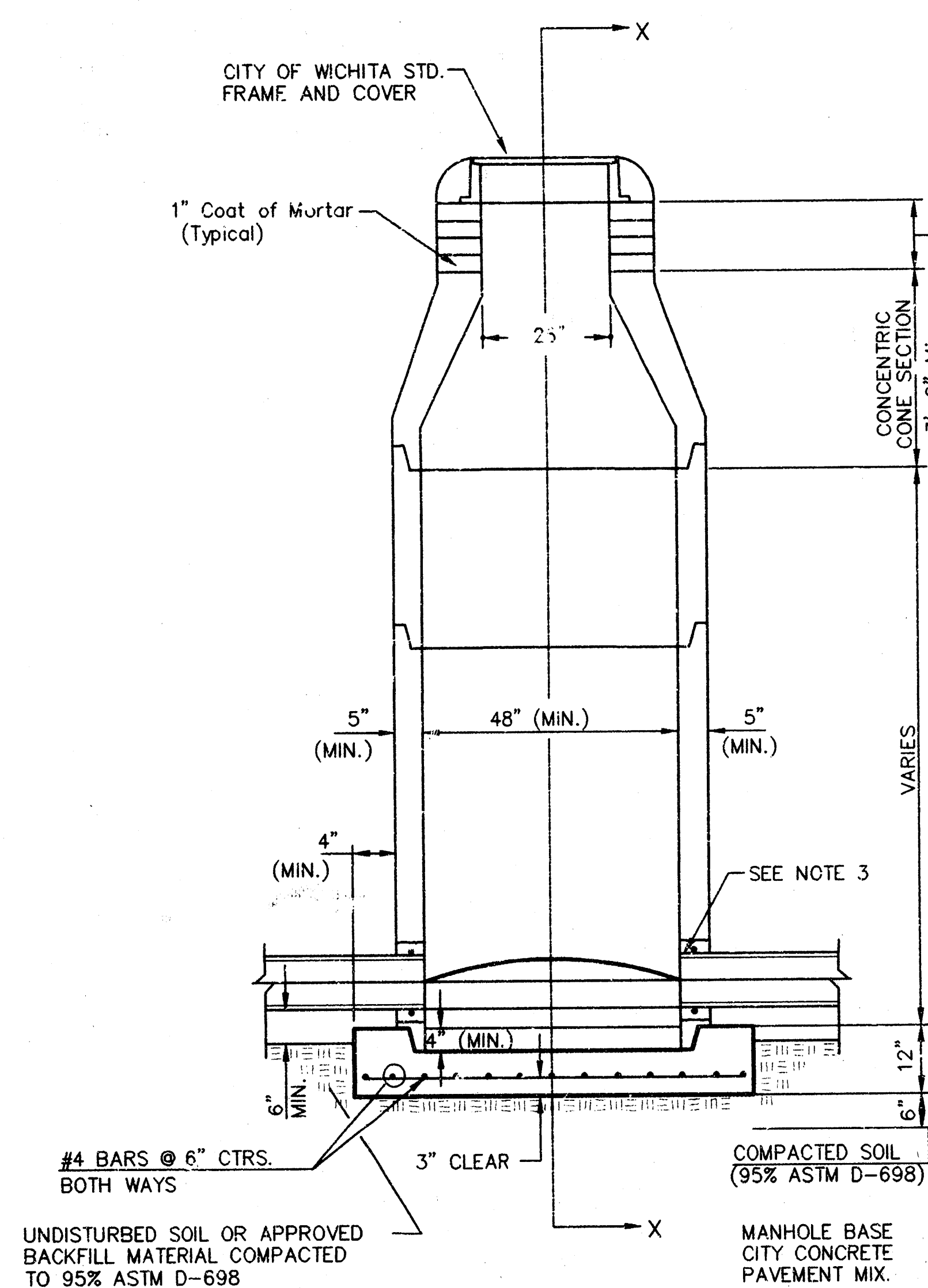


IMPROVEMENT DISTRICT

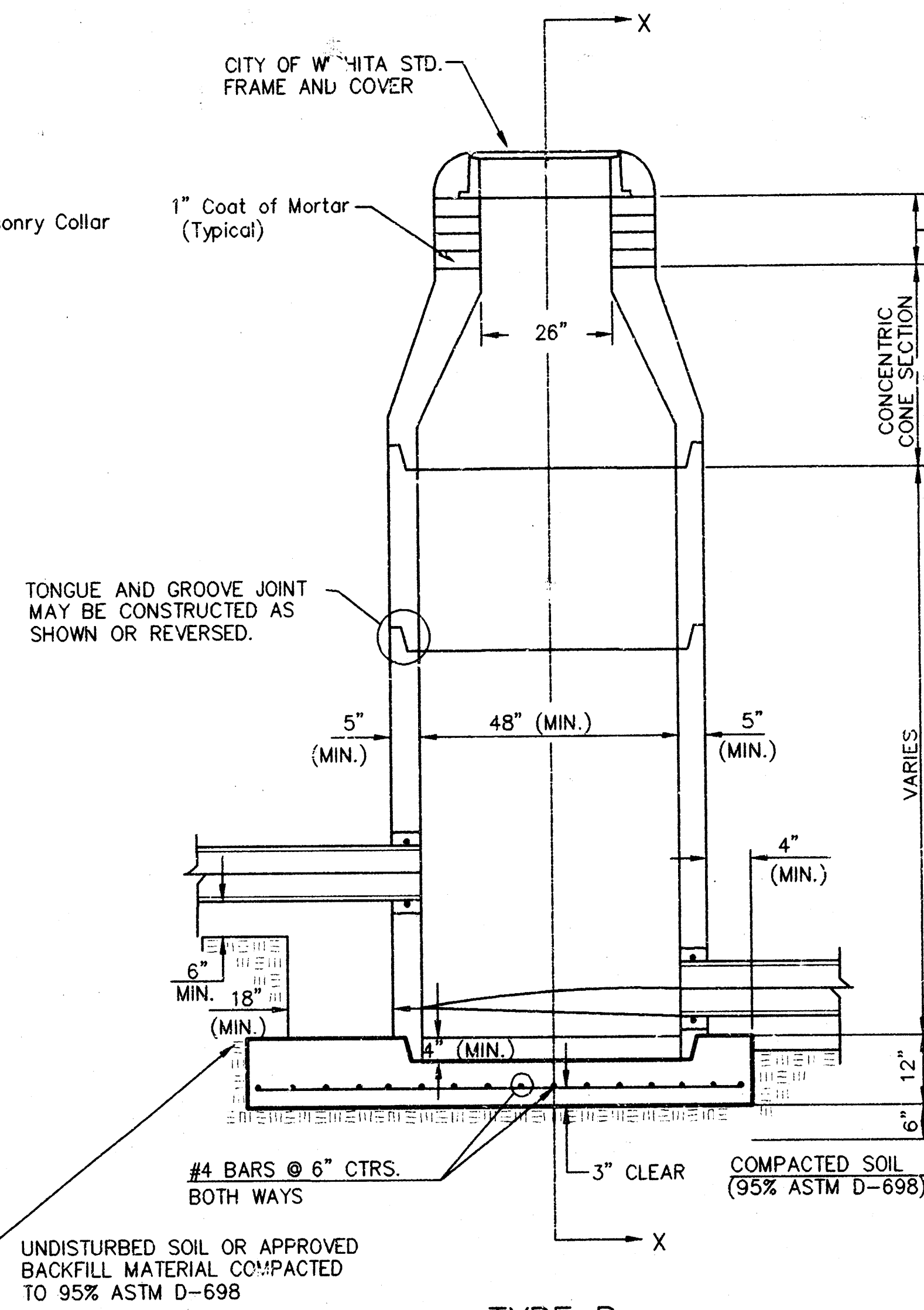
CITY OF WICHITA, KANSAS
MICHAEL E. LINDEBAK, P.E. - CITY ENGINEER

SRB 924 NORTH MAIN 316-264-8008
WICHITA, KANSAS 67203 FAX 316-264-4621
SAVOY, RUGGLES & BOHM, P.A.
ENGINEERING & SURVEYING

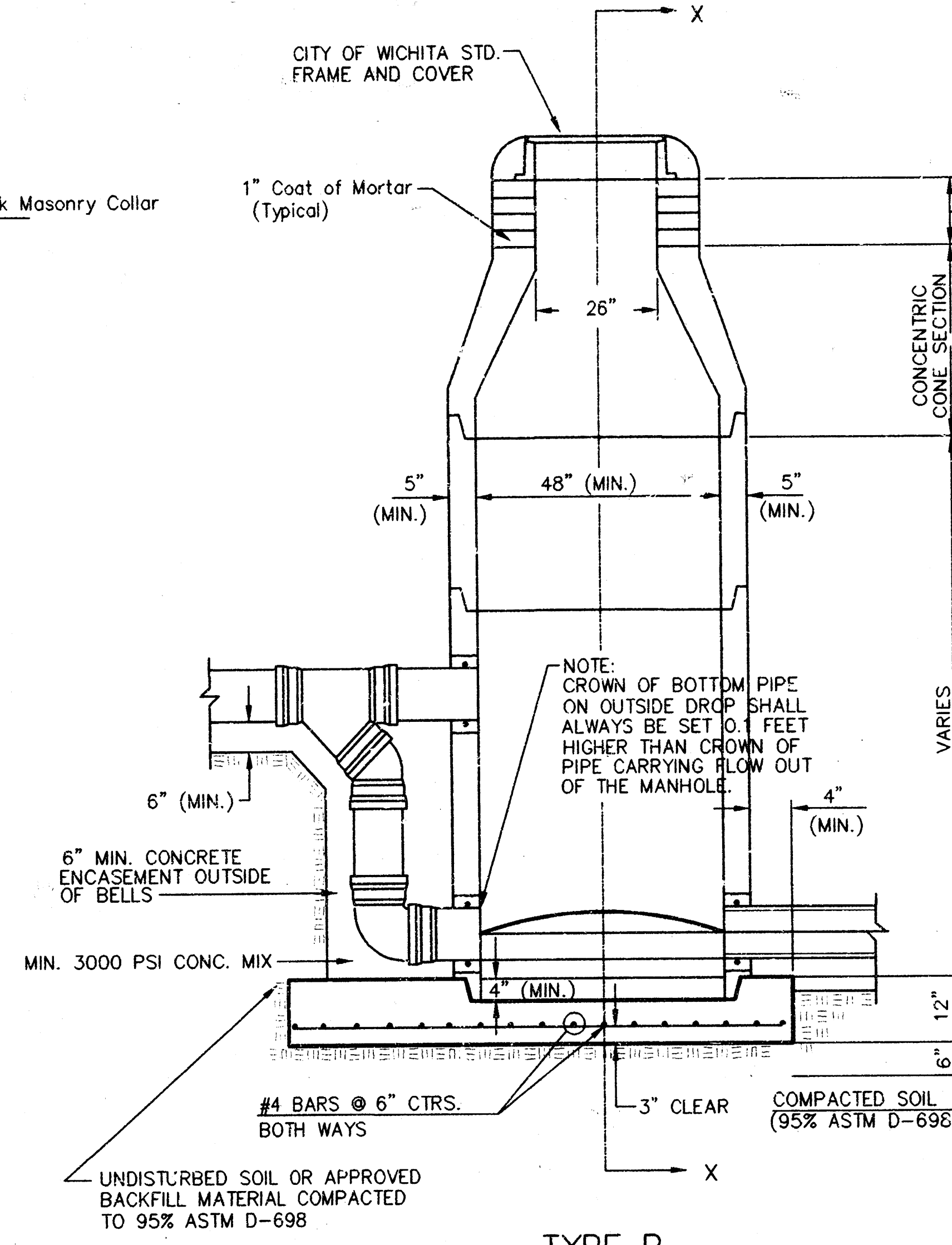
SEWER APPURTENANCES DETAILS



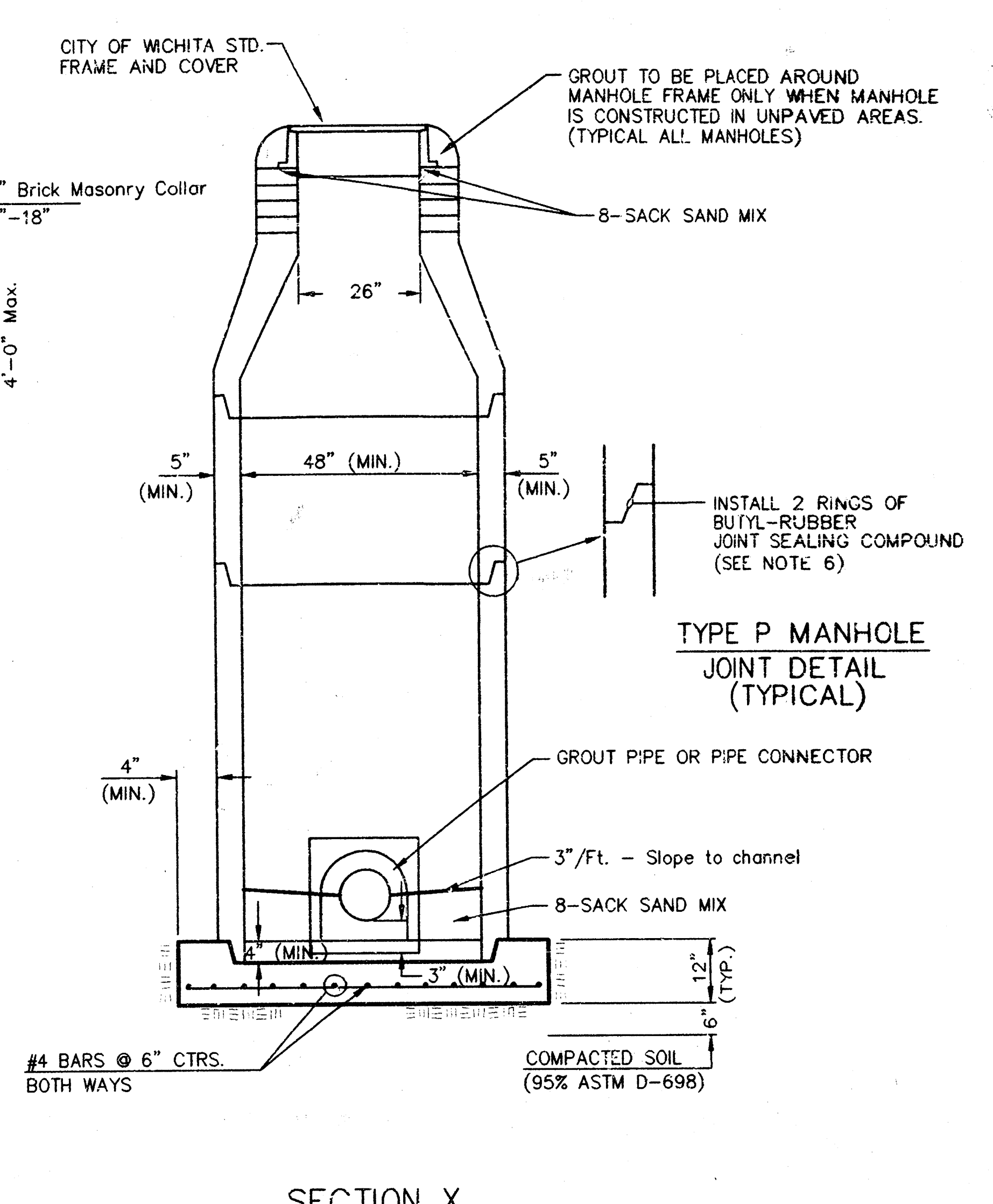
TYPE P
STANDARD MANHOLE



TYPE P
INSIDE DROP MANHOLE



TYPE P
OUTSIDE DROP MANHOLE



SECTION X
(TYPICAL)

GENERAL NOTES PRECAST MANHOLE NOTES

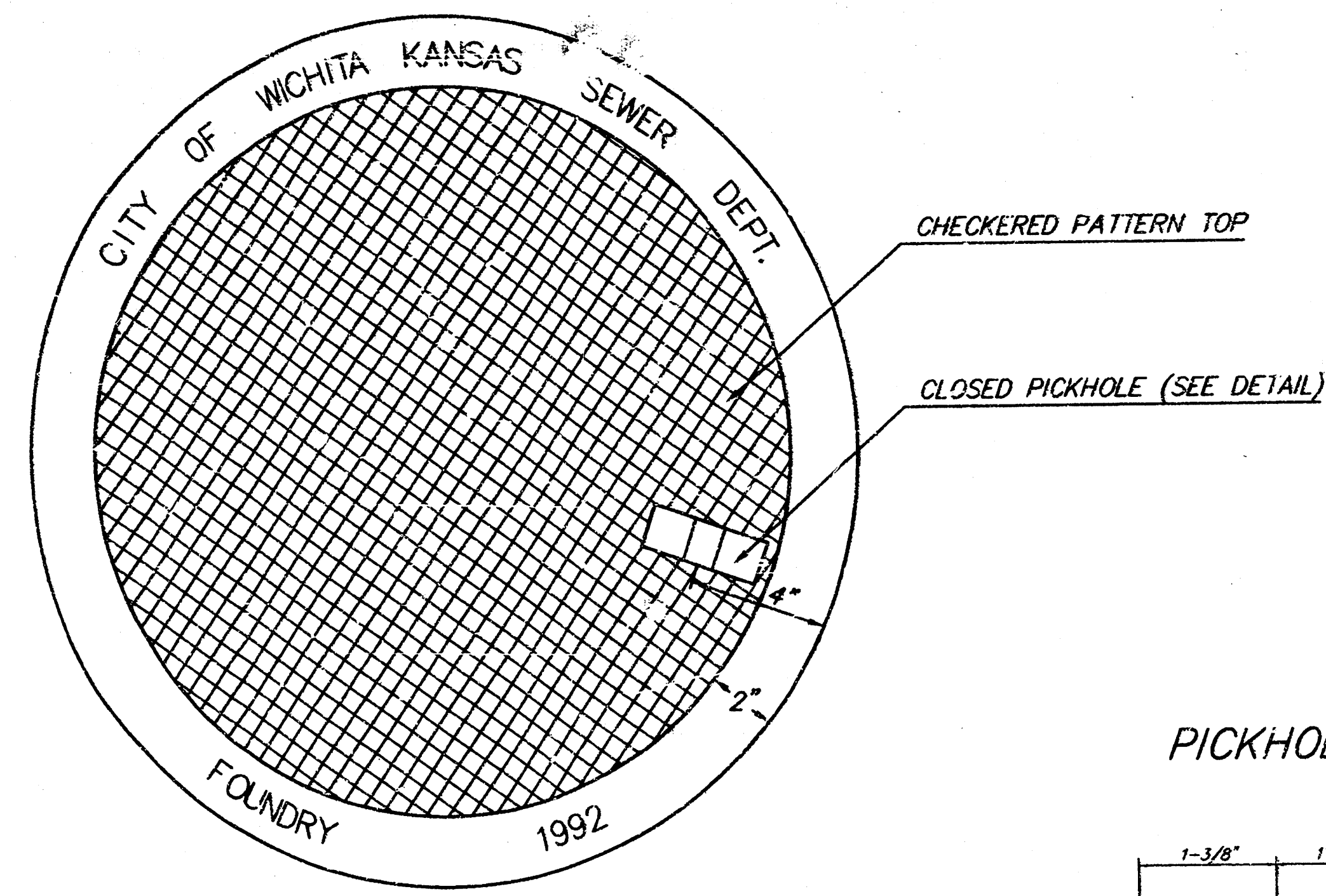
- ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISIONS OF A.S.T.M. C478 AS MODIFIED BY THE SPECIFICATIONS.
- NON-SHRINK GROUT SHALL BE NON-METALLIC TYPE.
- APPROVED FLEXIBLE WATERSTOP GASKETS SHALL BE INSTALLED TO JOIN THE SEWER TO THE MANHOLE WALL WHEN A.B.S. COMPOSITE PIPE OR 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 INMEC SERIES 66 HI-BUILD EPOXOLINE, 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 5" 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 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.
- PIPES INSTALLED WITHIN THE EXCAVATION MADE FOR THE MANHOLE SHALL BE GRADED WITH CONCRETE TO THE LIMITS OF THE MANHOLE EXCAVATION. WHEN CLAY PIPE IS USED, THE CRADLE SHALL EXTEND TO THE FIRST JOINT OUTSIDE THE MAHOLE. 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.

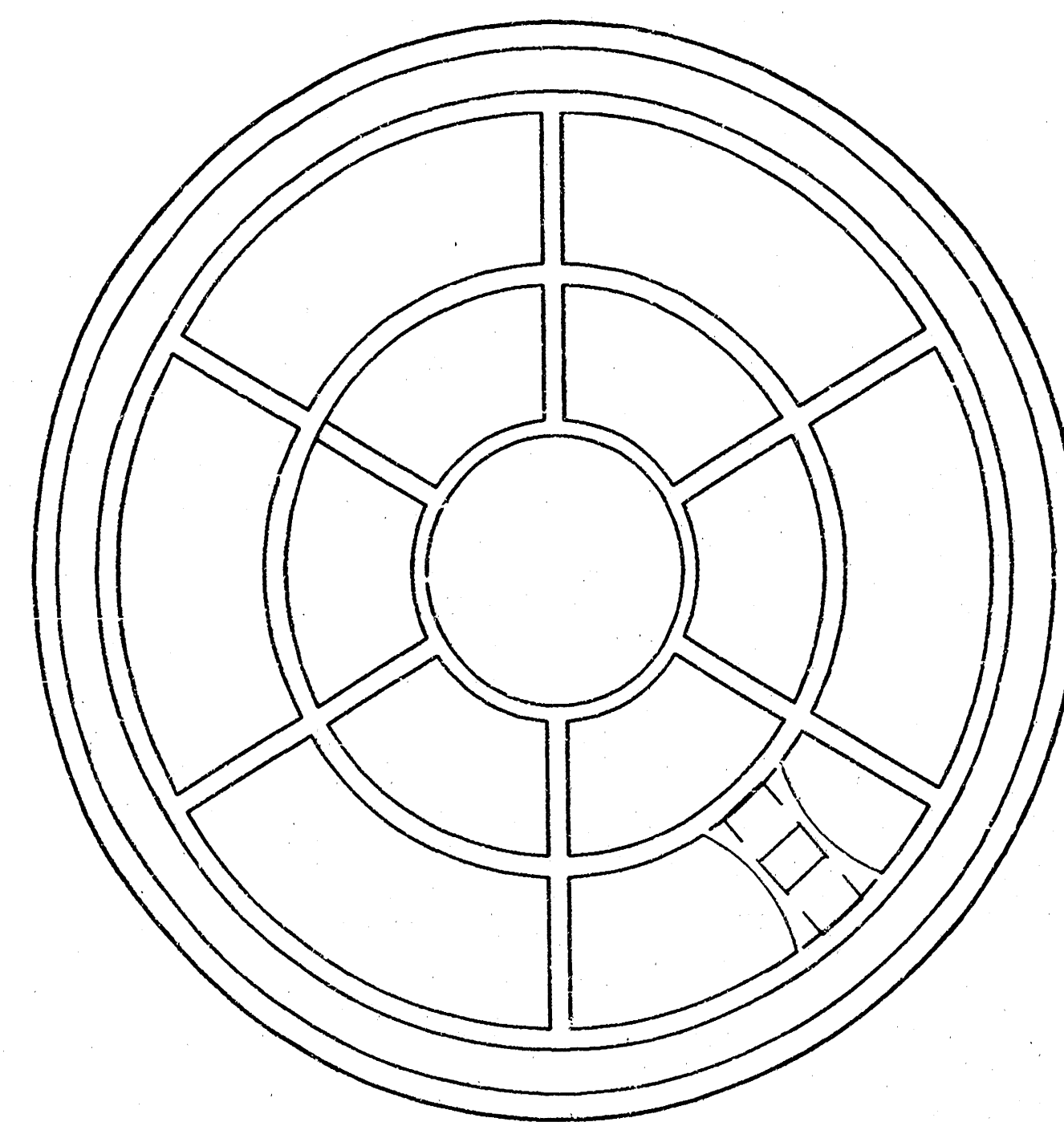
- MANHOLE COVER CASTINGS AND MANHOLE FRAME CASTINGS SHALL CONFORM TO THE REQUIREMENTS AS INDICATED IN THE STANDARD SPECIFICATIONS AND AS SHOWN IN THE STANDARD DETAIL DRAWING.
- THE VERTICAL DROP IN INSIDE DROP MANHOLES SHALL NOT EXCEED 2' FOR INFLOWING PIPES SIZED 12" OR SMALLER AND 2' FOR INFLOWING 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.

THE CITY OF WICHITA CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202 (316) 268-4700 (316) 268-4114 FAX	STANDARD TYPE 'P' MANHOLES	
	M. E. LINDEBAK P.E. - CITY ENGINEER	
	PROJECT NUMBER 468-82943	INDEX CODE 743791
	DATE MAR 96	SHEET 2 OF 13

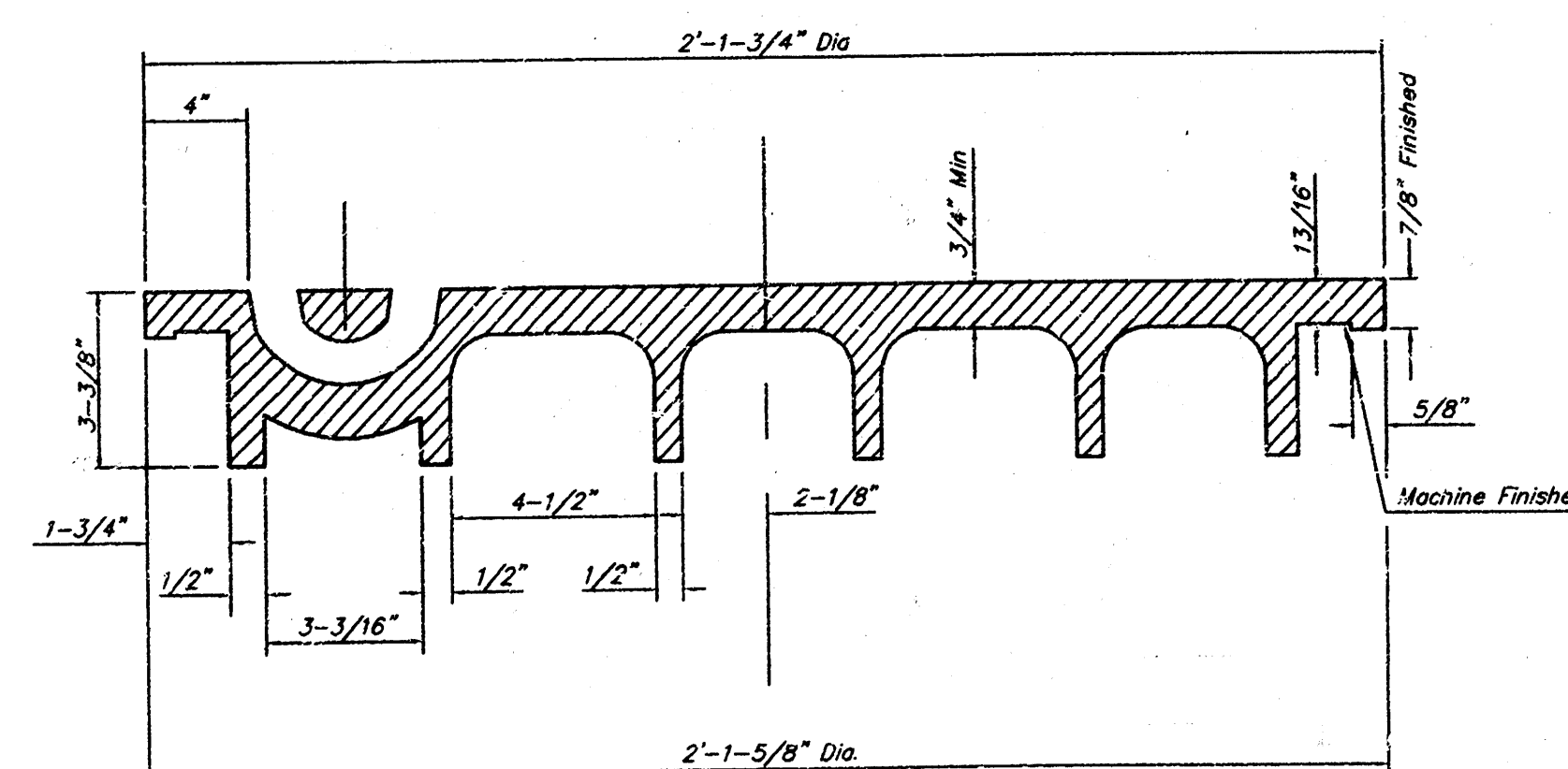
MANHOLE COVER
Weight = 180 Lbs.



TOP VIEW

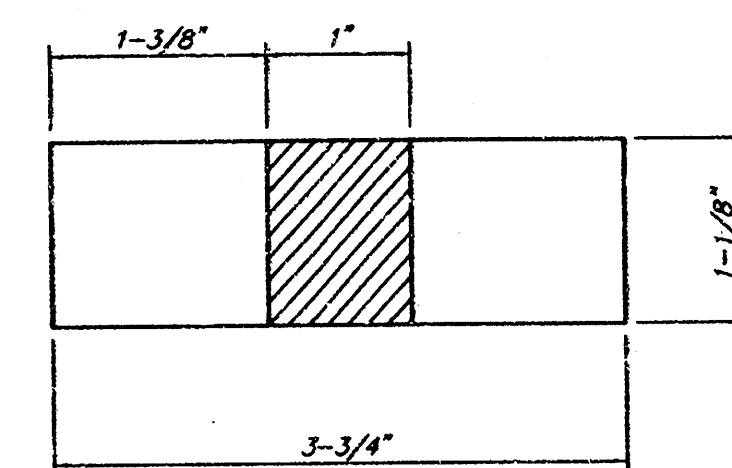


BOTTOM VIEW

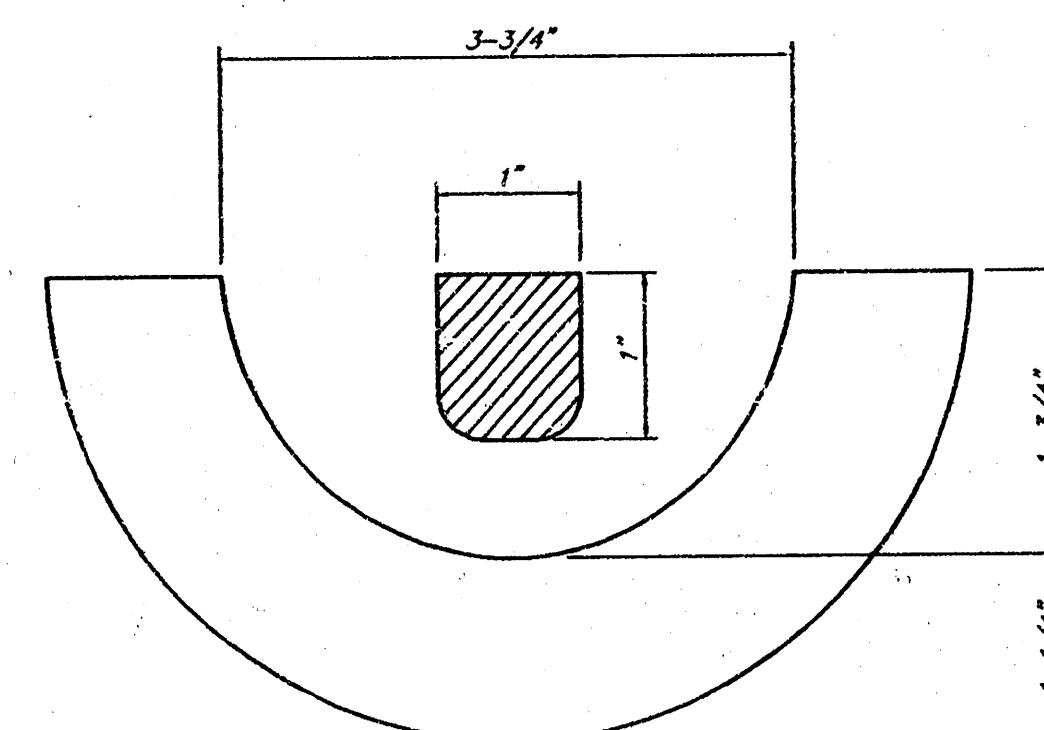


SECTION VIEW

PICKHOLE DETAIL



TOP VIEW

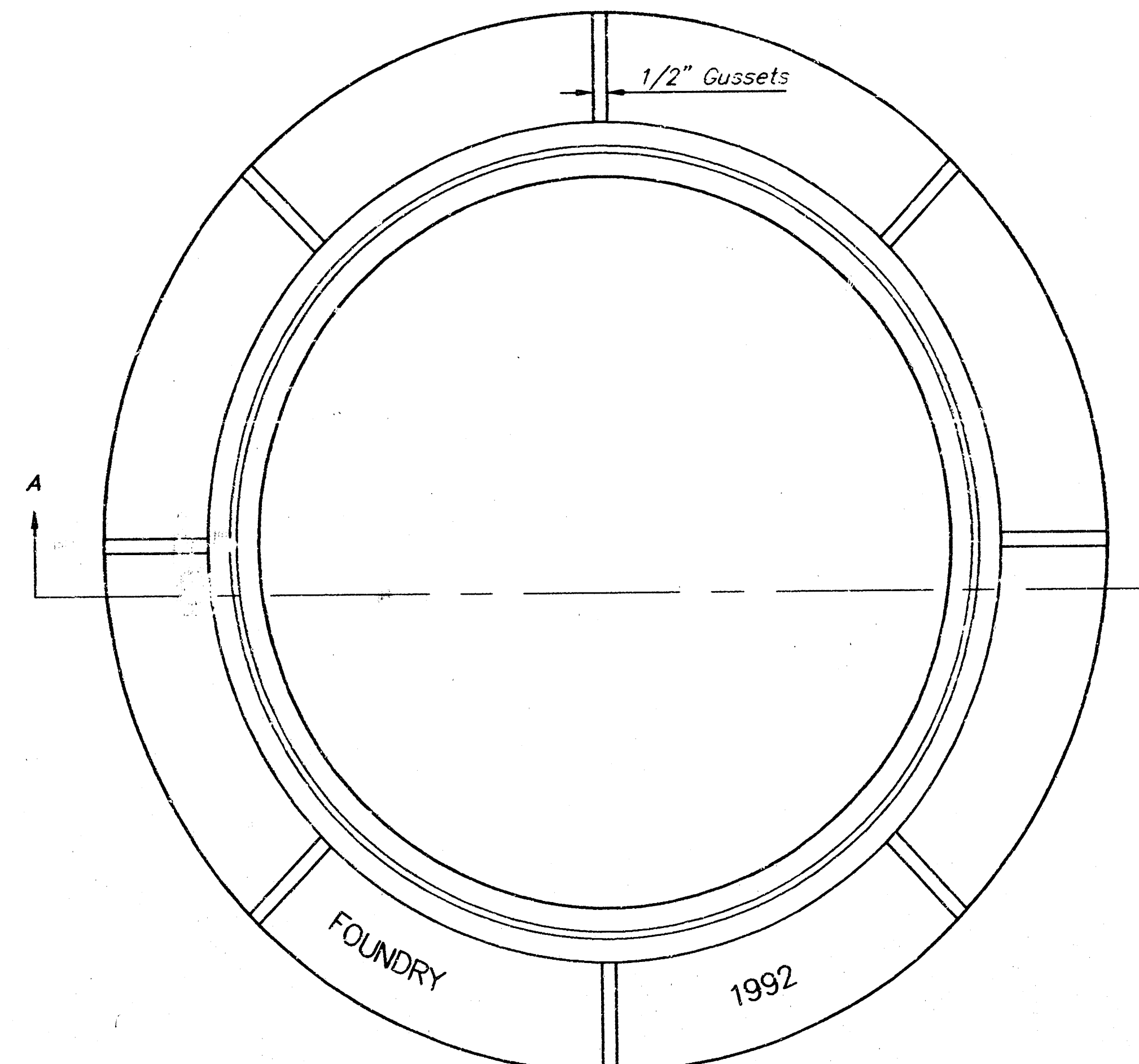


SECTION VIEW

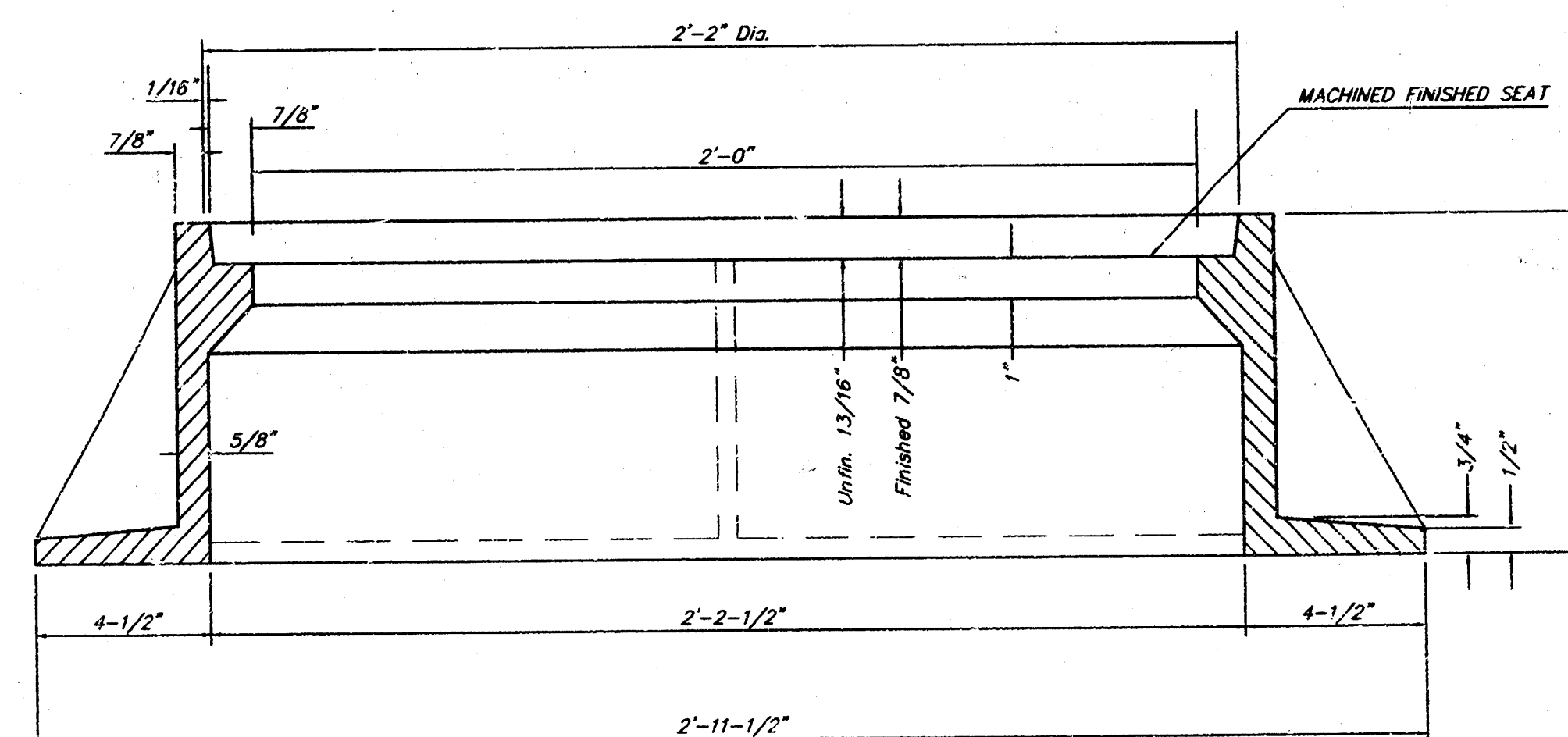
MANHOLE FRAME AND COVER DETAIL

ADOPTED AS STANDARD DESIGN BY
CITY OF WICHITA, KANSAS

MANHOLE FRAME
Weight = 240 Lbs.



TOP VIEW



SECTION A-A

GENERAL NOTES

MANHOLE CASTINGS SHALL BE MANUFACTURED USING GOOD QUALITY GRAY IRON CONFORMING TO CLASS 30 OF A.S.T.M. DESIGNATION A-48. DIMENSIONS AND WEIGHTS SHOWN ON THE DETAILED DRAWINGS SHALL BE CONSIDERED AS MINIMUM REQUIREMENTS AND ANY DEVIATIONS FROM THE DIMENSIONS SHOWN MUST BE SPECIFICALLY APPROVED. THE FINISHED CASTINGS SHALL BE OF UNIFORM QUALITY, FREE FROM BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE DISTORTIONS OR OTHER DEFECTS.

MANHOLE CASTINGS SHALL BE COATED WITH AN ASPHALT PAINT RESULTING IN A SMOOTH, TOUGH AND TENACIOUS COATING WHICH IS NOT BRITTLE OR TACKY.

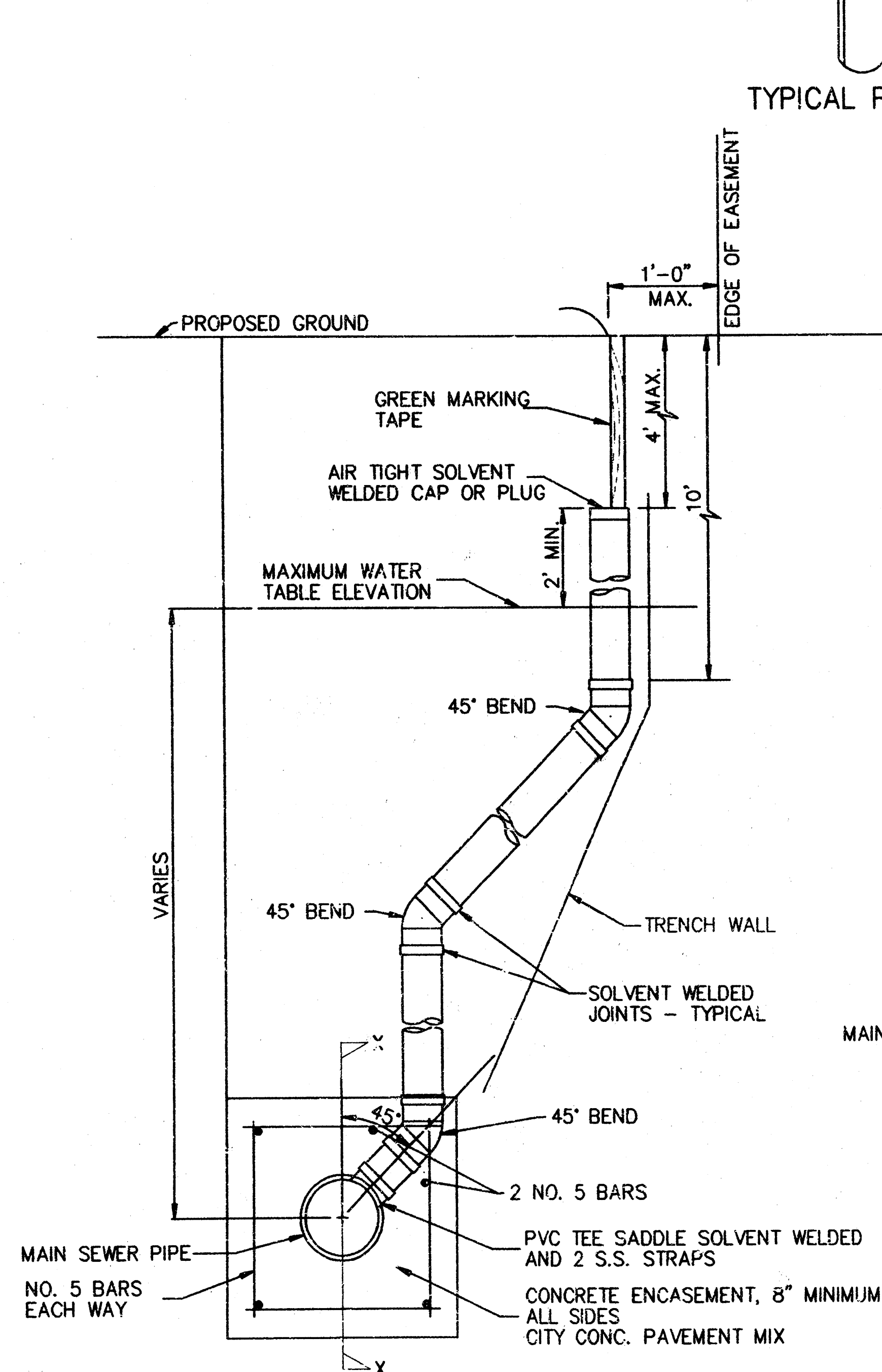
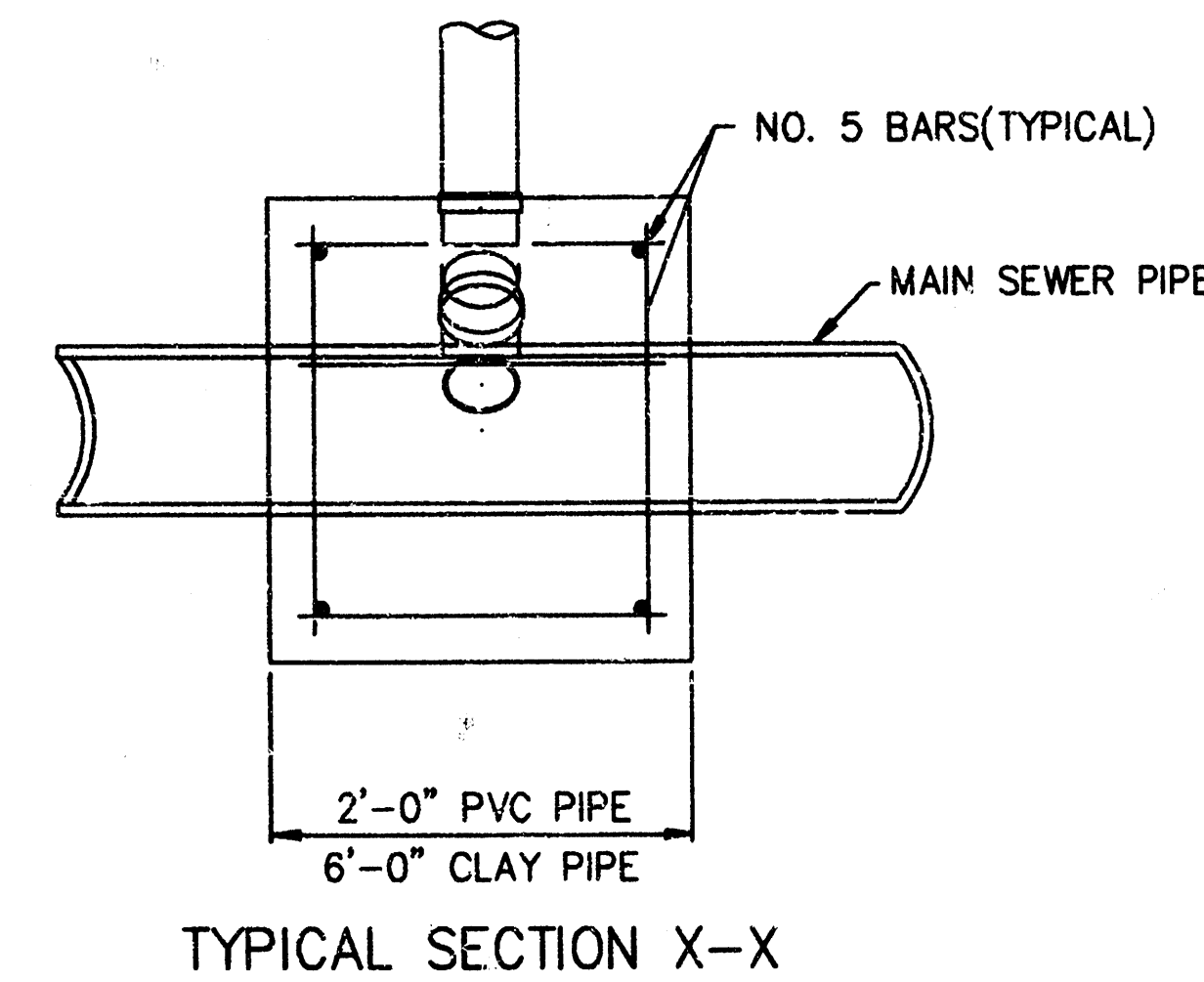
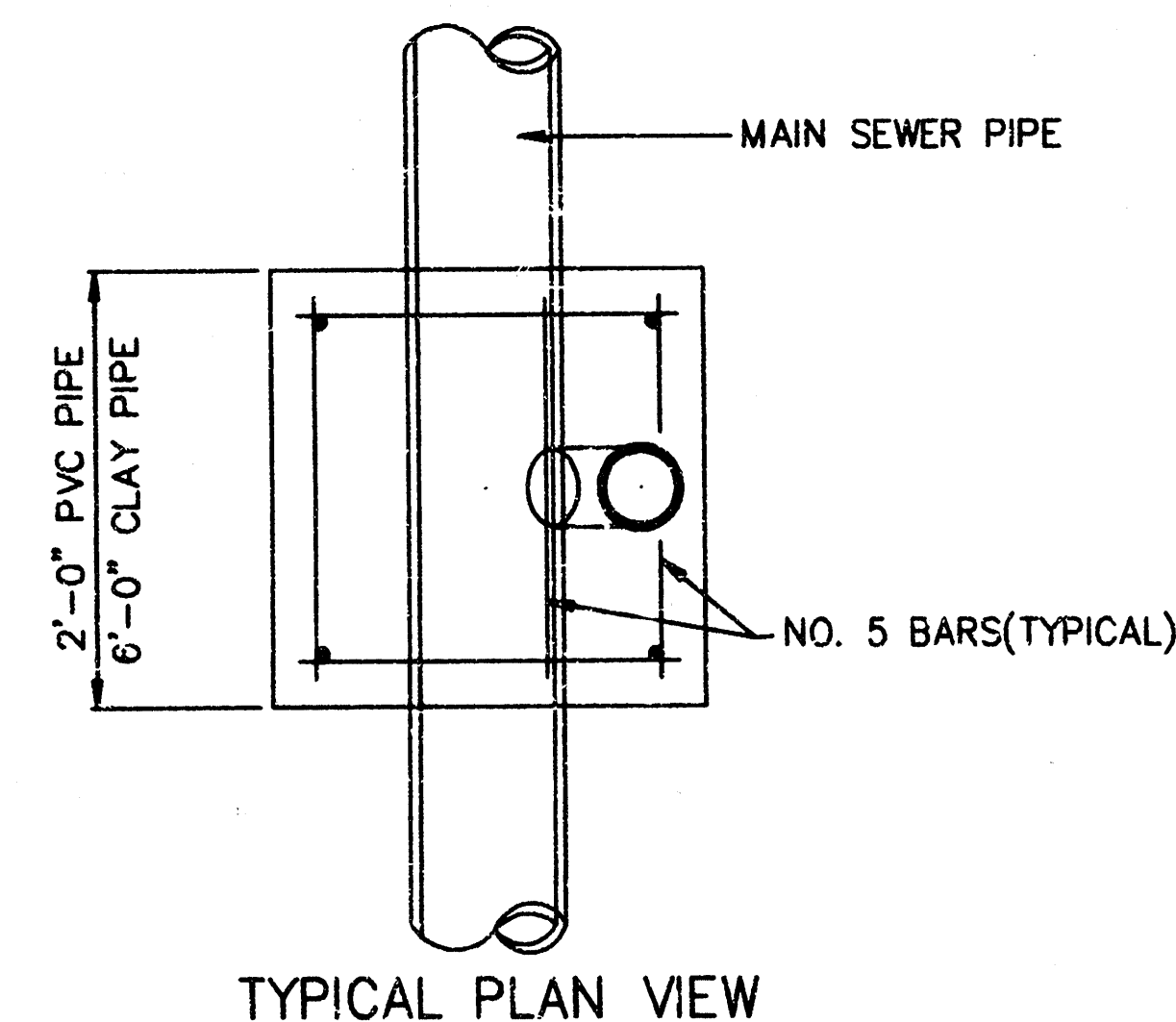
MANHOLE CASTINGS SHALL BE MANUFACTURED SUCH THAT A COVER MANUFACTURED BY ANY ONE FOUNDRY WILL FIT INTERCHANGEABLY INTO A FRAME MANUFACTURED BY ANOTHER FOUNDRY AND STILL MEET ALLOWABLE CLEARANCES AND NON-ROCKING REQUIREMENTS. THIS WILL REQUIRE MANUFACTURING OF THE MATCHING FACES ON THE COVER AND THE FRAME TO CLOSE TOLERANCES.

THE OUTSIDE CIRCUMFERENCE OF THE VERTICAL FACE OF THE COVER AND THE INSIDE CIRCUMFERENCE OF THE VERTICAL FACE IN THE FRAME RECESS SHALL BE MANUFACTURED TO TOLERANCES SUCH THAT THE CLEARANCE BETWEEN THE COVER AND FRAME WILL NOT EXCEED 1/8" AT ANY POINT AROUND THE CIRCUMFERENCE OF THE COVER. THE SEATING SURFACES BETWEEN THE COVER AND FRAME SHALL BE MACHINED SUCH AS THESE SURFACES SHALL MAKE FULL CONTACT FOR THEIR FULL CIRCUMFERENCE TO PRECLUDE THE COVER FROM ROCKING IN THE FRAME.

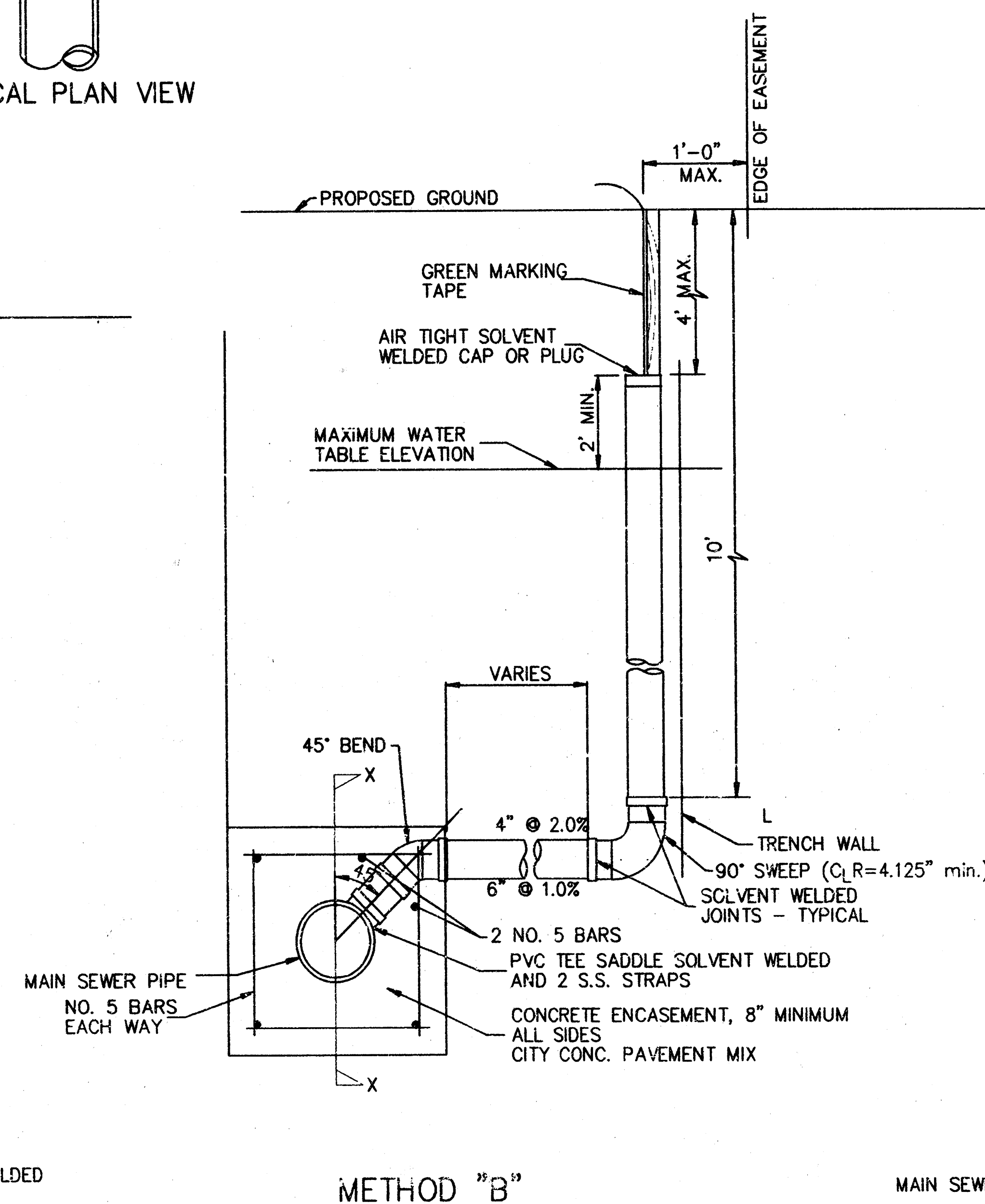
THE MANHOLE FRAME AND COVER SHALL BE MARKED WITH LETTERING INDICATING THE NAME OF THE MANUFACTURER AND THE YEAR WHEN THE COVER OR FRAME WAS CAST. THE COVER SHALL BE FURTHER IDENTIFIED WITH REGARDS TO OWNERSHIP USING LETTERS AT LEAST 1 INCH IN HEIGHT. THIS IDENTIFICATION SHALL BE "CITY OF WICHITA SEWER DEPARTMENT". THE WORD DEPARTMENT MAY BE ABBREVIATED. THE TEXTURE OF THE TOP SURFACE OF THE COVER SHALL BE MANUFACTURED IN A CHECKERED PATTERN DESIGN AS INDICATED ON THE DRAWINGS. SMOOTH BLOCKOUTS SHALL BE UTILIZED TO HIGHLIGHT THE LETTERING ON THE COVER SURFACE. THE TOTAL AREA OF SMOOTH SURFACE BLOCKOUT SHALL NOT EXCEED THE AREA AS INDICATED ON THE DRAWING. POSITIONING OF SMOOTH BLOCKOUTS AND LETTERING MAY VARY FROM THAT SHOWN ON THE DETAILED DRAWING.

THE CITY OF WICHITA CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 405 NORTH MAIN STREET WICHITA, KANSAS 67202 (316) 268-4800 (316) 268-4114 FAX	MANHOLE FRAME AND COVER	
	M. E. LINDEBAK P.E. - CITY ENGINEER	
	PROJECT NUMBER 468-82943	INDEX CODE 743791
	DATE MAR 96	SHEET 3 OF 13

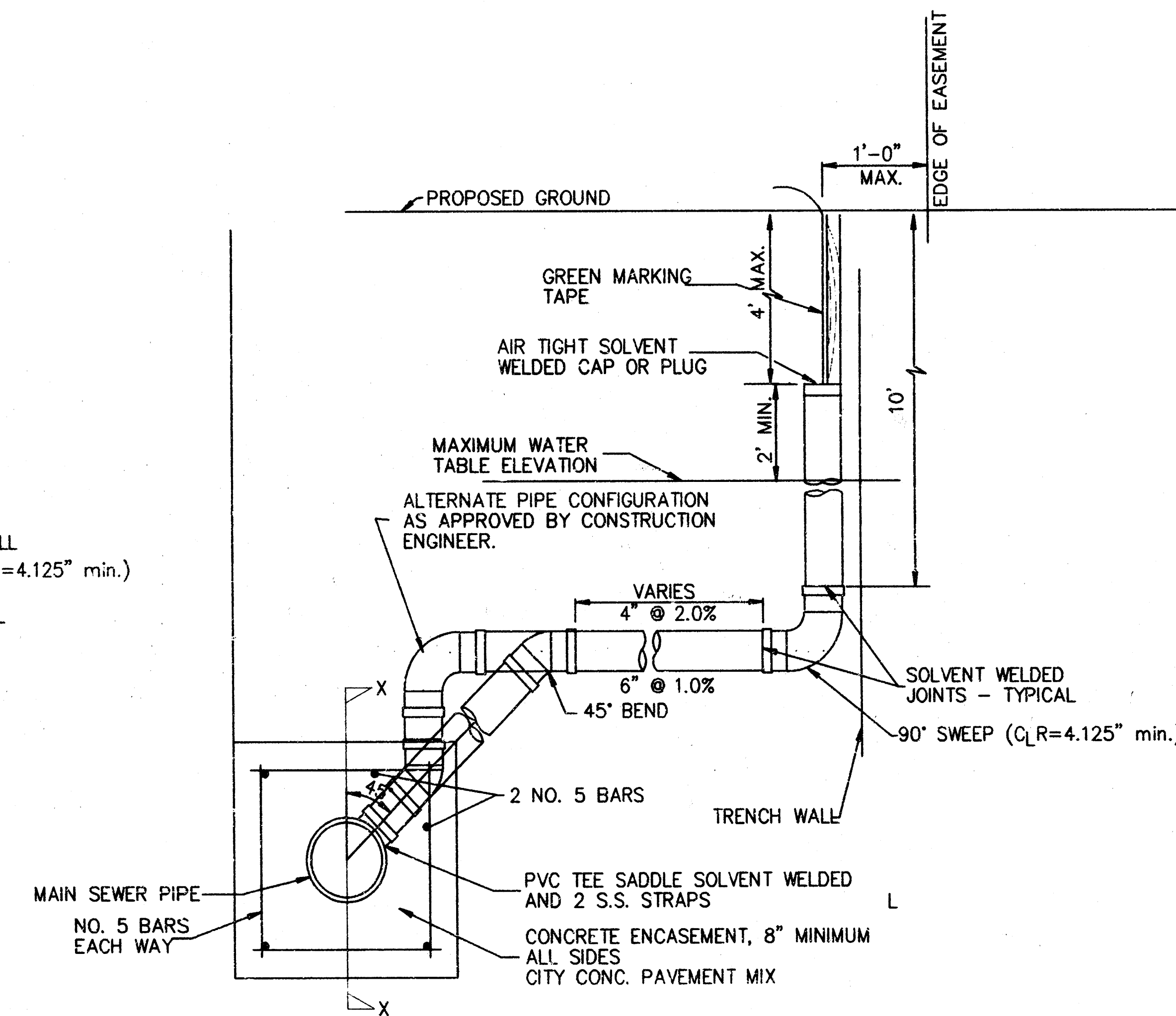
VERTICAL RISER DETAILS ADOPTED AS STANDARD DESIGN BY CITY OF WICHITA, KANSAS OCTOBER 1992



METHOD "A"



METHOD "B"



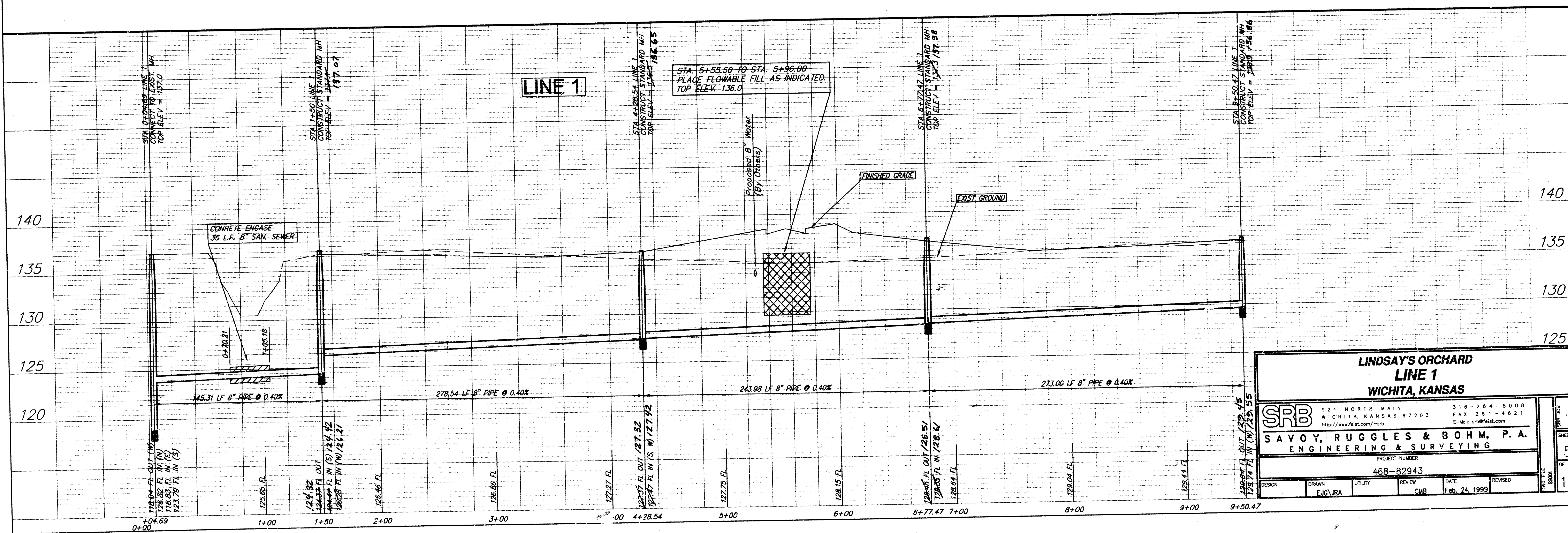
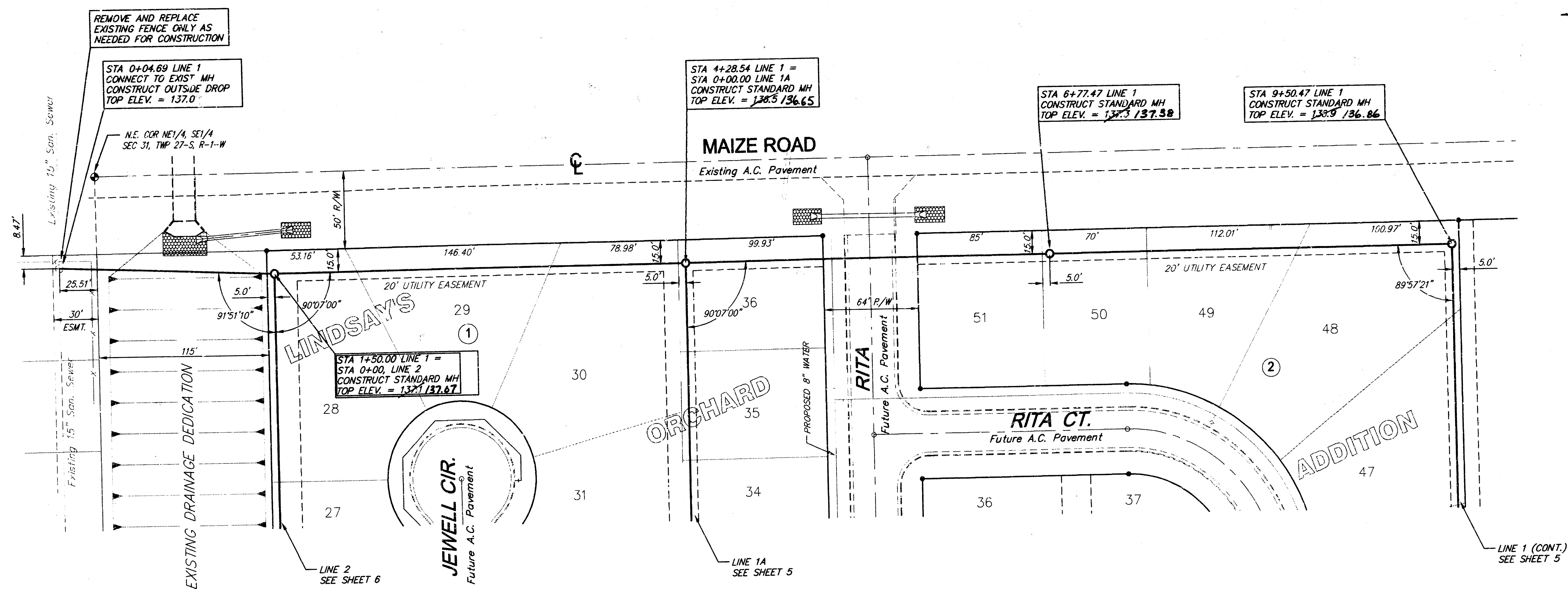
METHOD "C"

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 and 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 SDR 35 PVC Pipe or Schedule 40 PVC Pipe, meeting the requirements of the latest revision of A.S.T.M. All pipe joints shall be solvent welded.
5. REINFORCED CONCRETE ENCASUREMENT. 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 from 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".

THE CITY OF WICHITA  CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202 (316) 268-4500 (316) 268-4114 FAX		VERTICAL RISER DETAIL M. E. LINDEBAK P.E. - CITY ENGINEER <table border="1"> <tr> <td>PROJECT NUMBER</td> <td>INDEX CODE</td> </tr> <tr> <td>468-82943</td> <td>743791</td> </tr> <tr> <td>DATE</td> <td>SHEET 4 OF 13</td> </tr> <tr> <td>MAR 96</td> <td></td> </tr> </table>		PROJECT NUMBER	INDEX CODE	468-82943	743791	DATE	SHEET 4 OF 13	MAR 96	
PROJECT NUMBER	INDEX CODE										
468-82943	743791										
DATE	SHEET 4 OF 13										
MAR 96											



**LINDSAY'S ORCHARD
LINE 1
WICHITA, KANSAS**

SRB
SAVOY, RUGGLES & BOHM, P. A.
ENGINEERING & SURVEYING

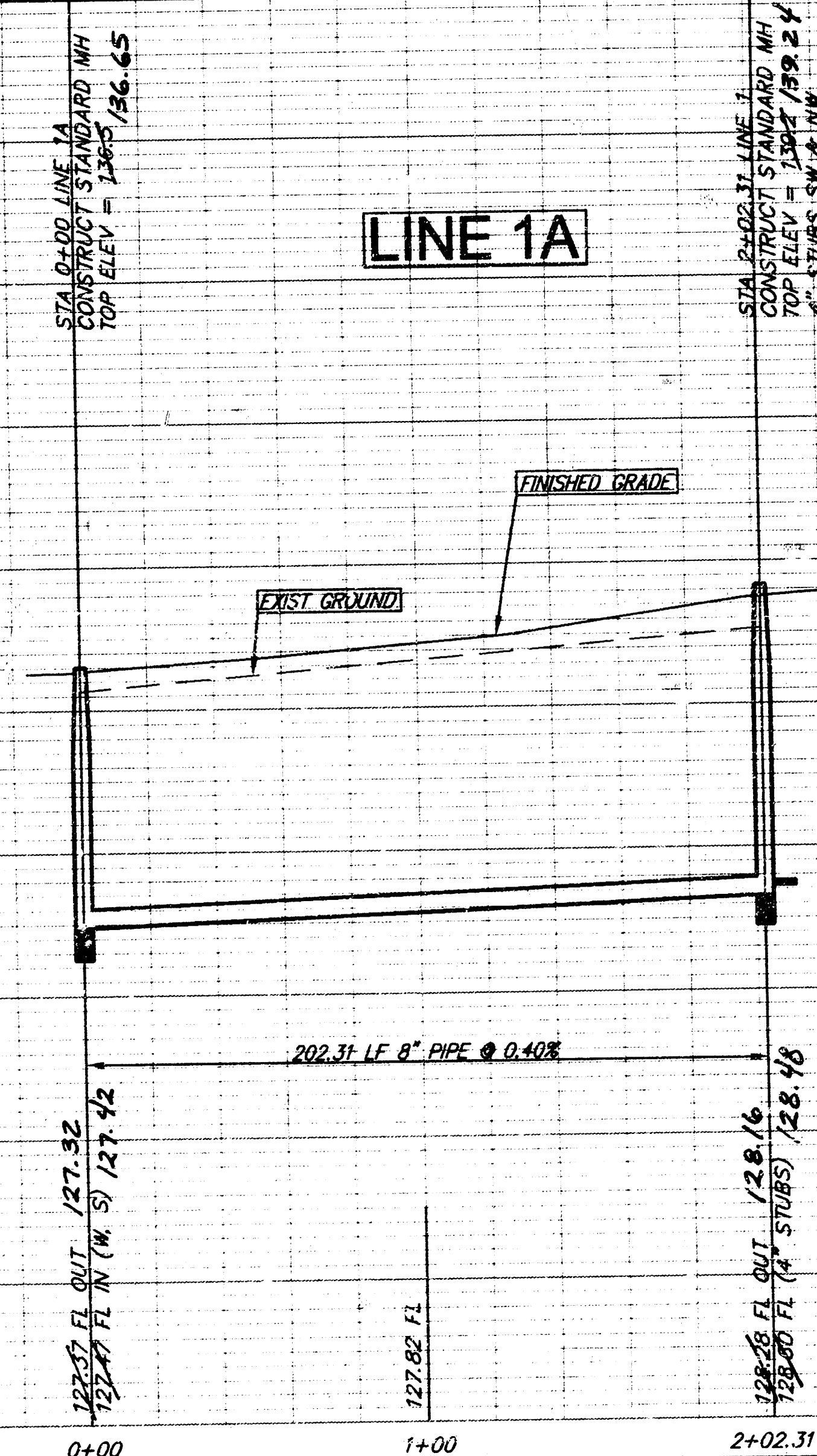
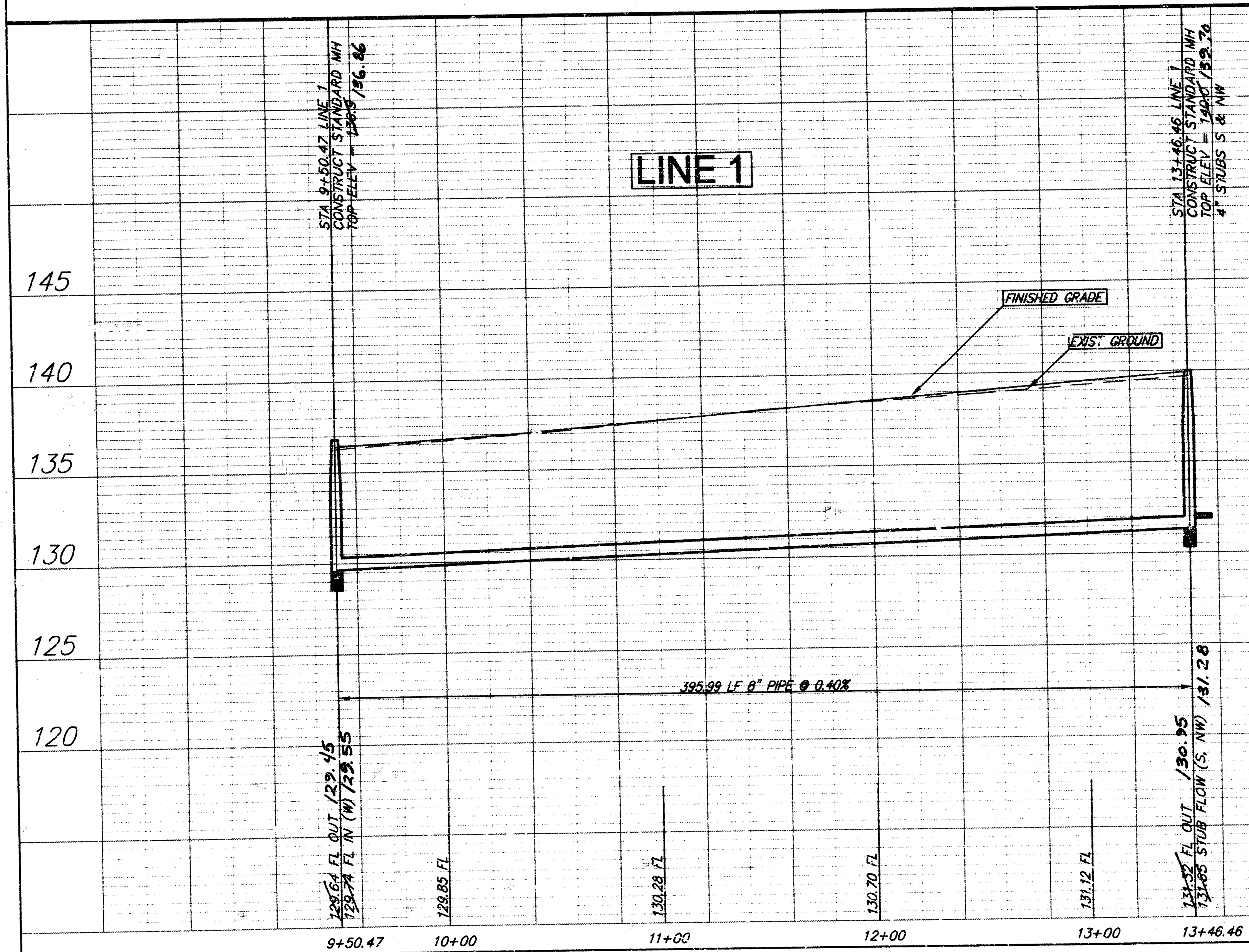
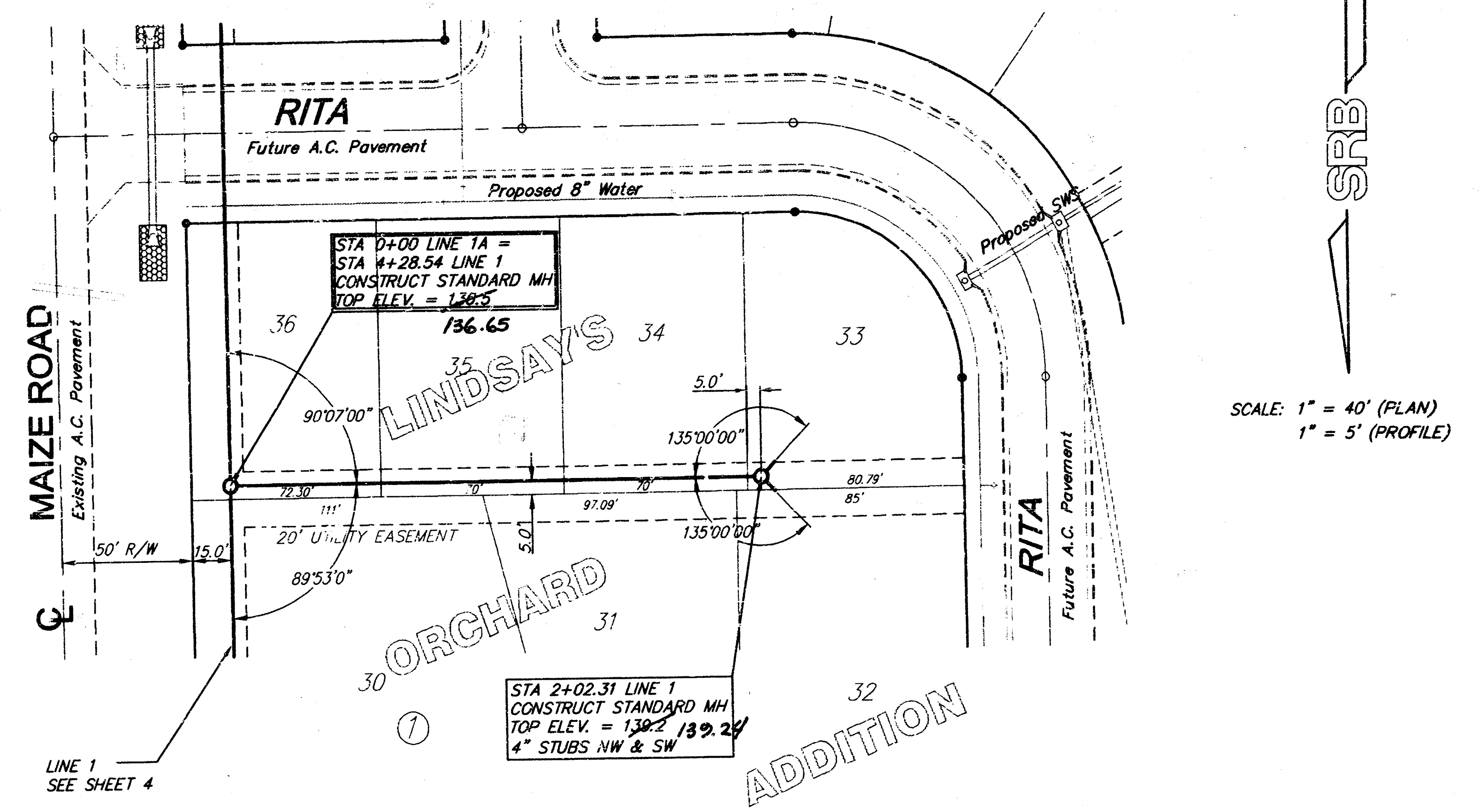
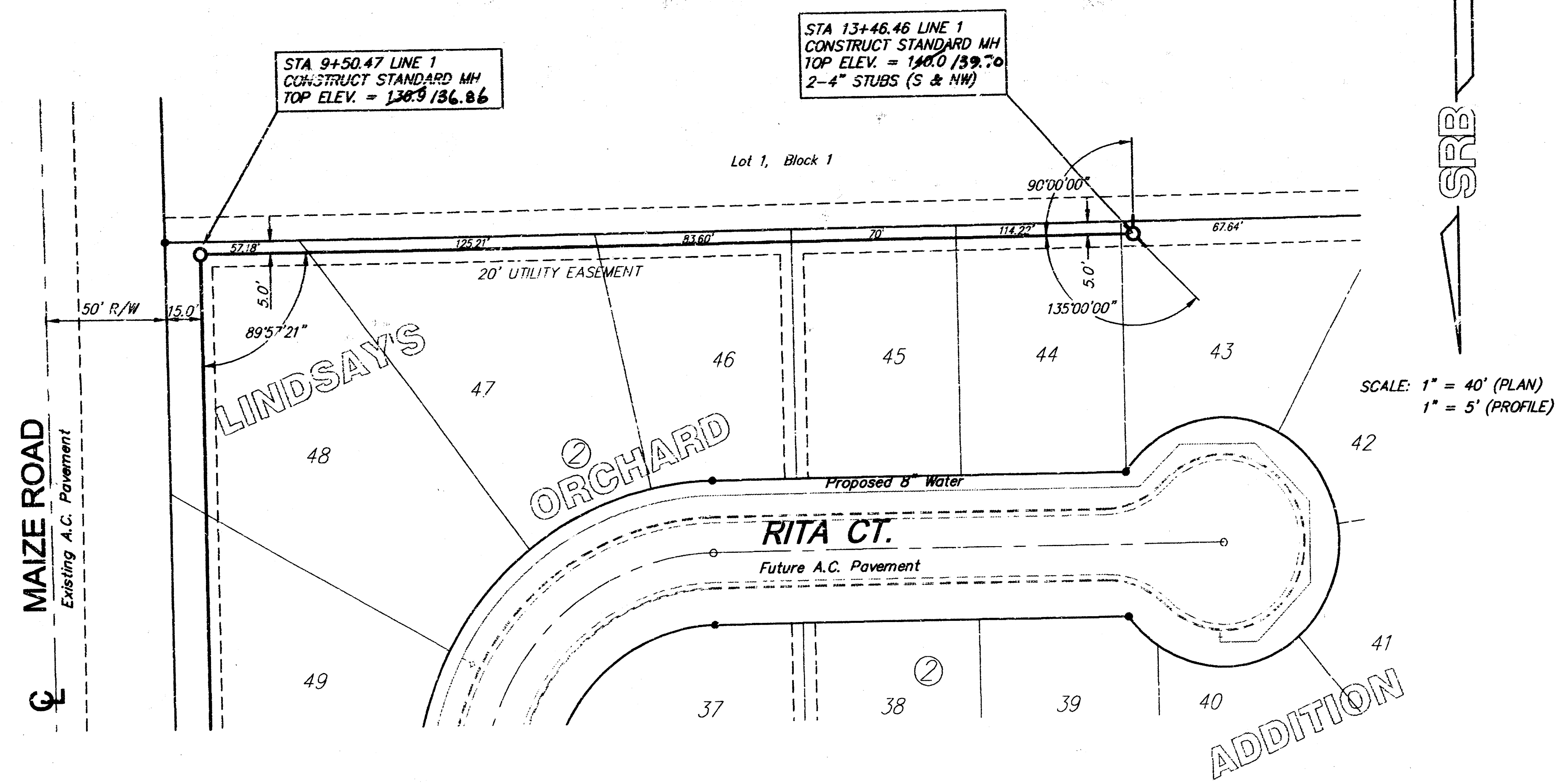
PROJECT NUMBER
468-82943

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DRAWN: EJC/VRA
REVIEW: CMB
DATE: Feb. 24, 1999

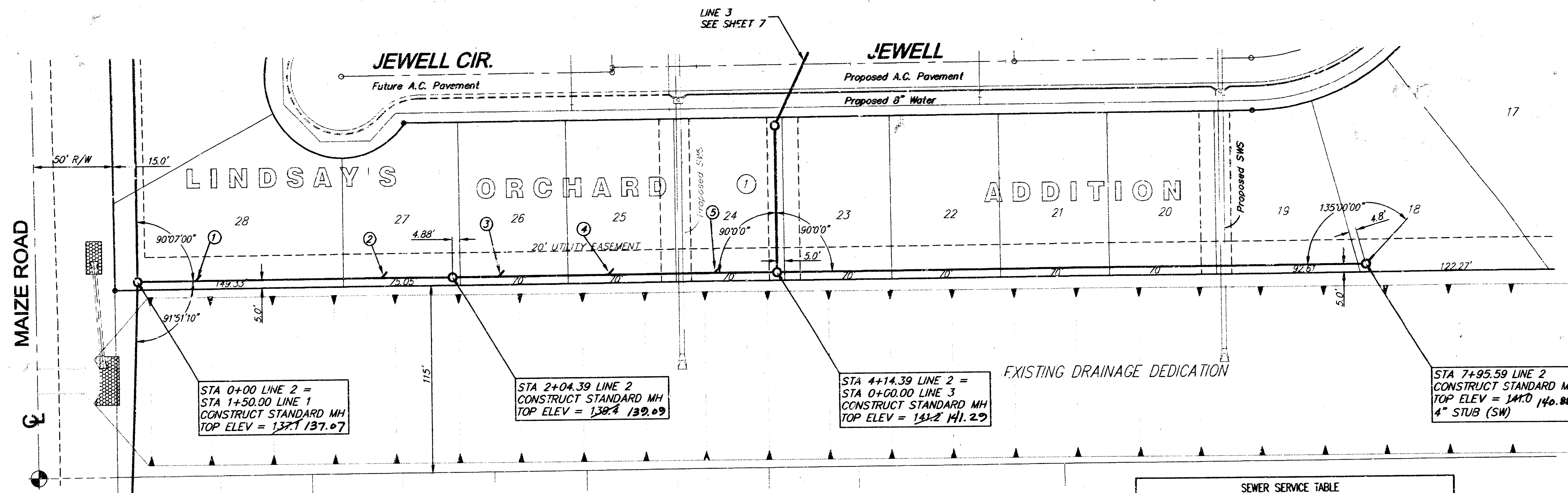
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E-Mail: arb@leist.com

SHEET
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OF
13

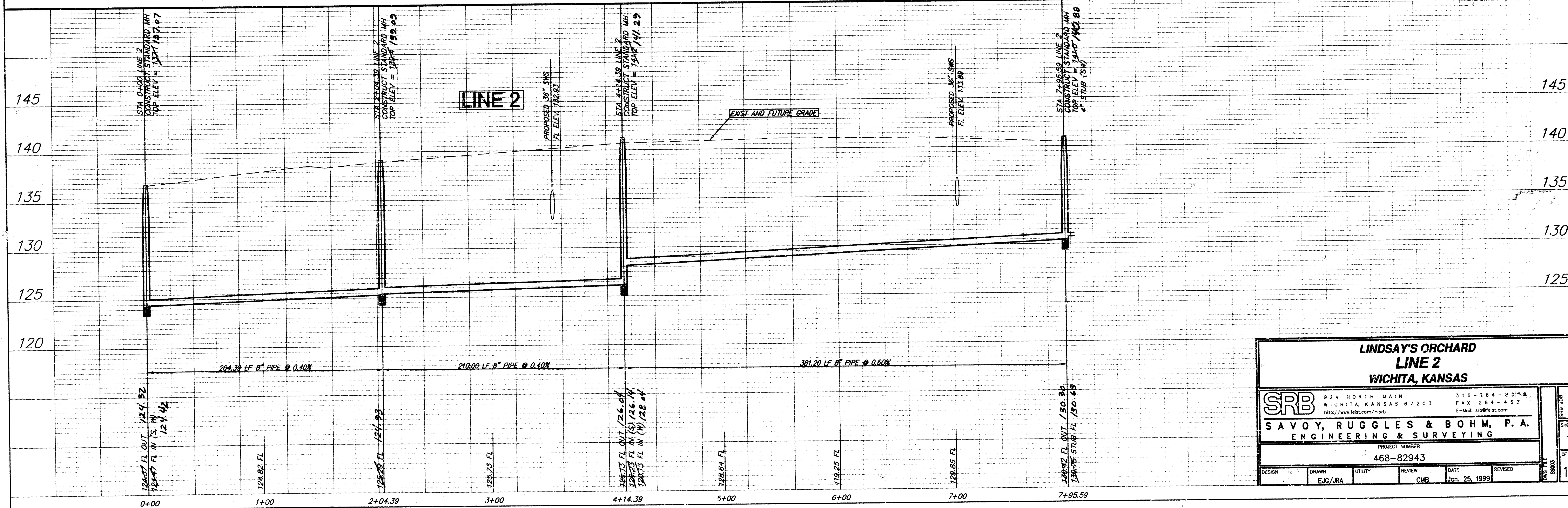


LINDSAY'S ORCHARD			
LINE 1 AND LINE 1A			
WICHITA, KANSAS			
SRB		924 NORTH MAIN WICHITA, KANSAS 67203 316-264-8008 FAX 316-264-4621 E-Mail: srb@rest.com	
SAVOY, RUGGLES & BOHM, P. A. ENGINEERING & SURVEYING			
PROJECT NUMBER 468-82943			
DESIGN	DRAWN	UTILITY	REVIEW
EJC/JRA		CMB	DATE Feb. 24, 1999
			REVISION
			SHEET 6
			13



SCALE: 1" = 40' (PLAN)
1" = 5' (PROFILE)

SEWER SERVICE TABLE						
LOCATION					FOR INFORMATION ONLY	
NO.	LOT NO.	BLOCK NO.	LATERAL NO.	STATION / DIRECTION	APPROXIMATE LENGTH 4" PIPE	NO.
1	28	1	2	0+38.51 / SW	5'	1
2	27	1	2	1+59.37 / SW	5'	2
3	26	1	2	2+04.39 / SW	5'	3
4	25	1	2	3+04.39 / SW	5'	4
5	24	1	2	3+74.39 / SW	5'	5



**LINDSAY'S ORCHARD
LINE 2
WICHITA, KANSAS**

SRB

SAVOY, RUGGLES & BOHM, P.A.
ENGINEERING & SURVEYING

921 NORTH MAIN
WICHITA, KANSAS 67203
http://www.rsb.com/~srb

316-264-8018
FAX 264-4672
E-Mail: srbs@rsg.com

PROJECT NUMBER
468-82943

DESIGN	DRAWN	UTILITY	REVIEW	DATE	REVISED
	EUG/RA		CMB	Jan. 25, 1999	

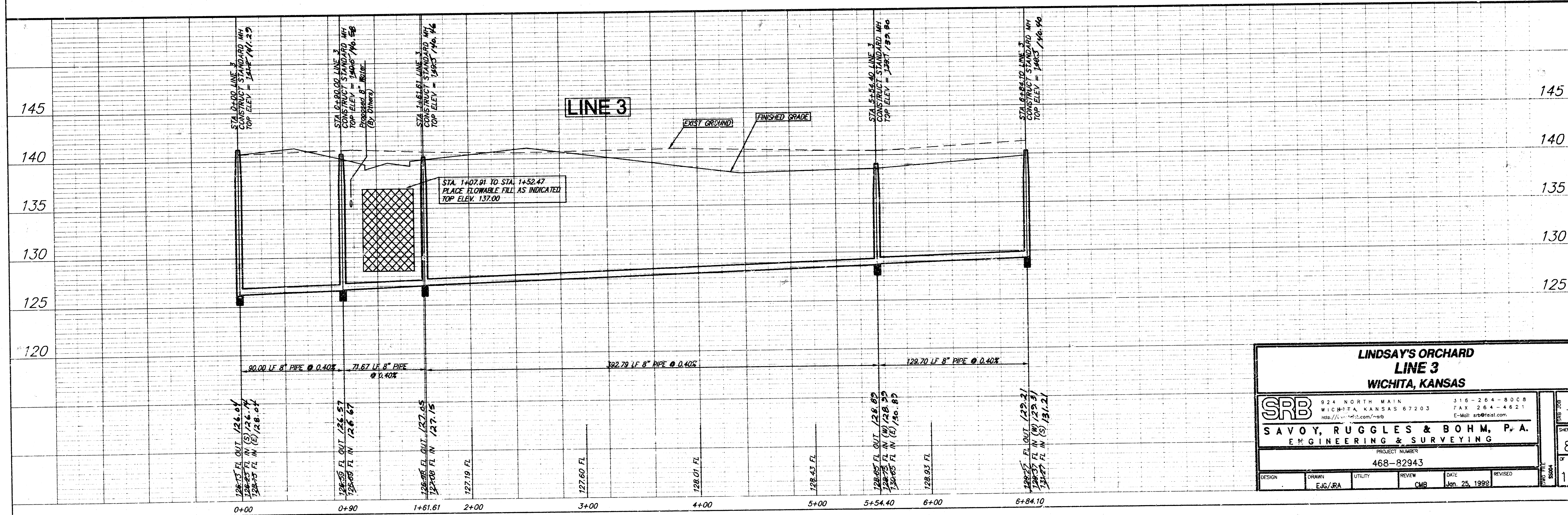
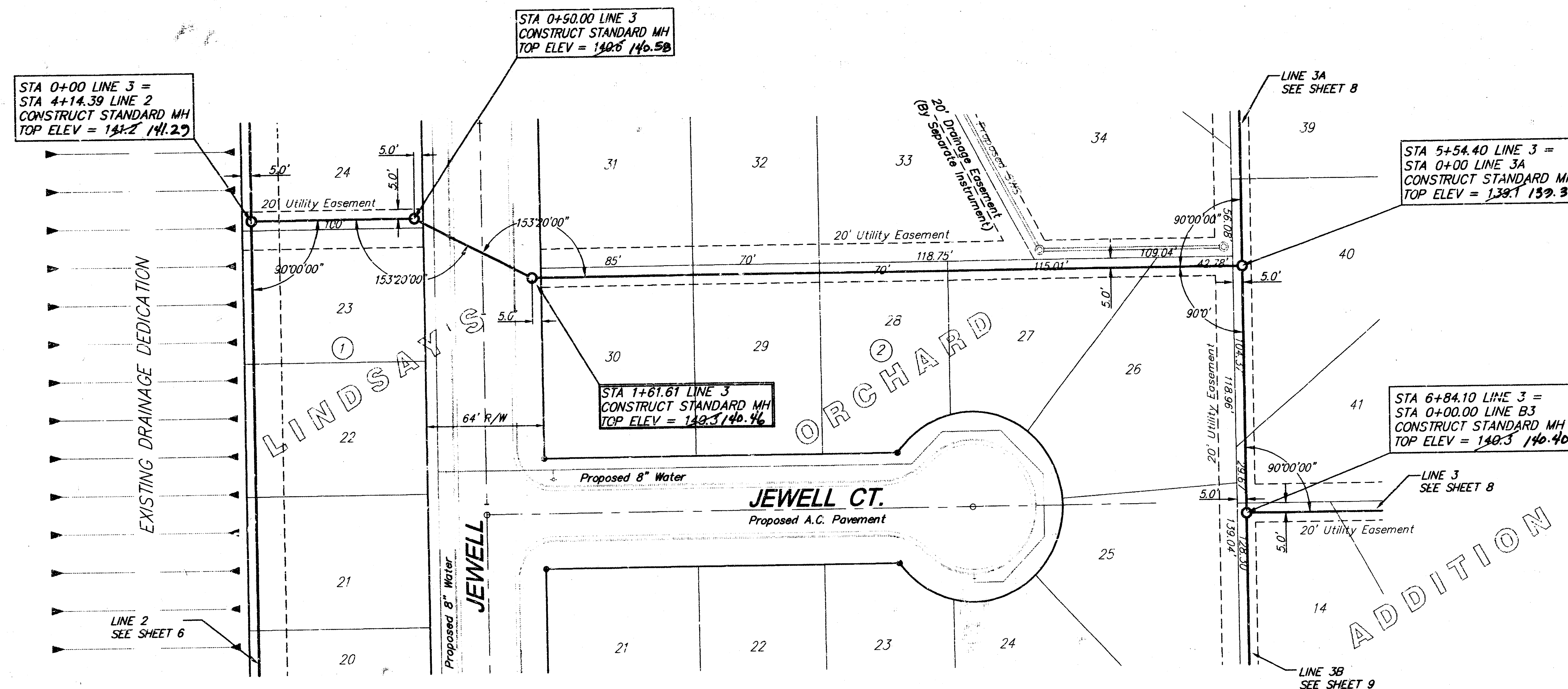
DATE: 1/25/99

BY: EUG/RA

SHEET
7
OF
13

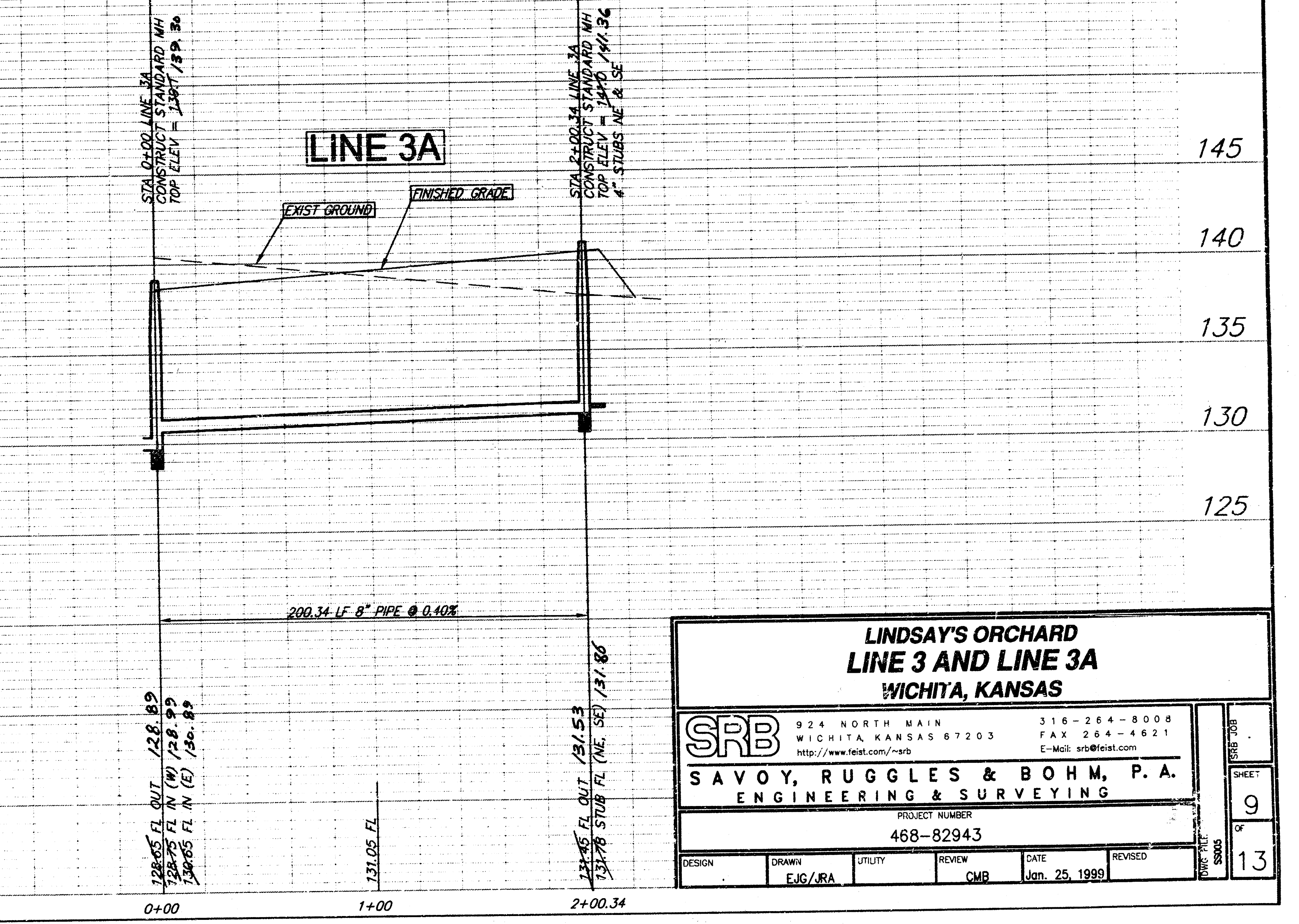
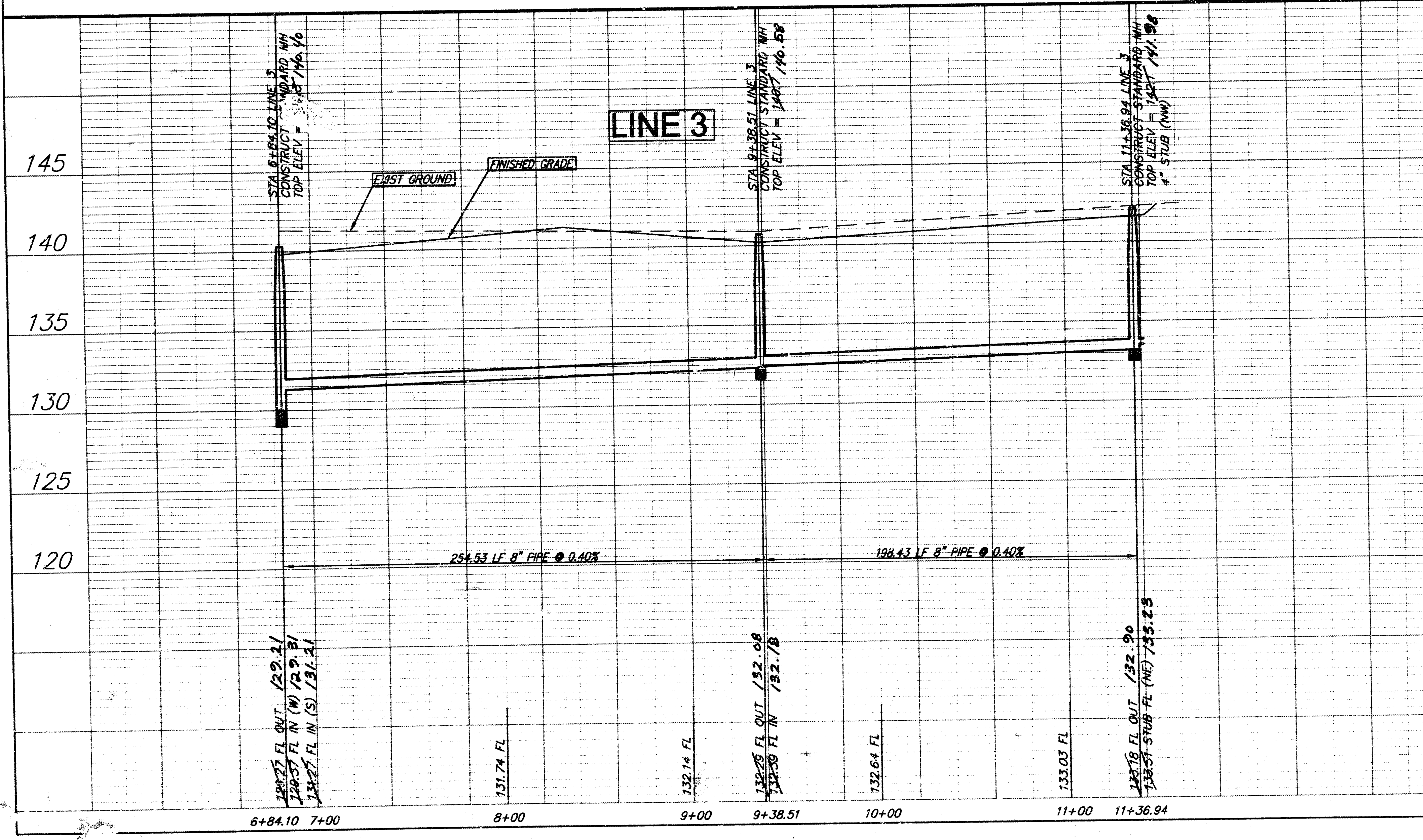
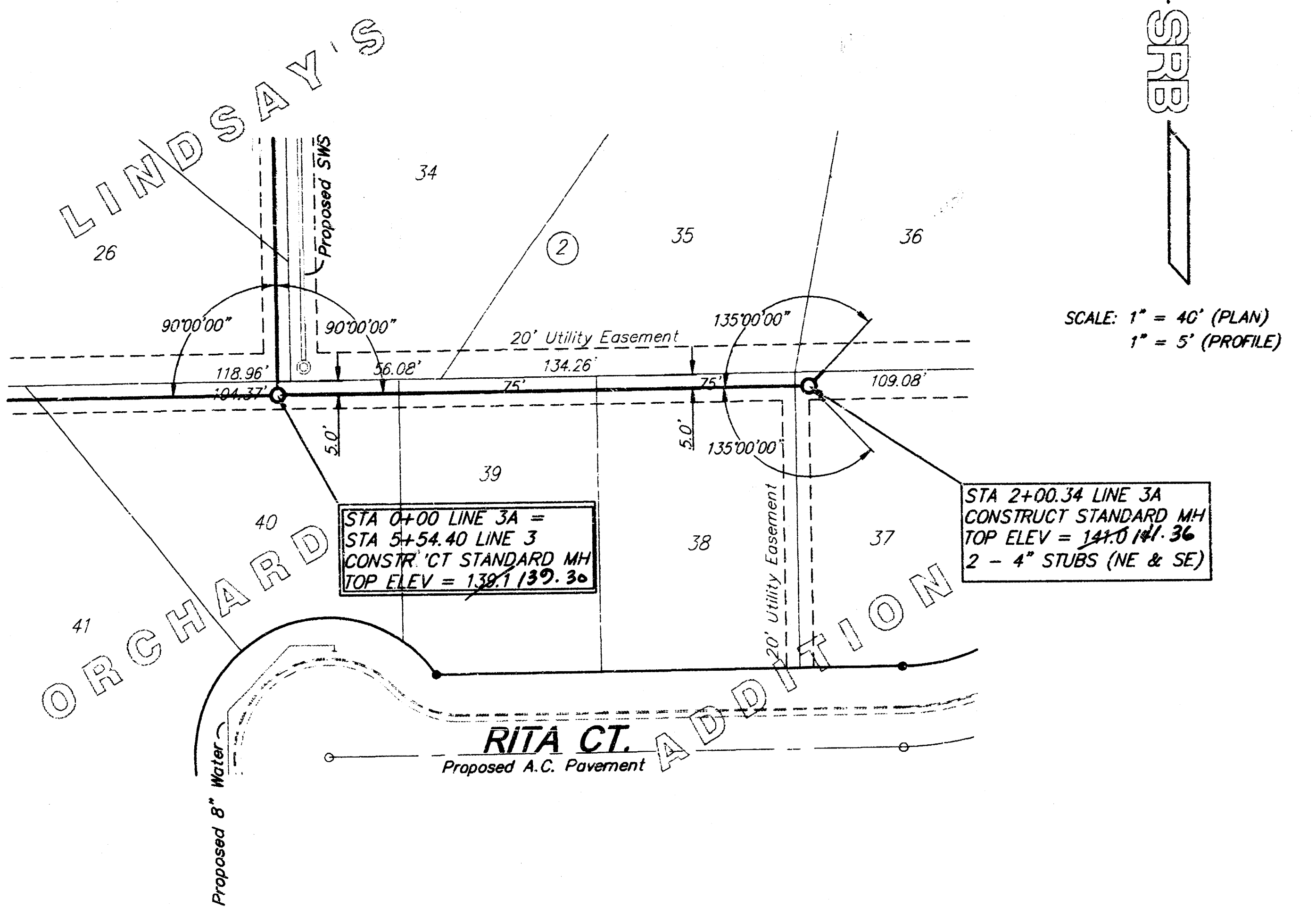
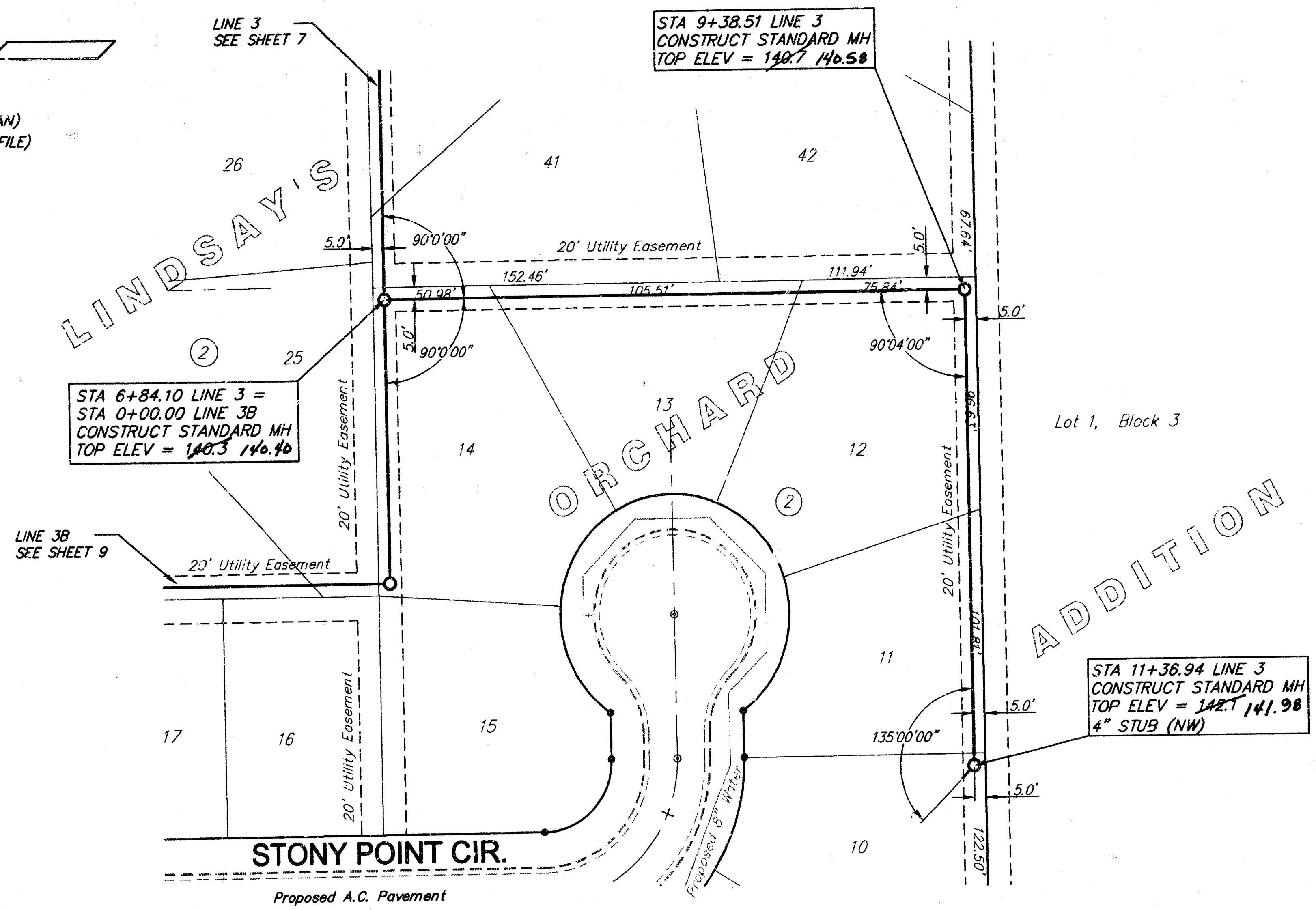


SCALE: 1" = 40' (PLAN)
1" = 5' (PROFILE)



LINDSAY'S ORCHARD LINE 3 WICHITA, KANSAS			
SRB		316-264-8008 WICHITA, KANSAS 67203 FAX 264-4621 E-Mail: srbs@earthlink.net	
SAVOY, RUGGLES & BOHM, P.A. ENGINEERING & SURVEYING			
PROJECT NUMBER 468-82943			
DESIGN	DRAWN	UTILITY	REVIEW
EUG/RA		CMB	
DATE Jun. 25, 1999		REVISED	
SHEET 8		13	

SRB
SCALE: 1" = 40' (PLAN)
1" = 5' (PROFILE)



LINDSAY'S ORCHARD
LINE 3 AND LINE 3A
WICHITA, KANSAS

SRB
SAVOY, RUGGLES & BOHM, P.A.
ENGINEERING & SURVEYING

316-264-8008
316-264-4621
http://www.tekst.com/~srb
E-Mail: srbs@tekst.com

PROJECT NUMBER
468-82943

DESIGN: EUG/RA
DRAWN: EUG/RA
UTILITY: CMB
REVIEW: CMB
DATE: Jan. 25, 1999
REVISED:

SHEET
9
OF
13

STA 1+18.17 LINE 3B
CONSTRUCT STANDARD MH
TOP ELEV = 141.79
4" STUB (SW)

STA 4+25.96 LINE 3B
CONSTRUCT STANDARD MH
TOP ELEV = 140.12
4" STUB (NE)

STA 0+00 LINE 3B =
STA 6+84.10 LINE 3
CONSTRUCT STANDARD MH
TOP ELEV = 140.16

SCALE: 1" = 40' (PLAN)
1" = 5' (PROFILE)

SRB

LINE 3B

EXIST GROUND

FINISHED GRADE

118.17 LF 8" PIPE @ 0.40%

307.79 LF 8" PIPE @ 0.40%

128.25 FL OUT / 129.21
128.25 FL IN (W) / 129.31
128.25 FL IN (S) / 131.31

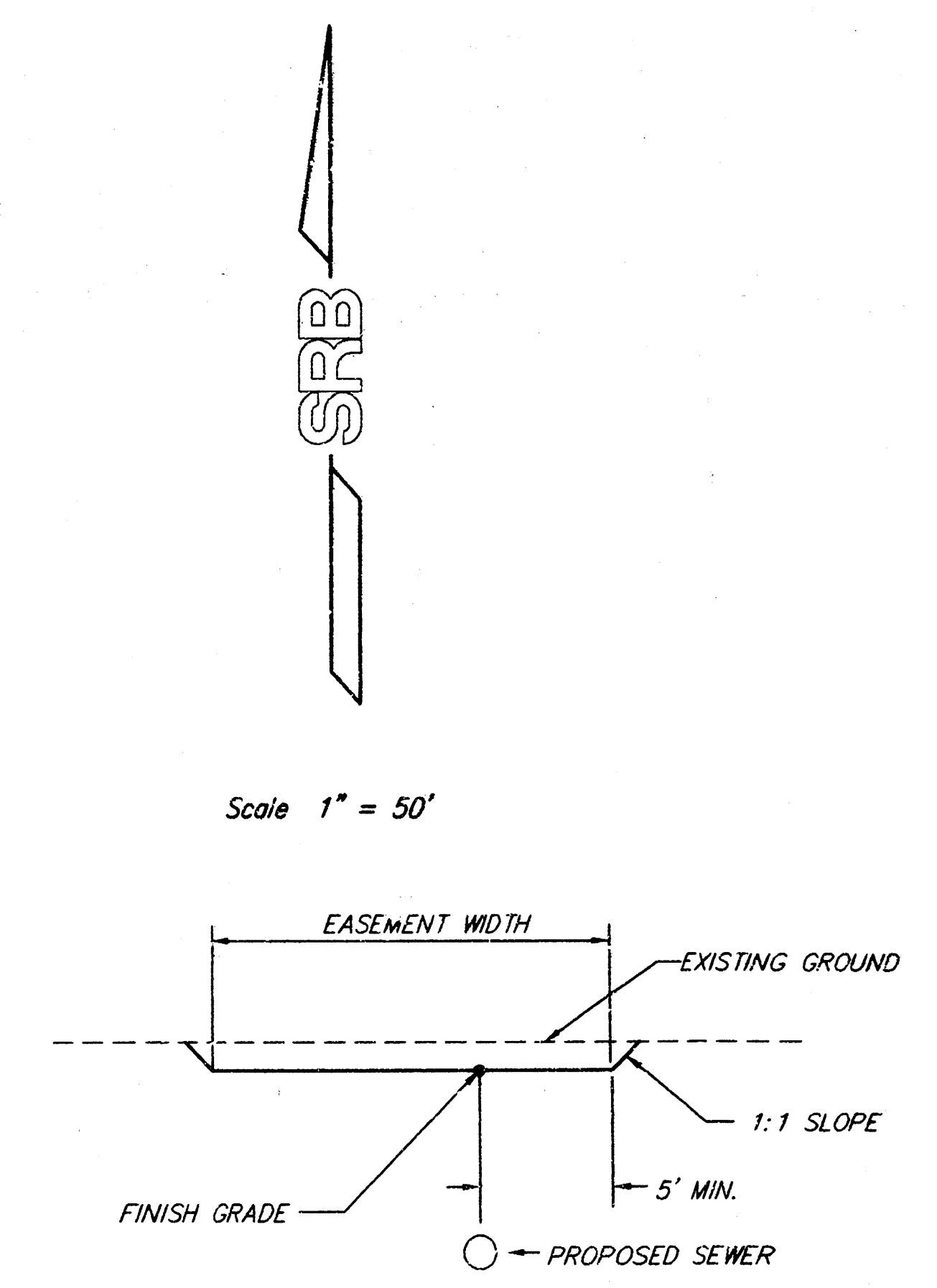
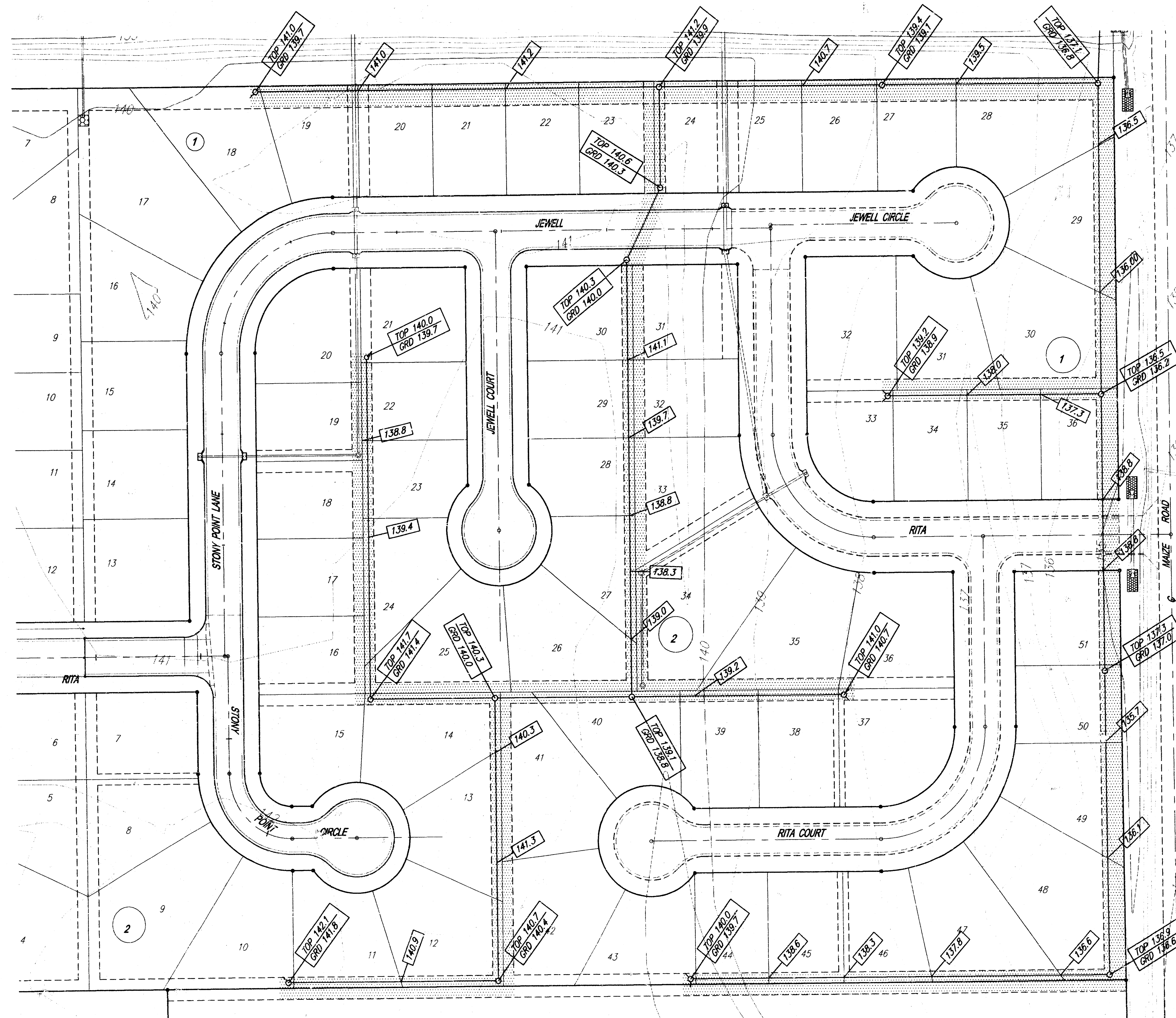
128.65 FL OUT / 130.00
128.65 FL IN (W) / 130.10
128.65 FL IN (S) / 132.10

131.07 FL
131.07 FL OUT / 131.12
131.07 FL IN (W) / 131.22
131.07 FL IN (S) / 133.22

LINDSAY'S ORCHARD LINE 3B WICHITA, KANSAS			
SRB		924 NORTH MAIN WICHITA, KANSAS 67203 TEL: 316-264-8008 FAX: 316-264-4621 E-MAIL: srbsrb@earthlink.net	
SAVOY, RUGGLES & BOHM, P. A. ENGINEERING & SURVEYING			
PROJECT NUMBER 468-82943			
DESIGN	DRAWN	UTILITY	REVIEW
	EJG/RA		CMB
		DATE	REVISED
		Feb. 25, 1999	

145
140
135
130
125

10
13



- LEGEND**
- 168.71 FINISH ELEVATION - THIS PROJECT
 - 162.31 TC PROPOSED TOP OF CURB ELEVATION
 - 162.31 PROPOSED GROUND ELEVATION
 - EXISTING GROUND ELEVATION
 - SHADING AREA - THIS PROJECT

EASEMENT GRADING PLAN
LINDSAY'S ORCHARD ADDITION
WICHITA, KANSAS

SRB 924 NORTH MAIN WICHITA, KANSAS 67203 316-264-8008 FAX 264-4621
<http://www.feist.com/~srb> E-mail: srb@feist.com

SAVOY, RUGGLES & BOHM, P.A.
ENGINEERING & SURVEYING

PROJECT NUMBER
468-82943

DESIGN	DRAWN	UTILITY	REVIEW	DATE	REVISED
KML	JRA			Feb. 25, 1999	

SHEET
11
 OF
13

LINE 1

STATION	DEPTH Feet		AREAS Square Feet		VOLUMES Cubic Yards		CUMULATIVE VOLUMES Cubic Yards	
	FILL	CUT	FILL	CUT	FILL	CUT	FILL	CUT
3+45	0.00	0.00	0.00	0.00	8.88	0.00	8.88	0.00
4+00	0.43	0.00	8.78	0.00	32.52	0.00	41.40	0.00
4+50	1.24	0.00	26.34	0.00	75.78	0.00	117.18	0.00
5+00	2.47	0.00	55.50	0.00	122.83	0.00	240.01	0.00
5+50	3.31	0.00	77.16	0.00	154.93	0.00	394.93	0.00
6+00	1.79	0.00	90.16	0.00	129.16	0.00	524.08	0.00
6+50	2.22	0.00	48.33	0.00	595.41	0.00	1119.49	0.00
7+00	1.30	0.00	27.69	0.00	71.31	0.00	1190.80	0.00
7+50	0.37	0.00	7.54	0.00	32.62	0.00	1223.42	0.00
8+00	0.04	0.00	0.80	0.00	7.72	0.00	1231.14	0.00
8+50	0.17	0.00	3.43	0.00	8.05	0.00	1239.19	0.00
9+00	0.26	0.00	5.27	0.00	14.36	0.00	1253.55	0.00
9+50	0.51	0.00	10.46	0.00	11.17	0.00	1264.72	0.00
10+00	0.08	0.00	1.61	0.00	2.78	0.00	1267.50	0.00
10+50	0.07	0.00	1.40	0.00	1.67	0.00	1269.17	0.00
11+00	0.02	0.00	0.40	0.00	0.37	0.00	1269.54	0.00
11+50	0.00	0.00	0.00	0.00	0.93	0.00	1270.47	0.00
12+00	0.05	0.00	1.00	0.00	3.73	0.00	1274.20	0.00
12+50	0.15	0.00	3.02	0.00	6.35	0.00	1280.55	0.00
13+00	0.19	0.00	3.84	0.00	7.86	0.00	1288.41	0.00
13+50	0.23	0.00	4.65	0.00				

LINE 1A

STATION	DEPTH Feet		AREAS Square Feet		VOLUMES Cubic Yards		CUMULATIVE VOLUMES Cubic Yards	
	FILL	CUT	FILL	CUT	FILL	CUT	FILL	CUT
0+00	0.85	0.00	12.29	0.00	27.06	0.00	27.06	0.00
0+50	0.58	0.00	11.94	0.00	22.10	0.00	49.16	0.00
1+00	0.58	0.00	11.94	0.00	25.66	0.00	74.83	0.00
1+50	0.76	0.00	15.78	0.00	37.77	0.00	112.59	0.00
2+02	1.10	0.00	23.21	0.00				

LINE 2

Finished Grade = Existing Grade

LINE 3

STATION	DEPTH Feet		AREAS Square Feet		VOLUMES Cubic Yards		CUMULATIVE VOLUMES Cubic Yards	
	FILL	CUT	FILL	CUT	FILL	CUT	FILL	CUT
0+00	0.00	0.00	0.00	0.00	7.56	0.00	7.56	0.00
0+50	0.40	0.00	8.16	0.00	7.56	0.00	15.11	0.00
1+00	0.00	1.23	0.00	26.11	0.00	34.47	15.11	78.64
1+50	0.00	1.52	0.00	32.71	0.00	34.97	15.11	113.62
2+00	0.00	0.25	0.00	5.06	9.10	4.69	24.21	118.31
2+50	0.43	0.00	9.63	0.00	9.10	6.98	33.32	125.29
3+00	0.00	0.37	0.00	7.54	0.00	30.95	33.32	156.24
3+50	0.00	1.22	0.00	25.89	0.00	64.49	33.32	220.72
4+00	0.00	1.99	0.00	43.76	0.00	89.38	33.32	310.10
4+50	0.00	2.36	0.00	52.77	0.00	91.83	33.32	401.94
5+00	0.00	2.10	0.00	46.41	0.00	80.18	33.32	482.12
5+50	0.00	1.84	0.00	40.19	0.00	71.58	33.32	553.70
6+00	0.00	1.71	0.00	37.12	0.00	66.16	33.32	619.86
6+50	0.00	1.59	0.00	34.33	0.00	58.05	33.32	677.91
7+00	0.00	1.33	0.00	28.37	0.00	40.48	33.32	718.39
7+50	0.00	0.74	0.00	15.35	0.00	17.20	33.32	735.59
8+00	0.00	0.16	0.00	3.23	0.00	4.66	33.32	740.25
8+50	0.00	0.09	0.00	1.81	0.00	8.46	33.32	748.71
9+00	0.00	0.36	0.00	7.33	0.00	20.20	33.32	768.91
9+50	0.00	0.70	0.00	14.49	0.00	26.44	33.32	795.35
10+00	0.00	0.68	0.00	14.06	0.00	25.84	33.32	821.19
10+50	0.00	0.67	0.00	13.85	0.00	25.25	33.32	846.45
11+00	0.00	0.65	0.00	13.42	0.00	24.66	33.32	871.11
11+50	0.00	0.64	0.00	13.21	0.00			

LINE 3A

STATION	DEPTH Feet		AREAS Square Feet		VOLUMES Cubic Yards		CUMULATIVE VOLUMES Cubic Yards	
	FILL	CUT	FILL	CUT	FILL	CUT	FILL	CUT
0+00	0.00	1.75	0.00	38.06	0.00	49.65	0.00	49.65
0+50	0.00	0.75	0.00	15.56	5.83	14.41	5.83	64.06
1+00	0.31	0.00	6.30	0.00	32.73	0.00	38.56	64.06
1+50	1.36	0.00	29.05	0.00	88.87	0.00	127.42	64.06
2+00	2.92	0.00	66.93	0.00	30.98	0.00	158.41	64.06
2+25	0.00	0.00	0.00	0.00				

LINE 3B

STATION	DEPTH Feet		AREAS Square Feet		VOLUMES Cubic Yards		CUMULATIVE VOLUMES Cubic Yards	
	FILL	CUT	FILL	CUT	FILL	CUT	FILL	CUT
0+00	0.00	1.51	0.00	32.48	0.00	48.10	0.00	48.10
0+50	0.00	0.93	0.00	19.46	0.00	24.81	0.00	24.81
1+00	0.00	0.36	0.00	7.33	0.00	14.73	0.00	14.73
1+50	0.00	0.42	0.00	8.58	0.00	24.95	0.00	24.95
2+00	0.00	0.88	0.00	18.37	0.00	45.60	0.00	45.60
2+50	0.00	1.44	0.00	30.67	0.00	66.67	0.00	66.67
3+00	0.00	1.88	0.00	41.13	0.00	75.95	0.00	75.95
3+50	0.00	1.87	0.00	40.90	0.00	63.51	0.00	63.51
4+00	0.00	1.30	0.00	27.69	0.00	45.08	0.00	45.08
4+50	0.00	1.00	0.00	21.00	0.00			

PROJECT TOTALS	
FILL	CUT
1001.46 CY	1251.32 CY

EASEMENT GRADING EARTHWORK SUMMARY			
LINDSAY'S ORCHARD			
WICHITA, KANSAS			
SRB	924 NORTH MAIN WICHITA, KANSAS 67203 http://www.leist.com/~srb	316-264-8008 FAX 264-4621 E-mail: srb@leist.com	SHEET 12 OF 13
	SAVOY, RUGGLES & BOHM, P. A. ENGINEERING & SURVEYING		
PROJECT NUMBER 468-82943			
DESIGN KWL	DRAWN JRA	UTILITY JRA	REVIEW DATE Mar. 10, 1999

LINDSAY'S ORCHARD ADDITION

WICHITA, SEDGWICK COUNTY, KANSAS

State of Kansas) SS
Sedgwick County)

We, Savoy, Ruggles & Bohm, P.A., Surveyors in aforesaid county and state do hereby certify that, under the supervision of the undersigned, we have surveyed and platted "LINDSAY'S ORCHARD ADDITION", Wichita, Sedgwick County, Kansas and that the accompanying plat is a true and correct exhibit of the property surveyed, described as follows:

That part of the NE1/4 of the SE1/4 of Sec 31, Twp. 27-S, R-1-W of the 6th P.M., Sedgwick County, Kansas, except the north 115 feet thereof and except the north 215 feet of the south 375 feet of the west 365 feet of the NE1/4 of the SE1/4 of said Sec. 31.

All Public easements and dedications being vacated by virtue of K.S.A. 12-512(b).

Savoy, Ruggles & Bohm, P.A.

Date _____

Mark A. Savoy RLS #788 Surveyor

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, Reserves and Streets to be known as "LINDSAY'S ORCHARD ADDITION", Wichita, Sedgwick County Kansas. The utility easements are hereby granted as indicated for the construction and maintenance of all public utilities. The Streets are hereby dedicated to and for the use of the public. Access Controls are hereby granted to the City of Wichita (as indicated on the face of the plat), with the location of openings to be approved by the City Engineer. Minimum building pad elevations for lowest opening to a structure shall be as shown on the face of the plat.

Rick Thompson Construction Inc.

Rick Thompson President

State of Kansas) SS
Sedgwick County)

The foregoing instrument acknowledged before me, this _____ day of _____, 1998, by Rick Thompson, President, RickThompson Construction Inc.

Notary Public

My App't. Exp. _____

This plat of "LINDSAY'S ORCHARD ADDITION", Wichita, Sedgwick County, Kansas, has been submitted to and approved by the Wichita-Sedgwick County Metropolitan Area Planning Commission, Wichita, Kansas. Dated this _____ day of _____, 1997.

Wichita-Sedgwick County Metropolitan Area Planning Commission

John C. Frye Chairman

Marvin S. Krout Secretary

Bob Knight Mayor

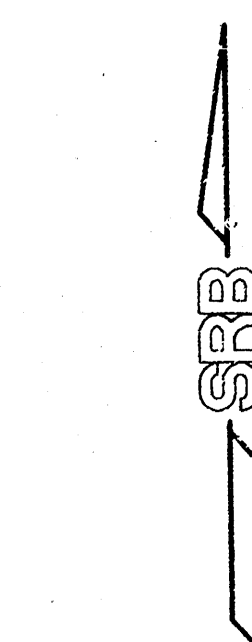
Pat Burnett City Clerk

James Alford County Clerk

Entered on transfer record this _____ day of _____, 1998.

Larry Consolver Register of Deeds

Michael D. Hurr Deputy



1" = 100'
• = 1/2" REBAR W/SRB CAP
S.B. = BUILDING SETBACK
C.A.C. = COMPLETE ACCESS CONTROL

MINIMUM BUILDING PAD ELEVATION FOR LOWEST OPENING TO A STRUCTURE			
LOT	BLOCK	ELEVATION	
		CITY DATUM	N.G.K.D.
6, 7	2	138.5	1325.9
17, 18, 19	2	138.0	1326.4
20, 21, 22	2	137.5	1324.9
23, 24, 25, 26	2	137.0	1324.4
27, 28	2	136.5	1323.9

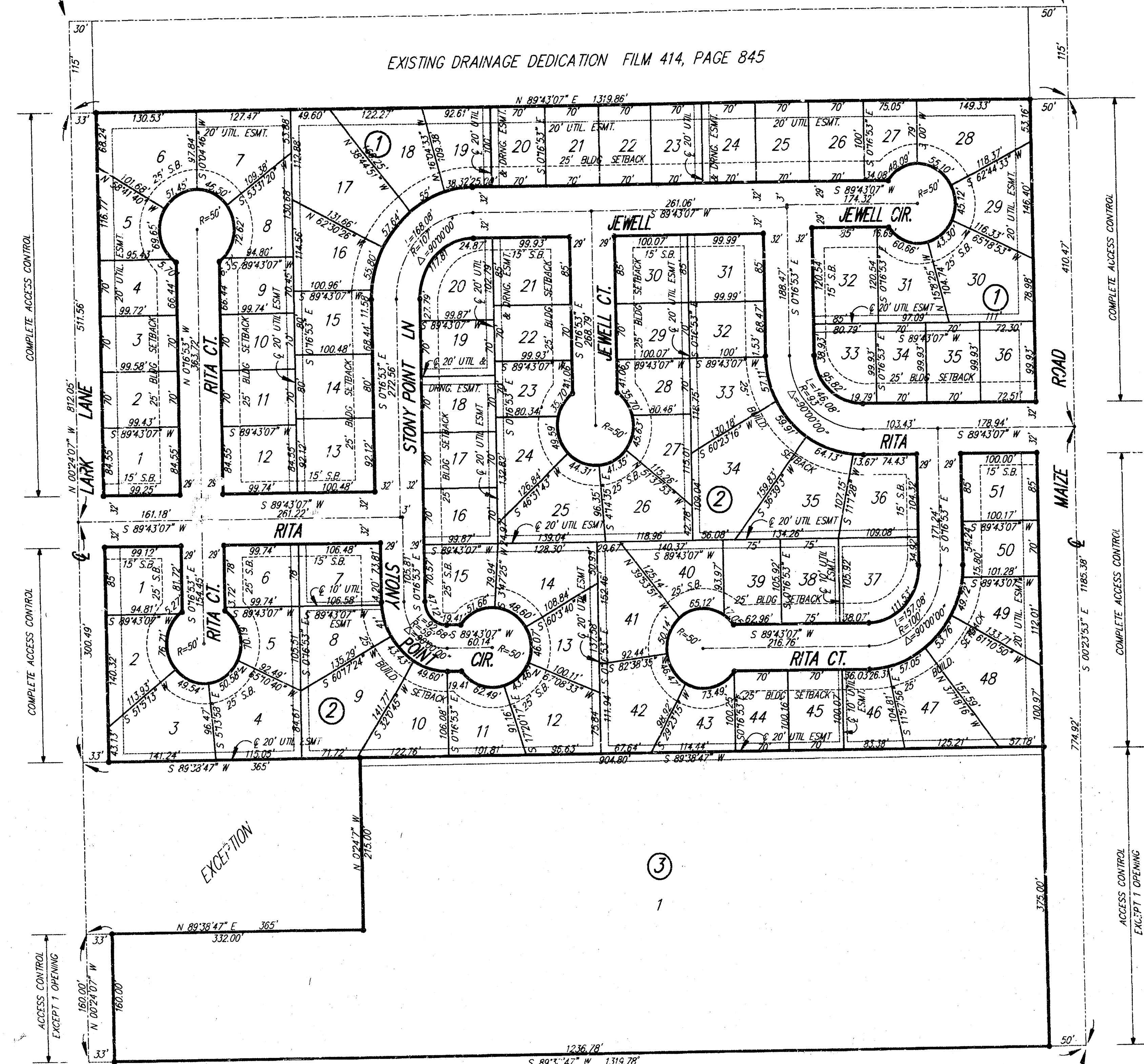
BENCHMARK:
City of Wichita Benchmark disc @ Maize Road and May Street
31.5' S. and 38' E. of centerline both.
Elev = 137.67 (City Datum)
Elev = 1325.07 (NGVD)

N.W. COR. NE1/4, SE1/4
SEC. 31, TWP. 27-S, R-1-W

S.W. COR. NE1/4, SE1/4
SEC. 31, TWP. 27-S, R-1-W

N.E. COR. NE1/4, SE1/4
SEC. 31, TWP. 27-S, R-1-W

S.E. COR. NE1/4, SE1/4
SEC. 31, TWP. 27-S, R-1-W



LINDSAY'S ORCHARD PLAT WICHITA, KANSAS			
SRB	924 NORTH MAIN WICHITA, KANSAS 67203 http://www.lrsb.com/~srb	316-264-8008 FAX 316-264-4621 E-mail: srbs@lrsb.com	SHEET 13 OF 13
SAVOY, RUGGLES & BOHM, P.A. ENGINEERING & SURVEYING			
PROJECT NUMBER			
DESIGN AMI	DRAWN AMI	UTILITY CMB	REVIEW CMB
DATE Jan. 12, 1999		REVISED	

18-05-70-14